

O-6.3 HYDROLOGY/STORMWATER

- O-6.3-1** The comment provides an introduction to comments that follow. Please refer to the following responses, specifically **Responses to Comments O-6.3-2 through O-6.3-28**. The comment does not raise an issue regarding the adequacy of the Draft EIR; therefore, no further response is required or provided.
- O-6.3-2** The comment provides a summary of comments that follow. Please refer to the following responses, specifically **Responses to Comments O-6.3-4 through O-6.3-28**. The comment does not raise an issue regarding the adequacy of the Draft EIR; therefore, no further response is required or provided.
- O-6.3-3** The County acknowledges the comment as a summary of comments that follow. Please refer to the following responses, specifically **Responses to Comments O-6.3-4 through O-6.3-28**, below. No further response is required or provided.
- O-6.3-4** The comments expresses an opinion regarding deficiencies in the assessment methods. The comment asserts that the Draft EIR is compromised by defects in certain methods used in the analyses underlying its conclusions and proposals, specifically in topographic analyses and accounting for soil conditions. The comment further notes shortcomings in the areas of hydrological analyses, site topography, site-specific soils, and the adequacy of construction-phase stormwater management and post-construction water quality and hydromodification.

The Draft EIR, Section 3.1.2, Hydrology and Water Quality; and Appendices 3.1.2-1, Drainage Study; 3.1.2-2, Major Stormwater Management Plan; and 3.1.2-4, Hydromodification Management Plan, include the calculations and analyses of hydrology, water quality, and hydromodification. The San Diego County Hydrology Manual outlines the methodology for preparing hydrology studies in accordance with the Rational Method and the Modified Rational Method, and governs the flow calculations for flood control facilities for large storms such as the 100-year storm event. The County of San Diego BMP Design Manual (BMP Design Manual) outlines the methodology for continuous simulation modeling to meet hydromodification requirements in accordance with the Municipal Separate Storm Sewer System (MS4) permit requirements. The BMP Design Manual governs the requirements for water quality and hydromodification impacts due to smaller storm events, including the 2-year to 10-year storm events that are much more frequent and therefore have a higher potential impact to water quality and hydromodification. Project-specific reports apply each of the methodologies as required and as

appropriate for the current timeframe of Project design (i.e., Tentative Map and Preliminary Grading Plan).

Aerial topography flown for the Project Area dated 2014 covered all slopes in the Tentative Map. All hydrologic and water quality analysis was based on the Tentative Map and flown topography and therefore, accurately reflects the existing and future slope conditions of the Project Area. The Geotechnical Review of Preliminary Tentative Map and Grading Plan, Otay Ranch Village 14 and Planning Areas 16/19 (Appendix 2.6-1 to the Draft EIR) is based on the field investigation in the Project Area. The Proposed Project plans and technical reports were prepared based on the recommendations and conclusions of the preliminary geotechnical report prepared by Advanced Geotechnical Solutions Inc.

The commenter's assertion that site-specific soils surveys were not taken into account is not accurate. Per the San Diego County Hydrology Manual, soils are broken out into four groups labeled A through D. The soil group selections were made based on on-site review, and supplemented by on-site boring as described in Appendix 2.6-1, Geotechnical Review of Preliminary Tentative Map and Grading Plan for Otay Ranch Village 14 and Planning Areas 16/19. See Attachment A, Village 14 Hydrological Soil Group Evaluation Letter, prepared by Advanced Geotechnical Solutions, Inc. It should be noted that the Proposed Project has used the soil survey maps from Natural Resources Conservation Service (NRCS), as well as research, site checks, and trenches and borings completed by the geotechnical engineers to model the existing conditions. The Proposed Project has assumed Soil Type D throughout the analysis, which is the most conservative approach in that it results in/has the greatest potential for the most runoff.

As described in the Draft EIR, Section 2.6, Geology and Soils and Appendix 2.6-1, adequate information was gathered to provide design recommendations. Please refer to **Response to Comment O-6.3-9**. This soils analysis, as well as the Proposed Project-specific topography information, was incorporated into Appendix 3.1.2-1, CEQA Drainage Study Otay Ranch Village 14 and Planning Areas 16/19, and Appendix 3.1.2-2, Major Stormwater Management Plan for Otay Ranch Village 14 and Planning Areas 16/19, and is an integral part of the methodology and analysis, consistent with the County's requirements for analyzing project impacts to hydrology and water quality.

To address the concern related to final design and construction, preparation of a storm water pollution prevention Plan (SWPPP) is required prior to obtaining regulatory permits (i.e., Grading Permits) on the Proposed Project. Detailed construction-phase

data are not required prior to knowing if the Proposed Project is even approved given the level of construction and implementation controls already identified in Appendices 3.1.2-1, 3.1.2-2, and 3.1.2-4. See **Response to Comment O-6.3-8**.

- O-6.3-5** The comment notes that the Steep Slopes Analysis maps in the Draft EIR show 20% to 30% of the areas exceeding 25% slopes. The comment asserts that the Draft EIR should lay out for each unit in the encompassed, slope range, land cover, and drainage pathways in the pre- and post-development states. The comment also asserts that without fully describing the steepness of slopes that the Proposed Project would disturb (e.g., where 30% to 40% slopes are located), it is impossible to accurately forecast the potential runoff and pollutant transport from the Proposed Project.

Figure 1-14a and 1-14b are not related to the analysis performed in Section 3.1.2; rather, these figures relate to steep slope impacts for purposes of demonstrating compliance with allowances in the Otay Ranch Resource Management Plan (RMP). There is no correlation between these figures and any hydrological analysis. The analysis contained in Section 3.1.2-1, Hydrology, and Section 3.1.2-2, Major Stormwater Management Plan, modeling is based on aerial topography flown for the Project Area dated 2014 covering all slopes in the Tentative Map. This information was then used in the technical analysis through the input of specific elevations into the modeling software. The analysis was entirely based on the Tentative Map and flown topography and, therefore, accurately reflects the existing and future slope conditions of the Project Area. The results are based on these factors and were determined to be less than significant, as concluded in Section 3.1.2.4 of the Draft EIR. The County notes that the Tentative Map shows typical cross sections at different project locations to provide a comparison between existing and proposed conditions

- O-6.3-6** The comment states that the soils characterization in the Draft EIR work relied solely on the U.S. Department of Agriculture's NRCS soil survey. Soil surveys data of this nature were generally not obtained through on-site testing, or even observation, but commonly through more remote sensing. The comment then notes that they are sometimes wrong or misleading. The comment further states that not knowing conditions locally around the site is a disadvantage to proper construction phase stormwater control assessment.

The County does not agree that soil types have not been adequately analyzed in conjunction with the Draft EIR. The Draft EIR analysis does not rely solely on the U.S. Department of Agriculture's NRCS soil survey, but also on the research, site checks, and trenches and borings completed by the geotechnical engineers. The Draft

EIR, Appendix 2.6-1, Geotechnical Review of Preliminary Tentative Map and Grading Plan provides a detailed analysis of soil type and shows the soils to be consistent with the methodology used in the County of San Diego Hydrology Manual. Please refer to the site-specific geotechnical report (Appendix 2.6-1 of the Draft EIR). The geotechnical investigation performed for the site does not recommend infiltration; therefore, the Proposed Project would not implement infiltration BMPs. Please see **Response to Comment O-6.3-4** regarding data used to support the Hydrology/Drainage Study. This analysis was incorporated into Appendix 3.1.2-1, CEQA Drainage Study, Otay Ranch Village 14 and Planning Areas 16/19; and Appendix 3.1.2-2, Major Stormwater Management Plan for Otay Ranch Village 14 and Planning Areas 16/19, and is an integral part of the methodology and analysis, consistent with the County's requirements for analyzing project impacts to hydrology and water quality.

- O-6.3-7** The comment discusses the importance of soil conditions in hydrologic modeling and stormwater practice selection and design. The comment also refers to the San Diego County BMP Design Manual, a U.S. Environmental Protection Agency-sponsored report, and an NRCS publication regarding soils and infiltration rates. The comment further recommends soil investigation pits throughout the entire property.

The County does not agree that soil types have not been analyzed adequately in conjunction with the Draft EIR. Please refer to **Responses to Comments O-6.3-4** and **O-6.3-6**.

- O-6.3-8** The comment asserts that the documents demonstrate little analysis of the construction environment and present BMPs in only the most generic fashion. The comment expresses an opinion on the topographic considerations, as well as on the function and design parameters of slope steepness on erosion.

The County does not agree that the Draft EIR does not provide an adequate discussion of construction-related impacts and related BMPs. As discussed in the Draft EIR on pages 3.1.2-14 and 3.1.2-15, construction-related impacts were determined to be less than significant, "[w]ith the implementation of site design features, low-impact design features, BMPs, and compliance with the Statewide Construction General Permit and the General Order for Dewatering." The Proposed Project will be required to file a Notice of Intent and develop and implement an SWPPP and Monitoring Program to address potential erosion and sediment transport during the final engineering phase of the Proposed Project.

The topography of the site (including mapped steep slopes) and the proximity to Jamul Creek and the Otay Reservoirs are evaluated throughout the Draft EIR, including in Section 3.1.2, Hydrology and Water Quality. The level of information provided in the Draft EIR and appendices is appropriate and sufficient to understand the kinds of issues that would arise during construction of the Proposed Project, and also the routine nature of these issues, including control of runoff (both volumes and quality) and erosion control. Project requirements include the Construction Site Monitoring Plan, a Risk Assessment to determine the Proposed Project's Risk Level (1, 2, or 3), and appropriate Risk Level Requirements as outlined in the Construction General Permit and the SWPPP, as noted previously in **Response to Comment O-6.3-4**. The SWPPP and Construction Site Monitoring Plan would be prepared by a qualified SWPPP preparer, and would be located on site at all times during construction.

Control of Project-related erosion and sediment is achieved through (i) containment of construction debris, (ii) protection of storm drain inlets/water courses, and (iii) disposal of construction debris in a manner that prevents it from being discharged into surrounding waters. Prior to and after storm events, BMP function and efficiency would be checked by construction contractor and implementation monitors. Sampling/analysis, monitoring/reporting, and post-construction management programs would be implemented per National Pollutant Discharge Elimination System and/or County requirements, along with additional BMPs as necessary to ensure adequate erosion and sediment control. Relevant BMP descriptions are detailed in Appendices 3.1.2-1, 3.1.2-2, and 3.1.2-4 to the Draft EIR. The discussion of BMPs in the Draft EIR and their required implementation not only demonstrates an understanding of potential adverse impacts without their use, but also ensures that proper actions would be taken to render impacts less than significant.

The Proposed Project also complies with the hydromodification guidelines and the requirement to avoid Critical Course Sediment Yield areas as outlined in the Major Stormwater Management Plan for Otay Ranch Village 14 and Planning Areas 16/19, all of which are in support of minimizing erosion and addressing sediment transfer within the Project Area.

- O-6.3-9** The comment suggests that the Draft EIR provided little attention to the topographic challenges to limiting sediment export during construction, and that the applicant has given little emphasis to the site's soils, specifically to the relative erosiveness. The comment restates the claim that soils information was only derived from the NRCS survey. The comment further asserts that essential hydrological modeling, as described in the comment, has not occurred. The comment concludes that without performing

hydrologic modeling now, the County cannot conclude that the Proposed Project's design and mitigation measures will be sufficient to avoid significant water quality impacts.

Please refer to **Responses to Comments O-6.3-4 and O-6.3-6** regarding soils and topography. As described in Draft EIR, Section 3.1.2.2.2.1, Hydrology, construction impacts are discussed on pages 3.1.2-14 and 3.1.2-15. Impacts were determined to be less than significant, "[w]ith the implementation of site design features, low-impact design features, BMPs, and compliance with the Construction General Permit and the General Order for Dewatering." Further, per the State Water Resources Control Board (SWRCB) Construction General Permit Order 2009-0009-DWQ, a SWPPP, which will include calculations of potential erosion and pollution control based on many factors including, including site specific soil characteristics and site monitoring program that identifies monitoring and sampling requirements during construction, would be required prior to any clearing, grading, or disturbances to the natural ground.

The Proposed Project also complies with the hydromodification requirements as outlined in the Major Stormwater Management Plan for Otay Ranch Village 14 and Planning Areas 16/19. The stormwater management modeling analysis includes continuous simulation hydrologic modeling to examine and address the erosion potential from the proposed development. The data used in the analysis met the guidelines and limits specified in the Table G1-4 of BMP Design Manual. The results from the analysis show that both flow frequency and duration meet the performance standards defined in the MS4 permit (i.e., for flow rates ranging from 10% of pre-development 2-year runoff off event to the pre-development 10-year runoff event, the post-Project rates and durations do not exceed the pre-Project rates and durations by more than 10%).

O-6.3-10 The County acknowledges the comment as an introduction to comments regarding post construction stormwater management that follow. Please refer to **Responses to Comments O-6.3-11 through O-6.3-17**. The comment does not raise an issue regarding the adequacy of the Draft EIR; therefore, no further response is required or provided.

O-6.3-11 The comment asserts that, while the Draft EIR does not lay out in a clear and distinct manner what the final configurations affecting runoff flows will be, it is apparent that some steep slopes will remain within the finished development. The comment then discusses how the degree of slope affects runoff velocity and sheer stress. The comment notes that sheer stress is responsible for erosion of the bed and banks of channels and streams, and maintaining conveyance channels is compounded in steep

terrain. The comment asserts that the Draft EIR does not examine these issues and that the statement, quoted from the MSMP, does not demonstrate the system will be properly designed to prevent downstream erosion.

The County refers the commenter to the Draft EIR, Appendix 3.1.2-1, CEQA Drainage Study, Otay Ranch Village 14 and Planning Areas 16/19, and Appendix 3.1.2-2, Major Stormwater Management Plan for Otay Ranch Village 14 and Planning Areas 16/19, which provide exhibits developed from the Tentative Map showing the storm drain systems and basins.

The County does not agree that stormwater conveyed from steep slopes has not been analyzed adequately. Appendix 3.1.2-2, Major Stormwater Management Plan for Otay Ranch Village 14 and Planning Areas 16/19, describes and analyzes the stormwater quantities and drainage facilities per County Guidelines. These documents were prepared in conjunction with the Tentative Map showing existing and proposed slopes for developed and undeveloped areas of the Proposed Project. For the storm drain outfalls, Appendix 3.1.2-4, Hydromodification Management Plan, documents how post-development flows meet both flow frequency and duration performance standards defined in the MS4 permit. Flow rates for the storms up to and including the 10-year frequency storm have been mitigated to pre-development runoff levels per the criteria in the County of San Diego Hydromodification Manual. In the unlikely event that discharges from the basins exceed erosive velocities, energy dissipation devices would be added to the design of the storm drain outlets to reduce velocities to non-erosive levels. In the unlikely event of erosive pipe velocities at the natural outfalls for the 100-year frequency storms, D-41 Energy Dissipater structures and hydromodification basins will be provided per County of San Diego Standards and criteria. The County notes that final engineering storm drain plans would determine the velocity at each outfall. If the velocities for the 100-year storm are erosive, the energy dissipater structures will be designed and constructed concurrent with the storm drain and grading improvements.

O-6.3-12 The comment asserts that the Draft EIR is nearly silent on controls of pollutants, such as fertilizers, lawn and garden pesticides, pet wastes, washing vehicles, etc.

Appendix 3.1.2-2, Major Stormwater Management Plan for Otay Ranch Village 14 and Planning Areas 16/19, was prepared in conjunction with the Draft EIR. Pet waste and other urban pollutants are considered and mitigated by a combination of source control BMPs and biofiltration basins. Biofiltration basins are considered the highest form of treatment for these pollutants per the County of San Diego Low Impact Development Handbook Table 3-11 with the overall best removal efficiencies for all listed pollutants.

- O-6.3-13** The comment raises deficiencies in modeling for hydromodification and water quality control. Refer to **Responses to Comments O-6.3-4, O-6.3-6, and O-6.3-7**. No further response is required or provided.
- O-6.3-14** The comment describes the biofiltration basins proposed as part of the Proposed Project. The comment provides an introduction to comments that follow. Please refer to the following responses, specifically **Responses to Comments O-6.3-15 through O-6.3-17**. The comment does not raise an issue regarding the adequacy of the Draft EIR; therefore, no further response is required or provided.
- O-6.3-15** The comment expresses an opinion that the Draft EIR water quality treatment analysis is inadequate. The comment states the water quality design is scaled for more frequent, smaller storms (design storm) but not the less-frequent, large storms that produce more runoff per event. The comment then describes the commenter's calculations and analysis of the proposed basins and retention.

The County notes that the commenter's analysis is not consistent with the analysis requirements of the State Water Resources Control Board, San Diego Water RWQCB, or the County of San Diego BMP Design Manual. The Draft EIR, Appendix 3.1.2-2, Major Stormwater Management Plan for Otay Ranch Village 14 and Planning Areas 16/19, analyzes the treatment of the pollutants of concern in compliance with the San Diego RWQCB and County of San Diego requirements, including the BMP Design Manual. The proposed BMPs meet the minimum percent of average annual runoff retention required per the County of San Diego BMP Design Manual.

The commenter does not indicate that the calculations prepared in Appendix 3.1.2-1, CEQA Drainage Study, Otay Ranch Village 14 and Planning Areas 16/19, and Appendix 3.1.2-2, Major Stormwater Management Plan for Otay Ranch Village 14 and Planning Areas 16/19, were not adequately analyzed. The commenter does take exception to the fact that the calculations are limited to the 85th percentile, 24-hour event. The County of San Diego BMP Design Manual, as adopted by the San Diego RWQCB, states in Section b.1 that "The DCV (Design Capture Volume) is defined as the stormwater runoff resulting from the 85th percentile, 24-hour storm event." The proper Design Capture Event was used in the analysis.

- O-6.3-16** The comment describes the commenter's analysis of the estimated pollutant mass removal efficiencies of the Proposed Project's biofiltration basins. The comment quotes Appendix 3.1.2-2 of the Draft EIR that the biofiltration basins provide a high pollutant removal for all pollutants, except those that tend to be dissolved (medium

pollutant efficiency). The commenter states their analysis demonstrates these claims are untrue. The comment further asserts the Draft EIR is incorrect that the development poses a less-than-significant impact to water quality.

The County notes that the commenter's analysis is not consistent with the analysis requirements of the State Water Resources Control Board, San Diego Water RWQCB, or the County of San Diego BMP Design Manual. The Draft EIR, Appendix 3.1.2-2, Major Stormwater Management Plan for Otay Ranch Village 14 and Planning Areas 16/19, analyzes the treatment of the pollutants of concern in compliance with the San Diego RWQCB and County of San Diego requirements.

The commenter does not indicate an exception to the calculations prepared in Appendix 3.1.2-1, CEQA Drainage Study, Otay Ranch Village 14 and Planning Areas 16/19, and Appendix 3.1.2-2, Major Stormwater Management Plan for Otay Ranch Village 14 and Planning Areas 16/19. Alternatively, the commenter provides a series of independent calculations on his preferred method of determining pollutant loading. Since the commenter does not provide most of the parameters for the calculations, the results cannot be assessed. Regardless, the methodology applied is not consistent with the methodology prescribed for San Diego County by the State Water Resources Control Board, San Diego RWQCB, or the County of San Diego BMP Design Manual.

The commenter claims that the independent calculations show that biofiltration basins do not provide "High" pollutant removal efficiencies. The San Diego County BMP Design Manual and County of San Diego Low Impact Development Handbook Table 3-11 list biofiltration basins with the overall best removal efficiencies for all listed pollutants with "High" ratings for all pollutants of concern other than nutrients.

O-6.3-17 The comment expresses an opinion that the Draft EIR analysis is abbreviated, vague, and entirely qualitative.

The Draft EIR and Appendix 3.1.2-2, Stormwater Management Plan for Otay Ranch Village 14 and Planning Areas 16/19, were prepared in conjunction with the Tentative Map to addresses Proposed Project runoff, capture, and pollutant control prior to release back into the on-site drainage system. The methodology for this analysis, and all other projects under jurisdiction of the San Diego RWQCB Order R9-2013-0001, page 3, is predicated on Point Source Discharge mitigation. Point Source Discharge requires that all flows be mitigated to pre-development levels at each and every outlet to natural ground for storms up to and including the 10-year frequency storms. Flows for the 100-year frequency storms are increased by less than

6%. Any erosive pipe velocities at the natural outfalls for the 100-year frequency storms are mitigated with D-41 Energy Dissipater structures and the hydromodification basins upstream per County of San Diego Standards and criteria. RWQCB Order R9-2013-0001, Section II.F, details the reporting requirements of the Co-Permittee, the County of San Diego, to monitor, update, and correct any deficiencies in its jurisdictional runoff management program.

O-6.3-18 The comment asserts that the Draft EIR's provisions for both construction-phase and post-construction stormwater management are inadequate to prevent the introduction of pollutants to stormwater runoff during both periods. The comment serves as an introduction to comments that follow. Please refer to the **Response to Comments O-6.3-19** and **O-6.3-20**.

O-6.3-19 The comment discusses impacts from eroded sediments from a construction site in general. The comment also generally discusses pollutants that may escape in stormwater runoff.

Although this comment does not raise a specific issue regarding the analysis in the Draft EIR, the County notes that construction impacts are discussed in Section 3.1.2.2.2.1, Hydrology, on pages 3.1.2-14 and 3.1.2-15. Impacts were determined to be less than significant, "[w]ith the implementation of site design features, low-impact design features, BMPs, and compliance with the Construction General Permit and the General Order for Dewatering." Further, per the SWRCB Construction General Permit Order 2009-0009-DWQ, a SWPPP, which would include a site-monitoring program that identifies monitoring and sampling requirements during construction, would be required prior to any clearing, grading of disturbances to the natural ground. No further response is required or provided.

O-6.3-20 The comment provides a discussion of pollutants that may be introduced after a development is occupied. The comment also presents tables comparing potential pollutant loadings based on land use types. The comment provides an introduction to comments that follow. Please refer to the following responses.

It is noted, however, that the commenter's calculations and tables assume that Water Quality Management measures are not in place. This is not the case with the Proposed Project where measures would be implemented under the County of San Diego BMP Design Manual, one of the strictest water quality control manuals. The comment does not raise an issue regarding the adequacy of the Draft EIR; therefore, no further response is required or provided.

- O-6.3-21** The comment provides background information on the subject of nutrients and eutrophication. The comment also asserts there are strong signs that Lower Otay Reservoir is already at least somewhat advanced in eutrophication and notes its water quality has been listed as impaired for ammonia, iron, manganese, and pH. The comment then states that further nutrient additions in stormwater runoff from poorly controlled construction at the Project Area and subsequent occupied development would aggravate the Reservoir's already impaired water quality.

The comment is based on the assumption of “storm water runoff from poorly controlled construction at the Project Area and the subsequent development.” The Proposed Project would control construction site runoff per the SWRCB Construction General Permit Order 2009-0009-DWQ and SWPPP, which would include a site-monitoring program that identifies monitoring and sampling requirements during construction prior to any clearing, grading, or disturbances to the natural ground.

Draft EIR Appendix 3.1.2-2, Major Stormwater Management Plan for Otay Ranch Village 14 and Planning Areas 16/19, lists the same pollutant stressors listed by the commenter and prescribes treatment methods through low-impact development and biofiltration for those pollutant stressors in compliance with the San Diego RWQCB and County of San Diego BMP Manual requirements.

Please refer to the following responses, specifically **Responses to Comments O-6.3-22, O-6-399, and O-6-401**.

- O-6.3-22** The comment asserts that it is not “guaranteed that construction will be controlled well enough to avoid sediment transport adding nutrients to the reservoirs during that phase.”

Draft EIR Section 3.1.2.2.2.1, Hydrology, analyzes construction impacts on pages 3.1.2-14 and 3.1.2-15. Impacts were determined to be less than significant, “[w]ith the implementation of site design features, low-impact design features, BMPs, and compliance with the Construction General Permit and the General Order for Dewatering.” Further, per the SWRCB Construction General Permit Order 2009-0009-DWQ, a SWPPP, which would include a site-monitoring program that identifies monitoring and sampling requirements during construction, would be required prior to any clearing, grading, or disturbances to the natural ground.

The comment also asserts that the final land use can release as much as ten times the total phosphorus. This hypothetical discussion, however, assumes the Draft EIR's post-construction stormwater compliance measures are insufficient, which is an

assumption the comment does not establish by reference to facts or analysis. To the contrary, the Draft EIR and its compliance measures considered nutrients and phosphorous (see Appendix 3.1.2-2, Major Stormwater Management Plan for Otay Ranch Village 13 and Planning Areas 16/19, Step 3.6). A combination of site-design BMPs and biofiltration basins in accordance with the County of San Diego BMP Manual would ensure less-than-significant impacts.

- O-6.3-23** The comment provides background information on the effects of pollutants on Otay Reservoir aquatic life and potable water supply.

Please refer to the following responses, specifically **Response to Comment O-6.3-24**. The comment does not raise an issue regarding the adequacy of the Draft EIR; therefore, no further response is required or provided.

- O-6.3-24** The comment asserts that the Draft EIR does not examine other negative reservoir effects (described previously in **Comment O-6.3-23**). The comment then asserts that this omission is another reason for the Draft EIR's failure to show that the development poses a less-than-significant impact to water quality.

Draft EIR Appendix 3.1.2-2, Major Stormwater Management Plan for Otay Ranch Village 14 and Planning Areas 16/19, was prepared in conjunction with the Draft EIR. Appendix 3.1.2-4, Hydromodification Management Plan, and Appendix 3.1.2-2, Stormwater Management Plan, show that post-development flows meet the pollutant control and flow control requirements specified by the MS4 permit. Appendix 3.1.2-4, Hydromodification Management Plan, details that all flows are being mitigated to pre-development levels at each and every outlet to natural ground for storms up to and including the 10-year frequency storms. Flows for the 100-year frequency storms are increased by less than 6%. Any erosive pipe velocities at the natural outfalls for the 100-year frequency storms are mitigated with D-41 Energy Dissipater structures and the hydromodification basins upstream per County of San Diego Standards and criteria.

San Diego RWQCB Order R9-2013-0001 Page 3 is prescribes that all water quality and hydromodification measures are predicated on Point Source Discharge mitigation. This is the basis for all treatment measures. Point Source Discharge means that all flows are being mitigated to pre-development levels at each and every outlet to natural ground for storms up to and including the 10-year frequency storms. Flows for the 100-year frequency storms are increased by less than 6%. Any erosive pipe velocities at the natural outfalls for the 100-year frequency storms are mitigated with D-41 Energy Dissipater structures and the hydromodification basins upstream per

County of San Diego Standards and criteria. RWQCB Order R9-2013-0001 Section II.F details the reporting requirements of the Co-permittee, the County of San Diego, to monitor, update and correct any deficiencies in its jurisdictional runoff management program.

- O-6.3-25** The comment states that Jamul Creek is listed as impaired for toxicity and notes it drains a large portion of the development area. The commenter assumes that insufficient measures would be in place for construction and post-construction runoff and that the toxics released would further impair Jamul Creek.

Draft EIR Appendix 3.1.2-2, Major Stormwater Management Plan for Otay Ranch Village 14 and Planning Areas 16/19, analyzes the treatment of the pollutants of concern for Jamul Creek in compliance with the San Diego RWQCB and County of San Diego BMP Manual requirements. The pollutants would be treated per the County of San Diego BMP Manual prior to being released from each and every developed portion of the site, including outfalls tributary to Jamul Creek.

Appendix 3.1.2-4, Hydromodification Management Plan, and Appendix 3.1.2-2, Major Stormwater Management Plan, show post-development flows meet the pollutant control and flow control requirements specified by the MS4 permit and the requirements of the County of San Diego BMP Design Manual. Refer to **Response to Comment O-6.2-24**.

As discussed in Section 3.1.2.2.2.1, Hydrology, construction impacts were determined to be less than significant “[w]ith the implementation of site design features, low-impact design features, BMPs, and compliance with the Construction General Permit and the General Order for Dewatering.” Further, per the SWRCB Construction General Permit Order 2009-0009-DWQ, a SWPPP, which would include a site-monitoring program that identifies monitoring and sampling requirements during construction, would be required prior to any clearing, grading, or disturbances to the natural ground.

- O-6.3-26** The comment provides background information on releases from the Lower Otay River Reservoir. The comment also states that pollutants have sources in construction sites and urban areas like the Proposed Project, which with inadequate control at Otay Ranch will contribute to exacerbating current problems.

The County acknowledges that releases from the Otay Reservoir are an infrequent occurrence. While the infrequent water releases from the Otay Reservoir are not likely to occur during a Design Capture Event (85th percentile, 24-hour storm), out of an

abundance of caution San Diego Bay is listed as an Impaired Water Body, and its Pollutants Stressors are included in Step 3.6 of Appendix 3.1.2-2, Major Stormwater Management Plan for Otay Ranch Village 14 and Planning Areas 16/19. The pollutants have been analyzed, and a combination of low-impact development and biofiltration measures per the requirements of the San Diego Water RWQCB and County of San Diego BMP Manual would ensure the impacts are less than significant.

O-6.3-27 The comment provides concluding remarks and restates previous comments that slopes and soil types have not been adequately analyzed. Refer to **Responses to Comments O-6.3-4** and **O-6.3-6**.

O-6.3-28 The comment expresses an opinion that attention to managing construction site stormwater runoff is particularly lacking.

Construction impacts are discussed in Draft EIR Section 3.1.2.2.2.1, Hydrology, on pages 3.1.2-14 and 3.1.2-15. Impacts were determined to be less than significant, “[w]ith the implementation of site design features, low-impact design features, BMPs, and compliance with the Construction General Permit and the General Order for Dewatering.” Further, per the SWRCB Construction General Permit Order 2009-0009-DWQ, a SWPPP, which would include a site-monitoring program that identifies monitoring and sampling requirements during construction, would be required prior to any clearing, grading, or disturbances to the natural ground.

O-6.3-29 The comment summarizes the commenter’s previous concerns related to soil types and topography not being adequately analyzed in conjunction with the Draft EIR and hydrologic modeling. Please refer to **Responses to Comments O-6.3-4** and **O-6.3-6**.

O-6.3-30 The comment states the effectiveness of the proposed water control system was not examined. The comment also refers to the commenter’s analysis presented in **Comments O-6.3-15** through **O-6.2-23**. The comment also expresses an opinion that phosphorus export from the Proposed Project to water supply reservoirs would increase eutrophication and its resulting negative implications for reservoir water quality.

Draft EIR Appendix 3.1.2-2, Major Stormwater Management Plan for Otay Ranch Village 14 and Planning Areas 16/19, was prepared in conjunction with the Draft EIR. Appendix 3.1.2-4, Hydromodification Management Plan, and Appendix 3.1.2-2, Stormwater Management Plan, show the post-development condition meets the pollutant control and flow control requirements specified by the MS4 permit per the requirements of the County of San Diego BMP Design Manual. Therefore, cumulative impacts downstream would be less than significant.

The commenter's discussion on phosphorous and eutrofication assumes that construction-related runoff from the Project Area, as well as post-development stormwater, will be poorly controlled. There is no support for this assumption. The Proposed Project would control construction sites per the SWRCB Construction General Permit Order 2009-0009-DWQ and SWPPP, which would include site monitoring program that identifies monitoring and sampling requirements during construction prior to any clearing, grading, or disturbances to the natural ground.

Appendix 3.1.2-2, Major Stormwater Management Plan for Otay Ranch Village 14 and Planning Areas 16/19, lists the same pollutant stressors listed by the commenter and prescribe treatment methods through low-impact development and biofiltration for those pollutant stressors in compliance with the San Diego RWQCB and County of San Diego BMP Manual requirements.

- O-6.3-31** The comment provides concluding remarks that do not address the analysis contained in the Draft EIR. The comment does not raise an issue regarding the adequacy of the Draft EIR; therefore, no further response is required or provided.

INTENTIONALLY LEFT BLANK

ATTACHMENT A TO LETTER O-6.3

**AGS****ADVANCED GEOTECHNICAL SOLUTIONS, INC.**485 Corporate Drive, Suite B
Escondido, California 92029
Telephone: (619) 867-0487**Jackson-Pendo Development**2247 San Diego Avenue, Suite 137
San Diego, California 92110

May 7, 2018

P/W 1312-02

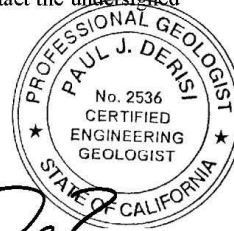
Report No. 1312-02-B-9

Attention: Ms. Liz Jackson**Subject:** Geotechnical Review of CEQA Drainage Study and Hydrologic Soil Group Map for Otay Village 14 and Planning Areas 16/19, County of San Diego, California

Pursuant to your request Advanced Geotechnical Solutions, Inc.'s (AGS) has performed a geotechnical review of the referenced CEQA Drainage Study prepared by Hunsaker & Associates and associated Hydrologic Soil Group Map generated from the Natural Resources Conservation Service (NRCS) Web Soil Survey. More specifically AGS has performed a comparative evaluation of mapped Hydrologic Soil Group units with the upper soil and geologic units encountered during our subsurface explorations and percolation testing at the project site.

Review of the Hydrologic Soil Group Map and Map Unit Summary indicates the upper soils are predominantly comprised of rocky to sandy loam soils with a Hydrologic Soil Group 'D' rating. These soils have a very slow rate of water transmission and commonly have a clay layer at or near the surface. The near surface soils encountered in our exploratory excavations and percolation test holes generally consist of topsoil and colluvium that is composed of silty to clayey sand and sandy silt with common gravel to cobble size rock fragments. A shallow residual soil horizon composed of silty to sandy clay and clayey sand was commonly encountered. Based on our review, it is our opinion that the mapped Hydrologic Soil Group units are representative of the upper soils encountered at the project site for the EIR Level Geotechnical Review of the Tentative Map for Otay Ranch Village 14 and Planning Areas 16/19.

Advanced Geotechnical Solutions, Inc., appreciates the opportunity to provide you with geotechnical consulting services and professional opinions. If you have any questions, please contact the undersigned at (619) 867-0487.

Respectfully Submitted,
Advanced Geotechnical Solutions, Inc.JEFFREY A. CHANEY, President
GE 2314, Reg. Exp. 6-30-19Distribution: (4) Addressee
(2) Dudek & Associates, Attn: Sean KilkennyPAUL DERISI, Vice President
CEG 2536, Reg. Exp. 5-31-19ORANGE AND L.A. COUNTIES
(714) 786-5661INLAND EMPIRE
(619) 708-1649SAN DIEGO AND IMPERIAL COUNTIES
(619) 867-0487

References

- Advanced Geotechnical Solutions, Inc., 2017, Infiltration Feasibility Study, Otay Ranch – Village 14 and Planning Areas 16 and 19, County of San Diego, dated February 21, 2017, Report No. 1312-02-B-7.
- Advanced Geotechnical Solutions, Inc., 2017, Feasibility Study for Onsite Wastewater Treatment Systems, Otay Ranch Village 14 and Planning Areas 16 and 19, County of San Diego, dated March 28, 2017 (Revised August 28, 2017), Report No. 1312-02-B-8.
- Advanced Geotechnical Solutions, Inc., 2018, Geotechnical Review of Preliminary Tentative Map and Grading Plan, Otay Ranch Village 14 and Planning Areas 16/19, County of San Diego, California, dated March 24, 2017 (Revised February 9, 2018), Report No. 1312-02-B-6R2.
- California Code of Regulation, Title 24, 2016 California Building Code, 3 Volumes.
- California Geologic Survey (CGS), 2002, Geologic Map of the Jamul Mountains 7.5' Quadrangle, San Diego County, California: A Digital Database, Scale 1:24,000.
- County of San Diego, Guidelines for Determining Significance, Geologic Hazards – Near Source Shaking Zones and Potential Liquefaction Areas, July 30, 2007.
- Hunsaker & Associates San Diego, Inc., 2018, CEQA Drainage Study, Otay Ranch Village 14 and Planning Areas 16/19, Appendix 3.1.2-1.
- Jennings, C.W., 1994, Fault Activity Map of California and Adjacent Areas, California Geologic Data Map Series, Map No. 6.
- Tan, S.S., Landslide Hazards in the Jamul Mountains, OFR 92-12, Map No. 29.
- Todd, V.R., Preliminary Geologic Map of the El Cajon 30'x60' Quadrangle, 2004, USGS OFR 2004-1361
- URS, 2004, San Diego County Multi-Jurisdictional Hazard Mitigation Plan, San Diego County, California, dated March 15, 2004, (URS Project No. 27653042.00500)
- USGS Topographic Map of the Jamul Mountains 7.5' Quadrangle, San Diego County, California, 1994.
- Walsh, Steven L. and Demere, Thomas A., 1991, Age and Stratigraphy of the Sweetwater and Otay Formations, San Diego County California, in Abbot P.L. and May, J.A., eds., 1991, Eocene Geologic History San Diego Region, Pacific Section SEPM, Vol. 68, pp. 131-148.

ORANGE AND L.A. COUNTIES
(714) 786-5661

INLAND EMPIRE
(619) 708-1649

SAN DIEGO AND IMPERIAL COUNTIES
(619) 867-0487