

October 29, 2018

VIA EMAIL TO: Heather.Steven@sdcounty.ca.gov
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Heather Steven, Project Manager
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Subject: Subsequent Draft Environmental Impact Report:
El Monte Sand Mining and Nature Preserve
PDS2015-MUP-98-014W2, PDS2015-RP-15-001
Log No. PDS2015-ER-98-14-016B

Dear Ms. Steven and Mr. Hingtgen:

The City of San Diego (City) has received and reviewed the Draft Subsequent Environmental Impact Report (Draft SEIR), dated August 30, 2018, and appreciates the opportunity to comment. El Monte Nature Preserve, LLC., is proposing the El Monte Sand Mining Project (Project) in the

El Monte Valley on approximately four hundred seventy-nine and one-half (479.5) acres. The Project includes three primary components: sand mining, a Reclamation Plan and a Revegetation Plan.

Overview

The proposed Project is located along the San Diego River in the El Monte Valley, downstream of El Capitan Reservoir. The project proposes to extract approximately twelve and one half (12.5) million tons of Portland Cement Concrete quality construction aggregate from a two hundred twenty-eight (228) acre area over the span of twelve (12) years. The Project will extract soil and aggregate resources to a depth down to forty-one (41) feet below existing ground surface. The Project would require water for dust suppression, surface watering of outgoing loads and equipment, processing equipment and irrigation. The Lakeside Water District would provide water to the site through an existing pipeline. Reclamation of the site would begin in the fourth year of the Project and would return the site to a purported beneficial end use of undeveloped land with recreational trail easements. A revegetation plan proposes that the site will be restored with the creation of self-sustaining, riparian and native upland habitat. The Project's reclamation and revegetation would continue for four (4) years after each of the Project's mining phases are completed, bringing the total project duration to sixteen (16) years.

On August 13, 2015, the County of San Diego (County) released the Notice of Preparation for the El Monte Sand Mine Draft SEIR. The City provided comments via a letter to the County on September 14, 2015.

In this 2015 letter, the City emphasized that the Draft SEIR should evaluate the potentially significant impacts on the City's pueblo water rights, and suggested that modeling be conducted to demonstrate and analyze the potential effects which the Project may have on groundwater recharge, discharge and surface water flows. The City further offered that any adverse effects on surface water flows, groundwater storage, quality or quantity should be mitigated. The City also stated that, considering the past, present, and future mining projects in the area, the Draft SEIR should evaluate the potentially significant and cumulative impacts of these projects.

The City believes that certain issues were omitted or were not adequately addressed in the Draft SEIR. These need to be incorporated and analyzed in the Draft SEIR before the report can be deemed final. The following addresses the City's pueblo water rights in the valley and perceived inadequacies in the Draft SEIR.

City of San Diego Pueblo Water Rights

The City has a distinct interest in the Project given the City's paramount water right in the naturally occurring waters of the San Diego River. The City holds a pueblo right to water in the San Diego River. (*San Diego v. Cuyamaca Water Co.* (1930) 209 Cal. 105 (*Cuyamaca*); *San Diego v. Cuyamaca Water Co.* (1930) 209 Cal. 152, 164-165 (*Cuyamaca II*); *City of San Diego v. Sloane* (1969) 272 Cal. App. 2d 663, 666 (*Sloane*)). The pueblo right gives the City the prior and paramount right to use all surface and subsurface flow of the San Diego River, including its tributaries, from its source to its mouth, for the use of the City and of its inhabitants, for all purposes. (*Cuyamaca I* at p. 151.) The pueblo right extends to any percolating groundwater in a groundwater basin that supports the San Diego River's surface and subsurface flows. (See *Los Angeles v. San Fernando* (1975) 14 Cal. 3d 199, 247-251 (*San Fernando*)). The pueblo right attaches only to waters naturally occurring in the watershed of the San Diego River. (*Cuyamaca I* at p. 151; see *San Fernando* at p. 251; see also *Los Angeles v. Glendale* (1943) 23 Cal. 2d 68, 73 (*Glendale*)). This includes waters that, but for impoundment, would have reached a subterranean basin supporting the San Diego River through the natural flow of the tributary streams. (See *Glendale* at p. 73.)

The City's pueblo right confers the first priority to use of the water "to the extent of the needs of [the City's] inhabitants ... and the further right ... to manage and control the said waters for those purposes." (*Feliz v. Los Angeles* (1881) 58 Cal. 73, 80 (*Feliz*); see *Cuyamaca II* at p. 165.) The right extends to that amount of water that the expanding needs of the City's inhabitants require. (*Vernon Irrigation Co. v. Los Angeles* (1895) 106 Cal. 237, 250-251; *Cuyamaca II* at p. 164; *Glendale* at p. 75.) The pueblo right applies to the inhabitants in the pueblo's original territory and also applies within the territory of the City added by annexation. (*San Fernando* at p. 252, fn. 43.)

Practical management of water subject to a pueblo right includes storage of water to meet the needs of the City's inhabitants. (See *Feliz* at pp. 76-77, 80; see also *Cuyamaca II* at p. 165.) Subsurface storage is akin to a natural reservoir. (*Glendale* at p. 76.) Thus, subsurface storage is suitable for storage of water subject to the City's pueblo right.

The City intends to rely on its right to manage and control the naturally occurring waters of the San Diego River watershed to control any space in the San Diego River Valley Groundwater

Basin that would have recharged with native water but for a property owner or user's use or modification of subsurface storage space.

The City, as the paramount right holder, is "entitled to protection against acts which materially diminish the quantity of water to which [the City] is entitled, or deteriorate its quality, for the uses to which [the City] wishes to apply it." (*Phoenix [sic] Water Co. v. Fletcher* (1863) 23 Cal. 482, 487.) The City, as against an inferior right holder, "is entitled to have the water at [its] point of diversion preserved in its natural state of purity, and any use which corrupts the water so as essentially to impair its usefulness for the purposes to which [the City] originally devoted it, is an invasion of [its] rights." (*Wright v. Best* (1942) 19 Cal. 2d 368, 378-379.)

The City has developed water infrastructure in the San Diego River watershed in order to exercise its pueblo rights. Specifically, the City finished construction of the El Capitan Dam in 1935, thereby forming the El Capitan Reservoir, approximately three miles upstream from the Project site. Also, the City has installed groundwater wells downgradient of the El Capitan Reservoir. The City is particularly interested in preserving local supplies for the future needs of the City because the City serves approximately eighty-four percent (84%) of its demands with imported supplies from the Sacramento-San Joaquin River Delta or Colorado River and these imported supplies are unreliable and expensive.

Groundwater Supply, Storage, Surface Flow and Water Quality

The following sections present the City's analysis of Draft SEIR sections which address potential impacts of the Project on groundwater supply, storage, surface flow and water quality.

1. Quality of Environmental Assessment

- a. **Cursory Water Budget** (§3.4.2.2, page 17-18). The Draft SEIR analysis of the groundwater basin consists of a simple water budget and does not include a detailed hydrogeologic model based on site specific data. Without this information, an evaluation of potential impacts to groundwater storage within the basin from the proposed project cannot be made.
 - i. (Technical Memo (TM) §4.0). The dynamic character of the storage media volume. As presented, the water budget assumes no net change in volume, which is untrue. This oversight then erroneously amplifies the post-mining recharge effects and minimizes or discounts any adverse effects on the aquifer due to storage removal.
 - ii. The depth to bedrock beneath the proposed area is not evaluated.
 - iii. Underlying the alluvium is fractured bedrock. The slope of the bedrock material most likely controls the groundwater flow direction within the alluvium and if high areas of bedrock exist beneath the proposed project groundwater flow directions could be significantly altered by the planned excavations resulting in impacts to groundwater storage with other areas of the basin. The actual bedrock depths could also affect the results of the hydraulic analysis presented in the Chang Consultants reports.

- iv. The report does not provide any actual site-specific information to assess the hydraulic connection between the bedrock fractures and overlying alluvium. This connection could significantly change the results of the analysis provided.
 - v. Increased groundwater evaporative losses due to reduced ground cover.
 - vi. (TM §Evapotranspiration). Increased groundwater evapotransporative losses due to new vegetation layout. The main concern with this is that phreatophytic plants will be closer to the water table after ground cover is removed. As a result of this increased proximity, plants can uptake more water and will grow at a high rate. Note that evapotranspiration numbers in table 5 also incorrectly assume the linear decrease of groundwater levels.
 - 1. (§Soils, page 17) Consultant uses an “adjustment coefficient” of 0.1 without providing the source which allows for an adjustment.
 - vii. Decreased aquifer recharge due to decreased pressures and levels in drainage paths. River flow will be split in two when it rains, whereas the river flowed as a singular body before the mine existed.
 - viii. Evaporation rate of water which ponds in the reclaimed mine pits is assumed to be equal to the evaporation rate of water stored in El Capitan Reservoir. Unlike the ponding which will occur in the reclaimed mine pit, water stored in the reservoir is not standing water; it has thermal cycling and is pumped. This circulation allows water temperatures to be lower than water which will pond in the reclaimed pits. Ponded water may evaporate at a quicker rate than water stored in El Capitan Reservoir.
 - ix. (TM §4.1.3 and §4.2) Seasonal variability of water levels are unaccounted for. The Draft SEIR states that groundwater level is below the pit, but does not specify when water level was measured, or if it is a representative average. As stated, water level could represent a single measurement on a single date, which does not represent aquifer levels. The proposal assumes this single data point is the maximum water elevation and all excavation depths are set based on this point. If this point is not representative of actual (nominal) conditions, mine operations could be excavating below groundwater level. As is true for other claims, no substantial, corroborating groundwater level data is presented.
 - x. (§ Summary of Project Impacts, Bullet 5, page 25). The statement that the reclaimed mined pit may capture El Capitan Dam spillage has not been analyzed and may not be feasible.
- b. **Inaccurate Representation of Groundwater Recharge** (§3.4.2.2, page 3.4-17/18, TM §3.7). The Draft SEIR and the Groundwater Evaluation TM both repeatedly assert that groundwater levels will drop linearly if El Capitan Dam does not overtop. The linear, arithmetic relation is not based on groundwater level readings or any actual observations. Further, the Draft SEIR fails to corroborate this claim with groundwater level data, rain data or models. El Capitan Dam overtops when heavy rains occur in the area. Recharge of the groundwater basin coincides with the overtopping, but this relation is not causative. The recharge occurs due to the heavy rain, not because El Capitan Dam overtops. The forced causative relation, which is an oversimplification, seems to have lead the consultant to conclude that if El Capitan Dam does not overtop, the aquifer will not be recharged and levels will decline linearly. This specious claim is assumed correct in the water budget, reclamation plan, TM and throughout the Draft SEIR.

- c. **Demand Numbers Lack Corroborating Data** (TM §3.4). The demand numbers do not support the “Current Water Demand” presented with sources, so it is difficult to understand where the numbers were obtained. Further, TM uses “demand” and groundwater consumption interchangeably, which is incorrect.
 - d. **Sparse Field Data** (Groundwater Evaluation TM and Attachment D). Some of the Draft SEIR claims are difficult to review because of the poor quality of data included in the document. A significant portion of the groundwater evaluation is based on the results of reported water level trends within monitoring wells located in the vicinity of the proposed project. However no specific information is provided for the monitoring wells including lithologic data, total depths, or screen intervals. Without this information, a complete evaluation of the assessment provided cannot be conducted.
 - i. Aquifer properties and interactions are based on literature values published for the area and are not actual aquifer tests conducted at the site or within the El Monte basin. Actual values may differ significantly from those presented in the report.
 - ii. (TM). Data presented in Figure 5 was measured at El Monte well #14, but according to Figure 7, the well cannot be located. The data may be a good baseline, but no further measurements can be made until the well is located.
 - iii. (TM). Well Furrier 1 is adjacent to the Hanson Pond. Since the pond may act as a point of recharge, it is possible that the data from that well does not represent actual water levels in the basin.
 - iv. (TM §4.3, page 23). Data presented in Table 6 consists of a single data point, and inexplicably only focuses on analytes TDS and Nitrates. Data trends are more conclusive than single data points. The Draft SEIR does not explain why only two analytes were presented. The Reclamation Plan states that, per the TM, “water quality of the aquifer shall not be diminished.” This cannot be ensured by analyzing only two analytes.
 - v. (Attachment D *Geologic Reconnaissance and Slope Stability Analysis*, page 15). Only a few borings have repeat measurements in Table 2.1 and none of the monitoring wells have repeat measurements.
2. **Effects of Reduced Ground Cover** Mining sand and gravel, without replacement in kind, will reduce the distance from the soil surface to the groundwater. This action has the following effects:
- a. **Reduction in Groundwater Storage.** Groundwater infiltrates into the ground from river flow, rain, etc. Not all water can infiltrate the aquifer-proper, but is held in the sand until a pressure reduction allows it to enter the aquifer-proper. The aquifer pressure is reduced when groundwater is pumped, or as the water flows underground. Removal of the “holding” material (i.e. sand and gravel) can result in less water being positioned to enter the aquifer.
 - b. **Increased Evaporation.** Solar heat rays penetrate the soil surface, and travel to a depth commensurate with the soil type and existing heat load. From a practical point of view, the less soil above the groundwater available to absorb heat, the higher the resulting groundwater temperature and potential for evaporation. The reduction of ground cover from thirty-five to forty-one (35-41) feet to about five (5) feet has the effect described above. Increased evaporative losses would reduce the amount of groundwater available.
 - c. **Declination of Water Quality.** Water entering the soil, is “cleaned” as it infiltrates.

- A reduction in the volume of soil above the water is also a reduction in the naturally-attenuative, filtering properties of the soil. With less of this natural filtration, lower water quality is allowed to enter the aquifer and the groundwater quality is reduced.
- d. **Reclamation of Pits** (Reclamation Plan, page 31). The Draft SEIR states that, “Each lift [of backfill] would be spread evenly, thoroughly mixed during spreading to attain uniformity of the material and moisture in each layer, brought to near optimum moisture content and compacted to a minimum relative compaction of ninety percent (90%).” The Draft SEIR failed to elaborate on the definition of “optimum moisture content.”
 - e. **Clarification** (Reclamation Plan §2.8.2 *Groundwater in Storage*, page 40). “Groundwater in storage” is not the same as “Groundwater Storage.” The two properties are different.
3. **Reduced Basin Sustainability** As described in the Draft SEIR, the proposed mine may create discontinuities in several of the aquifer’s natural properties, some of which may disrupt use of the groundwater basin. Despite the basin’s current SGMA-priority of “very low,” groundwater basin users must ensure sustainable use of the groundwater basin.
- a. **No Acknowledgement of Groundwater Basin** (TM §3.0). The Draft SEIR does not acknowledge the existence of the San Diego River Valley Groundwater Basin (Basin), or its boundary as established by Department of Water Resources (DWR). No maps which show the aerial extent of the proposed project in relation to the Basin are included in the report. City staff drafted a map which juxtaposes project and basin boundaries. That image appears to show that removal of sand, as proposed, would create a “pinch point” for flowing groundwater. The Draft SEIR should consistently reference the San Diego River Valley Groundwater Basin when discussing the basin.
 - b. **Drop Structure May Impede Natural Flow of Water.** A proposed element of the Project is the construction of a drop structure at the east end of the project. This large structure is composed of grouted rip-rap which will block the natural flow of both surface and ground waters and create a bifurcation point where one did not exist previously. This is concerning for a few reasons:
 - i. (Appendix R). The effects of bifurcated surface water flow have not been studied comprehensively. Possible hazardous effects to nearby environment have not been analyzed. The resulting surface water flow will carry a fraction of the unified flow, so less water will infiltrate into the aquifer (less pressure) and surface water levels will be lower.
 - ii. (Attachment C). The effects of the bifurcated groundwater flow have not been studied comprehensively. Possible effects, including lowering of the groundwater table, have not been analyzed. Nearby well users, which may include the City in the future, would need to expend additional ratepayer money to access the modified water table elevation. Other possible effects may be: wells may run dry and need to be drilled deeper, vegetation growth patterns may change, etc.
 - c. **Water Quality Concerns.** The reduction in soil surface, as described above, will induce several effects on the aquifer which are counter to its sustainable use. In addition, the report only provides an evaluation of current groundwater quality conditions but does not provide an assessment of potential impacts to groundwater quality based on operations of the proposed project.
 - i. (§3.4.2.3, page 3.4-21). Accumulation of debris within the reclaimed pit may degrade ponded water quality. Upon infiltration, aquifer water quality will

decline. Further, no analysis has been done to compare pre- and post-mine operation infiltration rates.

- ii. Water quality may also become compromised when exposed minerals and elements (e.g. uranium, asbestos, salts, etc.) are washed down during dust control operations and infiltrate the ground.
- iii. Hazardous Material Storage (Reclamation Plan §2.6 *Waste*). The Draft SEIR description of handling and storage of hazardous materials is curt. Unaddressed are the DWR restrictions regarding hazardous material storage near wells. The Draft SEIR has not elaborated on plans to protect groundwater.

4. Other Concerns

- a. **Berm Maintenance** (section 1.4.2.13, Page 1-11). The proposal suggests that stormwater will be routed away from the remaining pits via perimeter berms. The Draft SEIR does not explain how these berms will be protected in perpetuity. The same comment applies for straw wattles and protection against erosion.

5. Infringement on the Public Use of Water

- a. **Future Groundwater Use** (§3.4.1.6, page 3.4-5 *Hydrogeology and Groundwater*). This section only considers historical groundwater pumping and fails to consider planned water resources projects (i.e. the Urban Water Management Plan and/or Capital Improvement Projects).

Conclusion

The City is committed to protecting its groundwater resources and preserving its established pueblo rights throughout the San Diego River Valley Groundwater Basin. The City cannot support the conclusion that “*the project can be considered a net benefit to the basin.*” Further, the City disagrees with Draft SEIR’s conclusion that the Project’s “*impacts to groundwater storage would be less than significant.*” The net effect of this project on the aquifer is that storage is removed, water quality may be affected and that groundwater which was protected by ground cover is now exposed and susceptible to evaporation.

The Draft SEIR failed to prove that the Project’s benefits outweigh detrimental effects on area groundwater. A more in-depth analysis is needed to further assess potential impacts to water quality from the proposed Project and the mitigation measures, if warranted, that are required to address adverse effects. The assessment used to assess potential impacts to groundwater storage is questionable and should be revised to include more site-specific data, a detailed hydrogeologic study that discusses actual conditions beneath the site including depth to bedrock, bedrock interactions with alluvium and potential controls on groundwater flow and include an assessment of potential impacts to the regional aquifer and not just groundwater storage at the proposed site.

The City suggests additional study, in particular:

1. Reconstruction of the water budget per the comments above and development of a groundwater model of the entire basin.
2. On-going, quarterly monitoring of water quality and level upstream, downstream and adjacent to the mine. Monitoring should start a few quarters before the start of mining operations to establish a baseline dataset. Monitoring should continue throughout the mining period. Monitoring should extend a few quarters beyond the end of the reclamation

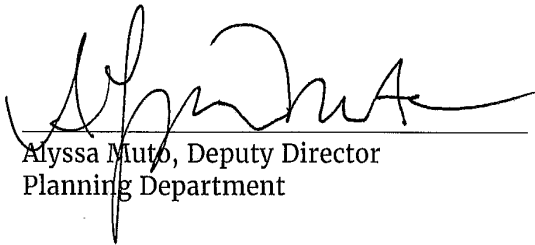
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process. Data gathered during the monitoring period will help establish groundwater quality and level trends. Data needs to be shared with the City.

3. The City rejects the document's recommendation to close all groundwater wells. Only wells that are shown to impact mining operations during the present phase shall be destroyed. Remaining wells should be used for monitoring purposes.
4. The consultant is to develop a comprehensive site-specific study regarding the impact of mining operations on nearby bodies of water. It is important to understand possible adverse effects created by mining operations and the impact these may have on the natural flow of surface and ground waters in the San Diego River Valley groundwater basin.
5. Perform additional aquifer testing that provide actual aquifer properties and connections between wells in the alluvium and an assessment of the hydraulic conductivity with the underlying bedrock.

Thank you for the opportunity to provide comments on the Draft SEIR. Should you have any questions, please contact Program Manager, George Adrian, P.E. at (619) 533-4680, or email at GAdrian@sandiego.gov, or Nicole McGinnis, Natural Resources Manager, at (619) 533-4101, or email at NMcginnis@sandiego.gov.

Sincerely,



Alyssa Muto, Deputy Director
Planning Department

AM/kw

cc: Reviewing Departments (via email)

FILE: Review and Comment online file