



*Our mission is to preserve and restore the biological integrity and beauty of the San Diego River while integrating recreational, educational, and cultural opportunities for youth, seniors, families and citizens of East San Diego County.*

October 28, 2018

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

Re: PDS2015-MUP-98-014W2, PDS-2015-RP-15-001, LOG NO. PDS2015-ER-98-14-016B;  
SCH NO. 2015081025; EL MONTE SAND MINING PROJECT

Dear Robert Hingtgen and Heather Steven,

**Please accept this letter as comments to the biological resource impact analysis for the Draft Subsequent Environmental Impact Report for the El Monte Sand Mining Project. This letter is being submitted as an attachment on behalf of the Lakeside River Park Conservancy.**

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For the reasons outlined herein, the El Monte Sand Mining Project (Project) Draft SEIR (SEIR) fails to meet the requirements of impact analysis and mitigation under the California Environmental Quality Act (CEQA), Public Resources Code § 21000 et seq., and the CEQA Guidelines, California Code of Regulations, title 14, § 15000 et seq. As such, the public is unable to provide adequate review of the Project, which must be revised and resubmitted to allow for sufficient comprehension and analysis of the environmental impacts and other issues raised by this Project proposal.

As written, the Draft SEIR fails to adequately:

- Describe the Project baseline,
- Analyze the significant environmental impacts to biological resources of the Project, and

- Propose and describe sufficient mitigation measures and/or alternatives to address the various significant and potentially significant impacts.

## **1. THE PROJECT FAILS TO CORRECTLY AND THOROUGHLY DESCRIBE THE SITE'S MOST CURRENT BIOLOGICAL CONDITIONS**

### **A. The Project Fails to Analyze Impacts to Bats.**

It is widely known that San Diego county has some of the highest biodiversity in the nation due to its mild climate and high diversity of ecosystems. This richness includes no fewer than 28 bat species recorded for San Diego County.<sup>1</sup> And yet the SEIR barely mentions this entire taxon, merely stating “there are a number of resident bat species that could occur within the BSA based on the presence of riparian habitat and open water in the vicinity. Most bats with the potential to occur are either inactive during the winter (hibernate) or migrate south to warmer climates.”<sup>2</sup> This statement not only seeks to minimize the importance of this taxon locally, it is incorrect: a number of the County’s resident bats do not hibernate or migrate; and they are known to forage in every terrestrial habitat present in the county, not just riparian ones. However, even if one erroneously assumed all bats were absent or inactive during winter, the high potential for their presence and subsequent significant impacts that could occur during the rest of the year has been completely ignored.

The US Geological Survey (USGS) conducted bat surveys that included El Monte Park, a location in close proximity to the Project BSA’s eastern boundary.<sup>3</sup> The survey identified five additional bat species present in El Monte Valley, including two that are protected as California Species of Special Concern (SSC): the Western pipistrelle (*Pipistrellus hesperus*), the Big brown bat (*Eptesicus fuscus*), the Mexican free-tailed bat (*Tadarida brasiliensis*), the Pocketed free-tailed bat (*Nyctinomops femorosaccus*) (SSC), and the Western mastiff bat (*Eumops perotis*) (SSC).

Between 2013 and 2018 during spring and summer months I visited a location on the south-facing slope of the El Monte Valley drainage, west of the El Capitan reservoir dam and located less than 2 miles east of the Project site. This locale hosts a series of cliff faces that are used extensively as bat roosts. Here I have observed dozens to hundreds

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<sup>1</sup> See <http://archive.sdnhm.org/research/birds/sdmamm.html>

<sup>2</sup> SDEIR p. 2.3-6

<sup>3</sup> Stokes, C., Brehme, S, Hathaway, S., and Fisher, R. (2005). USGS Report. Bat Inventory of the Multiple Species Conservation Program Area in San Diego County, California.

of bats flying to forage just before dusk (Figs 1 - 3). Research has demonstrated that artificial light and noise can increase the risk of mortality and reduce foraging success by bats in both urban and rural settings.<sup>4,5</sup> As such, bats could be impacted by the presence of artificial lighting by the Project, as well as its other various anthropogenic pollutants in the form of noise, light, dust, barriers, negative attractants, etc.

The necessity of detailed, baseline data is underscored by the fact that the definition of a substantial impact analyses under CEQA as used in the significance criteria has three principal factors: magnitude or intensity and duration of the impact; rarity and context of the affected resource; and susceptibility of the affected resource to disturbance. The evaluation of significance must also consider the interrelationship of these three factors. For example, a relatively small-magnitude impact on a state or federally listed species could be considered significant if the species is rare and highly susceptible to disturbance. This is true not only for determining significance of impact, but degree of significance in respect to what mitigation measures would be adequate. One cannot determine factors such as context and susceptibility of an entire population regarding impacts of the development of the Project if one does not know whether there may be one, ten, or one hundred or more individuals of a special status species present. It is therefore impossible to determine, without such data, if any given mitigation measure – during construction impact reduction protocol, restoration, relocation, or compensatory mitigation will reduce the Project impacts to below significant.

Given all of these factors, and the complete lack of any recent focused or protocol bat surveys presented, the SEIR has completely failed to describe how and to what extent bats may likely be impacted by the Project, and as it stands any impacts to bats remain significant and unmitigated by the Project.

## **B. The SEIR Fails to Adequately Analyze Impacts to Stephen's Kangaroo Rat.**

The Stephen's kangaroo rat (*Dipodomys stephensi*) is a federally endangered species (USFWS 1988)<sup>6</sup> that typically occurs at lower elevations in flat or gently rolling grasslands of inland valleys. The habitat preferred by this species includes partly sandy

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<sup>4</sup> Warner, K. A. (2016). *Investigating the effects of noise pollution from energy development on the bat community in the Piceance basin* (Order No. 10149854). Available from ProQuest Central; ProQuest Dissertations & Theses Global. (1815584239).

<sup>5</sup> Cravens, Z. M., Brown, V. A., Divoll, T. J., & Boyles, J. G. (2018). Illuminating prey selection in an insectivorous bat community exposed to artificial light at night. *The Journal of Applied Ecology*, 55(2), 705-713. doi:http://dx.doi.org.jerome.stjohns.edu:81/10.1111/1365-2664.13036

<sup>6</sup> USFWS ECOS Database <https://ecos.fws.gov/ecp0/profile/speciesProfile?slid=3495>

areas characterized by sparse vegetation or consisting of grasslands with sparse cover of perennial shrubs.<sup>7</sup> It is clear that some of the habitat in the Project ABS fits into these parameters, as noted by the US Fish and Wildlife Services (USFWS) and California Department of Fish and Wildlife (CDFW) in their joint comment letter (November 23, 1998) to the proposed El Capitan Golf Course DEIR for this very same site. Specifically, the agencies stated that a trapping program should be conducted on the proposed project site to conclusively determine the presence or absence of this federally listed species. Since the publication of that comment letter, additional populations of this highly fragmented species have been detected, including in an isolated parcel in the middle of Ramona, over six miles from other known populations, in a location characterized by a very narrow, disturbed riparian corridor and non-native grassland, not unlike some of the habitat on and near the Project ABS.<sup>8</sup> In light of these facts it is clear that there is potential for this species to occur in the vicinity of the Project; therefore the SEIR needs to include protocol surveys for the Stephens' Kangaroo rat in order to assess potential impacts to this endangered species if they are indeed present.

### **C. The SEIR Fails to Adequately Analyze Impacts to The Least Bell's Vireo.**

The SEIR reports the presence of the Least Bell's Vireo (LBVI) detected in 2015 surveys, located just east of Hanson Pond within the ABS. Although the surveyors conducted the requisite number of surveys for the time of year, these surveys are over three years old. This is not adequate to know what degree of mitigation for impacted breeding birds will be required if and when development begins; surveys should have been conducted in 2017; there is no good reason why the Applicant did not request them. By the time the final SEIR is published for review, these survey data could easily be six years old or more, and thus not representative of the current status of this endangered species, including how many nesting pairs or migrants may be utilizing the site and its borders.

Moreover the survey report is inadequate for setting mitigation standards that include criteria of mitigation riparian habitat being occupied by nesting vireos. I have held a USFWS Recovery permit for surveys and monitoring the LBVI for many years, between 1992 and 1996 I assisted the USFWS recovery plan research efforts by surveying between 30 and 75 LBVI territories in a given season in San Diego county, depending

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<sup>7</sup> USFWS (2010). Endangered and Threatened Wildlife and Plants; 12-Month Finding on a Petition to Remove the Stephens' Kangaroo Rat From the Federal List of Endangered and Threatened Wildlife. *Federal Register*, Vol 75 No. 60, 50 CFR Part 17. <https://www.gpo.gov/fdsys/pkg/FR-2010-08-19/pdf/2010-20518.pdf#page=1>

<sup>8</sup> <https://consbio.org/products/projects/stephens-kangaroo-rat>

upon the year. In my extensive experience studying this species I have observed that once the LBVIs arrive at their breeding season territory (beginning late March to early April), they very quickly find a mate and begin nesting, and do not move far at all from their established territory - even if nests are predated or parasitized and the pair chooses to re-nest (a common occurrence; both nest predation and parasitization of this species is high). The LBVI report, however, does not relay how many individual LBVIs were observed, the surveyors did not observe them every visit after first detection (which is highly unusual for this species during breeding season especially given their very strong natal site fidelity, and barring a rare mortality event or similar where the bird is never heard from again), the authors did not report if the bird(s) were demonstrating nesting behavior or not, if they were paired, feeding juveniles, if cowbirds (a common nest parasite) were present, etc. In summary the report not only reflects poor observational skills and reporting, it has been prepared almost as an afterthought, as opposed to relaying important data adequate for detailed analysis and planning for mitigation of impacts to this endangered species. Like all birds, LBVI may or may not use a preferred type of breeding season habitat based upon several variables including heterogeneity of canopy cover and height, species composition, presence of brown-headed cowbirds, and other variables. It is important to know if they are using this habitat for dispersal, foraging, feeding juveniles, etc. so such information can be used to set occupancy criteria for mitigation, and whether or not cowbird control will be a required component of any mitigation plan as is standard for this species. Clearly more current, protocol LBVI surveys need to be conducted while providing detailed information about breeding status for the SEIR to meet its minimal requirements of describing potential significant impacts and how best to mitigate them, including criteria that incorporates off-site mitigation parcel with pre-determined LBVI occupancy.

#### **D. The SEIR Fails to Adequately Analyze Impacts to The California Gnatcatcher.**

The SEIR reports the presence of California gnatcatchers (*Polioptila californica californica*) detected in 2015 surveys just north and east of Hanson Pond within the ABS. Surveys began very late in the breeding season (July) which commences as early as January. Individual gnatcatchers were not detected until September and October, during non-breeding season. Although the surveyors conducted the requisite number of surveys for the time of year, these surveys are over three years old. This is not adequate to know what degree of mitigation for impacted breeding birds will be required if and when development begins; surveys should have been conducted in 2017; there is no good reason why the Applicant did not request them. By the time the final SEIR is published for review, these survey data could easily be six years old or more and thus

not representative of the current status of this endangered species, including how many nesting pairs or migrants may be utilizing the site and its borders.

I have spent an extensive amount of time observing wildlife around the Project site in 2017 and 2018; public access is allowed throughout and in proximity to much of the entire site via established roads as well as hiking and equestrian trails shared by local residents. During early breeding season of 2018 I observed breeding pairs of the species not only in the areas detected by the ESA biologists, but also on the north and east sides of the ABS, within and bordering the Project footprint. In March 2017 I detected two nesting pairs moving between patches of CSS along (north and south of) Willow Road, and northeast of the Project footprint. Since I was not conducting a protocol survey I did not approach any gnatcatchers or nest sites, however with binoculars I did observe the birds displaying nesting behavior including carrying nest material. (Note that I have held a California gnatcatcher USFWS Recovery permit to conduct both surveys *and nest monitoring* for almost two decades and have extensive experience observing the species throughout Southern California). In May 2017 I observed two pairs each feeding juveniles (i.e. family groups) moving within and in proximity to the central portions of the site. In August 2018 I observed a male and a juvenile moving in fragmented CSS south of the dairy along the eastern end of the site. These observations demonstrate the need for more up-to-date, thorough protocol surveys that take place during the breeding season, beginning in March at the latest. Clearly more current, protocol CAGN surveys need to be conducted while providing detailed information about breeding status for the SEIR to meet its minimal requirements of describing potential significant impacts and how best to mitigate them, including criteria that incorporates off-site mitigation parcel with pre-determined CAGN occupancy.

The coastal sage scrub (CSS) habitat onsite is fragmented and disturbed due to the presence of non-native weedy species and previous disturbance that includes the illegal grading of 12 acres by the Applicant. However it is not surprising that the species is nesting and foraging on and near the site in light of: (a) the close proximity of the site to a larger source population from which they may have dispersed, including Lake Jennings, (b) the species prefer *Artemisia californica* and *Eriogonum fasciculatum* as host species for nesting, and both occur and bordering the CSS onsite, and (c) the center of the Project is designated as critical habitat for the species. It is noteworthy that the SEIR describes the CSS as 'highly disturbed' and repeatedly attempt to minimize the importance of the CSS habitat with such subjective characterizations. However, the USFWS would not have designated this site as critical habitat if the area was not, simply put, *critical* for the species' survival due to its importance as a dispersal corridor and

winter habitat for populations both north and south of the valley, as demonstrated by the record of occurrences as of November 2015 (Fig 4). This key role is reflected in the USFWS description criteria used to identify critical habitat,

“We considered several qualitative criteria in the selection and proposal of specific areas or units for gnatcatcher critical habitat. Such criteria focused on designating units: (1) throughout the geographical and elevational range of the species; (2) within various occupied plant communities, such as Venturan coastal sage scrub, Diegan coastal sage scrub, maritime succulent scrub, Riversidean sage scrub, Riversidean alluvial fan scrub, southern coastal bluff scrub, and coastal sage-chaparral scrub; (3) in documented areas of large, contiguous blocks of occupied habitat (i.e., core population areas); and (4) *in areas that link core populations areas (i.e., linkage areas)*(p. 6, emphasis added).”<sup>9</sup>

Therefore the SEIR is unscientific and deliberately misleading in its attempt to repeatedly minimize the role this site represents for CAGN survival and dispersal by referring to its habitat as “severely” or “highly” disturbed “despite” CAGN occupancy, and needs to acknowledge its importance as a key link and corridor for this species, as well as others. This acknowledgement must come in the form of appropriate mitigation (see below).

On the subject of corridors, the SEIR authors repeatedly seek to minimize the quality and importance of the Project site overall by erroneously referring to it as marginal, highly disturbed, mostly disturbed etc. However, USFWS entomologist Alison Alberts describes this area as being not only a key corridor and linkage for birds, but also for butterflies, stating,

“in [regards to] the ecological importance of this area to Quino and Hermes, there is more to consider than just species records. The undeveloped ecological corridor lands south of San Vicente Reservoir and Barona reservation are important for ecological connectivity for both butterfly species, because they are considered to have meta and mega-population (inter-connected metapopulations) structure. Ecological connectivity is where relatively rare long-distance movement by the butterfly is likely to occur (at the mega-population geographic and time scales) and where other species populations that are biotic components of a butterfly species' habitat also occur (nectar sources, host plants, etc.). Natural landscapes (with nectar sources etc,

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<sup>9</sup> USFWS. (2000). Endangered and Threatened Wildlife and Plants; Final Determination of Critical Habitat for the Coastal California Gnatcatcher; Final Rule. *Federal Register*, Volume 65 No. 206, 50 CFR Part 17.

low likelihood of mortality), even if they don't support breeding habitat, are therefore likely important for species recovery. There are otherwise isolated populations in the Miramar/Sycamore Canyon/Mission Trails area for both butterfly species, so this area is the only corridor of ecological connectivity, because stakeholders and regulatory agencies *cannot "rely" on Tribal lands* for conservation. There is no contiguous undeveloped corridor south of Barona reservation to speak of.”<sup>10</sup>

This statement raises the important fact that although no Quino Checkerspot or Hermes Copper butterflies have been detected – nor were they surveyed - in or around the Project in past ten years, they are known to occur in the region. If species protections improve, and drought conditions lessen, there is a high probability they would use this area as a key link between source populations. Regarding historical observations, the Hermes Copper was detected just east of the Project site (Fig 5). In summary, the SEIR repeatedly mischaracterizes the importance of this Project site due to its strategic location as a north-south and east-west corridor. This fact must be taken into all considerations of significant cumulative and long term impacts to bird, mammal, herptile, and insect species that may use the site not just for breeding and foraging but as a dispersal and migration corridor. Since the Project relies solely on restoration for compensatory mitigation after closure of the mine, the significant impacts to this site as an essential corridor remain completely unmitigated throughout the life of the Project.

#### **E. The SEIR Fails To Adequately Analyze And Describe Mitigation For Noise and Light Impacts To Wildlife**

Although the SEIR attempts to propose some parochial actions to minimize the impact of noise from the Project to humans, it makes virtually no attempt to measure or mitigate the impacts of noise to any of the wildlife species known to be on and in proximity to the site, for both noise impacts during construction and for the life of the Project. It completely omits this despite the fact that the impacts of both noise and artificial lighting are known to negatively impact wildlife across all taxa, including birds,

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<sup>10</sup>*Pers. comm.* October 26, 2018.



mammals, reptiles, amphibians, and invertebrates.<sup>11,12,13, 14,15,16</sup> This is also surprising in light of the fact that it is standard operating protocol for developments to use sound barriers and other means to reduce impacts of anthropogenic sounds (technophony) to threatened and endangered species including the CAGN and the LBVI; in fact any construction that averages / exceeds 60 dB over the course of an hour at a time must be mitigated for development that occurs in proximity to CAGN breeding territory. This huge omission needs to be rectified for the SEIR to begin to propose how they intend to reduce the impacts of noise on wildlife. As such the appropriate measurements and analysis of noise impacts – including measurements of not only loudness but also duration, frequency, cumulative noise levels, and actual degree of attenuation of sounds that will be made by the construction vehicles and devices onsite - must be conducted before any further analysis of impact mitigation can be accurately considered and analyzed.

## **2. THE SEIR PROPOSES UNCLEAR AND INADEQUATE MITIGATION FOR IMPACTS TO THE CALIFORNIA GNATCATCHER (CAGN).**

The SEIR does this in part by largely assuming that onsite restoration of CSS habitat occupied by nesting CAGN in a 2:1 ratio of that to be destroyed may be adequate. There are several fatal flaws with this assumption:

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<sup>11</sup> Warner, K. A. (2016). *Investigating the effects of noise pollution from energy development on the bat community in the piceance basin* (Order No. 10149854). Available from ProQuest Central; ProQuest Dissertations & Theses Global. (1815584239).

<sup>12</sup> Cravens, Z. M., Brown, V. A., Divoll, T. J., & Boyles, J. G. (2018). Illuminating prey selection in an insectivorous bat community exposed to artificial light at night. *The Journal of Applied Ecology*, 55(2), 705-713. doi:<http://dx.doi.org.jerome.stjohns.edu:81/10.1111/1365-2664.13036>

<sup>13</sup> Duarte, M. H. L., Sousa-Lima, R. S., Young, R. J., Farina, A., Vasconcelos, M., Rodrigues, M., & Pieretti, N. (2015). The impact of noise from open-cast mining on Atlantic forest biophony. *Biological Conservation*, 191, 623–631. <https://doi.org/10.1016/j.biocon.2015.08.006>

<sup>14</sup> Halfwerk, W., Holleman, L. J. M., Lessells, C. M., & Slabbekoorn, H. (2011). Negative impact of traffic noise on avian reproductive success. *Journal of Applied Ecology*, 48(1), 210–219. <https://doi.org/10.1111/j.1365-2664.2010.01914.x>

<sup>15</sup> Francis, C. D., & Barber, J. R. (2013). A framework for understanding noise impacts on wildlife: an urgent conservation priority. *Frontiers in Ecology & the Environment*, 11(6), 305–313. <https://doi.org/10.1890/120183>

<sup>16</sup> Jessica L. Blickley 1 & Gail L. Patricelli 2 (2010) Impacts of Anthropogenic Noise on Wildlife: Research Priorities for the Development of Standards and Mitigation, *Journal of International Wildlife Law & Policy*, 13:4, 274-292, DOI: [10.1080/13880292.2010.524564](https://doi.org/10.1080/13880292.2010.524564)

(1) the Project site is not within the MSCP and should require a 3:1 of mitigation for destroyed or degraded CSS.

The SEIR mentions that higher (3:1) mitigation ratios would be required if the project site was not incorporated into the MSCP. However, the SEIR proposes including the site into the MSCP, thus reducing mitigation requirements. The SEIR even states that reduced ratios is a goal of this proposed inclusion. Incorporating the site into the MSCP does nothing to further biological conservation as is the overriding purpose of the MSCP, and in fact reduces it, while also reducing recreational access to the site. Specifically, the Applicant has applied for a Boundary Line Adjustment (BLA) (see Appendix V of the SEIR) to incorporate the site into the subarea MSCP's PAMA, the Pre-Approved Mitigation Area. According to the County, for land to be added to the MSCP by way of a BLA it must contribute the same or higher biological value to the preserve a.k.a. PAMA. The county defines the PAMA as follows:

“A PAMA is an area with high biological value in which conservation will be encouraged. This will be done by providing mitigation ratios that favor developing *outside* of the PAMA and mitigating inside the PAMA (emphasis added).”<sup>17</sup>

In other words the Applicant is seeking to incorporate an almost 500 acre pit mining development, with all of its associated pollutants, disturbances, and habitat destruction over a minimum of 12 years, into the PAMA under the auspices of it having a 'high conservation value' that will contribute to mitigation of the habitats and species targeted by the MSCP. The SEIR repeatedly bases its entire argument of successful mitigation upon a pie-in-the-sky presumption of completely successful restoration and reclamation of the Project - at an undetermined date a minimum of 15 to 20 years in the future - upon at which time the site will meet such 'high value' requirements of biodiversity, species richness, and undisturbed habitat quality that is characteristic of PAMA parcels. In other words, they are basing the claim that *all* significant impacts will be reduced to less than significant based upon a theoretical plan, not an on-the-ground reality in the form of viable habitat. It is not only unprecedented and illogical for a mining development to describe itself as having 'high conservation value', it is entirely antithetical to the purpose of the PAMA, which is to serve as viable habitat for mitigation of destroyed and degraded habitats, beginning when said habitat is destroyed and thus rendered useless for the protected species in question, not at some

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<sup>17</sup> [https://www.sandiegocounty.gov/pds/mscp/docs/NCPlan\\_FAQs.pdf](https://www.sandiegocounty.gov/pds/mscp/docs/NCPlan_FAQs.pdf)

unclear time in the future, *based upon purely theoretical success of restoration* (see further discussion on this below).

Additionally, the SEIR offers no guarantee or alternatives in case of onsite restoration failures despite the demonstrated infamous track record of many sand and gravel mining operations locally and throughout California. A review of the status of many aggregate mines reveals they partly to completely fail not only at restoration but also baseline reclamation (see more on this discussion, below). The SEIR offers zero guarantee of CSS (and other habitat) mitigation where they could, and should, submit to concurrent off-site mitigation of in-kind, occupied CAGN habitat. Such habitat could be part of existing PAMA in nearby lands. However the SEIR makes no effort to identify off-site mitigation lands as part of the requirement to reduce any impacts below significant. This is not completely surprising in light of the fact that the SEIR makes it clear that the Applicant is seeking inclusion into the MSCP not to advance conservation efforts as a result of their proposed destruction of the environment, but instead to reduce their mitigation obligations, thereby reducing financial obligations as a result. Accordingly it must be emphasized that the reason for the MSCP's existence is not to provide a venue to enhance developer profits through manipulation of its criteria and processes. If the County or wildlife agencies were to approve the BLA for this Project it would be tantamount to a clear abdication of their duties of environmental protection. As such the SEIR must withdraw all assumptions and mitigation plans that rely on its incorporation into the MSCP's PAMA, or based solely on the theoretical success of onsite restoration to be the only means of mitigation for the destruction of all Project habitats, including but certainly not limited to CSS.

2) The restoration plan for the CSS - the only means of mitigation proposed for CAGN occupied impacted habitat - sets zero performance standards or criteria for what will comprise adequate CSS characterized by species that CAGN prefer for breeding.

CSS habitat can be highly variable, and its viability for breeding CAGN depends in part upon variables like species composition, slope, and heterogeneity of habitat. I have monitored hundreds of CAGN pairs over the years as well as CSS parcels set aside for the purpose of CAGN mitigation. Too many of these parcels fail to be occupied by CAGN even after years of preservation due to the habitat having characteristics that are not preferred for breeding by CAGN. It follows that any guarantee of successful mitigation should include purchase of off-site CSS habitat currently occupied by a minimum of two or more breeding pairs of CAGN.

### **3. THE SEIR FAILS TO DESCRIBE ADEQUATE MITIGATION for SENSITIVE REPTILE and AMPHIBIAN SPECIES (herptiles) KNOWN TO OCCUR IN the PROJECT SITE**

The SEIR fails to provide adequate mitigation of herptiles (herpetofauna) by way of various errors and omissions, including complete reliance on highly questionable restoration to occur post-mining closure, and a reliance on mitigation that is not in-kind and does not replicate the habitat where most of the protected herptile species reside (see detailed discussion below). This results in impacts not mitigated below significant for most if not all of the herptiles occupying the project site and vicinity.

The SEIR acknowledges that there is an abundance of special status, protected reptile and amphibian species onsite as recorded by the 2016 USGS study<sup>18</sup>, including the western spadefoot toad (*Spea hammondi*), orange-throated whiptail (*Aspidoscelis hyperythrus*), coastal whiptail (*Aspidoscelis tigris stejnegeri*), coast horned lizard (*Phrynosoma blainvillei*), southern California legless lizard (*Anniella stebbinsi*), San Diego banded gecko (*Coleonyx variegatus abbotti*), coast patch-nosed snake (*Salvadora hexalepis virgulata*), glossy snake (*Arizona elegans*), and red-diamond rattlesnake (*Crotalus ruber*).

As mentioned in the SEIR, the project would result in impacts to special-status herpetological species including the glossy snake. “Impacts could include direct mortality as a result of crushing during mining activities, and loss of aestivation, burrowing, and foraging habitat.”<sup>19</sup> The SEIR then inappropriately defers to the future development of a “focused herpetofaunal mitigation plan” to address potential direct and indirect impacts to glossy snake and other amphibian and reptile state Species of Special Concern, while providing a few details on said plan. These details suggest that direct and indirect impacts to all of the individuals of the species mentioned above will be avoided by fencing off mining activities, and either conducting preconstruction surveys or simply collecting and relocating them to another portion of the project site. These measures are so scientifically unsound one wonders if the authors have any concept of the natural history and behavior of reptiles in general. As if this weren’t poor enough strategy offered, the “mitigation” measures also include taking what they generically describe as “overburden” and dumping it in the eastern portion of the site to

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<sup>18</sup> J. Richmond, C. Rochester, N. Smith, J. Nordland, and R. Fisher. (2016). Rare alluvial sands of El Monte Valley, California (San Diego County), support high herpetofaunal species richness and diversity, despite severe habitat disturbance. *The Southwestern Naturalist* 61 (4): 294-306.

<sup>19</sup> SEIR p.2.3-48

“improve habitat”. First, if merely dumping some form unwanted mining by-product improves habitat, then this should be a primary component of the restoration plans for the Project site. It is not, perhaps because it is not founded in any scientific conclusions whatsoever. Second, the idea that some biologist can quickly and effectively trap and relocate most or all of the herptiles on site thus avoiding direct and indirect impacts to them is quite erroneous. It should go without saying the highly variable and complex natural histories of the many species in question prohibit this as a successful endeavor on any level, from the challenges of detecting, catching, and successfully relocating them; not to mention it does nothing to reduce the indirect impacts to nearby herptiles including the impacts of water, air, noise, and light pollution to individuals and their habitats throughout the duration of the project.

The mitigation measures also claim they will mark the animals to track the success of relocation over time. Study of methods is useful and recommended, however it does not result in any mitigation of impacts. The SEIR avoids mentioning what they will do to rectify the problem if mark and recapture reveals relocation to be unsuccessful; which it will be given the biology of several of the species in question. For instance, the USGS study is particularly notable in that it found what is referred to as a surprising and unprecedented number of rare glossy snakes onsite; due to the presence of “rare” alluvial sands, and where they were detected in densities and numbers completely unanticipated, not to mention unprecedented through the rest of the entire County.<sup>20</sup> To rely on relocation of this species is flawed for various reasons, not the least of which snakes are known to be poor subjects for relocation because of their high territory fidelity and tendency to return from whence they came when relocated.<sup>21,22</sup> I have personally observed this phenomenon where relocated snakes of various species returned almost to the exact spot they were captured from, in a very short amount of time (one to a few days).

Due to their cryptic nature and difficulty to detect, reptiles are historically underserved in conservation management plans, including those dependent on environmental

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<sup>20</sup> J. Richmond, C. Rochester, N. Smith, J. Nordland, and R. Fisher. (2016). Rare alluvial sands of El Monte Valley, California (San Diego County), support high herpetofaunal species richness and diversity, despite severe habitat disturbance. *The Southwestern Naturalist* 61 (4): 294-306.

<sup>21</sup> A. Durso, J. Wilson, C. Winn. (2011). Needles in haystacks: Estimating detection probability and occupancy of rare and cryptic snakes. *Biological Conservation* 144(5): 1508-1515.  
<https://doi.org/10.1016/j.biocon.2011.01.020>

<sup>22</sup> Bonnet, X., Shine, R., & Naulleau, G. (1999). The dangers of leaving home: dispersal and mortality in snakes. *Biological Conservation*, 89(1), 39.

impact analyses that, as with this SEIR, rely on plans yet to be scripted and instead deferred to the future. As co-researcher of the world's most extensive study of the world's largest snake species, the green anaconda (*Eunectes murinus*), over the course of several years' research I became very familiar with the difficulty of visually locating a cryptic species despite the fact that this particular species could reach 17 feet in length and 200 lbs. in weight. This species had not been studied to any extent previously due primarily to the false belief that they were not in high abundance anywhere due to low visibility and thus difficult to observe for research. However, once I and my associate conducted focused surveys where they had been anecdotally observed, over the course of five years we caught (and released) over 800 green anacondas within a few square kilometers, using a focused technique that involved tactile searching among other methods, not visual observations or trapping of any kind<sup>23</sup>. We learned that visual searching alone resulted in missing over an estimated 90% of the individuals encountered via an alternative focused methodology. This example underscores how even one of the largest reptile species in the world can be very difficult to detect if one is not conducting surveys with a protocol that includes a methodology designed for species-specific detection, while concurrently taking an inordinate amount of time to do so by necessity. This reality is hardly limited to anacondas; snakes of most species are notoriously difficult to detect as well as to catch, as are many other herpetofauna that are good at hiding, are cryptic, and may be nocturnal or diurnal.<sup>24,25,26,27</sup> It follows that the SEIR's proposals for relocation as a primary mitigation measure is flawed, and will not reduce impacts to the sensitive herptile species listed above to below significant.

Increased traffic by heavy trucks and other heavy equipment, new roads, access driveways, and parking areas are an inevitable part of mining development sites. This increases the risk of direct mortality of lizards and snakes by vehicles, causes habitat fragmentation and potential barriers to gene flow, and increases vulnerability to

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<sup>23</sup> Rivas, J. A. (1999). *The life history of the green anaconda (Eunectes murinus), with emphasis on its reproductive biology* (Order No. 9973496).

<sup>24</sup> Gerson, M. M. 2004. *Aspects of the ecology of a desert lizard, Callisaurus draconoides (blainville 1835), in Joshua Tree National Park with an emphasis on home range and diet* (Order No. 3146172).

<sup>25</sup> Heaton, J. S. 2002. *The LizLand model: Geomorphic landform and surface composition analysis of lizard habitat in the California Mojave desert* (Order No. 3029564).

<sup>26</sup> Williams, A. K. 2004. *The influence of probability of detection when modeling species occurrence using GIS and survey data* (Order No. 3123715).

<sup>27</sup> Rosen, P. C. 2000. *A monitoring study of vertebrate community ecology in the northern Sonoran desert, Arizona* (Order No. 9965915).

predators.<sup>28</sup> Additionally, the proposed fencing that would have to exist for the life of the Project may serve to exclude some individuals, but also serves to trap or funnel other small species - including reptiles seeking shade - within a construction site, making them at greater risk to predation and negative impacts of increased exposure.

In light of these realities, it is not surprising that I and other environmental consultant biologists have witnessed an important phenomenon on development project construction sites in arid regions where lizard species are abundant. Specifically, while working on several development projects in arid, sandy habitats we observed that lizards of various species, sizes, and with differing behavioral repertoires overall are directly and immediately attracted to roads on and around construction sites where trucks spraying water and other erosion control liquids are used to reduce airborne dust. The SEIR notes that such methods will be implanted on the Project, and will be necessary to (attempt to) reduce the spread of airborne Valley Fever. This practice serves to attract lizards of a variety of species to the higher moisture levels on the roads, resulting in increased lizard mortality and injury due to being hit by construction site traffic that use the roads subsequent to the water trucks passing. For instance, within the course of one month this phenomenon resulted in the mortality of over 20 flat-tailed horned lizards (*Phrynosoma mcallii*) (a rare, sensitive species) (FTHL) on one construction site in the southern Sonoran desert during the summer of 2014, and where an additional 100 plus FTHL were relocated to avoid mortality from vehicle impacts during several weeks of the construction phase.<sup>29</sup> During the construction of the Sunrise Powerlink gen-tie line in the Sonoran Desert, from just April to November, 103 flat-tailed horned lizards were relocated and 25 mortalities were recorded.<sup>30</sup> It is key to note that these projects failed to anticipate significant impacts to lizards, impacts due primarily to the phenomenon described above, and as a result in one instance their facility construction had to completely stop work for at least a week. One contractor reported his company lost over \$150,000 a week due to the unexpected delay.<sup>31</sup>

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<sup>28</sup> Andrews, K. M., & J, W. G. (2005). How do highways influence snake movement? behavioral responses to roads and vehicles. *Copeia*, (4), 772-782.

<sup>29</sup> Wilton, Ben. Tenaska (Personal communication, March 19, 2015); P. Hord, pers. comm., Aug 27 2017.

<sup>30</sup> [FTHLICC] Flat-tailed Horned Lizard Interagency Coordinating Committee. (2011). Annual Progress Report: Implementation of the Flat-tailed Horned Lizard Rangeland Management Strategy, January 1, 2010 to December 31, 2010. Report prepared by the Flat-tailed Horned Lizard Interagency Coordinating Committee.

<sup>31</sup> Clarke, C. March 2015. Work on Solar Project Halted to Protect Lizard. KCET. Retrieved from: <http://www.kcet.org/news/define/rewire/solar/work-on-solar-project-halted-to-protect-lizard.html>

In summary, my observations reveal that lizards of varying species, sizes, and with markedly distinct behavioral repertoires appear to be opportunistically attracted to the added moisture on the roads from construction site water trucks. Such behavior observed was not restricted to any lizard species in particular. When this phenomenon was officially noted as impacting sensitive species (i.e. the FTHL), additional on-site biologists and mitigation management practices were necessary to ensure complete coverage of all construction roadways and other areas where lizards were prone to death and injury from vehicle impacts<sup>32</sup>. It must be noted that mortalities from even one Project such as this could have a population level effect. Local populations of lizards in arid, sandy habitats are small and fragmented, with some having perhaps fewer than 500 adults. Thus species can be vulnerable not just from predation and competition, but due to geographic distribution, population size, and habitat specificity, and especially from habitat fragmentation. Further, several lizard population densities are negatively affected by sand depletion and surface stabilization.<sup>33</sup> In summary, the evidence reveals that the SEIR completely fails to propose adequate mitigation for significant impacts to the herpetofauna onsite.

#### **4. THE SEIR FAILS TO OFFER RELIABLE MITIGATION TO REDUCE IMPACTS OF BIOLOGICAL RESOURCES TO BELOW SIGNIFICANT.**

The SEIR is fatally flawed in its proposed biological resource mitigation because it relies solely on reclamation and restoration (habitat revegetation) as the only form of compensatory mitigation for destruction and other impacts to each and every habitat on the project site, along with their protected residents. As is standard for CEQA projects of this nature, it does not offer appropriate mitigation in the form of in-kind, offsite mitigation by way of any offsite banking, trust, preserve, or any other form of established, undisturbed parcel to compensate for all of the habitat that will be removed and otherwise negatively impacted by the Project. This reality is on top of the fact that the Project will not only cause impacts during the grading and construction phase; but the associated air, water, noise, congestion, and GHG impacts to surrounding native habitats will be ongoing for the life of the project. The following describes in detail the many flaws associated with this reliance on restoration as the only compensatory mitigation strategy:

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<sup>32</sup> P. Hord, pers. comm., Sage Wildlife Biology. Aug 27, 2017.

<sup>33</sup> Kaufmann, J. S. 1982. Patterns of habitat resource utilization in a population of *Uma scoparia*, the Mojave fringe-toed lizard. M. S. Thesis, Univ. Illinois, Chicago. 78pp.



1) The success of future restoration as the only compensatory mitigation relies on many variables that cannot be strictly controlled or relied upon – including rainfall, drought, predatory and parasitic insect invasion, soil stability, quality, and availability, instability and competition in the sand market, lack of reliability of the Applicant’s financial integrity for costs 12 to 20 years in the future - to name only a few. In short, the SEIR’s entire premise of impacts to habitats being mitigated exclusively via restoration amounts to a theoretical premise that cannot be guaranteed to any extent, and indeed is not supported by much of the available evidence regarding short term success, or more correctly lack thereof, of similar proposed restoration projects for sand and other aggregate mines, especially in respect to riparian habitat restoration.<sup>34,35,36,37,38</sup> Therefore the SEIR must, at a minimum, include offsite mitigation with appropriate compensation ratios for each habitat that will be impacted. If the restoration somehow manages to be successful, the Applicant can sell this mitigation land for conservation credits if appropriate. Meanwhile the SEIR’s assertion that short and long term impacts to all habitats will be adequately mitigated based entirely on a theoretical plan with vague standards, no guarantees, and no financial or alternative mitigation assurances in case of restoration problems and failure is nothing short of a complete failure in its responsibilities to CEQA.

2) Restoration is at best an imperfect science, and the SEIR authors of the restoration plan do not appear to be adequately familiar with that complex science. There are a host of pitfalls and challenges associated with even the most advantageous restoration scenario, which this proposal and site is not for many reasons. As former SDSU professor and one of the foremost experts in restoration ecology, Dr. Joy Zedler describes “success” in restoration as an extremely elusive benchmark, where merely defining success itself is a challenge, not to mention actually achieving it.<sup>39</sup> For some key evidence supporting why this restoration plan is poised to fail to a large extent as

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<sup>34</sup> Venson, G. *et al.* (2017). Restoration of areas degraded by alluvial sand mining: use of soil microbiological activity and plant biomass growth to assess evolution of restored riparian vegetation. *Environmental Monitoring & Assessment*, 189(3): 1–8.

<sup>35</sup> Foote, L. (2012). Threshold Considerations and Wetland Reclamation in Alberta’s Mineable Oil Sands. *Ecology and Society*, 17(1):22-49.

<sup>36</sup> <https://link.springer.com/article/10.1007/BF03160692>

<sup>37</sup> <https://reclaimingthesierra.org/wp-content/uploads/2015/03/Improving-Mine-Reclamation-in-California-rev-3.17.2015.pdf>

<sup>38</sup> <https://www.osmre.gov/resources/library/ghm/rdl.pdf>

<sup>39</sup> J. Zedler. (2007). Success: An Unclear, Subjective Descriptor of Restoration Outcomes. *Ecological Restoration*, 25(3):162-168.

presented in the SEIR, please refer to the details outlined in the other comments to the SEIR submitted by the Lakeside River Park Conservancy in respect to failed restoration attempts to date in the same alluvial sand habitats bordering the project site in and around Hanson Pond. In your response to my comments please include their evidentiary discussion on this topic. The revegetation proposed in the restoration plan for the SEIR is similar to those that resulted in failed attempts outlined therein.

3) The SEIR contends that all habitat restoration will tidily succeed four years after the sand mining operation ends after 12 years of mining, on schedule, as part of a 5-year restoration effort per segment, or restoration effort. And yet the realities about the sand mining market in San Diego do not match the claims in the SIER's restoration plan. Even a cursory review of the sand market in San Diego County, and California, defy the assumptions that underlie the El Monte sand mine project's viability, namely that sand is an extremely rare commodity not readily available locally, and that mining of sand is a predictable, unquestionably lucrative, and static market. For more detail that refutes these ideas that the SEIR puts forth repeatedly, please refer to the comments to the El Monte SDEIR submitted by the Sierra Club San Diego Chapter regarding high availability of sand and sand mines in the region, and include that evidentiary discussion in any response to my comments here.

One need only review the data available on the regional sand mine market to appreciate that the SEIR's assumption of local sand scarcity, and the resultant success of a relatively very short-lived mine (12 years) is deeply flawed. The County's Guidelines for Determining Significance and Report Format and Content Requirements for Mineral Resources provide a list of all locations within the county where "extensive" sampling has indicated the presence of a significant mineral deposit in the form of sand or similar aggregate. Locations where such is deemed still extractable and may be of regional or statewide significance amount to a total of 62, 410 acres.<sup>40</sup> This hardly paints a picture of extreme scarcity.

4) As important for consideration is the track record of sand and gravel mines, their closure, and subsequent reclamation. The assumption that this mine will, according to the SEIR, provide an invaluable resource but will then willingly shut down after a mere 12 years having extracted its (extremely optimistic) projected amounts of product, is not supported by history. According to the data from the California Department of Conservation Division of Mine Reclamation, there are 1,141 sand and gravel mines on

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<sup>40</sup> [https://www.sandiegocounty.gov/content/dam/sdc/dplu/docs/Mineral\\_Resource\\_Guidelines.pdf](https://www.sandiegocounty.gov/content/dam/sdc/dplu/docs/Mineral_Resource_Guidelines.pdf)

record in the state (the DEC acknowledges they are still compiling their database and it is not totally complete), 72% of these are over 12 years old, and 40% of them have officially been deemed 'reclamation not started'. Of these sand and gravel mines deemed 'reclamation not started', 45% are no longer active and yet have failed to even commence reclamation.<sup>41</sup> Many of these mining operations modified their original reclamation plans as set down in their original environmental review prior to acquiring a MUP, and applied for extensions of their MUP; a very realistic scenario for many mines, the El Monte sand mine included.

According to this same Department, reclamation under SMARA is further defined as follows: "The process of reclamation includes maintaining water and air quality, minimizing flooding, erosion and damage to wildlife and aquatic habitats caused by surface mining. The final step in this process is often topsoil replacement and revegetation with suitable plant species."<sup>42</sup> Even the SEIR acknowledges that although the definitions of reclamation and habitat restoration overlap, the latter is a much more extensive and detailed process because it is an attempt at reproducing the complex ecology of native habitats with all of the many interconnected variables involved. In light of this evidence, and the poor track record of even baseline, less involved *reclamation* for sand mines even after they have closed, the SEIR's assumptions about their timeline and success of their compensatory mitigation's successful creation are not well supported. A further case in point: Santa Barbara is an urban city in many ways like San Diego with its requisite need for sand, beach replenishment, concrete, roads, etc. It hosts the Ellwood Quarry sand mine which is a fraction the size of the one proposed in the SEIR; mining occurs on approximately 10 acres. According to the latest application for its modified MUP<sup>43</sup>, the mining operation has been ongoing at this location since 1987. Since that date an annual average of 28,472 cubic yards of material has been mined, an amount drastically less than that proposed by El Monte sand mine. The mined material used for a variety of construction activities, and an extraction rate of 13,000 CY per year has been projected. The mine has applied for yet another extension on its MUP (April, 2018) to extend through the year 2043. According to the county's Planning Commission staff, the mine's original CUP was set to expire in 2002 and was extended to 2018 by the Board of Supervisors "due to low market demand". Now, according to the county staff, "due to lower market demand than originally estimated, the mining authorized under 02RPP-00000-00001 will not be completed within the 15-year

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<sup>41</sup> <http://maps.conservation.ca.gov/mol/index.html>

<sup>42</sup> <http://www.conservation.ca.gov/dmr/publications/Documents/SMARA%20FAQ.pdf>

<sup>43</sup> <http://sbcountyplanning.org/PDF/boards/CntyPC/04-04-2018/17RVP-00000-00008/Attachment%20E%202017.12.13%20Updated%20Rec%20Plan%20SB%20Sand.pdf>

timeframe originally estimated.”<sup>44</sup> The mine has now applied for yet another extension for another 25 years, again “due to low market demand”. Not surprisingly, the EIR Addendum addressing this time extension request identifies no changes to impacts analyzed in original EIR, despite reclamation and associated restoration now being postponed for another 30 years at a minimum. If a 10 acre sand mine on the California coast in an urban setting cannot meet its market needs in less than 56 years, how can we expect an almost 500 acre mine to find a wildly lucrative market as the SEIR infers exists, especially at a time when our climate change mitigation goals include adopting mass transit and reducing urban sprawl, the latter being the primary driver of the sand market?

5) The Conceptual Revegetation Plan (Appendix I) of the SEIR appears on its surface to be a detailed document providing, as it says, a Plan for the site’s restoration. However, instead of providing essential criteria and performance standards necessary for adequate review of mitigation as required under CEQA, it relies on vague outlines of how or when they will analyze *yet to be determined* criteria and performance standards. Establishing a timeline and expectations of reporting, and who will do the reporting for analyzing criteria and performance standards, as the SEIR does, is hardly comparable to actually providing those criteria or performance standards. As such the proposed mitigation for impacts relies heavily on planning and details deferred to the future for determination. This is unacceptable, since the SEIR is deferring mitigation prescription details based largely upon anticipation of a future consultation /direction by with various unnamed experts to be determined. This has two inherent problems: (a) it disallows reviewers to adequately analyze mitigation measures as required under CEQA, and (b) it leaves the process vulnerable to the whims or bias of those hiring the expert (namely, the Applicant), as well as to litigation and other interruptions that can lead to mitigation failure and disruptions of the permitting processes. Although the provision of some generic performance standards is better than none, the lack of detail provided regarding this Plan makes it impossible for the reviewer to adequately assess the efficacy of undescribed, unscripted plans in reducing the many significant impacts to so many species that the SEIR itself iterates will be significantly impacted by the Project.

6) There is inadequate discussion of detailed methods and experimental analyses to be used, and other data and tools needed for the reviewing public to come close to assessing whether the extremely difficult and challenging task of revegetating alluvial sands with riparian and other habitats in 5 years is feasible or likely to succeed to the

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<sup>44</sup> <http://sbcountyplanning.org/PDF/boards/CntyPC/04-04-2018/17RVP-00000-00008/Staff%20Report.pdf>

degree necessary for true mitigation purposes. For example, the California Geological Survey (CGS)(California Department of Conservation) makes a strong argument for the need for test plots for successful restoration, yet the SEIR revegetation plan omits mention of using them. The CGS states,

“Throughout this manual, test plots have been recommended. The purpose of test plots is to investigate on a small scale what treatments will work best when the rehabilitation is fully implemented. It is much more prudent to have demonstrated that certain species and treatments will work on a site prior to the expense of full-scale implementation. *In fact, the California Code of Regulations Section 3705(b) (which regulates mining) requires that test plots be implemented if the proposed revegetation plan has not been demonstrated to work in similar situations elsewhere.* In addition, any test plot failures may help the practitioner decide upon further treatments in order to ensure success. It may take five years, or more, to obtain reliable results from test plots; thus, a large amount of lead-time before implementation is necessary, and test plots need to be thoroughly thought out and correctly installed and monitored” (p. 101-102, emphasis added).<sup>45</sup>

Other baseline performance standards described in detail in the CGS Manual are not mentioned in the SEIR, including key factors and feasible performance standards like methods for maintenance of soil porosity, degree of vegetative cover, density, species richness, and diversity or heterogeneity necessary for the success of mitigating impacts not only to a variety of habitat but in particular the unique sensitive species occupying the site and their associated niche requirements. When the entire compensatory mitigation scenario depends upon restoration success, omission of these details is a fatal flaw in the SEIR and needs to be rectified to satisfy the requirements of CEQA.

7) Other flaws in the SEIR’s reliance of restoration as compensatory mitigation abound: Under CEQA the mitigation of impacts should occur concurrent with when the impacts occur, not 16 to 20 or more years later as would be the best case scenario with this project. This is simply unacceptable. Also, the purpose of mitigation is, simply put, an attempt to replace what will be lost, degraded, removed, killed, in respect to the species and habitats on-site. However, the SEIR proposes restoration that includes replacing alluvial sand dependent scrub habitats with riparian habitats. This is not in-kind mitigation, and therefore will not necessarily reduce impacts to the species and other biological resources present on-site. As such, this is also unacceptable.

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<sup>45</sup> <http://ceshasta.ucanr.edu/files/289335.pdf>

In summary, every aspect of successful compensatory mitigation in the SEIR relies on the assumption that this tight schedule of 5-year restoration program will be met without question, with no alternative offered for real time mitigation if success (with yet-to be determined details for success) does not occur. As such, the burden is on the Applicant to provide data supporting the likelihood of the success of the proposed restoration. Where is the evidence that other sand mines (1) ceased production when they originally proposed to do so in their EIR/S, and (2) achieved successful reclamation in the form of habitat restoration that meets appropriate criteria and performance standards appropriate to fulfill required mitigation ratios for long term habitat conservation required to reduce impacts below significant, all within 4-5 years of the cessation of mining activity? Finally, the Applicant should provide a bond or other means of guaranteeing the funds necessary for long term restoration and off-site mitigation purchase, especially in light of the fact that the Applicant has a history of unpaid fees, including filing for bankruptcy when confronted with a lawsuit for securities fraud.<sup>46,47</sup>

## CONCLUSION

Based on the issues described in this letter, it is my professional opinion that the SEIR has not met the obligations of CEQA and that the Project would result in significant and unmitigated impacts to several sensitive biological resources. The SEIR must be revised and resubmitted to disclose, adequately analyze, and mitigate the significant impacts. If the impacts cannot be reduced to less than significant they are unavoidable, requiring a statement of overriding considerations. No further consideration should be given to the proposed Project until an SEIR is prepared and circulated that fully complies with CEQA.

Sincerely,



Renée Owens, M.S.  
Conservation Ecologist

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<sup>46</sup> <https://www.sec.gov/litigation/admin/2007/34-55063.pdf?fbclid=IwAR33yUJwniB7TZ05UVZfyzKOV5hoAgkZtPdZR4fn0wQxIXbhpRx73KWtBqY>

<sup>47</sup> [http://securities.stanford.edu/filings-documents/1014/ESSI00/19991124\\_f02c\\_992504.pdf?fbclid=IwAR1m4\\_4kSZZDRc9VaXLeaB6LMZtOk4DvhrWc4Won](http://securities.stanford.edu/filings-documents/1014/ESSI00/19991124_f02c_992504.pdf?fbclid=IwAR1m4_4kSZZDRc9VaXLeaB6LMZtOk4DvhrWc4Won)

## **Professional Background**

I am a conservation biologist and environmental consultant with 25 years of professional experience in wildlife ecology and natural resource management. I have managed an independent environmental consultancy since 1993, contracted for work in the U.S. and Latin America. Since 1994 have maintained U.S. Fish and Wildlife (USFWS) Recovery permits for listed species under the federal Endangered Species Act (ESA), including species discussed herein. I also hold several California state and federal certifications for surveys and monitoring of protected and special status species. I have extensive experience monitoring and studying many species across several taxa, including reptiles and amphibians, passerines and raptors, and marine and terrestrial mammals. I have served as a biological resources expert on over a hundred projects involving water, urban and rural residential developments, mines, and industrial scale energy projects; on private, public, and military lands; in California, the southwest, and Latin America. I have extensive experience observing the species and habitats located within, near, and in with several miles proximity to the Project presented in the SEIR.

The scope of work I have conducted as an independent environmental contractor, supervisor, and full time employee has included assisting clients to evaluate and achieve environmental compliance, restoration, mitigation, and research as related to biological resources; as well as submitting written reports and comments for such work to oversight agencies. This work includes analyzing and reviewing actions pursuant to the California Environmental Quality Act, the National Environmental Policy Act, the Endangered Species Act, the Clean Water Act, the Migratory Bird Treaty Act, and other regulations, along with surveying for and preparing Biological Technical Reports and Assessments. I have been contracted as an environmental consultant by the USFWS, the USDA Forest Service, Ultrasystems, ICF, Helix Environmental, URS, AECOM, AMEC, GeomorphIS, DUDEK, ESA, Tetra Tech, Bridgenet, Bioacoustics, among others. I am a member of the National Sierra Club's Wildlife and Endangered Species Committee and Marine Advisory Committee.

My conservation and natural history research on endangered vertebrate species in Latin America has received various awards including the National Geographic Research and Exploration Award and the National Commission for Scientific and Technological Research Award. My research has been featured on National Geographic Television and Discovery Channel documentaries, and I have served as technical consultant for wildlife documentaries filmed by National Geographic Television, Discovery Channel, BBC, and

Animal Planet; in 2017 I received a Special Commendation for contributions to environmental conservation from the City of San Diego.

I have a Master's degree in Ecology; my teaching experience includes college instruction since 1991. I have been an adjunct instructor in Biology, Zoology, Botany, and Environmental Science at Palomar Community College, San Diego State University, and Imperial Valley College. I taught field courses in Tropical Ecology in Ecuador and the Galapagos for Boston University, and was a Visiting Full Time Professor in Environmental Science and Botany at Imperial Valley College. At present I am completing a second MS degree in Environmental Studies from Green Mountain College, focusing on Environmental Education and Communication.

I have gained particular knowledge of the biological resource issues associated with the Project through my extensive work on numerous research and consulting projects throughout southern California. My comments are based upon first-hand observations, review of the environmental documents prepared for the Project, review of scientific literature pertaining to biological resources known to occur in and near the Project area, consultation with other biological resource experts, and the knowledge and experience I have acquired throughout my 25 years of working in the field of natural resources research and management.



**Figure 1: Bat roost east of the Project (photo credit Billy Ortiz)**



**Figure 2: Bats leaving roost pictured in Fig 1 (photo credit Billy Ortiz)**



**Figure 3: Bats leaving roost pictured in Fig 1 (photo credit Billy Ortiz)**



Figure 4

USFWS Record of California gnatcatcher occurrences / November 2015/ Data Basin

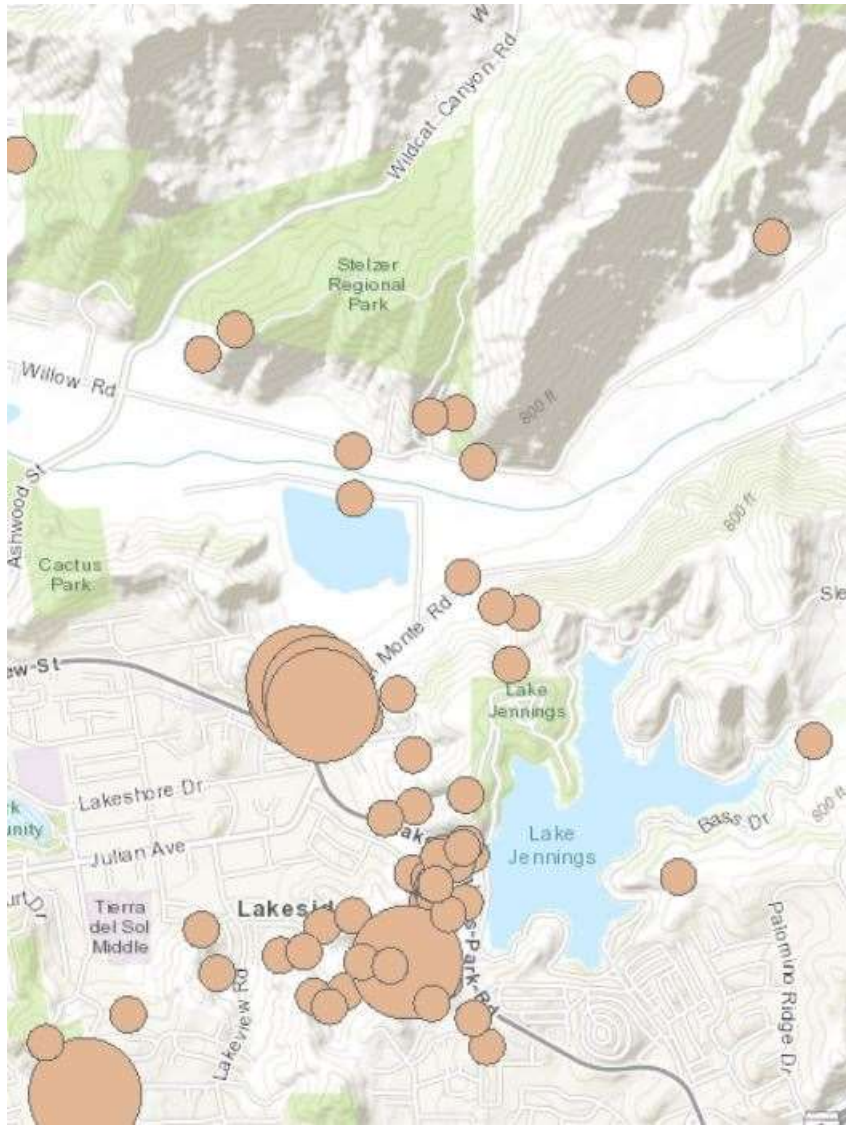


Figure 5

USFWS recorded occurrences for the Hermes Copper butterfly (yellow)  
and its host plant *Rhamnus crocea* (green)

