Addendum to the Certified Final Environmental Impact Report

GREGORY CANYON LANDFILL

San Diego County
Department of Environmental Health
1255 Imperial Avenue
San Diego, CA 92112

December 2009

State Clearinghouse No. 1995061007
San Diego County Department of Environmental Health
Environmental Log No. ER 98-02-025

TABLE OF CONTENTS

TABLE OF CONTENTS (CONTINUED)

Page

APPENDICES

LIST OF FIGURES

LIST OF TABLES

ADDENDUM TO THE CERTIFIED FINAL ENVIRONMENTAL IMPACT REPORT

1.0 BACKGROUND

The Gregory Canyon Landfill Project (Project) consists of the construction, operation, and closure of the proposed Gregory Canyon Landfill in northern San Diego County on State Route 76 (SR 76), about three miles east of Interstate-15 (I-15) and two miles southwest of the Pala community.

The environmental effects of the Project have previously been the subject of an Environmental Impact Report, dated December 2002 which was certified by the San Diego County Department of Environmental Health (DEH) on February 3, 2003 (2003 Draft EIR), a Revised Final Environmental Impact Report dated March 2007, which was certified by DEH on May 31, 2007 (RFEIR), and an addendum to the Certified Final Environmental Impact Report, which was adopted by DEH on August 8, 2008 (2008 Addendum) [SCH#1995061007].[1] The 2003 Draft EIR was the subject of a writ of mandate issued by the San Diego County Superior Court on January 20, 2006. DEH prepared the RFEIR and the 2008 Addendum to address the matters noted by the Court in the writ of mandate. The writ of mandate was discharged by the San Diego Superior Court on November 20, 2008.

The RFEIR and the 2008 Addendum discussed and analyzed the trucking and use of recycled water from the Olivenhain Municipal Water District (OMWD) for the construction, operation and closure of the landfill. On January 9, 2009, the Court of Appeal, Fourth Appellate District, Division One, determined that OMWD had violated its CEQA duties as a responsible agency when it approved the recycled water agreement with Gregory Canyon, Ltd. (Gregory Canyon), and ordered OMWD to set aside the agreement. A copy of the Court of Appeal's opinion is included as Appendix A. On July 9, 2009, the San Diego County Superior Court entered a writ of mandate against OMWD. A copy of the trial court's order is included as Appendix B.

[1] *To provide for consistency of terminology with prior environmental review documents for the Project, the December 2002 Environmental Impact Report is referred to as the 2003 Draft EIR and the Revised Final Environmental Impact Report is referred to as the RFEIR. The RFEIR, which incorporated the 2003 Draft EIR, and was updated by the 2008 Addendum, comprises the full environmental review for the Project. The EIR was certified by the Department of Environmental Health on May 31, 2007, and the 2008 Addendum was adopted on August 8, 2008.*

On July 21, 2009, OMWD filed a return to the writ of mandate, and informed the court that OMWD set aside and voided its approval and execution of the recycled water agreement. As stated therein, OMWD has decided that it will not consider any new agreement with Gregory Canyon for the sale of recycled water. A copy of OMWD's return to writ is included as Appendix C.

The purpose of this 2009 Addendum is to respond to these recent events by conducting an updated review of the Project's water demands, and identifying sources of water to satisfy that demand. This Addendum has been prepared with consideration of the 2003 Draft EIR, the RFEIR, and the 2008 Addendum. These documents, and all others cited herein, are incorporated by reference pursuant to the California Environmental Quality Act (CEQA) Guidelines, 14 California Code Regulations, Section 15150, and are available for review during regular business hours at the offices of the County Department of Environmental Health at 9325 Hazard Way, San Diego.

2.0 CEQA AUTHORITY FOR THE ADDENDUM ANALYSIS DOCUMENT

CEQA and the CEQA Guidelines establish the type of environmental documentation that is required when changes to a project occur or new information arises after an EIR is certified. Section 15164(a) states that:

> "The lead agency or a responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred."

In order to give a degree of finality to EIR documentation, Section 15162 of the CEQA Guidelines requires that a Subsequent EIR need only be prepared if:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

2. Substantial changes occur with respect to the circumstances under which the project is undertaken, which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete shows any of the following:

   a. The project will have one or more significant effects not discussed in the previous EIR or negative declaration,

   b. Significant effects previously examined will be substantially more severe than shown in the previous EIR,

   c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative, or

   d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

In the event these conditions arise, but only minor additions or changes to the previous EIR are necessary, a Supplemental EIR may be appropriate, pursuant to CEQA Guidelines Section 15163.

This Addendum (2009 Addendum) evaluates and updates the water demands for the Project, and identifies sources of water to meet those requirements. The 2009 Addendum concludes that with the combination of riparian underflow, percolating groundwater, trucked recycled water and on-site storage, the landfill has demonstrated a likelihood of adequate water supplies being available for construction and operation. The 2009 Addendum considers whether any significant environmental impacts, which were not identified in the 2003 Draft EIR, the RFEIR or the 2008 Addendum, would result or whether previously identified significant impacts would be substantially more severe than shown in the previous environmental review. It has been determined herein that none of the conditions requiring preparation of a Subsequent or Supplemental EIR have occurred. Thus, pursuant to CEQA, this 2009 Addendum is the appropriate document to evaluate and update the Project's water supply and demand analysis.

3.0 WATER DEMAND IN THE 2003 DRAFT EIR AND THE RFEIR

Section 4.15.3.4 of the 2003 Draft EIR and the RFEIR included a discussion of project water demand and the uses of water. The estimated maximum water usage was 205,000 gallons per day (gpd) or 193 acre-feet per year (AFY), which represented time periods during which both construction and operation of the landfill would be occurring simultaneously. During both initial and periodic construction, water demand was estimated to be between 0 and 30,000 gpd for dust control, 10,000 gpd for ancillary usage, landscape irrigation and fire protection (if needed). Water demand for construction of the landfill liner was estimated at 125,000 gpd. Water demand related to operation of the landfill was estimated at 30,000 gpd for dust control and 10,000 gpd for ancillary area usage, including landscape irrigation and fire protection (if needed).

The Joint Technical Document (JTD) for the Project, submitted to DEH in 2004, 2005 and 2007, provided further clarification regarding the water demand for liner construction, and included a brief discussion of the use of a chemical dust suppressant.[2] The JTD explained that water was added to the clay during liner construction so that the clay could be compacted to meet the permeability requirements for landfill liners.[3]

4.0 UPDATED WATER DEMANDS

As permitting has proceeded, the water demand estimates have been updated. The water demand estimates have been reduced based on two operational changes, related to the clay liner and the use of soil sealant for dust control. Each circumstance is discussed in more detail below.

Clay Liner

By changing the product specification for the clay, the water demand at the landfill property for liner construction can be eliminated. To accomplish this, the clay mine operator would measure the elasticity of the clay at the time it is mined. If necessary, water would be added to the clay prior to shipment, so that the clay placed into the delivery truck would be between four percent (4%) and six percent (6%) above the optimum moisture content.[4] With the change in product specification, no water would need to be added to the clay following its delivery to the landfill property. Gregory Canyon has obtained a written non-binding proposal from a clay mine, which indicates that it can meet the necessary product specification.[5] A copy of that written proposal is included as Appendix D. Testing of the clay and the addition of water as needed to meet the product specification would take place at the clay mine prior to loading onto the delivery truck. Based on this change in product specification, it is expected that the

---

2 *JTD, p. B.5-33.*

3 *JTD, Appendix N, p. 15, pp. 17-18.*

4 *The optimum moisture content will vary, depending on the mine and the location of the clay within the mine.*

5 *At this time, Gregory Canyon has no binding commitment to any particular source for the purchase of materials used for liner construction. Numerous sources are available throughout Southern California, as is evident though a review of Appendix D and Appendix E.*

estimated water demand for liner construction described in the 2003 Draft EIR, the RFEIR and the 2008 Addendum (125,000 gpd) is no longer required.

Soil Sealant

As permitting proceeded, Gregory Canyon realized the benefit of increased use of a chemical soil sealant, which would provide for significant dust control (PM_{10} and $PM_{2.5}$) with less water usage. The soil sealant would be mixed into the uppermost six inches of the road surface and compacted at the time of initial construction, and the completed road surface would be maintained though a topical application of the soil sealant on a periodic basis between quarterly to biennially.

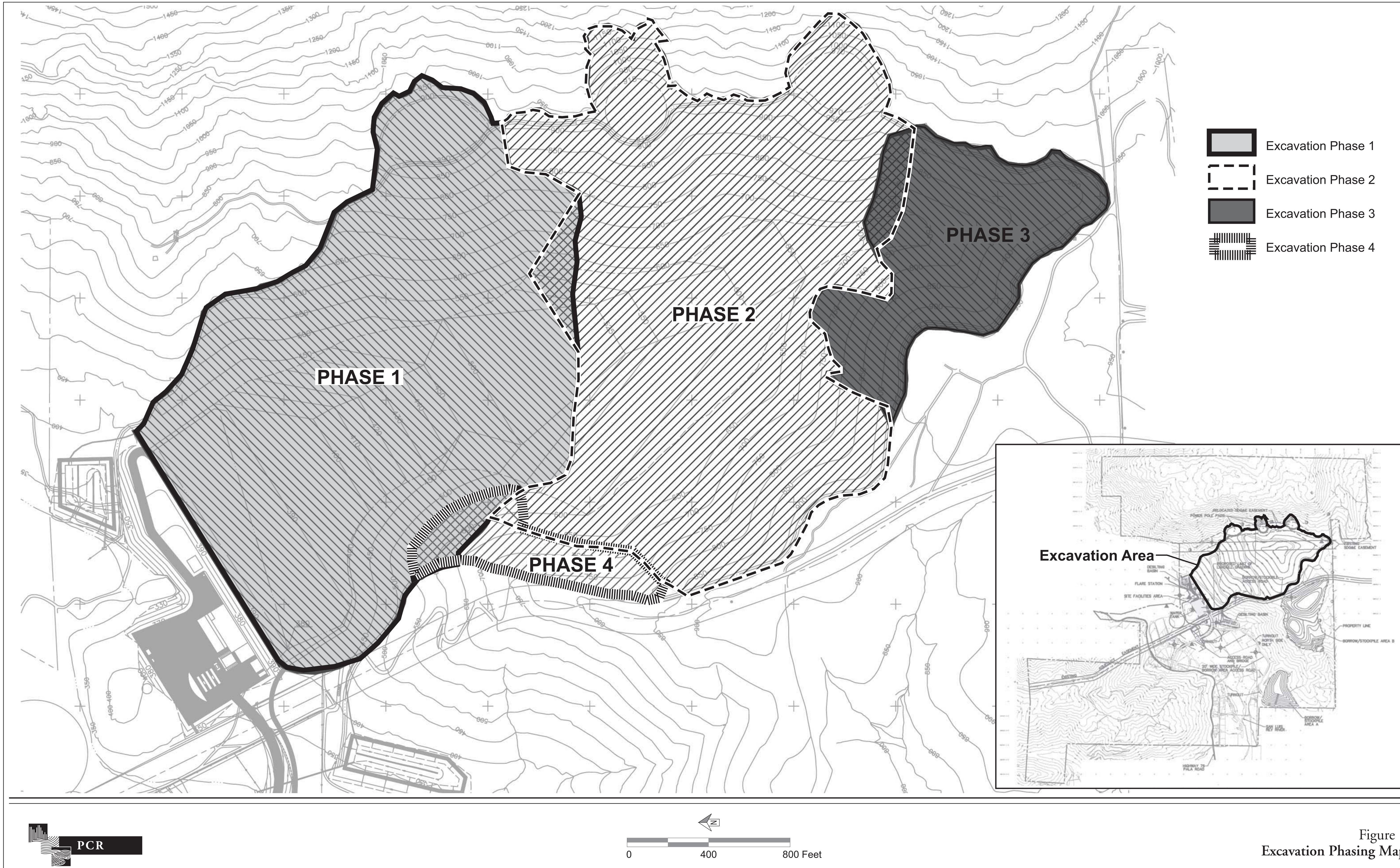
The applicant intends to utilize SOILTAC®, manufactured by Soilworks, LLC. SOILTAC® is a polymer-based product that creates a flexible solid mass at the soil surface. Depending on the rate of application, SOILTAC® can provide a soil crust or at heavier application rates generate qualities similar to cement. Water is used for the application of SOILTAC®. Typical uses of SOILTAC® include dust control on unpaved dirt roads. The use of SOILTAC® will substantially reduce the need for water for dust control.

Updated Water Demand

Kleinfelder & Associates (Kleinfelder) prepared a report providing an updated water demand analysis for dust control and ancillary uses. The Kleinfelder report, which is contained in Appendix E of this Addendum, considers the use of SOILTAC® for dust control on unpaved roads in estimating water demand. Appendix E also includes product information for SOILTAC®.

Figures 1 and 2 on pages 6 and 7, Excavation Phasing Map and Fill Phasing Map, which are from the JTD, show the excavation and fill phasing for the Project. Based on the phasing of the Project, the Kleinfelder report evaluated water needs during five separate annual periods of landfill development and operation. These five scenarios represent the operational scenarios or sets of activities that would be expected to occur at various times throughout the life of the landfill.

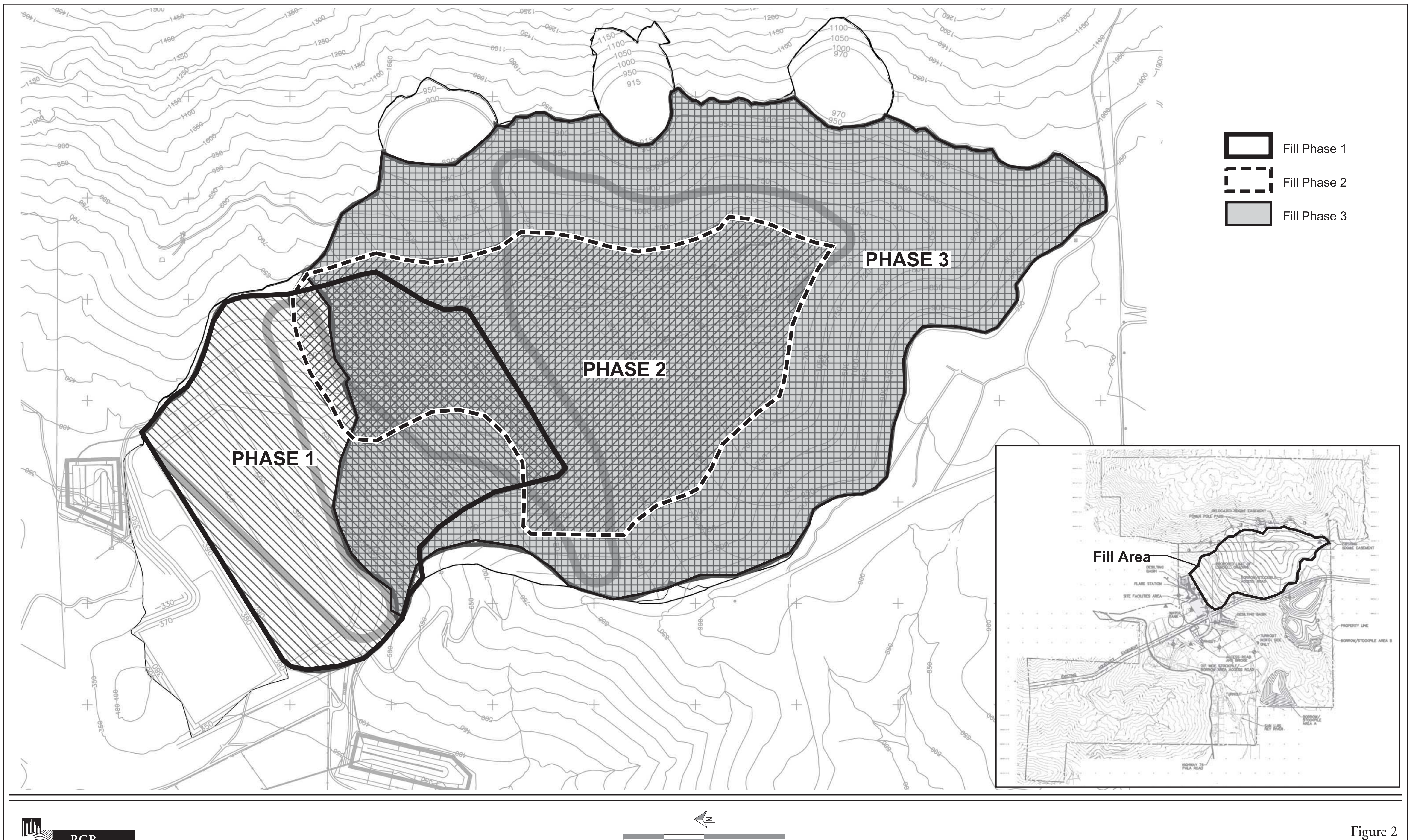
All scenarios were analyzed based on the assumption that a maximum of 5,000 tons per day (tpd) of trash would be accepted for all 307 operational days per year. Therefore, these estimates are conservative given the annual waste receipt limit of 1,000,000 tons, which would



Source: Bryan A. Stirrat & Associates, 2009.

PCR

Figure 1
Excavation Phasing Map



PCR

Source: Bryan A. Stirrat & Associates, 2009.

Figure 2
Fill Phasing Map

result in an average daily waste receipt of approximately 3,200 tons per day.[6] In addition, within each scenario the assumptions made in calculating the water usage estimate were conservative, in terms of the frequency of activity and the location of the activity on the landfill property. These assumptions were made to assure that the scenario would be representative of conditions that would occur in groups of years where similar operations were occurring. The water demand from each of these scenarios is then compared to the available water supply for that scenario.[7]

In making landfill water usage estimates, Kleinfelder calculated both a daily maximum value and an annualized average value. This was done because not all dust control and ancillary water uses would occur on each operating day. For instance, water demand for road construction or topical application of soil sealant would not occur on every operating day. Road building using SOILTAC® would occur for only a few days during the year, and topical re-application of SOILTAC® would occur during a limited number of days each calendar quarter.[8] The maximum daily value would include the use of water for these purposes, while the annualized average value would pro rate the daily maximum usage over the 307 operating days per year.[9]

Another example of an activity that would not occur on every operating day is excavation of soil for liner development. The applicant has represented to the San Diego County Air Pollution Control District (SDAPCD) that mass excavation of soil and rock would be limited to 10,000 cubic yards per day. This means that the maximum amount of excavation of soil and rock combined would be 3,070,000 cubic yards in any year.[10] The daily maximum value estimated by Kleinfelder assumes that all 10,000 cubic yards of excavation would be soil. Dust control with water is proposed for excavation of soil. However, the JTD estimates that only 60% of the material excavated would be soil and the remaining 40% would be rock.[11] Thus, of the total amount of 3,070,000 cubic yards excavated, 1,842,000 cubic yards would be soil and 1,228,000 cubic yards would be rock. Unlike the case with soil, no dust control is proposed for the excavation of rock, with water or otherwise.[12] As a result, if only soil were excavated there

---

[6] *2003 Draft EIR, p. 3-31.*

[7] *As discussed further in Section 5, the available water supply is based on a number of factors, including the location where the water would be used and the available safe yield of percolating groundwater.*

[8] *This assumption may overstate actual water demands, since Soilworks, LLC reports that topical re-application is needed only on an annual or biennial basis. Appendix E, p. 13.*

[9] *As an example, if topical application of soil sealant occurs ten calendar days per calendar quarter or forty days per year, the annualized average value for this activity would be calculated using the following equation: (daily maximum water usage x 40) divided by 307 = (annualized average water usage).*

[10] *This quantity of mass excavation is proposed for Scenario 1 only. Mass excavation during Scenario 2 would be less.*

[11] *JTD, p. C.2-3.*

[12] *The amount of fine particles in rock is low, and would contribute fewer PM_{10} or $PM_{2.5}$ emissions, compared with excavation of soil or use of roads. As a result it is anticipated that air quality standards for PM_{10} and $PM_{2.5}$*
(Footnote continued on next page)

would be no more soil to excavate after 184 operating days. Thus the Kleinfelder annualized average water usage estimate is based on the daily maximum water usage, but over 184 operating days per year.[13]

The use of the annualized average estimate for water usage is most representative for purposes of the water demand and supply analysis in the 2009 Addendum for two reasons. First, the landfill project has incorporated water storage capacity of 40,000 gallons within the ancillary facilities area, which was described and analyzed in the 2003 Draft EIR and RFEIR.[14] An additional 10,000 gallon storage tank in the vicinity of Borrow-Stockpile Area B footprint is proposed in the 2009 Addendum. The operator has the ability to rent portable water storage tanks on a temporary basis or to use water trucks for temporary storage. Second, all of the activities discussed above are planned, and can be scheduled well in advance. As a result, water could be stored in anticipation of highest usage days, and over the course of a year usage would reflect the annualized average estimate.

4.1 Scenario 1

Scenario 1 assumed landfill construction and operation within portions of Phase 1 of the landfill development, where both construction and operation would be occurring simultaneously at a location where the amount of soil excavation needed for cell development would be at its highest level.[15] Kleinfelder assumed that soil would be used for daily cover on every operating day, even though the applicant has proposed the use of alternative daily cover.[16] For purposes of analysis, this scenario is described as Scenario 1. Kleinfelder estimated that the maximum water demand for dust control and ancillary uses on any day during Scenario 1 would be 104,729 gpd.[17]

---

could be met without any dust control for rock excavation. However, as noted in footnote 17 below, control of this source with water might be included as a condition in the air quality permit, but there would still be an adequate water supply for the reasons discussed in footnote 17.

[13] *This is the basis for the annualized water usage estimate for excavation for Scenario 1. Also, to the extent that daily excavation falls somewhere in the middle, with some excavation of both soil and rock, the daily value might vary but the annualized average value would not change.*

[14] *2003 Draft EIR, p. 3-19; RFEIR p. 3-4. In addition, this 2009 Addendum includes an analysis of the proposed construction of an additional 10,000 gpd water storage tank within the Borrow/Stockpile Area B footprint, which would provide an overall storage capacity of 50,000 gallons (see Section 5.1.3).*

[15] *The 2003 Draft EIR noted that surficial soils and colluvium deposits would be thickest in the lowest portions of Gregory Canyon, with thinning at the upper portions of the canyon. 2003 Draft EIR, pp. 4.2-3 to 4.2-6.*

[16] *JTD, pp. B.4-14 through B.4-15.*

[17] *It is recognized that additional water demands for dust control may result from final permit conditions imposed by SDAPCD. However, a margin of safety that the identified water supplies, in combination, would be adequate in the event of such contingencies is provided by additional water available from on-site wells (beyond currently estimated demands), permanent storage, temporary storage and the use of trucked recycled water, along with*
(Footnote continued on next page)

However, as discussed above, not all dust control and ancillary water uses would occur on each operating day during Scenario 1. For instance, water demand for road construction or topical application of soil sealant would not occur on every operating day. Road building using SOILTAC® would occur for only a few days during the year, and topical re-application of SOILTAC® would occur at most during ten days each calendar quarter.[18] Moreover, the activities related to road construction and topical re-application would be scheduled in advance. In addition, the maximum water demand estimate assumed that all excavation related to construction on the highest use day would be soil only, and not rock, even though the JTD estimates that only 60% of the material excavated would be soil and the remaining 40% would be rock.[19] Over the course of a year, the amount of material excavated for construction would match the 60-40 percentages for soil and rock contained in the JTD.[20]

When Kleinfelder factored this into the water demand estimates, the annualized daily demand would be 66,785 gpd during Scenario 1. Given the available storage capacity of 40,000 gallons within the ancillary facilities area, which was described and analyzed in the 2003 Draft EIR and RFEIR,[21] and the ability to rent portable water storage tanks on a temporary basis or to use water trucks for temporary storage, water could be stored in anticipation of maximum usage days during Scenario 1.

4.2 Scenario 2

Scenario 2 assumed simultaneous construction and operation within Phases 2 and 3 of the landfill development. This scenario would occur during a later stage of landfill development in a different portion of the landfill property, and would be expected to have a relatively high water demand because of simultaneous construction and operation. The primary difference with Scenario 1 is that the amount of mass excavation required for liner construction, consisting of both soil and rock at the same 60-40 percentage, would be less in Phases 2 and 3,[22] but internal

---

conservative assumptions made by Kleinfelder with regard to the frequency of activities and location of activities within the landfill.

18 *This assumption may overstate actual water demands, since Soilworks, LLC reports that topical re-application is needed only on an annual or biennial basis. Appendix E, p. 13.*

19 *JTD, p. C.2-3*

20 *No dust control is proposed for the excavation of rock. See footnote 12, above.*

21 *2003 Draft EIR, p. 3-19; RFEIR p. 3-4. In addition, as discussed in footnote 14 above, the 2009 Addendum includes an analysis of the proposed construction of an additional 10,000 gallon water storage tank within the Borrow/Stockpile Area B footprint, which would provide an overall storage capacity of 50,000 gallons.*

22 *Annual excavation during Scenario 2 is 853,333 cubic yards per year, with 512,000 cubic yards of soil and 341,333 cubic yards of rock. As a result, if only soil were excavated (this is the basis for the maximum daily water usage estimate), there would be no more soil to excavate after approximately 51 operating days. Appendix E, Table B-1.*

road lengths would be greater. Kleinfelder assumed that soil would be used for daily cover on every operating day, even though the applicant has proposed the use of alternative daily cover.[23] Kleinfelder estimated that the maximum daily water demand for dust control and ancillary uses on any day during Scenario 2 would be 110,135 gpd.

However, not all dust control and ancillary water uses would occur on each operating day. Road building and topical application of SOILTAC® would only occur on a few days each calendar year. Excavation of soil for liner construction purposes would also occur only on a limited number of days, given the lower volume of excavation and the 60-40 percentage for soil and rock described in the JTD. When Kleinfelder factored this into the water demand estimates, the annualized daily demand would be 40,617 gpd during Scenario 2.

4.3 Scenario 3

Scenario 3 reflects a period where only operations would occur with no construction. Waste placement was assumed to occur at the southern portion of the landfill footprint to provide for a higher estimate of internal road lengths. One difference between Scenario 3 and Scenarios 1 and 2 is that all daily cover would be obtained from Borrow/Stockpile Area B. In Scenarios 1 and 2, excavated soils would be stored on the landfill footprint in proximity to the excavation and working face, with relatively less excavation of soils for daily cover in Borrow/Stockpile Area B. Kleinfelder assumed that soil would be used for daily cover on every operating day, even though the applicant has proposed the use of alternative daily cover.[24] Kleinfelder estimated that the maximum daily water demand for dust control and ancillary uses on any day during Scenario 3 would be 53,847 gpd.

However, not all dust control and ancillary water uses would occur on each operating day. In particular, topical application of SOILTAC® would only occur on a few days each calendar year. When Kleinfelder factored this into the water demand estimates, the annualized daily demand would be 36,780 gpd during Scenario 3.

4.4 Scenario 4

Scenario 4 reflects activities occurring during the final year of landfill operation. Waste placement was assumed to occur within Phases 2 and 3 of the landfill to provide for a higher estimate of internal road lengths. No construction would occur. The primary difference between Scenario 3 and Scenario 4 is that daily cover would be obtained from Borrow/Stockpile Area A,

---

[23] *JTD, pp. B.4-14 through B.4-15.*

[24] *Id.*

as described in the JTD. Kleinfelder assumed that soil would be used for daily cover on every operating day, even though the applicant has proposed the use of alternative daily cover.[25] Kleinfelder estimated that the maximum daily water demand for dust control and ancillary uses on any day during Scenario 4 would be 61,344 gpd.

However, not all dust control and ancillary water uses would occur on each operating day of Scenario 4. In particular, topical application of SOILTAC® would only occur on a few days each calendar year. When Kleinfelder factored this into the water demand estimates, the annualized daily demand would be 37,764 gpd during Scenario 4.

4.5 Scenario 5

Scenario 5 reflects the time period immediately following the cessation of operations, when final cover would be placed. Even though operations would not be occurring, this time period would be expected to have a relatively high water demand since placement of final cover involves the excavation of soil stockpiled in Borrow/Stockpile Area A during the period of initial construction of the landfill. Kleinfelder estimated that the maximum daily water demand for dust control and ancillary uses on any day during Scenario 5 would be 42,193 gpd.

However, not all dust control and ancillary water uses would not occur on each operating day of Scenario 5. In particular, topical application of SOILTAC® would only occur on a few days each calendar year. When Kleinfelder factored this into the water demand estimates, the annualized daily demand would be 34,753 gpd during Scenario 5.

In summary, for purposes of this 2009 Addendum, the analysis of landfill water demand is based on the Kleinfelder annualized estimates. Table 1 on page 13 provides the summary of annualized water demand for each of the five scenarios.

5.0 SOURCES OF WATER SUPPLY

5.1 On-Site Water

5.1.1 Riparian Underflow of San Luis Rey River – On-Site Wells

Section 4.15.3.3 of the 2003 Draft EIR proposed that water required for construction, operation and closure of the landfill be obtained from groundwater wells located on the landfill

25 *Id.*

Table 1

Annualized Water Demand for Scenarios 1 through 5

Scenario	Annualized Water Demand
1	66,785 gpd
2	40,617 gpd
3	36,780 gpd
4	37,764 gpd
5	34,753 gpd

Source: Kleinfelder and Associates, 2009

property. Based on Exhibit 4.3-2 of the 2003 Draft EIR, all of these wells are located in the alluvial aquifer underlying the San Luis Rey River within the Pala Basin. The 2003 Draft EIR concluded that all of the estimated water demand, up to 205,000 gpd or 193 AFY, could be met using these wells, and further found that because (i) the use of these wells would be less than historic water usage on the landfill property from dairy farming, (ii) the Project would not encourage activities that use large amounts of water in a wasteful manner, and (iii) the Pala alluvial basin is not in an overdraft situation, the Project would have no significant impacts to the depletion of groundwater supplies.[26]

On October 17, 2002, the State Water Resources Control Board (SWRCB) issued Water Rights Decision 1645, finding that the groundwater flowing in the alluvium underlying the San Luis Rey River within the Pala Basin is a subterranean stream flowing through known and definite channels.[27] The channel must have bed and banks that confine the flow of water, and that are comparatively impermeable.[28] The geologic formation underlying the alluvium consists of bedrock that is substantially less permeable than the alluvium. [29] As a result, this bedrock forms the bed and banks of the subterranean stream channel. Because of this designation, the rules regarding the use of water from the Pala alluvial aquifer are the same that apply to surface streams. This water is subject to the Water Code, as well as a long series of court decisions establishing what is generally referred to as the riparian doctrine. Riparian rights are to be distinguished from rights respecting percolating groundwater, which are discussed in detail in the RFEIR.[30]

[26] *2003 Draft EIR, p. 4.3-17.*

[27] *State Water Resources Control Board, Decision 1645, p.2.*

[28] *Id., p. 3.*

[29] *2003 Draft EIR, p. 4.3-4.*

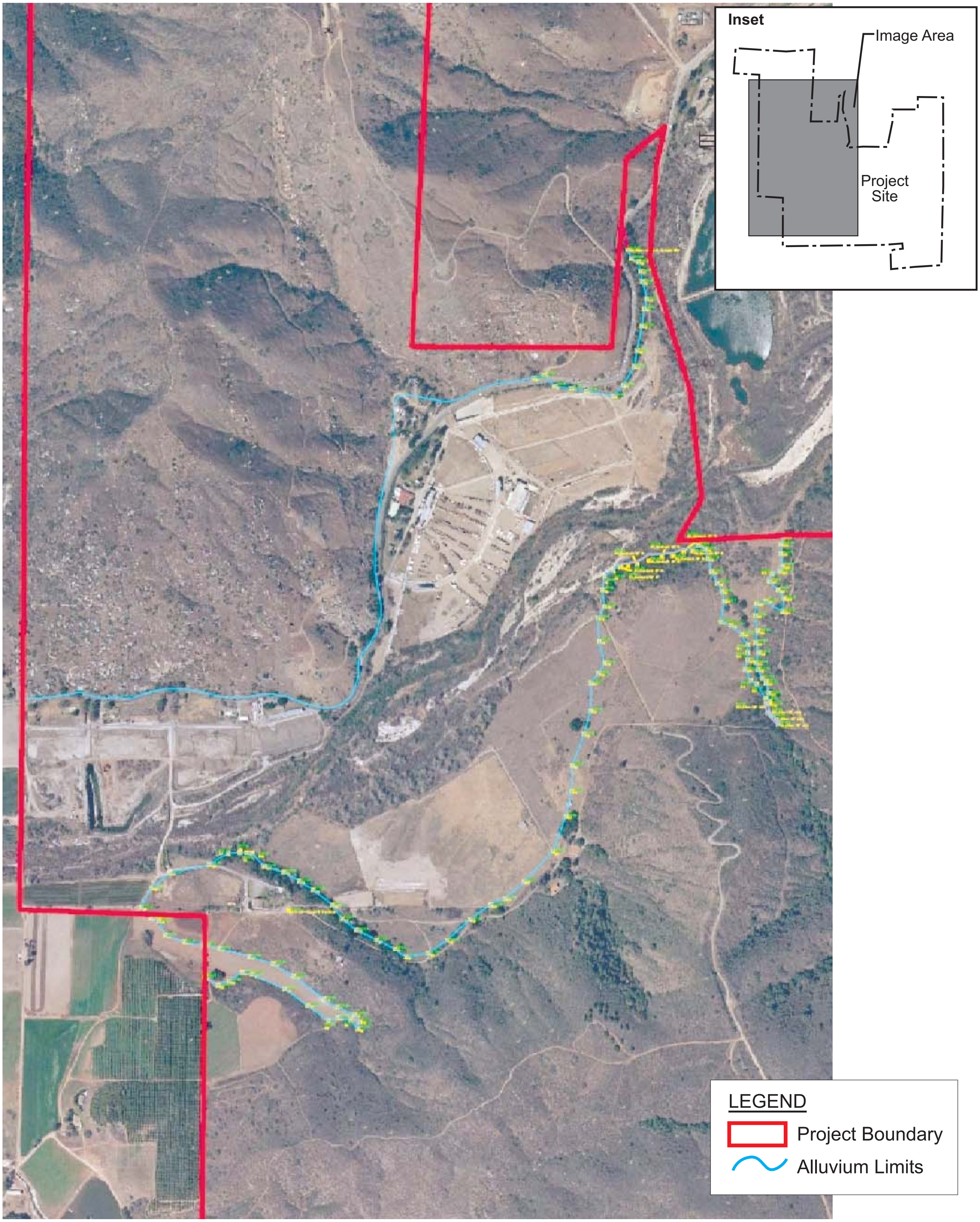
[30] *RFEIR, pp. 4.15-12 through 4.15-15.*

Subsequent to DEH's certification of the 2003 Draft EIR, questions were raised regarding the ability of Gregory Canyon to utilize water from the underflow of the San Luis Rey River pursuant to the riparian doctrine. In order to provide information pertinent to a legal analysis of available riparian rights, GeoLogic Associates performed a detailed mapping of where the alluvium contacts the underlying bedrock on the landfill property. The limits of this alluvium define the extent of the subterranean stream channel. This on-site analysis was accomplished by conducting a physical inspection of the landfill property, including topography and soil type, with measurements taken using a highly accurate GPS unit. A Technical Memorandum prepared by GeoLogic Associates describing the methodology used to determine the extent of the Pala alluvial aquifer and the extent of the alluvium is included as Appendix F.

Thereafter, an analysis of the right to use water from the Pala alluvial aquifer on some or all portions of the landfill property was performed by the law firm of Allen Matkins Leck Gamble Mallory & Natsis LLP (Allen Matkins memorandum), and is included as Appendix G. The Allen Matkins memorandum analyzed (i) Gregory Canyon's legal right to use water under the riparian doctrine, and (ii) summarized all property conveyance records dating back to the original land grants for areas of the landfill property located in the vicinity of the San Luis Rey River. As discussed in the memorandum, Allen Matkins has determined that certain portions of the landfill property have the right to use riparian water, as they are touching the Pala Basin alluvium, and those rights have not been lost through prescription, grant, condemnation, or separation from the stream through avulsion or some other cause. The portions of the property that have the right to use riparian water are shown in Figure 3, *Riparian Areas on the Landfill Site,* on page 15.

After the Allen Matkins legal analysis was completed, the alluvium mapping was overlain on maps of potentially riparian portions of the landfill property and maps showing the location of the landfill and ancillary facilities. As shown in Figure 4, *Riparian Areas, Extent of Alluvium and Location of Landfill Development,* on page 16, the area where the alluvium and riparian portions intersect includes the majority of Phase 1 of the landfill footprint, as well as all of the ancillary facilities area, the main landfill access road and bridge, Borrow/Stockpile Area A, and the Borrow/Stockpile Area A road. A small portion of Borrow/Stockpile Area B is also part of the riparian area. In addition, as shown in Figure 6 of the Allen Matkins memorandum, all of the habitat restoration area falls within the riparian portions of the landfill property.

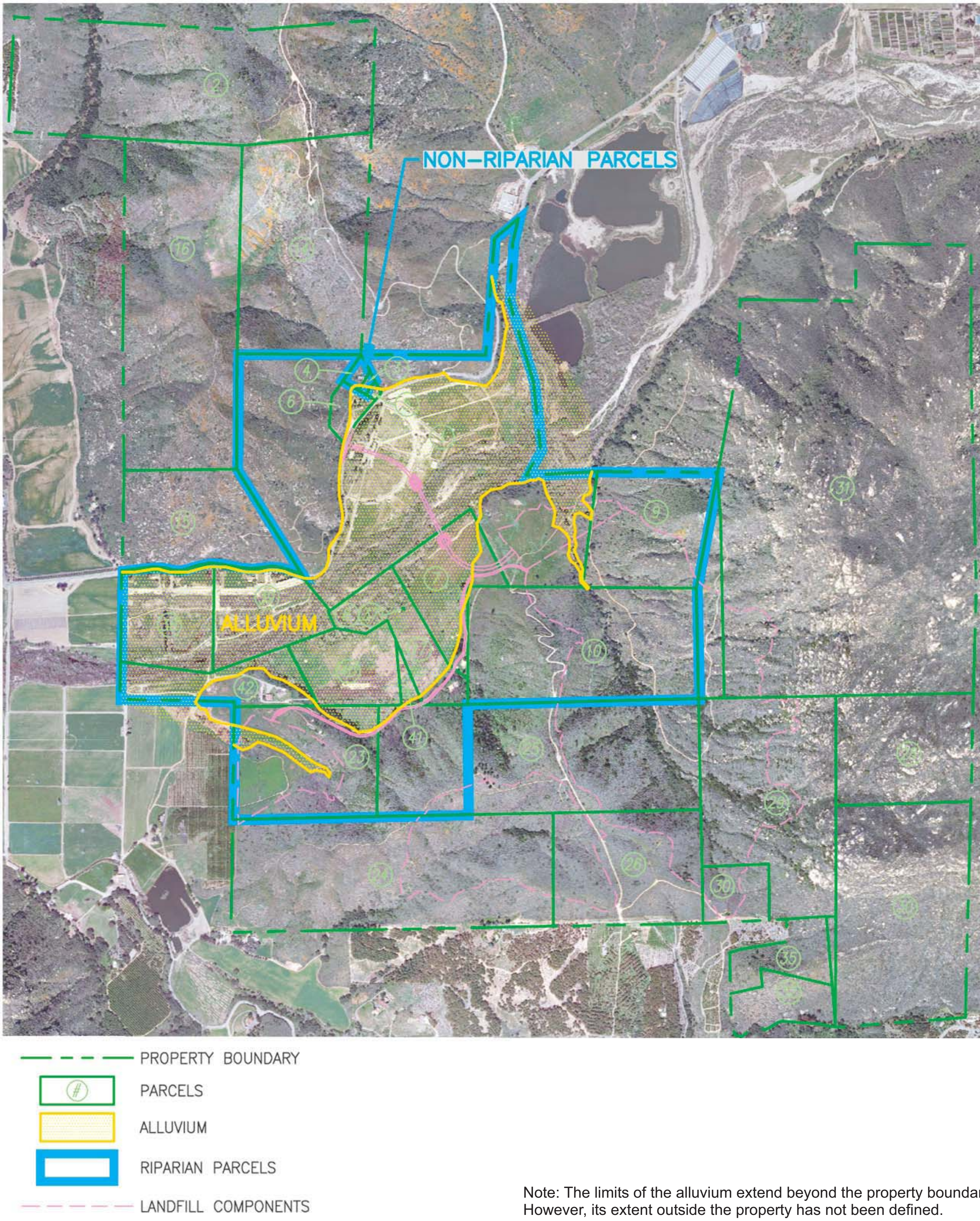
Existing wells on the former Lucio Dairy property would be used for pumping riparian underflow. The location of these wells and pipelines is depicted on Figure 6, *Location of On-Site Wells, Pipelines, and Storage*. Pipelines would be constructed from the wells to the landfill facilities area, at locations noted in Figure 6, with electrical service lines placed in the pipeline trench. Permanent access roads related to the wells and pipelines are not required, and are not proposed.



Source: URS, 2009.

PCR

Figure 3
Riparian Areas on the Landfill Site



Note: The limits of the alluvium extend beyond the property boundary. However, its extent outside the property has not been defined.

Source: Geo Logic Associates, 2009.

PCR

Figure 4
Riparian Areas and Extent of Alluvium Compared with Landfill Development Areas

5.1.2 Available Uses of Riparian Underflow

As explained in the Allen Matkins memorandum, riparian underflow in the alluvium underlying the San Luis Rey River is available for reasonably anticipated future uses on the portions of the landfill site shown in Figure 4.

During Scenario 1, riparian water may be used on the landfill footprint, as well as all of the ancillary facilities area, Borrow/Stockpile Area A, and the Borrow/Stockpile Area A road. The road from the landfill working area to Borrow/Stockpile B would be partly in the riparian area and partly in the non-riparian, and its entire length would be chemically stabilized. During Scenario 1, the large majority of water demand could be met through the use of riparian underflow. The Kleinfelder report estimates that during this period, approximately 99% of the annualized demand of 66,785 gpd, or 66,742 gpd, could be met using riparian underflow.[31]

During Scenario 2, the ability of the landfill to utilize riparian underflow diminishes, since both construction and operation would be occurring at the southern portion of the landfill footprint. The road from the landfill working area to Borrow/Stockpile Area B would be entirely within non-riparian areas. During Scenario 2, approximately 21% of the annualized demand of 40,617 gpd, or 8,414 gpd, could be met using riparian underflow.

During Scenario 3, it was assumed that operations would be occurring at the southern portion of the landfill footprint, reducing the ability to utilize riparian underflow. The road from the landfill working area to Borrow/Stockpile Area B would be entirely within non-riparian areas. During Scenario 3, approximately 23% of the annualized demand of 36,780 gpd, or 8,414 gpd, could be met using riparian underflow.

During Scenario 4, a larger amount of riparian water could be utilized. While it was assumed that operations would be occurring at the southern portion of the landfill footprint, reducing the ability to utilize riparian underflow, under this scenario most soil obtained for daily cover would come from Borrow/Stockpile Area A, which is within the riparian area.[32] The road from the landfill working area to Borrow/Stockpile Area B would be entirely within non-riparian areas, but would be used only to a limited extent. During Scenario 4, approximately 37% of the annualized demand of 37,764 gpd, or 14,197 gpd, could be met using riparian underflow.[33]

---

[31] *See Appendix E, p.16, Table 3-1. A slight discrepancy of 1 gpm in this discussion and Table 3-1 is due to rounding.*

[32] *Appendix F, p. 5.*

[33] *See Appendix E, p.25, Table 3-7. A slight discrepancy of 1 gpm in this discussion and Table 3-7 is due to rounding.*

During Scenario 5, an even larger amount of riparian water could be utilized. Soil excavated for final cover come from Borrow/Stockpile Area A, which is within the riparian area, and approximately 35% of the final cover will be placed on portions of the landfill footprint within the riparian area. During Scenario 5, approximately 62% of the annualized demand of 34,753 gpd, or 21,510 gpd, could be met using riparian underflow.

5.1.3 Percolating Groundwater – On-Site Wells – Gregory Canyon Watershed

Section 4.15.3 and Appendix C of the RFEIR described the use of percolating groundwater pumped from identified groundwater monitoring wells located to the north of the landfill footprint within the Gregory Canyon watershed. The RFEIR included a discussion of the legal right to use this percolating groundwater.

Appendix C of the RFEIR included a detailed discussion regarding the potential availability of percolating groundwater from these on-site wells. The initial analysis predicted the sustained yield of these wells. Actual pump test data from the wells was obtained. Thereafter, the pump test data from the most productive well, GLA-3, was analyzed with computer simulation and a long term sustainable yield was calculated that would not cause an overdraft of the fractured bedrock formation by limiting pumping to a specified elevation. This result was then extrapolated to the remaining pumping wells, and the sustainable yield was estimated at 43,200 gpd.[34] Level controls that cycle the pump on and off as pumping reached the specified elevation would assure that a sustainable yield was maintained.[35]

Appendix C of the RFEIR also included a safe yield analysis. The safe yield analysis looks to balance the amount of pumping with the amount of water flowing into the catch basin area and the amount of infiltration. The safe yield analysis does not consider the storage capacity of the fractured bedrock formation.[36] The safe yield analysis concluded that the pumping wells could produce an estimated 38,880 gpd.[37] While not based on actual pumping

---

[34] *RFEIR, p. 4.15-19; RFEIR, Appendix C, pp. 9-10. This method is directly analogous to the threshold for determining significant environmental impacts to groundwater resources, as set forth in Appendix G of the CEQA Guidelines ("Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a* ***lowering of the local groundwater table level*** *(e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses or which permits have been granted?)) (emphasis added), 2003 Draft EIR, p. 4.3-14.*

[35] *RFEIR, Response to Comment 007-6.*

[36] *Appendix H, p. 3.*

[37] *RFEIR, pp. 4.15-12 through 4.15-15; p. 4.15-32.*

data, the safe yield analysis provides a reasonable general estimate of available percolating groundwater.[38]

Percolating groundwater may be used on any portion of the landfill property.[39] If the sustained yield or safe yield are maintained, this resource will provide an adequate volume of water to make up for any shortfall between the estimated demand and the available riparian underflow anticipated in each of the annualized average scenarios considered by Kleinfelder (44 gpd in Scenario 1; 32,203 gpd in Scenario 2; 28,366 gpd in Scenario 3; 23,566 gpd in Scenario 4; and 13,243 gpd in Scenario 5).

However, the RFEIR did note that the safe yield for these wells may diminish as landfill development proceeds, due to either lower rainfall amounts over extended periods or the loss of acreage for percolation once the landfill liner is placed.[40] For instance, if the watershed were reduced by 183 acres (the extent of the landfill footprint), the safe yield would be reduced to an estimated 21,576 gpd.[41] Once this diminution is factored in, it is possible that percolating groundwater from the Gregory Canyon watershed would not be sufficient to meet the landfill's water demands.

The general estimate of available percolating groundwater derived from the safe yield calculation was used for purpose of estimating the adequacy of this water resource in the 2009 Addendum. However, actual field conditions based on the calculated sustainable yield (and maintained through the use of level controls) may provide access to a greater volume of percolating groundwater from this watershed without significant impact.

5.1.4 Percolating Groundwater – On-Site Wells – Other Portions of Landfill Property

In addition to the Gregory Canyon watershed, there are three other watersheds within the landfill property that have a similar surface topography and underlying geology. Each of these watersheds produces percolating groundwater in the underlying fractured bedrock system that can be accessed by installing one or more pumping wells.

GeoLogic Associates analyzed the additional on-site water sources. The analysis is provided in Appendix H of this 2009 Addendum. The location of the three watersheds is

---

38 *Appendix H, p. 4.*

39 *RFEIR, pp. 4.15-12 through 4.15-15.*

40 *See e.g., RFEIR, Appendix C, p. 12; Appendix H, p. 4. These same factors would also affect the sustained yield.*

41 *Appendix H, p. 4.*

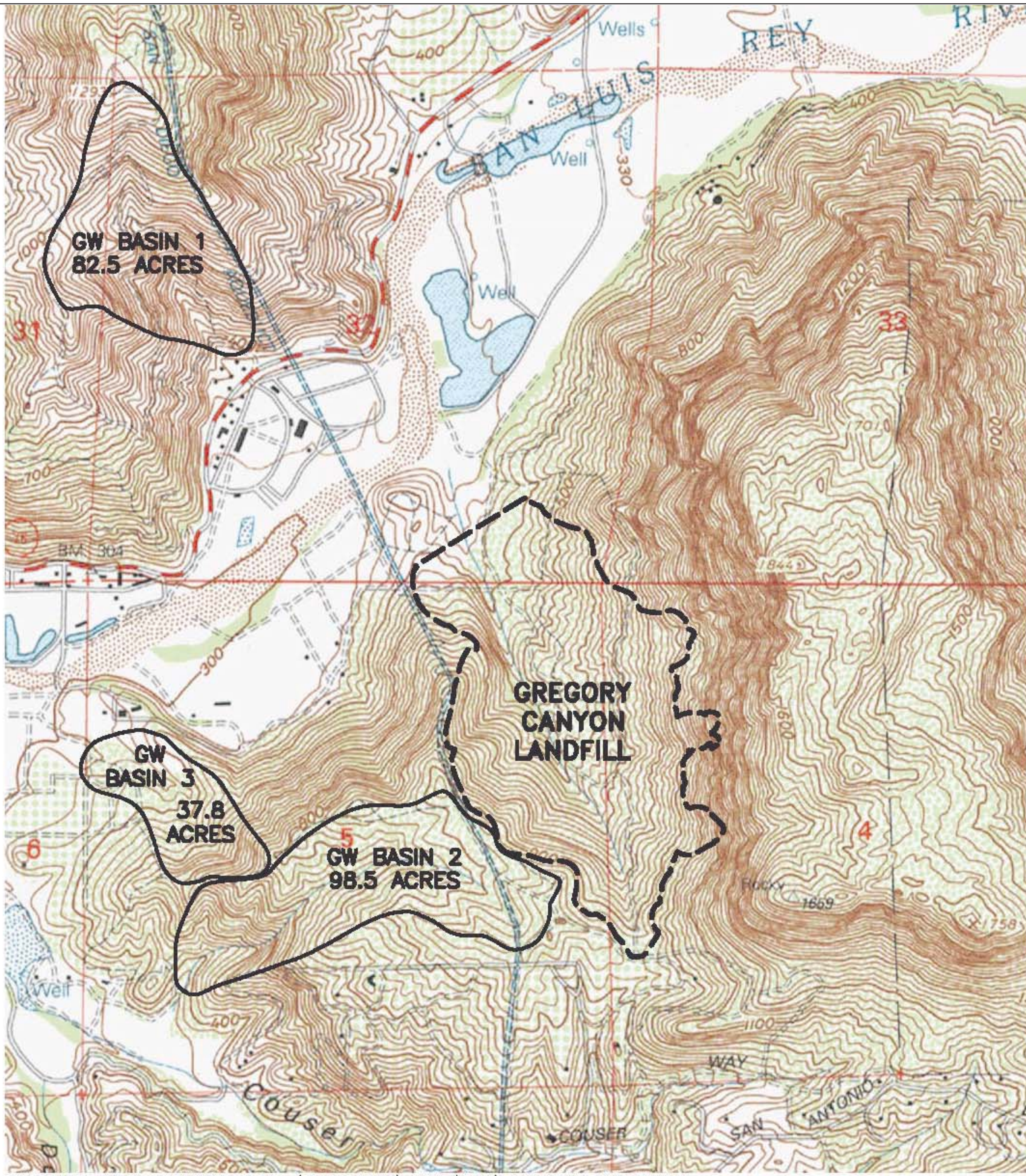
depicted on Figure 5, *Additional Watershed Locations,* on page 21. Table 2, *Size and Safe Yield of Additional On-Site Watersheds,* on page 22,provides the size and estimated safe yield of each of the three watersheds. The safe yield analysis is the only method available to estimate the volume of available percolating groundwater, because wells have not been installed in these watersheds and no pump test data is available to perform the computer simulation to calculate the sustainable yield.

The safe yield analysis uses the same assumptions and methodologies as were used for the Gregory Canyon watershed pumping wells for the RFEIR, except that the extent of each watershed was adjusted to reflect its actual acreage. All three watersheds are in locations that could be accessed for installation of one or more pumping wells. As explained in Appendix H, the estimated safe yield is 20,349 gpd, which provides a reasonable general estimate of the amount of percolating groundwater available from these other watersheds. However, as is the case with the Gregory Canyon watershed, actual field conditions based on the calculated sustainable yield (and maintained through the use of level controls) may provide access to a greater volume of percolating groundwater from these watersheds without a significant impact to groundwater resources.

Unlike the Gregory Canyon watershed, no activities would take place within these watersheds that would diminish the acreage available for percolation over the life of landfill construction, operation and closure/post-closure maintenance.

Water from wells in Area 1 and Area 3 would be conveyed by pipeline to water tanks located on the ancillary facilities area. The locations of these wells and pipelines are depicted on Figure 6, *Location of On-Site Wells, Pipelines, and Storage,* on page 23. Water from wells in Area 2 would be conveyed by pipeline to a smaller storage tank (approximately 10,000 gallons) located within the area to be disturbed for Borrow/Stockpile Area B. Installation of this tank is proposed since there will be an ongoing need for water for dust control related to placement or excavation of soil from Borrow/Stockpile Area B. Placement of a tank at this location will minimize the length of the pipeline from the well to a storage tank (that would otherwise be at the landfill facilities area), pumping costs and use of energy, and the cost and use of energy related to transporting water to Borrow/Stockpile Area B.[42] All of these percolating groundwater wells, pipelines and electrical service lines are to be located in areas that are currently disturbed

[42] *The Kleinfelder report assumes that all water needed for dust control at Borrow/Stockpile Area B would be conveyed from the landfill facilities area to Borrow/Stockpile Area B. While there would be trips from the new water tank to the landfill area to provide for other dust control needs, the placement of this storage tank would result in a net reduction of vehicle miles traveled on the internal road between Borrow/Stockpile Area B and the landfill area.*



REFERENCE: USGS 7.5 MINUTE SERIES (TOPOGRAPHIC) PALA (1997) CALIFORNIA QUADRANGLE

EXPLANATION:

APPROXIMATE LIMIT OF GROUNDWATER BASIN

PCR

0 1500 3000 Feet

Figure 5
Location of Additional Watersheds

Source: GeoLogic Associates, 2009.

Table 2

Size and Safe Yield of Additional On-Site Watersheds

Area	Size of Basin (acres)	Safe Yield (gpd)
Area 1	82.5	7,673
Area 2	98.5	9,161
Area 3	37.8	3,515
TOTAL		20,349

Source: GeoLogic Associates, 2009

or are proposed to be disturbed as part of landfill development.[43] Permanent service roads related to these wells and pipelines are not required and are not proposed.

In sum, when all four watersheds are considered, the on-site percolating groundwater available for the landfill construction and operation is estimated for purposes of the 2009 Addendum to be 41,925 gpd, 21,576 gpd from the Gregory Canyon watershed and 20,349 gpd from the other watersheds.

5.1.5 Comparison of Supply and Demand – On-Site Wells

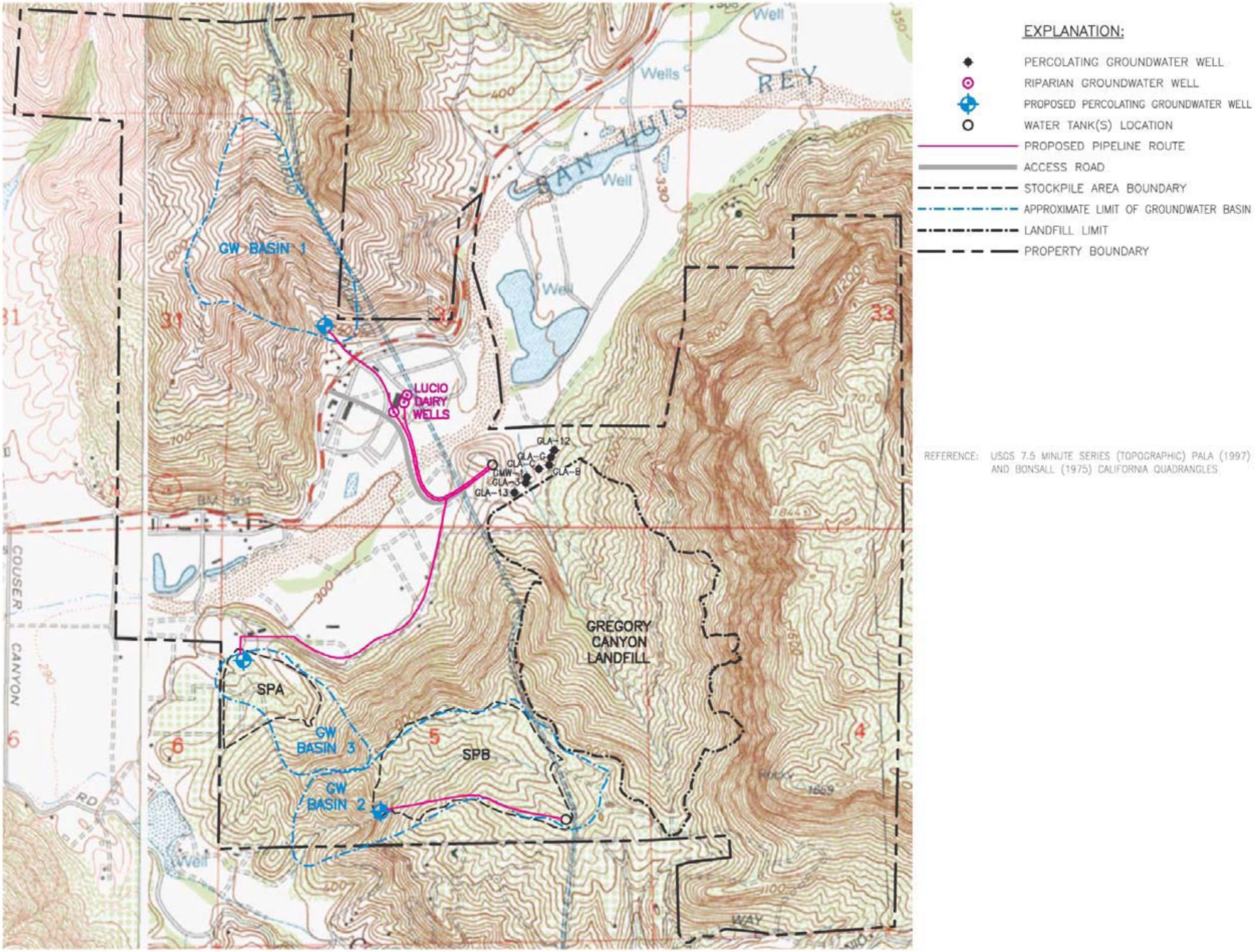
Table 3, *Summary Comparison of Annualized Water Demand and Supply –Scenarios 1 through 5,* on page 24 provides an analysis of water supply demand for all scenarios analyzed.

As can be seen in Table 3, there is a likelihood that the estimated available water supply from on-site wells will be adequate to meet the estimated demand at all times during the period of construction, operation, closure and post-closure maintenance of the landfill, based on the annualized water usage estimates in the Kleinfelder report. During all scenarios analyzed, the estimated available supply was greater than demand by a factor of at least 24%.

5.2 Recycled Water

In addition to on-site water, trucked recycled water could also be used to supply water to the Project site for construction and operation. The San Diego Regional Water Quality Control Board (SDRWQCB) tentative Order No. R9-2009-004, dated April 9, 2009, proposes to

[43] *It is anticipated that more than one well will be located at the designated location for Areas 1, 2 and 3. All wells will be located in areas that are currently disturbed or will be disturbed as part of landfill development. Power supply lines will be placed in the same trench as the pipelines.*



N

0 1800 3600 Feet

Source: GeoLogic Associates, 2009.

PCR

Figure 6
Location of On-Site Wells, Pipelines, and Storage for Groundwater Basin Areas 1 through 3

Table 3

Summary Comparison of Annualized Water Demand and Supply –Scenarios 1 through 5

	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Estimated Demand (gpd)	**66,785 gpd**	**40,617 gpd**	**36,780 gpd**	**37,764 gpd**	**34,753 gpd**
Sources of Supply:					
Riparian Underflow	66,742 gpd	8,414 gpd	8,414 gpd	14,197 gpd	21,510 gpd
Percolating Groundwater – Gregory Canyon	21,576 gpd	21,576 gpd	21,576 gpd	21,576 gpd	21,576 gpd
Percolating Groundwater – Other Watersheds	20,349 gpd	20,349 gpd	20,349 gpd	20,349 gpd	20,349 gpd
Total Supply (gpd)	**108,667 gpd**	**50,339 gpd**	**50,339 gpd**	**56,122 gpd**	**64,435 gpd**
Ratio of Supply to Demand	1.63:1	1.24:1	1.37:1	1.48:1	1.85:1

Source: Kleinfelder & Associates, 2009

authorize the use of recycled water at the landfill site from any source, subject to meeting water quality standards and other conditions.

Gregory Canyon has entered into a contract with the San Gabriel Valley Water Company (SGVWC) to supply up to 80,000 gpd of recycled water to be used for construction, operation and closure of the landfill. SGVWC, which is a privately-owned utility regulated by the California Public Utilities Commission, engages in the sale of both potable water and recycled water. The contract with SGVWC serves as an alternative water supply to meet landfill water demands. The initial term of the contract is until June 30, 2017, but, as discussed below, is expected to be extended in five to ten year increments and to remain in effect for many years into the future. A copy of this contract is included as Appendix I.

The contracted amount of up to 80,000 gpd was selected for two reasons. First, this amount exceeds the highest anticipated average annual water usage requirement of 66,785 gpd, which would occur during Scenario 1. Second, 80,000 gpd corresponds to the water requirement set forth in the 2003 Draft EIR, once the requirement of 125,000 gpd for liner construction is subtracted from the 205,000 gpd total water usage estimate.

Recycled water purchased and sold by SGVWC consists of Title 22 tertiary effluent purchased from the Upper San Gabriel Valley Municipal Water District (USGVMWD), and produced at the Whittier Narrows Water Reclamation Plant (WRP) owned and operated by a consortium of sanitation districts, including the Los Angeles County Sanitation District. SGVWC obtains the recycled water through a purchase agreement with USGVMWD dated June 27, 2006. Operation of the Whittier Narrows WRP is governed by Los Angeles Regional Water Quality Control Board (LARWQCB) Order No. R4-2009-0077, NPDES No. CA0053716. Recycled water standards are set forth in LARWQCB Order No. R4-2009-0077. The largest current use of recycled water from the Whittier Narrows WRP is groundwater recharge, with some use for irrigation. The WRP operator is actively promoting additional reuse options, such as the one proposed for Gregory Canyon. No blending of effluent from the Whittier Narrows WRP with raw water takes place prior to sale to USGVMWD and then to SGVWC.

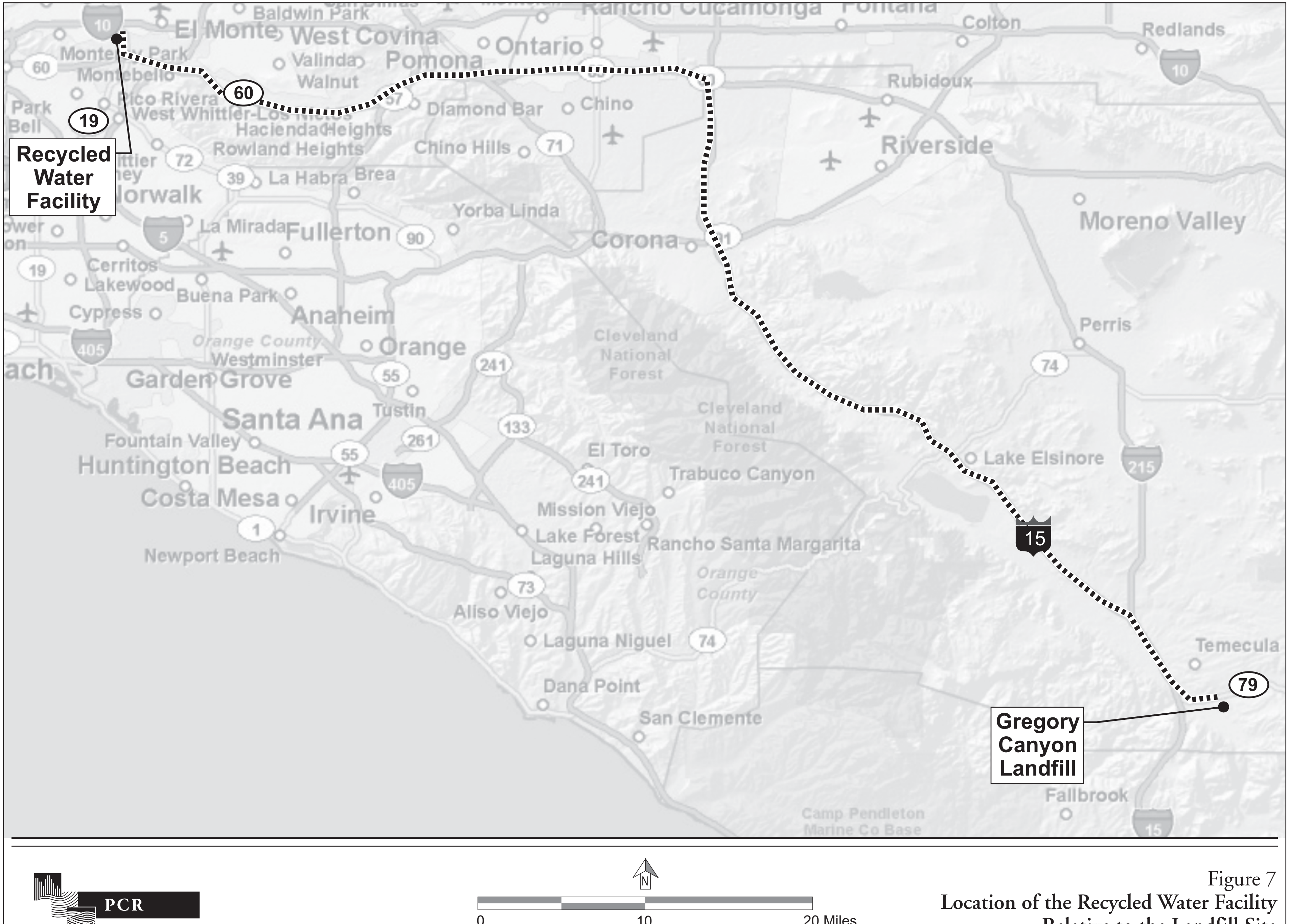
Recycled water from Whittier Narrows WRP is conveyed through an existing 18-inch recycled water pipeline owned and operated by USGVMWD that runs along North Loma Avenue in South El Monte, California. The pipeline operates at approximately 84 psi,[44] which SGVWC believes will provide adequate water pressure for loading of recycled water delivery trucks. Loading of recycled water would take place at an existing facility located at 2701 North Loma Street, South El Monte, California. This facility is located immediately adjacent to the 18-inch pipeline. Figure 7, *Location of the Recycled Water Facility Relative to the Landfill Site,* on page 26, shows the relationship of the water facility relative to the Landfill Site. The location of the loading area is shown on Figure 8, *Location of Loading Facility at Off-Site Water Source,* on page 27.

Recycled water would be transported in single-tank, double-axle recycled water trucks with a capacity of between 6,500 gallons and 7,000 gallons. Because this water source is an alternative source and is expected to be utilized on an occasional basis, Gregory Canyon would contract with a private water hauler to supply the recycled water trucks. Deliveries to the Landfill Site would be scheduled, with a proposed delivery schedule set forth in *Table 4, Hourly Distribution of Trips*.

While the current recycled water agreement expires on June 30, 2017, SGVWC has expressed its intention to extend the term of the agreement to coincide with the term of its underlying supply agreement with USGVMWD. There are a number of reasons to expect that the underlying contract between USGVMWD and SGVWC will continue to be extended. SGVWC already has commitments to provide up to 2,000 AFY of recycled water,[45] and the incremental amount to be supplied to the landfill, which is up to approximately 75 AFY, is very small in relation to its overall commitments. As a result, SGVWC has a strong incentive to obtain continuing adequate supplies of recycled water. Moreover, USGVMWD has made a substantial investment in the 18-inch pipeline used to supply water to SGVWC, and has its own substantial recycled water customers serviced by the pipeline. USGVMWD has a strong incentive to continue deliveries to SGVWC though the pipeline, in order to maximize the return

[44] *USGVMWD, Preliminary Design Report for the Recycled Water Project Rosemead Extension, Figure 2-3.*

[45] *Appendix J, p. 2.*



Source: Esri, 2009; PCR Services Corporation, 2009.

Figure 7
Location of the Recycled Water Facility Relative to the Landfill Site

PCR

Figure 8
Location of Loading Facility
at Off-Site Water Source

Source: Google Earth, 2009 and PCR Services Corporation, 2009.

on its capital investment.[46] As a result, it is expected that the landfill will have continuing access to SGVWC recycled water for an extended period of time.

As can be seen in Figure 7, the recycled water loading facility is in an area primarily consisting of light industrial businesses, such as salvage yards or auto body shops. The water facility property is designated Industrial in the City of South El Monte's General Plan and is zoned Industrial. The surrounding area (west of Rosemead Boulevard) is generally designated Industrial and Commercial-Manufacturing and is zoned Industrial and Commercial-Manufacturing. An area northeast of the recycled water facility along Garvey to the east of Rosemead Boulevard is designated Mixed Use in the General Plan and is zoned Commercial-Manufacturing. There are several residences are located along Mabel Avenue and Rosemead Avenue within the Industrial and Commercial-Manufacturing designated areas.

Improvements required to deliver recycled water to Gregory Canyon would consist of installation of a pressure regulator (to reduce water pressure), meter, standpipe, and possibly a pump, from which recycled water trucks could be filled. SGVWC would access the 18-inch recycled water pipeline by constructing a "T" perpendicular to the pipeline, which would bring the recycled water onto its property. The loading standpipe would be open to Gregory Canyon on a 24-hour, 7-day a week basis, to the extent possible.

In addition to the recycled water supplied by SGVWC, the RFEIR included a discussion regarding the substantial availability of recycled water in San Diego County.[47] Subject to required environmental impact review, it is believed that the operator will have a variety of opportunities to access trucked recycled water throughout the life of the project beyond the SGVWC agreement.

6.0 POTENTIAL IMPACTS

The following provides an analysis of potential impacts with regard to the use of wells on the Landfill Site as well as potential impacts relative to the transport of recycled water from South El Monte to the Landfill Site. The analysis includes potential impacts relative to hydrogeology, air quality, health risk, noise and biological resources with regard to the wells and the use of soil sealant on the Landfill Site. The potential impacts relative to the transport of recycled water includes traffic, air quality and health risk, and noise. The significance thresholds from the 2003 Draft EIR have been used unless noted.

---

[46] *The cost of this pipeline was estimated at $4.39 million. USGVMWD, Preliminary Design Report for the Recycled Water Project Rosemead Extension, p. 6-3.*

[47] *RFEIR, p. 4.15-12.*

6.1 Landfill Site – Additional Wells and Use of On-Site Water

6.1.1 Riparian Underflow of San Luis Rey River – On-Site Wells

Section 4.15.3.3 of the 2003 Draft EIR proposed that water required for construction, operation and closure of the landfill be obtained from groundwater wells located on the landfill property. Based on Exhibit 4.3-2 of the 2003 Draft EIR, all of these wells are located in the alluvial aquifer underlying the San Luis Rey River within the Pala Basin. The 2003 Draft EIR concluded that all of the estimated water demand, up to 205,000 gpd or 193 AFY, could be met using these wells, and further found that because (i) the use of these wells would be less than historic water usage on the landfill property from dairy farming, (ii) the Project would not encourage activities that use large amounts of water in a wasteful manner, and (iii) the Pala alluvial basin is not in an overdraft situation, the Project would have no significant impacts to the depletion of groundwater supplies.[48]

As shown herein, between 8,414-66,742 gpd could be pumped from the Pala alluvial aquifer is estimated at to meet water demands. This amount is significantly less than the amount analyzed in the 2003 Draft EIR, where it was determined that pumping of up to 205,000 gpd would not have a significant impact on the depletion of water resources. Pumping of amounts at the highest end of this range would occur during Scenario 1, which would occur during early years of landfill operation, with lesser amounts during the four other Scenarios occurring during later years.

The determination of a less than significant impact in the 2003 Draft EIR was based on a safe yield analysis of the Pala alluvial aquifer prepared by Don Owens & Associates in 1995 (Owens Study).[49] The Owens Study found that the Pala alluvial aquifer had an average pumping rate of 1,750-2,400 AFY (1.86 million – 2.55 million gpd), and could accommodate a pumping rate of 3,350 AFY (3.55 million gpd) on a long-term basis with prudent groundwater management.[50]

In order to confirm the validity of the previous conclusions, GeoLogic Associates performed an assessment of changes in land use in the Pala alluvial aquifer, identified permitted wells drilled within the Pala Basin over the past 15 years, and reviewed available literature for the Pala alluvial aquifer. A Technical Memorandum prepared by GeoLogic Associates describing its findings is included as Appendix J.

---

48 *2003 Draft EIR, p. 4.3-17*

49 *2003 Draft EIR, p. 4.3-16*

50 *Id.*

The most significant increase in water use within the Pala alluvial aquifer occurred with construction of the Pala casino and the 507-room hotel on the Pala reservation, to the east of the landfill property. Review of the Environmental Assessment (EA) for the Pala casino's initial construction estimated that water use would be 80,000 gpd with a peak quantity of 100,000 gpd. However, the Pala casino project EA (excluding the hotel) stated it would provide water from a reservoir with a nominal capacity of 750,000 gpd to support facility operations (20,000 gpd), fire sprinklers (102,000 gpd) and emergency storage (622,000 gpd).

The EA for development of the 507-room hotel at the Pala casino was not available for use in assessing additional water requirements. Based on available literature,[51] 130 gpd per room is typically estimated for two-person hotel occupancy, which results in a peak daily water demand of approximately 65,910 gpd for full occupancy of the 507-room hotel. Recognizing that the fire sprinkler and emergency supply represent fixed storage rather than daily use, the peak casino and hotel use is estimated to be 165,910 gpd (100,000 gpd peak daily use for the casino and 65,910 gpd peak daily use for the hotel), or about 186 AFY (166,036 gpd). The water that is used at this facility is pumped to a wastewater treatment plant and is assumed to be discharged back to the Pala alluvial aquifer. Assuming a net loss of about 20 to 25 percent from irrigation and evaporation (about 37 to 47 AFY, or 33,028 – 41,955 gpd), the estimated water use by the Pala casino and hotel is expected to be 139 to 149 AFY (124,081 – 133,008 gpd).

Another new use is the off-road motorcycle racetrack that recently commenced operation on the Pala reservation. However, that facility was a replacement for the prior Vulcan quarry. The Pala Band reported to the San Luis Rey Municipal Water District that water usage at the off-road racetrack would be only ten percent (10%) of the historic water usage from the closed quarry.[52]

Any increase attributable to the Pala casino/hotel expansion must be weighed against the discontinuation of agricultural/livestock operations and the vacating of associated residential properties located on the landfill property. Historic uses on the landfill property were 465 AFY or 1,660,369 gpd.[53] In addition, the H.G. Fenton quarry and aggregate plant just north of the landfill property closed, resulting in an additional reduction in water demand.[54] At maximum pumping of 66,742 gpd, the landfill would utilize only 62.8 AFY of the historic on-site usage.[55]

---

[51] *The water demand for the hotel is taken from the City of Los Angeles Master Plan of Sewers.*

[52] *Appendix J, p.3.*

[53] *2003 Draft EIR, p. 4.3-15.*

[54] *Water usage by the Fenton quarry while operational is not known.*

[55] *In addition, the combined total of the maximum pumping for the landfill and the estimated usage from the Pala casino/hotel would be less than the historic usage.*

In order to confirm the conclusion that uses of groundwater from the Pala alluvial aquifer have not increased substantially since 1995, GeoLogic Associates performed a review of available data regarding groundwater levels in the Pala alluvial aquifer since 1995. The purpose of this review was to determine if there was any evidence of a decreasing water table, which would be indicative of an overdraft situation in the Pala alluvial aquifer. The GeoLogic Associates technical memorandum, included as Appendix J, revealed that water levels in the Pala alluvial aquifer have remained relatively static, with only minor seasonal changes, and that there was no evidence of a decreasing water table.

The wells that would be utilized to pump riparian underflow currently exist, using electrical submersible pumps. As a result, the only potential construction needed to access this supply would involve laying a pipeline from the well locations to the landfill facilities area. The location of all wells proposed to be used, and the location of all pipelines and storage tanks are depicted on Figure 6*, Location of On-Site Wells, Pipelines and Storage*. Where possible, the pipeline would be within the right of way of the landfill access road and bridge, and would be installed concurrently with their construction.

The RFEIR analyzed air quality, health risk and noise impacts from construction of recycled water facilities at the landfill property (as well as other changes to the landfill development), and concluded that the analysis contained in the 2003 Draft EIR reflected a conservative estimate of construction equipment and would be sufficient to account for the proposed improvements.[56] That same analysis would apply equally to any pipeline and electrical service installation for these wells, which would have both less intensity and a shorter duration. Installation of pipelines and electric lines would be underground and would be completed prior to or concurrent with implementation of the habitat resource management plan. The mitigation measures to protect biological resources during construction of landfill facilities that were provided in the 2003 Draft EIR would be used to ensure that impacts would remain less than significant. An analysis of impacts to biological resources from the construction of these pipelines has been prepared by Bill Magdych Associates, and is included as Appendix K. The pipelines from these existing wells would be located within currently disturbed areas or areas to be disturbed as part of landfill development, and there would be no habitat loss related to their installation not disclosed and mitigated in the 2003 Draft EIR or RFEIR. However, a portion of the pipelines would be in areas proposed for habitat creation in the RFEIR. For this reason, the pipelines would be placed underground and installed concurrently with implementation of the habitat restoration program.

The mitigation measures to protect biological resources during construction of landfill facilities that were provided in the 2003 Draft EIR would be used to ensure that impacts would

[56] *RFEIR, p. 4.15-20*

remain less than significant. The construction of the pipelines and electric lines would not increase the amount or intensity of work on any construction day given the need to protect existing biological resources, but rather would extend the time required to complete the work. As a result, no noise impacts to biological resources would occur. Finally, the maintenance requirements for the existing wells and the portion of the pipelines and electric lines within the habitat restoration are expected to be minimal, and would not significantly increase the amount of human presence required for monitoring and maintenance of the habitat creation area.[57] Permanent access roads are not required, and not proposed.

Based on the above, pumping of 8,414-66,742 gpd of water from the Pala alluvial aquifer would have a less than significant impact to groundwater resources, noise, or biological resources. Impacts to air quality would be less than significant, except for regional air quality impacts previously identified in the 2003 Draft EIR.

6.1.2 Percolating Groundwater – On-Site Wells– Gregory Canyon Watershed

Section 4.15.3 and Appendix C of the RFEIR described the use of percolating groundwater pumped from identified groundwater monitoring wells located to the north of the landfill footprint within the Gregory Canyon watershed. The RFEIR included a discussion of the legal right to use this percolating groundwater. A sustainable yield analysis concluded that 42,300 gpd would be available without significant impact A safe yield analysis estimated that 38,880 gpd would be available without significant impact. The RFEIR included a project design feature (level controls) designed to verify no significant impact.[58] The RFEIR also indicated that no additional improvements to the landfill facilities would be required to utilize this percolating groundwater.[59] With implementation of the project design features included in the RFEIR (totalizer meter, level controls), this percolating groundwater can be pumped without adversely affecting downstream water sources.[60] In addition, as discussed in Appendix J, pumping from this watershed would not impact the Pala Basin alluvial aquifer, since the amount of water available for recharge to this aquifer is miniscule compared with the capacity of the Pala Basin alluvial aquifer. For all of these reasons, the use of this percolating groundwater would, as discussed in the RFEIR, have a less than significant impact on water resources, noise, and biological resources. As discussed in the RFEIR, impacts to air quality would continue to be less than significant, except for regional air quality impacts previously identified in the 2003 Draft EIR.

---

[57] *Appendix K, p. 3.*

[58] *RFEIR, p. 4.15-32. The pumping wells would also include the incorporation of totalizer meters. RFEIR, Response to Comment 007-5.*

[59] *RFEIR, p. 4.15-19*

[60] *RFEIR, p. 4.15-32.*

6.1.3 Percolating Groundwater – On-Site Wells– Other Portions of Landfill Property

The safe yield analysis for these watersheds in Appendix H was performed using the same assumptions and methodologies as were used for the safe yield analysis performed for the Gregory Canyon watershed pumping wells in the RFEIR, except that the extent of each watershed was adjusted to reflect its actual acreage. Consistent with the project design feature included in the RFEIR for groundwater pumping wells located in the Gregory Canyon watershed,[61] these wells would be installed with a totalizer meter and level controls to measure the amount of water pumped and to cycle the pump on and off at a rate that matches the well's production capability, as a project design feature. In addition, as discussed in Appendix J, pumping from these watersheds would not impact the Pala Basin alluvial aquifer, since the amount of water available for recharge is miniscule compared with the capacity of the Pala Basin alluvial aquifer.

Given the nature of a fractured bedrock system, it is possible that more than one well would need to be installed in one or more of the three watersheds to capture the entire safe yield, due to the position, size and mineralization of fractures. In addition, pipelines from the well locations in Area 1 and Area 3 to the landfill facilities area would need to be constructed. This construction would occur concurrently with construction of the landfill access road and bridge, and in the case of Area 1 the relocation of the SR 76 right of way. Construction of the Area 2 well, the pipeline, and the proposed 10,000 gallon storage tank would be concurrent with initial construction.

PCR Services prepared an analysis of potential air quality and noise impacts from construction of these wells, pipelines and the storage tank, which is included as Appendix L of this Addendum. With regard to air quality, the initial construction for the project evaluated in Section 4.7 of the 2003 Draft EIR included the construction of the access road, bridge, ancillary facilities, excavation of the landfill footprint and the installation of the waste containment system for Phase 1. Pieces of equipment assigned to the initial construction period were conservatively assumed to operate the entire work day and would also be available for the additional improvements. As an example, a backhoe or crane used in the construction of the landfill access road and bridge could also be used during the same time period to trench and place a pipeline and electric lines. As another example, a drilling rig used to install additional monitoring wells could also be used to install the groundwater wells. Delivery of equipment and materials for landfill construction including pipeline, water tanks, water well pumps and electric lines would be coordinated to limit truck trips to less than a total of 2,085 passenger car equivalent (PCE) trips per day, which is consistent with the PCE trips analyzed in the 2003 Draft EIR and RFEIR.

[61] *RFEIR, p. 4.15-32*

This same logic holds true in discussing the initial construction related to Borrow/Stockpile Area B. Equipment assigned during this time period would be sufficient to construct the access road; place the pipeline, electric line and storage tank; and conduct the initial excavation of Borrow/Stockpile Area B. Thus, the analysis of potential air pollutant emissions provided in the 2003 Draft EIR reflects a conservative estimate of construction equipment and is sufficient to account for the proposed improvements, including the installation of the improvements necessary for the proposed wells, and receipt, storage and use of recycled water. With regard to potential air quality impacts during operation, all well pumps would be electrical and would not be a source of additional combustion emissions. Therefore, the pumping of additional groundwater at the landfill site would not contribute to air quality impacts.

With regard to noise, the initial construction for the project evaluated in Section 4.6 of the 2003 Draft EIR included the construction of the access road, bridge, ancillary facilities, excavation of the landfill footprint and the installation of the waste containment system for Phase 1. Pieces of equipment assigned to the initial construction period were conservatively assumed to operate the entire work day and would also be available for the additional improvements. As an example, a backhoe or crane used in the construction of the landfill access road and bridge could also be used during the same time period to trench and place a pipeline and electric line, or install a well. This same logic holds true in discussing the initial construction related to Borrow/Stockpile Area B. Equipment assigned during this time period would be sufficient to construct the access road; place the pipeline, electric line and storage tank; and conduct the initial construction related to Borrow/Stockpile Area B.

The analysis provided in Section 4.6 of the 2003 Draft EIR was based on the methodology outlined by the Construction Engineering Research Laboratory (CERL), which is based on representative data from individual construction projects and accounts for the type of construction project (e.g., commercial, residential, public works, etc.), equipment used, individual equipment noise emissions, and time-usage factors for each phase of construction.[62] The construction noise analysis presented in the 2003 Draft EIR was based on CERL data for public works projects and, therefore, changes in specific activities would not change the construction noise level at a reference distance.[63] In addition, the analysis in the 2003 Draft EIR evaluated noise impacts based on the shortest distance between construction activities and sensitive receptors (e.g., residential uses and biological resources). With the exception of the Area 1 well and a portion of the associated pipeline from the Area 1 well, the additional improvements would be within the same footprint of the initial construction period activities

---

[62] *CERL reference data represents a composite of public works projects. There is no way to directly compare this project with any other specific public works project, and so the CERL methodology is the most appropriate analytical tool.*

[63] *Construction Engineering Research Laboratory, Report N-36, Construction-Site Noise: Specification and Control, Table 10, Page 25, January 1978.*

(distance to closest receptor would not change). As a result, the initial construction period reflects a conservative estimate of construction equipment and is sufficient to account for the proposed improvements, because potential construction noise levels provided in the 2003 Draft EIR and RFEIR would not change. The Area 1 well (north side of SR 76 directly north of the former Lucio Dairy) is located approximately 400 feet from the property boundary. The closest residence to the Area 1 well is located approximately 1,150 feet to the southeast, with intervening topography between the well site and the residence.[64] Based on the CERL construction noise level used in the 2003 Draft EIR, potential construction noise levels related to the Area 1 well could reach 42 dBA $L_{eq,}$ or 58 dBA L_{eq} at the property boundary.[65] These construction related noise levels would not exceed the County Noise Ordinance standard of 62.5 dBA L_{eq}. Actual noise levels would likely be less given that the equipment necessary to construct the Area 1 well would be minimal.

With regard to the pumping of additional groundwater at the landfill site, all proposed percolating groundwater well pumps would be electrical submersible. Given that the pumps would be within the well and underground, the pumps would not be a source of additional noise at the landfill site.

Appendix K includes an analysis of potential impacts to biological resources from the installation of these wells. All wells and pipelines would be located within currently disturbed areas or areas to be disturbed as part of landfill development, and there would be no habitat loss related to their installation not disclosed and mitigated in the 2003 Draft EIR or RFEIR. However, a portion of the pipeline from the Area 1 wells would be in areas proposed for habitat creation in the RFEIR. For this reason, this pipeline would be placed underground and installed concurrently with implementation of the habitat restoration program.

The mitigation measures to protect biological resources during construction of landfill facilities that were provided in the 2003 Draft EIR would be used to ensure that impacts would remain less than significant. The construction of the wells, electric lines and pipelines would not increase the amount or intensity of work on any construction day given the need to protect existing biological resources, but rather would extend the time required to complete the work. As a result, no noise impacts to biological resources would occur. Finally, the maintenance requirements for the existing wells and the portion of the pipelines within the habitat restoration

[64] *The location of sensitive receptors and distances to the receptors is taken from Google Earth, 2009.*

[65] *Predicted construction noise levels include a minimum 10 dBA reduction in noise levels when accounting for the intervening topography. Source: Caltrans, Technical Noise Supplement, 1998 (http://www.dot.ca.gov/hq/env/noise/pub/Technical%20Noise%20Supplement.pdf)*

are expected to be minimal, and would not significantly increase the amount of human presence required for monitoring and maintenance of the habitat creation area.[66]

Based on the previous environmental review, the proposed project design features, and the analyses prepared by PCR Services and Bill Magdych Associates, the pumping of up to 20,349 gpd from the fractured bedrock system underlying these three other watersheds would have a less than significant impact to water resources, noise, and biological resources. Impacts to air quality would be less than significant, except for regional air quality impacts previously identified in the 2003 Draft EIR.

6.1.4 Use of Chemical Soil Sealant

As indicated previously, a chemical soil sealant would be used for on-site dust control (PM_{10} and $PM_{2.5}$), thereby reducing water usage. With the use of a chemical soil sealant potential health risk and water quality impacts need to be considered. Product information (e.g., application, use examples, and material safety data sheets (MSDSs) for SOILTAC®, are provided in Appendix B of the Air Quality, Health Risk, and Noise Technical Memorandum prepared by PCR Services (see Appendix L of this Addendum).

As shown in the MSDS, SOILTAC® does not contain any components with acute, chronic, or carcinogenic exposure limits and is not considered hazardous according to the OSHA Hazardous Communication Standard (29 CFR 1910.1200), Toxic Substance Control Act, or EPA SARA Title III 312 and 313. As a result, storage, application, and use of SOILTAC® would not contribute to any potential air toxic impacts not disclosed in the 2003 Draft EIR and the RFEIR.

Soil sealants when applied also have the potential to contribute to water quality impacts. Environmental studies prepared by the soil sealant manufacturers have been reviewed to determine potential impacts to water quality resulting from runoff. In addition to reviewing the MSDS available for SOILTAC®, laboratory and toxicity tests using EPA methods that were performed by the manufacturer to determine if other pollutants may contribute to a water quality impact were also reviewed.

Laboratory test data for SOILTAC® indicates no detections of pesticides, PCBs, herbicides, or heavy metals, but indicates the presence of vinyl acetate and acetone. Toxicity tests were also performed for SOILTAC® that demonstrated no significant morality or effects on survival.[67] Although organic compounds were detected in SOILTAC®, real world studies

---

66 *Appendix K, p. 3.*

67 *http://www.soiltac.com/environmental-data.aspx*

indicate that soil sealants are likely to sorb to soils and sediments and therefore unlikely to be transported in water off-site.[68] Although the San Luis Rey River runs through the project site, project components are designed so that runoff would not discharge directly to the river. In addition, the areas in which the soil sealant would be applied are not located within close proximity to the river. The implementation of stormwater Best Management Practices (BMPs), such as desilting basins, bioswales, and percolation areas, as provided in the Storm Water Pollution Prevention Plan (SWPPP) (URS, 2008), would substantially minimize runoff or eroded soil from directly discharging to the river. Therefore, use of soil sealants would not result in significant impacts to surface water quality or beneficial uses of the San Luis Rey River, or to biological resources.

6.2 Transport of Recycled Water (Off-Site)

As indicated previously, Gregory Canyon has entered into a contract with the SGVWC to provide an alternative supply of up to 80,000 gpd of recycled water to be used for construction, operation and closure of the landfill. This section provides an analysis of the improvements necessary at the SGVWC facility as well as the transport of the recycled water from South El Monte to the Landfill Site. The analyses provides a worst case evaluation as it assumes the trucking of 80,000 gpd of recycled water.

6.2.1 Traffic

A Focused Traffic Study was prepared by LLG, Engineers and is provided in Appendix M of this 2009 Addendum. The Solid Waste Facility Permit (SWFP) issued for the project would limit the project to a total of 2,085 trips per day from all sources. When the project reaches a total of 2,085 trips in any day, project facilities would be shut down. Accordingly, on days when more trips are used to truck recycled water to the project site, less trips would be available for other types of vehicles including waste collection trucks.

Transport of the recycled water would be in single-tank, double-axle recycled water trucks with a capacity of between 6,500 gallons and 7,000 gallons. Gregory Canyon would contract with a private water hauler to supply the recycled water trucks. At the maximum delivery amount of 80,000 gpd, 24 round trips or 12 one-way truck trips would be required. The traffic study prepared for the 2003 Draft EIR and the RFEIR used a 1.5 passenger car equivalent (PCE) factor to account for the effects of trucks in traffic. Using the 1.5 PCE, the recycled water trucks would result in 36 PCE trips (24 one-way, daily truck trips X 1.5 PCE = 36 PCE trips).

---

[68] *Environmental Evaluation of Dust Stabilizer Products. US Army Corps of Engineers. August 2007.*

Recycled water trucks would enter the north driveway of the SGVWC loading site from Loma Avenue, load at the standpipe, and then exit the south driveway onto Loma Avenue. No turning movements inside the loading facility would be required. Loading and transportation of recycled water can be scheduled to avoid peak hour traffic on all road segments utilized.

Table 4, *Hourly Distribution Of Trips,* on page 39 shows the expected trip generation on an hourly basis. Based on the location of the water source site, the number of truck trips, , and departure times, it is projected that on weekdays, trucks would depart South El Monte between 5:30 A.M. and 10:00 A.M., and would depart the Gregory Canyon Landfill site between 7:00 A.M. and 2:00 P.M.

The following is the designated haul route commencing from the SGVWC facility located at 2701 Loma Avenue, in the City of South El Monte:

- eastbound Loma Avenue/Mabel Avenue to southbound Rosemead Boulevard
- southbound Rosemead Boulevard to eastbound State Route (SR) 60
- eastbound SR 60 to southbound I-15
- southbound I-15 to eastbound Pala Road (SR 76)

While return trip destinations would be at the discretion of the water-haul contractor, for the purposes of this analysis, trips were assumed to return north towards South El Monte.

The project's 24 ADT would not trigger the need for a full traffic study based on local and regional guidelines. However, the Focused Traffic Study provides near-term peak hour directional freeway analysis of SR 60 and I-15 for the A.M. peak hour (8:00 to 9:00 a.m.). In addition, the traffic analysis provides a detailed A.M. peak hour analysis at the SR 76/I-15 signalized intersections at the northbound and southbound ramps due to the change in the distribution of traffic (recycled water trips to/from the north, not south as previously analyzed in the RFEIR). A P.M. peak hour analysis (4:00-6:00 P.M.) was not necessary since the recycled water trucks traveling through the interchange is expected to cease before the P.M. peak hour (see Table 4).

Table 4

Hourly Distribution Of Trips

	Water Truck Trips (12 trucks total	Hourly Trips: 5-6 A.M. In	5-6 A.M. Out	6-7 A.M. In	6-7 A.M. Out	7-8 A.M. In	7-8 A.M. Out	8-9 A.M.[a] In	8-9 A.M.[a] Out	9-10 A.M. In	9-10 A.M. Out	10-11 A.M. In	10-11 A.M. Out	11-Noon In	11-Noon Out	Noon – 1 P.M. In	Noon – 1 P.M. Out	1-2 P.M. In	1-2 P.M. Out
Trip Type	A. Departing Trips from South El Monte[b]	–	1	–	3	–	3	–	3	–	2	–	–	–	–	–	–	–	–
Trip Type	B. Arriving Trips at Gregory Canyon Landfill[c]	–	–	–	–	1	–	3	–	3	–	3	–	2	–	–	–	–	–
Trip Type	C. Departing Trips from Gregory Canyon Landfill[d]	–	–	–	–	–	1	–	2	–	2	–	2	–	2	–	2	–	1
Total Truck Tips (B+C)[e]		**-**	**–**	**–**	**–**	**–**	***1***	***1***	***3***	***2***	***3***	***2***	***3***	***2***	***2***	***2***	**–**	***2***	**–**

[a] *The peak hour is the highest hour of traffic between 7-9 A.M.. For the purposes of the signalized intersection analyses at the SR-76/I-15 interchange, the peak hour of 8-9 A.M. was chosen since project volumes are highest.*

[b] *The first trip from El Monte is assumed to leave at approximately 5:30 so as to arrive at the landfill site no earlier than 7 A.M., when "daytime" hours begin. It is estimated that each departing truck will require approximately 20 minutes to fill, resulting in a departure rate of about 3 trips/hour from the South El Monte facility. These trips are not counted since they would be double counted again as "in" trips in line "B". As such, these volumes are informational, and presented in GREY tone. As shown, all twelve truck trips would therefore depart South El Monte by 10 A.M.*

[c] *The first trips will arrive at the landfill approximately 1.5 hours after departing South El Monte. Arrivals, like departure, are assumed to occur on 20 minute intervals.*

[d] *It is assumed that the water trucks will require approximately 30 minutes to unload, resulting in a departure rate of a about 2 trips/hour from the Gregory Canyon Landfill. As shown, all twelve trucks trips would therefore depart the Gregory Canyon Landfill by 2 P.M.*

[e] *The summary of arriving and departing hourly trips at the Gregory Canyon Landfill Site (Rows B + C).*

General Notes:

Total trips = 12 one-way trips and 24 roundtrips (12 truck trips x 2).

This table does not show the Passenger Car Equivalence (PCE) factor adjustment of 1.5 See Table 5–1: Trip Generation for volumes used in the analysis.

Source: PCR and LLG, 2009.

6.2.1.1 Peak Hour Intersection Turning Movement Volumes

LLG commissioned peak hour intersection turning movement traffic counts at the signalized SR-76/I-15 northbound and southbound ramp intersections in August 2009 during the A.M. peak hours (between 7:00-9:00 A.M.).[69]

6.2.1.2 Freeway Mainline Volumes

Freeway hourly volumes were obtained directly from the freeway performance measurement system "*PeMS*". Based on the proposed haul route and expected hours of operation, freeway hourly volumes were collected for both the off-peak (5:00-6:00 A.M.) and peak hour timeframes for eastbound, westbound, northbound, and southbound trucks on Los Angeles, Riverside County and San Diego County segments.

6.2.1.3 Existing Conditions

As indicated in the Focused Traffic Study, the SR 76 (Pala Road) interchange is calculated to currently operate at an acceptable LOS C (see Table 2-2 in the Traffic Study, Appendix K). In addition, the SR 76 (Pala Road) interchange is calculated to currently operate at Near capacity for the southbound ramps and Under capacity for the northbound ramps (see Table 2-3 in the Traffic Study, Appendix K). With regard to the freeway segments for recycled water deliveries, the freeway segments are calculated to currently operate at acceptable LOS C or better (see Table 2-4 in the Traffic Study, Appendix K).

6.2.1.4 Thresholds of Significance

6.2.1.4.1 Signalized Intersections

The following criterion was utilized to evaluate potential significant impacts, based on the County of San Diego's published *Guidelines for Determining Significance* (June 30, 2009).

> *Traffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic volume or level of service traffic impact on a signalized intersection:*

[69] *While local schools were not in session, LLG compared the August 2009 counts to historical spring/fall traffic data and concluded that the counts varied by approximately 1% (school vs. no school), which would be expected given the rural nature of the surrounding area and subsequent low residential density. However, to be conservative, LLG increased volumes on the critical movements at these two freeway-ramp intersections by 5% to account for potential school related traffic.*

- *The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a signalized intersection currently operating at LOS E or LOS F, or will cause a signalized intersection to operate at a LOS E or LOS F as identified in* Table 5*, Measures of Significant Project Impacts to Congestion on Intersections Allowable Increases on Congested Intersections***,** on page 42.

6.2.1.4.2 Freeway Facilities – Caltrans

Caltrans' published statewide guidelines indicate that small projects contributing 1 to 49 peak hour trips to LOS E/F-operating freeway sections may need to provide simple analysis of potential impacts. Project contribution to LOS D or better operating freeway segments is not measured against any criteria.

The recycled water trucks would generate a maximum of 3 directional peak hour trips (e.g., 7:00-8:00 A.M.) on any given freeway segment along the route. LLG prepared a peak-hour volume/capacity (V/C) analysis for the various freeway segments in the study area. Based on published criteria, the maximum project V/C contribution allowed during the peak-hour to an LOS F-operating segment is 0.01 in either direction.

6.2.1.5 Baseline Plus Project Conditions

With the addition of project traffic, the signalized SR 76/I-15 interchange would operate at LOS C with only a nominal increase in delay (see Table 6-1 of the Traffic Study, Appendix K). In addition, with the addition of project traffic to the SR 76/I-15 interchange, the interchange would continue to operate at "Near" capacity for the southbound ramps and "Under" capacity for the northbound ramps (see Table 6-2 of the Traffic Study, Appendix K). While Table 4 shows that a maximum of two northbound truck trips could occur during the AM peak hour (8:00 – 9:00 AM), the resultant change in V/C ratio would be too small to cause a significant impact.

With regard to freeway segments, within the three jurisdictions of Los Angeles, Riverside, and San Diego Counties, the key freeway segments would operate at acceptable LOS C or better during the A.M. peak hours (see Table 6-3 of the Traffic Study, Appendix K). Recycled water delivery trips would generally add traffic volumes in the counterflow (westbound and southbound directions) of the SR 60 and I-15 freeways, respectively, although two trucks trips are assumed to return to the north on the freeway system during the AM peak hour. Therefore, no significant traffic impacts would occur from the truck trips associated with the transport of recycled water to and from South El Monte to the landfill site.

Table 5

Measures of Significant Project Impacts to Congestion on Intersections Allowable Increases on Congested Intersections

Level of service	Signalized	Unsignalized
LOS E	Delay of 2 seconds	20 peak hour trips on a critical movement
LOS F	Delay of 1 second, or 5 peak hour trips on a critical movement	5 peak hour trips on a critical movement

[a] *A critical movement is one that is experiencing excessive queues.*
[b] *By adding proposed project trips to all other trips from a list of projects, these same tables are used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes any trips must mitigate a share of the cumulative impacts.*
[c] *The County may also determine impacts have occurred on roads even when a project's traffic or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.*

Source: Linscott, Law & Greenspan, 2009

6.2.1.6 Baseline Plus Project Plus Cumulative Growth Conditions

Based on historical growth trends in San Diego County, a two percent (2%) per year increase over existing counts was used for a near-term cumulative analysis.

As indicated in the Focused Traffic Study, with the addition of cumulative growth, the SR 76/I-15 interchange would operate at acceptable LOS C. In addition, with the addition of cumulative growth to the SR 76/I-15 interchange, the southbound ramps continue to operate at "Near" capacity while the northbound ramps continue to operate at "Under" capacity. Finally, with the addition of cumulative growth, all freeway segments would operate at acceptable LOS C or better for the A.M. peak hour. (See Tables 6-1, 6-2, and 6-3 in the Traffic Study, Appendix K.) Therefore, the project would not contribute to significant cumulative traffic impacts.

6.2.2 Air Quality

PCR Services prepared an analysis of potential air quality and noise impacts from the transportation of recycled water, including the construction of the necessary improvements at the SGVWC facility. The technical memorandum is included as Appendix L of this Addendum.

6.2.2.1 Construction

6.2.2.1.1 SGVWC Facility (Off-Site)

The SGVWC recycled water site is located within the 6,745 square mile South Coast Air Basin. California is divided geographically into air basins for the purpose of managing the air resources of the State on a regional basis. The air basins are subject to separate air quality plans and emission budgets/thresholds. An air basin generally has similar meteorological and geographic conditions throughout. The State is currently divided into 15 air basins. The recycled water site is within the South Coast Air Basin and the landfill site is located within the San Diego County Air Basin.

The South Coast Air Quality Management District (SCAQMD) is required, pursuant to the Clean Air Act, to reduce emissions of criteria pollutants for which the South Coast Air Basin is in non-attainment (i.e., ozone, PM_{10}, and $PM_{2.5}$). State and federal air quality standards are often exceeded in many parts of the basin. The monitoring stations nearest to the recycled water site exceed the most stringent ambient air quality standard for ozone and particulate matter. Construction activities associated with the improvements at the recycled water site would contribute to local and regional air pollutant emissions within the South Coast Air Basin.

Based on criteria set forth in the SCAQMD's CEQA Air Quality Handbook,[70] the project would have a significant impact with regard to construction emissions if the following would occur:

- Regional emissions from both direct and indirect sources would exceed any of the following SCAQMD prescribed threshold levels: (1) 100 pounds per day for nitrogen oxides (NO_X), (2) 75 pounds a day for volatile organic compounds (VOCs), (3) 150 pounds per day for particulate matter less than 10 microns (PM_{10}) or sulfur oxides (SO_X), (4) 55 pounds per day of particulate matter less than 2.5 microns ($PM_{2.5}$) and (5) 550 pounds per day for carbon monoxide (CO).
- Maximum daily localized emissions are greater than the Localized Significance Thresholds (LST), resulting in predicted ambient concentrations in the vicinity of the project site greater than the most stringent ambient air quality standards for CO and NO_2.[71]

---

[70] *http://www.aqmd.gov/ceqa/handbook/signthres.pdf.*

[71] *South Coast Air Quality Management, LST Methodology: http://www.aqmd.gov/ceqa/handbook/lst/Method_final.pdf.*

- Maximum localized PM_{10} or $PM_{2.5}$ emissions during construction are greater than the applicable LSTs, resulting in predicted ambient concentrations in the vicinity of the site to exceed 10.4 µg/m3.

Construction of the recycled water loading area has the potential to create regional air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated by construction workers traveling to and from the recycled water site. In addition, fugitive dust emissions would result from trenching activities. Mobile source emissions, primarily particulate matter (PM) and NO_X, would result from the use of construction equipment such as trenchers, skid steer loaders, and delivery trucks. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions.

Regional construction-related emissions associated with heavy construction equipment and fugitive dust were calculated using the URBEMIS2007 emissions inventory model originally developed by the California Air Resources Board (CARB). Model results are provided in Appendix L (Appendix A of the Technical Memorandum). As indicated in the Technical Memorandum, maximum regional construction emissions would not exceed the thresholds for VOC, NO_X, CO, SO_X, PM_{10}, or $PM_{2.5}$. (See Table 1 in the Technical Memorandum, Appendix L.)

The localized effects of daily construction emissions generated at the recycled water site were evaluated for sensitive receptor locations potentially impacted by the project according to the SCAQMD's LST methodology, which utilizes on-site mass emissions rate look-up tables and project specific modeling, where appropriate. LSTs are only applicable to the following criteria pollutants: NO_X, CO, PM_{10}, and $PM_{2.5}$. The LST mass rate look-up tables only apply to projects that have active construction areas that are less than or equal to five acres in size.

The nearest sensitive receptors are multi-family uses located approximately 100 meters (330 feet) to the northeast of the water facility along Mabel Avenue. As indicated in the Technical Memorandum, construction-related daily maximum localized emissions would not exceed the SCAQMD daily significance thresholds for NO_X, CO, PM_{10}, and $PM_{2.5}$. (See Table 1 in the Technical Memorandum, Appendix L.) Therefore, localized construction emissions resulting from construction activities at the recycled water site would not result in a significant short-term impact.

Therefore, the pollutant emissions associated with proposed construction activities at the recycled water site would be less than significant in comparison to SCAQMD significance thresholds (i.e., separate Air Basin).

6.2.2.2 Operation

6.2.2.2.1 Landfill Site

The use and delivery of recycled water was addressed in the RFEIR and the total project trips from all sources including recycled water would be limited to 2,085 trips per day PCE. As the air quality analysis presented in the 2003 Draft EIR and the RFEIR analyzed potential air quality impacts based on a 2,085 trips per day PCE, no changes in operational emissions are anticipated related to recycled water as part of this Addendum.

6.2.2.2.2 Off-Site

Analysis of the haul trucks trips was conducted to analyze the regional impacts that could occur within the South Coast Air Basin.

Regional Impacts

The SCAQMD has established significance thresholds to evaluate potential impacts associated with the incremental increase in criteria air pollutants associated with long-term operations of projects within the Basin. Project operations could result in mobile source emissions from 24 round trips with a trip distance of 80.9 miles within the South Coast Air Basin.[72] Operational emissions were computed using the URBEMIS2007 emissions inventory model. As indicated in the Technical Memorandum, maximum regional operation emissions would not exceed the thresholds for VOC, NO_X, CO, SO_X, PM_{10}, or $PM_{2.5}$. Therefore, no new impacts associated with regional operational emissions would occur as a result of recycled water truck trips.

Localized Impacts

Given the shift in traffic distribution with the recycled water trucks coming from the north along I-15 instead of from the south, localized CO impacts were analyzed. As indicated in the Technical Report (Appendix L), the future one-hour and eight-hour CO levels for both scenarios are projected to comply with the one-hour and eight-hour CO California and federal standards at all analyzed locations. Therefore, similar to the findings of the 2003 Draft EIR and the RFEIR, the proposed project would not create a significant localized air quality impact as a result of project-generated traffic.

---

[72] *Google Earth, 2009 (Trip distance from 2676 Loma Avenue, South El Monte to the San Diego County Line along Interstate 15).*

Consideration was also given to potential localized CO impacts within the South Coast Air Basin related to the recycled water truck trips. The SCAQMD recommends a hot-spot evaluation of potential localized CO impacts when vehicle to capacity (V/C) ratios are increased by two percent or more at intersections with a level of service (LOS) of D or worse during peak hours. Recycled water trips would add no more than 2 truck trips at any intersection within the South Coast Air Basin during a peak hour or increase the V/C ratio by two percent or more at any intersections with a LOS of D or worse during peak hours (LLG (2009)). As a result, no additional analysis of this issue is necessary. Thus, the recycled water truck trips would not cause any new or exacerbate any existing CO hotspots, and, as a result, no significant impacts related to localized mobile-source CO emissions would occur within the South Coast Air Basin.

6.2.2.3 Health Risk Impacts

When considering potential air quality impacts under CEQA, consideration is given to the location of sensitive receptors within close proximity of land uses that emit toxic air contaminants (TACs). Residential uses are located approximately 100 meters (330 feet) from the recycled water facility. Given the distance from the recycled water facility to the sensitive receptors and that the project would only result in 12 round trips (24 one-way trips), the project would be consistent with the SCAQMD guidelines and would not require a detailed health risk assessment.

6.2.2.4 Cumulative Impacts

With respect to the project's construction-period air quality emissions and cumulative Basin-wide conditions, the San Diego Air Pollution Control District (SDAPCD) has developed strategies to reduce criteria pollutant emissions outlined in the Air Quality Attainment Plan (AQAP) pursuant to Federal Clean Air Act mandates. As such, the project would comply with SDAPCD rules and regulations, and implement feasible mitigation measures. Per SDAPCD rules and mandates as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., compliance with rules and regulations, the implementation of all feasible mitigation measures, and compliance with adopted AQAP emissions control measures) would also be imposed on projects Basin-wide. Nevertheless, PM_{10} and NO_X emissions associated with the project are already projected to result in a significant impact to air quality. As such, consistent with the 2003 Draft EIR cumulative impacts to air quality would also be significant and unavoidable, but no new or increased impacts not disclosed in the 2003 Draft EIR or the RFEIR would occur.

Within the South Coast Air Basin, the SCAQMD recommends that project specific air quality impacts be used to determine the potential cumulative impacts to regional air quality[73]. As discussed above, peak daily emissions of construction and operation-related pollutants within the South Coast Air Basin would not exceed SCAQMD regional significance thresholds. By applying SCAQMD's cumulative air quality impact methodology, implementation of the revised project would not result in cumulative air quality impacts within the South Coast Air Basin.

6.2.3 Noise

6.2.3.1 Construction

6.2.3.1.1 SGVWC Facility (Off-Site)

The City of South El Monte does not have an established significance threshold for construction noise. Therefore, compliance with the City's Code (Section 8.20.030(D)), which requires that "no person shall operate or cause or authorize the operation of any tool or equipment used in construction, drilling, repair, alteration or demolition work between the hours of 10 P.M and 7 A.M, or at any time on weekends or holidays, such that the sound therefrom creates a noise disturbance across the real property line of an adjacent or nearby property developed entirely or partially for residential use" shall be considered to result in a less than significant impact.[74]

Noise from the construction activities would be generated by various equipment (e.g., air compressor, backhoe, and truck) during construction operations. Noise levels generated by construction equipment would range from 74 to 81 dBA at a distance of 50 feet from the construction equipment.[75] The nearest residential properties are located approximately 330 feet from the proposed construction activities. Therefore, it is estimated that the maximum aggregated construction related noise levels at the nearest residential receptors (multi-family residences located northeast of the facility along Mabel Avenue) would be up to 65 dBA. Project construction would result in a short-term temporary increase in ambient noise levels at the nearby residential uses. However, construction noise impacts would be less than significant because of the limited nature of this construction work and all construction activity would comply with City's construction hour limits.

---

[73] *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution. South Coast Air Quality Management District, August 2003.*

[74] *Matt Sanchez, Planner, City of South El Monte, personal communication, September 9, 2009.*

[75] *FHWA Roadway Construction Noise Model User's Guide, 2006*

6.2.3.2 Operation

6.2.3.2.1 Landfill Site

As the project would be limited to a total of 2,085 PCE trips per day, which was analyzed in the 2003 Draft EIR and the RFEIR, no additional project-related traffic noise impacts along SR 76 not disclosed in the 2003 Draft EIR or the RFEIR would occur.

6.2.3.2.2 Off Site (Recycled Water Haul Route Traffic Noise)

As the haul route includes surface streets and freeway segments, the traffic noise analysis reflects the applicable methodology and significance thresholds for each roadway segment.

6.2.3.2.3 Surface Streets

Recycled water trucks traveling along Loma Avenue/Mabel Avenue and Rosemead Boulevard would travel within the City of South El Monte. As the City of South El Monte does not have an established significance threshold for traffic noise, for the purpose of CEQA evaluation the City recommends the use of the City of Los Angeles CEQA Threshold (2006).[76] The following factors are set forth for determining on a case-by-case basis whether a proposed project would have a potential impact:

- The proposed project would cause ambient noise levels to increase by 5 dBA CNEL or more and the resulting noise falls on a land use within an area categorized as either “clearly compatible” or “normally compatible”;
- The proposed project would cause ambient noise levels to increase by 3 dBA CNEL or more and the resulting noise falls on a land use within an area categorized as either “requires analysis and mitigation or normally incompatible” or “clearly incompatible”;

Although land along the haul route within the city of South El Monte is generally designated in the City’s General Plan as Commercial-Manufacturing and Industrial, there are several residences located along Mabel Avenue and Rosemead Avenue. Therefore, the noise analysis assumed a normally acceptable noise level of 65 dBA CNEL.

Estimates of roadway noise levels in terms of CNEL were computed for the surface streets that would be used for the recycled water haul route. The area along Rosemead Boulevard has an estimated existing noise level without the project in excess of 65 CNEL. The

[76] *Matt Sanchez, Planner, City of South El Monte, personal communication, September 9, 2009.*

area along Mabel Avenue has an estimated existing noise level without the project of 57 CNEL. Based on the existing noise levels along these roadway segments, the applicable traffic-related incremental noise increase significance threshold for Rosemead Boulevard and Mabel Avenue are 3 dBA and 5 dBA, respectively.

Project-generated traffic (24 round trips) would result in estimated CNEL noise level increase over existing noise levels of 1.5 dBA along Loma Avenue/Mabel Avenue and 0.0 dBA along Rosemead Boulevard. As these noise level increases are well below the City of South El Monte incremental increase significance threshold, recycled water truck activity along surface streets would result in a less than significant noise impact. (See Table 5 in the Technical Memorandum, Appendix L.)

6.2.3.2.4 Freeway Segments

Potential noise impacts along the freeway segments were analyzed based on guidance from the Federal Transit Administration (FTA) (Transit Noise and Vibration Impact Assessment, May 2006). The FTA's noise significance thresholds account for the existing traffic noise level as well as the project's contribution to the overall noise level. Project-generated traffic (24 one-way trips) would result in a maximum estimated CNEL noise level of 50.1 dBA, which is well below the FTA's allowable project noise exposure of 66 dBA for an existing noise exposure of 80 dBA. Project-generated traffic would not change the overall CNEL noise level along any of the analyzed freeway segments. Therefore, the recycled water trucks would result in a less than significant noise impact along the freeway haul route.

6.2.3.3 Cumulative Impacts

Noise from construction of the recycled water loading facility and the landfill would be localized, thereby potentially affecting areas immediately surrounding or between each particular project site. Each site would comply with conditions set forth in the Municipal Code or County Code, to the extent feasible. Furthermore, each of the related projects would be subject to noise-limiting mitigation measures similar to those prescribed for the proposed project. Consistent with the 2003 Draft EIR and the RFEIR, cumulative construction and on-site operational noise impacts to adjacent sensitive receptors would be less than significant. However, as discussed in the 2003 Draft EIR and the RFEIR cumulative traffic noise levels would remain significant and unavoidable for roadway segments analyzed in the 2003 Draft EIR and the RFEIR. An analysis for roadway segments near the SGVWC site and freeway segments was performed to determine potential cumulative noise impacts. Project level thresholds were used in the cumulative analysis in order to provide a more conservative comparison. No roadway segments analyzed as part of this Addendum for the recycled water haul route would result in a cumulative traffic noise impact. (See Table 6 in the Technical Memorandum, Appendix L.)

7.0 PROJECT MITIGATION MEASURES AND DESIGN FEATURES

7.1 Riparian Underflow

Based on the discussion in Section 6.1 above, the use of riparian underflow water would result in a less than significant impact on water resources. However, as noted in Section 5.1.1, the use of riparian underflow is limited to certain portions of the landfill property. Most of those areas are permanent and easily identifiable, such as roads, the landfill facilities area, or Borrow/Stockpile Area A. The boundary of the riparian areas within the landfill footprint is less easily identified. In order to assure that riparian underflow is only used where allowable, the following project design features shall be implemented:

- The extent of the riparian areas on the landfill footprint shall be marked using monuments or other markings placed by the operator, following a survey performed by a licensed surveyor.
- Water storage tanks and water trucks shall be installed with a bracket to hold removable signs. A sign shall be placed on each storage tank or water truck noting whether its contents include riparian underflow, percolating groundwater or recycled water.
- Riparian underflow will not be commingled with percolating groundwater in any water storage tank.
- Riparian underflow shall not be commingled with percolating groundwater or recycled water in any water truck where discharged outside of the riparian areas. When riparian underflow and recycled water are commingled in a water truck, the signage shall indicate that both types of water are present. Use of that product shall then be limited to riparian portions of the landfill property.

The following additional project design feature shall be implemented:

- Installation of pipelines and electric lines from the existing riparian wells shall be underground and completed prior to or concurrent with construction of the landfill access road and implementation of the habitat resource management plan.
- Temporary disturbance to native vegetation resulting from maintenance activities on the portion of the water pipelines and electric lines within the habitat restoration area shall be promptly repaired through re-planting or re-vegetation, as needed.

7.2 Recycled Water

The following project design features shall be implemented:

- Project water resources shall be prioritized so that, when available, on-site riparian underflow or percolating groundwater shall be used first, before recycled water is used, for any areas not within the landfill footprint..
- Recycled water truck trips from the recycled water facility to the Landfill Site shall be scheduled to correspond to the hourly distribution of trips set forth in Table 4 of the 2009 Addendum.
- Any recycled water transport truck remaining on the Landfill Site at 2:00 P.M. shall not depart the site prior to 9:00 A.M. on the following operational day.

7.3 Percolating Groundwater – All On-Site Wells

The following project design features shall be implemented:

- Each pumping well shall be installed with a totalizer meter, as well as a level control to cycle the pump on and off at a rate that matches the well's production capability. The settings for the level control shall be determined through pump testing and a sustainable yield calculation using RockWorks Drawdown Calculator software (or an equivalent method approved by the LEA).
- In order to provide ongoing verification, each pumping well shall undergo a new pumping test on a biennial basis (every other year), and the sustainable yield re-calculated using RockWorks Drawdown Calculator software (or an equivalent method approved by the LEA). If needed, the level controls shall be re-set based on the results of the calculation of long term sustainable yield.
- In order to provide ongoing verification, an updated safe yield analysis will be undertaken on a biennial basis within each watershed, with the results compared with actual pumping rates obtained from the totalizer meters. Based on this comparison, coupled with the biennial sustainable yield analysis, a recommendation regarding additional modifications to pumping rates will be submitted to LEA for review and concurrence.
- Alluvial groundwater capture shall be evaluated on a biennial basis to ensure that groundwater extracted from bedrock wells do not draw groundwater from the alluvial aquifer. Alluvial well MW-3 and proposed alluvial well GMW-2A shall be used as

observation wells during the initial and biennial pumping tests performed for bedrock wells GLA-3, GLA-12, GLA-13, GLA-B, GLA-C, GLA-G, and GMW-1. If drawdown is measured in the adjacent alluvial observation wells during the pumping test, the pumping rate shall be adjusted so that no measurable drawdown is indicated in these alluvial observation wells.

7.4 Percolating Groundwater – Other Portions of Landfill Property – On-Site Wells

The following project design features shall be implemented:

- Installation of the pipeline and electric line from the Area 1 wells within the habitat restoration area shall be underground and completed prior to or concurrent with construction of the SR 76 realignment, construction of the landfill access road, and implementation of the habitat resource management plan.

- Any temporary disturbance to native vegetation resulting from maintenance activities on the portion of the Area 1 pipeline within the habitat restoration area shall be promptly repaired through re-planting or re-vegetation, as needed.

- An alluvial observation well shall be installed in the vicinity of the Area 1 and Area 3 pumping wells. Alluvial groundwater capture shall be evaluated as part of the initial and biennial pump tests for the Area 1 and Area 3 bedrock pumping wells. If drawdown is measured in the adjacent alluvial observation well during the pumping test, the pumping rate shall be adjusted so that no measurable drawdown is indicated in the alluvial observation well.

8.0 CONCLUSION

This Addendum presents revisions to the water demand for the project as well as the ability to use on-site water during the construction, operation, and closure of the proposed landfill. The Addendum analyzes impacts regarding the use of the on-site water as well as potential impacts from the transport of recycled water from the SGVWC facility in South El Monte to the landfill site. This Addendum concludes that the use of on-site water would not result in significant hydrogeological impacts. In addition, the Addendum concludes that the construction and operation of the additional wells would not result in significant air quality impacts, health risk impacts, noise impacts, or significant impacts to water resources or biological resources. Furthermore, the use of soil sealant would not result in significant impacts to water quality or biological resources. Finally, the transport of recycled water from South El Monte to the landfill site would not result in any new or substantially different traffic, air quality, health risk, or noise impacts not disclosed in the 2003 Draft EIR or RFEIR.

Based on the information presented in this Addendum, no significant environmental impacts that were not identified in the 2003 Draft EIR or the RFEIR would result, and no previously identified significant impacts would be substantially more severe in light of this analysis. It has been determined herein that none of the conditions requiring preparation of a Subsequent or Supplemental EIR have occurred. Thus, pursuant to CEQA, this Addendum is the appropriate document to address the potential impacts regarding the use of on-site water and the potential transport of recycled water from South El Monte to the Landfill Site.

Based on the information contained in this 2009 Addendum, it is concluded that with the combination of riparian underflow, percolating groundwater, trucked recycled water and on-site storage, the landfill has demonstrated a likelihood of adequate water supplies being available for construction and operation.

9.0 REFERENCES

Allen Matkins, Memo Re: Riparian Status of Land Owned by Gregory Canyon, Ltd., December 11, 2009.

Air Quality Management District, CEQA Handbook, Available online at: http://www.aqmd.gov/ceqa/handbook/signthres.pdf.

Bill Magdych Associates, Letter Report regarding construction of three new groundwater wells and use of three existing wells for the Gregory Canyon Landfill Project, December 9, 2009.

Caltrans, Technical Noise Supplement, 1998 (http://www.dot.ca.gov/hq/env/noise/pub/Technical%20Noise%20Supplement.pdf)

Construction Engineering Research Laboratory, Report N-36, Construction-Site Noise: Specification and Control, January 1978.

FHWA Roadway Construction Noise Model User's Guide, 2006

GeoLogic Associates (GLA), Memo to E. William Hutton, P.C., Definition of Alluvial Limits and Riparian Parcels, Gregory Canyon Landfill Project, San Diego County, California, June 15, 2009

Geo-Logic Associates, Memorandum to William Hutton, Esq., Evaluation of Additional Percolating Groundwater Resources on the Gregory Canyon Property, San Diego, California, November 7, 2009.

Geo-Logic Associates, Memorandum to William Hutton, Esq., Evaluation of Cur-rent Utilization of Groundwater Resources in the Pala Groundwater Basin, San Diego County, California, October 9, 2009

Google, Google Earth, 2009

Kleinfelder, Water Usage Assessment for the Gregory Canyon Landfill, October 16, 2009; Revised December 7, 2009.

Linscott Law and Greenspan (LLG), Focused Traffic Impact Analysis- Gregory Canyon Landfill Haul Route, December 9, 2009.

Pacific Clay Products, Inc., Letter to Mr. Bill Hutton Re: Pricing of Clay and Gravel for Landfill Liner Use, Gregory Canyon Landfill, San Diego County, California, July 16, 2009.

PCR Services Corporation, Draft EIR for the Gregory Canyon Landfill Project, 2003.

PCR Services Corporation, Gregory Canyon Landfill Project Addendum, 2008.

PCR Services Corporation, Gregory Canyon Landfill Revised Final Environmental Impact Report, March 2007

PCR Services Corporation, Hagmann, Mark, P.E., Air Quality, Health Risk, and Noise Technical Memorandum (Addendum to the Certified Final Environmental Impact Report for Gregory Canyon Landfill), December 2009.

Sanchez, Matt, Planner, City of South El Monte, personal communication, September 9, 2009.

Soiltac, Environmental Data, Available online at: http://www.soiltac.com/environmental-data.aspx.

Soilworks, LLC; Kleinfelder, Water Usage Assessment for the Gregory Canyon Landfill.

South Coast Air Quality Management District, White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution, August 2003.

South Coast Air Quality Management, LST Methodology: http://www.aqmd.gov/ceqa/handbook/lst/ Method_final.pdf.

State Water Resources Control Board, Decision 1645

Stirrat, Bryan A. Joint Technical Document, 2009.

US Army Corps of Engineers, Environmental Evaluation of Dust Stabilizer Products, August 2007.

USGVMWD, Preliminary Design Report for the Recycled Water Project Rosemead Extension