

COMMENTS

RESPONSES

Comment Letter RO1

*California Native Plant Society*

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April 9, 2018

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 Planning and Development Services  
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 By email to: Ashley.Smith2@sdcounty.ca.gov

RE: Harmony Grove Village South, PDS2015-GPA-15-002, PDS2015-SP-15-002, PDS2015-REZ-15-003, PDS2015-TM-5600, PDS2015-MUP-15-008, PDSXXXX-HLP-XXX, LOG NO. PDS2015-ER-15-08-006; SCH NO. 2015081071.

Dear Ms. Smith,

Thank you for the opportunity to comment on the draft of the Harmony Grove Village South ("Project") recirculated draft environmental impact report ("REIR"). CNPS promotes sound plant science as the backbone of effective natural areas protection. We work closely with decision-makers, scientists, and local planners to advocate for well informed and environmentally friendly policies, regulations, and land management practices. Our focus is on California's native plants, the vegetation they form, and climate change as it affects both.

In these comments on the REIR, we focus on both the greenhouse gas analysis and on climate change. Unfortunately, there are 11 issues in the REIR that need to be clarified as part of the process. Questions are highlighted below, not for emphasis, but to aid in finding them for a suitable response.

The first, bureaucratic question, is what happened to section 2.7 ("Significant Irreversible Environmental Changes Resultant from Project Implementation") of the original draft environmental impact report ("DEIR")? While it was not a long section, it is an important one. Is it now section 2.8? If it needed to be rewritten, why was it not recirculated with the REIR? Does this mean that the REIR needs to be recirculated again to be complete?

The second issue is that, while the County approved the Climate Action Plan ("CAP") on February 14, 2018, it is already the subject of a lawsuit by a coalition of environmental groups. Can the REIR be updated to include not only the last-minute provisions inserted in the CAP by Planning and Development Services, the County Planning Commission, and the County Supervisors, but also the fact that the plan is under litigation? How will this affect the revised analysis? Furthermore, the CAP is under court supervision. Can any relevant rulings or feedback from the judge be included in this REIR? If the judge's actions on the CAP happen to affect the Project, can the REIR be revised to account for this? These questions are impositions, but given the uncertainty surrounding how the County will regulate greenhouse gas emissions, and that the Project may face procedural issues, legal issues, or a costly redesign, in complying with whatever comes out in the next few months, it seems prudent to front-load the issues and deal with them in the design phase, rather than deal with them during the approval process or later.

Third, the section on how the development will meet its greenhouse gas reduction goals is unfortunately confusing. It appears, for instance, that the Project will meet its energy generating goals by providing "roof anchors and pre-wiring to allow for the installation of photovoltaic (PV) systems" (new

RO1-1

RO1-2

RO1-3

RO1-4

**Response to Comment RO1-1**

These are introductory comments. The County acknowledges the description of the California Native Plant Society (CNPS) and the focus of the comments.

**Response to Comment RO1-2**

Subchapter 2.7 of the DEIR has been renumbered as Subchapter 2.8 of the FEIR. There were no substantive changes to the subchapter (it was not rewritten), and as such, no recirculation of that subchapter was required.

**Response to Comment RO1-3**

The comment asks if the RDEIR can be updated to include the "last-minute provisions inserted into the CAP." The County disagrees that there were "last-minute provisions" of the Climate Action Plan (CAP). The Board of Supervisors (BOS) approved the CAP on February 14, 2018. Although some GHG reduction measures for private development were ultimately decided to not be included within the CAP, the CAP EIR was circulated for public review in compliance with CEQA and extensive public outreach was conducted. All of the reduction measures that were contemplated by the BOS were available for public review and at all related hearings. With respect to the question of whether the RDEIR should be updated to include the provisions of the CAP, please see the Global Responses to Climate Action Plan (CAP and GHG Carbon Offsets). As discussed in detail therein, the Project was determined to have less than significant impacts as mitigated based on Appendix G of the CEQA Guidelines and did not rely on the CAP. CEQA provides that the determination of whether or not a project has a significant effect on the environment is based on the thresholds described in the environmental document. These thresholds of significance can be adopted by the local agency or can be based upon those standards set forth in Appendix G of the CEQA Guidelines (14 California Code of Regulations Section 15064).



*Dedicated to the preservation of California native flora*


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	<p>However, the Project is consistent with and does not conflict with the CAP. The Project would achieve no net increase in GHG emissions over existing baseline conditions (which are assumed to be zero) with the implementation of the recommended design features and mitigation measures. Additionally, the Project incorporates more emission-reducing features than those listed within the CAP, relying on the California Air Resources Board’s (CARB’s) Scoping Plan (e.g., offset of 100 percent of Project on-site electrical use through solar, an electric-vehicle-charging station at the Center House and plumbing for such use in the Project’s residential garages, a commitment to a future bus stop on-site, and homeowners association (HOA)-owned on-site electric vehicles (EVs) for use on-site and to Harmony Grove Village). Although the Project did not rely on the CAP, for clarity, it is noted that the Project has completed the CAP checklist. The Project is therefore consistent with and would not conflict with the County’s CAP because the Project would implement all feasible and applicable CAP measures (see Appendix J to the FEIR). Finally, Mitigation Measures M-GHG-1 and M-GHG-2 require the Project to purchase and retire carbon offsets in a quantity sufficient to reduce, to net zero, in accord with Mitigation Measure GHG-1 from the County’s Supplemental EIR (SCH No. 2016101055) for its CAP.</p> <p>The comment also asks how pending litigation of the 2018 CAP will affect the Project. It does not affect the Project. The issue is whether the Project—not the CAP—complies with state law. As described above, the Project was determined to have less than significant impacts as mitigated based on Appendix G of the CEQA Guidelines and did not rely on a threshold of significance adopted by the County or the CAP. As shown in Appendix J and FEIR Subchapter 2.7, <i>Greenhouse Gas Emissions</i>, the Project complies with CARB’s Scoping Plan requirements, and also would additionally purchase offsets approved in CEQA to achieve net neutrality.</p>

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<p style="text-align: right;">Page 2 of 3</p> <p style="text-align: center;"><b>Comment Letter RO1</b></p> <p>2.7-20), while elsewhere it talks about the installation of PV systems. <b>This is confusing: are PV systems going to be installed by the Project, or not? If the expectation is that homeowners will each spend ~\$20,000 additionally to install solar power, how can brackets matter?</b> As a homeowner with solar panels, I know that the number of brackets depends on the number of panels installed, and the number of panels depends on a complex decision involving the productivity of each panel, the amount of power the homeowner needs, the unshaded area on the roof that points south or west, and what the homeowner can afford. And the cost of solar panels, which changes over time. <b>Given this chaos, aren't the installation of a (random, set?) number of brackets overly limiting? Shouldn't a system sufficient to power the home be installed when the house is built? How many buildings will get PV systems, how many will not, and how much power is the process anticipated to provide?</b></p> <p><b>Fourth, what about community buildings and apartments? Will they have PV systems installed? If so, who will control them?</b> Having lived in a townhome where the roof was controlled by the HOA, I can testify that getting approval to install PV systems can be a complex sociopolitical challenge, before the technical hurdles are even considered. <b>Can HOA rules be created where appropriate to ease the installation of PV panels on roofs of common areas and where more than one residence shares a common roof that are controlled by the HOA?</b></p> <p><b>Fifth, solar energy is a wonderful source, but it is not useful at night. Furthermore, home batteries on the market have fairly low storage levels (the Tesla Powerwall holds 13.5 kWh at 5kW continuous load (which means that my 30 kWh/day PV system would overload a single battery). In reading the REIR, I did not see any mention of how the PV energy from the Project will be stored. Will there be any electrical storage on site? If not, what are the greenhouse gas emissions of the electrical systems that will power the Project at night? This is important, in that homeowners use power disproportionately at night. While their homes might provide a desirable surplus of energy to the grid during the day (assuming PV systems are actually installed and not notional), people living on the property will use natural gas at night, thus generating greenhouse gases. Has any provision been made for electrical storage? For example, in homes, is there space in the garage to install a house battery near the main breaker panel? What about the apartments? How will PV generation and energy storage be handled in them?</b></p> <p><b>Sixth, what does "the Project will plumb for EV charging station for every residential unit?" I have an electric vehicle, and plumbing for the charger was not the issue. Rather, the issue is that the 250 volt plug needed to power an EV charging station requires proper grounding, a permit, and inspector approval, so that it does not become a fire hazard. Furthermore, what constitutes a residential unit? Are apartments included? Can this measure be clarified to specify what is being installed? A hole in the wall might be plumbing, but it cost us \$700 to have the wiring and ground installed and inspected. This is a non-trivial issue for homeowners.</b></p> <p><b>Seventh, it is essential that the street trees planted during or after the Project build phases should not overshadow the solar panels, per Public Resources Code Division 15, Chapter 12. Solar Shade Control [25980-25986], passed in 1974. Since the street tree palette includes large oaks (<i>Quercus</i> spp.) and sycamores (<i>Platanus</i> spp.), it appears likely that if they obtain enough water to grow to full size (50-60 feet), solar panel shading will be a serious future issue. How can the landscaping design be changed to insure that there are both street trees and functioning solar panels?</b></p> <p><b>Eighth, turning to traffic, I found two numbers unclear. One is that the Project will generate 4,500 average daily trips, and that each trip will on average be 7.88 miles. According to the REIR, this equals 11.08 million miles traveled per year. By my calculations: 4,500 trips/day × 7.88 miles/trip × 365 days/year = 12.94 million miles traveled/year. Is the 11.08 million miles traveled/year correct? How was it derived? If it is not correct, what are the consequences of changing it? The other question was how 11.08 million miles per year was converted into 4,072 MT CO<sub>2</sub>e/year. What is the conversion factor? Presumably I overlooked it.</b></p> <p><b>Ninth, can all electric cars predicted to occur on the Project be recharged daily on the Project? I own a Chevy Bolt, which gets about 4 miles per kWh, and this number seems to be fairly constant across the available EVs on the market. This means that if the Project can generate an extra 8,865 kWh per day</b></p>	<p><b>Response to Comment RO1-4</b></p> <p>The County disagrees that the RDEIR is confusing with respect to the Project Design Features (PDFs) and mitigation measures required by the Project to achieve net neutrality. Subsection 2.7.2.2 of the GHG Analysis lists all of the PDFs that are incorporated into the Project and are conditions of Project approval. All of the PDFs are also shown in Table 1-2 and Chapter 7 of this EIR. Subsection 2.7.5 provides that in addition to the PDFs identified above, in order for the Project to achieve carbon neutrality (i.e., no net GHG emissions through offset to zero); the Applicant has committed to mitigation measures M-GHG-1 and M-GHG-2.</p> <p><b>Response to Comment RO1-5</b></p> <p>The commenter also questions the use of photovoltaic (PV) systems for the Project and the installation of roof anchors and pre-wiring. As stated on page 2.7-23 of the RDEIR: “The Project will install rooftop solar PV panels (a photovoltaic solar system) all on residential units and the Center House in order to supply 100 percent of the Project’s electricity needs through renewable energy.” This has been amended in the FEIR to clarify that it actually addresses all energy needs, including natural gas, and not just electricity. The reference to the roof anchors and pre-wiring provide the ability to install PV panels beyond those installed as part of Project implementation and is not inconsistent with the requirement of installing PV systems. It could happen, for example, at the Project wastewater treatment and water reclamation facility (WTWRF). There is, therefore, nothing limiting about this program. The Project has specifically committed to installing rooftop solar PV panels (a photovoltaic solar system) adequate to supply 100 percent of the Project’s energy needs. Both single- and multi-family typical designs for this Project were analyzed by ConSol (see EIR Appendix J). The results of the ConSol Report indicate that 100 percent of the average energy use for each building type’s on-site needs will be met through proper design. The analysis was conservative, as it included assumed conditions in which panels could not be placed on south-facing directions. It is also noted that future technological advances could occur that could support lower levels of consumption, or make panels more efficient.</p> <p><b>Response to Comment RO1-5</b></p> <p>As indicated in Response to Comment RO1-4 of this letter, multi-family formats also would have solar panels installed during construction. The ConSol Report</p>

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	<p>provided in Appendix J reviewed typical structures and projections of their average energy use. Taken together, it is understood that one home/resident may use more than another, and conversely, another home/resident may use less. As with other components of multi-family buildings, the HOA will maintain these facilities.</p> <p><b>Response to Comment RO1-6</b>  The Project does not propose on-site electrical storage. Rather, and similar to other solar generation on individual homes within the County that feed into the San Diego Gas &amp; Electric electrical grid, the energy would be generated during the day, and fed back into the homes during nighttime use.</p> <p><b>Response to Comment RO1-7</b>  In this instance, the term “plumb” for the in-home EV-charging station is used to refer to providing the structural and electrical elements that would support installation of a charger. This amenity also would be provided during construction and wiring/grounding would not be implemented by the homeowner. Relative to which residential units would be covered, the Project would provide this in the garage for each unit, regardless of whether it is a single- or multi-family residence.</p> <p><b>Response to Comment RO1-8</b>  Much of the Project landscaping is associated with park areas or slopes. In these areas, home roofs would either not be shielded (parks) or the trees, which would obscure much of the structures from off-site uses, would generally not rise high above the residential units. Tree locations also must conform to the Project Fire Protection Plan, which requires their location at specified distances from structures, and therefore minimizes overhang. Regardless, the solar arrays would operate throughout the day, allowing for times of day when no shade would be cast at any specific location.</p> <p><b>Response to Comment RO1-9</b>  Vehicle emissions were derived using the California Emissions Estimator Model (CalEEMod). As noted, the Project was analyzed to generate approximately 4,500 average daily trips (ADT), with an average trip length of 7.88 miles/trip. This is actually a conservative (greater impact) analysis. The</p>

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	<p>traffic study was initially prepared prior to the total number of residential units and the type of residential units (single-family and multi-family) were being finalized. The Project is proposing 193 single-family units projected to generate 10 trips (each equating to 1,930 ADT), and 260 multi-family units projected to generate 8 trips each (equating to 2,080 ADT). Thus, the actual total ADT would be 4,010, and not approximately 4,500. Documentation of this is provided in the Project Final Transportation Impact Analysis (TIA), EIR Appendix D in a memorandum entitled “HGVS -- Trip Generation Comparison.” This is a reduction in traffic volume of 490 ADT or roughly 10.9 percent from the analyzed Project. The associated mobile source GHG emissions, therefore, also are overstated by approximately 458 metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e) from what was originally modeled under the 4,500 ADT scenario and from the more conservative numbers provided in the 2018 recirculated RDEIR.</p> <p>Regardless, using the approximately 4,500 ADT, the unadjusted total miles traveled would be 35,460 per day, and 12,942,900 per year. CalEEMod accounts for a default amount of the total trips to identify primary, as well as diverted trips (11 percent) and pass-by trips (3 percent) and includes a corresponding reduction in trip length for a proportion of those trips, which is industry standard, reducing overall annual vehicle miles traveled (VMT) to approximately 11.5 million miles.</p> <p>Regarding the resultant emissions, vehicle emissions are then calculated by multiplying the VMT to the emission factor for running emissions (using CARB’s EMFAC model). The emission rate for numerous vehicle types is then multiplied by the annual miles and converted to MT CO<sub>2</sub>e within CalEEMod, to determine the GHG emissions. The total annual emissions from CalEEMod were calculated to be 4,309 MT CO<sub>2</sub>e. These emissions were then adjusted (reduced by 2.38 percent) to account for Pavely II regulations to 4,207 MT CO<sub>2</sub>e.</p> <p>Please note that the RDEIR based its analysis on approximately 450 homes (at 4,500 ADT) instead of the total number of miles traveled by residents of 453 homes (at 4,530 ADT). Multiplying these trips by 365 days and the 6.977 miles</p>

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	<p>per trip (the CalEEMod adjusted trip length) adds 76,398 annual increase in VMT, or a 0.67 percent increase. This would be within the margin of error of the model and would only marginally change the stated 11.5 million miles per year of projected Project vehicular trips (due to rounding the number does not change). Similarly, adding the three additional homes to the Project emissions for vehicular activity would add a total of 28 tons per year of mobile emissions, and raise the total number of tons offset to 5,250 MT CO<sub>2e</sub>. This is approximately half of 1 percent (0.54 percent) of the total tons identified in Subchapter 2.7 for mitigation credit purchase. The difference is considered negligible given that the Project would install 2,045 trees. These trees are projected to sequester 719 MT CO<sub>2e</sub> over existing conditions (1,448 MT CO<sub>2e</sub> from new trees minus a loss of 729 MT CO<sub>2e</sub> from vegetation removal) HELIX Sequestration Memo, 2017. No credit for the increased sequestration of GHG emissions was accounted for in the modeling or reductions for the Project. In addition, the Project did not take reduction credit for offsetting natural gas emissions by on-site solar use.</p> <p>In summary, it can be seen that the Project analyses were conservative in nature and the Project modeling provides a conservative (greater impact) assessment of GHG emissions. This is because the analysis:</p> <ul style="list-style-type: none"> <li>• Assumed 450 single-family homes rather than a mix of single-family and multi-family (with lower overall trip generation rates of 4.010 trips as opposed to approximately 4,500)</li> <li>• Did not take credit for offset of Project natural gas emissions by on-site solar</li> <li>• Did not take credit for the sequestration benefits provided by the planting of more trees than would be necessary to offset the loss of existing vegetation</li> </ul> <p>It can therefore be seen that the Project analysis was truly was conservative and the addition of the three homes (to total 453 rather than “approximately 450” would have had a negligible result, as specified in the Project TIA.</p>

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<p style="text-align: right;">Comment Letter RO1</p> <p>Page 3 of 3</p> <p>(4,500 trips/day × 7.88 miles/trip), it could power its vehicular traffic. For comparison, my high end solar panels generate ~1 kWh/day per 10 ft<sup>2</sup> of panel. <b>Is it possible for the Project to power its own EV fleet? Could that much energy be stored realistically by batteries in the Project footprint? Are there impacts for designing to this goal? If this electricity cannot be generated on site, where would that electricity come from, and how would generating it affect the Project's annual greenhouse gas emissions in the future?</b></p> <p>Tenth, returning to the CAP and its litigation, to my understanding, one issue under litigation is what types of carbon offsets are appropriate, as the County and Sierra Club disagree on this issue, except that both agree that onsite reduction is the best alternative. Since this litigation may end up disrupting the Project, <b>are there additional on-site reductions that can be undertaken to decrease the 4,411 MT CO<sub>2</sub>e the Project plans to offset? If so, what are they?</b></p> <p>Eleventh, from my reading of protocols from the Climate Action Reserve (one of the registries approved by CARB), their project plans run on the scale of 100 years, not 30 years as presumed by M-GHG-2 (p. 2.7-32). Thirty years is actually below the 40 year average cropping cycle on a northern California tree farm, so it seems inadequate. <b>Why was 30 years used, and not 100 years? Does this comply with guidance from approved registries?</b> This is a non-trivial issue, as the critical period for removing greenhouse gases from the air is not just now, it is 2100 AD. While most projections end there, climate change will continue for centuries past that, and may even accelerate into the 22nd and 23rd centuries. Keeping carbon out of the air for a century is vitally necessary. <b>Will off-setting carbon emissions for 100 years rather than 30 materially affect the mitigation for Project greenhouse gas emissions?</b></p> <p>Thank you for taking these comments. Please keep CNPSSD informed of all developments with this project and associated documents and meetings, at conservation@cnpsd.org and franklandis03@yahoo.com.</p> <p style="text-align: right;">Sincerely,    Frank Landis, PhD  Conservation Chair  California Native Plant Society, San Diego Chapter</p>	<p><b>Response to Comment RO1-10</b></p> <p>Please see Response to Comment RO1-7 of this letter. An EV charger would be provided at the Center House parking area. If residents use an EV and use their EV charger connected to the pre-plumbed circuitry, any necessary additional electrical consumption could be provided by the utility provider. Although it is unknown exactly how many homeowners may have EVs, the focus is on overall Project GHG emissions. The Project solar systems have not been upsized to offset residential EV charging, but specific to the comment the energy needed to charge that vehicle would be offset approximately five times in the reduction in mobile emissions due to not driving a car with a combustion engine. Similar to other conservative approaches to Project analyses, no reductions were taken in modeling relative to EV recharge stations.</p> <p><b>Response to Comment RO1-11</b></p> <p>Please see the Global Responses to Carbon Offsets. Carbon offsets are specifically allowed under CEQA and also are approved in California state law. The Project incorporates all on-site reductions that can be reasonably and feasibly included as part of Project design as specified in Subchapter 2.7, Table 1-2, <i>Project Design Features</i>, and Chapter 7, <i>List of Mitigation Measures and Design Features</i>, of the FEIR.</p> <p><b>Response to Comment RO1-12</b></p> <p>Please see the Global Responses to Carbon Offsets regarding purchase of credits for a 30-year project life.</p> <p><b>Response to Comment RO1-13</b></p> <p>These conclusion comments are noted. You are on the list for future notices regarding Project hearings and public actions.</p>