Appendix B

HAMILTON BIOLOGICAL

February 28, 2022

Ms. Carmen J. Borg
Shute, Mihaly & Weinberger LLP
396 Hayes Street
San Francisco, CA 94102

SUBJECT: REVIEW OF BIOLOGICAL RESOURCE ISSUES
DRAFT EIR, COTTONWOOD SAND MINE PROJECT
COUNTY OF SAN DIEGO, CALIFORNIA

Dear Ms. Borg,

At your request, this letter provides the comments of Hamilton Biological, Inc., regarding biological issues associated with the proposed Cottonwood Sand Mine Project. The project sand mine would remove approximately 6.4 million tons of sand and other materials from approximately 251 acres in the Sweetwater River floodplain currently occupied by the Cottonwood Golf Club. The County of San Diego (County) has prepared a Draft EIR (DEIR) addressing the proposed actions. Certification of the DEIR by the County would put in place a Major Use Permit (MUP) for the mining activities, and the proposed actions require a Reclamation Plan for the proposed under the California Surface Mining and Reclamation Act (SMARA). Hamilton Biological's analysis evaluates the DEIR, including the alternatives analysis, as well as all relevant supporting appendices and the County's MSCP Findings of Conformance Statement.

MSCP CONSIDERATIONS

The project site lies within Pre-Approved Mitigation Area (PAMA) in the South County Subarea of the Multi-Species Conservation Plan (MSCP) and is identified as a Biological Resource Core Area (BRCA) and a designated habitat linkage between the McGinty Mountain/Sycuan Peak-Dehesa and Sweetwater Reservoir/San Miguel Mountain BRCA. The northeastern two-thirds of the project site consists of the still-active Ivanhoe golf course and the remainder of the site consists of the disused Lakes Course. Given these designations, the site has an important strategic role in the function of the South County Subarea MSCP. An exhibit entitled "MSCP Designations," provided on the last page of the County's MSCP Findings of Conformance Statement and reproduced on the following page, indicates the importance of this site in the regional open space system.

316 Monrovia Avenue ~ Long Beach, CA 90803 ~ 562-477-2181 ~ robb@hamiltonbiological.com

MSCP Designations

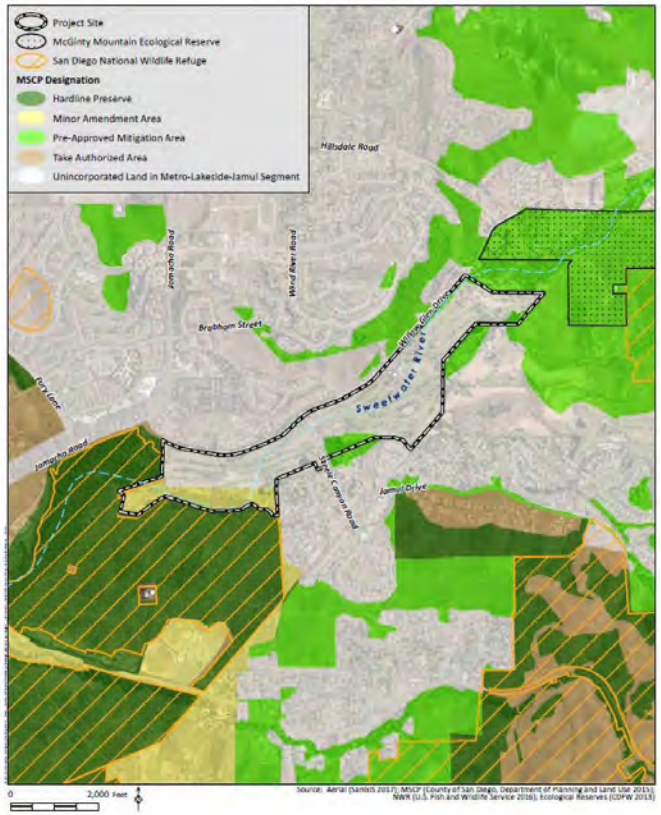

Figure 1. Reproduction of the "MSCP Designations" exhibit provided on the final (un-numbered) page of the County's MSCP Findings of Conformance Statement. As shown, the project site represents the only viable habitat linkage between the San Diego National Wildlife Refuge in the southwest and the McGinty Mountain Ecological Reserve in the northeast.

Figure 2. Current aerial imagery, without the screens used in Figure 1, showing even more clearly that urban development along Highway 94 and Highway 54 effectively blocks nearly all movement of terrestrial and aquatic wildlife between Sweetwater Reservoir/SDNWR and the McGinty Mountain Ecological Reserve. The project site, an MSCP-designated habitat linkage containing a river channel, provides by far the most viable opportunity for terrestrial and aquatic wildlife to move through this highly fragmented landscape.

REVIEW OF THE MSCP CONFORMANCE STATEMENT

To achieve its conservation goals, the MSCP has strict requirements for projects that propose impacts to BRCA's and designated habitat linkages. The County has produced a Conformance Statement (Multiple Species Conservation Program Conformance Statement for Cottonwood Sand Mining PDS2018-MUP-18-023, December 3, 2021) that finds the proposed sand-mining and reclamation actions to be consistent with all of the MSCP's requirements. As discussed below, however, the County's findings lack both factual support and legitimate analyses. The pages of the Conformance Statement are not numbered, so references are to the page numbers specified in the PDF file downloaded from the County's web page.

Pages 1-2: Incomplete description of existing resources

Citing the Biological Resource Report for the DEIR (Helix Environmental Planning, November 2021), the Conformance Statement lists 17 special-status wildlife species observed on or near the project site and nine additional species determined to have high potential to occur. The Helix report is incomplete, however, because it fails to mention at least two California Species of Special Concern closely associated with loose, alluvial soils, that also have a high potential to occur on the project site: California Glossy Snake (*Arizona elgans occidentalis*) and Southern California Legless Lizard (*Anniella stebbinsi*).

As described by Richmond et al. (2017:294-295, citations omitted), the adverse ecological effects of widespread sand and gravel operations across western San Diego County and the larger region have elevated the ecological importance of the relatively few areas of alluvial soil that remain:

> Large portions of the southwestern United States, particularly coastal areas of western San Diego County, California, near the USA-Mexico international border, have undergone rapid development that has either eliminated or encroached upon what little is left of alluvial sand and gravel habitats. These habitats are generally found in river and stream valleys, at the base of topographic features where there is a pronounced change in slope, and in intermountain valleys. Deposits typically consist of variable grain sizes that are compactable, but retain good internal drainage. This feature makes them a preferred substrate for numerous reptiles and amphibians occurring within the region, particularly those with burying or burrowing tendencies such as the southern California legless lizard (*Anniella stebbinsi*), the California glossy snake (*Arizona elgans occidentalis*), Blainville's horned lizard (*Phrynosoma blainvillii*), the Gilbert skink (*Plestiodon gilberti*), and the western spadefoot (*Spea hammondii*).

Golf course operations may have rendered most of the site unsuitable for Blainville's Horned Lizard, but this is not true for other alluvium-dependent species, and for the California Glossy Snake in particular. As described by Richmond et al. (2017:304):

> We observed *A. e. occidentalis* [California Glossy Snake] in four of the five sampling sections, including some of the most disturbed parts of the valley. Many of the 23 observations were in old agricultural plots that have been plowed or graded within the two past decades, and two were in otherwise "disturbed" or "developed" habitat. This is consistent with the observations of Klauber (1946) on *A. e. occidentalis* more than 70 years ago, where individuals were often found in association with uncultivated grasslands or cultivated fields. This suggests that as long as there is a suitable matrix of sandy habitat and appropriate prey resources, *A. e. occidentalis* will occupy intervening or surrounding areas of lower habitat quality..

Since the California Glossy Snake is nocturnal, and the Southern California Legless Lizard lives underground, general wildlife surveys are inadequate to detect these species. The project biologists did not conduct focused surveys for these species and does not mention them in their report. Since the project site's loose, alluvial soil represents ideal habitat for these species, they should be assumed present. Impacts to loose, alluvial soils required by the California Glossy Snake and Southern California Legless Lizard would be significant. The impacts would not be mitigated to less than significant by the proposed revegetation plan, even if the revegetation is successful, because the site's alluvial soils would have been removed.

The Southwestern Pond Turtle (*Actinemys pallida*) is another special-status species with potential to occur on the site that is not mentioned in the DEIR or the Conformance Statement. Again, no focused surveys were conducted for this species, so no information is available about its potential abundance or distribution across the site.

The MSCP Conformance Statement, like the DEIR itself, cannot be based upon inadequate survey information and unfounded assumptions about the project's potential adverse effects.

Page 2: Mitigation does not address all potentially significant impacts

The Conformance Statement states:

> Mitigation measures are proposed to mitigate potentially significant impacts to special status species, sensitive vegetation communities/habitats, and compliance with local policies/ordinances. Implementation of these mitigation measures would mitigate potential impacts to below a level of significance.

The existing linkage/corridor is 850 to 1,700 feet wide, and the proposed project would narrow the corridor to "an average width of approximately 600 feet" with a bottleneck 350-400 feet wide at the western end of the project site. For reasons discussed in this letter, the substantial narrowing of the habitat linkage represents a potentially significant impact to wildlife movement, and to the functioning of the MSCP preserve system, that cannot be mitigated to below the level of significance.

Additionally, the proposed mitigation:

- Does not address the project's potentially significant impacts to the Glossy Snake, Southern California Legless Lizard, or Southwestern Pond Turtle, special-status species not mentioned in the DEIR and for which surveys were not conducted.
- Does not address potentially significant impacts to the Western Spadefoot, another species for which focused surveys were not conducted.
- Assumes that proposed revegetation/reclamation will fully mitigate all significant impacts to wildlife movement and MSCP preserve design, even though the proposed actions will not address the reduction in width of the regional habitat linkage, and successful replanting of the site is far from assured.

Finally, as discussed on page 25 of this letter, the report on the 2019 Arroyo Toad survey by Helix provides inadequate information to evaluate the adequacy of the survey, so it is possible that project implementation would result in significant impacts to this species that would not be mitigated to below a level of significance.

Until adequate surveys are conducted that establish the baseline ecological conditions on the project site, the County will not be able to substantiate a finding that all potentially significant impacts have been mitigated to below a level of significance.

Page 4: Project is not "sited in areas to minimize impact to habitat."

"Habitat" is a general and inclusive term that is not synonymous with "riparian and other sensitive natural communities." The project site is designated as a regional habitat linkage, and hence a BRCA, not because it supports an abundance of "sensitive natural communities," but because it is an expansive, park-like area that occupies an ecologically important position in the MSCP preserve system. By improperly redefining

"habitat" to refer only "riparian and other sensitive natural communities," the County incorrectly and misleadingly treats the rest of the project site as consisting of something other than "habitat."

To help understand the impropriety and inconsistency of the DEIR's approach, consider the example of the California Glossy Snake. As discussed previously, this snake is an alluvium-dependent species that is rare and declining across the region due mainly to past and ongoing mining of the loose, sandy soils that comprise the most important feature of its required **habitat**. Because the DEIR fails to mention the California Glossy Snake, however, the Conformance Statement fails to make the connection that removing the loose sand from more than three-quarters of the project site represents a massive impact to the required **habitat** of this special-status species. **The project has not been sited, or otherwise limited, so as to minimize impacts to this important habitat.**

The project site provides **habitat** for many other species, such as for foraging raptors and for terrestrial wildlife moving through the area. Only by improperly redefining "habitat" to exclude the great majority of the project site—a regional habitat linkage and BRCA—can the County justify its finding that "project development has been sited in areas to minimize impact to habitat."

Page 7: MSCP requires that the proposed project "preserve the biological integrity of linkages between BRCAs."

In a documented dated May 19, 2019, commenting on the application for a Major Use Permit for the proposed project, the County Planning & Development Services stated the following on page 77:

> The project **contains nearly the entire habitat linkage** between the McGinty Mountain/Sequan Peak-Dehesa Biological Resource Core Area (BRCA) and the Sweetwater Reservoir/San Miguel Mountain BRCA. **Analysis of potential project impacts to wildlife movement through this linkage will be required and BMO findings will need to be made prior to project approval.** [emphasis added in bold]

By contrast, the Conformance Statement states:

> The project site **is located within an identified habitat linkage** between the McGinty Mountain/Sycuan Peak-Dehesa BRCA and Sweetwater Reservoir/San Miguel Mountain BRCA, in the South County MSCP. As part of the reclamation process, **the proposed project would substantially improve the condition of the existing linkage** through widening of the Sweetwater River floodplain and planting of riparian habitat. **A riparian corridor would be re-established throughout the site**, which would encourage and facilitate wildlife movement within the region. Therefore, the project would ultimately conserve and enhance the functions and values of the habitat linkage in accordance with the MSCP and BMO. [emphasis added in bold]

Despite the project site occupying a critically important location in the assembled MSCP preserve system, **and a requirement to analyze wildlife movement issues**, the project biologists conducted no study of the existing level of wildlife movement through the

site. Because no wildlife movement data were collected, the DEIR cannot and does not provide the required "analysis of potential project impacts to wildlife movement through this linkage." Instead, the DEIR attempts to dismiss the issue on page 2.2-19 by asserting vague inadequacies of the habitat linkage:

> The Project site is an active golf course that is characterized by open, exposed areas that lack suitable cover and resources typically associated with wildlife movement areas. Large portions of the Project boundary are fenced along the northern, eastern, and southern boundaries, which can impede wildlife access into the site. Residential development is present to the north and south of the Project site, and Steele Canyon Golf Club occurs to the southeast. The Sweetwater River runs through the Project site, and although riparian habitat occurs upstream and downstream of the site, most of the on-site reach of the river is characterized by open areas vegetated with low growing plant species, primarily Bermuda grass, as part of the golf course development. The site is also subject to regular human activity and other disturbances associated with golf course operations (such as mowing, night lighting, and noise) that would discourage larger animals from utilizing the site.
>
> Common birds and mammals might move through the Project site to forage and during dispersal activities; however, they would not be expected to use the site, in its current condition, as a main corridor, linkage, or specific travel route to and from important resources based on current site uses and disturbances and lack of sufficient vegetative cover to conceal larger wildlife species that may move through the area.

Photos 1-8, below, show conditions on the project site on February 10, 2022.

Photo 1. View, facing northeast, from near the southwestern project boundary, with riparian vegetation in the SDNWR shown in the left part of the photo. The disused Lakes Course, beyond the two white signs, consists of open areas with numerous thickets of vegetation.

Robert Hamilton, 2/10/22

Photo 2. View from the project site facing west into the SDNWR. This was one of several gaps in the fencing along this boundary. Any effort to completely block the movement of terrestrial wildlife through the project site with fencing would not be consistent with the site's designation as a regional habitat linkage/corridor.

Robert Hamilton 2/10/22

Photo 3. View, facing east, from near the northwestern corner of the project site. The grassy open areas of the disused Lakes Course are interspersed with numerous thickets of vegetation, and the area is not lit at night. The area appears to be well-suited to the movement of terrestrial wildlife between the SDNWR and McGinty Mountain Preserve.

Robert Hamilton, 2/10/22

Photo 4. View, facing southwest, from one of the two golf cart bridges over the Sweetwater River channel on the disused Lakes Course. Wildlife tracks were abundant in the sandy bottom of the channel. Beyond the sand lies a band of dense native riparian vegetation that runs along the southern site boundary, where two territorial male Least Bell's Vireos were recorded in 2019.

Robert Hamilton, 2/10/22

Photo 5. View, facing northeast, from the same golf cart bridge. Again, wildlife tracks were abundant in the sandy bottom of the channel. Many native wildlife species are capable of traversing this landscape, especially at night.

Robert Hamilton, 2/10/22

Photo 6. View, facing southwest, from the Steel Canyon Road bridge over the Sweetwater River channel. The disused Lakes Course appears to be well-suited to the movement of terrestrial wildlife between the SDNWR and McGinty Mountain Preserve.

Robert Hamilton, 2/10/22

Photo 7. View, facing northeast, from the Steel Canyon Road bridge over the Sweetwater River channel. The Ivanhoe Course, although still in operation, provides viable opportunities for the movement of terrestrial wildlife between the SDNWR and McGinty Mountain Preserve.

Robert Hamilton, 2/10/22

Photo 8. View, facing west, from near the parking lot for the Ivanhoe Course toward Steel Canyon Road. A dense line of trees along Willow Glen Drive, shown here, provides cover for wildlife moving through this area at night. Night-lighting is limited to the immediate vicinity of a few existing structures.

Robert Hamilton, 2/10/22

The DEIR's brief discussion of wildlife movement issues concludes on page 2.2-19 with the following passage:

> Larger blocks of open space areas associated with the SDNWR occur further south between Steele Canyon Golf Club and Jamul that provide better access to resources and connectivity between preserved lands, open spaces areas, and pockets of undeveloped lands located to the east and west of the site. However, the presence of two major roadways, Campo Road and Jamul Drive, connecting these two communities could impede wildlife movement.

These confusing statements have nothing to do with wildlife movement through the project site. The following points are relevant:

- The habitat linkage through the project site was identified in the MSCP Subarea Plan because, despite being occupied by two golf courses (one now abandoned), this is the only viable pathway for terrestrial and aquatic wildlife to move between the McGinty Mountain/Sycuan Peak-Dehesa BRCA and the Sweetwater Reservoir/San Miguel Mountain BRCA.

- Closure of the Lakes Course in 2017 increased the functioning of the wildlife linkage compared with when it was originally designated in the MSCP Subarea Plan, because the southwestern third of the project site is no longer manicured and human presence has been completely removed.

- The Ivanhoe Course, although still in use, represents a viable habitat linkage for use by terrestrial wildlife, most of which move at night, when human presence, lighting, and noise are minimal.

- Although the project biologists assert that this regional habitat linkage is of little value for wildlife, they collected no wildlife movement data in support of this conclusion.

In the absence of credible study data demonstrating that wildlife do not utilize this designated regional habitat linkage—the sole pathway between the McGinty Mountain/Sycuan Peak-Dehesa BRCA and the Sweetwater Reservoir/San Miguel Mountain BRCA—the assumption must be that a variety of terrestrial and aquatic wildlife species depend upon the project site for movement between the two BRCA's. Given the proposal to greatly narrow the existing linkage, and serious doubts about the viability of the revegetation plan raised by the hydrological analysis by Greg Kamman, the proposal to remove 6.4 million tons of material from 209.6 acres of the project site clearly would not "preserve the biological integrity" of this important linkage.

Page 7: MSCP requires that the project "Achieve the conservation goals for covered species and habitats."

The Conformance Statement claims that the "proposed project achieves the conservation goals" for covered species through implementation of various mitigation measures. Figure 3, below, is an exhibit developed by hydrologist Greg Kamman showing how changes to project grades may alter the configuration of the low-flow channel that currently feeds into the band of dense riparian habitat shown in Photo 4 on page 8 of this letter, where two territorial male Least Bell's Vireos were recorded by project biologists during the most recent focused surveys of the project site in 2019.

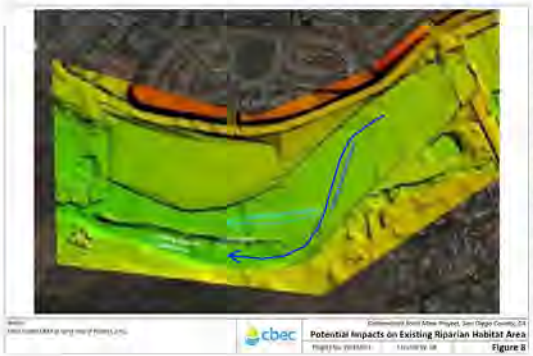

Figure 3. Exhibit developed by hydrologist Greg Kamman showing the proposed alteration of the Sweetwater River channel through the southwestern third of the project site. The existing channel alignment discharges into the area of dense riparian habitat that supports Least Bell's Vireos along the south side of the project area.

Proposed removal of the high ground on the north side of the low-flow channel and creation of a wider equal-elevation floodplain upstream of the entrance to the riparian habitat has potential to redirect high flows into the floodplain north of the berm, which otherwise would have fed into the riparian habitat area. The re-grading could also result in the existing low flow channel migrating northward and establishing a new alignment north of the berm. If this occurs, all the water deliveries conveyed by the low-flow channel would no long feed into the existing riparian habitat area, with potential adverse impacts to this habitat due to reduced hydroperiod. This represents a potentially significant adverse effect to the mature riparian woodland vegetation and, therefore, to the Least Bell's Vireo. This would represent a failure to achieve the MSCP's conservation goals for covered species and habitats, and would also violate Condition (f) of the BMO's exemption for sand and gravel operations ("Mature riparian woodland may not be destroyed or reduced in size due to sand, gravel and mineral extraction").

Pages 8-12: Project violates nine MSCP design criteria for linkages and corridors

For project sites located within a regional linkage and/or that support one or more potential local corridors, the County must affirm that the proposed actions would not violate any of 11 numbered MSCP criteria developed to protect the most important ecological values of regional linkages and movement corridors. Nine of these design criteria are applicable to the project, and the proposed actions would violate all of them.

> **1. Habitat Linkages as defined by the BMO, rather than just Corridors, will be maintained.**
>
> The Conformance Statement states:
>
> > As part of the reclamation process, the proposed project would substantially improve the condition of the existing linkage through widening of the Sweetwater River floodplain and planting of riparian habitat. A riparian corridor would be re-established throughout the site, which would encourage and facilitate wildlife movement within the region. Therefore, the project would ultimately conserve and enhance the functions and values of the habitat linkage in accordance with the MSCP and BMO.

Section 86.508(d) of the Biological Mitigation Ordinance (BMO) defines "Linkage" and "Corridor" as follows:

> "Corridor" is a specific route that is used for movement and migration of species. A corridor may be different from a "Linkage" because it represents a smaller or more narrow avenue for movement.

The MSCP-designated habitat linkage through the project site occupies the 100-year floodplain, which is 850 to 1,700 feet wide (see Figure 4 on the next page). The project would narrow the habitat linkage "to an average width of approximately 600 feet." Since Design Criterion 1 specifies that "Linkages . . . rather than just Corridors, will be maintained," and the proposed actions would dramatically narrow the existing **Linkage**, down to the width of a **Corridor**, the project clearly violates Design Criterion 1.

Figure 4, below, copied from Figure 1-10 in the DEIR, shows how dramatically the existing habitat linkage (i.e., the 100-year floodplain) would be reduced in the western part of the project site.

Figure 4. Showing in colored screens the proposed reclamation/revegetation areas in the western third of the project site. Where the river channel empties into the SDNWR, the **1,050-foot-wide Linkage** would be reduced down to a **400-foot-wide Corridor** in direct violation of Design Criterion 1.

2. Existing movement corridors within linkages will be identified and maintained.

The Conformance Statement states:

> The site is currently an active golf course that lacks sufficient vegetative cover to conceal and encourage wildlife movement through the linkage. As part of the reclamation process, the proposed project would substantially improve the condition of the existing linkage through widening of the Sweetwater River floodplain and planting of riparian habitat. A riparian corridor would be re-established throughout the site, which would encourage and facilitate wildlife movement through the site.

The project biologists have not conducted a wildlife movement study to identify "existing movement corridors within linkages," as required by Design Criterion 2.

The assertion that "The site is currently an active golf course" is factually incorrect and misleading. The western third of the site is an abandoned golf course with no human presence and a landscape that has been rewilding itself for the past few years.

The assertion that the site "that lacks sufficient vegetative cover to conceal and encourage wildlife movement through the linkage" is subjective and speculative, reflecting no

actual study of wildlife movement through the area. My own observations of the existing conditions lead me to conclude that the project site provides viable movement opportunities for various types of terrestrial and aquatic wildlife, especially at night.

As shown in Photos 1-8 on pages 7-10 of this letter, the site consists of a shallow, soft-bottomed river channel running through a floodplain measuring 850 to 1,700 feet in width. The floodplain is vegetated with a mix of grasses, trees, and shrubby thickets. The western third of the site has no human presence at all, and the eastern two-thirds has no human presence at night, when most movement of terrestrial wildlife occurs. Finally, the project site represents the only viable pathway for terrestrial and aquatic wildlife to move between the McGinty Mountain/Sequan Peak-Dehesa BRCA and the Sweetwater Reservoir/San Miguel Mountain BRCA.

Based upon its width, mix of vegetation, lack of human presence at night, and only limited/localized night-lighting, the project site appears to be conducive the nocturnal movement of wildlife between BRCAs that exist to the southwest and northeast of the site. Since the DEIR provides no data identifying "existing movement corridors" within the designated linkage, the project does not conform to Design Criterion 2.

3. Corridors with good vegetative and/or topographic cover will be protected.

The Conformance Statement states:

> The site is currently an active golf course that lacks sufficient vegetative and topographic cover to conceal and encourage wildlife movement through the linkage. As part of the proposed reclamation, the project would increase topographic complexity of the site by establishing a widened Sweetwater River floodplain with bordering constructed slopes and elevated graded pads to the north and south. This would create topographic features more favorable to wildlife species movement along the linkage path. The project would also increase vegetative cover within the widened riparian corridor providing adequate coverage for wildlife species that would utilize the linkage.

The assertion that "The site is currently an active golf course" is factually incorrect and misleading. The western third of the site is an abandoned golf course with no human presence and a landscape that has been rewilding itself since golf course operations ceased in 2017.

The assertion that the site "that lacks sufficient vegetative cover to conceal and encourage wildlife movement through the linkage" is speculative and reflects no actual study of wildlife movement through the area. My own observations of the existing conditions lead me to conclude that the project site provides viable movement opportunities for various types of terrestrial and aquatic wildlife, especially at night.

The project site already comprises a wide and generally flat 100-year floodplain. The proposed actions to "increase topographic complexity of the site by establishing a widened Sweetwater River floodplain with bordering constructed slopes and elevated

graded pads to the north and south" would *constrict* the floodplain instead of expanding it, in violation of Design Criterion 1.

The DEIR provides no data or analysis in support of the notion that establishing new "constructed slopes and elevated graded pads to the north and south" would "create topographic features more favorable to wildlife species movement along the linkage path." Adding more slopes and graded pads would only hinder the movement of wildlife through the site, in violation of Design Criterion 3.

4. Regional linkages that accommodate travel for a wide range of wildlife species, especially those linkages that support resident populations of wildlife, will be selected.

The Conformance Statement states:

> The project site is located within an identified habitat linkage between the McGinty Mountain/Sycuan Peak-Dehesa BRCA and Sweetwater Reservoir/San Miguel Mountain BRCA, in the South County MSCP. The site is currently an active golf course that lacks sufficient vegetative cover to conceal and encourage wildlife movement through the linkage. As part of the reclamation process, the proposed project would substantially improve the condition of the existing linkage through widening of the Sweetwater River floodplain and planting of riparian habitat. A riparian corridor would be re-established throughout the site, which would encourage and facilitate wildlife movement for a wide range of species through the site.

The existing MSCP-identified habitat linkage does "accommodate travel for a wide range of wildlife species" and does "support resident populations of wildlife." Since the DEIR provides no wildlife movement data demonstrating otherwise, the project does not conform to Design Criterion 4.

5. The width of a linkage will be based on the biological information for the target species, the quality of the habitat within and adjacent to the corridor, topography, and adjacent land uses. Where there is limited topographic relief, the corridor must be well vegetated and adequately buffered from adjacent development.

The Conformance Statement states:

> As part of the project's reclamation process, the Sweetwater River floodplain, which is currently disturbed, would be expanded throughout the entire length of the project site (approximately 10,040 linear feet). The channel and associated flood prone area, currently measuring between 35 and 120 feet wide, would be substantially expanded to an average width of approximately 250 to 300 feet. This additional width would be more consistent with both historical conditions on the site and current conditions downstream of the site. The expanded floodplain would be revegetated with riparian habitat resulting in a post-project condition that would restore wildlife linkage and corridor functions and is biologically superior to the existing condition. The established widened riparian corridor would re-establish connectivity between upstream and downstream areas by providing increased vegetative cover and access to higher quality resources which would promote and facilitate wildlife use and movement in the region and local area that is currently constrained by the existing golf course

development. The project would ultimately contribute approximately 142.8 acres of preserved, rehabilitated, restored, and revegetated habitat to the linkage which will be placed within a biological open space easement.

Design Criterion 5 requires consideration of "biological information for the target species" that use the linkage/corridor, but no such information is provided in the DEIR or the Conformance Statement, so how can the County find the project in conformance?

The first sentence states that the Sweetwater River floodplain "is currently disturbed," but the floodplain, measuring 850 to 1,700 feet wide, is occupied by two golf courses, one active and the other abandoned. The golf courses are vegetated with grasses, scattered thickets, and hundreds of mature cottonwood trees, and include several man-made lakes along with the soft-bottomed river channel. To erroneously describe the park-like landscape shown in Photos 1-8 of this letter as "disturbed"—a mapping category that the DEIR defines as an area "in which the vegetative cover comprises less than 10 percent of the surface area"—demonstrates lack of accuracy and objectivity on the part of the project biologists and the County.

The second sentence erroneously describes the "floodplain" as measuring "between 35 and 120 feet" wide through the project site. Throughout the DEIR—except in the Biological Resources section—the term "floodplain" refers the 100-year floodplain, which includes the entire project site. In the Project Description, for example, page I-33 states, "The entire site also is subject to Special Area Designator F (Flood Plain), which prohibits placement of permanent structures for human habitation in a floodway." Appendix O, the Drainage Study-Hydraulic Analysis, refers exclusively to the 100-year floodplain.

Furthermore, in evaluating the site's function as habitat linkage/movement corridor, the term "floodplain" is being used as a proxy for "relatively flat area that wildlife can easily move through," not as a measure of flooding risk. **On the project site, the 100-year floodplain, which coincides with the MSCP-designated habitat linkage, measures between 850 and 1,700 feet wide. Rather than *expanding* the floodplain "to an average width of approximately 250 to 300 feet," project implementation would *narrow* the floodplain by 600 to 1,400 feet.**

To maintain a fully functioning MSCP preserve system, the linkage between the McGinty Mountain/Sycuan Peak-Dehesa BRCA and the Sweetwater Reservoir/San Miguel Mountain BRCA should be able to accommodate the movement of Mountain Lions (Cougars). Researcher Paul Beier conducted extensive radiotelemetry studies of the movement of Mountain Lions through fragmented landscapes of southern California (Beier 1995). Following are some relevant points from Dr. Beier's research on dispersal of young male Cougars through corridors:

- "Cougars will disperse via habitat corridors in a landscape fragmented by urbanization, and some dispersers will use corridors containing un-natural features such as golf courses and major freeways."

- "Cougars frequently used dirt roads and trails. Where dense woody vegetation impedes cougar travel, a trail or dirt road running the length of the corridor can facilitate use by cougars and discourage travel into adjacent urban areas. Mock et al. (1992) found that all functional wildlife corridors in urban San Diego County, California, had a path, drainage, railroad, or other linear feature, and speculated that these features helped guide animals through the corridor."

- "Some native woody vegetation should be present to provide visual cover. I observed cougars move >400 m across unlit open terrain when the surrounding areas were in native woody vegetation, but they did not cross this span of open terrain with urban areas nearby on either side."

- "If disturbance level, cover, and the other factors discussed above are suitable, I suggest that a corridor designed for use by cougars should be >100 m wide if the total distance to be spanned is <800 m, **and >400 m wide for distances of 1-7 km**. To the extent that other factors are suboptimal, and as the corridor length increases, corridor width should be increased." [emphasis added in bold]

Dr. Beier's study points to a need for a very wide linkage/corridor in this location, on the scale of 400 meters or more, which is comparable to the existing linkage/corridor width of approximately 259 to 518 meters (850 to 1,700 feet). His research suggests that the proposed reduction of the width of the linkage/corridor to only 76 to 91 meters (250 to 300 feet) would substantially reduce or possibly even eliminate the potential for Mountain Lions to move between Sweetwater Reservoir and McGinty Mountain.

Because the project biologists did not provide the required "biological information for the target species," and because the proposed actions would reduce the width of the existing habitat linkage to far below that recommended for Mountain Lions in the peer-reviewed literature, the project would not conform to Design Criterion 5.

> **6. If a corridor is relatively long, it must be wide enough for animals to hide in during the day. Generally, wide linkages are better than narrow ones. If narrow corridors are unavoidable, they should be relatively short. If the minimum width of a corridor is 400 feet, it should be no longer than 500 feet. A width of greater than 1,000 feet is recommended for large mammals and birds. Corridors for bobcats, deer, and other large animals should reach rim-to-rim along drainages, especially if the topography is steep.**
>
> The Conformance Statement states:
>
> The project would not narrow the existing wildlife linkage width. The proposed post-reclamation condition of the site would consist of an expanded Sweetwater River floodplain that would be restored and revegetated with wetland/riparian habitat. Graded slopes would be created on either side of the channel and planted with coastal sage scrub. This would increase the width of the existing linkage and restore available vegetative cover that would encourage and adequately conceal wildlife movement within the area. The preserved, rehabilitated, restored, and revegetated riparian habitat along Sweetwater River would be conserved within

> a biological open space easement that directly abuts existing riparian habitat to the west located within the San Diego National Wildlife Refuge (SDNWR). The biological open space would follow the path of the river across the entire site, extending approximately 10,040 feet from end to end, with an average width of approximately 600 feet. The project does not propose any additional development following reclamation of the site, though select areas outside of the biological opens space would be available for land uses allowed by the existing land use designation and zoning classifications.

Design Criterion 6 posits, "Generally, wide linkages are better than narrow ones." Project implementation would narrow the existing habitat linkage by 600 to 1,400 feet.

Design Criterion 6 posits, "If narrow corridors are unavoidable, they should be relatively short." The linkage/corridor is approximately 1.8 miles (3 km) long, and a narrow corridor is not "unavoidable."

Design Criterion 6 posits, "A width of greater than 1,000 feet is recommended for large mammals and birds." The existing linkage is 850 to 1,700 feet wide. The proposed project would substantially narrow the linkage, to "an average width of approximately 600 feet" with a bottleneck 350-400 feet wide at the western end of the project site. Furthermore, the areas proposed to be graded and not preserved as natural open space must be expected to be subject to future development, which would further degrade the site's function as a regional habitat linkage.

For these reasons, the proposed project clearly violates Design Criterion 6.

7. Visual continuity (i.e., long lines-of-site) will be provided within movement corridors. This makes it more likely that animals will keep moving through it. Developments along the rim of a canyon used as a corridor should be set back from the canyon rim and screened to minimize their visual impact.

The Conformance Statement states:

> The project would not impair visual continuity within corridors or linkages within the local area. The site is currently an active golf course that lacks sufficient vegetative cover to conceal and encourage wildlife movement through the linkage. The proposed project would predominately result in impacts to disturbed and developed areas associated with the golf course development; only 1.63 acres of the 209.63 acres of the onsite impacts would occur to native or sensitive habitats. These impacts would occur in 20- to 30-acre subphases across the site, rather than the entire project footprint impacted concurrently, during mining and reclamation activities leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for foraging. Reclamation of the site would include widening of the Sweetwater River floodplain and planting the area with native wetland/riparian habitat, first occurring adjacent to existing riparian habitat along the Sweetwater River channel in the western portion of the site. As mining activities progress eastward and reclamation is completed, active revegetation areas would provide a buffer between later extraction areas and existing riparian habitat off-site improving visual continuity within the linkage.

Contrary to these statements:

- Proposed grading would substantially increase the site's topographic complexity, thus reducing visual continuity.
- If the proposed riparian plantings were to succeed, this would further reduce visual continuity.
- The 209.6 acres of habitat that the DEIR and Conformance Statement write off as "disturbed and developed areas" consist of grassy areas interspersed with shrubby thickets and hundreds of large cottonwood trees, and the project biologists have collected no wildlife movement data demonstrating that the project site is not fulfilling its role as a designated habitat linkage between nearby BRCA's.
- Project implementation would narrow the floodplain, not widen it.
- The statement that "active revegetation areas would provide a buffer between later extraction areas and existing riparian habitat off-site improving visual continuity within the linkage" makes no sense. If riparian habitat were to be successfully revegetated, as promised, the resulting growth of willows and other dense riparian vegetation would inhibit visual continuity within the linkage.

Because the proposed actions would reduce visual continuity (long lines-of-site), the County has no basis for finding the project in conformance with Design Criterion 7.

8. Corridors with low levels of human disturbance, especially at night, will be selected. This includes maintaining low noise levels and limiting artificial lighting.

The Conformance Statement states:

> The project occurs along the path of a constrained linkage that is already subjected to noise and nighttime lighting impacts associated with operation of the Cottonwood Golf Club. The reach of river traversing the site currently has low function as a wildlife corridor as it is narrow, lacks suitable vegetative cover, and is adjacent to developed golf course operations. Large portions of the project site are fenced, further impeding wildlife access across the site.

The DEIR provides no evidence that the project site is either especially noisy or heavily lit at night. In fact, the general lack of night lighting and potential sources of nocturnal noise both appear to increase the site's value as a designated habitat linkage/movement corridor in the existing condition. The proposed sand mining operation would, of course, have massive noise impacts during the day for at least ten years, and lighting of the site would also increase for the duration of mining operations.

If the extensive trail system proposed to be established as part of the project would be night-lit, this would presumably introduce more lighting to the site than occurs there in

the existing condition, even under the County's Light Pollution Code. The large graded pads that would be built as part of the project, for which the end use is undetermined, may ultimately be lit at night. The DEIR must provide a comparison between the existing and potential future lighting conditions on the site, both during mining operations and after reclamation.

The areas proposed to be graded and not preserved as natural open space must be expected to be subject to future development, with additional night-lighting, further degrading the site's function as a regional habitat linkage.

Because the proposed actions would increase both lighting and noise in the habitat linkage—definitely in the short term and almost certainly in the long term—the County has no basis for finding the project in conformance with Design Criterion 8.

9. Barriers, such as roads, will be minimized.

The Conformance Statement states:

> The project would not include the construction or placement of barriers in any wildlife movement paths. Currently, Steele Canyon Road crosses the site north to south bisecting the entirety of the east-west linkage; therefore, species that are currently accessing the project site and crossing below the road will continue to be able to do so following project implementation. No additional road crossings are proposed as part of the project.

Project implementation involves installing 20-foot-high bands of grouted riprap as grade-control structures across 1.74 acres of the floodplain. Two of these bands would span nearly the entire width of the post-project floodplain, one at the eastern edge of the project site and the other just west of the Steel Canyon Road bridge, and the third would be constructed across the mouth of Mexican Canyon. These bands of new hardscape pose a barrier to movement of some types of wildlife through the habitat linkage/movement corridor, which currently has no such barriers. The DEIR must analyze all potential effects of installing these massive riprap structures on the movement of various forms of wildlife through the project site.

Because the DEIR fails to recognize these hardscaped grade-control structures as potential barriers to wildlife movement, and provides no analysis of their potential effects on the functionality of the existing linkage/corridor, the County has no basis for finding the project in conformance with Design Criterion 9.

CONCLUSION: A project in a designated habitat linkage that violates all applicable MSCP design criteria would not only fail to conform to the MSCP but could also render the MSCP inoperable moving forward.

The County's BMO contains design criteria and mitigation standards that, when applied to projects requiring discretionary permits, protect habitats and species and ensure that a project does not preclude the viability of the MSCP preserve system. The BMO identifies 11 design criteria for linkages and corridors, providing multiple lines of

defense against any action that would erode the ecological integrity of the MSCP preserve system. The proposed project violates nine of the 11 design criteria.

A project located within an MSCP-designated habitat linkage that violates design criteria for linkages and corridors cannot be found to conform to the MSCP Subarea Plan, the BMO, or the Implementation Agreement between the County, the California Department of Fish and Wildlife (CDFW), and the US Fish and Wildlife Service (USFWS). In this case, because the biological investigations undertaken for the DEIR are inadequate and unresponsive to specific MSCP planning requirements, the County and the project biologists can point to no wildlife movement data, or any other relevant data or analyses, upon which to credibly find the project in conformance with *any* of the applicable BMO design criteria.

Preserving the function of habitat linkages and movement corridors is a fundamental tenet of MSCP preserve design in a fragmented landscape. County approval of a project within an MSCP-designated linkage/corridor that violates *nine different design criteria* would signal that all of that these carefully crafted requirements can be waved away without so much as a wildlife movement study. Such an approval would completely undercut the MSCP as a predictable, credible, and hence coherent approach to regional planning.

Pages 12-15: Project violates Subarea Plan Findings

The DEIR provides inadequate basis for the County to conclude that the project conforms to all applicable findings of the County Subarea Plan. As detailed below, the proposed actions would violate Findings 9 and 11.

> **9. No project shall be approved which will jeopardize the possible or probable assembly of a preserve system within the Subarea Plan.**
>
> The Conformance Statement states:
>
> The proposed project will not jeopardize the preserve system assembly within the Subarea Plan. The proposed project will contribute to preserve assembly by adding 142.8 acres to the preserve that will be managed through an RMP.

The assembly, and ultimately the functioning, of the MSCP preserve system depends upon the County, USFWS, and CDFW working together to ensure that any action proposed within a designated habitat linkage be consistent with the MSCP's specified design criteria for linkages and corridors. County approval of the EIR for this proposed mining project, **which violates nine linkage/corridor design criteria**, would clearly jeopardize the assembly of a functioning preserve system. The jeopardy would arise not only from degradation of this one designated linkage/corridor, but from establishing precedent that any or all of the MSCP design criteria can be ignored when proposing impacts within designated regional habitat linkages. The County, therefore, has no basis

for finding that approval of this grossly non-conforming project would not jeopardize the possible or probable assembly of a preserve system within the Subarea Plan.

11. Every effort has been made to avoid impacts to BRCAs, to sensitive resources, and to specific sensitive species as defined in the BMO.

The Conformance Statement states:

> The proposed project has made every effort to avoid impacts to BRCAs, sensitive resources, and sensitive species as defined in the BMO. Since the proposed project site is located within a BRCA and supports many sensitive resources, the impact footprint was concentrated within disturbed habitat and developed lands, associated with the existing golf course, minimizing impacts to sensitive resources. The proposed project does not contain covered plant species. However, the proposed project provides for the conservation of habitat for covered wildlife species including Belding's orange-throated whiptail, coastal California gnatcatcher, Cooper's hawk, least Bell's vireo, peregrine falcon, and western bluebird. Following mining activities, the site would be reclaimed and revegetated, as described in the Reclamation Plan, Revegetation Plan, and Wetland Mitigation Plan. The revegetated area, including 142.6 acres, would be preserved within an open space easement. The proposed open space will be protected by a recorded conservation easement, fencing, and signage, and will be managed and monitored in perpetuity by an approved conservancy following an approved RMP, funded by a non-wasting endowment. The proposed project is consistent with the goals of the MSCP.

The Conformance Statement provides no evidence or legitimate line of reasoning in support of its finding that the project makes "every effort to avoid impacts to BRCAs, sensitive resources, and sensitive species as defined in the BMO." Rather, the project proposes to aggressively mine for aggregate across more than three-quarters of the site (209.6 acres of 276.6 acres), with impacts to another 4.8 acres off-site.

The project site was designated as a regional linkage/corridor, and hence a BRCA, not because it supports an abundance of sensitive natural communities, but because (a) it occupies an extremely important position between two larger BRCA's, and (b) despite having been developed for golf course use, the site has many important characteristics of a valuable linkage/corridor, including:

- The existing width of 850 to 1,700 feet is comparable to the minimum habitat width recommended for use by Mountain Lions (Beier 1995).
- The linkage is a park-like setting, with the soft-bottomed channel of the Sweetwater River running through it, and with numerous vegetated thickets and hundreds of native cottonwood trees.
- Lighting, noise, and human presence are all minimal at night, when most terrestrial wildlife movement takes place.

As described in this letter, the proposed actions would substantially narrow and otherwise degrade the linkage. CEQA requires a complete description of the project setting and a legitimate analysis of all potentially significant adverse effects of the project. By

contrast, the DEIR provides no information at all about the current functioning of the existing linkage and no information regarding the abundance or distribution of several special-status species with high potential to occur within the site's alluvial soils. The project biologists, having collected only fragmentary baseline information, have no ability to acknowledge and analyze all of the project's potential impacts. Instead, the DEIR glosses over major aspects of the impact analysis while repeatedly assuring readers that the habitat linkage will be greatly improved at the end of the long mining and reclamation process. CEQA does not, however, allow the lead agency to provide an incomplete baseline that feeds into an inadequate impact analysis.

For reasons detailed in Greg Kamman's hydrological analysis, and summarized later in this letter, the ultimate success of the promised revegetation of the narrowed linkage is far from assured.

The Conformance Statement asserts, "the impact footprint was concentrated within disturbed habitat and developed lands, associated with the existing golf course, minimizing impacts to sensitive resources," but the "disturbed habitat and developed land" more closely resembles a park than the ecological wasteland misleadingly described in the DEIR and Conformance Statement (see Photos 1-8 on pages 7-10 of this letter). The project site represents the only viable conduit for terrestrial and aquatic species moving between the McGinty Mountain/Sequan Peak-Dehesa BRCA and the Sweetwater Reservoir/San Miguel Mountain BRCA, and yet the County did not require the Applicant to study the existing pattern of wildlife movement through the site. Therefore, the County has no information upon which to base its determination that most of the site can be aggressively mined, and the width of the habitat linkage can be substantially narrowed, while maintaining function of the linkage/corridor.

As discussed on pages 3-4 of this letter, the project biologists failed to report that the site's extensive areas of loose, alluvial soil provide high quality habitat for special-status species that are not covered under the MSCP and that have been greatly impacted by sand mining operations across the region. The California Glossy Snake, Southern California Legless Lizard, Southwestern Pond Turtle, and Western Spadefoot all have high potential to occur on the site, and would experience significant adverse effects from the proposed actions, but no surveys were conducted to determine their presence or absence, abundance or distribution across the site. Of these species, only the Western Spadefoot is so much as mentioned in the DEIR. Given their high potential for occurrence, and the lack of necessary survey information, the County must acknowledge potentially significant impacts to each of these special-status species. The County must take all feasible measures to reduce impacts to these species to below the level of significance.

As discussed on page 11 of this letter, the final reclamation grade contours depict flows in this channel being redirected into the center of the project area *and away from the existing riparian habitat*, emptying back into the southern channel near the western project boundary. The potential reduction in hydroperiod resulting from this redirection of

flow away from the existing stand of riparian woodland represents a potentially significant adverse effect to the mature woodland vegetation and, therefore, to the Least Bell's Vireo. This would represent a failure to achieve the MSCP's conservation goals for covered species and habitats, and would also violate Condition (f) of the BMO's exemption for sand and gravel operations ("Mature riparian woodland may not be destroyed or reduced in size due to sand, gravel and mineral extraction").

Because the DEIR fails to provide information demonstrating that the proposed sand mining project would minimize impacts to BRCAs, sensitive resources, and sensitive species, the County has no basis for finding that the proposed actions conform to the Subarea Plan Findings.

REVIEW OF THE DEIR'S BIOLOGICAL RESOURCES SECTION

This section reviews specific aspects of Section 2.2 of the DEIR, Biological Resources, with reference to the Biological Technical Appendix and other appendices to the DEIR. These inadequate and misleading biological reports provide the County's justification for approving the misguided proposal to conduct extensive and aggressive sand mining in a designated MSCP regional habitat linkage.

DEIR provides no information on current function of habitat linkage

In a documented dated May 19, 2019, commenting on the application for a Major Use Permit for the proposed project, the County Planning & Development Services stated the following on page 77:

> The project contains nearly the entire habitat linkage between the McGinty Mountain/Sequan Peak-Dehesa Biological Resource Core Area (BRCA) and the Sweetwater Reservoir/San Miguel Mountain BRCA. **Analysis of potential project impacts to wildlife movement through this linkage will be required** and BMO findings will need to be made prior to project approval. [emphasis added in bold]

The required analysis of wildlife movement depends upon the project biologists conducting a directed study of the movement of wildlife through the site using "camera traps" or other commonly used methods. Because the necessary study was not conducted, however, all of the DEIR's assertions about shortcomings of the regional habitat linkage represent unsupported assumptions. As discussed at length earlier in this letter, the project site has many important characteristics of a valuable linkage/corridor, including:

- The existing width of 850 to 1,700 feet is comparable to the minimum habitat width recommended for use by Mountain Lions (Beier 1995). The proposed actions would substantially narrow the linkage.

- The DEIR misleadingly and inaccurately characterizes most of the existing linkage as "Disturbed" and "Developed," but the linkage is a park-like setting, with

the soft-bottomed channel of the Sweetwater River running through it, and with numerous vegetated thickets and hundreds of native cottonwood trees.

- Lighting, noise, and human presence on the project site are all minimal at night, when most terrestrial wildlife movement takes place. Each of these factors would only increase with project approval.

CEQA requires a complete description of the project setting and a credible analysis of all potentially significant adverse effects of the project. By contrast, the DEIR provides no information about the current functioning of the existing linkage and no information regarding the abundance or distribution of several special-status species with high potential to occur within the site's alluvial soils.

Because the EIR preparer collected inadequate baseline information, the DEIR glosses over major aspects of the impact analysis. Instead of analyzing all of the impacts and then describing how each potentially significant impact would be avoided, minimized or otherwise mitigated to below the level of significance, as CEQA requires, the DEIR simply assures readers that the habitat linkage will be greatly improved through the project actions. When a CEQA document relies upon an incomplete and/or misleading baseline, these flaws carry forward into a flawed and inadequate impact analysis.

Arroyo Toad survey report is vague and inadequate

Appendix B to the DEIR, "2019 Arroyo Toad (*Anaxyrus californicus*) Survey Report for the Cottonwood Sand Mine Project," provides no detail about the site conditions and survey results, and so provides no evidence that a competent survey was conducted for this federally Endangered species. Specifically, the report fails to provide:

- A description of relevant site conditions encountered during the surveys.
- Representative photos of site conditions.
- Survey route(s).
- A list of amphibians detected during each survey and their relative abundance in the area(s) in which they were encountered.

Without this minimal level of information, the legitimacy of the 2019 surveys is open to question, as is the finding of no significant impact on page 2.2-39 of the DEIR.

Western third of site misclassified as "Disturbed Habitat"

Page 2.2-6 of the Biological Resources section of the DEIR states [emphasis added in bold]:

> **Disturbed habitat includes areas in which the vegetative cover comprises less than 10 percent of the surface area** (disregarding natural rock outcrops) and where there is evidence of

> soil surface disturbance. Disturbed habitat supports a predominance of non-native and/or weedy species that are indicators of such surface disturbance (County 2010c). . . A total of 93.1 acres of disturbed habitat is mapped on site.

By no means does the project site contain 93.1 acres "in which the vegetative cover comprises less than 10 percent of the surface area." Please refer to Photos 1-8 on pages 7-10 of this letter, which show that the project site is well-vegetated with grasses, scattered thickets, and hundreds of mature cottonwood trees. Also present are several man-made lakes and the soft-bottomed channel of the Sweetwater River. The existing plant communities across the entire site must be re-mapped and accurately described before the DEIR can possibly present an accurate and adequate impact analysis.

DEIR's impact analysis excludes special-status species potentially present

Because the project biologists failed to consider all special-status species with potential to occur on the site, and conducted inadequate surveys, the DEIR's impact analysis and findings of significance are incomplete and inadequate.

As discussed on pages 3-4 of this letter, the project biologists failed to report that the site's extensive areas of loose, alluvial soil provide high quality habitat for special-status species that are not covered under the MSCP and that have been greatly impacted by sand mining operations across the region. The California Glossy Snake, Southern California Legless Lizard, and Southwestern Pond Turtle all have high potential to occur on the site, and would experience significant adverse effects from the proposed actions, but no surveys were conducted to determine their presence or absence, abundance or distribution across the site. Given their high potential for occurrence, and the lack of necessary survey information, the EIR must acknowledge potentially significant impacts to each of these special-status species. The County must take all feasible measures to reduce impacts to these species to below the level of significance.

Western Spadefoot impact analysis is inadequate

The Western Spadefoot, a California Species of Special Concern, is not a "covered" species under the MSCP. Because this toad is not uniformly distributed among the MSCP covered habitats (grassland, coastal sage scrub, etc.) but instead is sporadically distributed in association with certain seasonal pools adjacent to suitable upland aestivation habitats, the MSCP does not provide mitigation via the habitat tier mitigation ratios. An adequate site-specific CEQA analysis, including contributions to cumulatively considerable effects, is required independent of the MSCP.

Western Spadefoot status and distribution on the site

CEQA impact analysis normally requires adequate information about the species' abundance and distribution on the project site. In this case, because no focused study was undertaken, the project biologists have no information on the species' occurrence on the project site. Nevertheless, because the project biologists believe the species to have high

potential to occur somewhere on the site, the DEIR provides a vague CEQA impact analysis on that limited basis.

Western Spadefoot life history and ecological requirements

An adequate CEQA analysis must consider all of the species' relevant natural history and habitat requirements. Page 2.2-33 of the DEIR identifies impacts to "0.50 acre of disturbed wetland, 0.32 acre of southern cottonwood-willow riparian forest, and 3.5 acres of constructed ponds with potential to support the species." **This analysis does not adequately account for the species' natural history requirements.**

A recently published telemetry study of Western Spadefoots in southern California provides important current information on the species' life history and ecological requirements (Halstead et al. 2021), following on earlier telemetry studies in the same region (Baumberger 2013, Baumberger et al. 2019).

Western Spadefoots spend large parts of the year aestivating underground, often far away from their breeding ponds. As observed by Halstead et al. (2021:1385):

> The distance that western spadefoots move from breeding pools is a key metric for western spadefoot conservation. Distance from the breeding pool indicates how much terrestrial habitat around a breeding pool might be used by western spadefoots, and provides a direct link to the effective reserve sizes needed to preserve western spadefoot populations.
>
> . . .
>
> The need for core terrestrial habitats around amphibian breeding sites is documented (Semlitsch 1998, Semlitsch and Jensen 2001, Semlitsch and Bodie 2003, Harper et al. 2008, Searcy et al. 2013), as are the negative consequences of roads separating adult habitat from breeding pools (Becker et al. 2007, Brehme et al. 2018). Ensuring that enough terrestrial habitat exists to provide the life cycle needs for western spadefoots is best measured by the predictive distribution of distance from breeding pools. The 95th percentile of the posterior predictive distribution for western spadefoot asymptotic distance from the breeding pool was **486 m** at Crystal Cove. This predicted value encompassed the maximum distance from the breeding pool of all but 1 of the spadefoots at the site. [emphasis added in bold]

Baumberger et al. (2019:6) found:

> The maximum distance the spadefoots were found from the pools **ranged from 16 to 262 m (Table 1, S1 Table), with a mean maximum distance of 69 m ± 61.48.** The spadefoots used a mean of 13 burrows (SD ± 8.5), and the mean distance between burrow locations was 18 m (SD ± 24.2). They used 4–31 unique burrow sites (mean 11 ± 7.8) during the study. Nine of the 15 spadefoots (60%) reused one or more burrows at least once after moving to a different burrow. Outside of their aestivation period, the spadefoots shifted their burrow location an average of every 8 ± 7 days, and 147 of 194 (~76%) movements between burrows were ≤ 25 m. [emphasis added in bold]

In order to mitigate potential adverse effects associated with development upon Western Spadefoots, and to accommodate the movement of the toads between breeding ponds and upland aestivation sites, the USGS (Rochester et al. 2017) recommended that

the City of Santee protect an **undeveloped buffer measuring 300 to 400 meters** around Western Spadefoot breeding ponds. This range is consistent with conservation recommendations for the Western Spadefoot contained in the *Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon* (US Fish and Wildlife Service 2005:II-231):

> Based on calculations from upland habitat use data analyzed by Semlitsch and Brodie (2003), a minimum conservation area to preserve the ecological processes required for the conservation of amphibians may fall within a distance of approximately 368 meters (1,207 feet) from suitable breeding wetlands.

In light of the Western Spadefoot's extensive requirements for upland aestivation sites around their breeding habitats, the project's impacts to this species extend far beyond the "0.50 acre of disturbed wetland, 0.32 acre of southern cottonwood-willow riparian forest, and 3.5 acres of constructed ponds with potential to support the species." Furthermore, Western Spadefoots regularly breed in ephemeral ponds, such as those that form on dirt roads, and the project biologists did not map potentially suitable breeding habitat at this level.

Because the DEIR's analysis of potential impacts to the Western Spadefoot (1) is not based on a study to determine the species' status and distribution on the site, and (2) does not reflect the species' known life history and ecological requirements, the analysis is inadequate under CEQA.

Page 2.2-33 of the DEIR states, "Temporal loss of potential habitat during mining and reclamation activities would not affect the local long-term survival of this species." Since the DEIR's analysis of the nature and extent of potential impacts fails to account for all of the potential impacts, the DEIR provides no factual basis for this conclusion.

Page 2.2-33 of the DEIR concludes, "Following reclamation, the project would provide additional, higher quality habitat for the species through revegetation and restoration of the expanded Sweetwater River floodplain." The proposed actions would restrict, not expand, the Sweetwater River floodplain, reducing the area of suitable habitat for the Western Spadefoot. Additionally, the hydrological analysis by Greg Kamman raises serious doubts about the viability of the revegetation plan. Furthermore, given that Western Spadefoots breed in ephemeral ponds and aestivate underground in nearby alluvial uplands, the project biologists provide no factual basis for concluding that—even if restoration/reclamation is successful—the riparian and coastal sage scrub habitats to be restored along the river would represent suitable habitat for Western Spadefoots.

For all of these reasons, the DEIR's analysis of potential impacts to the Western Spadefoot is inadequate and potentially significant impacts to the species would remain after mitigation.

Unsupported analysis of potential impacts to raptor foraging habitat

Page 2.2-17 of the DEIR states:

> The County (2010a) defines raptor foraging habitat as, "Land that is a minimum of five acres (not limited to project boundaries) of fallow or open areas with any evidence of foraging potential (i.e., burrows, raptor nests, etc.)." The disturbed habitat on the Project site could be considered raptor foraging habitat based on this definition since it occupies greater than five acres and supports burrows of common small mammals, namely Botta's pocket gopher (*Thomomys bottae*); however, the overall foraging value of the site is relatively low considering that the site has operated as an active golf course for decades and golf play to the west of Steele Canyon Road was only recently suspended in 2017. **Therefore, the Project site has likely not functioned as a local or regional foraging resource of importance for raptors and would provide low quality foraging habitat in its current state.** Other more expansive areas occur in the local area and region that provide better quality foraging habitat, such the SDNWR to the southwest. The area east of Steele Canyon Road is still an active golf course subject to human disturbances and maintenance activities (i.e., mowing) that could discourage and limit raptor foraging activities. [emphasis added in bold]

Project biologists recorded seven raptors on the site: Turkey Vulture, Cooper's Hawk, Red-tailed Hawk, Red-shouldered Hawk, Barn Owl, American Kestrel, and Peregrine Falcon. Nevertheless, in the absence of a raptor foraging study and without conducting any detailed analysis, the project biologists conclude "the Project site has likely not functioned as a local or regional foraging resource of importance for raptors and would provide low quality foraging habitat in its current state." As shown in Photos 1-8 on pages 7-10 of this letter, the project site provides large expanses of park-like habitat that appears to be valuable to foraging raptors. This is especially true for the southwestern third of the project site, which has been closed to human activity since the golf course closed in 2017. In the absence of a study or credible analysis supporting the DEIR's finding of no significant impact on page 2.2-40, the EIR should acknowledge potentially significant impacts to raptor foraging habitat. The County must take all feasible measures to reduce impacts to raptor foraging habitat to below the level of significance.

Inadequate evaluation of habitat connectivity and wildlife corridors

Page 2.2-18 states:

> **The Sweetwater River and Sweetwater Reservoir are expected to be key components to the movement of wildlife in the region, namely birds and mammals. These resources support permanent water sources and cover for a wide range of species known to the region.** Large mammals, such as southern mule deer (*Odocoileus hemionus fuliginata*) and coyote (*Canis latrans*), would be expected to travel to and from the Sweetwater River/Sweetwater Reservoir and expansive habitat blocks associated with the SDNWR. **Large mammals would also be expected to travel along the Sweetwater River valley and riparian corridor.** [emphasis added in bold]

On page 2.2-19, the second and third paragraphs provide several erroneous and misleading statements that portray the project site as having little value as a habitat linkage/movement corridor:

> The Project site is an active golf course that is characterized by open, exposed areas that lack suitable cover and resources typically associated with wildlife movement areas. Large portions of the Project boundary are fenced along the northern, eastern, and southern boundaries, which can impede wildlife access into the site. Residential development is present to the north and south of the Project site, and Steele Canyon Golf Club occurs to the southeast. The Sweetwater River runs through the Project site, and although riparian habitat occurs upstream and downstream of the site, most of the on-site reach of the river is characterized by open areas vegetated with low growing plant species, primarily Bermuda grass, as part of the golf course development. The site is also subject to regular human activity and other disturbances associated with golf course operations (such as mowing, night lighting, and noise) that would discourage larger animals from utilizing the site.
>
> Common birds and mammals might move through the Project site to forage and during dispersal activities; however, they would not be expected to use the site, in its current condition, as a main corridor, linkage, or specific travel route to and from important resources based on current site uses and disturbances and lack of sufficient vegetative cover to conceal larger wildlife species that may move through the area.

As discussed extensively on pages 6-21 of this letter, and as shown in Photos 1-8 on pages 7-10, the project site is a BRCA that forms a wide, park-like habitat linkage between two adjacent BRCA's.

Existing fencing around the perimeter of the site has gaps adequate to allow wildlife to move through the area.

At night, when most larger mammals move across the landscape, the project site *not* subject to extensive "disturbances associated with golf course operations (such as mowing, night lighting, and noise)."

The proposed actions would violate nine of the 11 design criteria contained in the BMO for MSCP-designated habitat linkages and movement corridors.

No study was conducted to document and analyze the movement of wildlife through this important location in the MSCP preserve system, as would be required for an adequate and credible CEQA impact analysis.

For these reasons, the DEIR's treatment of habitat connectivity and wildlife corridor issues is misleading and provides an inadequate basis for analyzing potential impacts of the proposed actions on wildlife populations and on the integrity of the MSCP preserve system.

Inadequate impact analysis, habitat connectivity and wildlife corridors

The DEIR's analysis of this topic (Guideline 20) is at the bottom of page 2.2-51:

> The Project would not substantially interfere with the already constrained linkage between the McGinty Mountain/Sycuan Peak-Dehesa BRCA to the east and the Sweetwater Reservoir/San Miguel Mountain BRCA to the west. The Proposed Project is located within developed lands that have been altered by development of the golf course and disturbed by previous mining activities. Only 1.63 acres (0.8 percent) of the 209.63 acres of on-site impacts would be within native or sensitive habitats. Furthermore, mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for wildlife use. As part of reclamation, the Project would preserve, rehabilitate, restore, and revegetate native habitat along the expanded Sweetwater River floodplain, thereby restoring and improving functional connectivity within the area. The Project would conform to the goals and requirements of the County Subarea MSCP and BMO, including effects on habitat linkages and wildlife corridors. **Impacts associated with habitat linkages and wildlife corridors would be less than significant.** [emphasis in the original]

Here the DEIR raises more vague concerns about "disturbed" conditions on the site and emphasizes that "Only 1.63 acres (0.8 percent) of the 209.63 acres of on-site impacts would be within native or sensitive habitats." As has been discussed at length in these comments, the project site is designated as a regional habitat linkage and hence a BRCA because it is an expansive, park-like area that occupies an ecologically important position in the MSCP preserve system (see Photos 1-8 on pages 7-10).

The project biologists did not conduct a study to document and analyze the movement of wildlife through this important location in the MSCP preserve system, as would be required for an adequate and credible CEQA impact analysis.

The proposed actions would violate 9 of the 11 design criteria for wildlife linkages and movement corridors specified in the BMO.

In the absence of a credible study demonstrating that wildlife do not utilize this designated regional habitat linkage—the sole pathway between the McGinty Mountain/Sycuan Peak-Dehesa BRCA and the Sweetwater Reservoir/San Miguel Mountain BRCA—the assumption must be that a variety of terrestrial and aquatic wildlife species depend upon the project site for movement between the two BRCA's. Given the proposal to substantially narrow and degrade the existing linkage, and serious doubts about the viability of the revegetation plan raised by Greg Kamman's hydrological analysis, the project would entail significant adverse effects to habitat connectivity and wildlife corridors that would remain significant after mitigation.

Inadequate discussion of indirect effects

The DEIR's analysis of this topic (Guideline 20) is on page 2.2-52. The first paragraph states:

> The Project occurs along the path of a constrained linkage that is already subjected to noise and nighttime lighting impacts associated with operation of the Cottonwood Golf Club. The reach of river traversing the Project site currently has low function as a wildlife corridor as it is narrow, lacks suitable vegetative cover, and is adjacent to developed golf course operations. Large portions of the Project site are fenced, further impeding wildlife access across the site.

The DEIR provides no information on the existing levels of noise and night-lighting in different parts of the project site. During my field visit on February 10, 2022, I saw very few lights around the project site, and no reason to expect that the site would experience much noise at night, when most terrestrial wildlife movement takes place. I also observed numerous gaps and gates in perimeter fencing. Furthermore, since no study of wildlife movement was conducted, the assertion that "the Project site currently has low function as a wildlife corridor" is unsupported and purely speculative. When a CEQA document relies upon an incomplete and/or misleading baseline, these flaws carry forward into a flawed and inadequate impact analysis.

The second paragraph states:

> Construction-related noise generated from mining and reclamation activities could temporarily impact wildlife. Mining operations and reclamation activities would require the daily use of heavy equipment that would elevate existing noise levels on site. Wildlife may be temporarily displaced from or avoid the Project site during construction activities but would be expected to return to the area was activities have ceased.

The DEIR should specify the noise levels expected from project operations and evaluate them against the published literature on noise impacts to different wildlife species known to occur in the local area.

The second paragraph also states:

> Larger wildlife species, such as mule deer or bobcat, would already be discouraged from utilizing the Project site based on current golf course activity and lack of vegetative cover along the Sweetwater River.

The project biologists conducted no study of wildlife movement through the site to determine the status of larger wildlife species on the site at night, when most movement of such species takes place. As such, this statement is pure speculation.

Erroneous and misleading analysis of habitat linkage width, barriers

The DEIR's analysis of this topic (Guideline 23), on page 2.2-53, erroneously states, "The project would not further constrain existing wildlife corridors or linkages in the local area," and "The Project would not narrow the existing wildlife linkage width," and "The project would not include the construction or placement of barriers in any wildlife movement paths."

The topic of narrowing the width of the regional habitat linkage through the site is discussed on pages 12-13 and pages 15-18 of this letter, parts of which are summarized below:

- The MSCP-designated habitat linkage through the project site measures between 850 and 1,700 feet wide. The proposed project would dramatically narrow the habitat linkage "to an average width of approximately 600 feet."

- A tracking study of Mountain Lions (Beier 1995) points to a need for a very wide linkage/corridor on the project site, on the scale of 400 meters or more, which is comparable to the existing corridor width of approximately 259 to 518 meters (850 to 1,700 feet). His research suggests that the proposed reduction of the width of the linkage/corridor to only 76 to 91 meters (250 to 300 feet) would substantially reduce or possibly even eliminate the potential for Mountain Lions to move between Sweetwater Reservoir and McGinty Mountain.

- Because the project biologists did not provide the required "biological information for the target species," and because the proposed actions would reduce the width of the existing habitat linkage to far below that recommended for Mountain Lions in the peer-reviewed literature, the project would not conform to Design Criterion 5.

- Design Criterion 6 posits, "Generally, wide linkages are better than narrow ones." Project implementation would narrow the existing habitat linkage by 600 to 1,400 feet.

- Design Criterion 6 further posits, "If narrow corridors are unavoidable, they should be relatively short." The linkage/corridor is approximately 1.8 miles (3 km) long, and a narrow corridor is not "unavoidable."

- Design Criterion 6 further posits, "A width of greater than 1,000 feet is recommended for large mammals and birds." The existing linkage is 850 to 1,700 feet wide. The proposed project would substantially narrow the linkage, to "an average width of approximately 600 feet" with a bottleneck 350-400 feet wide at the western end of the project site. Furthermore, the areas proposed to be graded and not preserved as natural open space must be expected to be subject to future development, which would further degrading the site's function as a regional habitat linkage.

The topic of placing barriers to the movement of wildlife through the site is discussed on page 20 of this letter, which notes that project implementation involves installing 20-foot-tall bands of grouted riprap as grade-control structures across 1.74 acres of the floodplain. Two of these bands would span nearly the entire width of the post-project floodplain, one at the eastern edge of the project site and the other just west of the Steel Canyon Road bridge, and the third would be constructed across the mouth of Mexican Canyon. These bands of new hardscape pose a barrier to movement of some types of wildlife through the habitat linkage/movement corridor, which currently has no such barriers. The DEIR must analyze all potential effects of installing these massive riprap structures on the movement of various forms of wildlife through the project site.

The DEIR's erroneous and misleading statements concerning the narrowing of the habitat linkage through the project site, and the placement of potential barriers to wildlife movement, must be corrected and a new impact analysis prepared.

Project does not minimize impacts to BRCA

Page 2.2-57 of the Biological Resources section of the DEIR states:

> The Project minimizes impacts to BRCA in accordance with the MSCP and BMO. Impacts to BRCA would be less than significant.

As an MSCP-designated regional habitat linkage/corridor, the entire project site constitutes a BRCA. As reviewed on pages 22-24 of this letter, the project proposes to aggressively mine for aggregate across more than three-quarters of the site (209.6 acres of 276.6 acres), with impacts to another 4.8 acres off-site. The DEIR provides no evidence or legitimate line of reasoning to support this finding that the project "minimizes impacts to BRCA in accordance with the MSCP."

Impacts to BMO-identified linkages/corridors not acknowledged

Number 32 in the *Guidelines for Determination of Significance* states, "Not maintain existing movement corridors and/or habitat linkages, as defined by the BMO." Page 2.2-58 of the Biological Resources section of the DEIR states:

> The Project site is located within an identified habitat linkage in the South County MSCP. As part of the reclamation process, the Proposed Project would substantially improve the condition of the existing linkage through widening of the Sweetwater River floodplain and planting of riparian habitat. A riparian corridor would be re-established throughout the Project site which would encourage and facilitate wildlife movement within the region. Therefore, the Project would ultimately conserve and enhance the functions and values of the habitat linkage in accordance with the MSCP and BMO. Impacts to BMO-identified corridors would be less than significant.

The DEIR's impact analysis contains no analysis of the impact, only promises about the post-project conditions. Even if we assume that reclamation/restoration will be as successful as promised—despite a hydrological analysis by Greg Kamman that identifies important flaws in the plan—CEQA requires that the EIR identify all potentially

significant impacts and specify feasible avoidance and mitigation measures. Guideline 32 refers to BMO Design Criteria 1 and BMO Design Criteria 2, discussed on pages 12-14 of this letter:

- **BMO Design Criteria 1:** "Habitat Linkages as defined by the BMO, rather than just Corridors, will be maintained."

Section 86.508(d) of the Biological Mitigation Ordinance (BMO) defines "Linkage" and "Corridor" as follows:

> "Corridor" is a specific route that is used for movement and migration of species. A corridor may be different from a "Linkage" because it represents a smaller or more narrow avenue for movement.

The MSCP-designated habitat linkage through the project site occupies the 100-year floodplain, and measures between 850 and 1,700 feet wide (see Figure 4 on the next page). The proposed project would dramatically narrow the habitat linkage "to an average width of approximately 600 feet," and as narrow as 350-400 feet at the western end of the project, where it interfaces with the SDNWR.

Since Design Criterion 1 specifies that "Linkages . . . rather than just Corridors, will be maintained," and the proposed actions would dramatically narrow the existing **Linkage**, down to the width of a **Corridor**, the project clearly violates BMO Design Criterion 1 and Guideline 32. Therefore, a significant impact to the MSCP-designated habitat linkage must be identified.

- **BMO Design Criteria 2:** "Existing movement corridors within linkages will be identified and maintained."

The project biologists have not conducted a wildlife movement study to identify "existing movement corridors within linkages," as required by Design Criterion 2, and therefore the EIR preparer has no basis for finding that the project complies with Guideline 32.

Cumulative impact analysis is flawed and inadequate

With regard to the project's contribution to cumulative impacts to wildlife movement, page 2.2-62 of the DEIR states:

> A cumulative impact on wildlife movement has already occurred in the local area where commercial and residential development and major roadways (such as SR 94, SR 54, and Steele Canyon Road) has constrained available areas for wildlife movement. Primary wildlife use areas in the local area are located in the McGinty Mountain/Sycuan Peak-Dehesa and Sweetwater Reservoir/San Miguel Mountain BRCAs, generally associated with the SDNWR, Sweetwater River and Sweetwater Mountain Ecological Reserve, McGinty Mountain Ecological Reserve, and McGinty Mountain Preserve. These resources provide wildlife movement areas for a wide range of species known to the region. As described in Section 2.2.1.1 under Habitat Connectivity and Wildlife Corridors, and in Section 2.2.2.4 under Guideline 19, the

> current function of the Project site as a linkage/corridor for wildlife movement is considered low based on previous golf course development, on-going disturbances related to golf course maintenance and operations, and lack of sufficient habitat cover to conceal wildlife movement through the site. As such, the Project is not expected to substantially interfere with the movement of wildlife species or impede the use of nursery sites.
>
> The Project would comply with the requirements of the BMO and MSCP, including preserve design criteria related to corridors and linkages. In addition, the Project would improve habitat quality and connectivity compared to the site's current state as a golf course.

The existing condition, in which the only viable habitat linkage between two BRCA's consists of two golf courses, reflects past failure to address the cumulative impacts of sprawling development in this area. And now, despite acknowledging that "a cumulative impact on wildlife movement has already occurred in the local area," the DEIR proposes to substantially constrict the width of this last habitat linkage through an aggressive sand mining operation. The project biologists assume that the functioning of the site as a wildlife movement conduit must be "low" based on subjective, speculative, and often misleading or even false descriptions of existing conditions. For example:

- The DEIR classifies 93.1 acres of the project site as "Disturbed," which the DEIR defines as having vegetative cover of "less than 10 percent of the surface area." This is obviously false (see Photos 3-6 on pages 8-9 of this letter), but it does help to create an impression that wildlife must not be able to move through the site in the existing condition.

- The DEIR refers to existing noise, lighting, fencing, and human disturbance as factors that prevent wildlife from moving through the project site, but provides no details for a reader to evaluate. During my visit to the site on February 10, 2022, I observed numerous gaps in perimeter fencing, and it appeared to me that the site would not experience much noise, lighting, or human disturbance at night, when most terrestrial wildlife movement takes place.

- The DEIR claims that the site lacks "sufficient habitat cover to conceal wildlife movement through the site," but I did not see this during my site visit. Some parts of the site are open, but there are also scattered thickets of vegetation and lines of dense trees that appear well-suited to encouraging the movement of terrestrial wildlife through this very wide habitat linkage.

The EIR preparer asserts that "The Project would comply with the requirements of the BMO and MSCP, including preserve design criteria related to corridors and linkages," yet when each criterion is evaluated objectively, and in light of the published literature on linkages and corridors, it is clear that the project would violate all nine of the applicable BMO design criteria (see pages 12-21 of this letter).

In the absence of credible study data demonstrating that wildlife do not utilize this designated regional habitat linkage—the last remaining pathway between the McGinty Mountain/Sycuan Peak-Dehesa BRCA and the Sweetwater Reservoir/San Miguel

Mountain BRCA—the assumption must be that a variety of terrestrial and aquatic wildlife species depend upon the project site for movement between the two BRCA's. Given the proposal to greatly narrow the existing linkage, and serious doubts about the viability of the revegetation plan raised by Greg Kamman's hydrological analysis, the proposal to remove 6.4 million tons of material from 209.6 acres of the project site clearly would represent a cumulatively significant impact to wildlife movement through this important designated habitat linkage in the MSCP preserve system.

Cumulative impacts to special-status species associated with alluvium

Adverse ecological effects of sand and gravel operations across western San Diego County have elevated the ecological importance of the relatively few areas of alluvial soil that remain. As stated by Richmond and colleagues (2017:294-295):

> Large portions of the southwestern United States, particularly coastal areas of western San Diego County, California, near the USA-Mexico international border, have undergone rapid development that has either eliminated or encroached upon what little is left of alluvial sand and gravel habitats. These habitats are generally found in river and stream valleys, at the base of topographic features where there is a pronounced change in slope, and in intermountain valleys. Deposits typically consist of variable grain sizes that are compactable, but retain good internal drainage. This feature makes them a preferred substrate for numerous reptiles and amphibians occurring within the region, particularly those with burying or burrowing tendencies such as the southern California legless lizard (*Anniella stebbinsi*), the California glossy snake (*Arizona elgans occidentalis*), Blainville's horned lizard (*Phrynosoma blainvillii*), the Gilbert skink (*Plestiodon gilberti*), and the western spadefoot (*Spea hammondii*).

The project's contribution to this cumulative adverse effect is a significant impact that the DEIR does not acknowledge, discuss, or analyze. The project must be reconsidered to acknowledge and avoid cumulatively considerable impacts to alluvium-dependent special-status species.

Inadequate alternatives analysis

The DEIR evaluates two potential alternatives, both of which call for intensive, large-scale mining of the project site. Both alternatives would violate the BMO Design Criteria for habitat linkages/movement corridors, and would not take into consideration the results of a wildlife movement study, since no such study has been completed for the proposed project. As such, there is no reason to expect that either project alternative could be completed without the type of significant adverse effects identified in this letter for the proposed project.

The DEIR must evaluate at least one project alternative that would, in fact, comply with all BMO Design Criteria for linkages and corridors, as determined through a legitimate study of the existing patterns of wildlife movement through the project site. Such a study would involve using "camera traps" or other commonly used and widely accepted techniques for documenting patterns of movement of different wildlife species at night, when most such movement takes place.

A type of project compatible with the site's MSCP designation as a regional habitat linkage would be to convert the project site to a mitigation bank. I recently spoke with Brian Monaghan at Wildlands, Inc., a mitigation banking company based in Rocklin, California. In 2017, before the previous landowner went into bankruptcy, Mr. Monaghan visited the site several times to conduct a detailed investigated into the site's potential for conversion to a wetland mitigation bank. In his opinion, the site has great potential for this use. Furthermore, Mr. Monaghan reports that San Diego County has a shortage of wetland mitigation credits available. Thus, it would be in the County's interest, as well as the public's interest, to evaluate a mitigation banking alternative in the EIR. Such an alternative would be consistent with the site's MSCP designation as a habitat linkage/movement corridor and would allow the landowner to profit on their investment.

COMMENTS ON THE CONCEPTUAL REVEGETATION/RECLAMATION PLAN

Overview of the Plan

Page 1-12 states:

> Reclaimed areas would be restored to an end use of open space, multi-use trails, and land suitable for uses allowed by the General Plan and existing zoning classifications. Specifically, nearly 52 percent of the project site (142.8 acres) would be preserved in a biological open space easement to be held by the County. The reclamation plan for the riparian corridor is intended to stabilize the post-extraction landform and establish a productive native vegetative cover. For the areas outside the riparian corridor, the revegetation plan is intended to stabilize the surface and control erosion.

Approximately six inches of topsoil would be stockpiled, to be re-applied as part of the reclamation/habitat restoration process. Restoration/revegetation efforts would continue for five years or until the County determines that performance standards have been satisfied for two consecutive years, at which time the project proponent may apply for release of an unspecified financial assurance, to be required by the County. Also at that time, the project proponent may request that SMARA declare the site successfully reclaimed. Page 1-15 of the DEIR states that any areas not successfully restored within four years following the initial seeding "would be reevaluated to determine the measures necessary to improve revegetation success."

With regard to financial assurances, page 21 of Appendix M, the Conceptual Wetland Mitigation Plan, states:

> A revegetation agreement shall be signed and notarized by the property owner following approval of this restoration plan and be accompanied by the required security as agreed upon by the County.

It is my understanding, from speaking to people who have been in consultation with the County and the Applicant during preparation of the DEIR, that the amount of the "financial assurance" or "security" is a sum not to exceed $30,000. If this is incorrect, please specify the actual amount of the performance bond that would be required.

Critique of hydrological analysis related to revegetation/reclamation

In a separate letter, hydrologist Greg Kamman identifies a number of flaws in the DEIR's hydrological analysis that call into question the likelihood of success of the proposed plans to revegetate the mined areas. These include:

- The Groundwater Investigation estimate of future vegetation water demands is based on existing condition grades not the post-Reclamation grades.
- Comparison of available groundwater level data against post-Reclamation grades indicates there would be large areas of ground lowering that would intersect the groundwater table, creating surface ponding and generating losses due to evaporation.
- The exposure of exposed groundwater to evaporation appears to occur for varying lengths of time, with prolonged (multi-month to annual) exposure during wet years.
- Losses of groundwater due to surface ponding and evaporation are not acknowledged or quantified in the DEIR, therefore potential impact on groundwater supply are not accurately quantified.
- The Project would also result in depths to groundwater that are shallower than evaluated. This may lead to change in the aerial extent of vegetation communities as mapped in the Reclamation Plan as well as estimated evapotranspiration demands on groundwater.
- The shallower groundwater table and routine ponding where exposed may also impact the survival of less water-tolerant vegetation communities, impacting the viability of the proposed Reclamation vegetation.
- The DEIR statement that the proposed Project would have less than significant impacts to groundwater storage is not substantiated by the technical studies that support the claim.
- The feasibility of the proposed Reclamation revegetation plan is also impacted by altered exposure to shallow groundwater and seasonal/wet-year ponding.
- The Project proposes some very large and deep over-excavation pits that would require backfilling. Some of these surfaces would result in grades that are higher than existing grades.

- The DEIR states that mining would only result in 10% of mined material being "waste material." The waste material appears to be the primary source of backfill material.

- The use of wash fines as backfill would likely create poorly drained conditions wherever the fines are deposited, reducing the suitability of the habitat in those areas for the special-status herptiles that occupy the site's well-drained alluvial soils (e.g., California Glossy Snake, Southern California Legless Lizard, Western Spadefoot).

- Detailed investigation by Mr. Kamman calculates 4.7 million cubic yards of excavation, versus 4.3 million cubic yards reported in the DEIR.

- Mr. Kamman also estimates that 3.4 million cubic yards of material would be required to backfill the over-excavated pits and construct the fill areas to the specifications reported in the DEIR. This is nearly 7 times the volume of "waste" material estimated to be produced through mining operations (i.e., the material that the DEIR relies upon to achieve the claimed post-project elevations).

- If the mining operations cannot generate sufficient backfill, the County and Applicant must (1) identify the off-site sources for this material, and (2) evaluate the traffic impacts associated with bringing the material on-site.

- The concentration of wash fines in the surface soil also poses impacts to water quality. This practice may increase source and concentration of total dissolved solids (TDS) and naturally occurring metals. The watershed risks increased exposure to undesirable constituents contained in the fines via the following pathways: a) floodwaters that bypass the project; b) ponds, wetlands, channel habitats that become established on backfill containing fines within the project boundary; and c) migration of water through the fines into underlying groundwater. These potential impacts are not addressed in the DEIR.

These errors in the hydrological calculations, questionable assumptions about post-mining site conditions, and other gaps in the impact analysis undermine the DEIR's repeated assurances that the narrowed, post-project habitat linkage through the project site would be successfully revegetated/reclaimed. Each of the points raised in Mr. Kamman's analysis must be fully addressed in order to substantiate the DEIR's claims about revegetation/reclamation of the site post-mining.

Finally, given that tens of millions of dollars in aggregate would be removed from the site, the public can have no expectation that a "financial assurance" on the order of

$30,000—or even ten times that amount—would represent a sufficient financial incentive to ensure full, long-term success of the revegetation/reclamation.

CONCLUSION

I appreciate the opportunity to evaluate the CEQA documentation for this important project. Please call me at 562-477-2181 if you have questions or wish to further discuss any matters; you may send e-mail to robb@hamiltonbiological.com.

Sincerely,

Robert A. Hamilton, President
Hamilton Biological, Inc.
http://hamiltonbiological.com

Attachments: Literature Cited
Curriculum Vitae

cc: Susan Wynn, US Fish and Wildlife Service
Dan Leavitt, US Fish and Wildlife Service
David Mayer, California Dept. of Fish and Wildlife
Heather Schmalbach, California Dept. of Fish and Wildlife

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Robert A. Hamilton

President, Hamilton Biological, Inc.

Expertise

Endangered Species Surveys
General Biological Surveys
CEQA Analysis
Population Monitoring
Vegetation Mapping
Construction Monitoring
Noise Monitoring
Open Space Planning
Natural Lands Management

Education

1988. Bachelor of Science degree in Biological Sciences, University of California, Irvine

Professional Experience

1994 to Present. Independent Biological Consultant, Hamilton Biological, Inc.

1988 to 1994. Biologist, LSA Associates, Inc.

Permits

Federal Permit to survey for the Coastal California Gnatcatcher and Southwestern Willow Flycatcher

MOUs with the California Dept. of Fish and Game to survey for Coastal California Gnatcatcher, Southwestern Willow Flycatcher, and Coastal Cactus Wren.

California Scientific Collecting Permit

Robert A. Hamilton has been providing biological consulting services in southern California since 1988. He spent the formative years of his career at the firm of LSA Associates in Irvine, where he was a staff biologist and project manager. He has worked as an independent and on-call consultant since 1994, incorporating his business as Hamilton Biological, Inc., in 2009. The consultancy specializes in the practical application of environmental policies and regulations to land management and land use decisions in southern California.

A recognized authority on the status, distribution, and identification of birds in California, Mr. Hamilton is the lead author of two standard references describing aspects of the state's avifauna: *The Birds of Orange County: Status & Distribution* and *Rare Birds of California.* Mr. Hamilton has also conducted extensive studies in Baja California, and for seven years edited the Baja California Peninsula regional reports for the journal *North American Birds.* He served ten years on the editorial board of *Western Birds* and regularly publishes in peer-reviewed journals. He is a founding member of the Coastal Cactus Wren Working Group and in 2011 updated the Cactus Wren species account for *The Birds of North America Online*. Mr. Hamilton's expertise includes vegetation mapping. From 2007 to 2010 he worked as an on-call biological analyst for the County of Los Angeles Department of Regional Planning. From 2010 to present he has conducted construction monitoring and focused surveys for special-status bird species on the Tehachapi Renewable Transmission Project (TRTP). He is has served on the Significant Ecological Areas Technical Advisory Committee (SEATAC) for Los Angeles County.

Mr. Hamilton conducts general and focused biological surveys of small and large properties as necessary to obtain various local, state, and federal permits, agreements, and clearances. He also conducts landscape-level surveys needed by land managers to monitor songbird populations. Mr. Hamilton holds the federal and state permits and MOUs listed to the left, and he is recognized by federal and state resource agencies as being highly qualified to survey for the Least Bell's Vireo. He also provides nest-monitoring services in compliance with the federal Migratory Bird Treaty Act and California Fish & Game Code Sections 3503, 3503.5 and 3513.

Board Memberships, Advisory Positions, Etc.

Friends of Colorado Lagoon, Board Member (2014–present)

Coastal Cactus Wren Working Group (2008–present)

Los Angeles County Significant Ecological Areas Technical Advisory Committee (SEATAC) (2010–2014)

American Birding Association: Baja Calif. Peninsula Regional Editor, North American Birds (2000–2006)

Western Field Ornithologists: Associate Editor of Western Birds (1999–2008)

California Bird Records Committee (1998–2001)

Nature Reserve of Orange County: Technical Advisory Committee (1996–2001)

California Native Plant Society, Orange County Chapter: Conservation Chair (1992–2003)

Professional Affiliations

American Ornithologists' Union

Cooper Ornithological Society

Institute for Bird Populations

California Native Plant Society

Southern California Academy of Sciences

Western Foundation of Vertebrate Zoology

Mr. Hamilton is an expert photographer, and typically provides photo-documentation and/or video documentation as part of his services.

Drawing upon a robust, multi-disciplinary understanding of the natural history and ecology of his home region, Mr. Hamilton works with private and public land owners, as well as governmental agencies and interested third parties, to apply the local, state, and federal land use policies and regulations applicable to each particular situation. Mr. Hamilton has amassed extensive experience in the preparation and third-party review of CEQA documents, from relatively simple Negative Declarations to complex supplemental and recirculated Environmental Impact Reports. In addition to his knowledge of CEQA and its Guidelines, Mr. Hamilton understands how each Lead Agency brings its own interpretive variations to the CEQA review process.

Representative Project Experience

From 2008 to present, Mr. Hamilton has served as the main biological consultant for the Banning Ranch Conservancy, a local citizens' group that successfully defeated efforts to implement a large proposed residential and commercial project on the 400-acre Banning Ranch property in Newport Beach. Mr. Hamilton reviewed, analyzed, and responded to numerous biological reports prepared by the project proponent, and testified at multiple public hearings of the California Coastal Commission. In September 2016, the Commission denied the application for a Coastal Development Permit for the project, citing, in part, Mr. Hamilton's analysis of biological issues. In March 2017, the California Supreme Court issued a unanimous opinion (*Banning Ranch Conservancy v. City of Newport Beach*) holding that the EIR prepared by the City of Newport Beach improperly failed to identify areas of the site that might qualify as "environmentally sensitive habitat areas" under the California Coastal Act. In nullifying the certification of the EIR, the Court found that the City "ignored its obligation to integrate CEQA review with the requirements of the Coastal Act."

Insurance

$3,000,000 professional liability policy

$2,000,000 general liability policy

$1,000,000 auto liability policy

Other Relevant Experience

Field Ornithologist, San Diego Natural History Museum Scientific Collecting Expedition to Central and Southern Baja California, October/November 1997 and November 2003.

Field Ornithologist, Island Conservation and Ecology Group Expedition to the Tres Marías Islands, Nayarit, Mexico, 23 January to 8 February 2002.

Field Ornithologist, Algalita Marine Research Foundation neustonic plastic research voyages in the Pacific Ocean, 15 August to 4 September 1999 and 14 to 28 July 2000.

Field Assistant, Bird Banding Study, Río Ñambí Reserve, Colombia, January to March 1997.

References

Provided upon request.

From 2012 to 2014, Mr. Hamilton collaborated with Dan Cooper on *A Conservation Analysis for the Santa Monica Mountains "Coastal Zone" in Los Angeles County*, and worked with Mr. Cooper and the County of Los Angeles to secure a certified Local Coastal Program (LCP) for 52,000 acres of unincorporated County lands in the Santa Monica Mountains coastal zone. The work involved synthesizing large volumes of existing baseline information on the biological resources of the study area, evaluating existing land use policies, and developing new policies and guidelines for future development within this large, ecologically sensitive area. A coalition of environmental organizations headed by the Surfrider Foundation selected this project as the "Best 2014 California Coastal Commission Vote" (http://www.surfrider.org/images/uploads/2014CCC_Vote_Chart_FINAL.pdf).

In 2010, under contract to CAA Planning, Mr. Hamilton served as principal author of the *Conservation & Management Plan for Marina del Rey, Los Angeles County, California*. This comprehensive planning document has two overarching goals: (1) to promote the long-term conservation of all native species that exist in, or that may be expected to return to, Marina del Rey, and (2) to diminish the potential for conflicts between wildlife populations and both existing and planned human uses of Marina del Rey (to the benefit of humans and wildlife alike). After peer-review, the Plan was accepted by the Coastal Commission as an appropriate response to the varied challenges posed by colonial waterbirds and other biologically sensitive resources colonizing urban areas once thought to have little resource conservation value.

Contact Information

Robert A. Hamilton, President
Hamilton Biological, Inc.

316 Monrovia Avenue
Long Beach, CA 90803

562-477-2181 (office, mobile)

robb@hamiltonbiological.com
http://hamiltonbiological.com

Third Party Review of CEQA Documents

Under contract to cities, conservation groups, homeowners' associations, etc., Mr. Hamilton has reviewed EIRs and other project documentation for the following projects:

- Alpine County Regional Park (park establishment, County of San Diego)
- Trails at Carmel Mtn. Ranch (golf course to residential, City of San Diego)
- Otay Village 13 (residential, County of San Diego)
- Otay Village 14, Planning Areas 16/19 (residential, County of San Diego)
- Western Snowy Plover Mgmt. Plan (resource management, City of Newport Beach)
- Rancho La Habra Specific Plan (golf course to residential, City of La Habra)
- Sanderling Waldorf School (commercial, City of Encinitas)
- Diamond Bar General Plan (open space planning, City of Diamond Bar)
- UC San Diego Long-range Development Plan (institutional, UC Regents)
- El Monte Sand Mining Project (resource extraction, County of San Diego)
- Faria/Southwest Hills Annexation Project (residential, City of Pittsburg)
- Los Cerritos Oil Consolidation/Wetland Restoration Project (resource extraction/habitat restoration, City of Long Beach)
- Safari Highlands Ranch (residential, City of Escondido)
- Newland Sierra (residential, County of San Diego)
- Harmony Grove Village South (residential, County of San Diego)
- Vegetation Treatment Program (statewide fire management plan, California Department of Forestry and Fire Protection)
- Watermark Del Mar Specific Plan (residential, City of Del Mar)
- Newport Banning Ranch (residential/commercial, City of Newport Beach)
- Davidon/Scott Ranch (residential, City of Petaluma)
- Mission Trails Regional Park Master Plan (open space planning, City of San Diego)
- Esperanza Hills (residential, County of Orange)
- Warner Ranch (residential, County of San Diego)
- Dog Beach, Santa Ana River Mouth (open space planning, County of Orange)
- Gordon Mull subdivision (residential, City of Glendora)
- The Ranch at Laguna Beach (resort, City of Laguna Beach)
- Sunset Ridge Park (city park, City of Newport Beach)
- The Ranch Plan (residential/commercial, County of Orange)
- Southern Orange County Transportation Infrastructure Improvement Project (Foothill South Toll Road, County of Orange)
- Gregory Canyon Landfill Rest. Plan (proposed mitigation, County of San Diego)
- Montebello Hills Specific Plan EIR (residential, City of Montebello)
- Cabrillo Mobile Home Park (illegal wetland filling, City of Huntington Beach)
- Newport Hyatt Regency (timeshare conversion project, City of Newport Beach)
- San Diego Creek "Emergency Repair Project" (flood control, County of Orange)
- Tonner Hills (residential, City of Brea)
- The Bridges at Santa Fe Units 6 and 7 (residential, County of San Diego)
- Villages of La Costa Master Plan (residential/commercial, City of Carlsbad)
- Whispering Hills (residential, City of San Juan Capistrano)
- Santiago Hills II (residential/commercial, City of Orange)
- Rancho Potrero Leadership Academy (youth detention facility, County of Orange)
- Saddle Creek/Saddle Crest (residential, County of Orange)
- Frank G. Bonelli Regional County Park Master Plan (County of Los Angeles)

Selected Presentations

Hamilton, R. A. Birds of Colorado Lagoon. 2018-2019. 60-minute multimedia presentation on the history and avifauna of Colorado Lagoon in southeastern Long Beach, given at Audubon Society chapter meetings.

Hamilton, R. A. Six Legs Good/Invertebral Limit. 2012-2020. 60-to-90-minute multimedia presentation on the identification and photography of dragonflies, damselflies, butterflies, and other invertebrates, given at Audubon Society chapter meetings, Irvine Ranch Conservancy, etc.

Hamilton, R. A., and Cooper, D. S. 2016. Nesting Bird Policies: We Can Do Better. Twenty-minute multimedia presentation at The Wildlife Society Western Section Annual Meeting, February 23, 2016.

Hamilton, R. A. 2012. Identification of Focal Wildlife Species for Restoration, Coyote Creek Watershed Master Plan. Twenty-minute multimedia presentation given at the Southern California Academy of Sciences annual meeting at Occidental College, Eagle Rock, 4 May. Abstract published in the Bulletin of the Southern California Academy of Sciences No. 111(1):39.

Hamilton, R. A., and Cooper, D. S. 2009-2010. Conservation & Management Plan for Marina del Rey. Twenty-minute multimedia presentation given to different governmental agencies and interest groups.

Hamilton, R. A. 2008. Cactus Wren Conservation Issues, Nature Reserve of Orange County. One-hour multimedia presentation for Sea & Sage Audubon Society, Irvine, California, 25 November.

Hamilton, R. A., Miller, W. B., Mitrovich, M. J. 2008. Cactus Wren Study, Nature Reserve of Orange County. Twenty-minute multimedia presentation given at the Nature Reserve of Orange County's Cactus Wren Symposium, Irvine, California, 30 April 2008.

Hamilton, R. A. and K. Messer. 2006. 1999-2004 Results of Annual California Gnatcatcher and Cactus Wren Monitoring in the Nature Reserve of Orange County. Twenty-minute multimedia presentation given at the Partners In Flight meeting: Conservation and Management of Coastal Scrub and Chaparral Birds and Habitats, Starr Ranch Audubon Sanctuary, 21 August 2004; and at the Nature Reserve of Orange County 10th Anniversary Symposium, Irvine, California, 21 November.

Publications

Hamilton, R. A. 2022. Book review: Sacramento County Breeding Birds. *Western Birds* 53:83–85.

Gómez de Silva, H., Villafaña, M. G. P., Nieto, J. C., Cruzado, J., Cortés, J. C., Hamilton, R. A., Vásquez, S. V., and Nieto, M. A. C. 2017. Review of the avifauna of The Tres Marías Islands, Mexico, including new and noteworthy records. *Western Birds* 47:2–25.

Hamilton, R. A. 2014. Book review: The Sibley Guide to Birds, Second Edition. *Western Birds* 45:154–157.

Cooper, D. S., R. A. Hamilton, and S. D. Lucas. 2012. A population census of the Cactus Wren in coastal Los Angeles County. *Western Birds* 43:151–163.

Hamilton, R. A., J. C. Burger, and S. H. Anon. 2012. Use of artificial nesting structures by Cactus Wrens in Orange County, California. *Western Birds* 43:37–46.

Hamilton, R. A., Proudfoot, G. A., Sherry, D. A., and Johnson, S. 2011. Cactus Wren (*Campylorhyn-chus brunneicapillus*), *in* The Birds of North America Online (A. Poole, ed.). Cornell Lab of Ornithology, Ithaca, NY.

Hamilton, R. A. 2008. Cactus Wrens in central & coastal Orange County: How will a worst-case scenario play out under the NCCP? *Western Tanager* 75:2–7.

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Erickson, R. A., R. A. Hamilton, and S. G. Mlodinow. 2008. Status review of Belding's Yellowthroat *Geothlypis beldingi*, and implications for its conservation. Bird Conservation International 18:219–228.

Hamilton, R. A. 2008. Fulvous Whistling-Duck (*Dendrocygna bicolor*). Pp. 68-73 *in* California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California (Shuford, W. D. and T. Gardali, eds.). Studies of Western Birds 1. Western Field Ornithologists, Camarillo, CA, and California Department of Fish and Game, Sacramento, CA.

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Erickson, R. A., R. A. Hamilton, and S. N. G. Howell. 2001. New information on migrant birds in northern and central portions of the Baja California Peninsula, including species new to Mexico. Pp. 112–170 *in* Monographs in Field Ornithology No. 3. American Birding Association, Colorado Springs, CO.

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