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connections for wildlife that can migrate between the larger regional connections.⁷² The DEIR also notes that connectivity will also be reduced in northern part of Project where it links to south of habitat in Keys Canyon--a regional habitat linkage in the draft North County MSCP.⁷³ Furthermore, the DEIR finds that off-site expansions of existing roads will have potential to affect future PAMA areas that currently serve as a wildlife corridor along I-15.⁷⁴ Despite recognizing multiple local and regional wildlife habitat linkages and corridors, DEIR still concludes that the project would reduce local wildlife refuges that are less than significant, and that the site does not contain regionally significant wildlife linkages.⁷⁵ It is clear that the project findings and conclusions are inconsistent, and that the project will likely significantly impact not only local wildlife linkages and corridors but will result in indirect impacts to regional linkages and corridors, as well as direct significant impacts to regional linkages and corridors. The DEIR has failed to adequately analyze these impacts and must do so in order to adhere to the General Plan's for maintaining large, interconnected habitat to protect the movement of sensitive species.

O1-77
 cont.

O1-78

f. The DEIR fails to conform to provisions of the County of San Diego General Plan according to CEQA requirements.

The DEIR fails to address inconsistencies of the proposed project and the General Plan's policy to protect, restore, and enhance natural environments outside of preserves as development occurs according to the underlying land use designation (Goal COS-2.1).⁷⁶ Guidelines § 15125(d) (DEIR must discuss "any inconsistencies between the proposed project and the applicable general plans and regional plans."); *see also* Guidelines § Appendix G, § IX (CEQA Checklist includes assessing consistency with Habitat Conservation Plan.) By failing to include a discussion of *how* the DEIR complies with *all* aspects of the General Plan, the DEIR has violated the General Plan, and the above sections of CEQA. Further, in merely concluding, without actually demonstrating, that the project complies with the General Plan, the DEIR has also violated CEQA's prohibition on conclusory statements. Public Res. Code § 21082.2(c); *see also Californians for Alternatives v. Department of Forestry*, 136 Cal.App.4th 1, 17 ("[C]onclusory statements do not fit the CEQA bill").

O1-79

Even assuming that the project did comply with the General Plan, conformity with a planning document does not guarantee that a project has no significant impacts. *See, e.g. City of Antioch v. City Council*, 187 Cal.App.3d 1325, 1332 (Cal. App.1986) ("conformity with the general plan for the area, if such is the case, does not insulate a project from the EIR requirement, where it may be fairly argued that the project will generate significant environmental effects.").

O1-80

⁷² DEIR, at 2.5-42.

⁷³ DEIR, at 2.5-14.

⁷⁴ DEIR, at 2.5-32; DEIR, at 2.5-26.

⁷⁵ DEIR, at 2.4-42.

⁷⁶COUNTY OF SAN DIEGO GENERAL PLAN 5-8 (2011), available at: http://www.sdcounty.ca.gov/pds/gpupdate/docs/BOS_Aug2011/C.1-4_Conservation_and_Open_Space.pdf.

O1-78 The DEIR acknowledges that the existing local wildlife corridors/linkages will be affected by the project, but these corridors/linkages would not be eliminated and a significant impact would not occur. The project FEIR analysis is not inconsistent because it is practice to identify the potential impacts that could occur as a result of the project and then provide further discussion as to whether the impacts are significant or not. Subchapter 2.5.2.4 of the FEIR and Section 2.4 of the Appendix G provide analysis of impacts to wildlife corridors and linkages that supports the less than significant conclusion. Off-site improvements were reported to have minimal impacts to the future PAMA as impacts would occur along existing roads. The project would not create a barrier to movement, would not impact connectivity of proposed regional movement corridors/linkages, and would not reduce regional corridor/linkage widths or visual continuity of the local wildlife corridors/linkages that remain.

O1-79 The FEIR does analyze the project's consistency with the applicable goals and objectives of the General Plan. Every subchapter of the EIR throughout Chapters 2.0 and 3.0 contain a discussion of the project's consistency with existing regulations, including General Plan goals and policies, relevant to the environmental issue area, including Biological Resources. In addition, a detailed compilation of the project's consistency with all General Plan goals and policies is included as an attachment to the FEIR (see General Plan Consistency Analysis Matrix as Appendix W). General Plan Policy COS 2.1 states "Protection, Restoration and Enhancement. Protect and enhance natural wildlife habitat outside of preserves as development occurs according to the underlying land use designation. Limit the degradation of regionally important natural habitats within the Semi-Rural and Rural Lands regional categories, as well as within Village lands where appropriate." The project complies with this policy through its conservation of sensitive regionally important habitats on-site and in off-site PAMA locations in accordance with County of San Diego Biological Resource Guidelines.

O1-80 These general comments regarding CEQA and impacts regarding General Plan conformity are acknowledged. However, as described in each section of the FEIR, the project would not result in significant impacts relative to the goals and objectives of the General Plan. The FEIR adequately analyzed the potential impacts that could result from the project and includes a General Plan Consistency Analysis Matrix in Appendix W. In addition, refer to the Global Response: General Plan Amendment CEQA Impact Analysis included in the introduction to these responses to comments.

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Because the proposed project is inconsistent with the General Plan, courts will take such inconsistency into account when determining whether the lead agency should have concluded that the project will have a significant impact. *See e.g. Lighthouse Field Beach Rescue v. City of Santa Cruz*, 131 Cal. App. 4th 1170 (Cal. App. 2005). Additionally, courts have even held that inconsistency with a general plan, the purpose of which is avoiding or mitigation of an environmental effect, such as the MSHCP, mandates a finding of significance. *The Pocket Protectors v. City of Sacramento*, 142 Cal. App. 4th 903, 929 (Cal. App. 2004); *See also Endangered Habitats League v. County of Orange* 131 Cal. App. 4th 777 (Cal. App. 2005).

01-81

01-81 Refer to response to comment O1-80 above.

Until the DEIR fully analyzes all potential impacts to the General Plan, and completes all the analysis and assessments required there under, the DEIR cannot conclude that they are in compliance with the General Plan or that they have adequately protected covered species from significant impacts.

01-83

01-83 Refer to response to comment O1-80 above.

In addition, the proposed project should not be approved until the County can demonstrate consistency with the North County MSCP. The goal of the draft MSCP is to maintain and enhance biological diversity in the region and maintain viable populations of endangered, threatened, and key sensitive species and their habitats while promoting regional economic viability through streamlining the land use permit process. Accommodating a development of this massive scale and scope prior to completion of the North County MSCP embodies poor land-use planning that will decrease biological diversity and negatively impact sensitive species occurring on the site. Turning this process on its head, approval of the Project at this premature juncture would dictate outcomes in the North County MSCP and potentially foreclose more thoughtful and sustainable regional planning. The Center urges the County to table the Project until the County finalizes the North County MSCP so that a more informed determination can be made as to whether or not the Project is consistent with the County's vision of conservation and sustainable land use future.

01-84

01-84 Although the draft North County MSCP has not been approved, the Lilac Hills Ranch project, like many other North County projects which have been approved by the Board of Supervisors, does include thorough discussions and analyses relative to the draft North County MSCP. The project was found to be consistent with the draft plan and would not preclude or prevent the preparation of the subregional NCCP for this part of San Diego County (FEIR subchapter 2.5).

g. The DEIR Fails to Analyze Multiple Types of Threats to Species.

The DEIR fails to address threats and impacts to sensitive species other than threats and impacts from direct habitat loss and edge effects. This includes the potentially significant impacts from direct deaths to special status species from vehicles. The impacts of vehicular deaths to species such as the Stephen's kangaroo rat (SKR) or burrowing owl for instance, are nowhere discussed in the DEIR or any supporting document. Undoubtedly, there will be vehicular caused death as a result of the project.

01-85

01-85 Direct mortality of special status species such as the burrowing owl and SKR from vehicles is not considered a potentially significant impact in the FEIR, as neither of these species occurs on the project site. Impacts of this nature to other special status species are likewise considered less than significant because the species would primarily occur within the open space areas, set away from project traffic.

Additionally, the DEIR presents no information regarding impacts to covered species from pesticide use associated with the project. That the DEIR does not address these issues violates CEQA.

01-86

01-86 An analysis of pesticide use associated with the project is not necessary because the project will reduce agriculture on-site which would also reduce potential pesticide impacts as compared to the existing condition. This project will not generate a measurable increase in pesticide use and associated impacts, given that the majority of the project site has been in active agricultural use and involved routine use of pesticides. In addition, the project would incorporate measures that prevent runoff and protect water quality.

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Instead, the DEIR must fulfill CEQA requirements. Further, it must ensure that even with CEQA compliance, the project still will not result in significant impacts to biological resources and protected species.

O1-87

i. The DEIR Fails to Analyze Potential Impacts from Pesticide Use.

The DEIR at no point discusses or analyzes potential impacts from pesticide use associated with the project. The DEIR fails to disclose information regarding pesticide usage associated with the project, either on a programmatic level, or associated with individual residential uses. This type of vague and unenforceable mitigation violates CEQA. This is especially disconcerting as many of the protected species located within or adjacent to the project suffer adverse consequences as a result of exposure to pesticides. This includes the burrowing owl, cooper's hawk, white-tailed kite, and numerous species that the DEIR has identified as having the potential to occur on site.

O1-88

ii. The DEIR Fails to Fully Analyze Impacts from Light Pollution.

The DEIR contains only a cursory discussion of the potential impacts of night time lighting within the project site to wildlife.⁷⁷ This is insufficient to meet CEQA's requirement of fully disclosing impacts. Pub. Res. Code §§ 21061; 21005(a). CEQA Guidelines mandate that relevant information be presented so that agencies and the public are fully informed as to the ramifications of a project. *See e.g.* Pub. Res. Code § 21005(a). Here, the DEIR includes not even a modicum of scientific data on the impacts to wildlife from light pollution.

O1-89

Light pollution is a major problem that can significantly confuse migratory birds and otherwise disturb and disrupt wildlife foraging and breeding. (CNN, "Light Pollution Threatens National Park," 1999). Light pollution can seriously threaten the continual survival of numerous species; "[t]he cumulative effects of behavioral changes induced by artificial night lighting on competition and predation have the potential to disrupt key ecosystem functions" (Longcore and Rich, 2004). Light pollution is not to be taken lightly in the DEIR, and should be afforded a weighty and detailed analysis, with full mitigation and/or avoidance of any identified significant effects on wildlife. That the DEIR affords only one sentence to explaining the light pollution problem fails to provide decision-makers and the public with the full impacts from the project, (Pub. Res. Code §§ 21061; 21005).

O1-90

Many bird species fly at night, and have evolved to navigate their migration paths in the dark, aided by star and moon light, which is of course blocked by artificial light sources. (American Bird Conservancy, 2008). Further, birds can be attracted to lit structures, including streetlights, and can become disoriented as a result. (American Bird Conservancy, 2008). Disorientation often results in collisions with the lit structures themselves or with other birds, leading to injury and death. (American Bird Conservancy 2008). More than 100 million birds are affected by collisions each year in North America,

O1-91

⁷⁷ Biological Resources Report, at 81, 94.

O1-87 This comment is noted.

O1-88 The proposed project would include groves of orchard trees integrated throughout the project site and located within HOA-maintained open space, such as manufactured slopes. A total of 20.3 acres of common area would be available for agriculture. Maintenance of the on-site agricultural areas would be regulated through provisions within the Master Covenants Conditions and Restrictions (CC&Rs) for the community. Such regulations would include an on-site ban on aerial pesticide spraying; restrictions on the types of fertilizers that could be used, as to reduce odor impacts to surrounding sensitive receptors; and limitations on the types of equipment and hours of operation of maintenance activities. Any on-site storage of fuels or pesticides for use within agricultural areas, could potentially result in impacts, however, all pesticide and hazardous materials storage, on- or off-site would be required to comply with the state requirements and the applicable regulations enforced by the County Agriculture Weights and Measures. Given these regulatory mandates regarding the use, storage, and distribution of pesticides at any future on-site agricultural operation, the impacts to sensitive species would not be significant. Refer also to response to comment O1-86.

O1-89 This generalized comment and the comments that follow regarding night lighting are acknowledged. However, the FEIR does address indirect effects and edge effects on sensitive habitats and describes the project's consistency with the draft MSCP adjacency guidelines, which include night lighting impacts. Specifically, subchapter 2.5 of the FEIR discusses the sources of indirect impacts to sensitive habitat areas and potential edge effects on wildlife species due to increases in night time lighting is noted. The project includes a minimum 50-foot wetland buffer to sensitive areas; and 100-foot limited building zones around open space areas to reduce these edge effects. In addition, the project would also include compliance with lighting, water quality/hydrology, noise, and other regulations that would reduce indirect impacts to open space. Specifically, County regulations require on-site night time lighting to be shielded and directed away from riparian and sensitive habitat. The project would be conditioned to comply with all current applicable night lighting requirements from the County of San Diego to ensure that indirect effects from lighting on adjacent habitats are minimized. The project would be consistent with the adjacency measures prescribed in the draft North County MSCP and County Guidelines for Determining Significance.

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	<p>O1-90 Night lighting is addressed throughout FEIR subchapter 2.5. The project design features (e.g., buffers from sensitive habitats and down shielded lighting) are consistent with the policies that have been developed by the County to reduce edge effect impacts from developments that are adjacent to sensitive biological habitats. Pursuant to County regulations, the project will require on-site night time lighting to be shielded and directed away from riparian and sensitive habitat. The projects consistency with these policies and practices would avoid significant night lighting impacts to biological resources.</p> <p>O1-91 See Response to Comment O1-90.</p>
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and this includes many endangered species. (Deda, et al). Many such catastrophes have been documented, the worst incidents involving hundreds of birds killed at one building in a single night. (American Bird Conservancy, 2008).

O1-91
 cont.

Another aspect of light pollution that the DEIR does not address is that some species, including certain birds and reptiles, have begun to utilize artificial lights, such as streetlights to forage underneath for food. (Longcore and Rich, 2004). However, this can increase their risk of predation, as well as increase these species dependence on these human structures. (Longcore and Rich, 2004). The EIR should also analyze the potential for night lighting to impact SKR populations both on and off the Project site. SKR often forages and moves around at night. Natural and artificial lighting impacts kangaroo rats because it inhibits their nocturnal foraging and makes them more susceptible to the chance of predation. (COSEWIC 2006). The EIR must discuss the extent that the proposed lighting will reduce SKR habitat adjacent to the project because of predation or avoidance. Therefore, the presence of street lights within the VOL could actually attract some species into the development, prompting problematic interactions between these species and humans or their pets.

O1-92

Bird species can also become “entrapped” within lighted areas, refusing to move for the night, and thus increasing their risk of predation. (Longcore and Rich, 2004). The only mitigation measure regarding light impacts on wildlife the DEIR proposes is to shield and direct nighttime lighting away from riparian and sensitive habitat.⁷⁸ However, this does not address this “entrapment” issue.

O1-93

Plant species are also impacted by light pollution. Plants measure and react to night length, and duration of darkness can manipulate how frequently plants pollinate or flower, how they prepare for dormancy during winter, and even how much photosynthesizing they do. (Deda, et. al). Trees are similarly affected, for instance, an abundance of light pollution can keep a tree from losing its leaves at the correct time. (Deda, et. al). This also impacts animals that depend on these trees for habitat; for instance, birds are prevented from nesting in trees as a result of surrounding light pollution. (Deda, et. al).

O1-94

Furthermore, light pollution need not be highly extensive to have a major impact on nearby plants and wildlife. For instance, one study found that desert rodents reduced foraging activity when exposed to the light of a single camp lantern. (Longcore and Rich, 2004). As well, light pollution has far reaching effects; a study of national parks found that artificial lights over 100 miles away could still affect national parks and their wildlife. (CNN, “Light Pollution Threatens National Park,” 1999).

O1-95

The DEIR needs to fully disclose these risks; only then can the likely effectiveness of proposed mitigation measures be evaluated when compared to the severity of the risk. Given the impact that light pollution has on wildlife species, particularly migratory birds, the proposed mitigation measures are inadequate to protect

O1-96

⁷⁸ Biological Resources Report, at 94.

O1-92 Given the predominance of agricultural land and orchards on the project site and the lack of sensitive species that were observed or would be expected to occur both on-site and in adjacent off-site habitats, there is little potential for the project’s night lighting to increase the predation vulnerability of sensitive species. Specifically with regard to the SKR, there were no SKR observed on the property and given the on- and off-site habitats, SKR would not be expected to occur in the project vicinity: The nearest documented observation is 5 miles to the west of the site. Thus, adverse impacts would not be anticipated.

O1-93 The 2004 study cited in this comment regarding night lighting entrapment of birds addresses nocturnal migratory birds and the effects of major light sources. The project site is not considered a migratory route for birds and is located in a rural residential setting with nearby developments that have existing lighting sources. Given these factors and the proposed shielding and downward direction of the night lighting for the project, this suggested impact would not be considered significant.

O1-94 These comments on the effects of night lighting on plants are noted. However, the project’s design features including buffers from sensitive habitats and shielding and downward direction of lighting, will minimize night light effects on plants in the sensitive habitats that the commenter describes. These impacts would not be considered significant.

O1-95 Please see response to comments O1-89 through O1-94 above.

O1-96 Please see response to comments O1-89 through O1-94 above.

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against this harm. This is especially true in light of evidence showing that light pollution can be felt as far as 100 miles away. The relatively miniscule buffer the DEIR provide here to protect against light pollution is insufficient.

iii. The DEIR fails to Adequately Analyze Impacts on Wildlife from Domesticated Cats and Dogs.

Similarly, the DEIR has failed to disclose the severity of potential impacts from domestic cats and dogs on wildlife. The DEIR only offers a brief explanation of the issue involved, stating that domestic animals would result in indirect impacts to sensitive habitats.⁷⁹ The DEIR needs to provide a full and detailed analysis of this particular threat to wildlife presented by the project. Furthermore, the DEIR fails to and must provide mitigation measures to minimize the impacts of domesticated animals on wildlife.

Domestic cats kill hundreds of millions of birds, and more than a billion small mammals each year, as well as many small amphibians and reptiles. (American Bird Conservancy, Domestic Cat Predation of Birds and Other Wildlife). This includes documented instances of cats killing endangered and rare species. (American Bird Conservancy). Because domestic cats have been documented to successfully prey on rodents, this presents the possibility of significant harm to rodent species in the area, especially the endangered SKR that could occur within the project site. (George, 1974).

Predation by domestic cats is seen as such a severe problem that scientists now list invasive species, domestic cats being chief among them, as the second most serious threat to bird populations worldwide after habitat destruction and fragmentation. (American Bird Conservancy). Predation by domestic cats can also be made easier by habitat fragmentation, which forces wildlife into smaller tracts of land in which they are easier to prey on. (American Bird Conservancy). Predation by domestic cats can also have an impact not only on the species they directly kill, but on other predator species such as hawks, which are forced to compete with domestic cats for their typical food sources such as small rodents. (George, 1974)

Some free-roaming domestic cats kill more than 100 animals each year. (American Bird Conservancy) One well-fed cat that roamed a wildlife experiment station was recorded to have killed more than 1,600 animals (mostly small mammals) over 18 months. (American Bird Conservancy). Further, birds that nest or feed on the ground, such as California Quail or the burrowing owl, are the most susceptible to cat predation, as are nestlings and fledglings of many other bird species. (American Bird Conservancy). This is of particular concern for this particular project because bird species that nest on the ground, such as the burrowing owl, are present within the project site.

Unvaccinated cats can also transmit diseases, such as rabies, to wildlife. (American Bird Conservancy). Cats are the domestic animal most frequently reported to be rabid to the Centers for Disease Control and Prevention. (American Bird

⁷⁹ Biological Resources Report, at 94.

O1-96
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O1-97

O1-98

O1-99

O1-97 This generalized comment and the comments that follow about indirect effects on wildlife from domestic animals are noted. While the referenced studies and citations are acknowledged, the applicability to the circumstances and setting of the proposed project is considered limited and speculative. Comments such as endangered species predation and feline disease spread from unvaccinated cats are speculative within the context of the project and the adjacent habitats. Site specific studies over several years would be necessary to evaluate these types of effects from the project. It is important to note that the project incorporates design features (e.g., buffers from sensitive habitats, and clustered development locations) that serve to reduce the potential for impacts from domestic cats and dogs. In addition, the project would be conditioned to comply with all current applicable adjacency requirements from the County of San Diego to ensure that indirect effects from domestic animals on adjacent habitats are minimized. The project would be consistent with the adjacency measures prescribed in the draft North County MSCP and County Biological Guidelines.

O1-98 These citations regarding domestic cat predation on birds are noted. As noted above (see response to comment O1-97), project-related predation by cats on birds is not anticipated to be significant, largely because the project design incorporates measures to reduce edge effects to nearby sensitive habitats.

O1-99 These citations regarding the spread of diseases from unvaccinated cats are noted. See response to comment O1-97 above.

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Conservancy). Cats are also suspected of spreading fatal feline diseases to native wild cats such as mountain lion, the endangered Florida panther, and bobcat. (American Bird Conservancy).

O1-99
cont.

CEQA Guidelines also require agencies to implement monitoring programs to ensure compliance with mitigation measures. Guidelines § 15097(a) (to ensure mitigation measures are actually carried out, agencies “shall adopt a program for monitoring or reporting.”) Here, the agency has provided no such monitoring program, and neither the public nor government officials can be assured that the identified mitigation measures will in fact be carried out or complied with.

O1-100

iv. The DEIR Fails to Adequately Analyze Noise Impacts.

Impacts on wildlife from noise are not adequately addressed within the DEIR. The DEIR merely states that “[n]oise would not be sustained at levels that would disrupt wildlife movement during construction through breeding season noise restrictions or general post-project conditions through establishment of buffers and limited building zones.”⁸⁰ A full analysis of project related noise on wildlife should be provided in the forthcoming EIR.

O1-101

v. The DEIR Fails to Address Harmful Interactions Between Humans and Wildlife.

Another issue that is not addressed in the DEIR or any of its supporting documents is the strong likelihood of problematic interactions between humans and wildlife. By placing over 4,700 people in such close proximity to coyotes and other animals, there is a strong probability that coyotes and other animals will forage in trash cans, prey on domestic pets, and otherwise disturb and frighten residents. In response, project residents may try to handle such interactions themselves, causing greater damage – for instance, putting out poison which could then kill an endangered species such as the Stephen’s kangaroo rat that could be present on-site. Poisoning from rodent control measures has previously been an issue for SKR survival. (SKR HCP § 3(E)(3)). That interactions between humans and wildlife will occur is a problematic issue that should have been foreseen and analyzed in the DEIR.

O1-102

Another aspect of human and wildlife interaction that is commonly not considered is the likelihood of increasing the dependency of certain wildlife species on human food sources. For many species this will be through coming into contact with human trash. However, another issue is that artificial sources of bird food, which people often place in bird feeders outside their homes, can cause an increase in certain bird-species as well as bird predators in that area, creating competition among birds, increased predation, and the spread of parasites between species. (Berthold and Terrill, 1991). For instance, Jays, which are significant predators of eggs and nestlings of migratory birds, benefit greatly from artificial food sources such as bird feeders, and their population tends to swell.

O1-103

⁸⁰ DEIR, at 2.5-26.

O1-100 As with all projects that require CEQA mitigation measures, the County of San Diego must adopt a Mitigation Monitoring and Reporting Program for the Lilac Hills Ranch project. This program identifies the mitigation measure, party responsible for enforcement, timing, and implementation procedures to ensure that the mitigation is enforced and implemented. Mitigation Monitoring and Reporting Programs are not part of the EIR and are not required to be circulated for public review (CEQA Guidelines, § 15097).

O1-101 The County of San Diego has standards and policies in place to address noise impacts (e.g. Noise Ordinance limits construction noise at the property line). Furthermore, the project includes measures that require impacts to habitat occur outside of the breeding season to avoid impacts to young birds, or to avoid the breeding season based on preconstruction surveys.

O1-102 These generalized comments and citations about indirect effects on wildlife from interactions with humans are noted. However, the applicability to the circumstances and setting of the proposed project is considered limited and speculative. Comments such as residents becoming frightened and causing wildlife impacts or wildlife dependency on human food are speculative within the context of the project and the adjacent habitats. Site specific studies over several years would be necessary to evaluate these types of effects from the project. In addition, there were no SKR observed on the property and they would not be expected to occur in the project vicinity.

O1-103 The applicability to the circumstances and setting of the proposed project is considered limited and speculative. Comments such as increased predation and spread of parasites from birds using bird feeders are speculative within the context of the project and site specific studies over several years would be necessary to evaluate these types of effects from the project.

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(Berthold and Terrill, 1991). Cowbirds have benefited greatly from artificial food sources, causing their population to swell, and then increase their nest-parasite practice of laying their eggs in other birds' nests. (Berthold and Terrill, 1991). In fact, cowbirds nearly caused the extinction of one migratory bird, the Kirland's warbler, and appear to be having major negative impacts on numerous other species as well. (Berthold and Terrill, 1991). In southern California's coastal sage scrub communities, cowbird trapping regularly occurs in perpetuity to reduce the impact on the federally threatened California gnatcatcher.

O1-104

O1-104 Cowbird parasitism from artificial food sources applies to the Least Bell's vireo and not the California gnatcatcher. The site is not occupied by Least Bell's vireo and therefore, impacts from cowbird parasitism are not expected to occur.

vi. The DEIR Fails to Assess the Impacts of Air Pollution.

The DEIR fails to analyze the impacts of air pollution on biological resources. This omission fails CEQA's requirement of fully disclosing impacts. Pub. Res. Code §§ 21061; 21005(a).

O1-105

O1-105 This broad generalized comment about effects on biological resources from air pollution is noted. However, given that air quality impacts are regional in nature and are assessed within the context of large geographic air basins, it would be considered speculative to attempt draw any impact conclusions from air pollution on the site specific biological resources associated with the project.

h. The DEIR Fails to Properly Consider Cumulative Impacts.

The DEIR hints at future growth in the area, but never flushes out what actual projects are being planned for the area. The DEIR simply states that "the potential impacts could include impacts to visual resources, air quality, biological resources, cultural resources, and noise," but "potential impacts are too speculative for evaluation in this EIR because the specific nature, design and timing of future projects is unknown at this time."⁸¹ Yet the DEIR states in the biological resources subchapter that "cumulative impacts from the proposed project were evaluated with regards to past, present, and future projects within the cumulative study area."⁸² The DEIR needs to include a list of all reasonably foreseeable projects in the general area, and an analysis of how these projects will cumulatively contribute to the identified impacts of the project, especially to biological resources.

O1-106

O1-106 The comment restates information contained in the FEIR, but does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue with respect to the FEIR, no further response is required.

O1-107

i. The EIR Must Analyze Global Warming's Affects on Biological Resources in Determining Project Impacts.

Climate change is having a major adverse impact on numerous plant and animal species. (Cameron and Scheel, 2001). Climate change impacts species by altering the climatic conditions that species need to survive or use a particular location as habitat, including particular temperature, type of food, water levels and water abundance, or weather conditions. (Schwartz, et. al., 2006). This causes massive migration shifts, with species seeking out other areas featuring their needed climatic conditions. (Schwartz, et. al., 2006). However, such migration shifts are not simple. For many species, their habitat is already so limited that there is no other location they can practically relocate to. As well, major impediments such as urban areas can keep species from reaching other habitats. Species migration can also cause increased food and habitat competition as

O1-108

O1-107 Each section of the FEIR presents an analysis of cumulative impacts. Table 2.5.5 provides a list of the cumulative projects that were considered in the analysis of biological impacts.

O1-108 The County does not agree that the EIR must analyze global warming's effects on biological resources due to the speculative nature of this issue. The response below provides results of a scientific literature review that was conducted to determine the current state of knowledge on global climate change and its effects on sensitive biological resources and their related ecosystems

⁸¹ DEIR, at 1-48 to 1-49.
⁸² DEIR, at 2.5-29.

	<p>O1-108 (cont.)</p> <p>Summaries of Relevant Scientific Literature</p> <p>(a) Intergovernmental Panel on Climate Change (IPCC)</p> <p>By way of introduction, the IPCC is the leading international body for the assessment of climate change. Established in 1988, the IPCC is a scientific, intergovernmental body under the auspices of the United Nations responsible for reviewing and assessing the most recent scientific, technical and socio-economic information produced worldwide relevant to the understanding of climate change. Because of its very nature, the IPCC embodies a unique opportunity to provide rigorous and balanced scientific information to decision makers.</p> <p><i>The Regional Impacts of Climate Change: An Assessment of Vulnerability (IPCC 1997)</i></p> <p>This report evaluates the regional impacts of climate change across the globe. With regard to impacts to North America, this report concludes that the “characteristics of the subregions and sectors . . . suggest that neither the impacts of climate change nor the response options will be uniform.” (IPCC 1997, Chapter 8 Executive Summary.) Nonetheless, the report concludes that reductions in terrestrial biological diversity are likely due to loss of habitat. (<i>Ibid.</i>) The same conclusion is reached as to fisheries and aquatic systems because of expected increases to water temperature, changes in freshwater flows and mixing regimes, and alterations to water quality. (<i>Ibid.</i>) In spite of the anticipated impacts, the report discloses significant scientific uncertainties: “Our current understanding of the potential impacts of climate change is limited by critical uncertainties. One important uncertainty relates to the inadequacy of regional-scale climate projections relative to the spatial scales of variability in North American natural and human systems. This uncertainty is compounded further by the uncertainties inherent in ecological, economic, and social models - which thereby further limit our ability to identify the full extent of impacts or prescriptive adaptation measures. <i>Given these uncertainties, particularly the inability to forecast futures, conclusions about regional impacts are not yet reliable</i> and are limited to the sensitivity and vulnerability of physical, biological, and socioeconomic systems to climate change and climate variability.” (<i>Ibid.</i>, italics added.)</p> <p>More simply, the report concludes “[u]ncertainty exists in our ability to predict ecosystem or individual species responses to elevated CO₂ [i.e., carbon dioxide] and global warming at either the regional or global scale.” (<i>Ibid.</i>)</p>
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	<p>O1-108 (cont.)</p> <p><i>Climate Change 2007: Climate Change Impacts, Adaptation, and Vulnerability (IPCC 2007)</i></p> <p>This report addresses the “relationship between observed climate change and recent observed changes in the natural and human environment.” (IPCC 2007, p. 2.) Based upon global assessment of data since 1970, the report concludes that “anthropogenic warming has had a discernable influence on many physical and biological systems.” (<i>Id.</i> at p. 3.) The report further notes that recent warming “strongly” affects terrestrial biological systems, such that there is an earlier timing of spring events, and poleward/upward shifts in the ranges in plant and animal species. (<i>Id.</i> at p. 3.) Similarly, with regard to marine and freshwater biological systems, there is evidence that impacts are occurring due to rising water temperatures, which impact ice cover, salinity, oxygen levels, and circulation. (<i>Ibid.</i>) The specific impacts to marine and freshwater biological systems include range shifts, the earlier migration of fish in rivers, and changing abundance levels of algal, plankton, and fish in high-latitude oceans and high-altitude lakes. (<i>Ibid.</i>) If temperature increases exceed 1.5-2.5°C, major changes are projected for ecosystem structure and function, species’ ecological interactions, and species’ geographic ranges - all resulting in predominantly negative consequences for biodiversity. (<i>Id.</i> at p. 8.)</p> <p>The IPCC 2007 report also summarizes the considerable scientific uncertainty associated with global climate change and its causes and effects on sensitive biological resources:</p> <p>“Limitations and gaps prevent more complete attribution of the causes of observed system responses to anthropogenic warming. First, the available analyses are limited in the number of systems and locations considered. Second, natural temperature variability is larger at the regional than the global scale, thus affecting identification of changes due to external forcing. Finally, at the regional scale other factors (such as land-use change, pollution, and invasive species) are influential.” (<i>Id.</i> at p. 4.)</p> <p>Similarly, the report notes that while climate change is beginning to have effects on many natural and human environments, “based on the published literature, the impacts have not yet become established trends.” (<i>Ibid.</i>)</p>
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	<p>O1-108 (cont.)</p> <p><i>Climate Change 2014: Impacts, Adaptation and Vulnerability (IPCC 2014)</i></p> <p>This report evaluates and considers how impacts and risks related to climate change can be reduced and managed thru adaptation and mitigation. (IPCC 2014, Summary for Policymakers, p. 3.) The primary findings of this report are located in the Summary for Policymakers, which contains three sections. Section A characterizes observed impacts, vulnerability and exposure, and adaptive responses to date. Section B examines future risks and potential benefits. And, Section C considers principles for effective adaptation and sustainable impacts. (<i>Id.</i> at pp. 3-4.)</p> <p><i>Section A:</i> This section addresses observed impacts to water and biological resources. Studies indicate climate change has caused glacier shrinkage, permafrost warming, and thawing in high-latitude regions and high-elevation regions. Land and marine species also have shifted geographic ranges, seasonal activities, migration patterns, abundances, and interactions in response to climate change. Climate change generally yields negative impacts to crops, with a small subset of studies showing positive impacts to crops in high-latitude regions. Climate-related impacts from heat waves, droughts, floods and wildfires include alteration of ecosystems, disruption of food production and water supply, damage to infrastructure, morbidity and mortality, and human health effects. To combat these impacts, adaptation plans and policies are becoming commonplace, especially in North America where municipal governments are engaging in adaptation planning. (<i>Id.</i> at pp. 4-11.) This section acknowledges the difficulty of responding to climate-related risks due to the “continuing uncertainty about the severity and timing of climate-change impacts” (<i>id.</i> at p. 9) and the “[u]ncertainties about future vulnerability, exposure, and responses of interlinked human and natural systems” (<i>id.</i> at p. 11).</p> <p><i>Section B:</i> This section presents future risks, including those relating to sensitive biological resources. Key risks include loss of marine and coastal ecosystems, and loss of terrestrial and inland ecosystems. (<i>Id.</i> to pp. 11-25.) This section acknowledges that the “precise levels of climate change sufficient to trigger tipping points (thresholds for abrupt and irreversible climate change) remain uncertain.” (<i>Id.</i> at p. 14.)</p> <p><i>Section C:</i> This section considers how to manage future risks and adjust to climate change impacts. First and foremost, this section recognizes that adaptation is context and location specific, finding “no single approach for reducing risks appropriate across all settings.” (<i>Id.</i> at p. 25.) Governments, from local to multi-national, need to work together to reduce vulnerability and exposure to the effects of climate change. Such methods include improving environmental quality and sustained development. (<i>Id.</i> at pp. 25-29.) This section again acknowledges the “uncertainties about projected impacts.” (<i>Id.</i> at pp. 26-28.)</p>
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	<p>O1-108 (cont.)</p> <p>(b) U.S. Fish and Wildlife Service (USFWS) <i>National Fish, Wildlife & Plants Climate Adaptation Strategy</i> (USFWS 2012)</p> <p>This strategy is the first joint effort between federal, state, and local/tribal officials to “inspire and enable” managers, legislators, and decision-makers to take steps towards climate change adaptation. (USFWS 2012, p. 3.) The strategy details current and expected future impacts of climate change on the ecosystems of the U.S., and describes steps that can be taken to address these impacts. (<i>Id.</i> at p. 3-4.) Finding it “difficult to predict how individual species and ecosystems will react to climate change,” the strategy advocates for adaptation management, requiring continued and coordinated observation and monitoring. (<i>Id.</i> at p. 5.) In providing a guide to address the impacts of climate change, the strategy nonetheless acknowledges that “despite a growing foundation of information, many uncertainties and gaps remain in our current understanding about the current and future impacts of climate change.” (<i>Id.</i> at p. 71.) Further, the strategy recognizes that “[t]here is considerable uncertainty as to how many species of fish, wildlife, and plants will respond to climate change effects.” (<i>Id.</i> at p. 83.)</p> <p><i>Climate Change Vulnerability Assessment for Natural Resources Management: Toolbox of Methods with Case Studies</i> (USFWS 2014)</p> <p>This “toolbox” contains a “round-up” of case studies on climate change vulnerabilities and the impacts of climate change on species, habitats, regions, ecosystems, and watershed and water resources. The goal of this toolbox is to provide “real-time” updates on current studies being conducted in each of these areas. (USFWS 2014, p. 3.) Each of the case studies use either a coarse-filter approach, which includes a qualitative categorization of vulnerability, or a fine-filter approach, which employs models to determine vulnerability to climate change. (<i>Ibid.</i>) Several studies included in the toolbox assess climate change impacts on California’s native plants, bird and small-mammal species. In the end, the toolbox contains no conclusions, but is a resource for discovering further studies on climate change.</p>
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	<p>O1-108 (cont.)</p> <p>(c) U.S. Department of the Interior, U.S. Geological Survey, Biological Resources Division <i>Status and Trends of the Nation's Biological Resources (USGS 1998)</i></p> <p>A chapter of this report addresses the impacts of climate change on the nation's biological resources. (USGS 1998, pp. 89–116.) The report closely considers impacts to avian species, and notes that “the ranges of most species moved north, up mountain slopes, or both.” (<i>Id.</i> at p. 101.) Accordingly, such range shifts “could cause local extinctions in the more southern portions of the birds’ ranges, and, if movement to the north is impossible, extinctions of entire species could occur.” (<i>Ibid.</i>) The report also considers impacts to reptiles and amphibians, and notes that they are likely to be impacted because they are especially susceptible to extreme temperature, must remain close to water sources, and are not able to disperse at a rapid rate. (<i>Ibid.</i>) In addition, “[i]n general, animals most likely to be affected earliest by climatic change are those in which populations are fairly small and limited to isolated habitats.” (<i>Id.</i> at p. 102.)</p> <p>Significantly, this report notes that “[w]hat is most needed to evaluate potential biological effects of temperature change is a regional projection of climatic changes that can be applied to ecosystems at a regional or local scale” and “estimates of climatic variability during the transition to a new equilibrium, particularly at the regional scale.” (<i>Id.</i> at pp. 94–95.) In addition, “[a] focus of climate research toward changing climatic variability [citations] might be more useful for ecological impact assessments than the current focus among climatic modelers on climatic means.” (<i>Id.</i> at p. 112.) Finally, these projections, in order to be “more realistic and useful . . . [require a] multiscale, multispecies, multitaxa analysis driven by regionally specific, transient climatic change forecasts.” (<i>Ibid.</i>)</p> <p>The report also states that “at present [transient regional changes] are very difficult to predict credibly.” (<i>Id.</i> at p. 95; see also p. 110 [As contrasted with regional assessments, “[t]he most reliable projects for climatic models are for global-scale temperature changes.”].) This point is further underscored by the conclusion that climate forecast models are “fraught with uncertainties,” leading to “the perplexing question” of “whether they can be trusted as a reliable basis for altering social policies, such as those governing CO₂ emissions or the shape and location of wildlife reserves.” (<i>Ibid.</i>)</p> <p>After disclosing the inadequacies of the projection models, this report assesses the policy implications:</p> <p>“Climatic change as now envisioned is not necessarily a threat to the well-being of all climate-sensitive species. However, the transient nature of most projected human-induced climatic change scenarios suggests that significant alterations are likely on a scale of decades, whereas the adaptability of many species - especially those upon which faster responding species depend - is on a scale of centuries. . . . The only forecast that seems unassailable is that the more rapidly the climate changes and the more extensively other human disturbances are forced on nature, the higher the probability of substantial disruption and surprise within natural systems.</p>
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	<p>O1-108 (cont.)</p> <p>To forecast possible consequences of the projected climate changes, single-species studies should be guided by the overall effects that climate may have at the large scale or on range limits and abundance patterns, and on the interactions among species. Coupling such results with information from climatologists, geologists, and others will allow interdisciplinary teams to more reliably forecast the possible biological consequences of scenarios of global warming and other global changes. These forecasts can then be used by policy makers and the general public to determine what types of actions might be effective to mitigate potential impacts of forecasted climate changes. Research can help put such policy making of a firmer factual basis, but any plausible level of effort is not likely to reduce all important uncertainties before the global change experiment now under way on Earth is played out [citation].” (<i>Id.</i> at p. 113.)</p> <p>(d) U.S. Global Change Research Program (USGCRP) Impacts of Climate Change on Biodiversity, Ecosystems, and Ecosystem Services (Staudinger 2012)</p> <p>This technical input report for the 2013 National Climate Assessment synthesizes current scientific understanding of the mode by which climate change is affecting biodiversity, ecosystems, ecosystem services, and develops strategies to decrease current and future risks. (Staudinger 2012, p. S-1.) The report recognizes that our understanding of “the complex ways in which these underlying mechanisms are affecting individual fitness and population dynamics in response to climate change” is uncertain; and, “there are numerous examples from a range of taxa demonstrating that biological responses to climate change vary widely with positive, negative or uncertain effects.” (<i>Id.</i>, Chapter 2.) To that end, each chapter summarizes “key uncertainties as well as critical gaps in research, knowledge, and data.” (<i>Id.</i>, Chapter 1.)</p> <p>First, the report observes that “due to uncertainties in climate change projections in the coming decades, and gaps in our knowledge of biological and ecological response to these changes,” the degree to which biodiversity will be affected by climate change is unknown at this time. (<i>Id.</i>, Chapter 2.) Second, the report concludes that extinction and estimates on extinction rates are “uncertain and expert opinion differs as to what the magnitude of loss will be... Predictions are complicated in part due to the great deal of uncertainty regarding the number of species that exist on earth.” (<i>Ibid.</i>) Finally, the report notes that “biotic interactions are complex, and there is much uncertainty in the greater ecological consequences that climate-mediate changes in abundance and distribution will have at the ecosystem-level.” (<i>Ibid.</i>)</p> <p>Additionally, the report concludes that current modeling and projections contain inherent uncertainties:</p>
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LETTER

RESPONSE

	<p>O1-108 (cont.)</p> <p>“Projecting climate change impacts on biodiversity involves many uncertainties [citation omitted] stemming from variability in climate projections (particularly precipitation patterns), uncertainties in future emissions, and assumption and uncertainties in the models used to project species responses and extinction. . . . Some of these uncertainties are inevitable given that we are trying to predict the future; nonetheless, techniques and modeling approaches are becoming more sophisticated and able to evaluate myriad influences such as biotic interactions and dispersal abilities that were previously deficient. Projections are also complicated by uncertainty about where and how human responses to climate change are likely to impact biodiversity. Sustainable energy development and infrastructure, changes in agricultural practices, human migrations, and change in water extraction and storage practices in response to climate change are all very likely to have impacts on biodiversity. Predicting where these migration and adaptation responses will occur, and how they will impact biodiversity will be a critical step in developing credible future climate change impact scenarios. Although many tools for forecasting climate change impacts on ecosystem services exist [citation omitted], fewer methods for anticipating how people will respond to those impacts have been developed or incorporated into projected impacts on biodiversity.”</p> <p>(<i>Ibid.</i>) The report determines that this same level of uncertainty found in projections and modeling poses challenges and critical gaps in knowledge to our understanding of the “multiple, indirect routes by which specific climate drivers affect particular ecosystem processes.” (<i>Ibid.</i>, Chapter 3.)</p> <p>In the end, the report posits several forms of adaptive management that can “improve and inform decisions in the face of uncertainty.” (<i>Ibid.</i>, Chapter 6.) Specifically, “managing for unknown future conditions using broad-scale climate projections and species distribution models as guidance is one of the greatest challenges managers currently face in an era of ongoing climate change.” (<i>Ibid.</i>)</p>
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	<p>O1-108 (cont.)</p> <p><i>Climate Change Impacts in the United States (USGCRP 2014)</i></p> <p>This report assesses the science of climate change and its impacts across the United States. The basic findings reached with respect to climate change are listed below:</p> <ul style="list-style-type: none"> • Climate change jeopardizes water quality and water supply reliability, resulting from increased competition for sources, demand for surface and groundwater supplies, declining runoff, and groundwater recharge. • Climate change is projected to disrupt agriculture, with negative impacts on crop and livestock. • Climate change has overwhelmed the capacity of ecosystems, resulting in changes to spring bud burst and species range shifts. • Climate change's acidification of ocean waters affects ocean circulation, chemistry, ecosystems, and marine life, altering the distribution, abundance, and productivity of marine species. • Current implementation efforts are insufficient, and planning for adaptation and mitigation is critical to improve public health, economic development, ecosystem protection, and quality of life. <p>(USGCRP 2014, pp. 15-17.) Despite these findings, the assessment recognizes that "uncertainty" remains in "projecting climate change beyond the next few decades" because of "the level of heat-trapping gas emissions." (<i>Id.</i> at p. 30, Figure 2.9.)</p> <p>In reviewing climate change impacts in the Southwest, including California, the report provides five "key messages:"</p> <ul style="list-style-type: none"> • Snowpack and streamflow amounts are projected to decline in parts of the Southwest, decreasing surface water supply reliability for cities, agriculture, and ecosystems. • The Southwest produces more than half of the nation's high-value specialty crops, which are irrigation-dependent and particularly vulnerable to extremes of moisture, cold, and heat. Reduced yields from increasing temperatures and increasing competition for scarce water supplies will displace jobs in some rural communities.
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	<p>O1-108 (cont.)</p> <ul style="list-style-type: none"> • Increased warming, drought, and insect outbreaks, all caused by or linked to climate change, have increased wildfires and impacts to people and ecosystems in the Southwest. Fire models project more wildfire and increased risks to communities across extensive areas. • Flooding and erosion in coastal areas are already occurring even at existing sea levels and damaging some California Coastal areas during storms and extreme high tides. Sea level rise is projected to increase as Earth continues to warm, resulting in major damage as wind-driven waves ride upon higher seas and reach farther inland. • Projected regional temperature increases, combined with the way cities amplify heat, will pose increase threats and costs to public health in southwestern cities, which are home to more than 90% of the region's population. Disruptions to urban electricity and water supplies will exacerbate these health problems. <p>(<i>Id.</i> at p. 463.) Based on these “messages,” this report concludes that “[c]limate changes will increase stress on the region’s rich diversity of plant and animal species.” (<i>Ibid.</i>) But, the report recognizes the challenges in predicting the “exact location of some of these future changes . . . because the continental U.S. straddles a transition zone between projected drier conditions in the sub-tropics (south) and wetter conditions at higher latitudes (north).” (<i>Id.</i> at p. 369.) And, while the report notes that the Southwest region “is already experiencing the impacts of climate change” with the region “heating up markedly in recent decades,” it also recognizes that “[p]rojections of precipitation changes are less certain than those for temperature.” (<i>Id.</i> at pp. 464-465, 483.)</p> <p>Finally, the report identifies “uncertainties” in the modeling used to predict future climate change:</p> <ul style="list-style-type: none"> • Snowpack and Streamflow Amounts: “Different model simulations predict different levels of snow loss. These differences arise because of uncertainty in climate change warming and precipitation projections due to . . . uncertainty in regional downscaling, uncertainty in hydrological modeling, differences in emissions, aerosols, and other forcings.” (<i>Id.</i> at p. 483.)
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	<p>O1-108 (cont.)</p> <ul style="list-style-type: none"> • Crop Yields: Relying on the models remains a challenge because “[c]ompetition for water is an uncertainty. The extent to which water transfers take place depends on whether complementary investments in conveyance or storage infrastructure are made. Currently, there are legal and institutional restrictions limiting water transfers across state and local jurisdictions. It is uncertain whether infrastructure investments will be made or whether institutional innovations facilitating transfers will develop.” (Id. at p. 484.) • Wildfire Patterns: “Uncertainties in future projections derive from the inability of models to accurately simulate all past fire patterns . . . Fire projections depend highly on the spatial and temporal distributions of precipitation projections . . . Although models generally project future increases in wildfire, uncertainty remains on the exact locations.” (Id. at p. 485.) • Rising Sea Level: “Major uncertainties are associated with sea level rise projections, such as the behavior of ice sheets with global warming and the actual level of global warming that the Earth will experience in the future. Regional sea level rise projections are even more uncertain than the projections for global averages because local factors such as the steric component (changes in the volume of water with changes in temperature and salinity) of sea level rise at regional levels and the vertical movement of land have large uncertainties.” (Ibid.) • Rising Temperatures: “Key uncertainties include the intensity and spatial extent of drought and heat waves. Uncertainty is also associated with quantification of the impact of temperature and water availability on energy generation, transmission, distribution, and consumption.” (Id. at p. 486.) <p>(e) California Department of Fish and Wildlife (CDFW) <i>Confronting the Challenge: Climate Change</i> (CDFG 2010)</p> <p>This publication includes several articles outlining CDFW’s efforts to tackle the effects of climate change on California native species, and identifies the areas in which adaptation strategies for biodiversity conservation may prove necessary to combat climate change. (CDFG 2010, p. 8.)</p> <p><i>Agriculture:</i> The publication posits that competition between agricultural lands, fish and wildlife resources will result due to shifting temperature and precipitation patterns associated with climate change. Further exacerbating agricultural maintenance is the loss in biodiversity from chemical treatments to decrease pests and insects. (Id. at p. 9.)</p>
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	<p>O1-108 (cont.)</p> <p><i>Carbon Sequestration:</i> Forests, open spaces, and wetlands provide benefits, help reduce GHG emissions, and provide homes to native plant and animal species. Open spaces and wetlands have the potential to capture and sequester a significant amount of GHG emissions. This publication advocates for increasing opportunities to sequester conservation areas. (<i>Id.</i> at p. 11.)</p> <p><i>Energy Development:</i> Development of alternative energy sources is critical to mitigating the impacts of GHG emissions and climate change. A better understanding of the impacts of biofuels, wind, hydro and geothermal, and solar development on natural resources is critical to energy independence. (<i>Id.</i> at p. 13.)</p> <p><i>Wildfire:</i> Suppression of fire and wildfire patterns alters and destabilizes ecosystems resulting in biodiversity loss. As temperatures rise, science predicts that severity of wildfires will increase, and as a result, this publication suggests increasing coordination among regional managers to protect urban areas from the consequences of wildfires. (<i>Id.</i> at p. 14.)</p> <p><i>Forestry and Range Lands:</i> The publication proposes heightened management of California’s forests and range lands to increase the ability of native species to persist under climate change. Restoring habitats and increasing water capture and storage may help species sustainability. (<i>Id.</i> at p. 15.)</p> <p><i>Oceans and Coastal Areas:</i> Climate change has direct impacts on protected coastal areas and wildlife. The results of climate change could lead to salt water intrusion and loss of fresh water resources for fish and wildlife. Ocean acidification is already impacting shellfish and their prey. Finally, changes caused by coastal infrastructure, pollution, and sedimentation have impacted marine and near shore populations. (<i>Id.</i> at p. 16.)</p> <p><i>Water:</i> Climate change effects, such as increased temperatures and precipitation, may alter fresh water systems and reduce availability of species, requiring greater collaboration among regional managers.</p> <p><i>Unity, Integration, and Action: DFG’s Vision for Confronting Climate Change in California (CDFG 2011)</i></p> <p>This article illustrates CDFW’s current efforts to address climate change and ensure a strategic, cohesive approach to developing responses. (CDFG 2011, p. 4.) Cognizant of the “uncertainties associated with emerging climate science,” CDFW is employing a proactive and adaptive approach using planning tools and strategic initiatives, creating and maintaining vital partnerships, integrating climate change into CDFW activities, and meeting conservation objectives. (<i>Id.</i> at p. 7.) To build a cohesive framework to respond to climate change, CDFW recognizes that it must increase “funding, capacity building, collaborative partnerships, and education and outreach.” (<i>Id.</i> at p. 13.)</p>
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	<p>O1-108 (cont.)</p> <p>(f) California Energy Commission (CEC) Consequences of Climate Change For Native Plants And Conservation: A White Paper from the California Energy Commission’s California Climate Change Center (CEC 2012)</p> <p>This study expands on prior modeling of climate change effects on the distribution of vegetation and species, through modeling species at sub-kilometer scales, and applying those models to advanced conservation planning, to illustrate the intersection of human adaptation and conservation under climate change.</p> <p>Section 1 describes the fine-scale modeling employed by the study. In particular, the study modeled California native plant species at a resolution 100 times finer than the previous species-assessment models. Using newly available climate data and an improved dataset of species occurrence, model distributions were generated at various scales and resulted in illustration of the shift in native species richness under climate change. The study finds that “[b]y the end of the twenty-first century (Figure 1.10), zones of greatest species richness have contracted upslope, with greatest richness confined to the highest ridges of the Sierra Nevada Mountains.</p> <p>Regions of California that show the greatest decline of species richness by the end of the century include the Coast and Transverse ranges, as well as the transition zone between the Central Valley and the high Sierra.” (CEC 2012, pp. 1-17.)</p> <p>Section 2 outlines the development of conservation planning tools – Network Flow Analysis (NFA) – and its application in California, as traditional approaches to conservation are less effective under climate change, due to shifts in species ranges. “The NFA optimizes spatial sharing of connected conservation parcels [and] represent[s] the specific areas required to ensure spatial and temporal connectivity of suitable habitat through time.” The purpose of the NFA is to identify priority areas for conservation that can accommodate shifting climatic suitability of native species under climate change. In the end, the study found that at least 70% of the modeled species, in or around existing protected areas, were able to survive under climate change. However, the study cautions that variability in soil requirements and species dispersal rates may skew results. (<i>Id.</i> at pp. 18-28.)</p> <p>Section 3 captures indirect impacts on conservation due to human translocation and shifts in agriculture due to climate change. The study chose to focus on viticulture – grape growing and winemaking – to assess the indirect impacts on plant species from climate change. Using suitability models, including future topo-climate and soil parameters, the study found “significant species relocation and an overall reduction of optimal viticulture climates within California (Figure 3.1).” Consistent with findings on other species models, the study found “the general trends for viticulture climates [] shift[ed] northward, coastward, and upslope as mean growing season temperatures increase.” These results, however, are consistent with studies dating as far back as 2006, demonstrating a constant rate of change. (<i>Id.</i> at pp. 29-42.)</p>
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	<p>O1-108 (cont.)</p> <p><i>Our Changing Climate 2012: Vulnerability & Adaptation to the Increasing Risks from Climate Change in California (CEC 2012)</i></p> <p>This report, prepared by the California Energy Commission's California Climate Change Center, keeps Californians apprised of "new scientific developments, documents the emerging impacts of climate change, and alerts them to the increasing risks of a warming climate." (CEC 2012, p. 1.) In particular, this report notes that "[s]tate-sponsored research has played a major role in recent advances in our understanding of the potential impacts of climate change on California" and "examines adaptation options in regional case studies and offers insights into regulatory, legal, socioeconomic and other barriers to adaptation so that they can be addressed effectively at the local and state level." (<i>Ibid.</i>) To project future climate change impacts, this report uses "projections from six global climate models, all run with two emissions scenarios, one lower (B1) and one higher (A2) (the same as were used in the 2009 assessment)." (<i>Id.</i> at p. 2.) Scaling down, and using several population growth and land use policy scenarios, the report made the following findings:</p> <ul style="list-style-type: none"> • Temperatures in California will rise during this century as a result of heat-trapping gases human release in the atmosphere. (<i>Ibid.</i>) • Precipitation projections show wet winters and dry summers. (<i>Id.</i> at p. 3.) • Wildfire risk will increase; however, changes in land use development will guide the location and degree of wildfire risk. (<i>Id.</i> at p. 3.) • Climate change impacts on water supplies include increased competition and demand among urban users, agricultural users, and environmental needs. Studies illustrate the need to adapt California's water supply allocation, as current criteria and water management decisions rely on yearly water availability, rather than future changes. (<i>Id.</i> at p. 5.)
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	<p>O1-108 (cont.)</p> <ul style="list-style-type: none"> • Sea level rise is expected to accelerate, representing a four- to eight-fold increase over the last century. More sophisticated mapping and modeling is improving California's ability to predict the location of water flow and vertical height, thereby ensuring adequate adaptation. (<i>Id.</i> at p. 9.) • Previous studies established the increased risk of wildfire, but this report determined that wildfire risk increases depending on human development and advances into wildland areas. Thus, species shift and migration to suitable climate conditions is important for land use planning. (<i>Id.</i> at pp. 11-12.) <p>In the end, the report finds that "California has been a global and national leader in developing solutions to energy security and climate change. . . . [This report] shows both the challenges for the existing energy system emerging from climate change and the possibilities for moving toward clean, renewable energy and more robust, distributed electricity production and transmission." (<i>Id.</i> at p. 14.)</p> <p>(g) California Office of Environmental Health Hazard Assessment (OEHHA) <i>Indicators of Climate Change in California (OEHAA 2013)</i></p> <p>This report tracks trends in GHG levels that influence climate, changes in the State's climate, and the impacts of climate change on California's environment and people. Specifically, the report compiles indicators that can be used to provide insight on the impacts of climate change in California. (OEHHA 2013, Executive Summary, p. i.) Examples of such indicators include GHG emissions, atmospheric black carbon concentrations, atmospheric GHG concentrations and acidification of coastal waters. According to the report, the result of studying these indicators imparts some understanding on impacts on changes in climate and impacts on physical systems and animals. (<i>Id.</i>, Introduction.)</p> <p>Of particular relevance, the report analyzes GHG emission impacts on biological systems, including effects on vegetation and animals. (<i>Id.</i>, Impacts on Biological Systems, p. 119.) As to the effects on vegetation, the report indicates an increase in tree mortality in the Sierra Nevada forests, but cautions that "[g]lobal trends, however, are not always echoed by regional trends." (<i>Id.</i> at p. 133.) Effects on other vegetation are similarly noted; but, in some cases, the report indicates that trends and correlations between temperature and changes to vegetation are either not significant, uncertain, or indeterminable. (<i>Id.</i> at pp. 141, 148-149, 154-155, 159, 161, 167.) The report also observes the effect on animal species, finding evidence of life-cycle changes (<i>id.</i> at p. 184), such as migratory changes in response to earlier warming seasons (<i>id.</i> at pp. 171-172); shifts in elevations at which certain species are found (<i>id.</i> at pp. 176); and variability of mortality of marine animals (<i>id.</i> at pp. 191-209, 217-219.)</p>
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	<p>O1-108 (cont.)</p> <p>The report concludes by recognizing that challenges exist in “deciphering the influence of climate among other factors both external (such as land use and environmental pollution) and internal (due to inherent, natural variability) to the climate system.” (<i>Id.</i>, Emerging Climate Change Issues, p. 223.) To that end, California remains on the forefront of addressing climate change and creating a comprehensive strategy to respond to the risks climate change poses:</p> <p>“California’s climate programs encompass mitigation of GHG emissions through a comprehensive set of policies and programs; adaptation strategies designed to reduce California’s vulnerability to climate impacts and enhance the resiliency of communities, infrastructure, resources and people; research supporting the understanding of climate change and its impacts in the state; and joint action efforts through regional and international initiatives to expand emission reduction programs and enable effective adaptation (Cal/EPA, 2010).” (<i>Id.</i>, Appendix A, p. A-1.)</p> <p>(h) Other Publications</p> <p><i>Observed Impacts of Global Climate Change in the U.S. (Parmesan and Galbraith 2004)</i></p> <p>Camille Parmesan and Hector Galbraith undertook a literature review to assess “the scientific evidence compiled to date on the observed ecological effects of climate change in the United States and their consequences” and the strength of that evidence. (Parmesan and Galbraith 2004 at p. iii.) The review included more than 40 studies showing a possible tie between global warming and ecological changes in the United States. In 20 of the studies, the authors found “strong evidence of a direct link” between climate change and observed ecological impacts in the United States. (<i>Ibid.</i>)</p> <p>While the report identifies general trends, such as shifts in the timing of ecological events and habitat ranges, it also notes that “many species and ecological systems of interest have yet to be studied (often due to inherent limitations of available data) and the attribution of ecological changes to a particular cause remains challenging.” (<i>Ibid.</i>, at pp. iii; see also p. 13 [there are “enormous difficulties biologists have encountered in tackling the question of climate change impacts”].) Further, “[m]any if not most of the ecosystems and organisms in the United States are already suffering from other anthropogenic stressors . . . [and] [a]s yet, scientists do not have a clear idea how climate change might affect this already fragile situation.” (<i>Id.</i> at p. v.) Accordingly, the report recommends that scientists achieve a “better understanding of which systems or species are most or least susceptible to projected climate change” in order to better evaluate and mitigate potential impacts. (<i>Id.</i> at p. 41.)</p>
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	<p>O1-108 (cont.)</p> <p>The County has considered this literature review, as well as the FEIR's finding that the proposed Project's GHG emissions would not be significant. On the basis of that information, the County has made the factual determination that evidence exists linking global climate change to ecological effects; however, the precise causes, extent, magnitude, and timing of such effects remain uncertain and preclude reliable forecasts of possible ecological effects resulting from global climate change, particularly as individual species will have individual responses. Additionally, there is no clear scientific evidence as to what particular quantity of GHG emissions is disadvantageous to the health of sensitive biological resources and their supporting ecosystems. Importantly, however, the literature makes clear that California takes a cautious approach to climate change, employing adaptive management techniques and planning tools to monitor and anticipate evolving needs.</p> <p>Based on the information presented herein, the County has made the further factual determination that global climate change and its effect on sensitive species and other biological resources are too speculative at this time for any further evaluation. Accordingly, the County believes it is appropriate to terminate any further analysis of such effects, consistent with Section 15145 of the State CEQA Guidelines.</p>
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more species attempt to forage, hunt, or breed, in smaller areas. Migration also has the potential to cause many of the issues commonly associated with invasive species.

For many species migration just is not possible and, as their habitats quickly change, they will be unable to adapt in time, and will become extinct. Extinction as a direct result of climate change is an imminent possibility for numerous species. (Cameron and Scheel, 2001).

The threat of climate change induced species extinction is found to be highest in species with a small current distribution, (Schwartz, et. al. 2006), such as the SKR. This makes sense given that the reason that these species have small habitats in the first place is that they are "habitat specialists," meaning they can only survive in a very specific set of climatic/habitat conditions. (Schwartz, et al., 2006).

The DEIR should have disclosed this threat to species, and discussed the potentiality of the project contributing to the massive problem. The lead agency must include such an analysis in their subsequent EIR. The EIR must use its best efforts to find out and disclose all it reasonably can about the impacts of climate change on the environment and—most importantly—use that information to form an educated opinion about how to plan and adapt for the impacts of climate change. (California Attorney General 2009).

Such an analysis is particularly important to include given that the DEIR has already concluded that the project will have a significant contribution to climate change. Because the project will have a significant impact to climate change, the project will also have a significant contribution to the various secondary effects resulting from climate change, including massive migration shifts and species extinction. Further, it is irrelevant that species that are currently receiving the most attention for being at risk of extinction, such as the pika or the polar bear, are not located anywhere near the project site. Climate change is not localized in its effects so that any GHG emissions will cumulatively contribute to climate change induced species extinction.

Further, we are just beginning to understand how climate change is impacting species. Little information exists as to how climate change is impacting species that currently exist within the vicinity of the project site such as the burrowing owl or the SKR. However, what data we do have indicates that these species may as well be feeling the effects of climate change. Here, the EIR has conducted no scientific inquiry into what the potential impacts from climate change to species such as the SKR may be.

O1-108
cont.

O1-109

O1-110

O1-109 The comment provides factual information, but does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue with respect to the FEIR, no further response is required.

O1-110 Refer to response to comment O1-108.

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II. THE DEIR'S PROPOSED MITIGATION MEASURES ARE INADEQUATE TO MITIGATE THE PROJECT'S IMPACTS ON BIOLOGICAL RESOURCES.

a. The Proposed Mitigation for Impacts to Forage Habitat On-site Are Inadequate.

The DEIR provides inadequate mitigation measures that would not reduce the impacts to forage habitats for raptors to below a significant level (M-Bio-1a to M-Bio-1h). The DEIR states the project would provide 66.4 acres of native habitat mitigation to provide protected foraging habitat for raptors through on-site and/or off-site and/or mitigation banking, which will be subject to the approval of the County and appropriate wildlife agencies.⁸³ However, without further information these mitigation measures are too vague regarding the location and specific types of native vegetation that would be included in the habitats, as well as timing of implementation. Furthermore, the mitigation measures would be conducted under a currently conceptual resource management plan that does not guarantee the implementation or the effectiveness of these mitigation measures. Finally, the DEIR is unclear whether mitigation for Bio-Impact-1 would be incorporated as part of M-Bio-2 or be established independently. The DEIR should establish on-site mitigation for impacts to raptor forage habitats in addition to mitigation under Bio-Impact-2 since they address different biological impacts.

O1-111

The DEIR acknowledges various species, including the coastal whiptail, turkey vulture, cooper's hawk, and loggerhead shrike were observed in orchards and other agricultural areas. The project, however, will impact 276.4 acres of orchard habitat alone.⁸⁴ Yet the DEIR does not provide any mitigation measures for impacted agricultural lands that will be impacted as a result of the project, thereby allowing extensive habitat loss for sensitive species of in addition to habitat loss for these species natural communities. The DEIR must avoid, minimize, and mitigate habitat loss for orchard and other agricultural areas that sensitive species depend on to survive.

O1-112

b. The Proposed Mitigation for Riparian Habitats and Sensitive Natural Communities Are Inadequate.

The DEIR states that a qualified biologist will prepare a resource management plan (RMP) prior to the issuance of the first grading permit and each subsequent grading permit to address restoration, enhancement, and maintenance of a 104.1-acre open space on the project site, and 70.3-acre open space off-site.⁸⁵ The DEIR includes conceptual RMPs that provide outlines of RMPs and mapped areas of where the RMPs would be applied.⁸⁶

O1-113

⁸³ DEIR, at 2.5-40; 2.5-35 & 2.5-36.

⁸⁴ DEIR, at 2.5-45.

⁸⁵ DEIR, at 2.5-36; See DEIR, Appendix G (Biological Resources Report), Attachments 17 and 18.

⁸⁶ See DEIR, Appendix G, Attachments 17 and 18.

O1-111 The proposed mitigation for impacts to raptor foraging complies with the County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements for Biological Resources. These adopted procedures include the preparation of a resource management plan that establishes the requirements of mitigation program and establishes the framework to ensure that the mitigation would be implemented prior to impacts occurring. The resource management plan will be prepared by a qualified biologist and will address the specific location of the mitigation sites that meet the specific mitigation requirement for the type of habitat. As the project is phased, habitat mitigation is phased to include adjacent open space areas in the phase of development that borders the phase under construction. The resource management plan will be managed by an entity approved by the County, and effectiveness of the plan is guaranteed through success criteria and ongoing monitoring. As indicated in the EIR, the impacts to raptor foraging habitats (Impact BIO-1), and the riparian and sensitive natural communities impacts (Impact BIO-2) would be mitigated through the on-site preservation of open space and the off-site preservation of habitat within the draft North County MSCP PAMA as described by M-BIO-1a-h.

O1-112 The County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements for Biological Resources do not require mitigation for impacts to agricultural land, including orchards, from a biological perspective. As such, mitigation is not required.

O1-113 The conceptual RMPs prepared for the project follow the County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements for Biological Resources. As stated in Mitigation Measure M-BIO-2 (See, FEIR subchapter 2.5.5), the RMP must include and meet performance standards including success criteria for the creation, restoration, and/or enhancement of native habitats. The specifics of funding and timing of implementation would be prescribed in the conditions of approval for the project. The project conditions of approval will require the applicant to comply with the provisions in the RMP before the County will issue permits for grading and construction. These conditions ensure that on-site and off-site mitigation for biological impacts would be implemented before the impacts occur.

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The conceptual RMPs fail to satisfy CEQA requirements of assuring the implementation and the effectiveness and enforceability of mitigation measures. CEQA requires that mitigation measures be “fully enforceable through permit conditions, agreements, or other legally-binding instruments.” Guidelines § 15126.4(a)(2). In particular, potential funding sources for the implementing the RMPs has not been identified. The financing mechanism has not been determined since the DEIR states that funding would be provided by an endowment, Community Facility District, or other finance mechanism approved by the County.⁸⁷ The conceptual RMPs acknowledge that specific internal and external management constraints that may affect meeting RMP goals have not been identified, further demonstrating the DEIR's failure in ensuring that the RMPs will be implemented.⁸⁸

O1-113
 cont.

Furthermore, the DEIR fails to demonstrate that the RMPs will be effective if they are implemented. For instance, the DEIR states the Resource Manager shall be responsible for determining and achieving the ongoing success of a RMP, according to success standards and adaptive management strategies that have not yet been developed. However, it is impossible to evaluate whether the RMPs would be enforceable or effective since these measures of success have not been developed. And as above, the RMPs would not need to be finalized until the County approves the project and issues grading permits. Additionally, the County will need to approve the RMPs via separate RMP agreements before they will be executed.⁸⁹ The RMPs should be finalized prior to potential approval of the project and, if the project is approved, the RMPs should be implemented prior to--not during or after--construction for the project, in order for the RMPs to fulfill their purposes of protecting and minimizing impacts to sensitive plant and wildlife species. In order to comply with CEQA mandates the DEIR must finalize detailed RMPs and obtain County approval for the RMPs prior to any project approval, and must include assurances for funding as well as measurable goals and success standards within the RMPs.

O1-114

c. The Proposed Mitigation for Impacts to Jurisdictional Waterways and Wetlands Are Inadequate.

The proposed project would result in significant, direct impacts to 13 acres of coastal/valley freshwater marshes, southern willow riparian woodland, and other riparian habitats through grading activities and construction of road crossings and culverts.⁹⁰ Wetlands that will be impacted by the project include 2.3 acres of County of San Diego Resource Protection Ordinance wetlands. The DEIR acknowledges that the wetlands within the project site are important locally as they provide vegetated areas that protect the watershed; provide a water source for local wildlife species and habitat; and protect

O1-115

⁸⁷ DEIR, at 2.5-36.

⁸⁸ DEIR, Appendix G, Attachment 17 at 7-8, and Attachment 18 at 8.

⁸⁹ DEIR, Appendix G, Attachment 17 at 7, and Attachment 18 at 7-8.

⁹⁰ DEIR, at 2.5-41; DEIR, at 2.5-23.

O1-114 Mitigation Measure M-BIO-2 (subchapter 2.5.5 of the FEIR) requires preparation of a RMP prior to the issuance of the first grading permit and each subsequent grading permit to address any restoration, enhancement, and maintenance of open space. The mitigation measure M-BIO-2 also requires the inclusion of specific performance standards and success criteria. The FEIR includes adequate detail of the goals and success criteria for the on-site open space in Appendix E of the FEIR, Attachment 16, Conceptual Wetland Revegetation Plan and Attachment 17, Conceptual Resource Management Plan (RMP) for On-site Biological Open Space. The Conceptual Wetland Revegetation Plan. As detailed in the Conceptual RMP, implementation of the RMP is assured because the County will require an Agreement with the applicant when the County accepts the Final RMP. The Agreement will obligate the applicant to implement the RMP and provide a source of funding to pay the cost to implement the RMP in perpetuity. The Agreement shall also provide a mechanism for the funds to be transferred to the County if the Resource Manager fails to meet the goals of the RMP. Section 4.1 of the Conceptual RMP contains the overall management goals for the on-site open space. The Agreement will specify that RMP funding or funding mechanism be established prior to the following milestones:

- For subdivisions, prior to the approval of grading or improvement plans, or prior to approval of the Parcel/Final Map, whichever is first;
- For permits, prior to construction or use of the property in reliance of the permit.

Completion of the Final RMP at this early stage is not required because the conceptual RMP and M-BIO-2 provide adequate details and performance measures and there are assurances that the mitigation would be implemented prior to the impact occurring.

O1-115 The comment restates information contained in the FEIR, but does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue with respect to the FEIR, no further response is required.

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the downstream watershed of Moosa Creek and the San Luis Rey River by moderating erosion, sedimentation, and stream flows.⁹¹

The DEIR proposes vague and inadequate mitigation measures to alleviate the impacts to jurisdictional waters and wetlands.⁹² In particular, the DEIR states the Project would include a 50-foot minimum wetland buffers around preserved wetlands, and 90-foot minimum buffers around wetland creation areas, signage and fencing, and 100-foot limited building zones, as well as a RMP as discussed earlier.⁹³ However, the DEIR does not assess or discuss the effectiveness with which these measures would actually be able to reduce disturbance to these areas.

Additionally, the DEIR includes a conceptual revegetation plan that outlines the project's plan to conduct on-site jurisdictional waters/wetland creation, restoration, and enhancement. In particular, the conceptual wetland revegetation plan proposes the number of acres that the project will mitigate and states that 6 acres of wetland will be created and 12 acres will be enhanced or restored on-site as part of the project's open space component.⁹⁴ However, the DEIR does not explain how these mitigation acres were determined. Additionally, the acreage of jurisdictional waters/wetlands that will be impacted according to the revegetation plan (Table 3) is different from the acreage that will be impacted according to Table 2.5 of the DEIR.⁹⁵ Although the revegetation plan states that the project proponent will be responsible for funding and implementing the plan once it is approved by the County, funding and an implementation schedule for this plan has not been determined.⁹⁶ Without a rationale in acreage and certainty in funding as well as timing for implementing the revegetation plan it is impossible for the public to properly assess the potential effectiveness of the plan in mitigation impacts to important waterways and riparian habitats to less than significant.

The DEIR explains that the proposed fencing, buffers, light shields, and stormwater best management practices will reduce indirect impacts from nearby human activities to preserved and restored riparian areas would be less than significant.⁹⁷ However, the DEIR fails to cite studies or any analysis in justifying this conclusion, and therefore has made the determination that these mitigation measures would be effective in a conclusory manner prohibited by CEQA.

⁹¹ DEIR, at 2.5-10.

⁹² DEIR, at 2.5-37 to 2.5-39.

⁹³ DEIR, at 2.5-41.

⁹⁴ DEIR, Appendix G, Attachment 16, at 1.

⁹⁵ DEIR, Appendix G, at Attachment 16, page 14; DEIR, at 2.5-44.

⁹⁶ DEIR, Appendix G, at Attachment 16, page 19.

⁹⁷ DEIR, at 2.5-24.

} O1-115
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} O1-116

} O1-117

} O1-118

} O1-119

} O1-120

O1-116 The County disagrees that the mitigation measures for jurisdictional wetlands and waters are vague and inadequate. Mitigation measures M-BIO-3a and M-BIO-3b clearly detail the mitigation requirements to offset the impacts resulting from the project and mitigation measure M-BIO-4 requires that the applicant receive approval of a Revegetation Plan meeting the success criteria set forth in the mitigation measure. As detailed in mitigation measure M-BIO-2, a Resource Management Plan (RMP) will be required which will ensure that the onsite open space, including the onsite wetlands, will be maintained in perpetuity. In addition, a Conceptual RMP and a Conceptual Wetland Revegetation Plan are included as Attachments 16 and 17 of the Biological Resources Report which detail the revegetation and management of the open space. Finally, the analysis completed and documented in the Biological Resources Report has found that the proposed buffers ranging in size from 50 to 90 feet wide are adequate to ensure that adverse effects to the preserved and created wetland areas are avoided. The project will also include a 100-foot limited building zone which will server to further buffer the onsite wetlands.

O1-117 The project will be conditioned to provide both on-site and off-site mitigation to offset the project's jurisdictional waters/wetland impacts. The amount of proposed on-site mitigation for jurisdictional waters was determined by identifying suitable locations on the project site where this type of mitigation can occur.

O1-118 The County disagrees that there is a discrepancy between the Conceptual Wetland Revegetation Plan and the FEIR. The jurisdictional waters impact acreages are the same in Table 2 of the Conceptual Wetland Revegetation Plan and Table 2.5-3 of the FEIR. Table 3 in the Revegetation Plan breaks the impacts into habitat types in order to assign mitigation ratios and is based on the worst case state waters impacts.

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	<p>O1-119 As stated in Mitigation Measure M-BIO-3a (See, FEIR subchapter 2.5.5.2), wetland impacts shall be mitigated at a ratio of 3:1, consisting of on-site preservation, enhancement, and/or creation of wetlands. The details of ratios and acreages of required mitigation are addressed in the mitigation measure. Additionally, pursuant to Mitigation Measure M-BIO-4, the project is required to prepare a Wetlands Revegetation Plan according to the success criteria listed therein. The Conceptual Wetland Revegetation Plan (Attachment 16 of the Biological Resources Report –Appendix G of the FEIR) prepared for the project follows County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements for Biological Resources. In addition, the Lilac Hills Ranch Specific Plan (see Section 3) contains policies and guidelines for the biological open space maintenance requirements. The specifics of funding and timing of implementation would be prescribed in the conditions of approval for the Specific Plan. Furthermore, the timing for implementing the wetland revegetation would be tied to the site specific Tentative Maps that would be brought forward by future applicants for approval by the County. As individual maps are processed, the wetland restoration required in the Specific Plan and Final EIR would become conditions of approval. The applicant would not be able to proceed with the grading and construction of the project unless the revegetation plan requirements have been met. These conditions ensure that the wetland revegetation would be implemented in a timely manner and commensurate with the impacts that would occur. As detailed in the Conceptual RMP, implementation of the RMP is assured because the County will require an Agreement with the applicant when the County accepts the Final RMP. The Agreement will obligate the applicant to implement the RMP and provide a source of funding to pay the cost to implement the RMP in perpetuity. The Agreement shall also provide a mechanism for the funds to be transferred to the County if the Resource Manager fails to meet the goals of the RMP. Section 4.1 of the Conceptual RMP contains the overall management goals for the on-site open space. The Agreement will specify that RMP funding or funding mechanism be established prior to the following milestones:</p> <ul style="list-style-type: none"> • For subdivisions, prior to the approval of grading or improvement plans, or prior to approval of the Parcel/Final Map, whichever is first; • For permits, prior to construction or use of the property in reliance of the permit.
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	<p>O1-119 (cont.)</p> <p>Completion of the Final RMP at this early stage is not required because the conceptual RMP and M-BIO-2 provide adequate details and performance measures and there are assurances that the mitigation would be implemented prior to the impact occurring. Furthermore, the timing for implementing the wetland revegetation would be tied to the site specific Tentative Maps that would be brought forward by future applicants for approval by the County. As individual maps are processed, the wetland restoration required in the Specific Plan and Final EIR would become conditions of approval. The applicant would not be able to proceed with the grading and construction of the project unless the revegetation plan requirements have been met. These conditions ensure that the wetland revegetation would be implemented in a timely manner and commensurate with the impacts that would occur.</p> <p>O1-120 The mitigation requirements outlined in the FEIR for potential indirect impacts to adjacent open space habitats are consistent with the County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements for Biological Resources and the County's draft North County MSCP. These adjacency measures have also been incorporated into the other adopted County MSCP plans.</p>
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d. The Proposed Mitigation for Light Pollution Impacts on Biological Resources Are Inadequate.

As discussed previously the only mitigation measure regarding light impacts on wildlife the DEIR proposes is to shield and direct nighttime lighting away from riparian and sensitive habitat.⁹⁸ This is insufficient to meet CEQA’s requirement of fully disclosing impacts. Pub. Res. Code §§ 21061; 21005(a). CEQA Guidelines mandate that relevant information be presented so that agencies and the public are fully informed as to the ramifications of a project. *See e.g.* Pub. Res. Code § 21005(a). Here, the DEIR fails to adequately analyze and mitigate the impacts to wildlife from light pollution on and adjacent to the Project.

The DEIR needs to fully disclose these risks; only then can the likely effectiveness of proposed mitigation measures be evaluated when compared to the severity of the risk. Given the impact that light pollution has on wildlife species, particularly migratory birds such as the many species that utilize the affected open space as wildlife habitat, the proposed mitigation measures are inadequate to protect against this harm. This is especially true in light of evidence showing that light pollution can be felt as far as 100 miles away.

The shielding measure the DEIR provides here to protect against light pollution is insufficient. CEQA requires that agencies “mitigate or avoid the significant effects on the environment of projects that it carries out or approves whenever it is feasible to do so.” Pub. Res. Code § 21002.1(b). The EIR fails to meet this mandate.

III. THE EIR FAILS TO ADEQUATELY ADDRESS WATER RESOURCES AVAILABILITY FOR THE PROJECT.

The proposed project lies within the Valley Center Municipal Water District (District) and will rely on the District to meet its water demands. The project must meet various county, state, and federal standards in ensuring that adequate water supplies will be able to meet demands the project would create, including laws requiring large projects to submit water supply assessments and requiring the city or county make a finding that sufficient water supplies are available prior to completion of a project.⁹⁹ Additionally, the General Plan requires the project proponent to demonstrate that adequate water supplies will be able to serve the long-term needs of a project prior to approval of the project.¹⁰⁰

In 2012 the project proponent prepared a Water Supply Assessment and Verification (WSAV) report. The DEIR finds that there is adequate water supply to serve the project based on WSAV’s conclusion that the VCMWD expects to meet and exceed expected demands for the project over a 20-year planning horizon, in normal, single-dry,

⁹⁸ Biological Resources Report, at 94.
⁹⁹ *See* SB 610 and SB 221.
¹⁰⁰ County of San Diego General Plan LU-13.2



O1-121 See response to comment O1-89 above. With respect to the protection of wildlife, County regulations require on-site night time lighting to be shielded and directed away from riparian and sensitive habitat and the project complies with this requirement. Overall, the project has been designed to reduce noise and night time lighting to levels that would not significantly impact local wildlife behavior. This measure will be effective because lighting adjacent to on-site biological open space areas would be shielded and directed away from the surrounding habitat preventing indirect impacts to sensitive habitat and species.

O1-122 This comment restates information contained in the FEIR. As shown in the Water Supply Assessment (WSA) and Water Services Report (FEIR Appendices Q and T, respectively), there is adequate water to support the project. Specifically, as discussed in FEIR subchapter 3.1.7, the WSA presents existing and planned sources of water supply for normal, single- and multiple-dry year scenarios. Based on the VCMWD’s water supply reliability analysis contained in the 2010 UWMP, incorporated by reference herein and available for review on each agency’s website, the WSA concludes that the VCMWD expects to meet and exceed expected demands for a 20-year planning horizon, in normal, single-dry, and multiple-dry years (Appendix Q). Impacts would be less than significant. Additionally, the project’s unique design flow for each facility type has been determined and would serve as the basis for each facility design. Therefore, all proposed facilities would only be designed for the unique design flow. Therefore, impacts associated with wastewater generation and treatment would be less than significant. See also response to comment O1-124.

O1-123 This comment restates information contained in the FEIR. See also response to comment O1-122 and O1-124.

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and multiple-dry years. The WSAV's conclusion relies on the VCMWD's water supply reliability analysis contained in the 2010 Urban Water Management Plan Update (UWMP).¹⁰¹

The DEIR also concludes that the project's impacts associated with adequate water supplies or entitlements will be less than significant. The DEIR reasons that adherence to adopted plans and regulations, including those summarized above, would ensure that the project would not result in a demand for water that exceeds existing entitlements and resources, necessitates new or expanded entitlements.¹⁰² However, conformity with a planning document does not guarantee that a project has no significant impacts. *See, e.g. City of Antioch v. City Council*, 187 Cal.App.3d 1325, 1332 (Cal. App.1986) ("conformity with the general plan for the area, if such is the case, does not insulate a project from the EIR requirement, where it may be fairly argued that the project will generate significant environmental effects."). Therefore the DEIR improperly relies on compliance with adopted plans and regulations to justify the conclusion that impacts to water supply adequacies would be less than significant. This reliance is not a substitute for analysis of the Project's actual water supply impacts.

The DEIR also falsely relies on the WSAV in drawing the conclusion that there is sufficient supply to serve the project.¹⁰³ In particular, the DEIR severely under-counts the needs that will result from the implementation of the project, fails to prove adequate water supplies will satisfy project water demand, and fails to discuss the adequacy of water supply availability in the context of climate change.

a. The DEIR Miscalculates the Project's Water Demands.

The WSAV report states that the project would create a demand of 1,290 acre-feet water per year (AFY) from residence and commercial needs.¹⁰⁴ However, this number is inconsistent with the 2014 Water Service Report that calculates the water demand to be 1,246 AFY.¹⁰⁵ The WSAV report also finds that the net new demand would be zero given the historic imported potable water use in the project area, the project's water conservation approach, development and use of recycled water, and continued use of onsite groundwater.¹⁰⁶

The WSAV's conclusion that the implementation of the project will result in zero net new water demand is unjustified. First, the WSAV states the project may utilize a variety of conservation features including incorporating low flush toilets and installing smart water meters with leak detection capabilities.¹⁰⁷ The WSAV concludes that water

¹⁰¹ DEIR, at 3-168.

¹⁰² DEIR, at 3-168.

¹⁰³ DEIR, at 3-151.

¹⁰⁴ DEIR, Appendix Q (Water Supply Assessment and Verification report), at 2.

¹⁰⁵ DEIR, Appendix T (Water Resource Report), at 3-1.

¹⁰⁶ DEIR, Appendix Q, at 2.

¹⁰⁷ DEIR, Appendix Q, at 6-7.

O1-123
cont.

O1-124

O1-125

O1-126

O1-124 The project has analyzed its impact on water supply. In the Water Supply Assessment (WSA) and Verification Report (FEIR Appendix Q), the project demonstrated that water supply was adequate to serve the project through three sources of water which would serve the 967 AFY of water demanded by the project. 191 AFY would be supplied by groundwater (which has historically been used on-site), 289 AFY would be supplied by recycled water (the source of which is wastewater generated by the project), and the remaining 487 AFY would be supplied by imported water which is less than the quantity of imported water historically used on-site (presently 513 AFY). The VCMWD's approved the WSA. In addition, the VCMWD issued an updated letter dated May 6, 2014 verifying that the conclusions of the WSA are still valid considering recent drought conditions and associated water use restrictions. This letter has been included as a cover letter to Appendix Q of the FEIR. Additionally, as shown in the June 9, 2015 memorandum from Dexter Wilson Engineering (FEIR Appendix T-1), the project is consistent with the temporary, emergency Executive Order (EO) B-29-15 issued by Governor Brown on April 1, 2015. The project is consistent with the emergency water conservation regulations mandated by the SWRCB and VCMWD. The project intends to fully comply with all water conservation regulations required by the VCMWD and State (emergency or otherwise). Please refer to FEIR subchapter 3.1.7 and Appendix T1 details. Also, the VCMWD issued another letter dated June 5, 2015, which is attached as Exhibit A to FEIR Appendix T-1. The June 2015 VCMWD letter concludes that "despite the impacts of short-term droughts and water supply shortages, in the long-term the District is confident that through the combined efforts of the state, MWD, the SDCWA and the VCMWD, sufficient supplies will be available for its service area, including the LHR development."

O1-125 See the response to comments O1-126 through O1-139.

O1-126 The following table provides a side-by-side comparison of the land use plan utilized for the October 8, 2012 Water Supply Assessment and Verification compared to the updated February 14, 2014 Water Study. The revised Water Study refined the land uses to reflect a more accurate depiction of the project as currently proposed.

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October 8, 2012 Water Supply Assessment and Verification		February 14, 2014 Water Study	
Land Use	Acres	Land Use	Acres
Single Family	138.9	Single Family Detached	156.9
Senior Community	76	Single Family Senior	76.9
Multi-Family	15	Single Family Attached	7.9
Commercial/Mixed Use	16.9	Commercial/Mixed Use	17.3
Water Reclamation	2.4	Water Reclamation	2.4
Detention Basin	5.5	Detention Basin	7.9
School	11.2	School	12
Private Recreation	1.8	Recycled Facility/Trail Head	0.6
Community Purpose	3.3	Community Purpose Facility	2
Assisted Living	5.3	Group Residential/Ca re	6.5
Institutional	7.5	Institutional	10
Park	21	Park	23.6
Biological OS	105	Biological Open Space	104.1
*Non-Circulating Road	40.35	Non-Circulating Road	45.7
*Circulating Road	40.8	Circulating Road	37.6
Common Areas/Ag	37.8	Common Areas/Ag	20.3
Manufactured Slopes	79.3	Manufactured Slopes/Wet Weather Storage	76.3
Total	608		608

O1-126 (cont.)

*As described in Chapter 1.0 of the FEIR, The project's proposed circulation plan is shown on Figure 1-7. This circulation plan includes both circulating and non-circulating roads. "Circulating Roads" refer to the backbone circulation network of the project—roads that connect through the project site to outside roadways, as illustrated on Specific Plan Figure 24 and the Master Tentative Map "Non-Circulating Roads" are internal roads and would be constructed in conjunction with implementing tentative maps.

With respect to these revisions to the land use plan the overall water demand for the project decreased from 1,290 AFY to 1,246 AFY.

The table below provides a side-by-side comparison of the water requirements based on the results of the two studies.

Comparison of Project Water Requirements		
Water Component	Quantity from 10-9-2012 WSA	Quantity from 2-14-2014 Water Technical Study
Project Demand Without Conservation	1,290 AFY	1,246 AFY
Project Demand With Conservation	967 AFY	935 AFY
Project Supply		
Groundwater	191 AFY	191 AFY
Recycled Water	289 AFY	312 AFY
Imported Water	487 AFY	432 AFY
Total Project Supply	967 AFY	935 AFY
Existing Imported Water Use	513 AFY	513 AFY

AFY, acre-feet per year

With respect to water conservation, the project will have to comply with all requirements of the VCMWD, including VCMWD Ordinance Article 190, Section 190.7 Conservation and Local Supply Use Requirements which requires the use of indoor and outdoor water conservation devices. The WSA provided citation for the 25% reduction. The citation is to the American Water Works Association program [drinktap.org](http://www.drinktap.org) which quotes 30 percent savings with water conservation devices (to <http://www.drinktap.org/home/water-information/>)

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	<p>O1-126 (cont.)</p> <p>conservation/water-use-statistics.). Additionally, the US Environmental Protection Agency (EPA) Water Sense program quotes 30 percent less water use by installing water-efficient fixtures and appliances (http://www.epa.gov/watersense/about_us/facts.html). While the above pertain to domestic water savings, the Irrigation Association has shown irrigation water savings ranging from 16 percent to 40 percent based on the water saving device utilized (http://www.irrigation.org/SWAT/Distributor/Distributor_Case_Studies.aspx).</p> <p>Examples of water conservation features the project may utilize are provided below. Ultimately, the specific water conservation features incorporated into the project will be based on the most effective measures available and those recommended by the District.</p> <p>Interior water conservation features:</p> <ul style="list-style-type: none">• High efficiency clothes washers• High efficiency dishwashers• Low flush toilets• Low flow water faucets and showerheads• Tankless water heaters <p>Exterior water conservation features:</p> <ul style="list-style-type: none">• Weather-based irrigation controllers• Low water use landscaping (xeriscape)• Restrictions limiting turf use and encouraging artificial turf <p>Additional conservation features:</p> <ul style="list-style-type: none">• Installation of “smart” meters with leak detection capability• Individually metered multi-family units
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demands will be reduced to 967 AFY after incorporating conservation measures.¹⁰⁸ However, the assumption that water demand from the project will be reduced by 25% via conservation measures is not supported by any scientific literature, and is not calculated according to the potential adoption of specific measures. The 25% assumed reduction via conservation measures is therefore baseless, and cannot be reasonably relied on--especially given that specific measures have not even been identified by the project. Furthermore, the DEIR does not state whether conservation measures will be adopted by the project and, if they are, whether they will be required to meet the 25% reduction assumption. The WSAV water demand estimate is also inconsistent with calculations by the Water Services Report, which concludes that water demand will remain at 935 AFY after incorporating conservation measures that would result in a 25% reduction in demand.¹⁰⁹

Thus although the WSAV attempts to present the 1,290 acre-feet water demand as a "net zero" demand, the methods it takes into account that would reduce this new demand are entirely speculative or illusionary, and is inconsistent with the water demands calculated by the Water Services Report. The reports must be revised to provide consistent calculations in order for the DEIR to begin an accurate analysis of water supply adequacies.

b. The DEIR Fails to Demonstrate that Adequate Potable Water Supply Will Be Available.

The WSAV inadequate information on the potential source for potable water supply, and provides only one sentence stating that "[w]ater supply for the Lilac Hills Ranch project will originate from the District, who in turn presently meets water demands primarily from water imported from the SDCWA . . ."¹¹⁰ The Water Service Report provides further information regarding possible potable and non-potable water sources directly from the District and the development of alternative sources. However, the project proponent fails to demonstrate that there is sufficient water supply to meet potable water demands that will be created due to the project as discussed below.

The DEIR states that currently all potable water in the District is imported from other areas of the state including the Colorado River and the State Water Project.¹¹¹ The DEIR discusses its intent to reduce the project's reliance on imported water by exploring alternate sources of water including harvested rain water, grey water, groundwater, and recycled water.¹¹² In particular, the Water Service Report estimates that harvested rain water from single-family units could provide 39 AFY of water, and it estimates that grey water collected from single-family units could provide 91 AFY of water.¹¹³ However,

¹⁰⁸ DEIR, Appendix Q, at 6-7.
¹⁰⁹ DEIR, Appendix T, at 3-2.
¹¹⁰ DEIR, Appendix Q, at 14.
¹¹¹ DEIR, Appendix T, at 4-2.
¹¹² DEIR, Appendix T, at 3-3 to 3-5.
¹¹³ DEIR, Appendix T, at 3-4 to 3-5.

O1-126
cont.

O1-127

O1-128

O1-127 The purpose of the WSA is to demonstrate there would be adequate water supply to serve the project. On 10-15-2012 the VCMWD Board of Directors adopted Resolution 2012-24, approving a WSA for the project in accordance with SB 610 and SB 221 to demonstrate sufficient water supply. The project demonstrated that water supply would be adequate by detailing the three sources of water which would serve the 967 AFY of water demanded by the project. 191 AFY would be supplied by groundwater (which has historically been used on-site), 289 AFY would be supplied by recycled water (the source of which is wastewater generated by the project), and the remaining 487 AFY would be supplied by imported water which is less than the quantity of imported water historically used on-site (presently 513 AFY). Imported water supplies originate from the Colorado River or the State Water Project and are allocated by the Metropolitan Water District (MWD) to water districts. As detailed above, the WSA shows that there would be adequate supply to serve the project. Moreover, the VCMWD issued an updated letter dated May 6, 2014 verifying that the conclusions of the WSA are still valid considering recent drought conditions and associated water use restrictions. That letter has been included as a cover letter to Appendix Q of the FEIR. Also, the VCMWD issued another letter dated June 5, 2015, which is attached as Exhibit A to FEIR Appendix T-1. The June 2015 VCMWD letter concludes that "despite the impacts of short-term droughts and water supply shortages, in the long-term the District is confident that through the combined efforts of the state, MWD, the SDCWA and the VCMWD, sufficient supplies will be available for its service area, including the LHR development." Additionally, as shown in the June 9, 2015 memorandum from Dexter Wilson Engineering (FEIR Appendix T1), the project is consistent with the temporary, emergency Executive Order (EO) B-29-15 issued by Governor Brown on April 1, 2015. The project is consistent with the emergency water conservation regulations mandated by the SWRCB and VCMWD. The project intends to fully comply with all water conservation regulations required by the VCMWD and State (emergency or otherwise). Please refer to FEIR subchapter 3.1.7 and Appendix T1 details.

O1-128 The use of harvested rain water and grey water were not utilized to demonstrate sufficiency of water supply for the project. The WSA and the VCMWD letters dated May 6, 2014 and June 5, 2015 state that there are sufficient water supplies to meet the LHR project's potable

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these alternatives are encouraged but are still optional where no implementation or financial commitments have been made by the project proponent, and thus are not demonstrated water supplies for the project.

} O1-128
 cont.

Even if the project implemented all grey water, harvested water, groundwater, and recycled water measures (assuming they are viable) these water supplies would still only provide 935 AFY of water compared to the estimated demand of over 1200 AFY. As discussed previously the 25% reduction in demand through conservation measures are merely assumed; no implementation or financial commitments have been made regarding conservation measures. If the project does not incorporate recycled water measures 619 AFY of potable water would need to be sourced from the District.¹¹⁴ Even under the scenario that incorporate all grey water, groundwater, and recycled water measures at least 307 AFY of the potable water would still need to be sourced from the District directly.¹¹⁵

} O1-129

The Water Service Report also notes the District may pursue investigations regarding groundwater resources in the future, and may purchase water from the Carlsbad Desalination Plant that is currently under construction. However, these sources are purely speculative and do not provide any assurance that water supply will be adequate for the project.¹¹⁶

} O1-130

In addition, the DEIR states that the District will improve the existing country club reservoir into two reservoirs of 4.8 million gallons each (or 9.6 million gallons total), which would have the capacity of 29.5 AF of potable water.¹¹⁷ However, the DEIR does not provide further detail on how the reservoir capacity would contribute to meeting water demands.

} O1-131

c. The DEIR Fails to Demonstrate that Adequate Non-Potable Water Supply Will Be Available.

The WSAV estimates that the implementation of the project will create a 510 AFY non-potable water demand.¹¹⁸ The DEIR proposes using a combination of groundwater and recycled water to meet this demand. The WSAV identifies nine groundwater production wells currently produce 191 AFY water (based on a five-year record) that would be used to meet the project's non-potable demands at the same production rate until the source is found unreliable.¹¹⁹ Additionally, the WSAV provides that recycled water would generate 289 AFY.¹²⁰ However, the WSAV and the DEIR do not discuss how the remaining 30 AFY non-potable demand will be met assuming that 480 AFY would be generated through groundwater and recycled water sources.

} O1-132

¹¹⁴ DEIR, Appendix T, at 3-5.
¹¹⁵ DEIR, Appendix T, at 3-5.
¹¹⁶ DEIR, Appendix T, 4-2.
¹¹⁷ DEIR, at S-2 and S-3.
¹¹⁸ DEIR, Appendix Q, at 8.
¹¹⁹ DEIR, Appendix Q, at 8; DEIR, at 3-136.
¹²⁰ DEIR, Appendix Q, at 8.

O1-128 (cont.)

water demands. The project will have to comply with all requirements of the VCMWD, including VCMWD Ordinance Article 190, Section 190.7 Conservation and Local Supply Use Requirements which requires the use of recycled water and groundwater. The project will also be required to comply with all the emergency water conservation regulations mandated by the SWRCB and VCMWD associated with EO B-29-15. Please see response to comments 01-126 through 01-127.

O1-129 Please see response to comments O1-126 through O1-128.

O1-130 The Water Service Report presented information regarding other potential water sources for informational purposes and was not utilized to demonstrate sufficiency of supply in the WSAV.

O1-131 Use of the Country Club Reservoir was not considered to determine overall water supply for the project. Improvements to the Country Club Reservoir to divide it into two reservoirs is necessary for operational reasons. Dividing the reservoir into two reservoirs allows one half to be emptied for maintenance while keeping the other half full, rather than emptying the entire reservoir.

O1-132 As detailed in subchapter 3.1.3.2 and the WSA, the project proposes to use groundwater and recycled water for the irrigation of the HOA landscaped areas. As stated by the commenter, the estimated project demand for non-potable water is approximately 510 AFY. Of this amount, 480 AFY would be met through the use of recycled or groundwater, the remaining 30 AFY would be met with potable water sources.

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Furthermore, the DEIR does not analyze whether the current 191 AFY extraction rate for groundwater is sustainable over the long term, making it impossible to assess the viability of this water source even within the short 20-year outlook water supply has been assessed. Finally, the DEIR also does not assess the certainty of meeting water demands through recycled water, as no plan for obtaining recycled water has been adopted. The DEIR discusses the possibility of building a new wastewater reclamation facility and/or expanding the existing Lower Moosa Canyon Water Reclamation Plant.¹²¹

O1-133

The project proponent has thus failed to demonstrate that nonpotable water needs will be met by groundwater or recycled water sources, which will not produce sufficient supply even if the proponent verify the long-term viability of groundwater resources and implement one of the water recycling options as discussed.

O1-134

d. The DEIR Assesses Water Supply Availability Under an Inadequate Planning Horizon.

The WSAV report concluded that there will be sufficient water supply for the project including projected growth in the next 20 years.¹²² This is simply too small of a window for assuring that the water supply needs of the proposed community since the community would be expected to function for more than merely 20 years. Without a sufficient water supply for at least 100 years in order to provide long-term certainty for the existence of the community.

O1-136

e. The DEIR Dismisses Groundwater Extraction Impacts to Sensitive Species and Habitats Without Proper Support.

The General Plan discourages development that would significantly draw down groundwater levels to the detriment of groundwater-dependent habitat.¹²³ The DEIR states that groundwater-dependent habitat will not be impacted by continuous groundwater extraction by the project based on the amount of groundwater that would be extracted, the depth at which groundwater would be extracted, and potential recharge by recycled water, potable water over the project site.¹²⁴ In particular, the DEIR draws this conclusion by citing that well depths range from 110-1210 feet and are therefore below the surface groundwater depths used by riparian plants species.¹²⁵ The DEIR fails to mention that well depths documented account for total depth, not the depth where wells begin to draw water from groundwater sources, and therefore cannot be used to support the DEIR's conclusion that groundwater withdrawal has no potential impact on species and habitats on-site.¹²⁶ The DEIR does not include any other assessments on groundwater

O1-137

¹²¹ DEIR, Appendix Q, at 8.

¹²² DEIR, Appendix Q, at 3.

¹²³ County of San Diego General Plan LU-8.3.

¹²⁴ DEIR, at 2.5-23.

¹²⁵ DEIR, at 2.5-23.

¹²⁶ DEIR, at Appendix P (Hydrogeologic Assessment), Table 1.

O1-133 The FEIR (Appendix P and subchapter 3.1.3.2) determined that 191 AFY extraction from the project site would be sustainable over the long term based on the existing historical extraction that has occurred onsite, primarily associated with the agricultural use of the project site. The Preliminary Hydrogeologic Assessment (Appendix P of the FEIR) supports the conclusion that the 191 AFY could be extracted to supplement the project's non-potable water demand (for irrigation). The report bases this conclusion on the historic well production, that there are few groundwater dependent parcels in the vicinity of the site and that the watershed is subject to additional groundwater recharge from the imported water deliveries via irrigation and septic leachate infiltration. The report finds that the estimated five-year groundwater production history indicates that groundwater along with recycled water can be used to minimize the use of potable water for project irrigation requirements.

O1-134 The project is processing a Major Use Permit for the construction of a water reclamation facility specifically to treat the project wastewater to standards suitable for recycled water use. Relatedly, the project's Wastewater Technical Report (see Appendix S) provides for multiple options for wastewater treatment. All options assume that the treated wastewater is utilized as recycled water (i.e. the treated wastewater will be put to use and not disposed of in percolation ponds.) The project will have to comply with all requirements of the VCMWD, including VCMWD Ordinance Article 190, Section 190.7 Conservation and Local Supply Use Requirements which requires the use of recycled water and groundwater. More specifically, on June 3, 2013 the VCMWD Board approved Preliminary Concept Approval for the project. Part of the approval included the "Conditions for Preliminary Concept Approval" which outlines the major issues related to providing service to the project with respect to water, wastewater, and recycled water. One condition specifically reads, "The Developer shall utilize recycled water within the proposed project, to the greatest extent possible, for all appropriate irrigation purposes in lieu of imported potable water."

O1-135 See responses to comments O1-132 through O1-134.

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sources, geological formations, or their potential impacts on riparian habitats on the project site supporting its conclusion that the project would not negatively harm groundwater-dependent impact.

Since the open space riparian woodlands run nearly the length of the Project they very likely transect groundwater resources at several points and are very likely dependent on adequate ground water to support the oaks, willows and other riparian species. The DEIR dismisses potential impacts continued groundwater drawdown will have on groundwater-dependent species and habitat, and must assess and disclose the full range of impacts the project will have on these sensitive biological resources.

f. The EIR Must Analyze Global Warming's Affect on Water Supply in Determining Project Water Supply Impacts.

Significantly for the state, as well as the project area, is global warming's impact on water supply. The IPCC specifically identified the American West as vulnerable, warning, "Projected warming in the western mountains by the mid-21st century is very likely to cause large decreases in snowpack, earlier snow melt, more winter rain events, increased peak winter flows and flooding, and reduced summer flows" (IPCC 2007b). Recently, researchers found that an increase in atmospheric greenhouse gases has contributed to a "coming crisis in water supply for the western United States" (Barnett 2008). Using several climate models and comparing the results, the researchers found that "warmer temperatures accompany" decreases in snow pack and precipitation and the timing of runoff, impacting river flow and water levels (Barnett 2008). These researchers concluded with high confidence that up to 60 percent of the "climate related trends of river flow, winter air temperature and snow pack between 1950-1999" are human-induced (Barnett 2008). This, the researchers wrote, is "not good news for those living in the western United States" (Barnett 2008).

The California Center on Climate Change has also recognized the problem global warming presents to the state's water supply and predicts that if greenhouse gas emissions continue under the business-as-usual scenario, this snowpack could decline up to 70-90 percent, affecting winter recreation, water supply and natural ecosystems (Cayan 2007). Global warming will affect snowpack and precipitation levels, and California will face significant impacts, as its ecosystems depend upon relatively constant precipitation levels and water resources are already under strain (Cayan 2007). The decrease in snowpack in the Sierra Nevada will lead to a decrease in California's already "over-stretched" water supplies (Cayan 2007). It could also potentially reduce hydropower and lead to the loss of winter recreation (Cayan 2007). All of this means "major changes" in water management and allocation will have to be made (Cayan 2007). Thus, global warming may directly affect the ability to supply clean, affordable water to the residents, or change how the project will utilize water, and it may also impact other activities outside the project area, such as agriculture.

O1-137
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O1-138

O1-139

O1-136 As detailed in the Department of Water Resources, Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001, 20 years is the appropriate planning horizon for WSAs. This planning horizon is established in the Water Code (Section 10910) and provides consistency with the planning horizon used for General Plans which forms the basis of build out and water use assumptions. As a result, the 20 year planning horizon is appropriate.

O1-137 The project's groundwater use would be consistent with the historic documented groundwater use on the project site as documented in the Hydrogeologic Assessment included as Appendix P to the FEIR. The project site has been subject to long term groundwater use associated with agricultural operations. As the proposed project would not extract groundwater beyond historic documented levels, depletion of the groundwater basin to the detriment of groundwater dependent habitat would not occur. Furthermore, the project's landscape water use will be a source of groundwater replenishment.

O1-138 Refer to response to comment O1-137.

O1-139 These general comments and citations about global warming and water supply are acknowledged, however the existing analysis is adequate to support the conclusions of the FEIR. The project relies on the findings of the VCMWD, which is subject to State mandates to reduce water use through conservation. Specifically, when the legislature enacted Senate Bill 7 (SB X7-7), they found: "Growing population, climate change, and the need to protect and grow California's economy while protecting and restoring our fish and wildlife habitats make it essential that the state manage its water resources as efficiently as possible." [SB X7-7, Section 10608(b)]. The potential impacts raised by the commenter would be speculative in nature and a conclusion that the project could have a larger impact on water supply is not supported by any facts. Additional details about the speculative nature of Global Climate Change's effect on water supply has been incorporated into Section 11 of Appendix O of the FEIR.

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Scientists indicate that climate change will also exacerbate the problem of flooding by increasing the frequency and magnitude of large storms, which in turn will cause an increase in the size and frequency of flood events (NRDC 2007). The increasing cost of flood damages and potential loss of life will put more pressure on water managers to provide greater flood protection (NRDC 2007). At the same time, changing climate conditions (decreased snowpack, earlier runoff, larger peak events, etc.) will make predicting and maximizing water supply more difficult (NRDC 2007). These changes in hazard risk and water supply availability must be considered during environmental review.

Water quality, in addition to water quantity and timing, will also be impacted. Changes in precipitation, flow, and temperature associated with climate change will likely exacerbate water quality problems (NRDC 2007). Changes in precipitation affect water quantity, flow rates, and flow timing (Gleick 2000). Shifting weather patterns are also jeopardizing water quality and quantity in many countries, where groundwater systems are overdrawn (Epstein 2005). Decreased flows can exacerbate the effect of temperature increases, raise the concentration of pollutants, increase residence time of pollutants, and heighten salinity levels in arid regions (Schindler 1997).

IV. THE EIR FAILS TO ADEQUATELY ANALYZE A REASONABLE RANGE OF ALTERNATIVES.

The EIR failed to consider a meaningful analysis of reasonable alternatives to the Project in order to lessen or avoid the Project’s significant impacts. CEQA mandates that significant environmental damage be avoided or substantially lessened where feasible. Pub. Res. Code § 21002; Guidelines §§ 15002(a)(3), 15021(a)(2), 15126(d). A rigorous analysis of reasonable alternatives to the project must be provided to comply with this strict mandate. “Without meaningful analysis of alternatives in the EIR, neither courts nor the public can fulfill their proper roles in the CEQA process.” *Laurel Heights Improvement Ass’n v. Regents of University of California*, 47 Cal.3d 376, 404 (1988). Moreover, “[a] potential alternative should not be excluded from consideration merely because it ‘would impede to some degree the attainment of the project objectives, or would be more costly’ even when that alternative includes Project development on an alternative site. *Save Round Valley Alliance v. County of Inyo*, 157 Cal. App. 4th 1437, 1456-57 (2007) (quotations omitted).

The EIR must consider a reasonable range of alternatives including, but not limited to, the following: creation of the Project on an alternative site that impacts less wildlife habitat, existing core reserves, or connections between existing reserves; Development of the Project on existing lands previously disturbed by development and exclusion of development on undeveloped lands; increased density, mixed use development, transportation oriented design surrounding existing transit nodes or transit corridors within or adjacent to the Project area; and mixed use development combined with preservation and enhancement of existing wildlife habitat. An off-site alternative has been considered by the DEIR. However, the DEIR has improperly dismissed this

O1-139
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O1-140

O1-141

O1-140 The FEIR was recirculated for the purposes of considering additional project alternatives and a reasonable range of alternatives were examined, consistent with the requirements of CEQA. In total the FEIR fully evaluated eight alternatives. As described in the FEIR, the following alternatives were addressed:

1. No Project / No Development Alternative
2. No Project / Existing Legal Lot Alternative
3. General Plan Consistent Alternative
4. Reduced Footprint Alternative
5. Reduced Intensity Alternative
6. 2.2 C Alternative
7. Roadway Design Alternative
8. Mountain Ridge Road Fire Station Alternative

O1-141 The comment suggests that an additional alternative needs to be considered that evaluates an off-site alternative in the City of Escondido. Refer to response I51h-1 for a response to this comment. The comment also suggests that the off-site alternative considered in the FEIR was improperly dismissed. However, an alternative location was properly dismissed (subchapter 4.1.1.1 of the FEIR) based on the lack of a similarly sized development area in proximity to major infrastructure in the Valley Center-Bonsall area, in addition to other factors. CEQA Guidelines Section (f)(1) identifies factors that may be taken into account when addressing the feasibility of alternatives, which include site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, and jurisdictional boundaries. The existing analysis in subchapter 4.1.1.1 of the FEIR does include adequate evidence to support rejection of this alternative based on both infeasibility and inability of the alternative to meet the basic project objectives.