October 19, 2018

County of San Diego
Planning & Development Services
Project Processing Counter
5510 Overland Avenue, Suite 110
San Diego, CA 92123


On behalf of the Lakeside Water District Board of Directors, I would like to share with you our comments pertaining to the “Draft Subsequent Environmental Impact Report” (DSEIR) for the El Monte Sand Mining Project (Project). Along with this comment letter, I have included a “Memorandum” by Bondy Groundwater Consulting, Inc. who has been retained by Lakeside Water District to provide technical analysis of the DSEIR and provide professional analysis to the Lakeside Water District Board.

The Bondy Groundwater Consulting, Inc. “Memorandum” as submitted is intended to be responded to as comments of the Lakeside Water District.

Our recommendation to the Department of Planning & Development Services is to deny approval of the Project until our comments have been addressed and satisfied. Following are specific comments relating to “Water Supply”.

1. Water Supply – Numerous sections describe Lakeside Water District as the provider of water for the project. These are incorrect statements. As noted in Section 3.9.1 “Existing Conditions” – Water Supply, as the section describes “While the project site is located within the jurisdiction of the Helix Water District, the project site would be served by the LWD through an existing water pipeline and meter”. Although it may be physically possible to serve water to the project, Lakeside Water District does not have the legal right to do so.

2. Water Supply – All service requests shall be through the Helix Water District (HWD). HWD is the only water purveyor legally able to provide water to the project acreage as it stands. Any request for alternate service providers shall be initiated by HWD and may include any approved water supplier with the appropriate means to provide water to the project.
El Monte Sand Mining Project Comments, pg.2

3. Water Supply – As stated in 3.9.2.3, "based on the project-specific Water Supply Availability form PDS-399W (Project Facility Availability – Water), overall supplies would meet the projected demand (San Diego County 2017)." This statement doesn’t convey that in “Section 2. Facility Availability” of the form, the boxes checked by LWD are:

A. “Project is not in the district and is not within its Sphere of Influence boundary”

B. “Facilities to serve the project “are” reasonably expected to be available within the next 5 years based on the capital facility plans of the district.” **This means that the District could logistically serve some portion of the project.

C. “District will submit conditions at a later date” **Lakeside Water District has not been approached to serve the project and has not issued conditions for the project.

D. “How far will the pipeline(s) have to be extended to serve the project? **Lakeside Water District facilities are less than 1,000 ft. from the project.

Form PDS-399W notes – "This document is not a commitment of service or facilities by the District"

As stated our comments involve two paths. One is our technical analysis and the second is the water supply statements. Our primary technical concern is the incomplete and inaccurate analysis of pre and post reclamation impacts to the water budget of the San Diego River Valley Groundwater Basin, and associated conclusions of no impacts to the groundwater basin. We are also concerned that the DSEIR does not analyze potential impacts to water quality. We believe the water budget analyses should be revised based on the Bondy Memorandum and an analysis of potential water quality impacts should be added. Specifically, the following issues should be addressed.

1. Section 2.2- Air Quality: Further explanation needed on “Chemical Stabilizers”, 2.2-15 CD – AQ-1 Bullet 7. What is the composition of the stabilizer, what is the toxicity level and how is it applied?

2. Appendix Q – Valley Fever Technical Report, further explanation needed on “Chemical Stabilizer”, VF-5 pg. 12, – What is the composition of the stabilizer and what is the toxicity level and how is it applied.

Additionally, associated impacts should be reassessed based on the updated water budget analysis and new technical analysis for water quality. Mitigation measures should be included if the updated analyses predict a net loss of water to the groundwater system compared to a baseline (no project) water budget and/or water quality impacts are anticipated to occur as a result of the project. We also believe that a monitoring program should be included, as outlined in the Bondy Memorandum. Please respond to the Bondy Memorandum with these basic concerns in mind. We are requesting engineered solutions with 100% verified compliance on an annual basis for each identified concern.
Our water supply concern involves how the project intends to use water for processing and dust control. Beyond the legal issues previously outlined, the District’s preferred water supply for the project would be the use of raw, untreated water over treated potable water. Lakeside Water District strives to use common sense approaches to solve problems and believes that the highest and best use of treated water district system water is not to use it as sand mining process water. All potential water sources are requested to be analyzed and summarized in the DSEIR. Lakeside Water District requests timely presentations concerning supply proposals.

Thank you for the opportunity to provide these comments. Please feel free to contact me at BrettS@Lakesidewater.org or at 619-443-3805 for any additional questions or clarifications to these comments.

Sincerely,

Brett Sanders
General Manager
Lakeside Water District
MEMORANDUM

To: Brett Sanders, General Manager / Lakeside Water District

From: Bryan Bondy, P.G., CHG / Bondy Groundwater Consulting, Inc.

CC: Project File

Date: October 19, 2018

Re: Evaluation of El Monte Sand Mining Project Draft Environmental Impact Report

Introduction
Lakeside Water District (LWD) retained Bondy Groundwater Consulting, Inc. (BGC) to evaluate the El Monte Sand Mining Project Draft Subsequent Environmental Impact Report (DSEIR). Specifically, BGC's scope of review is limited to impacts on groundwater resources of the San Diego River Valley Groundwater Basin (Department of Water Resources Basin 9-015). This memorandum presents the results of BGC's evaluation.

Project Description Summary
BGC understands the following key project features relevant to the review of groundwater impacts:

- The Project would be located in the eastern portion of the San Diego River Valley Groundwater Basin commonly referred to as the El Monte Subbasin or Basin.

- The Project would mine sand and gravel from within a 479.5 acre project area and leave behind a reclaimed pit that is 228-acres in area with depths ranging from 33-41 feet below current grade (Appendix R, p. 1).

- The Project would utilize wash fines to refill a "large" depression created by an abandoned golf course within the project area (Project Description, p. 1-7).

- The Project would utilize wash fines mixed with topsoil as a final cover (Project Description, p. 1-16).
The Project would divert surface water runoff generated in uphill areas located north and south of the Project via perimeter site berms (during mining and following reclamation). The diverted surface water would be routed to the San Diego River at a location downstream of the Project (Section 1, p. 11; Section 3.4, pp. 20-21). Surface water flow in the San Diego River coming from the east would enter the project area via a grouted boulder drop structure at the eastern end of the mine and would be routed to pits via a 25-foot-wide, 5-foot-deep low flow earthen channel within the bottom of the pit.

Comments on DSEIR Technical Analysis
The technical analysis of groundwater impacts is found in Appendix R of the DSEIR. My comments are divided into two categories: Pre-Reclamation (during mining) and Post-Reclamation (post-mining).

Analysis of Pre-Reclamation (During Mining) Impacts
Appendix R concludes that groundwater “impacts during mining will be less than significant” because vegetation clearing will reduce cause phreatophyte evapotranspiration (ET) to “be significantly less at that time than existing conditions.” This conclusion is not supported by any quantitative analysis. First, no estimates of decreased evapotranspiration are provided (i.e. comparison of baseline (no project) evapotranspiration and evapotranspiration during mining). Second, the analysis does not consider loss of percolation that would occur as a result of the project diverting runoff using perimeter site berms to a location downstream of the project site. Third, the analysis does not consider percolation of San Diego River streamflow entering from upstream of the project area (i.e. the analysis should consider the net difference between baseline (no project) percolation and percolation that will occur during mining). Understanding of the net effect of decreased evapotranspiration, lost percolation (due to perimeter berms), and change in San Diego River percolation must be analyzed and presented to conclude whether or not there is an impact on groundwater storage during the mining activities.

Analysis of Post-Reclamation Impacts
Appendix R concludes that post-reclamation conditions will result in a net benefit to the basin because:
“induced run-on is greater than the anticipated evapotranspiration loss. The net effect of the induced run-on to the reclaimed pit would be a benefit to the groundwater system by allowing capture of water that would otherwise leave the basin.”

The conclusion appears to be supported by analyses that suggest the following:

1. El Capitan dam spill would temporarily store 2,000 acre-feet of water that “while being subjected to evaporative losses...could be an environmental benefit”;

2. Approximately 368 afy of rainfall run-on into the reclaimed mining pit; and

3. Phreatophyte evapotranspiration ranging “from about 325 to 366 afy assuming there are no more reservoir spills/overtopping in the next 15 years [emphasis added].

In my opinion, the analysis of the post-reclamation water budget is incomplete and has several flaws.

1. First and foremost, the analysis relies on the assumption of a future El Capitan dam spill. There are several serious problems with this assumption and how the benefits were estimated.

   a. The DSEIR should not assume spills will occur because the DSEIR itself repeatedly states that future spills are “highly unlikely.” Furthermore, the Division of Dam Safety (DODS) is requiring that the reservoir be operated to prevent overtopping, thereby, making spills even more unlikely than assumed in the DSEIR.¹

   b. The analysis cannot claim benefits for purported increases in groundwater storage resulting from reservoir spills while simultaneously assuming spills will not occur in the analysis of evapotranspiration.

   c. Even if a spill occurred (which, again, I do not believe is a supportable assumption), the DSEIR stops short of quantifying the change in groundwater storage that would occur under post-project conditions compared to a no project baseline. The DSEIR

¹ DODS requirements are not discussed in the DSEIR. Only references to 1973 City of San Diego policies and regulations concerning reservoir level management are provided. The DSEIR should be updated to provide information concerning DODS requirements and the likelihood of reservoir spills in light of DODS requirements.
simply says the 2,000 acre-feet of water would be retained and would be subject to evaporation. The analysis is incomplete:

1. First, the project would only retain up to a maximum of 1,875 acre-feet of water, not 2,000 acre-feet. Page 2 of Appendix R, states that “If the pit is filled to capacity, the water in the pit would be a maximum of 25 feet deep at the west end and impound 75 acres of surface water.” Thus, the maximum volume of water that the pit would hold is 1,875 acre feet. The DSEIR should calculate that actual volume of water that would be retained.

2. Evaporation losses are not accounted for.

3. Increased stream base flow (groundwater exfiltration) downstream of the project is not accounted for.

4. After the above listed factors are considered, the change in groundwater storage should be estimated by comparing the increase in groundwater storage that would occur with the project vs. the increase in groundwater storage that would occur without the project (no project). This would be much less than the claimed 2,000 acre-foot benefit per overtopping event.

2. The analysis does not consider loss of percolation that would occur as a result of the project diverting runoff using perimeter site berms to a location downstream of the project site.

3. The DSEIR incorrectly takes full credit for an estimated 368 acre-feet per year of rainfall run-on into the reclaimed mining pit. This is not technically supportable for the following reasons:

   a. The analysis approach does not account for soil moisture retention and subsequent evapotranspiration of the run-on water.

   b. DSEIR should not claim full “credit” for run-on recharge because some amount of run-on recharge would occur without the project. Only the net increase in
groundwater recharge that is estimated to occur under project conditions should be considered.

4. The DSEIR does not evaluate the change in recharge rates that would be caused by refilling a “large depression created by the abandoned golf course” with wash fines, as noted on p. 1-7 of project description.

5. The DSEIR does not evaluate change in recharge rates that would be caused by using topsoil mixed with wash fines as final cover, as noted on p. 1-16 of project description.

Other Technical Analysis Comments

1. Overall, the technical analysis of groundwater impacts assumes groundwater levels will continue to decline unless an El Capitan dam spill event occurs. It is concluded in Appendix R (p. 20) that “Unless another overtopping/spill event occurs, no standing water will exist within the pit, and therefore, no evaporation losses are assumed.” Groundwater level assumptions also the impact plant transpiration estimates. The assumption of ever declining groundwater levels is not supported by the data presented in the DSEIR. Figure 6 of Appendix R very clearly shows groundwater level rises of many tens of feet in wet years absent spills (for example 1976 through 1979). Moreover, groundwater levels would have risen naturally by some amount during the periods that experienced spills even if those spills had not occurred. The DSEIR must evaluate future evaporation and evapotranspiration losses in the context of estimated future groundwater levels assuming a long term average hydrologic period and groundwater level rises that are anticipated to occur in wet periods absent spills.

2. The Project Description (p. 1-20) mentions ongoing groundwater modeling studies. The DSEIR should describe these studies and explain why a groundwater model was not used to analyze groundwater storage impacts. Utilization of a groundwater model would result in a more defensible analysis of project impacts or benefits.
Comments on DSEIR Impact Evaluation

My comments on the DSEIR groundwater storage impact evaluation are divided into two categories: Pre-Reclamation (during mining) and Post-Reclamation (post-mining).

Analysis of Project Effects and Determination as to Significance

The DSEIR is lacking an analysis of potential groundwater quality impacts that could be caused by or exacerbated by the project.

DSEIR Section 3.4.2.2 presents the analysis of project effects and determination as to significance for groundwater storage. The analysis utilizes the County of San Diego Guidelines for Groundwater Resources reviews of proposed projects in fractured rock basins as the guideline for determining project significance [emphasis added].

The selected guideline for determining project significance is not appropriate because the San Diego River Valley Groundwater Basin consists of alluvial fill, not a fractured rock aquifer.

The DSEIR concludes that “the proposed project would be considered a net benefit to the groundwater basin as the amount of water estimated to infiltrate into the groundwater basin through capture of storm water runoff would be greater than the amount of water estimated to be lost through evaporation and ET. The DSEIR further concludes that El Capitan Reservoir overtopping would provide an additional benefit of capturing approximately 2,000 acre-feet of water. These conclusions are invalid for the reasons provided in my technical analysis comments above.

Cumulative Impact Analysis

DSEIR Section 3.4.3 presents the cumulative impact analysis for groundwater storage. The DSEIR concludes that, in combination with all cumulative projects, impacts associated with groundwater levels would not be considered cumulatively considerable. This conclusion is based on the technical analysis, which concludes that “the proposed project would result in a net benefit to the groundwater basin as the amount of water estimated to infiltrate into the groundwater basin through capture of storm water runoff would be greater than the amount of water estimated to be lost through evaporation and ET.” The underlying analysis upon which this conclusion is made is invalid for the reasons provided in my technical analysis comments above.

Monitoring Program

The Project does not appear to include a monitoring program. A program of groundwater level, surface water stage and flow, water quality monitoring, and weather parameters should be
included. The monitoring program should be designed to quantify changes in the groundwater budget and water quality changes resulting from project implementation. The monitoring program should include the following elements:

1. **Groundwater monitoring**
   - Water table monitoring wells should be included (installed if needed) upgradient, downgradient, and within the Project area
   - Groundwater level monitoring on a daily basis using transducers and data loggers
   - Annual groundwater quality monitoring for general minerals and chemicals of concern used in the mining process

2. **Surface water monitoring**
   - Daily stage of any ponded water in the mining pit
   - Daily flow into the mining pit measured at the grouted boulder drop structure at the eastern end of the mine
   - Daily flows diverted south of the Project via the perimeter site berms
   - Surface water quality – event based sampling, minimum of one event per wet season:
     - Sample surface water entering Project area at drop structure
     - Sample of ponded water in mine pit after flow into project ceases
     - Analysis of general minerals and chemicals of concern used in the mining process

3. **Weather Parameters**
   - Daily rainfall
   - Daily evaporation (pan or other method)
   - Temperature
   - Wind speed

4. **Annual Reporting**
   - Data presentation
   - Annual water budget calculations compared to a no-project baseline
   - Discussion of any water quality changes

**Limitations**
This memorandum was prepared by Bondy Groundwater Consulting, Inc. (BGC) for Lakeside Water District. BGC has employed accepted geologic and hydrogeologic procedures and its opinions are made in accordance with generally accepted principles and practices of these professions. The analyses, conclusions, and recommendations contained in this memorandum
reflect BGC’s best judgment in light of the information readily available to BGC at the time of preparation, experience with similar projects, and project scope and budget. All locations depicted and/or described in the memorandum are approximate and are provided as general information only. Interpretations, location descriptions, location depictions, conclusions, and other information presented in this memorandum should not be relied upon to site or design wells or any other infrastructure without field confirmation of assumptions and estimates made in this memorandum. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. BGC accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this memorandum.

Closing
Please contact me if you have any questions regarding this memorandum. The opportunity to assist Lakeside Water District is greatly appreciated.