Section Heading	Comment	County Response
General	I was wondering if we would be able to use structural soil in pervious pavers and treatment planters. It does have an infiltrative capacity, and supports plant growth. I'm envisioning this in treatment planters adjacent to streets and sidewalks, where we often have to build underground retaining walls, with tie beams to ensure that the road and sidewalk don't cave in due to the uncompacted soils.	The County would support the use of structural soil in place of gravel or base course or in street tree installations, but not as a substitute for bioretention soil media.
Accessory Dwelling Units and Accessory Structures	Can you provide clarification regarding if this applies when more than one ADU is constructed? Would zoning be impacted in that case?	Zoning ordinances allow for the construction of one ADU and one Junior ADU (JADU) with no changes to zoning. Proposed construction of additional or alternative structures would subject the project to land use zoning review. Zoning modifications are only made through a general plan amendment, not through a ministerial permit like an ADU building permit.
Impervious Surfaces, surface types	While dense graded aggregate is less permeable than open graded, it is more permeable than some of the clay soils that are reported to be permeable, if truly meets Caltrans Class II.	The Central Coast Water Board has determined that dense graded aggregate, particularly when compacted, must be included in calculations of impervious surfaces. Compacted, dense graded aggregate is considered an unnatural and constructed impervious surface.
Performance Requirements Summarized	Make this consistent with the row above . Change to: “Projects other than one single family home not part of a common plan that create…”	This change was incorporated to the final version.
Performance Requirement #1	Suggest change to: “Maximize to the extent feasible with a minimum…”	The PCRs do not require that PR1 be 'maximized to the extent feasible' or set any minimum requirements. The County's guidelines are the first effort to set a quantified objective for PR1.
Performance Requirement #3	Suggest adding: “…must confirm that the use of Site Design Measures and Runoff Reduction Measures have been maximized to the extent feasible and clearly…”	The Guidebook language has been updated to reflect runoff reduction requirements specific to PR#3.
Opportunities and Constraints Analysis	Recommend a provision allowing deepest boring to be used as design depth to groundwater. Historic high elevations are often inaccurate and overly conservative, and allowing a deep boring to be used provides more accuracy and flexibility, while still providing a conservative separation (10'+) between "design" groundwater table and bottom of infiltration BMP.	This table provides general guidance on evaluating opportunities and constraints. Requirements specific to borings are included in the County's building code and in the setbacks specified in Chapter 5 of the Guidebook.
Opportunities and Constraints Analysis	Recommend modifying.	This table provides general guidance on evaluating opportunities and constraints with regard to soil infiltration capacity. Language modifications would not significantly alter the intent of this table.
Opportunities and Constraints Analysis	Similar to above, maybe just better infiltration and reduced infiltration.	This table provides general guidance on evaluating opportunities and constraints with regard to soil infiltration capacity. Language modifications would not significantly alter the intent of this table.

Section Heading	Comment	County Response
Opportunities and Constraints Analysis	By what criteria? Is this just an opinion based upon about slow vs very slow? While I appreciate the attempt to make project into an agricultural assessment, this is not the same as engineering analysis that is supposed to be based upon this conclusion. Later in the document, the precision is inferred to be hundredth of an inch per hour, or at least .25 inch per hour. If someone is going to just go off a map, this may be reasonable. But if real engineering and design is being done. This seems inappropriate.Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms. The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows: Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission. Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission. Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission. Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission. If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes. Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at http://websoilsurvey.nrcs.usda.gov/ . Accessed 03/25/2016	The Central Coast PCRs require that the Hydrologic Soil Groups be identified in the project SWCP. The County will accept classification based on either site specifc testing or publicly available data sources such as NRCS. The inclusion of HSG groups is only intended to provide a broader summary of what design constraints may be present at the site, as indicated by the NRCS definitions.
Soil Classification: Percolation Testing	I strongly disagree with this inference that a test method determines the time of data that can be obtained. Double ring infiltrometers are not appropriate for soils with reasonable infiltration. Further, these tests generally require excavation to the depth of the facility. Now large excavations are to be made a cross a site if not at existing grade and loose backfilled; well compacted? Either way changing the infiltration rate in the rate, not to mention the impact on the future development from a structural perspective. Forcing a test method in lieu of engineering and judgement just creates bad data and completely false sense of accuracy; besides significantly increasing the cost of the investigation. I appreciate the note that it is up to the geotechnical professional, but that is not stated here.	The County is requiring that testing be completed to augment engineering and best professional judgement. Double ring infiltrometers are not the required testing method for all projects. Best professional judgement may be utilized to select an appropriate test method and to document field conditions that inform the site design.
Soil Classification: Percolation Testing	Based upon what definition. If a large basin, this makes sense. If a narrow trench, this does not make sense. More comments will follow.	The County is allowing exceptions and does not require the Porchet method be used in all scenarios. Narrow trench designs for stormwater infiltration have been increasingly uncommon.
Soil Classification: Percolation Testing	Specifying how the engineering interprets that data seems inappropriate while I appreciate the additional of exceptions.	The County is incorporating this guidance in an effort to increase the consistency of interpretations provided in SWCPs. This guidance is being incorportated due to broadly differing engineering interpretations presented to the County across previous projects.
Soil Classification: Infiltration Rates and Soil Testing	Seems counter to above. However, as I read this, single or double ring infiltration will be REQUIRED on every project with infiltration. As noted before, this is going to significantly increase the expense. I certainly disagree with this requirement, but if it remains in the final, I hope the county plans to be diligent in review and require retesting on any project that it is not done. This seems like a lot of expense.	The County is offering alternatives to single and double ring infiltration tests based upon the type of SCM proposed. Chapter 4 provides alternatives to single and double ring infiltration tests.
Soil Classification: Infiltration Rates and Soil Testing	This seems to be different than MUST conduct infiltration testing which is inferred above as single/double ring testing.	The County is offering alternatives to single and double ring infiltration tests based upon the type of SCM proposed. Chapter 4 provides alternatives to single and double ring infiltration tests.
Soil Classification: Infiltration Rates and Soil Testing	NO TEST WILL REFLECT AS-BUILT AND LONG TERM CONDITIONS. I recommend this is reworded as the inference that testing reflects future performance is a bad precedent and encourages poor design. I do appreciate the modification from the original.	The Guidebook language reflects that there are limits to which testing will reflect long-term performance.

Section Heading	Comment	County Response
Soil Classification: Infiltration Rates and Soil Testing	"Within or immediately adjacent to". With the relatively small footprint of drywell systems, targeting a boring within the footprint is difficult during preliminary design, as SCM locations often shift throughout design. A modification of the language will provide more flexibility.	Text has been updated fo reflect that testing can be performed within or immediately adjacent to the footprint of SCMs.
Soil Classification: Infiltration Rates and Soil Testing	"Within or immediately adjacent to". See comment above.	The sentence that is the subject of this comment was removed in the final version.
Soil Classification: Infiltration Rates and Soil Testing	While I do not really disagree, non-uniform soils is pretty ambiguous. If all alluvium is it uniform? Just a note.	This is general guidance to indicate that additional testing may be necessary. The County defers to the judgement of qualified professionals.
Soil Classification: Infiltration Rates and Soil Testing	Additional testing in fill areas prior to permits seems impossible.	This language has been modified to clarify that under some scenarios additional testing may be necessary to support design, and reference to construction permit timing has been removed.
Soil Classification: Infiltration Rates and Soil Testing	Still disagree with a prescribed method of analysis. This comment refers to the entire table. Further, this appears to say there are three options, pick a generic number from a map, porchet method, or single or double infiltrometer. Is that correct? This also infers that the factor of safety is solely based upon SCM type. I think this is a step in the wrong direction. This is inferring the design engineer does not need to consider the sediment load, maintenance, uniformity....	The table provides alternative options for determining the design infiltration rate based upon the type of SCM proposed. The factor of safety is based upon type of SCM and considers constraints related to maintenance and monitoring. In concurrence with the Santa Barbara Technical Guide, bioretention is assigned the lowest factor of safety.
Soil Classification: Factors of Safety	While I appreciate the modification and agree, the reference to a table that says the only needed FS is 1, 2, or 3 infers no others are needed. Similar to above comment.	The prescribed factors of safety are included due to wide variability in the factors of safety previously submitted to the County, or lack of incorporating any factor of safety. This guidance is intended to standardize and improve the consistency of factors applied to common SCMs.
Geotechnical Constraints	Recommend including "Proximity of stormwater infiltration to foundations and footings" as an additional bullet point.	Text has been updated to reflect this change.
Geotechnical Constraints	While I appreciate this, if it is recommended not to infiltrate, is that an option.	Yes, where there are significant site constraints applicants may demonstrate technical infeasibility which allows for alternatives to onsite infiltration.
10% Equivalent Impervious Surface	This should be done per DMA. If the impervious area does not drain into a retention based SCM, then the 10% EISA is not met for that DMA.	The EISA requirements specify that that calculations must 'sum all of the site's conventional impervious surface areas' but does not specify that these calculations and justification are required for each DMA. The County will continue to evaluate the project overall with respect to EISA criteria and not by DMA.
Onsite offset	Our continued position on this is that it there is not a pathway for onsite offset in the PCRs. This does not meet the objectives of the PCRs as benefit would only be realize in storm events in excess of the design storm and would replace offsite mitigation on parcels where retention would not be taking place otherwise.	The County maintains that this strategy presents a reasonable and justifiable alternative for compliance with the PCRs.
Minimizing the Size of SCMs	Reiterating here that this “can” should be “must”.	The emphasis on runoff reduction measures is included in multiple sections of the Guidebook. The guidebook is intended to provide guidance to applicants, and is not a regulatory document.
Recognized SCM Types and Descriptions	"Includes underground infiltration chambers and drywells)	Text has been updated to include reference to drywells.
Prioritization of Low Impact Development	Torrent Resources disagrees with the assessment that underground infiltration BMPs do not constitute LID design elements. While the other systems named are treat-and-release systems and result in a flow pattern that deviates from pre-development, subsurface infiltration SCMs, including drywells and infiltration galleries, preserve pre-development runoff and infiltration patterns, albeit in a more space-efficient design. This meets the definition of green infrastructure noted in line 279 of this handbook. Flows are still treated by vadose-zone soils, and local groundwater reservoirs are indirectly replenished.	While the County recognizes and appreciates the efficiency of subsurface infiltration SCMs, the Central Coast Water Board has not agreed that they sufficiently meet the criteria of LID.
Bioretention and Biofiltration	May add immediately below? These may be graded sites and no compaction of a fill may not be practical. Or no infiltration in fills, which I would be great with.	Text has been updated to incorporate this change and reflect 'immediately below' bioretention.
Filter Units	Edit to: “….by site conditions, and site design and runoff retention have been maximized to the maximum extent practicable.”	Language specifying that site design and runoff reduction measures be maximized was incorporated to Chapter 2 and sufficiently communicates the requirements.
Underground Infiltration Systems and Dry Wells	Suggest: “demonstrate the site’s post-construction runoff volume has been managed to the maximum extent possible, and to a minimum of 30%, through at-grade LID strategies, before proposing compliance …”s	Language indicating that site design and runoff reduction measures be incorporated to the maximum extent possible is included in Chapter 2. The guideline to incorporate surface treatment of 30% of the runoff volume is a significant and meaningful update to County guidance.

Section Heading	Comment	County Response
Underground Infiltration Systems and Dry Wells: Soil Report Data	While this is an improvement and I appreciate it, it is still not appropriate. You are requiring the geotechnical professional to comment on someone else's design. From previous sections, I want to make sure it is clear the geotechnical professional is virtually never the designer of these systems. What rates are used, what factors of safety are used, layout of the systems, what types of systems are all up to the design engineer, not the geotechnical professional so they should not be responsible for impacts of the design. Please leave the design responsibility with the designer!	The intent of this requirement is for the Geotechnical engineer to review the proposed design for underground infiltration systems. The County acknowledges that the geotechnical professional does not design these systems and is simply seeking professional judgement on the overall suitability of this type of SCM at the project site. Text has been revised to reflect this intent.
Sedimentation of Infiltration and Filtration Systems	I agree, but since the FS is prescribed by this document, and is solely based upon type of system, this will not be true.	The County believes that specifying factors of safety will improve consistency across site designs and improve the level of service over not incorporating a factor of safety.
Runoff Coefficient C values	Reiterating again here that soils should not be compacted, and if they are, a higher C should be used.	The C values presented in Table 18 are well researched and substantiated by guidance documents throughout the State of California.
Infiltration and Percolation Rates	Prescribed factor of safety will reduce the chance of appropriate factors of safety being used.	The prescribed factors of safety are included due to the wide variability in the factors of safety used in projects previously submitted to the County. In numerous cases, no factor of safety has been prescribed. This guidance is intended to standardize and improve the consistency of factors commonly used in engineered design.
Infiltration and Percolation Rates: Design Infiltration Rates	For all systems? I do not believe that is consistent with earlier chapters.	Table 20 has been modified to improve clarity and the applicability of HSG rates and factors of safety.
Infiltration and Percolation Rates: Percolation Rate Conversion	must	This calculation was deliberately incorporated as an option, and not a requirement. The Porchet method is not appropriate in all scenarios, or for all SCMs.
Infiltration and Percolation Rates: Percolation Rate Conversion	I disagree with a prescribed method. If there was a trench, this would certainly be punitive.	The County does not require that all percolation rates be converted using the Porchet method. The County would accept a non-converted percolation rate for trench style SCMs.
Infiltration and Percolation Rates: Percolation Rate Conversion	"except in the case of drywells" as noted in Table 9.	The Porchet calculation was deliberately incorporated as an option, and not a requirement. The Porchet method is not appropriate in all scenarios, or for all SCMs.