

2017-2018

Phase II Small MS4 Annual - Report

REPORTING PERIOD:07/01/2017 - 06/30/2018

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Permittee Information

City of Buellton

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Phase II Small MS4 Annual - Report - 2017-2018
Questions & Answers

Q No.	Text	DropDown Answer	CheckBoxAnswer	DescriptiveAnswer	Date Answer	Number Answer
null	GENERAL					
1	Per Section E.1., did you continue to implement your previously approved storm water management plan? If 'No', please provide a brief explanation in the comments section. (Years 1 - 5) (Please note: This question is for renewal permittees only. If you are a new permittee, please select 'NA')	Yes				
2	If you relied on another entity (co-permittee or SIE) to implement one or more of the permit requirements did the co-permittee or SIE meet the permit requirements that were implemented on your behalf? (Years 1 - 5) If 'Yes', please attach a copy of the agreement that you may have with the other entity. If 'No', please provide a brief explanation.	Yes				
null	PROGRAM MANAGEMENT					
3	Reviewed and/or revised any relevant ordinances or other regulatory mechanisms, or adopted any new ordinances or regulatory mechanisms to obtain adequate legal authority as specified by Section E.6.a.(ii)(a-j)? (pgs. 20-22, Year 2) If 'No', please provide a brief explanation in the comments section.	N/A				
4	Certified legal authority, as specified by section E.6.b.? (page 22, Year 2) If 'Yes', attach required statement signed by an authorized signatory certifying adequate legal authority to comply with all Order requirements. (E.6.b.(ii)(a-e), page 22). (Year 2) If "No", please provide a brief explanation.	N/A				
5	Developed and began implementation of Enforcement Response Plan as specified by Section E.6.c.(ii)(a-f)? (pgs. 22-24, Year 3); OR Implemented the Enforcement Response Plan as specified in Section E.6.c.(ii)(a-f)? (Years 4-5) If 'No', please provide a brief explanation.	Yes				
null	EDUCATION AND OUTREACH					
6	Selected one or more of the Public Education and Outreach options? (E.7.a, page 25.) (Year 1) If yes, which option was selected to comply with section E.7.? Provide answer in comments section. (Year 1) For countywide/regional collaborative option selection, upload required attachment: agreement confirming collaboration with other MS4s. (Year 1)	N/A				

7	Developed and began implementation of storm water public education and outreach program as specified by section E.7.a.(ii)(a - m)? (pgs. 25-27, Year 2); OR Continued implementation of storm water public education and outreach program as specified by section E.7.a.(ii)(a - m)? (pgs. 25-27, Year 3-5) If 'No', please provide a brief explanation.	Yes				
8	Developed and began implementation of a public education strategy that established education tasks based on water quality problems, target audiences and anticipated task effectiveness? (E.7.a.(ii)a, page26) (Year 2); OR Continued implementation of a public education strategy that established education tasks based on water quality problems, target audiences and anticipated task effectiveness? (Years 3-5) If 'No', please provide a brief explanation. THIS QUESTION IS REDUNDANT WITH THE QUESTIONS DIRECTLY ABOVE AND HAS BEEN REMOVED. YOU HAVE NO NEED TO ANSWER THIS QUESTION	N/A				
9	Developed and implemented a training program for all staff who, as part of their normal job responsibilities, may be notified of, come into contact with, or otherwise observe an illicit discharge or illegal connection to the storm drain system, as specified by section E.7.b.1.(ii)(a-g), page 27) (Year 3); OR Continued to implement the training program for all appropriate staff? (Years 4-5) If 'NA', please provide a brief explanation.	Yes				
10	Provided construction outreach and education training for staff implementing construction site storm water runoff control program, as specified by section E.7.b.2.a(ii)(a-c), page 28 (Years 2-5) If 'NA', please provide a brief explanation.	Yes				
11	Developed and distributed educational materials to construction site operators, as specified by section E.7.b.2(b)(ii)(a-d), (page 29, Year 3); OR Continued to distribute educational materials? (Years 4-5) If 'NA', please provide a brief explanation.	Yes				
12	Updated existing storm water website, as necessary, to include information on appropriate selection, installation, implementation and maintenance of BMPs? (E.7.b.2.(b)(ii)(d), page 29) (Years 3-5) If 'No', please provide a brief explanation.	Yes				
13	Trained employees on how to incorporate pollution prevention/good housekeeping techniques into Permittee operations, as specified by section E.7.b.3.(ii)(a-d), pages 29-30 (Years 2-5) If 'NA', please provide a brief explanation.	Yes				
null	PUBLIC INVOLVEMENT AND PARTICIPATION PROGRAM					

14	Involved the public in the development and implementation of activities related to the program, as specified by section E.8.(ii)(a-e)? (Years 2-5) If 'No', please provide a brief explanation.	Yes				
null	ILLICIT DISCHARGE DETECTION AND ELIMINATION					
15	Created and/or maintained outfall map? (E.9.a., page 31) (Years 2-5) If 'No', please provide a brief explanation.	Yes				
16	Included in the outfall map, location of all outfalls that are operated by the Permittee within the urbanized area, drainage areas, and land use(s) contributing to those outfalls that are operated by the Permittee, and that discharge within the Permittee's jurisdiction to a receiving water? (E.9.a(ii)(a), page 31) (Year 2) If 'No', please provide a brief explanation.	N/A				
17	Included in the outfall map, the location (and name, where known to the Permittee) of all water bodies receiving direct discharges from those outfall pipes? (E.9.a(ii)(b), page 31) (Year 2) If 'No', please provide a brief explanation.	N/A				
18	Included in the outfall map, priority areas, as specified in E.9.a.(ii)(c)(1-8), pages 31 -32. (Year 2) If 'No', please provide a brief explanation.	N/A				
19	Included in the outfall map, field sampling stations? (E.9.a(ii)(d), page 32) (Year 2) If 'No', please provide a brief explanation.	N/A				
20	Included in the outfall map, the permit boundary? (E.9.a(ii)(e), page 32) (Year 2) If 'No', please provide a brief explanation.	N/A				
21	Maintained inventory of all industrial/commercial facilities/sources within the Permittee's jurisdiction (regardless of ownership) that could discharge storm water pollutants to the MS4? (E.9.b., page 32) (Year 2) If 'No', please provide a brief explanation.	N/A				
22	Included in the inventory, the facility name, address, nature of business/activity, physical location of storm drain receiving discharge, name of receiving water and if the facility/source is tributary to a Clean Water Act Section 303(d) listed water body segment or water body segment subject to a TMDL? (E.9.b(ii)(a), page 32) (Year 2) If 'No', please provide a brief explanation.	N/A				

23	Included in the inventory: vehicle salvage yards, metal and other recycled materials collection facilities, waste transfer facilities, vehicle mechanical repair, maintenance or cleaning; building trade central facilities or yards; corporation yards; landscape nurseries and greenhouses; building material retailers and storage; plastic manufacturers; other facilities designated by the Permittee or Regional Water Board to have reasonable potential to contribute to pollution of storm water runoff? (E.9.b(ii)(b), page 33) (Year 2) If 'No', please provide a brief explanation.	N/A				
24	Determined if facilities that are required to be covered under the Statewide Industrial General Permit (IGP) have done so and notified Regional Water Board of any non-filers? (E.9.b(ii)(c), page 33) (Year 2) Attached copies of the notification of non-filers to the Regional Water Board (E.9.b(ii)(c)page 33) (Year 2) If 'No', please provide a brief explanation.	N/A				
25	Updated the inventory annually? (E.9.b(ii)(d), page 33) (Years 2-5) If 'No', please provide a brief explanation.	Yes				
26	Developed and implemented procedures to proactively identify illicit discharges originating from priority areas identified in Section E.9.a.(ii)(c), at least once over the length of the permit term. OR, established a self-certification program where Permittees require reports from authorized parties demonstrating the prevention and elimination of illicit discharges at their facilities in priority areas at least once over the length of the permit term? (E.9.b(ii)(e), page 33) (Year 2) OR Implemented the procedures established per E.9.b.(ii).(e).? (Years 3-5) If 'No', please provide a brief explanation.	Yes				
27	Conducted field sampling of any outfalls that were flowing or ponding when it had been more than 72 hours after the last rain event (i.e., were suspected of illicit discharges) during outfall inventory mapping (under section E.9.a., page 31)? (E.9.c., page 34) (Year 2) If 'No', please provide a brief explanation.	N/A				
28	Conducted monitoring for the parameters listed in Table 1 (page 34), or for parameters selected by Permittee based on local knowledge of pollutants of concern in priority areas? (E.9.c(ii)(a), page 34) (Years 2-5) If tailored parameter action levels, attach justification and modifications to parameters If 'No', please provide a brief explanation.	Yes			The Tailored Parameter Justification/Modifications Buellton and Solvang Transmittal (Email Dated 10/6/17) - IDDE Sampling Chlorine was uploaded as an attachment to the Phase II Small MS4 Annual Report - Traditionals 2016 - 2017 Annual submittal as requested by the CCRWQCB. Per CCRWQCB, no additional upload is necessary for this annual report.	

29	Verified that indicator parameter action levels in Table 2 (page 35), or tailored parameter action levels were not exceeded? (E.9.c.(ii)(b), page 35) (Years 2-5) If tailored parameter action levels, attach justification and modifications to parameter action levels. If 'No', please provide a brief explanation.	Yes		The Tailored Parameter Justification/Modifications Buellton and Solvang Transmittal (Email Dated 10/6/17) - IDDE Sampling Chlorine was uploaded as an attachment to the Phase II Small MS4 Annual Report - Traditionals 2016 - 2017 Annual submittal as requested by the CCRWQCB. Per CCRWQCB, no additional upload is necessary for this annual report.		
30	Conducted follow-up investigations per Section E.9.d. if the action level concentrations were exceeded? (E.9.c(ii)(c) , page 35) (Years 2-5) If 'No', please provide a brief explanation.	Yes				
31	Developed written procedures for conducting investigations into the source of all suspected illicit discharges? (E.9.d.ii(a-e), page 36) (Year 2) If 'No', please provide a brief explanation.	N/A				
32	Investigated within 24 hours, non-storm water discharges suspected of being sanitary sewage and/or significantly contaminated? (E.9.d.(ii)(a), page 36) (Years 2-5) If 'No', please provide a brief explanation.	No		No. The City of Buellton did not investigate one (1) non-stormwater discharge (sewage) within 24 hours upon notification. During the site investigation, the City determined that there was no spill. N/A. The City of Solvang did not have any non-stormwater discharges suspected of being sanitary sewage and/or significantly contaminated.		
33	Prioritized investigations of suspected sanitary sewage and/or significantly contaminated discharges over investigations of non-storm water discharges suspected of being cooling water, wash water, or natural flows? (E.9.d.(ii)(b), page 36) (Years 2-5) If 'No', please provide a brief explanation.	Yes				
34	Reported immediately the occurrence of any flows believed to be an immediate threat to human health or the environment to local Health Department? (E.9.d.(ii)(c), page 36? (Years 2-5) If 'No', please provide a brief explanation.	NA		Neither the City of Buellton or the City of Solvang had any flows believed to be an immediate threat to human health or the environment requiring notification to local Health Department. The City of Buellton did notify the Central Coast Regional Water Quality Control Board of a run-on Non-Stormwater discharge from the agricultural land outside the City limits		
35	Determined and documented through investigations the source of all non-storm water discharges? (E.9.d.(ii)(d), page 36) (Years 2-5) If 'No', please provide a brief explanation.	Yes				
36	Implemented corrective actions to eliminate illicit discharges as specified in section E.9.d.(ii)(e), page 36. (Years 2-5) If 'No', please provide a brief explanation.	Yes				
37	Developed and began implementing a spill response plan? (E.9.e., page 36) (Year 1); OR Continued to implement a spill response plan (Years 2 -5) If 'No', please provide a brief explanation.	Yes				
null	CONSTRUCTION SITE STORM WATER RUNOFF CONTROL PROGRAM					

38	Developed an enforceable construction site storm water runoff control ordinance for all projects that disturb less than one acre of soil? (E.10., page 37) (Year 2) If 'No', please provide a brief explanation.	N/A				
39	Created, maintained, and continuously updated an inventory of all projects subject to local construction site storm water runoff control ordinance according to the minimum requirements listed in section E.10.a(ii)(a-h) ? (E.10.a., page 37) (Years 1-5) If 'No', please provide a brief explanation.	Yes				
40	Developed procedures that include the minimum requirements listed in section E.10.b(ii)(a-e) to review and approve construction plan documents? (i.e., erosion and sediment control plans). (E.10.b., page 38) (Year 1) If 'No', please provide a brief explanation.	N/A				
41	Used legal authority to implement procedures for inspecting public and private construction projects and conducted enforcement as necessary? (E.10.c, page 39). (Years 2-5) If 'No', please provide a brief explanation.	Yes				
42	Conducted inspections, at a minimum, at priority construction sites prior to land disturbance, during active construction and following active construction? (E.10.c.(ii), page 39) (Years 2-5) If 'No', please provide a brief explanation.	Yes				
43	Included in inspection, an assessment of compliance with the Permittee's construction site storm water control ordinance and other applicable ordinances? (E.10.c.(ii), page 39) (Years 2-5) If 'No', please provide a brief explanation.	Yes				
44	Active site inspections included inspections of BMP maintenance, BMP effectiveness and verification of no pollutant of concern discharge? (E.10.c.(ii), page 39) (Years 2-5) If 'No', please provide a brief explanation.	Yes				
45	Based inspection prioritization criteria on project threat to water quality (includes soil erosion potential, site slope, project size and type, sensitivity of receiving water bodies, proximity to receiving water bodies, non-storm water discharges, projects more than one acre that are not subject to the CGP and past record of non-compliance)? (E.10.c.(ii), page 39) (Years 2-5) If 'No', please provide a brief explanation.	No			The Cities of Buellton and Solvang conduct inspections on all construction sites, the Cities considers a construction site a "Priority Construction Site" when the site is determined to be a Water Quality Threat (i.e. if the project does not have an Erosion & Sediment Control Plan); and has a high Water Quality Risk Level (i.e. if receiving water does meet any of the following criteria: (1) 303(d) listed waterbody impaired by sediment, (2) USEPA-approved Total Maximum Daily Load implementation plan for sediment; or (3) Beneficial Uses of COLD, SPAWN, and MIGRATORY.)	
null	POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR PERMITTEE OPERATIONS PROGRAM					

46	Developed and maintained an inventory of Permittee-owned or operated facilities within your jurisdiction that are a threat to water quality, as specified in E.11.a(ii), page 40. (Years 2-5) If 'No', please provide a brief explanation.	Yes				
47	Developed and submitted a map that identifies the location of inventoried Permittee-owned/operated facilities, storm drainage system corresponding to the each of the facilities and the receiving water, facility name and management including contact information? (E.11.b., page 41) (Year 2) If 'No', please provide a brief explanation.	N/A				
48	Conducted annual inspections of and assessed the pollutant discharge potential for all Permittee-owned facilities to identify Hotspots, as specified in section E.11.c., page 41. (Year 3); If 'No', please provide a brief explanation	N/A				
49	Developed and implemented SWPPPs for hotspots as specified in section E.11.d.(ii)(a-c), page 42-43)? (Year 4) Continued to implement SWPPPs for hotspots? (Year 5) If 'No', please provide a brief explanation.	No		<p>No. The City of Buellton conducted a Hotspot Site Investigation on each City owned/operated facility and identified two "Confirmed" Hotspots during the facility assessments. All stormwater runoff is contained on site at each of the "Confirmed" Hotspots. The City did not develop and implement a SWPPP for the WWTP but has developed and implemented a Hazardous Materials Consolidated Emergency Response/Contingency Plan for the WWTP site; and is working with a Post Office to implement onsite BMPs and/or business practice changes to help eliminate potential pollutants and to reclassify its Hotspot designation. Note: There were no "Severe" Hotspots identified during the Hotspot Site Investigations.</p> <p>N/A. The City of Solvang conducted a Hotspot Site Investigation on each City owned or operated facility and did not find a "Severe" or "Confirmed" Hotspot during the facility assessments that would require the development and implementation of a SWPPP.</p>		
50	Conducted quarterly visual inspection of hotspots and hotspot discharge locations? (E.11.e.(ii)(a and c), page 43) (Year 5) If 'No', please provide a brief explanation.	Yes				
51	Conducted annual comprehensive hotspot inspection? (E.11.e(ii)(b), page 43) (Year 5) If 'No', please provide a brief explanation.	Yes				
52	Inspected each inventoried facility that is not a hotspot once during permit term? (E.11.e(ii)(d), page 44) (Year 5) If 'No', please provide a brief explanation.	Yes				

53	Implemented procedures to assess and prioritize maintenance of storm drain system infrastructure and assigned a high priority to each catch basin meeting any of the criteria listed in section E.11.f(ii)(1-5), page 44? (Year 2) If 'No', please provide a brief explanation.	N/A				
54	Began maintenance of storm drain systems according to the procedures and priorities developed according to section E.11.g.(ii)(a-e), page 45? (Year 3) If 'No', please provide a brief explanation. THIS QUESTION IS REDUNDANT WITH THE QUESTIONS DIRECTLY BELOW AND HAS BEEN REMOVED. YOU HAVE NO NEED TO ANSWER THIS QUESTION	N/A				
55	Developed and implemented a strategy to inspect storm drain systems, based on the priorities assigned in section E.11.f.(ii), page 44. (E.11.g.(ii)(a), page 45). (Year 3); OR Continued to implement the strategy to inspect storm drain systems? (Years 4-5) If 'No', please provide a brief explanation.	Yes				
56	Developed and implemented a schedule to clean high priority catch basins and other systems? (E.11.g.(ii)(b), page 45) (Year 3); OR Continued to implement a schedule to clean high priority catch basins? (Years 4-5) If 'No', please provide a brief explanation.	Yes				
57	Ensured that each catch basin in high foot traffic areas includes a legible storm water awareness message? (E.11.g.(ii)(c), page 45) (Years 3-5) If 'No', please provide a brief explanation.	Yes				
58	Reviewed and maintained high priority facilities and removed trash and debris from high priority areas prior to the rainy season? (E.11.g.(ii)(d), page 45). (Years 3-5) If 'No', please provide a brief explanation.	Yes				
59	Developed and maintained a procedure to dewater and dispose of materials extracted from catch basins that ensures that water removed during the catch basin cleaning process and waste material will not reenter the MS4? (E.11.g.(ii)(e), page 45). (Year 3) Continued to implement a procedure to dewater and dispose of materials extracted from catch basins? (Years 4-5) If 'No', please provide a brief explanation.	Yes				
60	Developed program to assess O&M activities for potential to discharge pollutants and inspected all O&M BMPs quarterly as specified in section E.11.h.(ii)(a-d), page 45-46? (Year 3) If 'No', please provide a brief explanation. THIS QUESTION IS REDUNDANT WITH THE QUESTIONS DIRECTLY BELOW AND HAS BEEN REMOVED. YOU HAVE NO NEED TO ANSWER THIS QUESTION	N/A				

61	Developed and implemented a program that includes activities listed in section E.11.h.ii(a)(1-8), page 46, to assess O & M activities and subsequently developed applicable BMPs? (E.11.h(ii)(a), page 46) (Year 3); OR Continued to implement a program to assess O&M activities? (Years 4-5) If 'No', please provide a brief explanation.	Yes				
62	Identified all materials that could be discharged from each of these O&M activities, and which materials contain pollutants? (E.11.h(ii)(b), page 46) (Years 3-5) If 'No', please provide a brief explanation.	Yes				
63	Developed and identified a set of BMPs that, when applied during Permittee O&M activities, will reduce pollutants in storm water and non-storm water discharges? (E.11.h(ii)(c), page 46) (Year 3); OR Continued to implement identified BMPs for O&M activities? (Years 4-5) If 'No', please provide a brief explanation.	Yes				
64	Evaluated all BMPs implemented during O&M activities quarterly? (E.11.h(ii)(d), page 46) (Years 3-5) If 'No', please provide a brief explanation.	No		Yes. During Year 5 Q2, the City of Buellton began evaluation of BMPs implemented during O&M activities quarterly. No. During Year 6 Q1, the City of Solvang began evaluation of BMPs implemented during O&M activities.		
65	Developed and implemented a process for incorporating water quality and habitat enhancement into new and rehabilitated flood management projects? (E.11.i, page 46-47) (Year 3); OR Continued to implement the process for incorporating water quality enhancement into flood management projects? (Years 4-5) If 'No', please provide a brief explanation.	Yes				
66	Implemented a landscape design and maintenance program to reduce the amount of water, pesticides, herbicides and fertilizers used by Permittee? (E.11.j., page 47) (Years 2-5) If 'No', please provide a brief explanation.	Yes				
67	Evaluated pesticides, herbicides and fertilizers used and application activities performed and identified pollution prevention and source control opportunities? (E.11.j(ii)(a), page 47) (Year 2) If 'No', please provide a brief explanation.	N/A				
68	Implemented practices that reduced the discharge of pesticides, herbicides and fertilizers as specified in section E.11.j(ii)(b)(1-4), page 47-48)? (Years 2-5) If 'No', please provide a brief explanation.	Yes				
69	Implemented educational activities for municipal applicators and distributors? (E.11.j(ii)(b)(1), page 47) (Years 2-5) If 'No', please provide a brief explanation.	Yes				

70	Implemented landscape management measures that rely on non-chemical solutions, including the measures specified in section E.11.j.(ii)(b)(2)(a-i), page 47? (Years 2-5) If 'No', please provide a brief explanation.	Yes				
71	Collected and properly disposed of unused pesticides, herbicides and fertilizers? (E.11.j(ii)(b)(3), page 48)(Years 2-5) If 'No', please provide a brief explanation.	Yes				
72	Minimized irrigation runoff by using an evapotranspiration-based irrigation schedule and rain sensors? (E.11.j(ii)(b)(4), page 48), (Years 2-5) If 'No', please provide a brief explanation.	Yes				
73	Recorded the types and amounts of pesticides, herbicides and fertilizers used in the permit area? (E.11.j(ii)(c), page 48) (Years 2-5) If 'No', please provide a brief explanation.	Yes				
null	POST CONSTRUCTION STORMWATER MANAGEMENT PROGRAM					
74	Regulated development to comply with sections E.12.b. through E.12.l of permit? (E.12.a., page 48) (Years 2-5) If 'No', please provide a brief explanation.	NA			These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCRs). The Cities shall comply with the adopted and approved Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.	
75	Required implementation of site design measures for all projects that create and/or replace 2,500- 5,000 square feet of impervious surface (including single family homes, that are not part of a larger plan of development)? (E.12.b., page 48-49) (Years 2-5) If 'No', please provide a brief explanation.	NA			These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCRs). The Cities shall comply with the adopted and approved Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.	
76	Implemented standards, including measures for site design, source control, runoff reduction, storm water treatment and baseline hydromodification management, on projects that create and/or replace more than 5,000 square feet of impervious surface (Regulated Projects)? (E.12.c., pages 49 -51) (Years 2-5) If 'No', please provide a brief explanation.	N/A			These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCRs). The Cities shall comply with the adopted and approved Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.	
77	Required Regulated Projects to implement source control measures? (E.12.d., page 51-52) (Years 2-5) If 'No', please provide a brief explanation.	NA			These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCRs). The Cities shall comply with the adopted and approved Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.	
78	Required Regulated Projects to implement LID standards designed to reduce runoff, treat storm water, and provide baseline hydromodification management to the extent feasible, to meet the Numeric Sizing Criteria for Storm Water Retention and Treatment under section E.12.e(ii)c., page 53. (E.12.e., page 52-56)? (Years 2-5) If 'No', please provide a brief explanation.	NA			These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCRs). The Cities shall comply with the adopted and approved Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.	

79	Developed and implemented hydromodification management procedures for Regulated Projects that created and/or replaced one acre or more of impervious surface as specified by section E.12.f? (pgs. 56 - 57, Year 3); OR Continued to implement hydromodification management procedures for Regulated Projects? (Years 4-5) If 'No', please provide a brief explanation.	NA		These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCRs). The Cities shall comply with the adopted and approved Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.		
80	Developed and/or modified enforceable mechanisms to implement E.12.b through E.12.f., if necessary? (E.12.g., page 58) (Years 3-5) If 'No', please provide a brief explanation.	NA		These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCRs). The Cities shall comply with the adopted and approved Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.		
81	Implemented an O&M verification program for storm water treatment and baseline hydromodification structural controls measures on all Regulated Projects, as specified by section E.12.h.(ii)(a-e), page 58-60? (Years 2-5) If 'No', please provide a brief explanation.	NA		These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCRs). The Cities shall comply with the adopted and approved Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.		
82	Inventoried and assessed the maintenance condition of structural post-construction BMPs within your jurisdiction? (E.12.i., page 60) (Years 3-5) If 'No', please provide a brief explanation.	NA		These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCRs). The Cities shall comply with the adopted and approved Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.		
83	Developed and maintained a plan to inventory, map and determine the relative maintenance condition of structural post-construction BMPs as specified by section E.12.i(ii)(a-d), page 60-61? (Year 3); OR Continued to implement plan to inventory, map and assessment of maintenance condition of post-construction BMPs? (Years 4-5) If 'No', please provide a brief explanation.	NA		These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCRs). The Cities shall comply with the adopted and approved Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.		
84	Conducted an analysis of the landscape code to correct gaps and impediments impacting effective implementation of post-construction standards? (E.12.j(ii)(a), page 61) (Year 1) If 'No', please provide a brief explanation.	N/A				
85	Completed any changes to the landscape code to effectively administer post-construction requirements? (E.12.j(ii)(b), page 61) (Years 2-5) If 'No', please provide a brief explanation.	No		The Cities of Buellton and Solvang did not find any impediments with administering the post construction requirements during the Municipal Landscape Gap Analysis but the Cities are considering future opportunities to improve that were identified during the analysis and/or adopt a new ordinance to align with the Department of Water Resource's Model Water Efficient Landscape Ordinance (MWELO).		
86	Implemented post-construction storm water management requirements based on a watershed-process approach as specified by section E.12.k, page 62? (Years 1 - 5)	NA		These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCRs). The Cities shall comply with the adopted and approved Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.		

87	Proposed alternative post-construction requirements that achieved multiple-benefits as specified by section E.12.I., page 62? (Years 1 - 5)	No		Neither the City of Buellton nor the City of Solvang submitted a proposal to the Regional Water Board or the Executive Officer to obtain approval for alternative post-construction measures for multiple-benefit projects.		
null	WATER QUALITY MONITORING					
88	Indicate which water quality monitoring approach applies to your jurisdiction. Check all that apply.		303(d) Monitoring			
89	If you selected TMDL Monitoring or 303(d) Monitoring, did you consult with your Regional Water Board within Year 1 of the permit to determine monitoring study design and implementation schedule? (Year 1) If 'No', please provide a brief explanation.	N/A				
90	Indicate if you are or will be conducting water quality monitoring individually or as part of a regional program. (Years 1 and 2) If regional program, list the name of the program in the text box below. If a Permittee has a population less than 50,000 AND is not required to conduct ASBS, TMDL or 303(d) Monitoring (Sections E.13.(a)-(c)), then enter N/A					
91	Provide a status update regarding the development (including consultation with Regional Boards, if applicable), submittal and/or approval of the monitoring study design and implementation schedule. (Year 1)					
92	Upload the Monitoring Study Design and any available results for the monitoring option that applies to your jurisdiction. (Year 2)					
93	Provide a summary of the implementation of the water quality monitoring program and related results. (Year 3 - 5) Upload the Monitoring Study Results. {required}			Refer to Attached 303(d) Monitoring Program Summary and Results		
null	PROGRAM EFFECTIVENESS ASSESSMENT					
94	Developed and implemented a Program Effectiveness Assessment and Improvement Plan (PEAIP) that includes the minimum requirements listed in section E.14.a(ii)(a-f), page 70-72)? (Year 2) Continued to implement the PEAIP? (Years 3-5) If 'No', please provide a brief explanation. If 'Yes', upload required PEAIP as attachment. {required if 'Yes'}	Yes				
95	Provide a description of implementation of the Program Effectiveness Assessment and Improvement Plan, a summary of data obtained through effectiveness assessment measures and the short and long-term progress of the storm water program and an analysis of the data as described on page 72 of the permit. Upload as an attachment. (Years 3 - 5) {required}					

96	Identified and summarized BMP and/or program modification identified in priority program areas that will be made in next permit term? (E.14.b.(ii)(a-d), page 72-73) (Year 5) If 'No', please provide a brief explanation. If 'yes', upload required PEAIIP as attachment. {required if 'Yes'}	Yes				
null	TOTAL MAXIMUM DAILY LOADS COMPLIANCE REQUIREMENTS					
97	Attached TMDL implementation status report that includes the information listed in section E.15.d(i-iv), page 74 of permit? (Years 1-5) {required if 'Yes'} If 'No', please provide a brief explanation.	NA		Although the Santa Ynez River is a 303(d) impaired water body, it was not identified within "Phase II Permit Traditional Small MS4 Attachment G-Region Specific Requirements" that outlines Regional Water Board Approved TMDLs.		
null	ADDITIONAL INFORMATION					
98	Optional: If you have any additional information, reports or attachments that you would like to provide to describe your storm water program please use the text box and/or the upload attachment button below. (Years 1 - 5)					

Phase II Small MS4 Annual - Report - 2017-2018
CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Rose Hess	Title: Director of Public Works	Date: 10/15/2018
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**Phase II Small MS4 Annual - Report - 2017-2018
ATTACHMENTS**

Attachment Title	Description	Date Uploaded	Attachment Type	Attachment Hash	Doc Part No/Total Parts
PEAIP-Buellton and Solvang	PEAIP-Buellton and Solvang (Rev 1 2/19/16)	2018-10-09 11:27:30.0	Supporting Documentation	3688936dc72a206d3f852524b37036bd3a74b0ba6ff1ac234b3af939c723478	1/1
303(d) Monitoring Program Summary Results FY2017-2018	303(d) Monitoring Program Summary Results FY2017-2018	2018-10-11 11:13:43.0	Supporting Documentation	6b24c23066603927b886659c90bb44c4b9bfe8ee84e01886e2bbd5e0952bf21b	1/1
PEAIP-Buellton and Solvang	PEAIP-Buellton and Solvang (Rev 1 2/19/16)	2018-10-09 12:05:42.0	Supporting Documentation	3688936dc72a206d3f852524b37036bd3a74b0ba6ff1ac234b3af939c723478	1/1
Buellton & Solvang Guidance Document - PEA and 5 Year Modification	Buellton & Solvang Guidance Document - PEA and 5 Year Modification	2018-10-15 14:07:01.0	Supporting Documentation	d8848e26b74c58bb34dea7bd857d557c60bf48f68bf30433cba226cff4477	1/1
Buellton & Solvang Guidance Document - PEA and 5 Year Modification	Buellton & Solvang Guidance Document - PEA and 5 Year Modification	2018-10-15 14:08:24.0	Supporting Documentation	d8848e26b74c58bb34dea7bd857d557c60bf48f68bf30433cba226cff4477	1/1
PEAIP Annual Summary-FY2017-2018-Buellton and Solvang	PEAIP Annual Summary-FY2017-2018-Buellton and Solvang	2018-10-09 11:17:37.0	Supporting Documentation	c7b563fe85121abfe6b1d49f051071ac43e5986d916b2c299e41d9eb975037	1/1
Memorandum of Understanding	Memorandum of Understanding Between the Cities of Solvang and Buellton	2018-10-09 11:20:43.0	Supporting Documentation	67ef2c28866931b064195c7b995e636e8864f8f594772f84da3da31d84f	1/1

**MEMORANDUM OF UNDERSTANDING
BETWEEN THE CITIES OF SOLVANG AND BUELLTON**

**Regarding the status of the Cities of Buellton and Solvang as Co-Permittees,
and preparation and submittal of Annual Reports required by the
Phase II Small MS4 NPDES Municipal Stormwater General Permit**

This Memorandum of Understanding (MOU or Agreement) is entered into between the City of Buellton and the City of Solvang, referred to herein as the “Parties,” for the purpose of defining agency roles, responsibilities, and commitments in connection with the Parties functioning as Co-Permittees under their respective Phase II Small MS4 NPDES Municipal Stormwater General Permits, and the preparation and submittal of Annual Reports required by the Permits. In consideration of the mutual covenants and conditions contained herein, the Parties agree as follows:

1. Description

The new Phase II Small MS4 NPDES Municipal Stormwater General Permit, adopted by the State Water Resources Control Board on February 5, 2013, includes a provision for agencies regulated under the Permit to comply with certain aspects of the Permit as “Co-Permittees”. Agencies covered under the Permit as Co-Permittees may submit a single joint Annual Report. It is the intent and purpose of this MOU to define the roles and responsibilities of the Parties for the purpose of preparing and submitting joint Annual Reports. The Parties agree that upon execution by both Parties this MOU is to be effective beginning Fiscal Year 2013-14.

2. Lead Agency

The City of Buellton shall be the Lead Agency and sole administrator of the joint Annual Report, and shall be responsible for preparing and submitting the joint Annual Report on behalf of the Parties. The City of Buellton shall also be responsible for contracting with a qualified stormwater consultant, as may be necessary, to prepare the joint Annual Report, and shall be the sole administrator of said consultant contract.

3. Insurance Coverage and Indemnification

The Parties agree to maintain liability insurance in an amount sufficient to protect against claims that may be filed against the Parties for the services they provide. The Parties may elect to self-insure against such claims as provided by their respective government policies, or procure third party insurance coverage.

In lieu of and notwithstanding the pro rata risk allocation which might otherwise be imposed between the parties pursuant to Government Code Section 895.6, the parties agree that all losses or liabilities incurred by a party shall not be shared pro rata but instead the Parties agree that pursuant to Government Code Section 895.4, each of the parties hereto shall fully indemnify and hold each of the other parties, their officers, board members, employees and agents, harmless from any claim, expense or cost,

damage or liability imposed for injury (as defined by Government Code Section 810.8) occurring by reason of the negligent acts or omissions or willful misconduct of the indemnifying party, its officers, board members, employees or agents, under or in connection with or arising out of any work, authority or jurisdiction delegated to such party under this Agreement. No party, nor any officer, board member, employee or agent thereof shall be responsible for any damage or liability occurring by reason of the negligent acts or omissions or willful misconduct of other parties hereto, their officers, board members, employees or agents, under or in connection with or arising out of any work, authority or jurisdiction delegated to such other parties under this Agreement.

4. Funding

It is anticipated that the City of Buellton, as the Lead Agency, will utilize Consultant services to prepare and submit the joint Annual Reports. The Parties will share equally in the net Consultant costs associated with the preparation and submittal of the joint Annual Reports. Staff time costs and incidental costs incurred by each Party in connection with preparation of the joint Annual Report shall be borne separately by each Party.

The Parties agree to annually budget for and commit sufficient funds to complete the preparation and submittal of joint Annual Reports. The funding allocation is subject to final budget approval by the respective city councils. The City of Buellton will bill the City of Solvang annually for its share of the joint Annual Report by approximately October 31. The City of Solvang agrees to make payment to the City of Buellton within 30 days of receipt of invoice.

All other aspects of each Parties stormwater management program shall be administered and funded separately unless identified otherwise in this MOU.

5. Term of Agreement

The Agreement will remain in effect until such time as one of the Parties so chooses to terminate the Agreement. The party choosing to terminate the Agreement shall give the other party a minimum of 6 months advanced notice prior to terminating the Agreement.

6. Annual Reporting

On an annual basis, the City of Buellton shall prepare and submit, or have Consultant prepare and submit Annual Report for both agencies as Co-Permittees to the Regional Water Quality Control Board (RWQCB). The City of Buellton shall be responsible for addressing any comments from RWQCB, and prepare and submit revised Annual Report as may be required.

7. Records

The Parties shall keep such records as may be necessary to assist in completion of Annual Reports. In addition, the City of Buellton shall keep records comprising the

Annual reports, and shall maintain such records for a period of five (5) years. All accounting records shall be kept in accordance with generally accepted accounting principles. Either Party shall have the right to review all such documents and records at any time during City of Buellton's regular business hours upon reasonable notice.

8. Cooperation and Coordination Meetings

Staff of the Parties agree to communicate regularly and cooperate with each other to the full extent as may be required for successful completion of Annual Reports. Staff of the Parties agree to meet at least once annually to discuss implementation of the MOU, and other stormwater management issues of common interest.

9. Contracting for Consultant Services

In March of each year the City of Buellton shall solicit a fee proposal(s) from its qualified Consultant(s) specifically to prepare and submit the joint Annual Report for the purposes of budgeting and cost sharing. The fee amount shall be communicated by the City of Buellton to the City of Solvang by April 15 allowing the Parties to incorporate the appropriate amount in their draft fiscal budgets.

10. Consultant Insurance

The City of Buellton shall require any Consultant performing work in connection with the preparation and submittal of joint Annual Reports to maintain general liability insurance, professional liability insurance, automobile liability insurance, and workers compensation insurance each in amount not less than \$1,000,000 while performing work, and for a period of two years following completion of such work. The insurance certificate shall include the City of Solvang as additional insured. Consultant shall provide both Parties with copies of the Certificates of Insurance, including the endorsement(s) naming the Parties as additional insured. The insurance certificate shall require the insurance carrier to provide 30 days written notice to the Parties in the event of cancellation.

11. Amendment

This MOU may only be amended in writing with consent of both Parties.

12. Termination

Either Party to this MOU may terminate its participation under this Agreement by giving 6 months written notification to the other Party.

13. Points of Contact

All notices referenced in this Agreement shall be in writing and shall be given by first class mail addressed as follows, or at such other address or to such person that the parties may from time to time designate in writing:

City of Buellton
Public Works Director
107 West Highway 246
Buellton, CA 93427

City of Solvang
Public Works Director
411 Second Street
Solvang, CA 93463

Signatures

CITY OF BUELLTON



Mark Bierdzinski, City Manager

11-14-2013
Date

Approved as to Form:
Ralph Hanson
City Attorney

By: 

Ralph Hanson, City Attorney for City of
Buellton

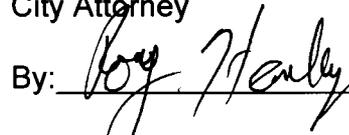
CITY OF SOLVANG



Brad Vidro, City Manager

11-25-13
Date

Approved as to Form:
Roy Hanley
City Attorney

By: 

Roy Hanley, City Attorney for City of
Solvang



**County of Santa Barbara Public Works Department
Project Clean Water**

123 E. Anapamu Street, Suite 27, Santa Barbara, CA 93101
(805) 568-3440 FAX (805) 568-3434
www.sbprojectcleanwater.org



SCOTT D. MCGOLPIN
Director

THOMAS D. FAYRAM
Deputy Director

Memorandum

Date: October 11, 2018

To: 303(d) Monitoring Partner Agencies:
Erin Maker, City of Carpinteria
Everett King, City of Goleta
Bridget Elliot, City of Solvang
Rose Hess, City of Buellton
Mary Zepeda, MNS representing Buellton and Solvang

From: Cathleen Garnand, County of Santa Barbara

Subject: Transmittal of 303(d) Monitoring Program Results, 2017-2018

Background

In accordance with the NPDES California Phase II General Municipal MS4 Permit section E.13.c requirements, the County, along with partner cities of Carpinteria, Goleta, Solvang, and Buellton, implemented a storm water quality monitoring program. This program, consisting of a Monitoring Plan and QAPP, was approved by the Central Coast Regional Water Quality Control Board in their letter dated March 4, 2016.

The storm water quality monitoring is intended to address both the requirements of E.13.c but also to work toward addressing the program effectiveness assessment approach of E.14.a.iii by focusing on wet weather runoff from urban areas, and using that data to support a pollutant loading model.

The following summary and supporting documents describe implementation of the third year of that monitoring effort.

Summary

During the reporting period of Jul 1 2017 – Jun 30 2018, two separate wet weather events were monitored at the six unique sampling sites. These include:

Date	Rainfall (in)	Location	Type
Mar 10	0.98	Solvang	Residential

Mar 10	0.88	Goleta	Commercial
Mar 10	0.77	Buellton	Industrial
Mar 10	0.83	Goleta	Industrial
Mar 13	0.35	Carpinteria	Residential
Mar 13	0.35	Carpinteria	Agricultural

The Sampling Log (Attachment 1) describes the storm events that were tracked throughout the year. The log includes details on forecasts, events that were considered but not monitored, and events that we attempted to monitor but had to abort for reasons such as lack of sufficient runoff or road closures.

The lab results are summarized in Attachment 2. Each year, additional monitoring data will be included on this spreadsheet. After three years of successful monitoring, the results will be used to revise event mean concentrations used in the pollutant load model for the various land use types, as appropriate.

Thresholds and standards do not exist for many of the parameters analyzed, however results that are noteworthy for discussion include the following:

Aluminum

(1000 ug/l) Water Quality Control Plan for the Central Coast Basin 2016 Domestic or Municipal Sites: Carpinteria Urban Agriculture (2800 ug/l)

Goleta Industrial (2700 ug/L)

Sources can be metal roofing and gutters, deteriorating scrap metal, also associated with naturally occurring soil and geologic conditions, high concentrations may be linked to erosion in the watershed or within a stream channel. The Water Quality Control Plan for the Central Coast Basin 2016, established a Maximum Contaminant Level of 1000 ug/l. It is unclear if this references total or dissolved aluminum. The EPA National Recommended Water Quality Aquatic Life Criteria lists Criterion Maximum Concentration at 750 ug/l expressed in terms of total recoverable metal in the water column.

Perylene-d12 (Contaminant of Emerging Concern - No WQ Standard)

All sites

No water quality standards. This compound is a Polycyclic aromatic hydrocarbon (PAH). PAHs are a class of chemicals associated with coal, crude oil, and gasoline.

Triphenyl phosphate surrogate (Contaminant of Emerging Concern - No WQ Standard)

All sites

Used as a flame retardant in electronics, PVC, and upholstery, and as a plasticizer in varnishes and lacquers including nail polish.

Zinc

4 ug/L, Water Quality Control Plan for the Central Coast Basin 2016 Toxic Metal Concentrations not to be Exceeded in Aquatic Life Habitats Soft <100mg/l CaCO3

All sites

Goleta Commercial (46 ug/l)

Buellton Industrial (40 ug/l)

Solvang Residential (10 ug/l)

Goleta Industrial (65 ug/l)

Carpinteria Urban Ag (38 ug/l)

Carpinteria Residential (8.9 ug/l)

Major sources are galvanized surfaces (roofs, gutters, flashing, fencing, guard rails, downspouts and drainage pipes), and wear debris from vehicle tires.

Toxicity

Hyalella azteca was the test organism used.

Sample date	Site Name	% Survival in 100% Sample	% Survival in Control
03/10/2018	Solvang Residential	5	100
03/10/2018	Goleta Commercial	70	100
03/10/2018	Buellton Industrial	0	95
03/10/2018	Goleta Industrial	100	95
03/13/2018	Carpinteria Residential	35	90
03/13/2018	Carpinteria Urban Agriculture	30	95

Attachment 1 – Sampling Log for 2017-2018

Rainfall data sources and distance to sampling locations

Carpinteria: Santa Barbara County Flood Control District Official Daily Rainfall Record Station 208, Carpinteria Fire Station, within 0.75 miles of both Carpinteria sampling locations.

Goleta Commercial: Santa Barbara County Flood Control District Official Daily Rainfall Record Station 440, Goleta Fire Station #14, 1.1 miles from sample location.

Goleta Industrial: Santa Barbara County Flood Control District Official Daily Rainfall Record Station 200, UCSB Ellison Hall, 1.4 miles.

Buellton: Santa Barbara County Flood Control District Official Daily Rainfall Record Station 233 Buellton Fire Station #31, 0.50 miles.

Solvang: Santa Barbara County Flood Control District Official Daily Rainfall Record Station 393 Solvang PW Water, 1.3 miles.

FY 17-18 Sampling Log

3 Jan 2018

Best chances for rain north of Point Conception: 0.1-0.25 north, and < 0.1 south of Point Conception.

With limited chance of enough rain and Bree out sick, decided not to try for sampling this event. Goleta Fire Station received .22 inches

8 Jan 2018pm – 9 Jan 2018am

John K sampled Orcutt Residential site 230am-430am

Mary Zepeda sampled Buellton Industrial 8am-10 am

Bridget Elliott sampled Solvang Residential 1:15am-3:15am

Debris flow in Montecito 9 Jan morning closed Hwy 101

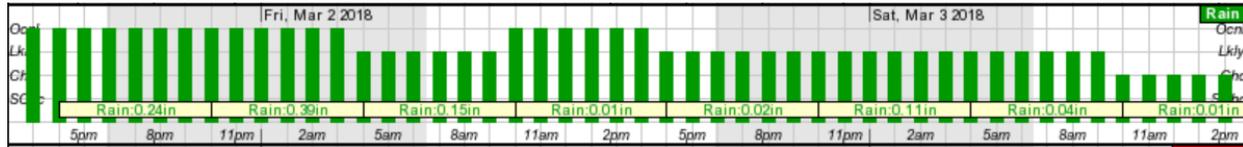
All samples were held until 12 Jan 2018 and then dumped after not finding a safe way to deliver the samples to the labs due to the 101 closure. 101 did not open again until 1/21/2018, also

looked into driving the samples around the closure via I-5, chartering a private boat, taking the ferry, courier services and shipping the samples. All of these options were found unsatisfactory due to safety or financial concerns.

26 Feb 2018

Minor storm system moved through the area, no real rain materialized, didn't wet the ground in Goleta besides a few drops.

1 March 2018



.45 inches forecast for Goleta area

Rainfall levels were not intense enough to produce significant run off for sampling. Solvang called off ~1030pm, visited Goleta Industrial site no flow, did not check commercial site. Goleta sites cancelled at 530am. No flow on Goleta surface streets around 730am.

Date (PST)	Temp (F)	Dew Point (F)	Relative Humidity (%)	Wind Chill (F)	Wind Direction	Wind Speed (MPH)	Visibility (miles)	Weather	Clouds	Station Pressure (inches)	Sea Level Pressure (mb)	Altimeter Setting (inches)	1 Hour Precip (inches)	3 Hour Precip (inches)	6 Hour Precip (inches)	24 Hour Precip (inches)	6 Hr Max (F)	6 Hr Min (F)	24 Hr Max (F)	24 Hr Min (F)	
02 Mar 7:55 am	52	52	100		N	CALM	4.00	Mist	SCT016,BKN033	30.05		30.06	T								
02 Mar 7:53 am	52	51	97		W	3	6.00	Lt Rain, Mist	SCT016,BKN025	30.05	1017.9	30.06	0.06								
02 Mar 6:53 am	52	51	97		W	5	2.00	Lt Rain, Mist	OVC008	30.02	1017.0	30.03	T	0.02							
02 Mar 6:24 am	52	51	97		WSW	6	2.00	Mist	SCT008,BKN012,OVC023	30.02		30.03									
02 Mar 5:53 am	52	51	97		N	CALM	10.00		FEW004,BKN023,OVC030	30.01	1016.6	30.02	T								
02 Mar 5:23 am	52	51	97		WNW	6	7.00		BKN004,OVC021	30.02		30.03	T								
02 Mar 5:16 am	51	51	100		W	7	7.00		SCT004,BKN008,OVC020	30.01		30.02	T								
02 Mar 5:14 am	51	51	100		W	6	7.00		SCT004,SCT010,OVC020	30.01		30.02	T								
02 Mar 5:01 am	52	51	97		W	9	4.00	Lt Rain, Mist	BKN006,BKN014,OVC019	30.01		30.02	T								
02 Mar 4:53 am	52	51	97		W	8	5.00	Mist	SCT008,SCT014,OVC019	30.01	1016.5	30.02	0.02								
02 Mar 4:35 am	54	52	94		WSW	5	9.00		FEW005,SCT008,OVC018	30.01		30.02	0.02								
02 Mar 3:53 am	55	54	96		S	6	3.00	Lt Rain, Mist	BKN008,OVC015	30.00	1016.3	30.01	0.02		0.14	0.25	56	52			
02 Mar 3:51 am	55	54	94		SSW	7	3.00	Lt Rain, Mist	SCT008,OVC013	30.00		30.01	0.02								
02 Mar 3:45 am	55	54	94		S	8	2.50	Lt Rain, Mist	BKN008,OVC017	30.01		30.02	0.02								
02 Mar 3:13 am	55	54	96		SSW	8	3.00	Lt Rain, Mist	FEW008,BKN014,OVC021	30.01		30.02	0.01								
02 Mar 2:53 am	55	54	96		S	6	4.00	Lt Rain, Mist	OVC016	30.01	1016.5	30.02	0.05								
02 Mar 2:36 am	55	53	93		S	8	3.00	Lt Rain, Mist	BKN016,OVC023	30.02		30.03	0.04								
02 Mar 2:21 am	55	53	93		S	6	2.50	Lt Rain, Mist	BKN016,OVC023	30.03		30.04	0.02								
02 Mar 1:53 am	56	53	90		S	8	10.00		SCT021,BKN025,OVC030	30.03	1017.3	30.04	T								
02 Mar 1:05 am	55	54	94		SSE	8	10.00		SCT013,OVC025	30.05		30.06									
02 Mar 12:53 am	54	53	97		SSE	8	10.00		BKN013,BKN025,OVC033	30.05	1017.9	30.06		0.07							
02 Mar 12:11 am	54	53	97		SE	7	10.00		BKN011,OVC015	30.06		30.07									

10 March 2018

Sampled all site except Carpinteria

13 March 2018

Sampled Carpinteria sites

Analyte	Water Quality Guidance	WQ Units	Source WQS	Detection Limit	Units	5 Jan 2016 Goleta Commercial	11 Nov 2016 Goleta Commercial	10 Mar 2018 Goleta Commercial
Toxicity % survival in 100% sample	70	%	Water Quality Control Plan for Los Angeles Region			90	75	70
pH	6.5-8.3		Water Quality Control Plan for the Central Coast Basin, Municipal/Domestic, 2016			n/a	8.2	6.8
1-(3,4-Dichlorophenyl)-3-methylurea				0.14	ug/l	ND	ND	ND
1-(3,4-Dichlorophenyl)urea				0.070	ug/l	ND	ND	ND
1,3-Dimethyl-2-nitrobenzene					ng/l	534	84	58
3,4-Dichloroaniline				0.12	ug/l	ND	ND	ND
3-Hydroxycarbofuran				0.48	ug/l	ND	ND	ND
Acetamiprid	10.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Aldicarb	10	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.38	ug/l	ND	ND	ND
Aldicarb sulfone	140	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.45	ug/l	ND	ND	ND
Aldicarb sulfoxide	21.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.41	ug/l	ND	ND	ND
Allethrin	1.05	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.85	ng/l	ND	ND	ND
Aluminum, Dissolved				1.3	ug/l	11	26	15
Aluminum, Total	1000	ug/l	Water Quality Control Plan for the Central Coast Basin, Municipal/Domestic, 2011	1.3	ug/l	290	820	160
Ammonia as N	0.25	mg/l		0.048	mg/l	0.17	0.38	0.23
Azinphos methyl (Guthion)	0.08	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	5.5	ng/l	ND	ND	ND
Bifenthrin	0.8	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.79	ng/l	3.3	ND	ND
Bolstar/Sulprofos				4.6	ng/l	ND	ND	ND
Cadmium, Dissolved	1.8	ug/l	USEPA Aquatic Life Ambient Water Quality Criteria, acute freshwater 2016	0.041	ug/l	ND	0.12	ND
Cadmium, Total	5.733	ug/l	USEPA Aquatic Life Ambient Water Quality Criteria, acute freshwater 2016	0.041	ug/l	ND	0.35	ND
Calcium, Total				0.0160	mg/l	4.90	9.91	7.64
Carbaryl	0.85	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.48	ug/l	ND	ND	ND
Carbofuran	1.115	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.59	ug/l	ND	ND	ND
Chlorpyrifos	0.05	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	6.9	ng/l	ND	ND	ND
Clothianidin	11	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Copper, Dissolved	10	ug/l	Water Quality Control Plan for the Central Coast Basin, Aquatic Life, 2011	0.13	ug/l	4.5	17	8.1
Copper, Total				0.13	ug/l	9.1	29	9.8
Coumaphos	0.037	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	5.1	ng/l	ND	ND	ND
Cyfluthrin	0.0125	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	8.3	ng/l	2.5	ND	ND
Cypermethrin	0.21	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.66	ng/l	2.8	15	ND
Deltamethrin/Tralomethrin	0.055	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	1.9	ng/l	ND	ND	ND
Demeton-o				10	ng/l	ND	ND	ND
Demeton-s				10	ng/l	ND	ND	ND
Desulfinylfipronil	100	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	6.8	ND	ND
Diazinon	105	ng/l	OPP Aquatic Life Benchmarks, acute invertebrates	5.2	ng/l	10	ND	ND
Dichloran				0.80	ng/l	3.2	ND	ND
Dichlorvos	0.035	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.9	ng/l	ND	ND	ND
Dimethoate	21.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	6.2	ng/l	ND	ND	ND
Dinotefuran	484150	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Disulfoton	1.95	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	10	ng/l	ND	ND	ND
Diuron	80	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.060	ug/l	ND	ND	ND
Ethoprop	22	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	6.7	ng/l	ND	ND	ND
Ethyl parathion				5.4	ng/l	ND	ND	ND
Fenpropathrin (Danitol)	0.265	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	ND	ND	ND
Fensulfothion				2.9	ng/l	ND	ND	ND
Fenthion	2.6	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	3.8	ng/l	ND	ND	ND
Fenvalerate/Esfenvalerate				0.98	ng/l	ND	ND	ND
Fipronil	0.11	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	27	12	ND
Fipronil sulfide				2.0	ng/l	ND	ND	ND
Fipronil sulfone	0.36	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	23	23	11
Hardness as CaCO3, Total	>100 = hard, <100=soft	mg/l CaCO3	Water Quality Control Plan for the Central Coast Basin, 2011	0.0894	mg/l	14.9	31.2	24.6

Analyte	Water Quality Guidance	WQ Units	Source WQS	Detection Limit	Units	5 Jan 2016 Goleta Commercial	11 Nov 2016 Goleta Commercial	10 Mar 2018 Goleta Commercial
Imidacloprid	0.385	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Iron, Dissolved	5000	ug/l	Water Quality Control Plan for the Central Coast Basin, Agricultural, 2011	0.91	ug/l	ND	23	ND
Iron, Total				0.91	ug/l	380	1100	200
L-Cyhalothrin	0.0035	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	1.2	ng/l	ND	38	ND
Lead, Dissolved	50	ug/l	Water Quality Control Plan for the Central Coast Basin, Municipal/Domestic, 2011	0.031	ug/l	ND	ND	ND
Lead, Total				0.031	ug/l	0.92	2.1	0.4
Linuron	60	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	n/a	n/a	ND
Magnesium, Total				0.0120	mg/l	0.657	1.57	1.34
Malathion	0.049	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	7.6	ng/l	ND	ND	ND
Merphos				5.8	ng/l	ND	ND	ND
Methiocarb	2.75	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.57	ug/l	ND	ND	ND
Methomyl	2.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.30	ug/l	ND	ND	ND
Methyl parathion	0.485	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	6.3	ng/l	ND	ND	ND
Mevinphos				4.2	ng/l	ND	ND	ND
Naled	0.07	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	7.6	ng/l	ND	ND	ND
Nitrate as N				0.041	mg/l	0.15	0.72	0.63
Nitrate as NO3	45	mg/l	Water Quality Control Plan for the Central Coast Basin, municipal supply, 2011			0.6645	3.1896	2.7909
Nitrite as N				10	ug/l	ND	ND	ND
Nitrite as NO2	10000	ug/l	Water Quality Control Plan for the Central Coast Basin, livestock watering, 2011			n/a	n/a	n/a
Nitrogen, Total	0.38	mg/l	USEPA Nutrient Criteria Rivers and Streams Ecoregion III, 2002	0.060	mg/l	1.2	3.4	1.9
NO2+NO3 as N				10	ug/l	170	760	630
o-Phosphate as P				0.0017	mg/l	0.16	0.24	0.18
o-Phosphate as P, dissolved				1.7	ug/l	160	240	190
Oxamyl	90	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.48	ug/l	ND	ND	ND
Pendimethalin	140	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.50	ng/l	9.3	23	ND
Permethrin	0.0195	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	5.0	ng/l	8.8	33	ND
Perylene-d12					ng/l	215	104	65
Phorate	0.3	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	3.0	ng/l	ND	ND	ND
Phosphorus as P, Total	0.02188	mg/l	USEPA Nutrient Criteria Rivers and Streams Ecoregion III, 2002	0.035	mg/l	0.19	0.45	0.29
Phosphorus, Dissolved				0.035	mg/l	0.15	0.25	0.22
Prallethrin	3.1	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.92	ng/l	ND	ND	ND
Propoxur (Baygon)	5.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.60	ug/l	ND	ND	ND
Ronnel (Fenchlorphos)				4.1	ng/l	ND	ND	ND
Stirophos (Tetrachlorvinphos)	0.95	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	3.1	ng/l	ND	ND	ND
Sumithrin (Phenothrin)	2.2	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.4	ng/l	ND	ND	ND
Tefluthrin	0.035	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.93	ng/l	ND	ND	ND
Thiacloprid	18.9	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Thiamethoxam	17.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
TKN				0.050	mg/l	1.0	2.6	1.2
Tokuthion (Prothiofos)				7.8	ng/l	ND	ND	ND
Total Suspended Solids					mg/l	19	58	13
Trichloronate				6.7	ng/l	ND	ND	ND
Triphenyl phosphate (surr)					ng/l	1010	129	161
Triphenyl phosphate (surr)					ng/l	671	305	216
Zinc, Dissolved	4	ug/l	Water Quality Control Plan for the Central Coast Basin, Aquatic Life, 2011	0.94	ug/l	61	160	46
Zinc, Total				0.94	ug/l	92	210	55
nitrate as NO3 values determined by multiplying Nitrate as N by factor of 4.43								
nitrate as NO2 values determined by multiplying Nitrite as N by factor of 3.29								
Source WQS (updated 8/20/2018) https://www.epa.gov/pesticide-science-and-assessing-pesticide-risks/aquatic-life-benchmarks-and-ecological-risk								
Toxicity objective from Los Angeles region Water Quality Control Plan because Central Coast Region lacks numeric toxicity objective								

Analyte	Water Quality Guidance	WQ Units	Source WQS	Detection Limit	Units	5 Jan 2016 Carpinteria Residential	9 Jan 2017 Carpinteria Residential	13 Mar 2018 Carpinteria Residential
Toxicity % survival in 100% sample	70	%	Water Quality Control Plan for Los Angeles Region			5	45	35
pH	6.5-8.3		Water Quality Control Plan for the Central Coast Basin, Municipal/Domestic, 2016			n/a	8.6	8.0
1-(3,4-Dichlorophenyl)-3-methylurea				0.14	ug/l	ND	ND	ND
1-(3,4-Dichlorophenyl)urea				0.070	ug/l	ND	ND	ND
1,3-Dimethyl-2-nitrobenzene					ng/l	538	86	79
3,4-Dichloroaniline				0.12	ug/l	ND	ND	ND
3-Hydroxycarbofuran				0.48	ug/l	ND	ND	ND
Acetamiprid	10.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Aldicarb	10	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.38	ug/l	ND	ND	ND
Aldicarb sulfone	140	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.45	ug/l	ND	ND	ND
Aldicarb sulfoxide	21.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.41	ug/l	ND	ND	ND
Allethrin	1.05	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.85	ng/l	ND	ND	ND
Aluminum, Dissolved				1.3	ug/l	15	23	43
Aluminum, Total	1000	ug/l	Water Quality Control Plan for the Central Coast Basin, Municipal/Domestic, 2011	1.3	ug/l	940	480	720
Ammonia as N	0.25	mg/l		0.048	mg/l	0.20	ND	0.1
Azinphos methyl (Guthion)	0.08	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	5.5	ng/l	ND	ND	ND
Bifenthrin	0.8	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.79	ng/l	28	71	ND
Bolstar/Sulprofos				4.6	ng/l	ND	ND	ND
Cadmium, Dissolved	1.8	ug/l	USEPA Aquatic Life Ambient Water Quality Criteria, acute freshwater 2016	0.041	ug/l	ND	ND	ND
Cadmium, Total	5.733	ug/l	USEPA Aquatic Life Ambient Water Quality Criteria, acute freshwater 2016	0.041	ug/l	ND	ND	0.11
Calcium, Total				0.0160	mg/l	6.50	9.88	18.1
Carbaryl	0.85	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.48	ug/l	ND	ND	ND
Carbofuran	1.115	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.59	ug/l	ND	ND	ND
Chlorpyrifos	0.05	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	6.9	ng/l	ND	ND	ND
Clothianidin	11	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Copper, Dissolved	10	ug/l	Water Quality Control Plan for the Central Coast Basin, Aquatic Life, 2011	0.13	ug/l	4.9	3.1	6.1
Copper, Total				0.13	ug/l	12	4.7	9
Coumaphos	0.037	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	5.1	ng/l	ND	ND	ND
Cyfluthrin	0.0125	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	8.3	ng/l	14	28	ND
Cypermethrin	0.21	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.66	ng/l	4.5	ND	ND
Deltamethrin/Tralomethrin	0.055	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	1.9	ng/l	ND	ND	ND
Demeton-o				10	ng/l	ND	ND	ND
Demeton-s				10	ng/l	ND	ND	ND
Desulfinylfipronil	100	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	110	36	ND
Diazinon	105	ng/l	OPP Aquatic Life Benchmarks, acute invertebrates	5.2	ng/l	ND	ND	ND
Dichloran				0.80	ng/l	2.0	ND	ND
Dichlorvos	0.035	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.9	ng/l	ND	ND	ND
Dimethoate	21.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	6.2	ng/l	ND	ND	ND
Dinotefuran	484150	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Disulfoton	1.95	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	10	ng/l	ND	ND	ND
Diuron	80	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.060	ug/l	ND	ND	ND
Ethoprop	22	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	6.7	ng/l	ND	ND	ND
Ethyl parathion				5.4	ng/l	ND	ND	ND
Fenpropathrin (Danitol)	0.265	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	ND	ND	ND
Fensulfothion				2.9	ng/l	ND	ND	ND
Fenthion	2.6	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	3.8	ng/l	ND	ND	ND
Fenvalerate/Esfenvalerate				0.98	ng/l	ND	ND	ND
Fipronil	0.11	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	170	40	ND
Fipronil sulfide				2.0	ng/l	12	ND	ND
Fipronil sulfone	0.36	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	300	130	97
Hardness as CaCO3, Total	>100 = hard, <100=soft	mg/l CaCO3	Water Quality Control Plan for the Central Coast Basin, 2011	0.0894	mg/l	22.8	37.3	63.4

Analyte	Water Quality Guidance	WQ Units	Source WQS	Detection Limit	Units	5 Jan 2016 Carpinteria Residential	9 Jan 2017 Carpinteria Residential	13 Mar 2018 Carpinteria Residential
Imidacloprid	0.385	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Iron, Dissolved	5000	ug/l	Water Quality Control Plan for the Central Coast Basin, Agricultural, 2011	0.91	ug/l	ND	ND	37
Iron, Total				0.91	ug/l	1200	470	800
L-Cyhalothrin	0.0035	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	1.2	ng/l	ND	ND	ND
Lead, Dissolved	50	ug/l	Water Quality Control Plan for the Central Coast Basin, Municipal/Domestic, 2011	0.031	ug/l	ND	ND	ND
Lead, Total				0.031	ug/l	1.7	0.8	1.5
Linuron	60	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	n/a	n/a	ND
Magnesium, Total				0.0120	mg/l	1.60	3.06	4.4
Malathion	0.049	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	7.6	ng/l	ND	ND	ND
Merphos				5.8	ng/l	ND	ND	ND
Methiocarb	2.75	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.57	ug/l	ND	ND	ND
Methomyl	2.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.30	ug/l	ND	ND	ND
Methyl parathion	0.485	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	6.3	ng/l	ND	ND	ND
Mevinphos				4.2	ng/l	ND	ND	ND
Naled	0.07	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	7.6	ng/l	ND	ND	ND
Nitrate as N				0.041	mg/l	0.42	0.75	0.92
Nitrate as NO3	45	mg/l	Water Quality Control Plan for the Central Coast Basin, municipal supply, 2011			1.8606	3.3225	4.0756
Nitrite as N				10	ug/l	ND	ND	ND
Nitrite as NO2	10000	ug/l	Water Quality Control Plan for the Central Coast Basin, livestock watering, 2011			n/a	n/a	n/a
Nitrogen, Total	0.38	mg/l	USEPA Nutrient Criteria Rivers and Streams Ecoregion III, 2002	0.060	mg/l	25	1.3	1.8
NO2+NO3 as N				10	ug/l	440	770	920
o-Phosphate as P				0.0017	mg/l	0.18	0.15	0.27
o-Phosphate as P, dissolved				1.7	ug/l	180	150	280
Oxamyl	90	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.48	ug/l	ND	ND	ND
Pendimethalin	140	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.50	ng/l	2.6	ND	ND
Permethrin	0.0195	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	5.0	ng/l	ND	ND	ND
Perylene-d12					ng/l	197	104	65
Phorate	0.3	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	3.0	ng/l	ND	ND	ND
Phosphorus as P, Total	0.02188	mg/l	USEPA Nutrient Criteria Rivers and Streams Ecoregion III, 2002	0.035	mg/l	0.24	0.18	0.4
Phosphorus, Dissolved				0.035	mg/l	0.17	0.15	0.29
Prallethrin	3.1	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.92	ng/l	ND	ND	ND
Propoxur (Baygon)	5.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.60	ug/l	ND	ND	ND
Ronnel (Fenchlorphos)				4.1	ng/l	ND	ND	ND
Stirophos (Tetrachlorvinphos)	0.95	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	3.1	ng/l	ND	ND	ND
Sumithrin (Phenothrin)	2.2	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.4	ng/l	ND	ND	ND
Tefluthrin	0.035	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.93	ng/l	ND	ND	ND
Thiacloprid	18.9	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Thiamethoxam	17.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
TKN				0.050	mg/l	24	0.52	0.85
Tokuthion (Prothiofos)				7.8	ng/l	ND	ND	ND
Total Suspended Solids					mg/l	46	14	26
Trichloronate				6.7	ng/l	ND	ND	ND
Triphenyl phosphate (surr)					ng/l	620	93	160
Triphenyl phosphate (surr)					ng/l	326	145	79
Zinc, Dissolved	4	ug/l	Water Quality Control Plan for the Central Coast Basin, Aquatic Life, 2011	0.94	ug/l	13	7	8.9
Zinc, Total				0.94	ug/l	41	16	27
nitrate as NO3 values determined by multiplying Nitrate as N by factor of 4.43								
nitrate as NO2 values determined by multiplying Nitrite as N by factor of 3.29								
Source WQS (updated 8/20/2018) https://www.epa.gov/pesticide-science-and-assessing-pesticide-risks/aquatic-life-benchmarks-and-ecological-risk								
Toxicity objective from Los Angeles region Water Quality Control Plan because Central Coast Region lacks numeric toxicity objective								

Analyte	Water Quality Guidance	WQ Units	Source WQS	Detection Limit	Units	5 Jan 2016 Buellton Industrial	26 Nov 2016 Buellton Industrial	10 Mar 2018 Buellton Industrial
Toxicity % survival in 100% sample	70	%	Water Quality Control Plan for Los Angeles Region			90	95	0
pH	6.5-8.3		Water Quality Control Plan for the Central Coast Basin, Municipal/Domestic, 2016			n/a	7.8	8.2
1-(3,4-Dichlorophenyl)-3-methylurea				0.14	ug/l	ND	ND	ND
1-(3,4-Dichlorophenyl)urea				0.070	ug/l	ND	ND	ND
1,3-Dimethyl-2-nitrobenzene					ng/l	495	85	70
3,4-Dichloroaniline				0.12	ug/l	ND	ND	ND
3-Hydroxycarbofuran				0.48	ug/l	ND	ND	ND
Acetamiprid	10.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Aldicarb	10	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.38	ug/l	ND	ND	ND
Aldicarb sulfone	140	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.45	ug/l	ND	ND	ND
Aldicarb sulfoxide	21.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.41	ug/l	ND	ND	ND
Allethrin	1.05	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.85	ng/l	ND	ND	ND
Aluminum, Dissolved				1.3	ug/l	29	16	22
Aluminum, Total	1000	ug/l	Water Quality Control Plan for the Central Coast Basin, Municipal/Domestic, 2011	1.3	ug/l	980	800	530
Ammonia as N	0.25	mg/l		0.048	mg/l	0.14	ND	ND
Azinphos methyl (Guthion)	0.08	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	5.5	ng/l	ND	ND	ND
Bifenthrin	0.8	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.79	ng/l	2.0	ND	34
Bolstar/Sulprofos				4.6	ng/l	ND	ND	ND
Cadmium, Dissolved	1.8	ug/l	USEPA Aquatic Life Ambient Water Quality Criteria, acute freshwater 2016	0.041	ug/l	ND	ND	ND
Cadmium, Total	5.733	ug/l	USEPA Aquatic Life Ambient Water Quality Criteria, acute freshwater 2016	0.041	ug/l	0.13	0.21	0.13
Calcium, Total				0.0160	mg/l	8.49	5.71	7.62
Carbaryl	0.85	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.48	ug/l	ND	ND	ND
Carbofuran	1.115	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.59	ug/l	ND	ND	ND
Chlorpyrifos	0.05	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	6.9	ng/l	ND	ND	ND
Clothianidin	11	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Copper, Dissolved	10	ug/l	Water Quality Control Plan for the Central Coast Basin, Aquatic Life, 2011	0.13	ug/l	5.6	4.2	4.7
Copper, Total				0.13	ug/l	12	10	8
Coumaphos	0.037	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	5.1	ng/l	ND	ND	ND
Cyfluthrin	0.0125	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	8.3	ng/l	ND	ND	ND
Cypermethrin	0.21	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.66	ng/l	3.8	ND	ND
Deltamethrin/Tralomethrin	0.055	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	1.9	ng/l	ND	ND	ND
Demeton-o				10	ng/l	ND	ND	ND
Demeton-s				10	ng/l	ND	ND	ND
Desulfinylfipronil	100	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	9.2	13	20
Diazinon	105	ng/l	OPP Aquatic Life Benchmarks, acute invertebrates	5.2	ng/l	ND	ND	ND
Dichloran				0.80	ng/l	3.6	ND	ND
Dichlorvos	0.035	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.9	ng/l	ND	ND	ND
Dimethoate	21.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	6.2	ng/l	ND	ND	ND
Dinotefuran	484150	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Disulfoton	1.95	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	10	ng/l	ND	ND	ND
Diuron	80	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.060	ug/l	ND	ND	ND
Ethoprop	22	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	6.7	ng/l	ND	ND	ND
Ethyl parathion				5.4	ng/l	ND	ND	ND
Fenpropathrin (Danitol)	0.265	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	ND	ND	ND
Fensulfothion				2.9	ng/l	ND	ND	ND
Fenthion	2.6	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	3.8	ng/l	ND	ND	ND
Fenvalerate/Esfenvalerate				0.98	ng/l	ND	ND	ND
Fipronil	0.11	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	15	ND	20
Fipronil sulfide				2.0	ng/l	ND	ND	ND
Fipronil sulfone	0.36	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	45	72	95
Hardness as CaCO3, Total	>100 = hard, <100=soft	mg/l CaCO3	Water Quality Control Plan for the Central Coast Basin, 2011	0.0894	mg/l	28.6	20.4	24.4

Analyte	Water Quality Guidance	WQ Units	Source WQS	Detection Limit	Units	5 Jan 2016 Buellton Industrial	26 Nov 2016 Buellton Industrial	10 Mar 2018 Buellton Industrial
Imidacloprid	0.385	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Iron, Dissolved	5000	ug/l	Water Quality Control Plan for the Central Coast Basin, Agricultural, 2011	0.91	ug/l	42	33	56
Iron, Total				0.91	ug/l	1500	1300	840
L-Cyhalothrin	0.0035	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	1.2	ng/l	ND	ND	ND
Lead, Dissolved	50	ug/l	Water Quality Control Plan for the Central Coast Basin, Municipal/Domestic, 2011	0.031	ug/l	ND	ND	ND
Lead, Total				0.031	ug/l	2.0	2.2	1.2
Linuron	60	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	n/a	n/a	ND
Magnesium, Total				0.0120	mg/l	1.81	1.5	1.31
Malathion	0.049	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	7.6	ng/l	ND	ND	ND
Merphos				5.8	ng/l	ND	ND	ND
Methiocarb	2.75	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.57	ug/l	ND	ND	ND
Methomyl	2.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.30	ug/l	ND	ND	ND
Methyl parathion	0.485	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	6.3	ng/l	ND	ND	ND
Mevinphos				4.2	ng/l	ND	ND	ND
Naled	0.07	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	7.6	ng/l	ND	ND	ND
Nitrate as N				0.041	mg/l	0.13	0.34	ND
Nitrate as NO3	45	mg/l	Water Quality Control Plan for the Central Coast Basin, municipal supply, 2011			0.5759	1.5062	n/a
Nitrite as N				10	ug/l	ND	ND	ND
Nitrite as NO2	10000	ug/l	Water Quality Control Plan for the Central Coast Basin, livestock watering, 2011			n/a	n/a	n/a
Nitrogen, Total	0.38	mg/l	USEPA Nutrient Criteria Rivers and Streams Ecoregion III, 2002	0.060	mg/l	0.93	1	0.72
NO2+NO3 as N				10	ug/l	160	350	ND
o-Phosphate as P				0.0017	mg/l	0.13	0.15	0.14
o-Phosphate as P, dissolved				1.7	ug/l	130	150	140
Oxamyl	90	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.48	ug/l	ND	ND	ND
Pendimethalin	140	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.50	ng/l	2.6	ND	ND
Permethrin	0.0195	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	5.0	ng/l	9.7	84	ND
Perylene-d12					ng/l	303	96	62
Phorate	0.3	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	3.0	ng/l	ND	ND	ND
Phosphorus as P, Total	0.02188	mg/l	USEPA Nutrient Criteria Rivers and Streams Ecoregion III, 2002	0.035	mg/l	0.21	0.24	0.25
Phosphorus, Dissolved				0.035	mg/l	0.13	0.082	0.16
Prallethrin	3.1	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.92	ng/l	ND	ND	ND
Propoxur (Baygon)	5.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.60	ug/l	ND	ND	ND
Ronnel (Fenclorphos)				4.1	ng/l	ND	ND	ND
Stirophos (Tetrachlorvinphos)	0.95	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	3.1	ng/l	ND	ND	ND
Sumithrin (Phenothrin)	2.2	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.4	ng/l	ND	ND	ND
Tefluthrin	0.035	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.93	ng/l	ND	ND	ND
Thiacloprid	18.9	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Thiamethoxam	17.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
TKN				0.050	mg/l	0.77	0.7	0.72
Tokuthion (Prothiofos)				7.8	ng/l	ND	ND	ND
Total Suspended Solids					mg/l	36	51	19
Trichloronate				6.7	ng/l	ND	ND	ND
Triphenyl phosphate (surr)					ng/l	742	100	111
Triphenyl phosphate (surr)					ng/l	542	149	89
Zinc, Dissolved	4	ug/l	Water Quality Control Plan for the Central Coast Basin, Aquatic Life, 2011	0.94	ug/l	29	51	40
Zinc, Total				0.94	ug/l	73	100	74
nitrate as NO3 values determined by multiplying Nitrate as N by factor of 4.43								
nitrate as NO2 values determined by multiplying Nitrite as N by factor of 3.29								
Source WQS (updated 8/20/2018) https://www.epa.gov/pesticide-science-and-assessing-pesticide-risks/aquatic-life-benchmarks-and-ecological-risk								
Toxicity objective from Los Angeles region Water Quality Control Plan because Central Coast Region lacks numeric toxicity objective								

Analyte	Water Quality Guidance	WQ Units	Source WQS	Detection Limit	Units	31 Jan 2016 Carpinteria Urban Agriculture	20 Jan 2017 Carpinteria Urban Agriculture	13 Mar 2018 Carpinteria Urban Agriculture
Toxicity % survival in 100% sample	70	%	Water Quality Control Plan for Los Angeles Region			65	90	30
pH	6.5-8.3		Water Quality Control Plan for the Central Coast Basin, Municipal/Domestic, 2016			6.6	7.2	7.3
1-(3,4-Dichlorophenyl)-3-methylurea				0.14	ug/l	ND	ND	ND
1-(3,4-Dichlorophenyl)urea				0.070	ug/l	ND	ND	ND
1,3-Dimethyl-2-nitrobenzene					ng/l	469	94	90
3,4-Dichloroaniline				0.12	ug/l	ND	ND	ND
3-Hydroxycarbofuran				0.48	ug/l	ND	ND	ND
Acetamiprid	10.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Aldicarb	10	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.38	ug/l	ND	ND	ND
Aldicarb sulfone	140	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.45	ug/l	ND	ND	ND
Aldicarb sulfoxide	21.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.41	ug/l	ND	ND	ND
Allethrin	1.05	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.85	ng/l	ND	ND	ND
Aluminum, Dissolved				1.3	ug/l	40	17	44
Aluminum, Total	1000	ug/l	Water Quality Control Plan for the Central Coast Basin, Municipal/Domestic, 2011	1.3	ug/l	1600	1700	2800
Ammonia as N	0.25	mg/l		0.048	mg/l	0.18	ND	0.14
Azinphos methyl (Guthion)	0.08	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	5.5	ng/l	ND	ND	ND
Bifenthrin	0.8	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.79	ng/l	5.6	ND	ND
Bolstar/Sulprofos				4.6	ng/l	ND	ND	ND
Cadmium, Dissolved	1.8	ug/l	USEPA Aquatic Life Ambient Water Quality Criteria, acute freshwater 2016	0.041	ug/l	ND	ND	ND
Cadmium, Total	5.733	ug/l	USEPA Aquatic Life Ambient Water Quality Criteria, acute freshwater 2016	0.041	ug/l	0.12	0.14	0.22
Calcium, Total				0.0160	mg/l	9.77	9.14	13.3
Carbaryl	0.85	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.48	ug/l	ND	ND	ND
Carbofuran	1.115	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.59	ug/l	ND	ND	ND
Chlorpyrifos	0.05	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	6.9	ng/l	ND	ND	ND
Clothianidin	11	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Copper, Dissolved	10	ug/l	Water Quality Control Plan for the Central Coast Basin, Aquatic Life, 2011	0.13	ug/l	5.1	3.2	8.9
Copper, Total				0.13	ug/l	13	12	18
Coumaphos	0.037	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	5.1	ng/l	ND	ND	ND
Cyfluthrin	0.0125	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	8.3	ng/l	ND	ND	ND
Cypermethrin	0.21	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.66	ng/l	ND	ND	ND
Deltamethrin/Tralomethrin	0.055	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	1.9	ng/l	ND	ND	ND
Demeton-o				10	ng/l	ND	ND	ND
Demeton-s				10	ng/l	ND	ND	ND
Desulfinylfipronil	100	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	ND	ND	ND
Diazinon	105	ng/l	OPP Aquatic Life Benchmarks, acute invertebrates	5.2	ng/l	58	ND	ND
Dichloran				0.80	ng/l	ND	ND	ND
Dichlorvos	0.035	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.9	ng/l	ND	ND	ND
Dimethoate	21.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	6.2	ng/l	ND	ND	ND
Dinotefuran	484150	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	0.85	ND	ND
Disulfoton	1.95	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	10	ng/l	ND	ND	ND
Diuron	80	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.060	ug/l	ND	ND	ND
Ethoprop	22	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	6.7	ng/l	ND	ND	ND
Ethyl parathion				5.4	ng/l	ND	ND	ND
Fenpropathrin (Danitol)	0.265	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	ND	ND	ND
Fensulfothion				2.9	ng/l	ND	ND	ND
Fenthion	2.6	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	3.8	ng/l	ND	ND	ND
Fenvalerate/Esfenvalerate				0.98	ng/l	ND	ND	ND
Fipronil	0.11	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	ND	ND	ND
Fipronil sulfide				2.0	ng/l	ND	ND	ND
Fipronil sulfone	0.36	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	ND	ND	ND
Hardness as CaCO3, Total	>100 = hard, <100=soft	mg/l CaCO3	Water Quality Control Plan for the Central Coast Basin, 2011	0.0894	mg/l	36.6	32.8	51.6

Analyte	Water Quality Guidance	WQ Units	Source WQS	Detection Limit	Units	31 Jan 2016 Carpinteria Urban Agriculture	20 Jan 2017 Carpinteria Urban Agriculture	13 Mar 2018 Carpinteria Urban Agriculture
Imidacloprid	0.385	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Iron, Dissolved	5000	ug/l	Water Quality Control Plan for the Central Coast Basin, Agricultural, 2011	0.91	ug/l	96	49	87
Iron, Total				0.91	ug/l	2100	2300	3300
L-Cyhalothrin	0.0035	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	1.2	ng/l	11	ND	ND
Lead, Dissolved	50	ug/l	Water Quality Control Plan for the Central Coast Basin, Municipal/Domestic, 2011	0.031	ug/l	0.21	ND	0.32
Lead, Total				0.031	ug/l	5.2	5.7	8
Linuron	60	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	n/a	n/a	ND
Magnesium, Total				0.0120	mg/l	2.97	2.44	4.45
Malathion	0.049	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	7.6	ng/l	ND	ND	ND
Merphos				5.8	ng/l	ND	ND	ND
Methiocarb	2.75	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.57	ug/l	ND	ND	ND
Methomyl	2.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.30	ug/l	ND	ND	ND
Methyl parathion	0.485	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	6.3	ng/l	ND	ND	ND
Mevinphos				4.2	ng/l	ND	ND	ND
Naled	0.07	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	7.6	ng/l	ND	ND	ND
Nitrate as N				0.041	mg/l	2.8	3.1	2.9
Nitrate as NO3	45	mg/l	Water Quality Control Plan for the Central Coast Basin, municipal supply, 2011			12.404	13.733	12.847
Nitrite as N				10	ug/l	ND	ND	ND
Nitrite as NO2	10000	ug/l	Water Quality Control Plan for the Central Coast Basin, livestock watering, 2011			n/a	n/a	n/a
Nitrogen, Total	0.38	mg/l	USEPA Nutrient Criteria Rivers and Streams Ecoregion III, 2002	0.060	mg/l	3.8	3.9	4.3
NO2+NO3 as N				10	ug/l	2900	3100	2900
o-Phosphate as P				0.0017	mg/l	0.91	0.84	1.8
o-Phosphate as P, dissolved				1.7	ug/l	870	840	1800
Oxamyl	90	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.48	ug/l	ND	ND	ND
Pendimethalin	140	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.50	ng/l	ND	ND	ND
Permethrin	0.0195	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	5.0	ng/l	12	ND	ND
Perylene-d12					ng/l	224	82	62
Phorate	0.3	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	3.0	ng/l	ND	ND	ND
Phosphorus as P, Total	0.02188	mg/l	USEPA Nutrient Criteria Rivers and Streams Ecoregion III, 2002	0.035	mg/l	1.1	0.98	2.2
Phosphorus, Dissolved				0.035	mg/l	0.93	1	1.9
Prallethrin	3.1	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.92	ng/l	ND	ND	ND
Propoxur (Baygon)	5.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.60	ug/l	ND	ND	ND
Ronnel (Fenchlorphos)				4.1	ng/l	ND	ND	ND
Stirophos (Tetrachlorvinphos)	0.95	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	3.1	ng/l	ND	ND	ND
Sumithrin (Phenothrin)	2.2	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.4	ng/l	ND	ND	ND
Tefluthrin	0.035	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.93	ng/l	ND	ND	ND
Thiacloprid	18.9	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Thiamethoxam	17.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
TKN				0.050	mg/l	0.94	0.85	1.4
Tokuthion (Prothiofos)				7.8	ng/l	ND	ND	ND
Total Suspended Solids					mg/l	100	52	110
Trichloronate				6.7	ng/l	ND	ND	ND
Triphenyl phosphate (surr)					ng/l	709	137	129
Triphenyl phosphate (surr)					ng/l	334	94	63
Zinc, Dissolved	4	ug/l	Water Quality Control Plan for the Central Coast Basin, Aquatic Life, 2011	0.94	ug/l	32	66	38
Zinc, Total				0.94	ug/l	84	170	110
nitrate as NO3 values determined by multiplying Nitrate as N by factor of 4.43								
nitrate as NO2 values determined by multiplying Nitrite as N by factor of 3.29								
Source WQS (updated 8/20/2018) https://www.epa.gov/pesticide-science-and-assessing-pesticide-risks/aquatic-life-benchmarks-and-ecological-risk								
Toxicity objective from Los Angeles region Water Quality Control Plan because Central Coast Region lacks numeric toxicity objective								

Analyte	Water Quality Guidance	WQ Units	Source WQS	Detection Limit	Units	17 Feb 2016 Goleta Industrial	4 Jan 2017 Goleta Industrial	10 Mar 2018 Goleta Industrial
Toxicity % survival in 100% sample	70	%	Water Quality Control Plan for Los Angeles Region			75	90	100
pH	6.5-8.3		Water Quality Control Plan for the Central Coast Basin, Municipal/Domestic, 2016			6.5	8.0	7.3
1-(3,4-Dichlorophenyl)-3-methylurea				0.14	ug/l	ND	ND	ND
1-(3,4-Dichlorophenyl)urea				0.070	ug/l	ND	ND	ND
1,3-Dimethyl-2-nitrobenzene					ng/l	831	83	72
3,4-Dichloroaniline				0.12	ug/l	ND	ND	ND
3-Hydroxycarbofuran				0.48	ug/l	ND	ND	ND
Acetamiprid	10.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Aldicarb	10	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.38	ug/l	ND	ND	ND
Aldicarb sulfone	140	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.45	ug/l	ND	ND	ND
Aldicarb sulfoxide	21.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.41	ug/l	ND	ND	ND
Allethrin	1.05	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.85	ng/l	ND	ND	ND
Aluminum, Dissolved				1.3	ug/l	58	27	16
Aluminum, Total	1000	ug/l	Water Quality Control Plan for the Central Coast Basin, Municipal/Domestic, 2011	1.3	ug/l	2000	450	2700
Ammonia as N	0.25	mg/l		0.048	mg/l	0.87	0.2	ND
Azinphos methyl (Guthion)	0.08	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	5.5	ng/l	ND	ND	ND
Bifenthrin	0.8	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.79	ng/l	ND	ND	ND
Bolstar/Sulprofos				4.6	ng/l	ND	ND	ND
Cadmium, Dissolved	1.8	ug/l	USEPA Aquatic Life Ambient Water Quality Criteria, acute freshwater 2016	0.041	ug/l	0.19	ND	0.1
Cadmium, Total	5.733	ug/l	USEPA Aquatic Life Ambient Water Quality Criteria, acute freshwater 2016	0.041	ug/l	0.44	0.17	0.41
Calcium, Total				0.0160	mg/l	24.0	6.54	7.74
Carbaryl	0.85	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.48	ug/l	ND	ND	ND
Carbofuran	1.115	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.59	ug/l	ND	ND	ND
Chlorpyrifos	0.05	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	6.9	ng/l	ND	ND	ND
Clothianidin	11	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Copper, Dissolved	10	ug/l	Water Quality Control Plan for the Central Coast Basin, Aquatic Life, 2011	0.13	ug/l	31	7.4	3.5
Copper, Total				0.13	ug/l	46	11	19
Coumaphos	0.037	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	5.1	ng/l	ND	ND	ND
Cyfluthrin	0.0125	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	8.3	ng/l	ND	ND	ND
Cypermethrin	0.21	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.66	ng/l	ND	ND	ND
Deltamethrin/Tralomethrin	0.055	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	1.9	ng/l	ND	ND	ND
Demeton-o				10	ng/l	ND	ND	ND
Demeton-s				10	ng/l	ND	ND	ND
Desulfinylfipronil	100	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	ND	ND	ND
Diazinon	105	ng/l	OPP Aquatic Life Benchmarks, acute invertebrates	5.2	ng/l	ND	ND	ND
Dichloran				0.80	ng/l	ND	ND	ND
Dichlorvos	0.035	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.9	ng/l	ND	ND	ND
Dimethoate	21.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	6.2	ng/l	ND	ND	ND
Dinotefuran	484150	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Disulfoton	1.95	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	10	ng/l	ND	ND	ND
Diuron	80	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.060	ug/l	ND	ND	ND
Ethoprop	22	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	6.7	ng/l	ND	ND	ND
Ethyl parathion				5.4	ng/l	ND	ND	ND
Fenpropathrin (Danitol)	0.265	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	ND	ND	ND
Fensulfothion				2.9	ng/l	ND	ND	ND
Fenthion	2.6	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	3.8	ng/l	ND	ND	ND
Fenvalerate/Esfenvalerate				0.98	ng/l	ND	ND	ND
Fipronil	0.11	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	ND	ND	ND
Fipronil sulfide				2.0	ng/l	ND	ND	ND
Fipronil sulfone	0.36	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	ND	ND	ND
Hardness as CaCO3, Total	>100 = hard, <100=soft	mg/l CaCO3	Water Quality Control Plan for the Central Coast Basin, 2011	0.0894	mg/l	76.2	20.5	28.2

Analyte	Water Quality Guidance	WQ Units	Source WQS	Detection Limit	Units	17 Feb 2016 Goleta Industrial	4 Jan 2017 Goleta Industrial	10 Mar 2018 Goleta Industrial
Imidacloprid	0.385	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Iron, Dissolved	5000	ug/l	Water Quality Control Plan for the Central Coast Basin, Agricultural, 2011	0.91	ug/l	84	30	ND
Iron, Total				0.91	ug/l	2800	550	3500
L-Cyhalothrin	0.0035	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	1.2	ng/l	140	ND	ND
Lead, Dissolved	50	ug/l	Water Quality Control Plan for the Central Coast Basin, Municipal/Domestic, 2011	0.031	ug/l	0.61	0.23	ND
Lead, Total				0.031	ug/l	8.5	2.4	9.8
Linuron	60	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	n/a	ND
Magnesium, Total				0.0120	mg/l	3.97	1.02	2.15
Malathion	0.049	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	7.6	ng/l	34	19	ND
Merphos				5.8	ng/l	ND	ND	ND
Methiocarb	2.75	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.57	ug/l	ND	ND	ND
Methomyl	2.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.30	ug/l	ND	ND	ND
Methyl parathion	0.485	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	6.3	ng/l	ND	ND	ND
Mevinphos				4.2	ng/l	ND	ND	ND
Naled	0.07	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	7.6	ng/l	ND	ND	ND
Nitrate as N				0.041	mg/l	1.2	0.44	0.21
Nitrate as NO3	45	mg/l	Water Quality Control Plan for the Central Coast Basin, municipal supply, 2011			5.316	1.9492	0.9303
Nitrite as N				10	ug/l	160	ND	ND
Nitrite as NO2	10000	ug/l	Water Quality Control Plan for the Central Coast Basin, livestock watering, 2011			526.4	n/a	n/a
Nitrogen, Total	0.38	mg/l	USEPA Nutrient Criteria Rivers and Streams Ecoregion III, 2002	0.060	mg/l	5.3	1.3	1.6
NO2+NO3 as N				10	ug/l	1400	480	210
o-Phosphate as P				0.0017	mg/l	0.20	0.23	0.11
o-Phosphate as P, dissolved				1.7	ug/l	ND	230	110
Oxamyl	90	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.48	ug/l	ND	ND	ND
Pendimethalin	140	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.50	ng/l	ND	ND	ND
Permethrin	0.0195	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	5.0	ng/l	ND	ND	ND
Perylene-d12					ng/l	162	110	126
Phorate	0.3	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	3.0	ng/l	ND	ND	ND
Phosphorus as P, Total	0.02188	mg/l	USEPA Nutrient Criteria Rivers and Streams Ecoregion III, 2002	0.035	mg/l	0.66	0.3	0.5
Phosphorus, Dissolved				0.035	mg/l	0.26	0.24	0.14
Prallethrin	3.1	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.92	ng/l	ND	ND	ND
Propoxur (Baygon)	5.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.60	ug/l	ND	ND	ND
Ronnel (Fenchlorphos)				4.1	ng/l	ND	ND	ND
Stirophos (Tetrachlorvinphos)	0.95	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	3.1	ng/l	ND	ND	ND
Sumithrin (Phenothrin)	2.2	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.4	ng/l	ND	ND	ND
Tefluthrin	0.035	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.93	ng/l	ND	ND	ND
Thiacloprid	18.9	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Thiamethoxam	17.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
TKN				0.050	mg/l	4.0	0.81	1.4
Tokuthion (Prothiofos)				7.8	ng/l	ND	ND	ND
Total Suspended Solids					mg/l	73	20	200
Trichloronate				6.7	ng/l	ND	ND	ND
Triphenyl phosphate (surr)					ng/l	1010	95	193
Triphenyl phosphate (surr)					ng/l	919	129	264
Zinc, Dissolved	4	ug/l	Water Quality Control Plan for the Central Coast Basin, Aquatic Life, 2011	0.94	ug/l	150	74	65
Zinc, Total				0.94	ug/l	300	100	190
nitrate as NO3 values determined by multiplying Nitrate as N by factor of 4.43								
nitrate as NO2 values determined by multiplying Nitrite as N by factor of 3.29								
Source WQS (updated 8/20/2018) https://www.epa.gov/pesticide-science-and-assessing-pesticide-risks/aquatic-life-benchmarks-and-ecological-risk								
Toxicity objective from Los Angeles region Water Quality Control Plan because Central Coast Region lacks numeric toxicity objective								

Analyte	Water Quality Guidance	WQ Units	Source WQS	Detection Limit	Units	5 Mar 2016 Solvang Residential	28 Oct 2016 Solvang Residential	10 Mar 2018 Solvang Residential
Toxicity % survival in 100% sample	70	%	Water Quality Control Plan for Los Angeles Region			95	70	5
pH	6.5-8.3		Water Quality Control Plan for the Central Coast Basin, Municipal/Domestic, 2016			8.2	6.5	6 (paper)
1-(3,4-Dichlorophenyl)-3-methylurea				0.14	ug/l	ND	ND	ND
1-(3,4-Dichlorophenyl)urea				0.070	ug/l	ND	ND	ND
1,3-Dimethyl-2-nitrobenzene					ng/l	589	82	63
3,4-Dichloroaniline				0.12	ug/l	ND	ND	ND
3-Hydroxycarbofuran				0.48	ug/l	ND	ND	ND
Acetamiprid	10.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Aldicarb	10	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.38	ug/l	ND	ND	ND
Aldicarb sulfone	140	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.45	ug/l	ND	ND	ND
Aldicarb sulfoxide	21.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.41	ug/l	ND	ND	ND
Allethrin	1.05	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.85	ng/l	ND	ND	ND
Aluminum, Dissolved				1.3	ug/l	19	20	15
Aluminum, Total	1000	ug/l	Water Quality Control Plan for the Central Coast Basin, Municipal/Domestic, 2011	1.3	ug/l	370	750	240
Ammonia as N	0.25	mg/l		0.048	mg/l	ND	0.22	0.11
Azinphos methyl (Guthion)	0.08	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	5.5	ng/l	ND	ND	ND
Bifenthrin	0.8	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.79	ng/l	ND	4.4	ND
Bolstar/Sulprofos				4.6	ng/l	ND	ND	ND
Cadmium, Dissolved	1.8	ug/l	USEPA Aquatic Life Ambient Water Quality Criteria, acute freshwater 2016	0.041	ug/l	ND	ND	ND
Cadmium, Total	5.733	ug/l	USEPA Aquatic Life Ambient Water Quality Criteria, acute freshwater 2016	0.041	ug/l	0.14	0.2	ND
Calcium, Total				0.0160	mg/l	11.0	6.6	6.11
Carbaryl	0.85	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.48	ug/l	ND	ND	ND
Carbofuran	1.115	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.59	ug/l	ND	ND	ND
Chlorpyrifos	0.05	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	6.9	ng/l	ND	ND	ND
Clothianidin	11	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Copper, Dissolved	10	ug/l	Water Quality Control Plan for the Central Coast Basin, Aquatic Life, 2011	0.13	ug/l	8.6	4.9	2.4
Copper, Total				0.13	ug/l	12	8.3	3.6
Coumaphos	0.037	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	5.1	ng/l	ND	ND	ND
Cyfluthrin	0.0125	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	8.3	ng/l	3.5	ND	ND
Cypermethrin	0.21	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.66	ng/l	ND	ND	ND
Deltamethrin/Tralomethrin	0.055	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	1.9	ng/l	ND	ND	ND
Demeton-o				10	ng/l	ND	ND	ND
Demeton-s				10	ng/l	ND	ND	ND
Desulfinylfipronil	100	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	3.1	8.1	ND
Diazinon	105	ng/l	OPP Aquatic Life Benchmarks, acute invertebrates	5.2	ng/l	ND	ND	ND
Dichloran				0.80	ng/l	ND	2.0	ND
Dichlorvos	0.035	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.9	ng/l	ND	ND	ND
Dimethoate	21.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	6.2	ng/l	ND	ND	ND
Dinotefuran	484150	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Disulfoton	1.95	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	10	ng/l	ND	ND	ND
Diuron	80	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.060	ug/l	ND	ND	ND
Ethoprop	22	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	6.7	ng/l	ND	ND	ND
Ethyl parathion				5.4	ng/l	ND	ND	ND
Fenpropathrin (Danitol)	0.265	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	ND	ND	ND
Fensulfothion				2.9	ng/l	ND	ND	ND
Fenthion	2.6	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	3.8	ng/l	ND	ND	ND
Fenvalerate/Esfenvalerate				0.98	ng/l	ND	ND	ND
Fipronil	0.11	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	3.1	12	ND
Fipronil sulfide				2.0	ng/l	ND	ND	ND
Fipronil sulfone	0.36	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	12	34	41
Hardness as CaCO3, Total	>100 = hard, <100=soft	mg/l CaCO3	Water Quality Control Plan for the Central Coast Basin, 2011	0.0894	mg/l	34.1	22.8	19.7

Analyte	Water Quality Guidance	WQ Units	Source WQS	Detection Limit	Units	5 Mar 2016 Solvang Residential	28 Oct 2016 Solvang Residential	10 Mar 2018 Solvang Residential
Imidacloprid	0.385	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Iron, Dissolved	5000	ug/l	Water Quality Control Plan for the Central Coast Basin, Agricultural, 2011	0.91	ug/l	ND	23	ND
Iron, Total				0.91	ug/l	580	1200	330
L-Cyhalothrin	0.0035	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	1.2	ng/l	48	ND	ND
Lead, Dissolved	50	ug/l	Water Quality Control Plan for the Central Coast Basin, Municipal/Domestic, 2011	0.031	ug/l	ND	ND	ND
Lead, Total				0.031	ug/l	0.55	0.78	0.38
Linuron	60	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	n/a	ND
Magnesium, Total				0.0120	mg/l	1.62	1.54	1.07
Malathion	0.049	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	7.6	ng/l	ND	ND	ND
Merphos				5.8	ng/l	ND	ND	ND
Methiocarb	2.75	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.57	ug/l	ND	ND	ND
Methomyl	2.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.30	ug/l	ND	ND	ND
Methyl parathion	0.485	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	6.3	ng/l	ND	ND	ND
Mevinphos				4.2	ng/l	ND	ND	ND
Naled	0.07	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	7.6	ng/l	ND	ND	ND
Nitrate as N				0.041	mg/l	0.18	0.26	ND
Nitrate as NO3	45	mg/l	Water Quality Control Plan for the Central Coast Basin, municipal supply, 2011			0.7974	1.1518	n/a
Nitrite as N				10	ug/l	ND	ND	ND
Nitrite as NO2	10000	ug/l	Water Quality Control Plan for the Central Coast Basin, livestock watering, 2011			n/a	n/a	n/a
Nitrogen, Total	0.38	mg/l	USEPA Nutrient Criteria Rivers and Streams Ecoregion III, 2002	0.060	mg/l	0.70	1.3	0.5
NO2+NO3 as N				10	ug/l	200	260	ND
o-Phosphate as P				0.0017	mg/l	0.17	0.38	0.21
o-Phosphate as P, dissolved				1.7	ug/l	170	370	210
Oxamyl	90	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.48	ug/l	ND	ND	ND
Pendimethalin	140	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.50	ng/l	ND	3.3	ND
Permethrin	0.0195	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	5.0	ng/l	20	5.1	ND
Perylene-d12					ng/l	206	96	71
Phorate	0.3	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	3.0	ng/l	ND	ND	ND
Phosphorus as P, Total	0.02188	mg/l	USEPA Nutrient Criteria Rivers and Streams Ecoregion III, 2002	0.035	mg/l	0.24	0.48	0.33
Phosphorus, Dissolved				0.035	mg/l	0.15	0.61	0.23
Prallethrin	3.1	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.92	ng/l	ND	ND	ND
Propoxur (Baygon)	5.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.60	ug/l	ND	ND	ND
Ronnel (Fenclorphos)				4.1	ng/l	ND	ND	ND
Stirophos (Tetrachlorvinphos)	0.95	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	3.1	ng/l	ND	ND	ND
Sumithrin (Phenothrin)	2.2	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.4	ng/l	ND	ND	ND
Tefluthrin	0.035	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.93	ng/l	ND	ND	ND
Thiacloprid	18.9	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
Thiamethoxam	17.5	ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND
TKN				0.050	mg/l	0.51	1.1	0.5
Tokuthion (Prothiofos)				7.8	ng/l	ND	ND	ND
Total Suspended Solids					mg/l	42	36	15
Trichloronate				6.7	ng/l	ND	ND	ND
Triphenyl phosphate (surr)					ng/l	893	98	105
Triphenyl phosphate (surr)					ng/l	348	145	96
Zinc, Dissolved	4	ug/l	Water Quality Control Plan for the Central Coast Basin, Aquatic Life, 2011	0.94	ug/l	10	11	10
Zinc, Total				0.94	ug/l	22	33	17
nitrate as NO3 values determined by multiplying Nitrate as N by factor of 4.43								
nitrate as NO2 values determined by multiplying Nitrite as N by factor of 3.29								
Source WQS (updated 8/20/2018) https://www.epa.gov/pesticide-science-and-assessing-pesticide-risks/aquatic-life-benchmarks-and-ecological-risk								
Toxicity objective from Los Angeles region Water Quality Control Plan because Central Coast Region lacks numeric toxicity objective								

**Program Effectiveness Assessment and Improvement Plan
(PEAIP) Framework for Traditional MS4s**

F E B R U A R Y 2 0 1 6

C I T Y O F B U E L L T O N A N D C I T Y O F S O L V A N G

Program Effectiveness Assessment and Improvement Plan

Prepared by

MNS ENGINEERS, INC.

This *Program Effectiveness Assessment and Improvement Plan* uses the California Stormwater Quality Association (CASQA) guidance document, *A Strategic Approach to Planning for and Assessing the Effectiveness of Stormwater Programs* (February 2015), as its basis and is consistent with the approach described therein. Much of the text in this document is directly from the CASQA guidance document.

Collaborative Project Partners

The Program Effectiveness Assessment and Improvement Plan (PEAIP) were developed by the following agencies involved in this multi-agency PEAIP:

- City of Buellton
- City of Solvang

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1. Introduction

The Phase II Small Municipal Separate Storm Sewer System (MS4) General Permit¹ (Phase II Permit) requires the development and implementation of a *Program Effectiveness Assessment and Improvement Plan* (PEAIP). The PEAIP must address each of the elements outlined in Provision E.14 (traditional small MS4s). The PEAIP must include the strategy that the City of Buellton (COB) and City of Solvang (COS) will use to track the short- and long-term effectiveness of the stormwater program, the specific measures that will be used to assess the effectiveness of the prioritized best management practices (BMPs), groups of BMPs, and/or the stormwater program as a whole, and a description of how the COB and COS will use the information obtained through the PEAIP to improve the stormwater program.

The COB and COS's stormwater program addresses many pollutants of concern (POCs) and implements a wide range of BMPs; however, consistent with Provision E.14 requirements, the PEAIP will present a plan for assessing the effectiveness of a subset of prioritized BMPs that are focused on high- and medium-priority POCs. This approach provides a manageable assessment program that can be improved, targeted, and refined.

The COB and COS has developed this PEAIP as a guide for its stormwater staff to assist them in conducting program effectiveness assessments (EAs). The PEAIP is modeled after the methodology described within the California Stormwater Quality Association (CASQA) document, *A Strategic Approach to Planning for and Assessing the Effectiveness of Stormwater Programs* (February 2015).² The PEAIP outlines the approach that the COB and COS will use to adaptively manage its stormwater program to improve its effectiveness at reducing the identified high- and medium-priority POCs, thereby achieving the maximum extent practicable (MEP) standard and protecting water quality.

The PEAIP is focused on the *impact* that the stormwater program is having rather than the strict *implementation* of the program. By focusing the EA in this manner, the COB and COS will increase their ability to understand if its stormwater program is achieving the intended outcomes and can identify necessary modifications to the program to make it more effective.

This PEAIP addresses the requirements in Provision E.14, as summarized in **Table 1**.

¹ Order No. 2013-0001-DWQ, effective July 1, 2013

² Language from the 2015 CASQA Guidance Document is used as the basis for much of the PEAIP.

Table 1. Phase II Permit PEAIIP Provisions and Corresponding PEAIIP Sections (Traditional MS4s)

Phase II Permit Provision(s)	PEAIIP Section
E.14.a.(i-iii)	1. Introduction
E.14.a.(i) E.14.a.(ii)(b)(5)	2.1. Identification of Sources and Impacts 2.1.2. Urban Runoff and MS4 Contributions ³
E.14.a.(i) E.14.a.(ii)(b)(1)	2.3. Identification of the Stormwater Program Activities
E.14.a.(i) E.14.b.(i) and (ii)	5. Program Reporting and Modifications
E.14.a.(ii)(a)(1)	1.1. Stormwater Program Goals and Objectives
E.14.a.(ii)(a)(2-9)	2. Program Effectiveness Assessment Approach and Development
E.14.a.(ii)(b)(2)	2.2. Identification of the Key Target Audiences 2.2.2. Barriers and Bridges to Action ⁴
E.14.a.(ii)(b)(3)	2.2. Identification of the Key Target Audiences 2.2.1. Target Audience Actions ⁵
E.14.a.(ii)(b)(4)	2.1. Identification of Sources and Impacts 2.1.3. Source Contributions ⁶
E.14.a.(ii)(b)(6)	2.1. Identification of Sources and Impacts 2.1.1. Receiving Water Conditions
E.14.a.(ii)(c-d)	4. Data Assessment and Collection
E.14.a.(ii)(e-f)	3. Management Questions

The schedule for the implementation of the PEAIIP is as follows:

- Year 2 Annual Report (October 15, 2015): Submit the PEAIIP
- Year 3 and Year 4 Annual Reports (October 15, 2016 and October 15, 2017): Describe the implementation of the PEAIIP, summarize the data obtained, and provide an analysis of the data (i.e., the EA)
- Year 5 Annual Report (October 15, 2018): Describe the implementation of the PEAIIP, summarize the data obtained, provide an analysis of the data (i.e., the EA), and describe any program modifications identified

³ Provision E.14.a.(ii)(b)(5) uses the term “MS4 Discharge Quality” for Outcome Level 5; however, the 2015 CASQA Guidance Document and this PEAIIP use the term “Urban Runoff and MS4 Contributions” for Outcome Level 5 to reflect the new approach that has been developed.

⁴ Provision E.14.a.(ii)(b)(2) uses the term “Awareness” for Outcome Level 2; however, the 2015 CASQA Guidance Document and this PEAIIP use the term “Barriers and Bridges to Action” for Outcome Level 2 to reflect the new approach that has been developed.

⁵ Provision E.14.a.(ii)(b)(3) uses the term “Behavior” for Outcome Level 3; however, the 2015 CASQA Guidance Document and this PEAIIP use the term “Target Audience Actions” for Outcome Level 3 to reflect the new approach that has been developed.

⁶ Provision E.14.a.(ii)(b)(4) uses the term “Pollutant Load Reductions” for Outcome Level 4; however, the 2015 CASQA Guidance Document and this PEAIIP use the term “Source Contributions” for Outcome Level 4 to reflect the new approach that has been developed.

1.1. STORMWATER PROGRAM GOALS AND OBJECTIVES

Stormwater programs are inherently complex due to a number of factors such as: the number of pollutant sources (construction, industrial, commercial, residential, new development, etc.), the limited ability to directly control the behaviors of target audiences, the extensive geographic coverage of the programs, the number of constituents that must be addressed, the co-mingling of flows within the drainage system, and the potential impacts to water quality from other sources (wind-blown materials, groundwater seepage, aerial deposition, etc.).

The overall goals of the COB and COS's stormwater management program are to a) reduce the potential impact(s) of pollution from urban areas on waters of the State and waters of the United States (U.S.) and protect their beneficial uses; and b) develop and implement an effective stormwater program that is well-understood and broadly supported by stakeholders.

The core objectives of the stormwater program are to:

1. Identify and make a reasonable effort to control those pollutants in urban runoff that exceed water quality objectives (WQOs), as measured in the waters of the State and waters of the U.S., and protect the beneficial uses of the receiving waters;
2. Comply with the federal and State regulations to eliminate or control, to the MEP, the discharge of pollutants associated with urban runoff from the COB and COS's stormwater drainage system;
3. Develop a cost-effective program which focuses on the prevention of pollution in urban stormwater;
4. Seek cost-effective alternative solutions where prevention is not a practical solution for exceedances of WQOs; and
5. Coordinate the implementation of control measures with other agencies.

The PEAIIP supports these stormwater program goals and objectives by providing a framework for the implementation and assessment of prioritized BMPs focused on the high- and medium-priority POCs, as well as a feedback loop for the adaptive management of the COB and COS's stormwater program. When considered as part of a larger program planning process, assessment principles and approaches can help to guide managers toward implementation strategies with the greatest opportunity for long-term success.

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2. Program Effectiveness Assessment Approach and Development

This PEAIP was developed to implement a focused evaluation of priority program elements and BMPs, ensuring that they are well-targeted and determining whether intended results are being achieved.

Stormwater program management⁷ can be described by a cycle divided into three phases of activity (**Figure 1**):

- **Program Planning and Modification** – In this phase, the COB and COS is identifying the critical components and POCs for its stormwater program, as well as developing an EA approach and associated management questions to assist in determining if the program is achieving the intended results.
- **Program Implementation** – In this phase, the COB and COS is implementing the program and obtaining the assessment data needed to answer the management questions.
- **Effectiveness Assessment** – In this phase, the COB and COS is conducting EAs, reviewing the results, and determining if any program modifications are necessary. This is typically conducted as a part of the Annual Reports and/or Report of Waste Discharge, but may also be a part of other regulatory requirements such as 303(d) Monitoring or Total Maximum Daily Loads (TMDLs) when proposed or established. Once identified, the COB and COS can make the program modifications and initiate the next round of implementation, leading again to renewed assessment and planning (see **Section 5**).



Figure 1. The Program Management Cycle (CASQA, 2015)

This process is applied repeatedly over time in order to focus the stormwater program in on the most effective BMPs and the achievement of the desired results.

The CASQA EA approach⁸ utilizes a general model that aggregates three primary components from the six outcome levels and associated, general outcome types (**Figure 2**). The three primary components are:

⁷ See 2015 CASQA Guidance Document, Section 3.0: Introduction to Strategic Planning for Stormwater Management Programs

⁸ See 2015 CASQA Guidance Document, Section 2.0: Stormwater Management Approach

- Sources and Impacts (Outcome Levels 4-6) – This component addresses the generation, transport, and fate of urban runoff pollutants. It includes sources (sites, facilities, areas, etc.), stormwater conveyance systems, and the water bodies that ultimately receive the source discharges (receiving waters). This component is typically assessed on a long-term basis.
- Target Audiences (Outcome Levels 2-3) – This component focuses on understanding the behaviors of the people responsible for source contributions. It explores the factors that determine existing behavioral patterns and looks for ways to replace polluting behaviors with non-polluting behaviors. This component is typically assessed on a short- and/or long-term basis.
- Stormwater Programs (Outcome Level 1) – Stormwater programs are the road map for the improvements that managers wish to attain in receiving waters. Their immediate purpose is to describe programs that will facilitate changes in the behaviors of key target audiences. This component is typically assessed on a short-term basis.

The six categories of outcome levels establish a logical and consistent organizational scheme for assessing and relating individual outcomes.

This PEAIIP will focus primarily on the Target Audiences (Outcome Levels 2 and 3) and the Sources and Impacts (Outcome Level 4 and 5) and will provide a plan to collect data that can be used to improve the stormwater program and protect water quality. Assessment at Outcome Level 6 may be undertaken once program implementation has progressed to a point that improvements in outfall and receiving water quality are statistically significant. The timeframe for this level of change to be realized will vary based on a variety of factors.

The approach to be used for each of the outcome levels is described in more detail within this section.

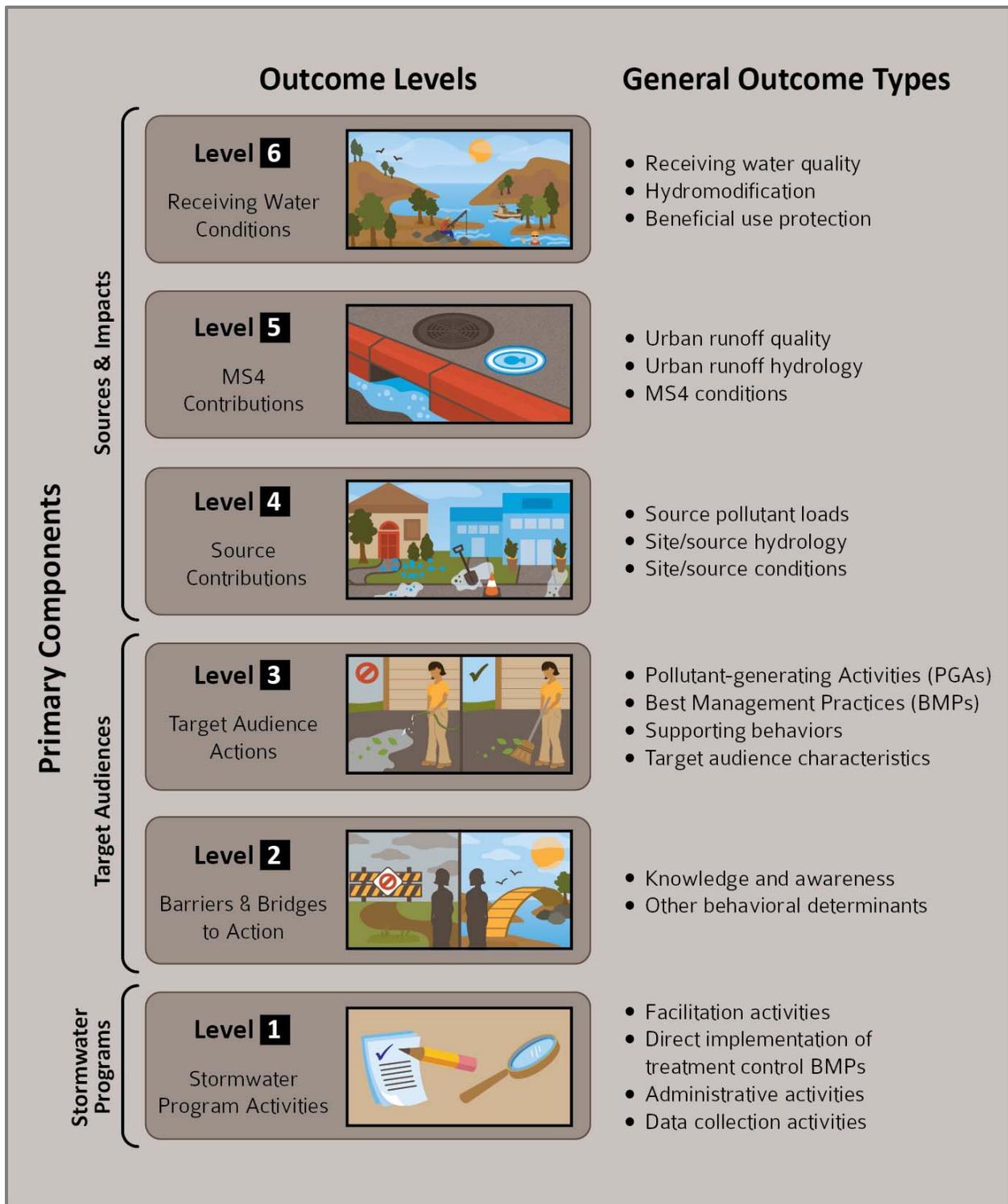


Figure 2. General Stormwater Management Model (CASQA, 2015)

2.1. IDENTIFICATION OF SOURCES AND IMPACTS⁹

2.1.1. Receiving Water Conditions (Outcome Level 6)¹⁰

One of the primary objectives of the stormwater program is the protection of the beneficial uses of the receiving waters. The Phase II Permit recognizes that there is a need to conduct the EA based on prioritized POCs. The number of POCs ultimately selected may be determined by established TMDLs, other known pollutants present in 303(d) listed waterbodies and/or regional issues identified by COB and COS.

This PEaip will focus on high- and medium POCs (see **Section 2.1.2**) and will, over time and to the extent feasible, assess protection of the beneficial uses of the receiving waters through attainment of the water quality objectives (WQO's).

Although Outcome Level 6 assessments (i.e. instream monitoring of receiving water conditions) may occur in future as a part of this effort or as part of a regional effort, COB and COS used current receiving water conditions to focus this PEaip, and in the selection of key metrics to assess the effectiveness of the stormwater program.

In order to identify the POCs for the PEaip, the COB and COS reviewed the a) proposed TMDLs by the Central Coast Regional Water Quality Control Board, b) 2010 303(d) List of Impaired Waterbodies, c) Central Coast Regional Water Quality Control Board (CCRWQCB) April 24th, 2014 Consultation Handout "Solvang – Buellton Urban Water Quality Profile", d) Central Coast Ambient Monitoring Program's (CCAMP) Ambient Water Quality Data, e) COB and COS Storm Water Management Plan's (SWMP) Guidance Document's List of POCs, and f) proposed regional Urban Storm Water Monitoring Plan. Best professional judgment, knowledge of local and/or regional water quality issues and common urban pollutants were also factors in the identification of POCs and summarized in Attachment B. The category of receiving water impairment that was identified and considered to be for prioritization is in **Appendix B** and summarized and ranked below in **Figure 3**.

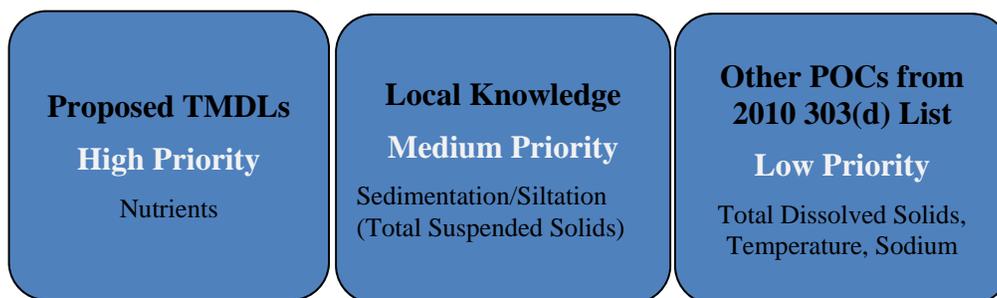


Figure 3. Prioritized POCs for the PEaip

⁹ See 2015 CASQA Guidance Document, Section 4.0: Source and Impact Strategies

¹⁰ See 2015 CASQA Guidance Document, Section 4.2 Outcome Level 6: Receiving Water Conditions.

The highest priority POC was selected because of the proposed TMDL under development by the Central Coast Regional Water Quality Control Board and in consideration of known steelhead habitat sensitivity. Medium-priority POCs continue to be addressed through implementation of the stormwater management program / Guidance Document. Low-priority POCs are also addressed through the stormwater management program, although urban runoff contributions are considered minor, and will not be addressed in this PEAIP.

2.1.2. Urban Runoff and MS4 Contributions (Outcome Level 5)¹¹

Level 5 Outcomes may be measured either within the MS4 or within discharges from the MS4. In either case, evaluation typically focuses on pollutant concentrations or loads, or both. Level 5 Outcomes provide a direct linkage between upstream sources and receiving waters and, as such, are a critical expression of stormwater program success. However, due to the temporal and spatial variability of water quality data, it is extremely challenging and takes many years and a significant amount of data to establish linkages between pollutants in MS4 discharges and the conditions within the receiving waters.

The COB and COS used known urban runoff and MS4 contributions were used to focus the PEAIP and select the key metrics that will be used to assess the effectiveness of the stormwater programs. The COB and COS will focus its evaluation of Outcome Level 5 on the high- and medium-priority POCs and by doing so will help direct the COB and COS’s efforts and provide the basis for the management questions outlined in **Section 3**.

Since TMDLs will have a significant influence on the stormwater program, nutrients are considered to be a high-priority for this PEAIP.

As shown in Figure 3 above, the COB and COS recognizes other pollutants based on 303(d) listed water bodies where urban runoff has been listed as the source of the pollutant (Table 2). Other sources and factors contribute to these impairments. The 303(d) list does not attribute magnitude to any urban runoff.

Table 2. PERMITTEE-Listed Water Bodies

Watershed	Water Body ¹	Pollutant	Source Category
Santa Ynez (314)	Santa Ynez River	Sedimentation/Siltation	Agriculture Resource Extraction Urban Runoff / Storm Sewers
Santa Ynez (314)	Santa Ynez River	Sodium	Agriculture Flow Regulation / Modification Grazing-Related Sources Natural Sources Other Urban Runoff

¹¹ See 2015 CASQA Guidance Document, Section 4.3 Outcome Level 5: MS4 Conditions

Santa Ynez (314)	Santa Ynez River	Temperature, water	Agriculture Disturbed Sites (Land Develop.) Flow Regulation / Modification Grazing-Related Sources Other Urban Runoff
Santa Ynez (314)	Santa Ynez River	Total Dissolved Solids	Agriculture Municipal Point Sources Natural Sources Other Urban Runoff

Note:

1. 2010 303(d) List

Although nutrients and sediment were selected as the high- and medium-priority POCs, the COB and COS recognize the value of considering other pollutants listed on the 303(d) list as well as common urban pollutants. The COB and COS will continue to assess the 303(d) list to understand which TMDLs may be developed in the future and plan for them as needed. Professional judgment and knowledge of local and regional water quality issues will continue to be factors in the identification of priority POCs. Due to the large size of the watershed compared to the urbanized portion and the very small proportion of urban contribution compared to background, agricultural, and runoff affected by water supply-related flow regulation, these pollutants are currently considered a low priority urban source.

In time, the COB and COS will be able to evaluate the effectiveness of its stormwater program at Outcome Levels 5 using our stormwater discharge monitoring results for the selected POCs. Depending upon data availability, Outcome Level 5 may allow the COB and COS to quantify the pollutant concentrations and/or load reductions achieved by the stormwater program. Given the time and data necessary to assess these Outcome Levels, the COB and COS will incorporate these results into long-term effectiveness assessments.

The POCs identified for the PEaip for specific COB and COS are summarized in **Table 3**.

Table 3. High- and Medium-Priority POCs¹

Permittee	PEaip Pollutants for Concern (POCs)	
	Nutrients	Sedimentation/Siltation (Total Suspended Solids)
COB	✓	✓
COS	✓	✓

Note:

1. This table is current as of June 17, 2015. It is dynamic and subject to change as new information is received.

The POC-specific shading shown in **Figure 4** is used throughout the remainder of the document to visually connect the various figures and tables.

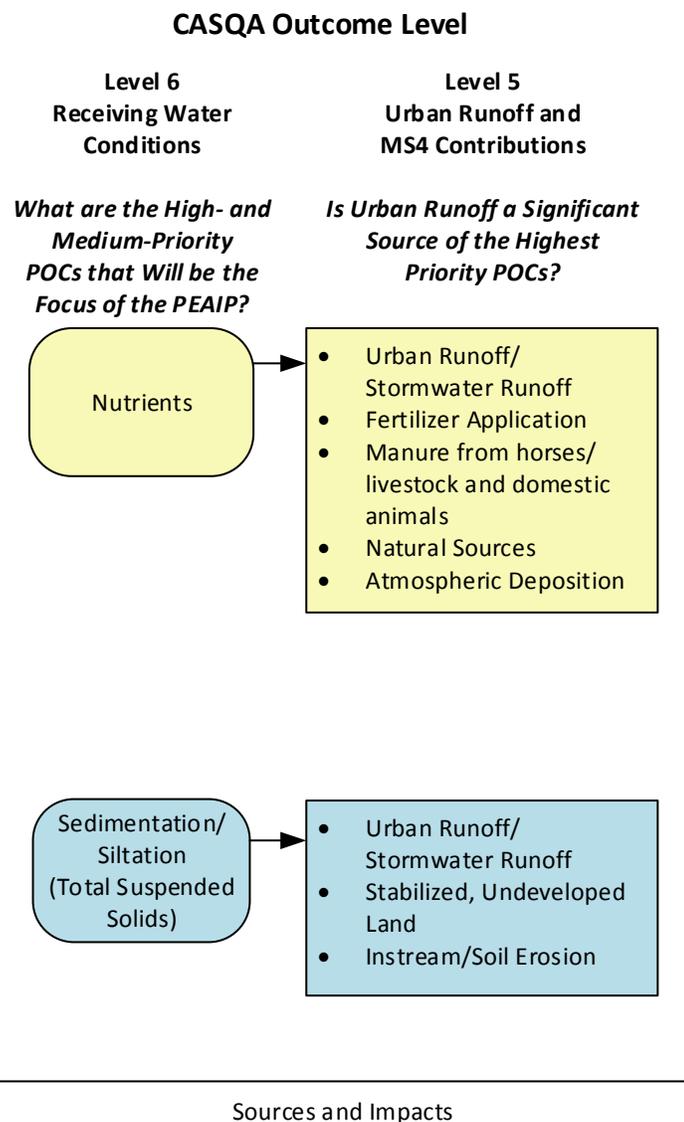


Figure 4. Sources of the High- and Medium-Priority POCs

2.1.3. Source Contributions (Outcome Level 4)¹²

Outcome Level 4 addresses urban sources and the discharges from them. A source is anything with the potential to generate pollutants prior to their introduction to the MS4. Source loadings are the pollutant loadings added by the urban sources to an MS4. Source reductions are the changes in the amounts of pollutants associated with specific sources before and after BMPs are employed. However, it is challenging to measure source loadings and/or reductions achieved by individual and/or groups of BMPs. As a result, the COB and COS will need to rely on direct measurements (where possible) and/or estimates of source reductions.

The COB and COS will focus its evaluation of Outcome Level 4 on the high- and medium-priority POC. Doing so will help direct the COB and COS's efforts and provide the basis for the management questions outlined in **Section 3**.

As management questions are developed, the COB and COS will consider the implementation requirements of future TMDLs, as well as best professional judgment. In order to determine the specific target audiences and the appropriate prioritized BMPs, the COB and COS has evaluated the POCs as they relate to urban land use to identify the primary urban runoff sources of each POC, as shown in **Figure 5**. The COB and COS expects assessment at this Outcome Level to be included in long-term EAs through a 303(d) water quality monitoring program.

The 303(d) water quality monitoring program will be conducted at two locations in urban areas of the Santa Ynez River watershed: Buellton and Solvang. Data will be incorporated into a pollutant load model to estimate average annual baseline pollutant loads -- from the full watersheds, the jurisdictional MS4 areas, and the storm drain system subcatchments -- using a static average-annual land use based spreadsheet calculation.

The model is a static spreadsheet approach that can estimate pollutant load reductions anticipated from BMPs during wet weather loading. Pollutants that can be modeled are: indicator bacteria, nutrients (total nitrogen, total phosphorus, nitrate, total kjeldahl nitrogen, dissolved phosphorus), metals (total copper, total lead, total zinc), and/or TSS. (Refer to the Geosyntec Consultants Modeling Approach Memorandum "Program Effectiveness Assessment and Improvement Plan Approach to Quantify Pollutant Loads and Pollutant Load Reductions dated October 12, 2015 that was submitted through the Storm Water Multiple Application and Report Tracking System Database).

¹² See 2015 CASQA Guidance Document, Section 4.4 Outcome Level 4: Source Contributions

CASQA Outcome Level

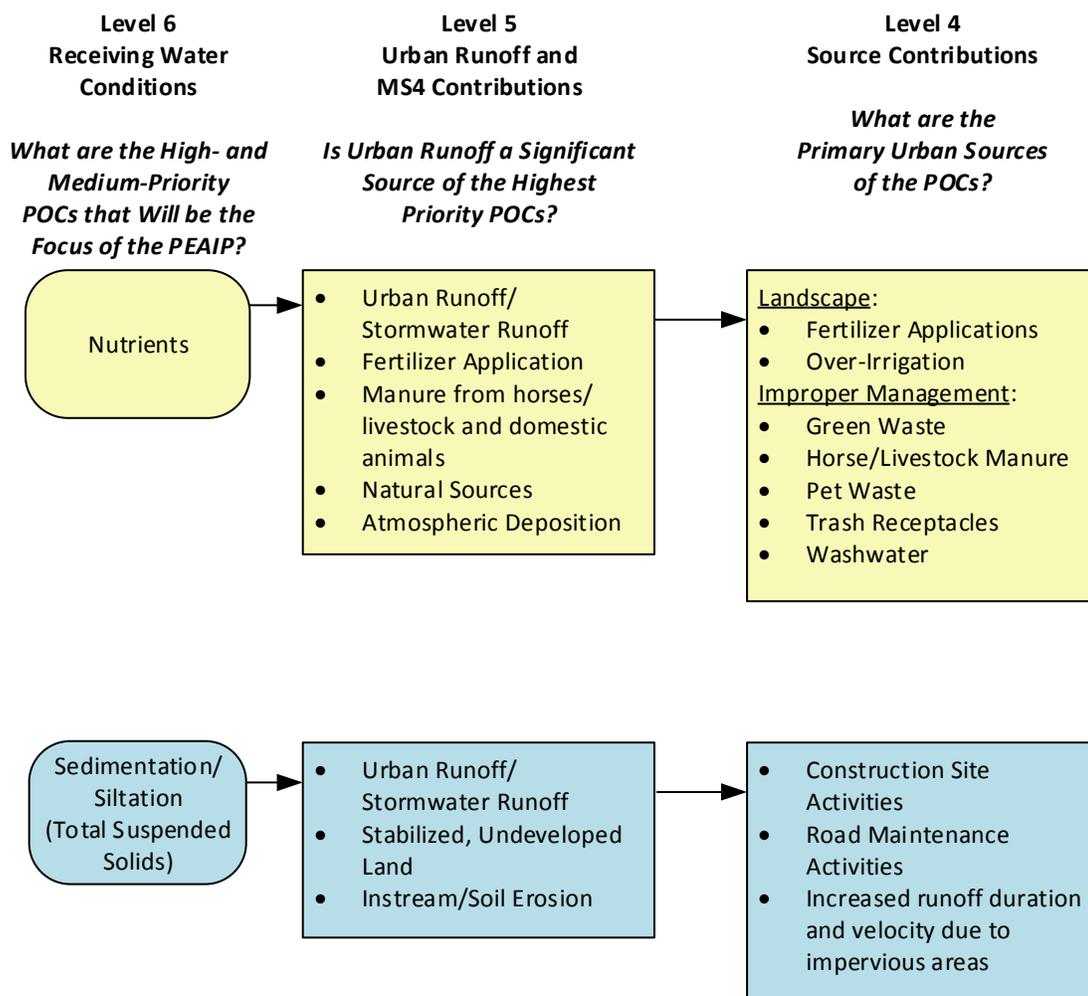


Figure 5. Primary Urban Sources of the High- and Medium-Priority POCs

2.2. IDENTIFICATION OF THE KEY TARGET AUDIENCES (OUTCOME LEVELS 2 AND 3)¹³

This component focuses on the actions of target audiences and the factors that influence them. Target audiences are the individuals and populations that a stormwater program is directed to and may include, but are not limited to, municipal employees, contractors, and the general public. Because source reductions can only be achieved by the people responsible for pollutant loadings, a successful program will be one that is able to induce positive behavioral changes in the target audiences.

Although Outcome Levels 3 (Target Audience Actions) and 2 (Barriers and Bridges to Action) are closely related, they are distinct outcome levels.

- Outcome Level 3 focuses on the identification of target audiences associated with the primary sources of high- and medium priority POCs, as well as the behavioral patterns of these target audiences, with the goal of assessing *behavior change* over time.
- Outcome Level 2 focuses on identification of the factors that influence target audience behaviors, with the goal of using these factors to develop strategies to increase target audience *awareness* of the need to reduce pollutant-generating activities (PGAs) and implement prioritized BMPs. Level 2 Outcomes are often used to gauge progress in, or to refine approaches for, achieving Level 3 Outcomes (see **Section 2.2.2**).

¹³ See 2015 CASQA Guidance Document, Section 5.0: Target Audience Strategies

2.2.1. Target Audience Actions (Outcome Level 3)¹⁴

Level 3 Outcomes address the actions of target audiences and whether or not changes are occurring within these target audiences over time. The major categories of target audience actions are:

- PGAs – behaviors that contribute pollutants to urban runoff (e.g., pressure washing without containment, improper pet waste disposal, spills during materials loading and unloading)
- BMPs – activities or other controls that are implemented to reduce or eliminate discharges of pollutants (e.g., integrated pest management (IPM) practices, implementation of secondary containment)
- Supporting behaviors – include a wide range of potential actions that are distinct from BMP implementation but help support the implementation (e.g., pollution incident reporting, public involvement)

The COB and COS will focus its evaluation of Outcome Level 3 on the actions of target audiences for the high- and medium-priority POCs. The COB and COS has identified the critical target audience(s) for the specific urban runoff source(s) of each high- and medium-priority POC (**Figure 6**), along with management questions that delineate the critical target audience actions (**Section 3**).

The COB and COS will evaluate the effectiveness of its stormwater program at Outcome Level 3 by using the management questions to guide its assessment of target audience implementation of BMPs and reduction of PGAs. It is expected that assessment at this outcome level will be included in the short- and long-term EAs.

¹⁴ See 2015 CASQA Guidance Document, Section 5.2 Outcome Level 3: Target Audience Actions

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CASQA Outcome Level

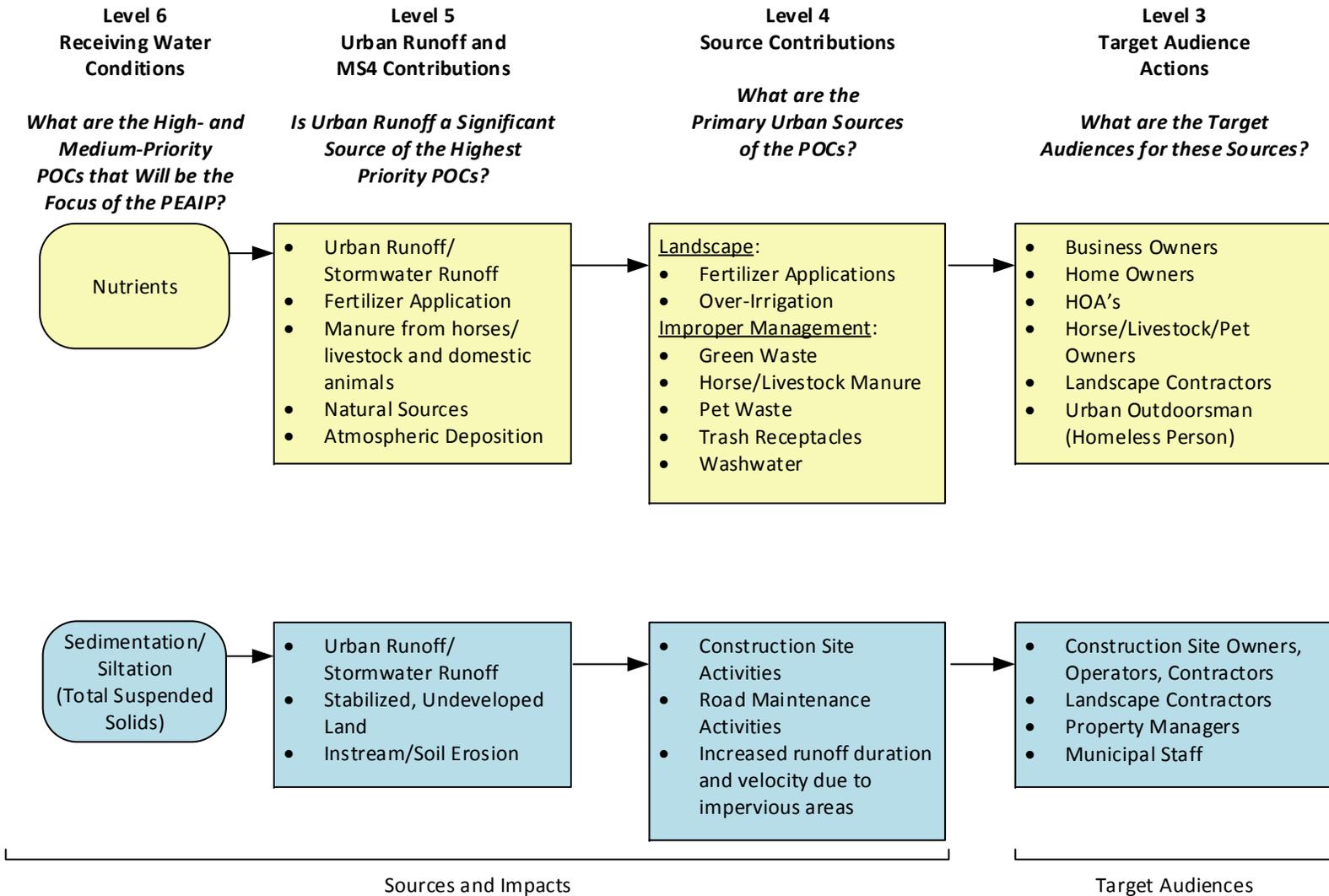


Figure 6. Target Audiences Identified for Urban Runoff Source Contributions of POCs

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2.2.2. Barriers and Bridges to Action (Outcome Level 2)¹⁵

Outcome Level 2 is critical because it forms the basis for achieving desired behavioral changes and provides a means of gauging progress toward achievement. The term “barriers and bridges” refers to the fact that there are factors that may aid or inhibit a desired behavior and that these need to be understood in order to affect the desired change. The targeted audience won’t behave differently unless they understand the problem and are motivated and able to change.

Outcome Level 2 provides a means of gauging whether the prioritized activities (e.g., outreach, municipal staff training) are producing changes in the behavior of the target audiences through increased knowledge, awareness, and changes in attitudes. Examples of Outcome Level 2 range from awareness of basic concepts (e.g., why stormwater pollution is a problem; the difference between storm drains and the sanitary sewer) to specific knowledge (e.g., how to properly dispose of pet waste; how to properly install and maintain a silt fence).

Outcome Level 2 provides a means to gauge progress in, or to refine approaches for, achieving Outcome Level 3. That is, an understanding of whether awareness, knowledge, and/or attitudes have changed will allow the identification of barriers and bridges that may be influencing the desired target audience behavior.

The COB and COS will work to identify barriers and bridges that may be influencing target audience behavior. The COB and COS will assess Outcome Level 2 on an as-needed basis as part of the adaptive management process (**Figure 7**). The COB and COS expects assessment at this Outcome Level to be included in short- and long-term EAs.

¹⁵ See 2015 CASQA Guidance Document, Section 5.3 Outcome Level 2: Barriers and Bridges to Action

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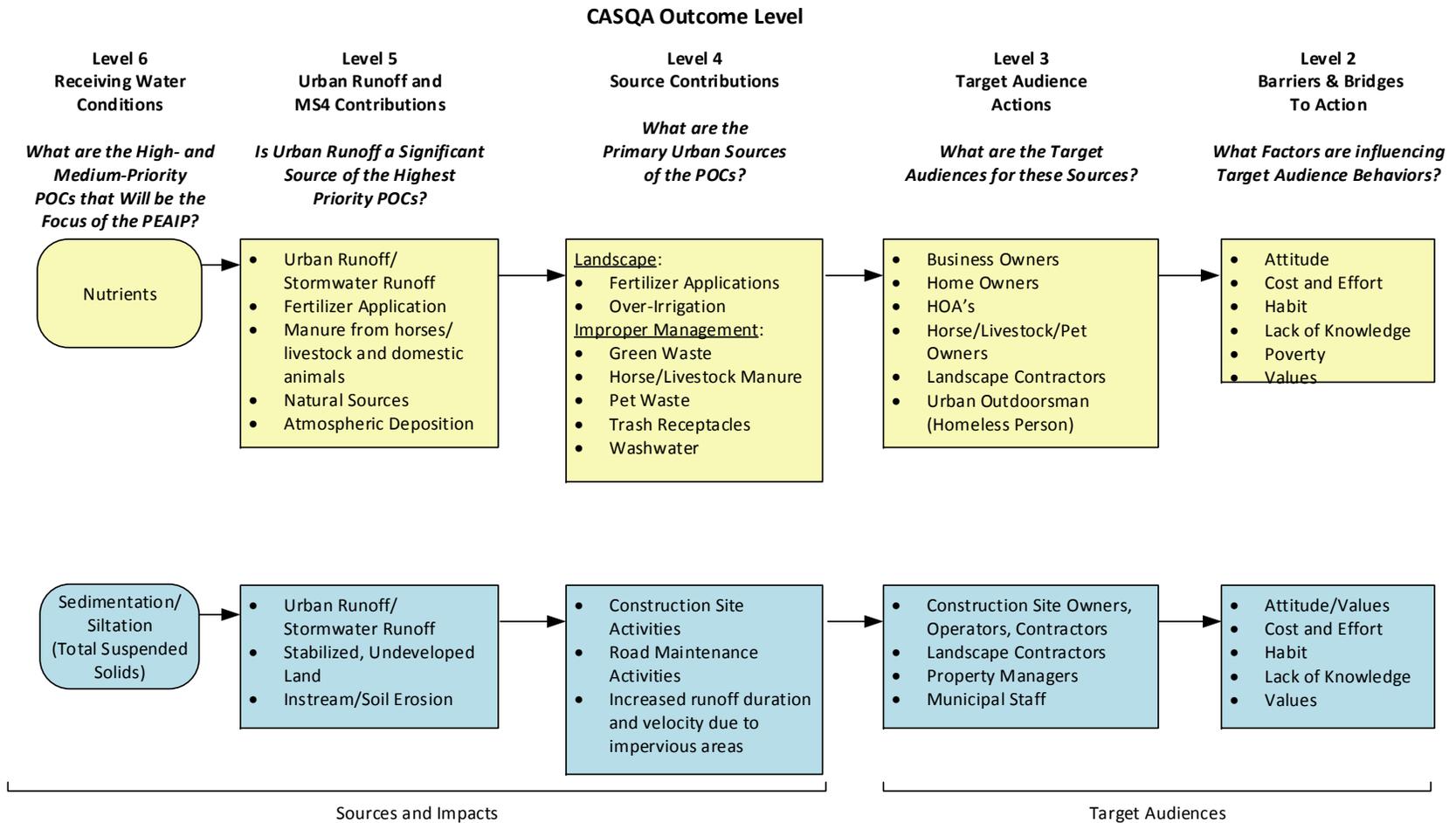


Figure 7. Assessment of Barriers and Bridges to Action

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2.3. IDENTIFICATION OF THE STORMWATER PROGRAM ACTIVITIES (OUTCOME LEVEL 1)¹⁶

Level 1 Outcomes focus on the various activities that are conducted within a program. Examples of these activities include providing education to residents, inspecting businesses, conducting surveys of target audiences, and conducting monitoring. Outcome Level 1 only measures the *implementation* of the stormwater program, rather than the *impact* of the program is having. The EAs will focus on the impact of the stormwater program by assessing Outcome Levels 2 through 5 as they relate to the high- and medium-priority POCs.

Based on the identification of the high- and medium-priority POCs and their potential sources, target audiences, and key implementation activities (prioritized BMPs), the COB and COS has identified the Program Elements for which the implementation of prioritized BMPs will be assessed (**Table 4**).

The COB and COs used this as the basis for both the management questions (see **Section 3**) and the identification of prioritized BMPs, or key implementation activities, for specific target audiences.

¹⁶ See 2015 CASQA Guidance Document, Section 6.0 Program Implementation Strategies and Section 6.2 Step 1-A: Program Implementation Activities

Table 4. Program Elements for Which Prioritized BMPs Will Be Assessed through the Identified Management Questions

Program Element	Phase II Permit Provision(s)	Pollutants of Concern (POCs)	
		Nutrients	Sedimentation/Siltation (Total Suspended Solids)
Education and Outreach	E.7	✓	✓
Public Involvement and Participation	E.8	✓	--
Illicit Discharge Detection and Elimination (IDDE)	E.9	✓	✓
Construction Site Stormwater Runoff Control	E.10	--	✓
Pollution Prevention/Good Housekeeping	E.11	✓	✓
Post Construction Stormwater Management	E.12	--	✓
Water Quality Monitoring	E.13	✓	✓

For each high- and medium-priority POC, a summary of prioritized BMPs for the identified target audiences is provided in

Figure 8. More detail is provided within the management questions (**Section 3**), as well as the data assessment and collection table(s) within **Section 4**.

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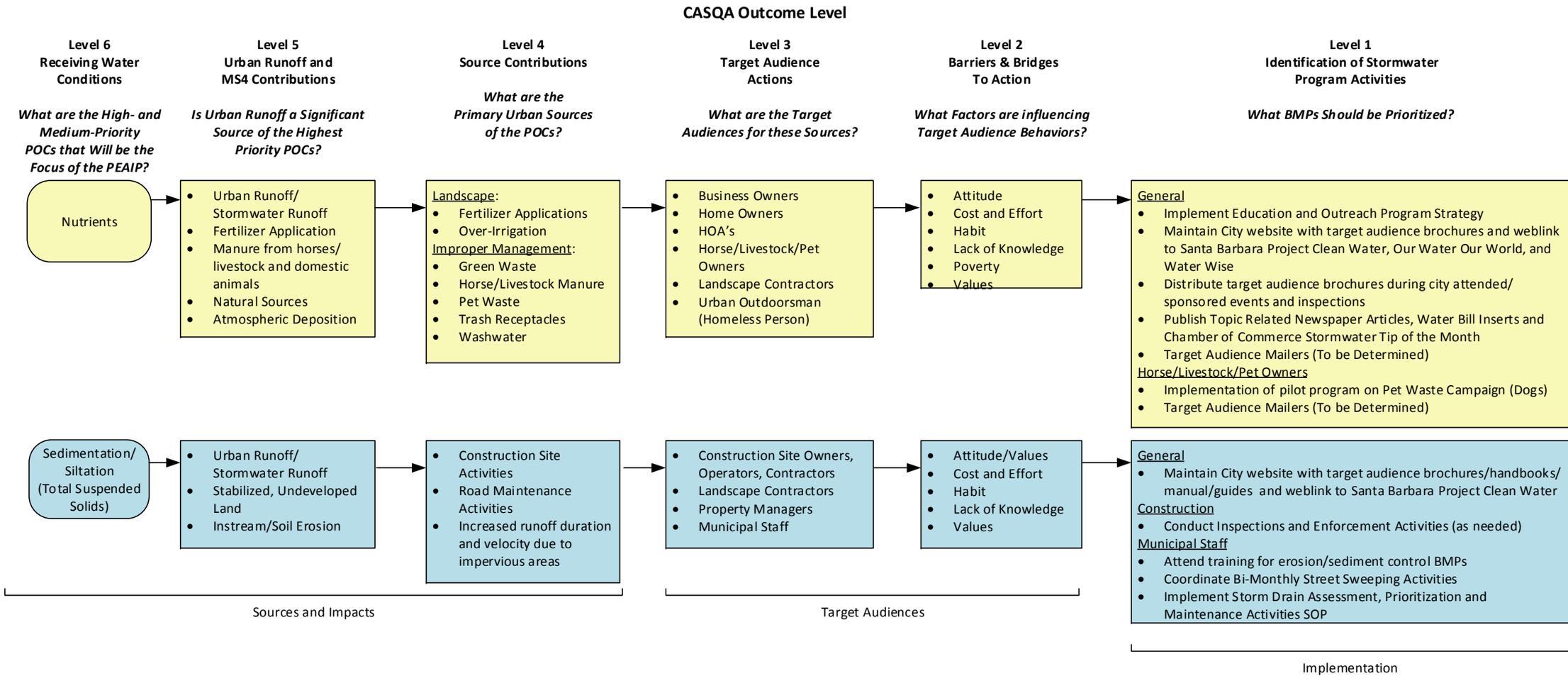


Figure 8. Prioritized BMPs Identified for Target Audiences

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3. Management Questions¹⁷

In order to focus the EAs, the COB and COS has identified management questions for the prioritized BMPs that may be implemented to address the high- and medium-priority POCs.

The assessment data and information collected by the COB and COS (**Section 4**) are focused on Outcome Levels 2 through 5 and will be used to answer programmatic-based management questions related to the prioritized BMPs.

Pursuant to Provision E.14(a)(ii)(e-f), the types of questions that were considered for this PEaip include the following:¹⁸

-
- To what extent did implementation of the BMPs, group of BMPs, or stormwater program enhance or change the urban runoff and discharge quality?¹⁹ [OL5]
- To what extent did prioritized BMPs or group of BMPs reduce pollutant loads from their sources to the storm drain system?²⁰ [OL4]
- To what extent did prioritized BMPs or group of BMPs change the target audience's behavior?²¹ [OL3]
- What barriers or bridges are influencing or could influence the target audience's ability or desire to implement the prioritized BMPs or group of BMPs? [OL2]

Section 4 summarizes the management questions and CASQA Outcome Level(s) addressed.

¹⁷ See 2015 CASQA Guidance Document, Section 7.3 Assessment Objectives, Attachment B: Sources and Activities Profile Sheets, and Attachment C: Pollutant Profile Sheets

¹⁸ The PEaip is focused on the *impact* that the stormwater program is having rather than the strict *implementation* of the program. Thus, the question listed in Provision E.14.a.(ii)(e)(1) regarding implementation of the Permit requirements is not included in the PEaip.

¹⁹ E.14.a.(ii)(f)(1)

²⁰ E.14.a.(ii)(e)(3)

²¹ E.14.a.(ii)(e)(2)

4. Data Assessment and Collection

4.1. DATA ASSESSMENT METHODS²²

During the EA process, the data collected will be assessed and/or analyzed using a variety of methods, such as:

- **Qualitative assessment** includes confirmation that an activity (e.g., construction site inspections) was conducted and/or that a specific task (e.g., completion of a pet waste brochure) was completed, as well as narrative assessment.
- **Descriptive statistics** are numbers that are used to summarize and describe data. Several descriptive statistics are often used at one time, to give a full picture of the data. Examples of descriptive statistics are counts (includes quantification and tabulation), averages, variance, etc. Other information includes: direct quantitative measurements of pollutant load removal, estimates of pollutant load removal for BMPs where direct measurement of pollutant removal is overly challenging, and direct quantitative measurement of behaviors that serve as proxies of pollutant removal or reduction.
- **Comparisons to established reference points** involve comparing collected data to established targets (targeted outcomes, discharge prohibitions, WQOs, required activity levels, etc.) or other reference points (other programs, previous results, baseline values, visual comparison using photographs over time, etc.).
- **Temporal change** is change over time. This includes variability, trends, and changes due to program implementation (e.g., simple change [absolute or %] or statistical trends).
- **Spatial analysis** allows comparisons between watersheds or other geographic areas. Impacts of runoff and/or control measures can be evaluated based on characteristics of the geographic regions (differences in land use, geology and geomorphology, hydromorphology, etc.).

²² See 2015 CASQA Guidance Document, 6.3 Step 1-B Data Collection and Analysis Activities and 7.5 Data Analysis

4.2. DATA COLLECTION METHODS²³

The assessment data will be collected through various means such as:

- **Internal Tracking by Stormwater Program** of internal program data only (e.g., inspection data, public outreach and education efforts)
- **Reporting to Stormwater Program** by third parties only (e.g., BMP maintenance certifications, industrial facility monitoring data)²⁴
- **Site Investigations/Inspections** conducted by stormwater programs to directly observe or assess a practice (e.g., inspections, site visits, complaint investigations)
- **Interviews** conducted by stormwater programs to discern awareness and behavior (e.g., of third parties or stormwater program staff, municipal staff, public focus groups)
- **Surveying** by stormwater programs of third parties or stormwater program staff to discern knowledge, attitudes, awareness, behavior of a target audience (e.g., pre-/post-training surveys, public outreach surveys)
- **Monitoring and Sampling** data obtained directly by stormwater programs or contractors (e.g., receiving water or MS4 sampling, industrial facility visual observations during inspections)
- **Review of External Data Sources** by stormwater program staff (e.g., of data or information obtained via literature, the Regional Water Board, other regulatory programs, online databases, third parties)
- **Special Investigations** can encompass any of the categories above, but normally involve a more intensive one-time focus.

²³ See 2015 CASQA Guidance Document, 6.3 Step 1-B Data Collection and Analysis Activities, 7.4 Data Collection, Attachment B: Sources and Activities Profile Sheets, and Attachment C: Pollutant Profile Sheets

²⁴ The Phase II Permit requires Permittees to identify assessment methods for privately owned BMPs. At this time, the PERMITTEE does not anticipate that these types of BMPs (e.g., structural, treatment control) will need to be evaluated for the high priority POCs that have been identified.

4.3. DATA REQUIREMENTS FOR SELECTED METRICS AND OUTCOME LEVELS

In the table(s) below, the POC-specific management questions representing focused program activities and/or prioritized BMPs are presented by Program Element, along with the assessment methods that will be used during the EA process and the associated assessment data that should be collected for evaluation (**Table 5**). The CASQA outcome levels that may be supported by the EA results are also indicated. Where applicable, the units for the required data are specified.

Although **Table 5** identifies the management questions, data assessment methods, and data collection methods that will initially be used for the EAs, future PEAIPs may modify and/or incorporate other management questions or data assessment/collection methods based on the information gained from the implementation of the PEAIP. Any modifications to the PEAIP will be identified as a part of the Annual Reports.

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Table 5. Nutrients Questions, Data Assessment Methods, and Data Collection Methods, by Program Element

Management Questions	Data Assessment Methods	Data Collection Methods
Education and Outreach [Outcome Level 2-3]		
<ul style="list-style-type: none"> Has the City developed education and outreach materials with information regarding proper use and disposal of fertilizers? Are education and outreach materials available at City designated facilities, City sponsored events or on the City website? Does the City have a targeted pet waste/livestock educational program? Does the County support education for landscape contractors to reduce fertilizer? Are education and outreach materials provided during Fats, Oil and Grease (FOG) and/or Industrial Wastewater Discharge (IWD) Inspections? 	<p>Descriptive Statistics</p> <ul style="list-style-type: none"> Number of education and outreach events participated in and estimated of number of education and outreach materials distributed at City designated facilities, City's sponsored event's Stormwater Display Booth or thru City website Number of education and outreach materials provided during FOG and/or IWD Inspections Number of target audience mailers to landscape contractors, residents along the river/creek with livestock; and/or homebrew beer, wine and distillery waste etc. 	<p>Internal Tracking by Stormwater Program</p> <ul style="list-style-type: none"> Brochure Distribution at City designated facilities, City sponsored events or thru City website City SWMP File Views/Hits (English and/or Spanish) Number of Visitors to the City's sponsored event's Stormwater Display Booth Number of target audience mailers to residents along the river/creek with livestock; landscape contractors; homebrew beer, wine and distillery waste <p>Review of External Data Sources</p> <ul style="list-style-type: none"> Brochure Distribution during FOG and/or IWD Program Inspection
Public Involvement and Participation [Outcome Level 2-3]		
<ul style="list-style-type: none"> Has the City developed opportunities for citizen participation at City's sponsored event's Stormwater Display Booth? Has the City developed opportunities for citizen participation on-line thru the City's Stormwater Webpage or Survey Monkey? 	<p>Qualitative Assessment</p> <ul style="list-style-type: none"> Confirmation of Stormwater Pollution Prevention Interested Parties Sign-Up List at City's sponsored event's Stormwater Display Booth <p>Descriptive Statistics</p> <ul style="list-style-type: none"> Number of Visitors and Stormwater Quiz's Completed via City's sponsored event's Stormwater Display Booth Number of on-line Storm Water Management Program Survey's completed and interested parties sign-up inquiry via the City's Stormwater Webpage or Survey Monkey 	<p>Interviews/Surveys</p> <p>Internal Tracking by Stormwater Program</p> <ul style="list-style-type: none"> Number of Visitors and Stormwater Quiz's Completed via City's sponsored event's Stormwater Display Booth Number of Stormwater Survey's Completed and Interested Parties Sign-up Inquiry via City Stormwater Website or Survey Monkey <p>Review of External Data Sources</p> <ul style="list-style-type: none"> Number of Stormwater Survey's Completed and Interested Parties Sign-up Inquiry via or Survey Monkey

Management Questions	Data Assessment Methods	Data Collection Methods
Illicit Discharge Detection and Elimination [Outcome Level 4]		
<ul style="list-style-type: none"> • Has the City developed IDDE procedures? • Are FOG and IWD Program participants operating in a manner that prevents nutrients from leaving the site? • Are green waste and pet waste collection programs in place? • Does City have legal authority to address non-storm water discharges? 	<p>Qualitative Assessment</p> <ul style="list-style-type: none"> • Confirmation of local waste hauler (green waste) and Christmas Treecycle Program • Confirmation of City Mutt Mitt Stations Bi-weekly Maintenance Program • Confirmation of on-going City Staff IDDE Training • Confirmation of establish City Municipal Code and Certification of Legal Authority <p>Descriptive Statistics</p> <ul style="list-style-type: none"> • Number of IDDE Investigations and/or Inspections and follow-up at facilities with deficiencies • Number of FOG and/or IWD Inspection Reports and/or Violations 	<p>Internal Tracking by Stormwater Program</p> <ul style="list-style-type: none"> • Stormwater Incident Report Form • Mutt Mitt Station Bi-weekly Maintenance Site Investigations/Inspections • City IDDE Site Investigations and/or Inspections with direct observation of an IDDE <p>Review of External Data Sources</p> <ul style="list-style-type: none"> • FOG and/or IWD Inspection Reports and/or Violations • Local Hauler Green Waste Website/Mailers
Pollution Prevention and Good Housekeeping [Outcome Level 2-4]		
<ul style="list-style-type: none"> • Is City effectively implementing BMPs (e.g. Mutt Mitt Stations) that target nutrient reduction in waterways? • Are FOG and/or IWD Program participants implementing a Pollutant Prevention and Good Housekeeping practices? • Are FOG and/or IWD Program participants aware of Cities SWMP requirements? • Are FOG and/or IWD Program participants aware of SWMP requirements for their business activity? • Do the FOG and IWD Program participants believe they are in compliance with the City's SW Program? 	<p>Qualitative Assessment</p> <ul style="list-style-type: none"> • Confirmation of on-going City Staff Training <p>Descriptive Statistics</p> <ul style="list-style-type: none"> • Number of FOG and/or IWD Inspection Reports 	<p>Interviews/Surveying</p> <p>Review of External Data Sources</p> <ul style="list-style-type: none"> • FOG and/or IWD Inspection Reports • FOG and/or IWD Inspection Report Stormwater Questionnaires

Water Quality Monitoring [Outcome Level 5]		
<ul style="list-style-type: none"> Is the urban discharge a significant source of nutrients to receiving water? 	<ul style="list-style-type: none"> Comparing modeled data to established targets Use local data acquired through regional 303(d) monitoring program 	<ul style="list-style-type: none"> Monitoring and sampling results Pollutant load model results

Table 6. Sedimentation/Siltation (Total Suspended Solids) Questions, Data Assessment Methods, and Data Collection Methods, by Program Element

Management Questions	Data Assessment Methods	Data Collection Methods
Education and Outreach [Outcome Level 2-3]		
<ul style="list-style-type: none"> Are City Grading Inspectors trained to review and inspect erosion and sediment control measures? Are there educational opportunities at county sponsored events? Are construction contractors informed of proper erosion and sediment control measures? 	Qualitative Assessment <ul style="list-style-type: none"> Confirmation of on-going City Grading Staff Training Descriptive Statistics Number of new City Grading Staff Trained Number of outreach events participated in and outreach materials distributed to construction contractors Number of connections to construction contractors through grading permits and inspections 	Internal tracking by stormwater program <ul style="list-style-type: none"> Internal Tracking by City Engineering Department and/or Division Training Number of Outreach Event Participation and Brochure Distribution via email Number of connections with Construction Contractors through grading permits and inspections

Illicit Discharge Detection and Elimination [Outcome Level 4]		
<ul style="list-style-type: none"> • Does City implement field investigation program for complaints and discoveries of illicit discharges? • Does City have legal authority to address non-storm water discharges? 	<p>Qualitative Assessment</p> <ul style="list-style-type: none"> • Confirmation that the City has IDDE Procedures (Spill Response Plan) • Confirmation of on-going City Staff IDDE Training • Confirmations of establish City Municipal Code and Certification of Legal Authority <p>Descriptive Statistics</p> <ul style="list-style-type: none"> • Number of IDDE Investigations and/or Inspections and follow-up at facilities with deficiencies 	<p>Internal tracking by stormwater program</p> <ul style="list-style-type: none"> • Stormwater Incident Report Form Site Investigations/Inspections • City IDDE Site Investigations and/or Inspections with direct observation of an IDDE
Construction Site Stormwater Runoff Control [Outcome Level 2-3]		
<ul style="list-style-type: none"> • Are construction sites being managed in compliance with City Municipal Code? • Are Stormwater Pollution Prevention Plans (SWPPP), Erosion and Sediment Control Plans (E&SCP) and/or Stormwater Control Plans (SWCP) reviewed prior to permit issuance? • Are any sites a potential source of significant sediment discharge? 	<p>Descriptive Statistics</p> <ul style="list-style-type: none"> • Number of Construction Sites issued Grading Permits • Number of SWPPP, E&SCP and SWCP reviewed prior to issuance of permit • Number of Construction Sites designated as a Water Quality Threat • Number Construction Site Inspections • Number of Verbal Warnings, Stop Work Order, Letter to Correct, Written Notice of Violation, Code Violations, Construction Bond, Penalties, Enforcement Actions (Administrative, Civil or Criminal Actions) 	<p>Internal tracking by stormwater program</p> <ul style="list-style-type: none"> • SWPPP, E&SCP and SWCP • Construction Site Inspections • Construction Sites with Water Quality Threat • Verbal Warnings, Stop Work Order, Letter to Correct, Written Notice of Violation, Code Violations, Construction Bond, Penalties, Enforcement Actions (Administrative, Civil or Criminal Actions)

Post-Construction Site Stormwater Runoff Control [Outcome Level 2-3]		
<ul style="list-style-type: none"> Is development being approved in compliance with Post-Construction Requirements (PCRs) and Low Impact Development (LID) Measures to promote runoff volume and rates? 	Descriptive Statistics <ul style="list-style-type: none"> Number of projects reviewed in compliance with PCRs and LID measures 	Internal tracking by stormwater program <ul style="list-style-type: none"> PCR and LID Projects
Pollution Prevention and Good Housekeeping [Outcome Level 2-3]		
<ul style="list-style-type: none"> Are City facilities managed to reduce erosion and promote sediment retention? 	Descriptive Statistics <ul style="list-style-type: none"> Number of Pollution Prevention BMPs implemented at City owned and/or operated facilities 	Internal tracking by stormwater program <ul style="list-style-type: none"> Pollution Prevention and Good Housekeeping BMPs implemented at City owned and/or operated facilities
Water Quality Monitoring [Outcome Level 5]		
<ul style="list-style-type: none"> Is the urban discharge a significant source of sediments to receiving water? 	<ul style="list-style-type: none"> Compare modeled data to established targets Use local data acquired through regional 303(d) monitoring program 	<ul style="list-style-type: none"> Monitoring and sampling results Pollutant load model results

5. Program Reporting and Modifications²⁵

Beginning in Year 3, the PEaip will be implemented, and EAs will be conducted each year and submitted along with the Annual Report. The completion of EAs is part of the program management cycle (**Figure 9**) and will, over time, inform program modifications.

During the EA process, the COB and COS will evaluate, assess, and/or analyze data and information collected using the methods in **Section 4.1**, and address specific management questions in **Section 4.3**.

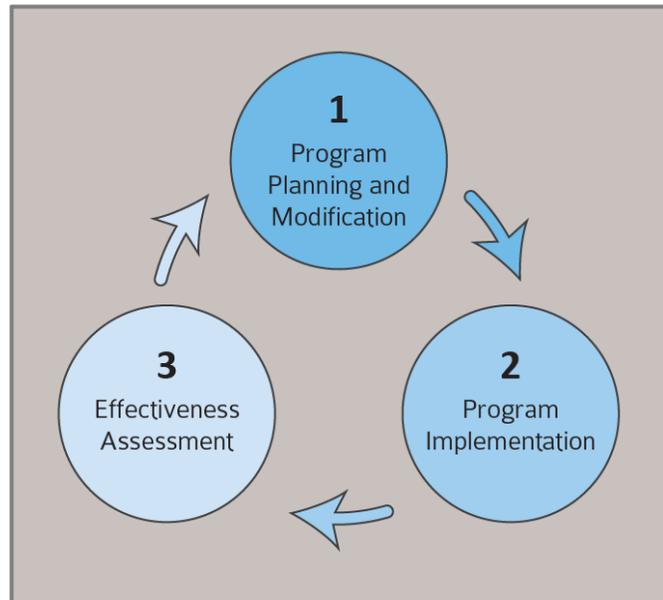


Figure 9. The Program Management Cycle (CASQA, 2015)

The EA may include both written and visual (i.e., tabular, graphical) depictions of the raw data (e.g., inspection data tracked internally by stormwater program) and the analyses that are conducted (e.g., descriptive statistics, qualitative analysis). The COB and COS will consider the results of the analyses along with the POC-specific management questions. Depending on the availability of historical data, the COB and COS expects more complex trends analyses to occur as part of the long-term EAs.

Beginning with the Annual

Beginning with the Annual Report in Year 5, in conjunction with the long-term EAs, the COB and COS will review the EAs and recommendations based on the experience of stormwater staff in implementing the program and identify areas for improvement. The management questions and data collection results will be reviewed and used as the basis for summarizing the short- and long-term progress of the stormwater program towards reducing the potential impacts of urban runoff on receiving waters. The COB and COS will identify modifications that may be necessary to improve program effectiveness at reducing pollutant loads, achieving the MEP standard, and protecting water quality.

The COB AND COS will provide a summary identifying the following types of modifications (as applicable):

²⁵ See 2015 CASQA Guidance Document, Section 7.0 Assessment Tools and Strategies, Section 7.2 Iterative and Adaptive Management, Section 7.3 Assessment Objectives, and Section 8.2 Program Modifications

- Improving upon the PEAIIP by identification of any potential data gaps and/or revisions that may be necessary for the evaluation of the POC-specific management questions;
- Improving upon prioritized BMPs (i.e., key implementation activities) that have not been fully implemented and/or did not achieve the expected result;
- Continuing and expanding upon prioritized BMPs that proved to be effective, including identifying new prioritized BMPs or modifications to existing prioritized BMPs, with the goal of increasing pollutant load reductions;
- Discontinuing BMPs that may no longer be effective; and
- Based upon identification of bridges and barriers, changes in how the COB AND COS intends to provide outreach to target audiences in order to reduce PGAs and increase implementation of prioritized BMPs.

The COB and COS will provide the summary of program modifications with the Year 5 Annual Report and include the identified priority program areas and the schedule to complete the identified modifications during the next permit term. By conducting these assessments and modifying the program as needed, the COB and COS will ensure utilization of the program management cycle.

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List of Appendices

APPENDIX A: GLOSSARY OF TERMS

APPENDIX B: PEAIP IDENTIFICATION OF POLLUTANTS OF CONCERN (POCS)

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Appendix A: Glossary of Terms²⁶

Adaptive Management: Adaptive Management is a structured process of directing decision-making with an aim toward achieving identified goals or milestones and addressing/reducing uncertainty over time.

Assessment Methods: Assessment Methods are processes used to obtain or evaluate assessment data or information. Depending on the particular outcome and/or management questions, numerous assessment methods may be used.

Best Management Practice (BMP): Defined in 40 CFR 122.2 as schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce pollutants discharged to waters of the United States.

California Stormwater Quality Association (CASQA): Since 1989 CASQA has been a leader in the stormwater field. CASQA represents a diverse range of stormwater quality management organizations and individuals, including cities, counties, special districts, industries, and consulting firms throughout the state. The Effectiveness Assessment Subcommittee has provided input and guidance on stormwater program effectiveness assessment issues since 2004; developing a standardized conceptual approach to evaluating municipal program elements in 2007 and updating that approach in 2015.

Effectiveness Assessment (EA): Effectiveness Assessment includes the methods and activities that stormwater managers use to evaluate how well their programs are working, and to identify modifications necessary to improve them. EA is the mechanism by which feedback is evaluated to enable ongoing adaptive management.

Program Management Cycle: The Program Management Cycle broadly divides stormwater program management into three phases:

1. Program planning and modification;
2. Program implementation; and
3. Effectiveness assessment.

Over time, the repeated application of this process—each phase continuously informing the next—should result in the improvement of stormwater programs and the achievement of the desired results that they are designed to achieve.

Maximum Extent Practicable (MEP): The technology-based standard established by Congress in CWA section 402(p)(3)(B)(iii) for storm water that operators of MS4s must meet. Technology-based standards establish the level of pollutant reductions that dischargers must achieve, typically by treatment or by a combination of source and/or treatment control BMPs. MEP primarily emphasizes pollution prevention and source control BMPs (as the first line of defense) in combination with treatment methods serving as a backup (additional line of defense). MEP considers economics and is generally, but not necessarily, less stringent than best available technology or best available. A definition for MEP is not provided either in the statute or in the regulations. Instead the definition of MEP is dynamic and will be defined by the following

²⁶ The Glossary of Terms is primarily based on the Glossary of Acronyms and Terms in the *Strategic Approach to Planning for and Assessing the Effectiveness of Stormwater Programs*, CASQA 2015

process over time: municipalities propose their definition of MEP by way of the programs set forth in their stormwater management plans/programs. Their total collective and individual activities conducted pursuant to the runoff management programs becomes the proposal for MEP as it applies both to overall effort, as well as to specific activities (e.g., MEP for street sweeping, or MEP for MS4 maintenance).

In the absence of a definition, the State Water Resources Control Board defined MEP as set forth in a memo dated 11 February 1993, entitled "Definition of Maximum Extent Practicable," Elizabeth Jennings, Senior Staff Counsel.²⁷

Municipal Separate Storm Sewer System (MS4)²⁸: An MS4 is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that is:

- Owned by a state, city, town, village, or other public entity that discharges to waters of the U.S.;
- Designed or used to collect or convey stormwater;
- Not a combined sewer; and
- Not part of a Publicly Owned Treatment Works (POTW) (sewage treatment plant).

Outcome Level: The CASQA approach utilizes a series of six categories of outcomes to establish a logical and consistent organizational scheme for assessing and relating individual outcomes. The outcome levels represent a general progression of conditions that are assumed to be related in a sequence of causal relationships.

- **Outcome Level 6 (Receiving Water Conditions):** Level 6 Outcomes describe receiving water conditions. They can apply either to existing conditions or to improvements that will be sought over time through program implementation.
- **Outcome Level 5 (MS4 Contributions):** Level 5 Outcomes may be measured within the MS4, or as discharges from it. Evaluation typically focuses on pollutant concentrations and/or loads. Level 5 Outcomes provide a direct linkage between upstream sources and receiving waters and are a critical expression of program success.
- **Outcome Level 4 (Source Contributions):** Level 4 Outcomes measure reductions in the discharge of pollutants from sources.
- **Outcome Level 3 (Target Audience Actions):** Level 3 Outcomes address the actions of target audiences, and whether or not changes are occurring over time. The major categories of target audience actions are pollutant-generating activities (PGAs); best management practices (BMPs) and supporting behaviors.
- **Outcome Level 2 (Barriers and Bridges to Action):** Level 2 Outcomes provide a means of gauging whether activities are producing changes in the awareness, knowledge, or attitudes of target audiences. Level 2 Outcomes are often used to gauge progress in, or to refine approaches for, achieving Level 3 Outcomes.

²⁷ http://www.swrcb.ca.gov/water_issues/programs/stormwater/docs/def_mep_bj_21193.pdf

²⁸ Based on the definition in Title 40 Code of Federal Regulations §122.26 (b)(8)

- **Outcome Level 1 (Stormwater Program Activities):** Level 1 Outcomes, which are often defined by specific stormwater permit requirements, address a variety of stormwater program activities. This outcome level measures the *implementation* of the program, not the *impact* that the stormwater program is having.

Phase II MS4 Permit: The Phase II Permit, issued in 1999, requires regulated small MS4s in urbanized areas, as well as small MS4s outside the urbanized areas that are designated by the permitting authority, to obtain NPDES permit coverage for their stormwater discharges. Each regulated MS4 is required to develop and implement a stormwater management program/approach to reduce and/or eliminate the discharge of pollutants from the MS4 to the maximum extent practicable (MEP) and effectively prohibit discharges of non-stormwater into its MS4, unless such discharges are authorized.

Pollutant of Concern (POC): A pollutant that is reasonably expected to be present in urban runoff and may reasonably be expected to affect the designated uses of the receiving water. Urban runoff pollutants of concern may include sediments, non-sediment solids, nutrients, pathogens, oxygen-demanding substances, petroleum hydrocarbons, heavy metals, floatables, polycyclic aromatic hydrocarbons (PAHs), trash, and/or pesticides and herbicides.

Program Element: Program Elements are distinct components of a stormwater program that focus on reducing pollutants from a particular activity or pollutant source/target audience. The Program Elements for the Phase II municipal stormwater program include the following:

- Program Management
- Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Construction
- Pollution Prevention/Good Housekeeping
- Post Construction
- Water Quality Monitoring

Receiving Water Conditions: Receiving Water Conditions can include any chemical, biological, or physical parameter that can be measured or assessed in receiving waters (i.e., chemical concentrations, dissolved oxygen levels, biological integrity, species diversity, eutrophication, microbiological or toxicological conditions, hydromodification).

Source: “Source” means anything with the potential to generate pollutants prior to their introduction to the MS4. A typical program broadly addresses the following source categories: residential areas, construction and development sites, commercial and industrial sources, and municipal operations. Sources may alternatively be defined by the populations associated with areas, facilities, or activities, e.g., residents, dog-walkers, mobile car washers, or restaurant employees.

Source Contribution: Source Contribution can refer either to a source loading or to a reduction in that loading. Source loadings are the pollutant loadings added by sources to a MS4. Source reductions are changes in the amounts of pollutants associated with specific sources before and after control measures are employed.

Target Audience: A “Target Audience” consists of the people (individuals and populations) that are expected to gain knowledge or engage in the behaviors that a stormwater program is intended to elicit. BMPs and other controls are implemented by many types of third parties, so the term “target audience” is broadly defined and virtually any group of people could be a target audience, including municipal staff members, the general public, elected and appointed officials, other government agencies, etc.

Appendix B: PEAIP Identification of Pollutants of Concern (POCs)

**PROGRAM EFFECTIVENESS ASSESSMENT AND IMPROVEMENT PLAN (PEAIP)
IDENTIFICATION OF POLLUTANTS OF CONCERN (POCs)
CITY OF BUELLTON AND CITY OF SOLVANG**

2010 Integrated Report Clean Water Act Section 303(d) Listed Report Category 5 Santa Ynez River (Cachuma Lake to below city of Lompoc)	Solvang – Buellton Urban Water Quality Profile CCRWQCB Consultation April 24, 2014 Santa Ynez River at Highway 101 Monitoring Site	Central Coast Ambient Monitoring Program (CCAMP)	Urban Storm Water Monitoring Plan 2015-2018 Santa Barbara County, Buellton, Carpinteria, Goleta, Solvang	Buellton and Solvang SWMP Target POCs
Sedimentation / Siltation (Total Suspended Solids)	Sedimentation / Siltation (Total Suspended Solids)	Sedimentation / Siltation (Total Suspended Solids)	Acute Toxicity (Hyalalela azteca)	Sediments - (Total Suspended Solids)
Sodium (Na)	Sodium (Na)	Nitrogen, Total	Dissolved Aluminum (Al)	Pathogens - Fecal Coliform
Temperature	Temperature	Temperature	Dissolved Copper (Cu)	Pathogens - Total Coliform
Total Dissolved Solids (TDS)	Total Dissolved Solids (TDS)	Total Suspended Solids (TSS) (duplicate)	Dissolved Zinc (Zn)	Pathogens - Escherichia Coli (E. Coli)
	Total Suspended Solids (TSS) (duplicate)	OrthoPhosphate as P	Dissolved Cadmium (Cd)	Nutrients - Phosphorus (P)
	Temperature (duplicate)	Algae-filamentous	Dissolved Lead (Pb)	Nutrients - Nitrogen
	Ammonia as Nitrate (N)	Nitrogen, Total Kjeldahl	Dissolved Iron (Fe)	Nutrients - Nitrate (NO3)
	Fecal Coliform	Silica as SiO2	Hardness	Nutrients - Nitrite (NO2)
	Total Coliform	Flow, Field Measurement	Total Suspended Solids (TSS)	Detergents (MBAS)
	Total Dissolved Solids (TDS) (duplicate)		Pesticides	Gross Pollutants (Litter, Trash and Debris)
	Conductivity		Nutrients	Hydrocarbon (Oil and Grease, Lubricants)
	Dissolved Oxygen (DO)			Metals
	Toxicity-Fish Survival / Reproduction in Water			Pesticides

COLOR KEY AND NOTES:

CCAMP COLOR CODE	Rating	Excellent	Good	Fair	Poor	Very Poor	Not Listed within CCAMP
	When NO goal is available	0-25%	25-50%	50-75%	75-100%		
OTHER COLOR CODE		Under CCRWQCB Review					
BENEFICIAL USE GROUP	Aquatic Life						



**City of Buellton and City of Solvang
Stormwater Program Effectiveness Assessment and Improvement Plan (PEAIP)
Annual Summary 2017-2018**

1. PEAIP Summary Introduction:

The City of Buellton (COB) and City of Solvang (COS) prepared and submitted to the State Water Resources Control Board a multi-agency PEAIP for Year 2 on October 13, 2015 through the Storm Water Multiple Application and Report Tracking System (SMARTS) Database. COB and COS subsequently submitted a revision dated February 19, 2016 to be uploaded with Year 3 Annual Report. This report summarizes implementation of the PEAIP for Year 5 of the National Pollutant Discharge Elimination System's (NPDES) Phase II Small Municipal Separate Storm Sewer Systems (MS4) General Permit, for calendar year July, 1 2017 through June 30, 2018.

The purpose of the PEAIP is to track the short- and long-term effectiveness of the stormwater program, the specific measures that will be used to assess the effectiveness of the prioritized best management practices (BMPs), the groups of BMPs, and/or the stormwater program as a whole. The purpose of the PEAIP is also to provide a description of how the COB and COS will use the information obtained through the PEAIP to improve the stormwater program. The PEAIP outlines the approach that the COB and COS will use to adaptively manage its stormwater program to improve its effectiveness at reducing the identified high- and medium-priority Pollutants of Concern (POCs), thereby achieving the maximum extent practicable (MEP) standard and protecting water quality. The PEAIP is focused on the *impact* that the stormwater program is having rather than the strict *implementation* of the program. By focusing the Effectiveness Assessment in this manner, the COB and COS will increase their ability to understand if its stormwater program is achieving the intended outcomes and can identify necessary modifications to the program to make it more effective.

The PEAIP for Year 3-5 focused *primarily* on the California Stormwater Quality Association (CASQA) Outcome Levels for Target Audiences (Outcome Levels 2-3), and the Sources and Impacts (Outcome Level 4-5). The COB and COS developed management questions for high-priority POCs (Nutrients) and the medium-priority POCs (Sedimentation/Siltation and Total Suspended Solids), and then conducted a data collection assessment of each of these POCs. The data collected will be utilized by both the COB and COS to improve the stormwater program and protect water quality.

In order to determine the specific target audiences and the appropriate prioritized BMPs, the COB and COS reviewed the following: a) proposed TMDLs by the Central Coast Regional Water Quality Control Board, b) 2010 303(d) List of Impaired Waterbodies, c) Central Coast Regional Water Quality Control Board (CCRWQCB) April 24th, 2014 Consultation Handout "Solvang – Buellton Urban Water Quality Profile", d) Central Coast Ambient Monitoring Program's (CCAMP) Ambient Water Quality Data, e) COB and COS Storm Water Management Plan's (SWMP) Guidance Document's List of POCs, and f) proposed regional Urban Storm Water Monitoring Plan. Best professional judgment, knowledge of local and/or regional water quality issues and common urban pollutants were also factors in the identification of POCs.

Target audiences for each source of high- and medium-priority POCs have been identified and the COB and COS have actively taken steps, during each permit year, to identify and

bridge communication and action barriers through the selection and implementation of prioritized BMPs.

The prioritized BMPs reflect stormwater program activities that are intended to change behaviors of target audiences and result in pollutant source mitigation. The prioritized BMPs, listed below in Figure 8 Prioritized BMP Identified for Target Audiences within COB and COS PEAIIP, are being implemented as part of the Cities stormwater program, and where applicable, corresponding data was collected and analyzed at the close of Permit Year 5 in order to assess program effectiveness and identify opportunities for program improvement.

2. Data Summary – Program Assessment

In accordance to the NPDES Phase II MS4 General Permit's Section E.7, both the COB and COS have developed and implemented a Stormwater Education and Outreach Program Strategy. The program's goal is to inform people of the impacts of stormwater discharge on water bodies and the steps they can take to reduce pollutants in stormwater and how they can become involved in restoration activities.

The Cities education and outreach campaign involves a combination of: (1) implementing a Community Based Social Marketing (CBSM) campaign to promote changes in people's behavior related to management of dog waste that will improve the quality of the Cities stormwater and surface waters; (2) conducting surveys or quizzes; (3) provide education and outreach materials (i.e. printed materials, billboard, mass transit advertisement, television advertisements, and websites) to target audiences as appropriate; (4) utilizing public input in developing outreach through event participation; (5) providing availability of water efficient/pesticide and fertilizer application/stormwater brochures within each City office and/or website; (6) promoting reporting of illicit discharges or connections; (7) providing availability of pesticide and fertilizer application within each City office and/or website; (8) provide educational materials to school children to promote stormwater pollution prevention; and (9) Develop messaging to reduce discharges from organized car washes, mobile cleaning and pressure washing activities.

On each of the City's stormwater website, an online survey was conducted to assess the public's knowledge on their Stormwater Management Program (SWMP). Based on the lack of participation in the online survey received for Year 2 (4 Responses COB; 10 Responses COS), Year 3 (5 Responses COB; 6 Responses COS), Year 4 (2 Responses COB; 2 Responses COS) Year 5 (1 Response COB; 0 Responses COS), the Cities altered their approach to promoting the online surveys through direct interactions with during City-sponsored events as described below within the POCs data summary to achieve the MEP standard. Although the City's stormwater website online survey results showed a decline for Year 4 and 5, the Cities altered approach of promoting the online survey through direct interactions at an event resulted in an increase total participation for Year 4 (22 Responses COB; 22 Responses COS) and Year 5 (12 Responses COB; 11 Responses COS). Due to the success rate, the Cities will continue to implement the alternative approach of promoting the online survey through direct interactions at an event and will continue to engage the residents and business through direct mailers to take the on-line survey.

For the PEAIP, the COB and COS focused its data assessment for Nutrients and Sedimentation/Siltation (Total Suspended Solids) using the Management Questions, Data Assessment and Data Collection Methods outlined within Table 5 and 6 of the COB and COS PEAIP. The data assessment for each POC consisted primarily of a qualitative assessment and/or a descriptive statistic methodology and the data collection methods included internal tracking by stormwater program, review of external data sources, interviews/surveys, site investigations/inspections; and monitoring and sampling as described below within COB and COS PEAIP.

The data summary for the high-and medium-priority POCs by program element are as follows:

NUTRIENTS

Education and Outreach (CASQA Outcome Level 2-3)

COB Data Assessment/Collection:

During Year 5, COB participated in 3 education and outreach events (Buellton BBQ Bonanza, State of the City, Santa Ynez Valley Botanic Garden's Pooch-a-Palooza) and sponsored a Stormwater Display Booth at each event. Note: The Santa Ynez Valley Botanic Garden's Earth Day Event was cancelled and will resume next year.

The numbers of education and outreach materials distributed during events related to Nutrients (Brochures: Gardener's Guide to Clean Water; Homeowner's Guide to BMPs; Business Owner's Guide to BMP's; Recognizing and Reporting Stormwater Pollution; The Ocean Begins On Your Street; Our Water Our World Pests Bugging You; Giveaways: Our Water Our World Got Bug's Get Answer Magnets; Santa Barbara County (SBC) Project Clean Water Bookmarks; COB & COS Stormwater Bookmarks) are as follows: Buellton BBQ Bonanza (126 Visitors: 7 Brochures, 7 Magnets; 34 Bookmarks (4 SBC and 30 COB & COS)); State of the City (12 Visitors; 10 Brochures). The City also provided stormwater education and outreach materials to businesses and residents attending the Valley Wide Shred Day. The number of education and outreach materials distributed during this event related to Nutrients (Giveaways: COB & COS Stormwater Bookmarks) are as follows: Valley Wide Shred Day-Buellton (60 Visitors; 60 Bookmarks)

The COB also distributed brochures through brochure displays at designated City facilities (City Hall, Planning Department). The numbers of education and outreach materials distributed at the City facilities related to Nutrients (1 Gardener's Guide to Clean Water; 0 Homeowners Guide to BMPs; 0 Business Owner's Guide to BMPs, 3 Recognizing and Reporting Stormwater Pollution;() 1 The Ocean Begins on Your Street-English; 0 The Oceans Begins on Your Street-Spanish as well as had 1631 File Views/Hits (961 English; 670 Spanish) thru the City's website. The City's website includes other documents related to Nutrients such as Creek Care and Creekside concerns for residents. The COB also provides weblinks to additional resources on the City's website to the Santa Barbara County Project Clean Water, Our Water Our World, Less is More and Santa Barbara County Water Wise website.

The COB and COS also maintains a permanent stormwater education and outreach display at the Santa Ynez Valley Botanic Garden's Information Kiosk and at the Solvang Public Library's Stormwater Display Board. The numbers of education and outreach materials distributed at the Santa Ynez Valley Botanic Garden Information Kiosk related to Nutrients

(52 Gardener's Guide to Clean Water; 50 Recognizing and Reporting Stormwater Pollution; 73 The Ocean Begins on Your Street-English; 50 The Ocean Begins on Your Street-Spanish).

In addition, the COB's Authorized Contract Staff continue to distribute education and outreach materials during Fats, Oil and Grease (FOG) and Industrial Waste Discharge (IWD) Inspections related to Nutrients (Business Owner's Guide to BMPs (English and Spanish); Beverage Manufacturing and Stormwater; Mobile Cleaning-Food Related BMP Restaurant Owners Guide; FOG Program; COB – SWRCB Industrial Storm Water Pollution Prevention Plan Requirements). During Year 5-6, the Mobile Cleaning – Food Related BMP was replaced by the Mobile Cleaner's Guide to BMP and will no longer be distributed.

The COB also hand delivered an additional "Notice: Stormwater Pollution Prevention for Restaurant Owners" target audience mailer that included a Restaurants Owner's Guide and a Survey Invite Card to 1 new Business Owner.

During Year 5, the COB and COS began collaboration with the Cities of Carpinteria, Goleta, Lompoc, Santa Barbara and the County of Santa Barbara on a new Mobile Cleaner's Guide to BMPs that includes BMPs for Food Related Industry and Surface Cleaner's. The guide was finalized and distributed in both English and Spanish to 70 Mobile Cleaner's working within the Partner Agencies jurisdiction as well as posted to the City's Stormwater Management webpage. 20 of the 70 are designated as surface cleaners whose operation activities could potentially generate stormwater runoff containing nutrients.

COB and COS also began collaboration with the same Partner Agencies on a new Landscaper's Guide to BMPs as well a new Restaurant Guide to BMPs to be released during Year 6 in both English and Spanish.

COS Data Assessment/Collection:

During Year 5 the COS participated in 3 education and outreach events (Buellton BBQ Bonanza, State of the City, Santa Ynez Valley Botanic Garden's Pooch-a-Palooza) and sponsored a Stormwater Display Booth at each event. Note: The Santa Ynez Valley Botanic Garden's Earth Day Event was cancelled and will resume next year.

The numbers of education and outreach materials distributed during events related to Nutrients (Brochures: Gardener's Guide to Clean Water; Homeowner's Guide to BMPs; Business Owner's Guide to BMP's; Recognizing and Reporting Stormwater Pollution; The Ocean Begins On Your Street, Our Water Our World Pests Bugging You ; Giveaways: Our Water Our World Got Bug's Get Answer Magnets, Santa Barbara County Project Clean Water Bookmarks; COB & COS Stormwater Bookmarks) are as follows: Buellton BBQ Bonanza (126 Visitors; 7 Brochures, 7 Magnets, 34 Bookmarks (4 SBC and 30 COB & COS), State of the City (10 Visitors; 3 Brochures).. The City focused on providing stormwater education and outreach materials to businesses and residents attending the Valley Wide Shred Day. The numbers of education and outreach materials distributed during this event related to Nutrients (Giveaways: COB & COS Stormwater Bookmarks) are as follows: Valley Wide Shred Day-Solvang (59 Visitors; 59 Bookmarks).

The COS also distributed brochures through brochure displays at designated City facilities (City Hall, Planning Department). The numbers of education and outreach materials distributed at the City facilities related to Nutrients (18 Gardener's Guide to Clean Water; 12 Homeowners Guide to BMPs; 4 Business Owner's Guide to BMPs; 12 Recognizing and

Reporting Stormwater Pollution; 7 The Ocean Begins on Your Street-English; 5 The Ocean Begins on Your Street-Spanish) as well as had 272 Unique Downloads thru the City's website. The COS also provides weblinks to additional resources on the City's website to the Santa Barbara County Project Clean Water, Our Water Our World, Less is More website and Santa Barbara County Water Wise website.

The COB and COS also maintains a permanent stormwater education and outreach display at the Santa Ynez Valley Botanic Garden's information kiosk and at the Solvang Public Library's Stormwater Display Board. The numbers of education and outreach materials distributed at the Santa Ynez Valley Botanic Garden Information Kiosk related to Nutrients (52 Gardener's Guide to Clean Water; 50 Recognizing and Reporting Stormwater Pollution; 73 The Ocean Begins on Your Street-English; 50 The Ocean Begins on Your Street-Spanish).

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The COB and COS also began collaboration with the same Partner Agencies on a new Landscaper's Guide to BMPs as well a new Restaurant Guide to BMPs to be released during Year 6 in both English and Spanish.

Public Involvement and Participation (CASQA Outcome Level 2-3)

COB Data Assessment/Collection:

The COB continues to promote the survey on the City's website as well as during direct interactions with Restaurants whenever possible.

The COB Contract Staff also initiated an annual survey during their FOG and IWD Program Inspections beginning Year 2 (11 FOG Questionnaires) Year 3 (27 FOG and 11 IWD Questionnaires), Year 4 (65 FOG and 22 IWD Questionnaires) and Year 5 (40 FOG and 26 IWD Questionnaires) to engage the target audience with the following 3 questions: (1) Are you familiar with the COB's Storm Water Program?; (2) Are you aware of the requirements for your type of business activity?; and (3) Do you believe your business is in compliance with the City's Storm Water Program?. The FOG and IWD Questionnaires showed that 34% of businesses are not familiar with the COB's Stormwater Management Program; 28% of businesses were unaware of their business activities impact to stormwater; and 9% did not believe their business was in compliance with the City's Stormwater Management Program. The response results may be attributed to new personnel encountered during the inspection as well as the survey questions not answered during the interview.

The results of the survey questions show an improvement from Year 4 which may be a direct result of the City's continued education and outreach effort. The percent improvements are as follows: Q(1) 13%, Q(2) 33% and Q(3) 6%. During Year 5, the COB also modified the questionnaire form into a stormwater

During Year 4-5, the COB Contract Staff discontinued the FOG and IWD Program's Stormwater Questionnaire and replaced it with a Food Service Establishment (FSE) Stormwater (SW) Inspection Form. The FOG Program's Inspection Form includes the survey questions as well as inspection questions pertaining to the exterior and interior portions of the facility. Additionally, the 3 survey questions were added to the IWD Program's Pretreatment Inspection Form. The COB Contract Staff will continue to engage FOG and IWD Program participants on the implementation of BMPs and provide stormwater outreach related materials during the inspection.

The COB also participated in education and outreach events (Buellton BBQ Bonanza, State of the City, Santa Ynez Valley Botanic Garden's Pooch-a-Palooza). The number of Stormwater Quiz's/Survey's and Interested Parties Sign-up Inquiry at the Stormwater Display Booth are as follows: Buellton BBQ Bonanza (126 Visitors; 11 Stormwater Survey-Event; 11 Stormwater Survey-Buellton Website; 11 Solvang Survey-Solvang Website; 23 CTPL Pledge Forms; 2 Interested Parties Sign-up); State of the City (12 Visitors; 0 Stormwater Quiz; 0 Interested Parties Sign-up); Pooch-a-Palooza (55 Visitors; 47 CTPL Pledges; 23 Interested Parties Sign-up).

As a direct result of distributing a Stormwater Giveaway (Reusable Grocery Bag) to survey participants at the Buellton BBQ Bonanza, COB and COS experienced an increase in the number of Stormwater Surveys completed. The COB did not have any additional Interested Parties Sign-ups through the City's Website. There no changes to the survey or quizzes at outreach events at this time until the COB have comparable data through on going surveys.

COS Data Assessment/Collection:

The COS continues to promote the on-line Restaurant survey on the City's website as well as during direct interactions with Restaurants whenever possible.

The COS also participated in education and outreach events (Buellton BBQ Bonanza, State of the City, Santa Ynez Valley Botanic Garden's Pooch-a-Palooza). The number of Stormwater Quiz's/Survey's and Interested Parties Sign-up Inquiry at the Stormwater Display Booth are as follows: Buellton BBQ Bonanza (126 Visitors; 11 Stormwater Survey-Event; 11 Stormwater Survey-Buellton Website; 11 Solvang Survey-Solvang Website; 23 CTPL Pledges and 2 Interested Parties Signup); State of the City (10 Visitors; 0 Stormwater Quiz; 0 Interested Parties Signup); Pooch-a-Palooza (55 Visitors; 47 CTPL Pledges; 23 Interested Parties Sign-up). As a direct result of distributing a Stormwater Giveaway (Reusable Grocery Bag) to survey participants at the S Buellton BBQ Bonanza, COB and COS experienced an increase in the number of Stormwater Surveys completed. The COS did not have any interested Parties Sign-up through the City's Website. There no changes to the survey or quizzes at outreach events at this time until the COS have comparable data through ongoing surveys.

Illicit Discharge Detection and Elimination (CASQA Outcome Level 4)

COB Data Assessment/Collection:

During Year 5, the COB continues to implement its Illicit Discharge Detection and Elimination (IDDE) Program through Buellton Municipal Code (BMC) Title 15 Stormwater Chapter 15.01 Stormwater Management and Discharge Control also known as the Stormwater Management and Discharge Ordinance and the COB Stormwater Program Management Certification Statement which provides the COB full legal authority to implement and enforce each of the NPDES Phase II MS4 General Permit requirements.

The COB also developed a draft Enforcement Response Plan that includes enforcement measures and tracking of the types of enforcement responses.

In addition, the COB continues to implement a Spill Response Plan which provides guidance to City Staff and Authorized Contract Staff responding to a complaint or notice of a spill discharge or illicit connection; and conducting an investigation to locate and identify the source of a non-stormwater discharge. During Year 5, both City Staff and Authorized Contract Staff (19 City Staff and 13 City Contract Staff) were provided IDDE and Staff and Site Operator Training. The training has provided an increase in stormwater general awareness amongst staff and has result in and an increase in reporting of possible illicit discharges or connections. In Year 5, there were 10 out of 17 site investigations associated with potential and confirmed nutrient related discharges. The nutrient related investigations were located within both commercial and residential zones. As a result of these investigations, the COB issued 9 verbal warnings; and 4 written notice with all incidents resolved/closed through the IDDE Program. During Year 5, the COB continued to stormwater conduct education and outreach efforts whenever possible through direct integrations or through direct mail/media campaign to both residents and businesses.

During Year 5, the COB's Stormwater Program Coordinator reviewed all FOG and IWD inspection reports and/or violations for non-stormwater discharges which were resolved/closed through the FOG/IWD program. Although the COB had implemented an IDDE Program, the City does not have enough comparable data at this time to warrant any changes to the program. The COB will continue education and outreach efforts to help minimize and eliminate pollutants from entering the storm drain system.

As part of the Stormwater Management Program, the COB continues to contract with a local waste hauler for management of green waste and coordinates and promotes the annual Christmas Treecycle Program through the Chamber of Commerce E-Newsletter, Buellton Buzz (Water Bill Insert) and both the COB and Waste Hauler websites. This program allows residents to drop off their trees until 2nd week in January for mulching and reuse within the community. The COB also maintains 11 Mutt Mitt Stations (5 River View Park; 3 Oak Valley Park; 2 PAWS Dog Park; 1 Via Corona Road). There are 4 additional Mutt Mitt Stations (1 North and 1 South Side along Highway 246 near the corner of Sycamore Drive; and 1 North and 1 South Side along Highway 246 near the corner of Valley Dairy) that are being maintained by Buellton Veterinary Clinic.

Since the Year 4 CTPL Pet Waste Campaign relaunch, the COB and COS continues to promote the campaign on the Cities website and through direct mailers/media campaign and/or at events such as the Buellton BBQ Bonanza, Santa Ynez Valley Botanic Garden's Pooch-a-Palooza, The Solvang Gathering (Greyhounds). During Year 5, The COB and COS distributed education and outreach materials (38 CTPL Post Cards; 84 CTPL Dog Dispensers for Pet Waste; 35 Pet Food Scoops) to Dog Owners at these events who took a Pledge to CTPL and spread the word and use the CTPL bag dispenser for pet waste; and the CTPL pet food scoop to keep the message alive. The City also promoted the CTPL campaign through posting information at the Santa Ynez Valley Botanic Garden's Information Kiosk Display Board and at the Solvang Public Library's Stormwater Display Board.

During Year 5, the COB and COS expanded the CTPL Campaign by placing a Pledge Form within the City Hall, SYV Human Society and other City sponsored events as well as to distribute the education and outreach materials to Dog Owners who take the CTPL Pledge. The COB and COS distributed education and outreach materials (42 CTPL Dog Dispensers for Pet Waste; 18 Pet Food Scoops) to Dog Owners at these events/locations. The Cities will also continue to conduct stormwater education and outreach efforts whenever possible through direct integrations or through direct mail/media campaign to both residents and businesses.

COS Data Assessment/Collection:

During Year 5, the COS continues to implement its IDDE Program through SMC Title 14 Stormwater Management also known as the Stormwater Management Ordinance and the COS Stormwater Program Management Certification Statement which provides the COS full legal authority to implement and enforce each of the NPDES Phase II MS4 General Permit requirements.

The COS continues to implement a Spill Response Plan which provides guidance to City Staff and Authorized Contract Staff responding to a complaint or notice of a spill discharge or illicit connection; and conducting an investigation to locate and identify the source of a non-stormwater discharge. In Year 5, 23 City employees were provided IDDE and Staff and Site Operator. The training has provided an increase in stormwater general awareness amongst staff and has result in and an increase in reporting of possible illicit discharges or connections. In Year 5, there were 7 out of 15 site investigations associated with potential or confirmed nutrient related discharges. All nutrient related investigations were located within the commercial zone. As a result of these investigations, the COS issued 9 verbal warnings and 1 written notice with all incidents resolved/closed through the IDDE Program. The COS will continue to conduct stormwater education and outreach efforts whenever possible through direct integrations or through direct mail/media campaign.

As part of the Stormwater Management Program, the COS continues to contract with a local waste hauler for management of green waste and coordinates/promotes green waste recycling in the community through the waste hauler. The COS continues to maintain Mutt Mitt Stations (Hans Christian Andersen Park, Sunny Fields Park, Solvang Parks, and Veterans Memorial Building).

Since the Year 4 CTPL Pet Waste Campaign relaunch, the COB and COS continues to promote the CTPL Pet Waste Campaign on the Cities website and through direct mailers/ and/or at events such as the Buellton BBQ Bonanza, Santa Ynez Valley Botanic Garden's Pooch-a-Palooza. The Solvang Gathering (Greyhounds). During Year 5, the COB and COS r distributed education and outreach materials (38 CTPL Post Cards; 84 CTPL Dog Dispensers for Pet Waste; 35 Pet Food Scoops) to Dog Owners at these events who took a Pledge to CTPL and spread the word and use the CTPL bag dispenser for pet waste; and the CTPL pet food scoop to keep the message alive. The City also promoted the CTPL campaign through posting information at the Santa Ynez Valley Botanic Garden's Information Kiosk Display Board and at the Solvang Public Library's Stormwater Display Board.

During Year 5, the COB and COS expanded the CTPL Campaign by placing a Pledge Form within the City Hall, SYV Human Society and other City sponsored events as well as to

distribute the education and outreach materials to Dog Owners who take the CTPL Pledge. The COB and COS distributed education and outreach materials (42 CTPL Dog Dispensers for Pet Waste; 18 Pet Food Scoops) to Dog Owners at these events/locations. The Cities will also continue to conduct stormwater education and outreach efforts whenever possible through direct integrations or through direct mail/media campaign to both residents and businesses.

Pollution Prevention and Good Housekeeping (CASQA Outcome Level 2-4)

COB Data Assessment/Collection:

During Year 2, the COB launched “Close the Poop Loop”, a pilot pet waste campaign, aimed to target unattended dog waste throughout the City. The campaign was created in collaboration with the Cities of Carpinteria, Goleta, Guadalupe, Lompoc, Santa Barbara, Santa Maria, Solvang and the County of Santa Barbara’s Project Clean Water to encourage residents to pick up after their dogs and toss the waste in the trash. The Mutt Mitt Program’s efforts to continue to provide pet waste disposal bags at River View Park, Oak Park and PAWS Dog Park for use by the public, has helped reduce or eliminate pet waste at those locations. In total, the Mutt Mitt Program’s Bi-weekly Maintenance provided approximately 72,000 bags during Year 3. The results of Year 2 pilot pet waste campaign Pre- and Post-campaign Survey Results indicated that there was 0% change even though the COB developed strategic partnerships with 2 pet-related businesses within the targeted areas to display campaign materials to local dog owners in places they frequent and from people they trust as well as target 1 dog related event and conducted various messaging campaigns. The COS continues to conduct Mutt Mitt Station Bi-weekly Maintenance and provide pet waste bags disposal bags to Dog Owners.

Since the Year 4 CTPL Pet Waste Campaign relaunch, the COB and COS continues to promote the CTPL Pet Waste Campaign on the Cities website and promoted through direct mailers/media campaign and/or at events such as the Buellton BBQ Bonanza, Santa Ynez Valley Botanic Garden’s Pooch-a-Palooza, The Solvang Gathering (Greyhounds). During Year 5, the COB and COS distributed education and outreach materials (38 CTPL Post Cards; 84 CTPL Dog Dispensers for Pet Waste; 35 Pet Food Scoops) to Dog Owners at these events who took a Pledge to CTPL and spread the word and use the CTPL bag dispenser for pet waste; and the CTPL pet food scoop to keep the message alive. The City also promoted the CTPL campaign through posting information at the Santa Ynez Valley Botanic Garden’s Information Kiosk Display Board and at the Solvang Public Library’s Stormwater Display Board.

During Year 5, the COB and COS expanded the CTPL Campaign by placing a Pledge Form within the City Hall, SYV Human Society and other City sponsored events as well as to distribute the education and outreach materials to Dog Owners who take the CTPL Pledge. The COB and COS distributed education and outreach materials (42 CTPL Dog Dispensers for Pet Waste; 18 Pet Food Scoops) to Dog Owners at these events/locations.

The COB Contract Staff conducted a total of 40 FOG and 26 IWD Program Inspections with all non-storm water discharges resolved/closed through the FOG/IWD Program. As mentioned within the Education and Outreach (CASQA Outcome Level 2-3) Section, the COB Contract Staff initiated an annual survey during their FOG and IWD Program Inspections beginning Year 2 (11 FOG Questionnaires), Year 3 (27 FOG and 11 IWD

Questionnaires), Year 4 (65 FOG and 22 IWD Questionnaires) and Year 5 and Year 5 (40 FOG and 26 IWD Questionnaires) to engage the target audience with the following 3 questions: (1) Are you familiar with the COB's Storm Water Program?; (2) Are you aware of the requirements for your type of business activity?; and (3) Do you believe your business is in compliance with the City's Storm Water Program? The FOG and IWD Questionnaires showed more than 34% of businesses were not familiar with the COB's Stormwater Management Program; 28% of businesses were unaware of their business activities impact to stormwater; and 9% of the businesses did not believe their business was in compliance with the City's Stormwater Management Program. The response results may be attributed to new personnel encountered during the inspection as well as the survey questions not answered during the interview. The results of the survey questions show an improvement from Year 4 which may be a direct result of the City's continued education and outreach effort. The percent improvements are as follows: Q(1) 13%, Q(2) 33% and Q(3) 6%. During Year 5, the COB also modified the questionnaire form into a stormwater

During Year 4-5, the COB Contract Staff discontinued the FOG and IWD Program's Stormwater Questionnaire and replaced it with a FSE SW Inspection Form. The FOG Program's Inspection Form includes the survey questions as well as inspection questions pertaining to the exterior and interior portions of the facility. Additionally, the 3 survey questions were added to the IWD Program's Pretreatment Inspection Form. The COB also continues to provide IDDE and Staff and Site Operator Training as described within the Illicit Discharge Detection and Elimination (CASQA Outcome Level 4) Section above.

COS Data Assessment/Collection:

During Year 2, the COS has launched a Close the Poop Loop, a pilot pet waste campaign, aimed to target unattended dog waste throughout the City. The campaign was created in collaboration with the Cities of Carpinteria, Goleta, Guadalupe, Lompoc, Santa Barbara, Santa Maria, Buellton and the County of Santa Barbara's Project Clean Water to encourage residents to pick up after their dogs and toss it in the trash. The Mutt Mitt Program's efforts to continue to provide pet waste disposal bags at Hans Christian Andersen Park, Sunny Fields Park, Solvang Parks, and Veterans Memorial Building for use by the public, has helped reduce or eliminate pet waste at those locations. In total, the Mutt Mitt Program's Bi-weekly Maintenance provided approximately 8,000 bags during Year 3. The results of Year 2 pilot pet waste campaign Pre- and Post-campaign Survey Results indicated that there was 0% change even though the COS developed strategic partnerships with 3 pet-related businesses within the targeted areas to display campaign materials to local dog owners in places they regularly frequent and from people they trust as well as target 1 dog related event and conducted various messaging campaigns. The COS continues to conduct Mutt Mitt Station Bi-weekly Maintenance and provide pet waste bags disposal bags to Dog Owners.

Since the Year 4 CTPL Pet Waste Campaign relaunch, the COB and COS continues to promote the CTPL Pet Waste Campaign on the Cities website and promoted through direct mailers/media campaign and/or at events such as the Buellton BBQ Bonanza, Santa Ynez Valley Botanic Garden's Pooch-a-Palooza, The Solvang Gathering (Greyhounds). During Year 5, the COB and COS distributed education and outreach materials (38 CTPL Post Cards; 84 CTPL Dog Dispensers for Pet Waste; 35 Pet Food Scoops) to Dog Owners at these events who took a Pledge to CTPL and spread the word and use the CTPL bag dispenser for pet waste; and the CTPL pet food scoop to keep the message alive. The City also promoted the CTPL campaign through posting information at the Santa Ynez Valley

Botanic Garden's Information Kiosk Display Board and at the Solvang Public Library's Stormwater Display Board.

During Year 5, the COB and COS expanded the CTPL Campaign by placing a Pledge Form within the City Hall, SYV Human Society and other City sponsored events as well as to distribute the education and outreach materials to Dog Owners who take the CTPL Pledge. The COB and COS distributed education and outreach materials (42 CTPL Dog Dispensers for Pet Waste; 18 Pet Food Scoops) to Dog Owners at these events/locations. The City also installed 2 Mutt Mitt Stations in within Skytt Mesa residential area due to homeowner concerns with unattended pet waste and addressing resident's on-going concerns. The COS's FOG Program continues to be managed by the Wastewater (WW) Division. The WW Division provides FOG control material to new FSE and existing businesses experiencing FOG problems, surveys are not part of their education and outreach program.

In Year 4, the Stormwater Program created an online FOG Questionnaire/Survey. Survey invite cards were created with instructions and a link to the online survey. WW staff was asked to distribute the survey cards during routine FOG inspections. The online survey asked the following 3 questions 1) Are you familiar with the COS's Storm Water Program?; 2) Are you aware of the requirements for your type of business activity?; and 3) Do you believe your business is in compliance with the City's Storm Water Program and other questions related to good housekeeping behaviors and habits.

The City did not receive any responses to the online survey. The low participation could be due in part to the lack of interest among restaurant employees and/or internal misunderstandings of stormwater and FOG program goals. Currently there is a low incident of FOG related SSO in the City's commercial services areas. From a collection system perspective the FOG-control program is achieving the FOG-control's number one goal of preventing main line blockage and spills. While, additional data collection related to FOG-control is not discouraged it is also not a top priority for the collection system staff. The stormwater program continues to promote the online survey; make Restaurant BMPs that include proper grease disposal instruction available at City Hall and online; and include restaurant BMPs with all restaurant IDDE follow-ups.

During Year 5, the COB and COS began collaboration with the Cities of Carpinteria, Goleta, Lompoc, Santa Barbara and the County of Santa Barbara on a new Mobile Cleaner's Guide to BMPs that includes BMPs for Food Related Industry and Surface Cleaner's. The guide was finalized and distributed in both English and Spanish to 70 Mobile Cleaner's working within the Partner Agencies jurisdiction as well as posted to the City's Stormwater Management webpage. 20 of the 70 are designated as surface cleaners whose operation activities could potentially generate stormwater runoff containing nutrients.

COB and COS also began collaboration with the same Partner Agencies on a new Landscaper's Guide to BMPs as well as a new Restaurant Guide to BMPs to be released during Year 6 in both English and Spanish. In addition, the COS met with the Santa Barbara County Public Health Department's Environmental Health Services (SBCPHD-EHS) and gained a better understanding of their role in FOG-control and obtained guidance on the management of cooking oil/grease management. The City also included on the SBCPHD-EHS in the review and comment period of the new Restaurant Guide to BMPs.

The COS continues to provide IDDE and Staff and Site Operator Training as described within the Illicit Discharge Detection and Elimination (CASQA Outcome Level 4) Section above.

Water Quality Monitoring (CASQA Outcome Level 5)

Both the COB and COS are participating in the Santa Barbara County Public Works Department's regional water quality monitoring program. The draft Urban Storm Water Monitoring Plan (titled Receiving Water Monitoring Plan) FY 2015-2018 was submitted to Region 3 Water Board on December 29, 2014. This plan included a regional monitoring approach for Cities of Buellton, Solvang, Carpinteria, Goleta and the County of Santa Barbara. The Quality Assurance Project Plan along with the updated Urban Storm Water Monitoring Plan, revised to address comments from the Regional Board was submitted on October 13, 2015 through the SMARTS Database. On March 4, 2016, Santa Barbara County Project Clean Water received Executive Officer Approval for the revised Urban Stormwater Monitoring Plan (USWMP) and the Quality Assurance Plan (QAPP). Monitoring was initiated during Year 3 and results will be reported as part of the Year 3 and subsequent Annual Reports.

The results of the USWMP will provide a land use-based pollutant load prioritization and reduction model (LPRM) that will be used to calculate wet weather loads produced in the monitoring area, prioritize catchments for BMP placement, and evaluate the performance of existing and future BMPs. The monitoring data collected in Year 3 through the activities described in this Plan were used to inform the model, by providing site-specific land use pollutant concentration data. As described within the USWMP, the monitoring outfalls will be selected based on their drainage areas consisting of a more or less homogenous land use category. Once 8 to 10 storms have been analyzed, the EMCs used in the model will be revised to include our local runoff concentrations, and new modeling results will be reported.

On November 10, 2016, the CCRWQCB provided comments on how to refine the model approach to meet specific requirement listed in Technical Report Order 13267 issued on June 13, 2016.. On July 18, 2017, the CCRWQCB approved the revised LPRM submitted to meet the requirements of Technical Report Order 13267 which includes the ability to determine the percent capture of the BMPs implemented based on the standard design attributes. During Year 3-5, a total of 12 Storm Events were analyzed and uploaded to the model (2016: 4 Storm Events; 2017: 6 Storm Events; 2018: 2 Storm Events). In addition, the BMPs inventoried along with the results of the BMP Field Assessment results will be uploaded to the LPRM and the new modeling results will be reported along Technical Report Order 13267 Report #3.

SEDIMENTATION/SILTATION (Total Suspended Solids)

Education and Outreach (CASQA Outcome Level 2-3)

COB Data Assessment/Collection:

During Year 5, the COB continued to implement a Spill Response Plan which provides guidance to City Staff and Authorized Contract Staff responding to a complaint or notice of a spill discharge or illicit connection; and conducting an investigation to locate and identify the source of a non-stormwater discharge. Both City Staff and Authorized Contract Staff (19

City Staff and 13 City Contract Staff) were provided IDDE; Staff and Site Operator Training; and Permittee Staff Training. The training has provided an increase in stormwater general awareness amongst staff and has result in and an increase in reporting of possible illicit discharges or connections.

The COB also maintained connections 7 construction contractors through issuance of grading permits and inspections which occur at various frequencies (Prior to Land Disturbance; Prior to Rainy Season; Prior to any Forecast Storm (50% or Greater); During Rainy Season; After Rain Events that cause Runoff; 24-Hour Interval during Extended Rain Event; During Active Construction; Following Active Construction; and/or Monthly) to ensure the construction contractors are informed of proper erosion and sediment control measures.

The COB continues to maintain the EPA's Construction Outreach Poster (24 in x 36 in) "Stormwater and the Construction Industry" on the City's Stormwater Management website and its link will be provided to the project development for sites requiring a Stormwater Pollution Prevention Plan. The City also maintains the "Prevent Soil Erosion on Your Property – A Homeowner's Guide to Erosion Control" guide on its Stormwater Management webpage as well as maintains copies within the brochure displays at designated City facilities (City Hall, Planning Department).

COS Data Assessment/Collection:

During Year5, the COS continued to implement a Spill Response Plan which provides guidance to City Staff and Authorized Contract Staff responding to a complaint or notice of a spill discharge or illicit connection; and conducting an investigation to locate and identify the source of a non-stormwater discharge. There were 23 City Staff that were provided IDDE; Staff and Site Operator Training; and Permittee Staff Training. The training has provided an increase in stormwater general awareness amongst staff and has result in and an increase in reporting of possible illicit discharges or connections.

The COS maintained connections with 3 construction contractors through issuance of grading permits and inspections which occur at various frequencies to ensure the construction contractors are informed of proper erosion and sediment control measures.

The COS continues to maintain the EPA's Construction Outreach Poster (24 in x 36 in) "Stormwater and the Construction Industry" on the City's Stormwater Management website and its link will be provided to the project development for sites requiring a Stormwater Pollution Prevention Plan. The City also maintains the "Prevent Soil Erosion on Your Property – A Homeowner's Guide to Erosion Control" guide on its Stormwater Management webpage as well as maintains copies within the brochure displays at designated City facilities (City Hall, Planning Department).

Illicit Discharge Detection and Elimination (CASQA Outcome Level 4)

COB Data Assessment/Collection:

During Year 5, the COB continues to implement its IDDE Program through BMC Title 15 Stormwater Chapter 15.01 Stormwater Management and Discharge Control also known as the Stormwater Management and Discharge Ordinance and the COB Stormwater Program Management Certification Statement which provides COB full legal authority to implement

and enforce each of the NPDES Phase II MS4 General Permit requirements. The COB also developed and implemented Enforcement Response Plan that includes enforcement measures and tracking of the types of enforcement responses.

The COB has also implemented a Spill Response Plan which provides guidance to City Staff and Authorized Contract Staff responding to a complaint or notice of a spill discharge or illicit connection; and conducting an investigation to locate and identify the source of a non-stormwater discharge. During Year 4, both City Staff and Authorized Contract Staff (19 City Staff and 13 City Contract Staff) were provided IDDE and Staff and Site Operator Training. The training has provided an increase in stormwater general awareness amongst staff and has result in and an increase in reporting of possible illicit discharges or connections. In Year 5, there were 3 site investigations associated with sedimentation/siltation related discharges from construction site. As a result of these investigations, the COS issued 2 verbal warnings and 2 notices of violations that included a referral to the CCRWQCB as a result of construction activities. As part of the Stormwater Management Program, the COB continues to work with construction contractors to resolve any corrective actions and/or discrepancies found during the inspection.

COS Data Assessment/Collection:

During Year 5, the COS continues to implement its IDDE Program through SMC Title 14 Stormwater Management also known as the Stormwater Management Ordinance and the COS's Stormwater Program Management Certification Statement which provides the City full legal authority to implement and enforce each of the NPDES Phase II MS4 General Permit requirements. The COS also updated the draft Enforcement Response Plan that includes enforcement measures and tracking of the types of enforcement responses. In Year 5, there were no site investigations associated with sedimentation/siltation related discharges from construction sites. . As part of the Stormwater Management Program, the COS continues to work with construction contractors to resolve any corrective actions and/or discrepancies found during the inspection.

The COS has also implemented a Spill Response Plan which provides guidance to City Staff responding to a complaint or notice of a spill discharge or illicit connection; and conducting an investigation to locate and identify the source of a non-stormwater discharge. There were 23 City Staff that were provided IDDE; Staff and Site Operator Training; and Permittee Staff Training. The training has provided an increase in stormwater general awareness amongst staff and has result in and an increase in reporting of possible illicit discharges or connections.

Construction Site Stormwater Runoff Control (Outcome Level 2-3)

COB Data Assessment/Collection:

During Year 5, the COB issued 3 new construction site grading permits. Since each of the 7 active sites have/had an Erosion and Sediment Control Plan (E&SCP), the COB does not consider sites with an E&SCP a water quality threat as long as the site continues to actively implement the E&SCP and resolve any corrective actions and/or discrepancies found during the inspection.

The 3 new construction sites received discretionary approval after March 6, 2014 and required the submittal of a Storm Water Control Plan (SWCP) which was developed for

compliance with Post Construction Requirements (PCRs) and Low Impact Development Measures. To date, the COB has completed the review and approval of 2 of the 3 SWCP.

The COB also continued to inspection 6 construction sites and continued to conduct the following type of inspections as applicable: Prior to Land Disturbance; Prior to Rainy Season; Prior to any Forecast Storm (50% or Greater); During Rainy Season; After Rain Events that cause Runoff; 24-Hour Interval during Extended Rain Event; During Active Construction; Following Active Construction; Monthly). As part of the Stormwater Management Program, the COB will continue to monitor the erosion and sediment control measures. Due to the high volume of construction inspections, the COB will re-evaluate the frequency of inspections to ensure effective use of resources while still complying with the NPDES Phase II MS4 General Permit requirements.

COS Data Assessment/Collection:

During Year 5, the COS issued 1 new residential construction site grading permit. Since each of the 2 active construction sites have an E&SCP, the COS does not consider sites with an E&SCP a water quality threat as long as the site continues to actively implement the E&SCP and resolve any corrective actions and/or discrepancies during the inspection. It should be noted that 1 active construction site received discretionary approval prior to March 6, 2014 and the other did not require discrepancy approval.. There is also 1 residential construction site on-hold that received discretionary approval prior to March 6, 2014. . Even though the residential construction site on-hold, it is not required to implement an E&SCP, the City requested an E&SCP for City review and approval.

The COS also inspected the 2 active construction sites and continued to conduct the following type of inspections as applicable: Prior to Land Disturbance; Prior to Rainy Season; Prior to any Forecast Storm (50% or Greater); During Rainy Season; After Rain Events that cause Runoff; 24-Hour Interval during Extended Rain Event; During Active Construction; Following Active Construction; Monthly). As part of the Stormwater Management Program, the COS will continue to monitor the erosion and sediment control measures. Due to the high volume of construction inspections, the COB will re-evaluate the frequency of inspections to ensure effective use of resources while still complying with the NPDES Phase II MS4 General Permit requirements.

Post-Construction Site Stormwater Runoff Control (CASQA Outcome Level 2-3)

COB Data Assessment/Collection:

During Year 5, there were 3 out of 7 active construction sites received discretionary approval after March 6, 2014 and were required to submit a SWCP to comply with PCRs and LID Measures. All 7 active construction sites have or will be implementing PCRs and/or LID Measure(s).

COS Data Assessment/Collection:

During Year 5, there was 1 active construction site that received discretionary approval after March 6, 2014 and the other did not require discretionary approval. Both sites submitted a SWCP to comply with PCRs and/or LID Measures.

Pollution Prevention and Good Housekeeping (CASQA Outcome Level 2-3)

COB Data Assessment/Collection:

During Year 5, the COB Street Sweeping Maintenance Contractor continues to conduct Bi-Monthly Street Sweeping Activities on all municipal streets (residential and arterial roads but not private roads), alleyways, and parking lots based on a pre-determined frequency and route. By conducting street sweeping activities, the COB minimized sedimentation/siltation from the entering the storm drain conveyance system. The COB also developed and implemented a Storm Drain System Assessment, Prioritization and Maintenance Standard Operating Procedure (SOP) to comply with the NPDES Phase II MS4 General Permit. As a pollution prevention and good housekeeping measure, City Staff were instructed to ensure dumpsters are closed; paint solvents, metals and other construction materials are properly stored and covered; and to walk their facilities and pick up any trash or debris that has accumulated prior to forecast of rain.

During Year 5, the Storm Drain Maintenance Contractor (SDMC) inspected and cleaned approximately 139 catch basins/drop inlets and 15 sidewalk/area drains. Additionally, the COB also updated its inventory for Year 5 to include newly identified structures, replaced/installed and damaged/missing Storm Drain Curb Markers; and facilitated storm drain infrastructure repairs. During Year 6, the approved SDMC will be conducting inspections/maintenance on 22 catch basins, 119 drop inlets, 7 area drains and 51 sidewalk drains.

COS Data Assessment/Collection:

During Year 5, the COS Street Sweeping Maintenance Contractor continues to conduct Street Sweeping Activities on all municipal streets (residential and arterial city streets) bi-monthly, downtown village area once per month, alleys downtown every month, and Hans Christian Andersen Park and Sunny Fields Park quarterly. By conducting street sweeping activities, the COS minimized sedimentation/siltation from the entering the storm drain conveyance system to comply with the NPDES Phase II MS4 General Permit.

The COS also developed and implemented a Storm Drain System SOP for Assessing & Prioritizing Maintenance Activities to comply with all required program elements of the NPDES Phase II MS4 General Permit. The COS has over 300 storm drain structures in its inventory. The COS does not have the resources to inspect and clean all storm drain structures annually. The COS used their GIS database to develop a method for prioritizing and assessing the inventory. All high-priority areas were inspected and minor maintenance was performed based on an annual maintenance schedule. The City is going to continue with the assessment method describe above for the remainder of this permit term.

Water Quality Monitoring (CASQA Outcome Level 5)

Both the COB and COS are participating in the Santa Barbara County Public Works Department's regional water quality monitoring program. The draft Urban Storm Water Monitoring Plan (titled Receiving Water Monitoring Plan) FY 2015-2018 was submitted to Region 3 Water Board on December 29, 2014. This plan included a regional monitoring approach for Cities of Buellton, Solvang, Carpinteria, Goleta and the County of Santa Barbara. The Quality Assurance Project Plan along with the updated Urban Storm Water Monitoring Plan, revised to address comments from the Regional Board was submitted on October 13, 2015 through the SMARTS Database. On March 4, 2016, Santa Barbara

County Project Clean Water received Executive Officer Approval for the revised Urban Stormwater Monitoring Plan (USWMP) and the Quality Assurance Plan (QAPP). Monitoring was initiated during Year 3 and results will be reported as part of the Year 3 and subsequent Annual Reports.

The results of the USWMP will provide a land use-based prioritization and reduction (LPRM) model that will be used to calculate wet weather loads produced in the monitoring area, prioritize catchments for BMP placement, and evaluate the performance of existing and future BMPs. The Plan will be used to inform the model, by providing site-specific land use pollutant concentration data. As described within the USWMP, the monitoring outfalls were selected based on their drainage areas consisting of a more or less homogenous land use category. The first year of wet weather urban runoff was initiated in Year 3. Four storms were monitored at a total of 6 sites representing different land use types. Once 8 to 10 storms have been analyzed, the event mean concentrations used in the model will be revised to include our local runoff concentrations, and new modeling results will be reported

On November 10, 2016, the CCRWQCB provided comments on how to refine the model approach to meet specific requirement listed in both Technical Report Order 13267 (issued on June 13, 2016) and 13383 (issued on June 1, 2017). On July 18, 2017, the CCRWQCB approved the revised LPRM submitted to meet the requirements of Technical Report Order 13267 which includes the ability to determine the percent capture of the BMPs implemented based on the standard design attributes. During Year 3-5, a total of 12 Storm Events were analyzed and uploaded to the model (2016: 4 Storm Events; 2017: 6 Storm Events; 2018: 2 Storm Events). In addition, the BMPs inventoried along with the results of the BMP Field Assessment results will be uploaded to the LPRM and the new modeling results will be reported along Technical Report Order 13267 Report #3.

3. Short- and Long-Term Program Effectiveness

During Year 5, the COB and COS continued to maintain its two short term goals. Comply with the NPDES Phase II MS4 General Permit requirements and to fully implement the SOPs developed during this permit term to minimize the identified high- and medium-priority POCs from entering the Storm Drain System. Continue to collect and track program data that will be used to modify and improve each City's Storm Water Management Program.

Both COB and COS maintain its long term goal of the effectiveness assessment program to reduce pollutants from the MS4 to the maximum extent practicable. By applying Best Management Practices that are effective in reducing or eliminating the discharge of pollutants to the waters of the U.S. Through the emphasis of pollutant reduction and source control BMPs to prevent pollutants from entering storm water run-off. Both Cities recognize that this is a dynamic process and may require changes over time as we gain experience and as new science and technologies become available.

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				2014	2015	2016	2017																		2018	Local MS4 Department	Id. Regional Organization or Co-permittee	High (Nutrients) and/or Medium (Sedimentation/Siltation) Priority Pollutants of Concern (POC) Addressed?	Does BMP address a CAGWA Outcome Level (PEAIP)? (Y=Yes, N=No, N/A=Not Applicable)	Was BMP implemented? (Y=Yes, N/A=Not Applicable)	How effective is this BMP at reducing High or Medium Priority POCs? (Low = 1 Medium = 2 High = 3)	Ongoing implementation of BMP. No modifications	Improvement upon BMPs that are underperforming	Continuing and expanding upon BMPs that proved effective, including identifying new BMPs or modifications to existing to increase pollutant load reductions
<p>The City's Guidance Document includes an array of BMPs to achieve water quality protection conditions and is adaptable to provide the protection and water quality to the Maximum Extent Practicable. Both Cities have the following planning goals which will be met by implementing this Guidance Document:</p> <ol style="list-style-type: none"> 1. Maximize Infiltration of Clean Storm Water, and Minimize Runoff Volume and Rate. 2. Protect Riparian Areas, Wetlands, and Their Buffer Zones including measures to establish and maintain a minimum 30-foot buffer zone for identified riparian areas and wetlands. 3. Minimize Pollutant Loading. 4. Provide Long-Term Watershed Protection. <p>The Cities will develop a watershed-based Hydromodification Management Plan (HMP) utilizing the Central Coast Water Board Post-Construction requirements to incorporate Low Impact Development (LID) strategies with the goal to limit impervious area within the watershed.</p> <p>The Cities acknowledge the importance of protecting water quality, beneficial uses, and the biological and physical integrity of its watersheds and is determined to attain compliance with the General Permit and the Post-Construction Requirements. Therefore, specific BMPs have been selected and defined in this Guidance Document to realize these goals. The Cities—with the support of the public, staff, and Central Coast Water Board—are confident they can reduce the discharge of pollutants to the Maximum Extent Practicable (MEP), establish and effectively manage hydromodification controls, and address specific water quality challenges it currently faces.</p>																																		
<p>PROGRAM MANAGEMENT ELEMENT</p> <p>E.6</p> <p>The Cities have adopted numerous ordinances over the years to create and maintain a healthy, safe, and pleasant environment in which to live, work, and play. In order to maintain and enhance the quality of life in both Buellton and Solvang, the Code Compliance Division of the Cities investigate and resolve municipal code violations on private property. Sources of the Cities' legal authority to enforce this SWMP include the General Plan, the Municipal Code, the building and development plan review and grading permit processes, Public Works Department's Standard Specifications, and solid waste regulations. The Cities have adequate legal authority to enforce the current ordinance already in place to protect water quality, including City commitments to: 1) Enforce current stormwater codes and/or ordinances at 100% of construction sites; 2) Evaluate the effectiveness of current stormwater codes and/or ordinances and whether they comply with all General Permit requirements; 3) Modify current stormwater codes and/or ordinances, if necessary, to comply with all General Permit and Post-Construction Requirements; and 4) Implement and enforce the new codes and/or ordinances as necessary. The Cities will maintain legal authority to implement and enforce the Guidance Document to reduce the discharge of pollutants from the MS4 to the MEP and to protect water quality.</p> <p>City Departments coordinate internally to expedite investigation into violations observed or reported via a direct call or written complaint to any City Department or the Santa Barbara County hotline. Once received by the Public Works Director and based on the merits of each individual case, an appropriate municipal code section is applied to the violation (if any). Depending on the individual factors associated with a particular case as outlined in Municipal Code, if compliance is not achieved, actions may include the issuance of an administrative citation, compliance order issued by the Cities Councils, injunctive relief, criminal prosecution or other legal pursuits.</p> <p>The Planning Department has an established process for verifying resolution of a Municipal Code violation. Verification can be addressed by the Code Compliance Officer or by a representative from another Department. All phases of the enforcement process are tracked by the Planning Department.</p> <p>The City will have on staff a certified Stormwater Compliance Officer or registered PE to support implementation of the Guidance Document and enforcement of the General Permit, Post-Construction Requirements and Municipal Code as it relates to storm water quality, illicit discharges and connections, construction storm water controls, and post-construction storm water controls and maintenance.</p>																																		
E.6.a	Legal Authority (update or create ordinance)	B.2, C.7	Review existing ordinances and create new ones as needed to fulfill permit requirements.	2015		X			City Public Works / Engineering / Attorney	City of Buellton / City of Solvang	The Cities have adequate legal authority to enforce the current ordinances to protect water quality, including the Storm Water Ordinance.	N											Not reducing or ceasing BMPs as described therefore not applicable.	High and Medium	1	1	2	4	Ongoing implementation of BMP. No modifications.					Continue as is and updated as needed.
E.6.b	Certification		Submit statement of legal authority with the online annual report.	2015		X			Public Works / Engineering	City of Buellton / City of Solvang	The Cities will have on staff a certified Stormwater Compliance Officer or registered PE to support implementation of the General Permit and enforcement of the Municipal Code as it relates to storm water quality, illicit discharges and connections, construction storm water controls, and post-construction storm water controls and maintenance.	N											Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	1	1	2	Ongoing implementation of BMP. No modifications.					Continue as is and updated as needed.
E.6.c	Enforcement Response Plan		Develop Enforcement Response Plan	2016		X	X	X	Planning Department / Code Enforcement	City of Buellton / City of Solvang	Enforcement can be addressed by the Code Compliance Officer or by a representative from another Department.	N											Not reducing or ceasing BMPs as described therefore not applicable.	High and Medium	1	1	2	4	Ongoing implementation of BMP. No modifications.					Continue as is and updated as needed.

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				2014	2015	2016	2017	2018	Local MS4 Department																	Id. Regional Organization or Co-permittee	
E.7.b.2 Construction Outreach and Education																											
(a) Permittee Staff Training	CS 3	See BMP Spreadsheet	2015	X	X	X	X	Public Works / Engineering City of Buellton / City of Solvang	The Cities will provide annual training of 100% of grading, construction site inspectors and Planning and Building staff responsible for plan checks. The Cities have CSP/QSD certified staff working on the storm water management program to meet the requirements of the permit.	Y	Maintain	Construction plan checking staff will receive annual training based on current accepted practices and statewide standards. Inspection staff will receive annual training in currently applicable regulations and compliance standards and techniques.	Not reducing or ceasing BMPs as described therefore not applicable.	Medium	1	1	2	4	Ongoing implementation of BMP. No modifications.					Continue as is and updated as needed.			
(b) Construction Site Operator Education	CS 4	See BMP Spreadsheet; can modify BMP to include better references in the Permit to distribute outreach material to operators and website updates.	2016	X	X	X	X	Public Works / Engineering City of Buellton / City of Solvang / Santa Barbara County	The construction community will be responsible for developing and implementing erosion and sediment control plans or Storm Water Pollution Prevention Plans, as appropriate.	N		At least one annual workshop will be held in conjunction with other local agencies. The workshop will be advertised at least one month prior to date in a local newspaper and through internet communication. Public forums will take place at the annual meetings. The Public will be provided with information on how to recognize and report potential permit violations.	Not reducing or ceasing BMPs as described therefore not applicable.	Medium	0	1	1	2						A.1.b.4.c and d (Required for Renewal Permittees only) The Cities do not typically hold an annual Construction Outreach and Education workshop with other local agencies but rather forward information on upcoming workshops to the local construction community. Public Forums typically do not take place at annual meetings but rather the Cities maintain Recognizing and Reporting Stormwater Pollution brochures in stormwater displays located within designated City offices and/or locations as well as have them available at events and each City's website; and therefore, the Cities propose to remove this requirement from this Permit Section and Element.	A.1.b.4.c and d (Required for Renewal Permittees only) The Cities will continue to forward information on upcoming workshops to the local construction community. The City will continue to maintain Recognizing and Reporting Stormwater Pollution brochures at stormwater displays within designated City offices and/or locations as well as have them available at events and each City's website.	Cities will proceed implementing changes per revised guidance document submitted.	
E.7.b.3 Pollution Prevention and Good Housekeeping Staff Training																											
Biennial employee training	PP 1	See BMP Spreadsheet and Tables 6.1 and 6.2	2015	X	X	X	X	Public Works City of Buellton / City of Solvang	Most of the training programs will be integrated into existing training presented to staff, such as safety training. The Cities will develop a Fact Sheet including all BMPs currently adopted and in use by the Cities, and will distribute the Fact Sheet and use it in training. The Fact Sheet will provide general direction to all City employees to protect water quality both at work and at home. Training topics will range from the general City/MS4 Employee BMP's to activity-specific BMPs such as "Vehicle Maintenance."	Y	Maintain	a. The Cities will provide annual training for key staff in the proper implementation of all BMPs adopted by the Cities for municipal operations. b. Both Cities departmental managers will develop guidance on their Department's responsibilities for storm water management. c. The Cities will develop a Fact Sheet on all BMPs in use. d. The Cities will distribute training materials to all staff responsible for installing, implementing, maintaining, or enforcing BMPs.	Not reducing or ceasing BMPs as described therefore not applicable.	High and Medium	1	1	2	4								Additional Implementation Notes Although California's Environmental Safety covers NPDES Training (including BMPs, etc.), this training may not occur annually and therefore, the Cities provide topic specific stormwater training in accordance to the requirements of this guidance document. The Cities did not develop a Fact Sheet that includes all BMPs currently adopted and in use by the Cities but rather developed BMP Guides for Homeowners, Businesses, etc. that are provided to City staff during annual stormwater training. The City also incorporated currently used BMPs into the Operations and Maintenance Assessment Activities Inspection Form that are reviewed and used by City staff to conduct assessment of their activities on a quarterly basis. A.1.b.4.c and d (Required for Renewal Permittees only) a. The Cities will provide annual training for key staff in the proper implementation of all BMPs adopted by the Cities for municipal operations. b. Each City's Engineering Department/Division are responsible for developing stormwater management guidance and not the departmental managers, and therefore, the Cities propose to remove this requirement from this Permit Section and Element. c. The Cities did not develop a Fact Sheet that includes all BMPs currently adopted and in use by the Cities but rather developed BMP Guides for Homeowners, Businesses, etc. that are provided to City staff during annual stormwater training. The City also incorporated currently used BMPs into the Operations and Maintenance Assessment Activities Inspection Form that are reviewed and used by City staff to conduct assessment of their activities on a quarterly basis. The Cities propose to remove this requirement from this Permit Section and Element. d. The Cities distribute training materials to all City staff responsible for installing, implementing, maintaining, inspecting and/or enforcing BMPs. Refer to BMP Detail for Proposed Modifications for BMP PP.3.	Cities will proceed implementing changes per revised guidance document submitted.

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				2014	2015	2016																		2017
E.8 PUBLIC INVOLVEMENT AND PARTICIPATION PROGRAM																								
This minimum control measure is intended to foster active community support for the General Permit and direction as to its implementation through this Guidance Document. Participation by the public ensures that the program reflects community values and priorities and thus has the highest potential for success. All public notices related to this minimum control measure will be conducted in compliance with all State and local public notice requirements.																								
The following BMPs assure that the program will be supported by City residents and provide input to public development of the program in the future.																								
Since the established North County Stakeholders meetings have proven to garner low if any attendees, the Cities will not attempt to establish a steering committee but instead focus on regularly attended public forums.																								
	Develop program with input of the public and implement	The Cities will focus on regularly attended public forums for public involvement, and involved with IRWMP	2015	X			Public Works	City of Buellton / City of Solvang / County of Santa Barbara	The Cities are cooperating partners of the Santa Barbara County IRWMP which is open to stakeholders such as Heal the Bay and other non-profit groups which include public involvement as well.	Y	Maintain					2		Ongoing implementation of BMP. No modifications.				Continue as is and updated as needed.		
(a)	Develop Public Involvement strategy	See BMP Spreadsheet	2015	X	X	X	Public Works	City of Buellton / City of Solvang / County of Santa Barbara	The Cities are cooperating partners of the Santa Barbara County IRWMP which is open to stakeholders such as Heal the Bay and other non-profit groups which include public involvement as well.	Y	Maintain	a. The Cities will present the NPDES permit report annually at a City Planning Commission and for City Council meeting and less other events annually. Comments pertaining to new stormwater ordinances will be solicited prior to and during code development. b. The Cities will promote clean up day by advertising posters at City events and/or meetings and at various City buildings, and by running 1-3 news articles in local news media.	High and Medium	N/A	1	1	2				A.1.b.4.c and d (Required for Renewal Permittees only) a. The Cities provide the Stormwater Management Program Report to the City Council but typically do not present the report to the Planning Commission or present at two other events annually. The Cities also upload the Stormwater Management Program Report to each Cities website and/or maintain a hard copy within City Hall. Refer to BMP	A.1.b.4.c and d (Required for Renewal Permittees only) a. The Cities continue to provide the Stormwater Management Program Report annually to the City Council as well as upload the report to each Cities website and/or maintain a hard copy within City Hall.	Cities will proceed implementing changes per revised guidance document submitted.	
(b)	Consider Citizen Advisory Group	See BMP Spreadsheet	2015	X	X	X	Public Works	City of Buellton / City of Solvang	The Permittee will continue to ask individuals to be involved in a public committee.	Y	Maintain	Develop an interested parties list by making sign-up opportunities available on both City websites, at public meetings, at public events attended by City staff, and at the clean up day.	High and Medium	N/A	1	1	2		Continue as is and updated as needed.				Continue as is and updated as needed.	
(c)	Create Involvement Opportunities	See BMP Spreadsheet	2015	X	X	X	Public Works	City of Buellton / City of Solvang	This permit section gives a few more ideas that could be added to the BMP.	Y	Maintain	The Cities will each sponsor one clean up event annually, with a goal of increasing attendance by 10% annually.	High and Medium	N/A	1	1	2						A.1.b.4.c and d (Required for Renewal Permittees only) The Cities sponsor quarterly cleanup events and not just one annually. To increase participations annually, the Cities promote the cleanup through direct mailers by waste contractors and via the City and Less is More website. The waste contractor provides cleanup event data that includes attendees and amount and type of waste collected at each event. Refer to BMP Detail for Proposed Modifications for BMP P1.3.	Cities will proceed implementing changes per revised guidance document submitted.

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				2014	2015	2016	2017																			2018
E.8 (cont.)	(d) Ensure public can access info about program	B.5	See BMP Spreadsheet	2015	X	X	X	X	Public Works	City of Buellton / City of Solvang		Y	Maintain	a. Make information available on both City websites, at public meetings, at public events attended by City staff, and at the clean up day. b. Send information about developments in each City's stormwater program and about upcoming meetings and events to people signed up on the interested parties list.	Not reducing or ceasing BMPs as described therefore not applicable.	High and Medium	1	1	1	3	Ongoing implementation of BMP. No modifications.					Continue as is and updated as needed.
	(e) Engage in IRWMP or equivalent	B.2	See BMP Spreadsheet	2015	X	X	X	X	Public Works	City of Buellton / City of Solvang / Santa Barbara County / SBCAAM	The Cities are involved in the IRWMP and other joint efforts regarding watersheds.	Y	Maintain	Staff will attend applicable meetings (i.e., IRWMP, SBCAAM and CAGWA), maintaining a 75% attendance rating at SBCAAM meetings annually.	Not reducing or ceasing BMPs as described therefore not applicable.	High and Medium	N/A	1	1	2	Ongoing implementation of BMP. No modifications.					Continue as is and updated as needed.
E.9 ILLICIT DISCHARGE DETECTION AND ELIMINATION																										
<p>This minimum control measure is designed to reduce pollutants in storm water runoff to receiving waters. It requires the development and implementation of a system to identify and eliminate sources of illicit discharge and illegal dumping. The Cities will enhance their current systems to identify and eliminate illicit discharges. This system will primarily depend on City employees periodically reviewing and inspecting common problem areas in the Cities. City staff (including at least one certified Storm Water Inspector or Professional Engineer) will also work closely with the County officials to provide adequate storm water protection for areas within the Cities' jurisdiction. The systems will also depend on input and reporting by the public on illegal dumping by contacting the Cities or the hotline as described in this Guidance Document.</p> <p>The following discharges may be exempted from being regulated discharges unless they are determined to be a significant source of pollution or a nuisance. Currently the Cities utilize existing ordinances to prevent any of these activities from making a significant contribution of pollutants and address the following categories of non-storm water discharges or flows (i.e., authorized non-storm water discharges) only when they are identified as significant contributors of pollutants to the Small MS4. Items listed have such a minimal effect on the storm water quality of the area that they can be exempted from the Guidance Document. Though they may not be addressed specifically in this Guidance Document, it is still important to educate the public and City employees on the BMPs regarding these items to prevent them from becoming a Pollutant of Concern: 1) Water line flushing; 2) Landscape irrigation; 3) Uncontaminated groundwater; 4) Discharges from potable water sources; 5) Irrigation water; 6) Individual residential car washing; 7) Flows from riparian habitats; 8) Dechlorinated swimming pool water.</p> <p>The Cities intend to maintain ongoing efforts to control illicit discharges at current levels and will implement additional suggested "Best Management Practices" listed in this section to develop, implement, and enforce a program to detect and eliminate illicit discharges. Currently the Cities' ordinances related to illicit discharges are the same as the County of Santa Barbara, adopted by reference.</p>																										
E.9.a Outfall Mapping																										
	Create and maintain accurate outfall map including a site visit to each outfall	B.1	See BMP Spreadsheet	2015	X	X	X	X	Public Works / Engineering	City of Buellton / City of Solvang	The Cities will update the outfall map annually with information required such as signatures, locality of outfalls as well as photos inspect each location and note priority areas.	Y	Maintain	The Cities will have a complete storm drain map showing outfall locations and used to document illicit discharge sources in each City. This map will be updated and revised annually to include any changes to existing stormdrains or new development.	Not reducing or ceasing BMPs as described therefore not applicable.	High and Medium	N/A	1	1	2	Ongoing implementation of BMP. No modifications.					Continue as is and updated as needed.
E.9.b Illicit Discharge Source/Facility Inventory																										
	Create inventory of all industrial/commercial facilities and update annually	B.5	Click See Table B.2	2015	X	X	X	X	Public Works / Engineering / Planning Department	City of Buellton / City of Solvang	The Cities shall modify the BMP to specifically address the industrial/commercial facilities by name, address and other requirements as set forth in the General Permit.	N														Continue as is and updated as needed.
	Assess priority areas once during permit term	B.5	See BMP Spreadsheet	2017				X	Public Works	City of Buellton / City of Solvang	The Cities will update inventories annually.	Y	Maintain	City staff will identify and prioritize potential sources and potential source areas of illicit discharges on the basis of their potential to contribute pollutants to the Cities' MS4.	Not reducing or ceasing BMPs as described therefore not applicable.	High and Medium	0	1	1	2			Refer to BMP Detail for Proposed Modifications for BMP ID.5.			Cities will proceed implementing changes per revised guidance document submitted.

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				2014	2015	2016	2017	2018	Local MS4 Department																	Id. Regional Organization or Co-permittee							
E.9.c Field Sampling to Detect Illicit Discharges																																	
Sample any flowing outfalls		Adopt sampling program to include this element.	2015	X	X	X	X	Public Works / Engineering	City of Buellton / City of Solvang	The Cities shall adopt a sampling program in conjunction with the current testing at the WWTP by staff to account for this requirement of the outfall, request.	N		Not reducing or ceasing BMPs as described therefore not applicable.	High and Medium	N/A	1	1	2	Ongoing implementation of BMP. No modifications.	Improvement upon BMPs that are underperforming.	Continuing and expanding upon BMPs that proved effective, including identifying new BMPs or modifications to existing to increase pollutant load reductions.	Discontinuing BMPs that may no longer be productive and replacing with more effective BMPs.	Shifting priorities to make more effective use of resources.	Times schedule, scope, and frequency of BMP modifications.									
Annually sample priority area outfalls determined in E.9.a.		Adopt sampling program to include this element.	2015		X	X	X	Public Works / Engineering	City of Buellton / City of Solvang	The Cities shall adopt a sampling program possibly in conjunction with the current testing at the WWTP to account for this requirement of the outfall, request.	N		Not reducing or ceasing BMPs as described therefore not applicable.	High and Medium	N/A	1	1	2	Ongoing implementation of BMP. No modifications.	Improvement upon BMPs that are underperforming.	Continuing and expanding upon BMPs that proved effective, including identifying new BMPs or modifications to existing to increase pollutant load reductions.	Discontinuing BMPs that may no longer be productive and replacing with more effective BMPs.	Shifting priorities to make more effective use of resources.	Times schedule, scope, and frequency of BMP modifications.									
Conduct follow up investigation within 72 hours if action levels exceeded		Adopt sampling program to include this element.	2015	X	X	X	X	Public Works / Engineering / Code Enforcement	City of Buellton / City of Solvang	The Cities shall adopt a program which states follow up investigations will occur within 72 hours if action levels are exceeded.	N		Not reducing or ceasing BMPs as described therefore not applicable.	High and Medium	N/A	1	1	2	Ongoing implementation of BMP. No modifications.	Improvement upon BMPs that are underperforming.	Continuing and expanding upon BMPs that proved effective, including identifying new BMPs or modifications to existing to increase pollutant load reductions.	Discontinuing BMPs that may no longer be productive and replacing with more effective BMPs.	Shifting priorities to make more effective use of resources.	Times schedule, scope, and frequency of BMP modifications.									
E.9.d Illicit Discharge Detection and Elimination Source Investigations and Corrective Actions																																	
Develop written procedures for investigations and corrective actions	ID.5	Develop Procedures for investigation and corrective actions and include SSO responses and join with pocket handbook to be created.	2015	X	X	X	X	Public Works	City of Buellton / City of Solvang	The Permit requires action within 72 hours of becoming aware of suspected illicit discharge and 24 hours if related to sewage discharge. Part of the scope of work for this Permit section will be SSO responses performed as part of the handbook being created for both cities.	0	<ul style="list-style-type: none"> Identify and prioritize areas of potential illicit discharge and/or illegal connections for residential, commercial and industrial locations. Conduct annual creek walks. Conduct storm drain catch basin/drainage inlet inspections. Verify illicit discharge/illegal connection and identify the source. Use education and/or enforcement to eliminate the discharge to the storm drain/flow or ground surface. Impose BMPs if applicable to assure on-going compliance with City Ordinance. Maintain records of response to identify recurrence patterns, report on response records during presentation of the annual report, resulting procedures as deemed necessary. 	Not reducing or ceasing BMPs as described therefore not applicable.	High and Medium	0	1	1	2	Ongoing implementation of BMP. No modifications.	Improvement upon BMPs that are underperforming.	Continuing and expanding upon BMPs that proved effective, including identifying new BMPs or modifications to existing to increase pollutant load reductions.	Discontinuing BMPs that may no longer be productive and replacing with more effective BMPs.	Shifting priorities to make more effective use of resources.	Times schedule, scope, and frequency of BMP modifications.									

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A.1.b.4.a Overall Planning														A.1.b.4.c and d (Required for Renewal Permits only)											
PERMIT SECTION AND ELEMENT	Existing BMP Number (See BMP Details for Description)	Measurable Goals	Permit Compliance Year (June 30th unless otherwise noted)	Implementation Permit Year				Responsible Implementing Party	Additional Implementation Notes	A Is/are existing locally specific SWMP BMP(s) more protective of water quality than minimum requirements of this order? (Y/N) If yes, complete column B.	B If Column A is "Yes", indicate if you will Maintain, Reduce or Cease BMP(s) and complete Column C. If Reduce or Cease, also complete column D.	C Provide brief description of locally specific SWMP BMP(s) that is more protective of water quality, including measurable goal(s). See BMP Detail Spreadsheet for further detail and Measurable Goals.	D Demonstrate that Reduction or Cessation of more protective BMP(s) is in compliance with this Order and the maximum extent practicable standard, and will not result in increased pollutant discharges (Justification for Reduction or Cessation of BMP(s))	Pollutant(s) of concern	PEAIP	Implementation	Effectiveness Level	Score	None	Improve	Continue and Expand	Discontinue and Replace	Shift Priorities	BMP Modification	
				2014	2015	2016	2017																		2018
E.9.d (cont.)	Once source of discharge is identified, require responsible party to correct within 72 hours of notification and verify with follow-up investigation	Develop Procedures for investigation and corrective actions and include SSO responses and join with pocket handbook to be created.	2015	X	X	X	X	Public Works / Engineering / Planning Department / Code Enforcement City of Buellton / City of Solvang	The Cities need to specify notification of responsible party and require 72 hour correction and follow up when notified discharge is eliminated.	N		Not reducing or ceasing BMPs as described therefore not applicable.	High and Medium	1	1	3	5					Refer to BMP Detail for Proposed Modifications for BMP ID.5.	Cities will proceed implementing changes per revised guidance document submitted.		
E.9.e	Spill Response Plan																								
	Develop plan	See BMP Spreadsheet	2014	X	X	X	X	Public Works City of Buellton / City of Solvang		Y	Maintain	<ul style="list-style-type: none"> Receive complaint or notice of the spill, discharge or illegal connection. Document response and track the spill/discharge to source. Use education and enforcement to eliminate the discharge to the storm drain/soaker or ground surface. Impose BMPs if applicable to assure on-going compliance with City Ordinance. Maintain records of response to identify recurrence patterns. Report on response records during presentation of the annual report, reevaluating procedures as deemed necessary. 	Not reducing or ceasing BMPs as described therefore not applicable.	High and Medium	0	1	3	4						The Spill Response Plan was developed and implemented. and therefore, the Cities propose to remove this requirement from this Permit Section and Element. The Cities will continue to maintain and implement the Spill Response Plan.	Cities will proceed implementing changes per revised guidance document submitted.
E.10	CONSTRUCTION SITE STORM WATER RUNOFF CONTROL PROGRAM																								
<p>The purpose of construction site runoff controls is to prevent soil and construction waste from entering storm water. Sediment is usually the main pollutant of concern; during a short period of time, construction sites can contribute more sediment to creeks than can be deposited naturally over several decades. The resulting siltation, and the contribution of other pollutants from construction sites can cause physical, biological, and chemical harm to local waterways.</p> <p>The State General Permit for NPDES Phase II requires local jurisdictions to establish construction site controls for sites of one or more acres and for sites of less than one acre if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. In addition, the State General Permit for Construction Activities requires filing of an NOI (with the RWQCB) and development of a Storm Water Pollution Prevention Plan pursuant to RWQCB regulation.</p> <p>The State has direct jurisdiction over construction sites of one acre or more. In addition, under state planning law and the California Environmental Quality Act (CEQA), the Cities are responsible for evaluating new development and redevelopment projects and, therefore, has a key role in implementing the NPDES Phase II construction runoff control measures. The Cities will review their Excavation and Grading Codes and other ordinances as necessary to fully implement construction runoff control measures.</p>																									
E.10.a	Construction Site Inventory																								
	Create inventory of all projects subject to local stormwater ordinance	The Cities shall formulate and keep current a thorough inventory of projects where O&M of stormwater management requirements are necessary.	2014	X	X	X	X	Public Works / Engineering / Planning Department City of Buellton / City of Solvang	The Cities are responsible for evaluating new development and redevelopment projects and, therefore, has a key role in implementing the NPDES Phase II construction runoff control measures.	N		Not reducing or ceasing BMPs as described therefore not applicable.	Medium	N/A	1	1	2					Ongoing implementation of BMP. No modifications.	Continue as is and updated as needed.		

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PERMIT SECTION AND ELEMENT	Existing BMP Number (See BMP Details for Description)	Measurable Goals	Permit Compliance Year (June 30th unless otherwise noted)	Implementation Permit Year				Responsible Implementing Party		Additional Implementation Notes	A Is/are existing locally specific SBMP BMP(s) more protective of water quality than minimum requirements of this order? (Y/N) If yes, complete column B.	B If Column A is "Yes", indicate if you will Maintain, Reduce or Cease BMP(s) and complete Column C. If Reduce or Cease, also complete column D.	C Provide brief description of locally specific SBMP BMP(s) that are more protective of water quality, including maximum measurable goal(s). See BMP Detail Spreadsheet for further detail and Measurable Goals.	D Demonstrate that Reduction or Cessation of more protective BMP(s) is in compliance with this Order and the maximum extent practicable standard, and will not result in increased pollutant discharges (Justification for Reduction or Cessation of BMP(s))	Pollutant(s) of Concern	PEAP	Implementation	Effectiveness Level	Score	None	Improve	Continue and Expand	Discontinue and Replace	Shift Priorities	BMP Modification	
				2014	2015	2016	2017	2018	Local MS4 Department																	Id. Regional Organization or Co-permittee
E.12.b	Site Design Measures																									
	Require implementation of site design measures on projects that create or replace 2,500-5,000 SF impervious area (incl. single family homes)	PC 3	See BMP Spreadsheet	2015	X	X	X	X		Public Works / Engineering / Planning Department	City of Buellton / City of Solvang / Santa Barbara County	These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCR). The Cities shall comply with the adopted and approved Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.	Y	Maintain	Section B - Performance Requirement No. 1. Site Design and Runoff Reduction shall be applied to all regulated projects that create and/or replace 2,500 square feet of impervious surface collectively.	Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	N/A	N/A	N/A				The Cities comply with the adopted and approved Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013; and therefore, the Cities propose to remove this Permit Section and Element from the guidance document.	Cities will proceed implementing changes per revised guidance document submitted.
E.12.c	Regulated Projects																									
	Implement standards on projects that create or replace > 5,000 SF impervious area, aka Regulated Projects	PC 3 to PC 5, PC 7, PC 8	See BMP Spreadsheet	2015	X	X	X	X		Public Works / Engineering / Planning Department / Code Enforcement	City of Buellton / City of Solvang / Santa Barbara County	These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCR). The Cities shall comply with the adopted and approved Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.	Y	Maintain	Section B - Performance Requirement No. 2. Water Quality Treatment shall be applied in addition to Performance Requirement No. 1 (except in detached single-family homes) greater than or equal to 5,000 sq. ft. or detached single-family homes greater than or equal to 15,000 sq. ft. of impervious area or detached single-family homes 15,000 sq. ft. or greater of Net Impervious Area in MMAs as described in Post-Construction Requirements with some MMAs requiring 95th percentile rainfall event and others at 80th percentile and LID Development Standards, Performance Requirement No. 4. Post Management incorporates all requirements of No. 1, No. 3, and applies to projects that create and/or replace 22,500 sq. ft. of impervious surface in specific MMAs with peak peak flows matching the pre-state peak flows of the 2 through 10 year storm events. Performance Requirement No. 5. Special Circumstances is based on site and/or receiving water conditions.	Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	N/A	N/A	N/A				The Cities comply with the adopted and approved Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013; and therefore, the Cities propose to remove this Permit Section and Element from the guidance document.	Cities will proceed implementing changes per revised guidance document submitted.
E.12.c (cont.)	Road and Utility Projects creating 5,000 of or more that are public or fall under planning authority of a city shall comply with LID except 80th % can follow EPA Guidance on green infrastructure	PC 3 to PC 5, PC 7, PC 8	See BMP Spreadsheet	2015	X	X	X	X		Public Works / Engineering / Planning Department / Code Enforcement	City of Buellton / City of Solvang / Santa Barbara County	These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCR). The Cities shall comply with the adopted and approved Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.	Y	Maintain	Section B - Performance Requirement No. 3. Runoff Retention applied in addition to No. 1 and No. 2 for projects that create or replace greater than or equal to 15,000 sq. ft. of impervious area or detached single-family homes 15,000 sq. ft. or greater of Net Impervious Area in MMAs as described in Post-Construction Requirements with some MMAs requiring 95th percentile rainfall event and others at 80th percentile and LID Development Standards, Performance Requirement No. 4. Post Management incorporates all requirements of No. 1, No. 3, and applies to projects that create and/or replace 22,500 sq. ft. of impervious surface in specific MMAs with peak peak flows matching the pre-state peak flows of the 2 through 10 year storm events. Performance Requirement No. 5. Special Circumstances is based on site and/or receiving water conditions.	Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	N/A	N/A	N/A				The Cities comply with the adopted and approved Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013; and therefore, the Cities propose to remove this Permit Section and Element from the guidance document.	Cities will proceed implementing changes per revised guidance document submitted.
E.12.d	Source Control Measures - Regulated Projects shall implement source control measures	PC 4	See BMP Spreadsheet	2015	X	X	X	X		Public Works / Engineering / Planning Department / Code Enforcement	City of Buellton / City of Solvang / Santa Barbara County	These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCR). The Cities shall comply with the adopted and approved Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.	Y	Maintain	Section B - All regulated projects under their given Performance Requirement(s) shall use measures such as LID design and BMPs available to control sources of pollutant generating activities.	Medium	1	1	2	4	Ongoing implementation of BMP. No modifications					Continue as is and updated as needed.
E.12.e	LID Standards - all Regulated Projects shall implement LID standards to treat storm water and provide baseline hydromod management to meet numeric string criteria under E.12.a)(c)	PC 3, PC 5, PC 7, PC 8	See BMP Spreadsheet	2015	X	X	X	X		Public Works / Engineering / Planning Department	City of Buellton / City of Solvang / Santa Barbara County	These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCR). The Cities shall comply with the adopted and approved Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.	Y	Maintain	Section B - LID Standards are preferred in Performance Requirement No. 2 and required in Performance Requirement No. 3 and above.	Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	N/A	N/A	N/A				The Cities comply with the adopted and approved Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013; and therefore, the Cities propose to remove this Permit Section and Element from the guidance document.	Cities will proceed implementing changes per revised guidance document submitted.
E.12.e	Hydromodification Management	PC 6 to PC 8	See BMP Spreadsheet	2016	X	X	X	X		Public Works / Engineering / Planning Department	City of Buellton / City of Solvang / Santa Barbara County	These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCR). The Cities shall comply with the adopted and approved Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.	Y	Maintain	The adopted and approved Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region was designed in its entirety to provide Hydromodification Control, and therefore is a management program for such a purpose.	Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	N/A	N/A	N/A				The Cities comply with the adopted and approved Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013; and therefore, the Cities propose to remove this Permit Section and Element from the guidance document.	Cities will proceed implementing changes per revised guidance document submitted.
E.12.f																										

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PERMIT SECTION AND ELEMENT	Existing BMP Number (See BMP Details for Description)	Measurable Goals	Permit Compliance Year (June 30th unless otherwise noted)	Implementation Permit Year				Responsible Implementing Party	Additional Implementation Notes	A Is/are existing locally specific SWMP BMP(s) more protective of water quality than minimum requirements of this order? (Y/N) If yes, complete column B.	B If Column A is "Yes", indicate if you will Maintain, Reduce or Cease BMP(s) and complete Column C. If Reduce or Cease, also complete column D.	C Provide brief description of locally specific SWMP BMP(s) that is more protective of water quality, including measurable goal(s). See BMP Detail Spreadsheet for further detail and Measurable Goals.	D Demonstrate that Reduction or Cessation of more protective BMP(s) is in compliance with this Order and the maximum extent practicable standard, and will not result in increased pollutant discharges (Justification for Reduction or Cessation of BMP(s))	Pollutant(s) of concern	PEA/P	Implementation	Effectiveness Level	Score	None	Improve	Continue and Expand	Discontinue and Replace	Shift Priorities	BMP Modification
				2014	2015	2016	2017																	
E.12 j Planning and Development Review Process																								
Conduct review using an existing guide such as Municipal Regulatory Update Assistance Program	DC 1	See BMP Spreadsheet	2016	X	X	X		Public Works / Engineering / Planning Department	City of Buellton / City of Solvang / Santa Barbara County	These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCR). The Cities shall comply with the adopted and approved Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.	Y	Maintain	Section C - The Cities may use pre-existing post-construction stormwater management requirements with CCRWA approval after meeting strict guidelines.	Not reducing or ceasing BMPs as described therefore not applicable	N/A	0	1	1	2			The Cities completed the review using an existing guide such as Municipal Regulatory Update Assistance Program.	Cities will proceed implementing changes per revised guidance document submitted.	
Conduct an analysis of the landscape code to correct gaps hindering post construction requirements	DC 1	See BMP Spreadsheet	2014	X	X	X		Public Works / Engineering / Parks & Recreation Department	City of Buellton / City of Solvang / Santa Barbara County	These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCR). The Cities shall comply with the adopted and approved Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.	Y	Maintain	The Cities have performed a gap analysis of each Municipal Code and Ordinances including landscaping, and have updated/installed regulations and checks for landscaping.	Not reducing or ceasing BMPs as described therefore not applicable	N/A	0	1	1	2			The Cities completed the analysis of the landscape code to correct gaps hindering post construction requirements and will continue to make improvements in the code as needed.	Cities will proceed implementing changes per revised guidance document submitted.	
Complete any changes to landscape code to address post-construction req.	DC 1	See BMP Spreadsheet	2015		X	X		Public Works / Engineering / Parks & Recreation Department	City of Buellton / City of Solvang / Santa Barbara County	These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCR). The Cities shall comply with the adopted and approved Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.	Y	Maintain	The Cities require that post-construction no disturbed areas will be left untreated. All disturbed areas during construction shall be landscaped appropriately post-construction.	Not reducing or ceasing BMPs as described therefore not applicable	N/A	0	1	1	2		Ongoing implementation of BMP. No modifications			Continue as is and updated as needed.
Post-Construction Storm Water Management Requirements Based on Assessment and Maintenance of Watershed Processes	DC 4 to DC 8	See BMP Spreadsheet	TBD					Public Works / Engineering / Planning Department		These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCR). The Cities shall comply with the adopted and approved Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.	Y	Maintain	The Cities shall comply with the adopted and approved Post-Construction Stormwater Management Requirements including Watershed Protection.	Not reducing or ceasing BMPs as described therefore not applicable	N/A	0	1	1	2		Ongoing implementation of BMP. No modifications			Continue as is and updated as needed.
E.12 k Alternative Post-Construction Storm Water Management Program																								
For multiple benefit projects a permittee may propose alternative Post Const. Requirements (address water quality, supply, flood control, habitat enhancement, open space preserve, recreation, climate change)		Section C of the Post-Construction Requirements - Off-Site Compliance shall be allowed if proven by Technical Infeasibility, by an Approved Watershed or Regional Plan, or by Approved Urban Sustainability Area, and by CCRWA approval.	No date provided permittee may propose if desired					Public Works / Engineering / Planning Department	City of Buellton / City of Solvang / Santa Barbara County	These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCR). The Cities shall comply with the adopted and approved Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.	N			Not reducing or ceasing BMPs as described therefore not applicable	N/A	N/A	N/A	N/A	N/A			The Cities comply with the adopted and approved Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013, and therefore, the Cities propose to remove this Permit Section and Element from the guidance document.	Cities will proceed implementing changes per revised guidance document submitted.	

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				2014	2015	2016	2017	2018	Local MS4 Department																	Id. Regional Organization or Co-permittee
<p>E.13 WATER QUALITY MONITORING</p> <p>The purpose of monitoring is to document successful implementation of the General Permit, Post-Construction Requirements, and this Guidance Document and determine the program's effectiveness at reducing pollutants to the MEP and protect water quality.</p> <p>The Cities will evaluate both current conditions and BMP effectiveness and, as appropriate, update BMPs and measurable goals to achieve the objective of meeting water quality standards to the Maximum Extent Practicable. It may be necessary to expand or better tailor existing BMPs after implementing the minimum control measures described in this Guidance Document. Such changes would be based on the results of reporting provided in the annual report and developed in consultation with the community interest groups.</p>																										
E.13.a	ASBS Monitoring - MS4s that discharge to ASBS and are covered by an Ocean Plan exception comply with Attachment C	Not Applicable	2014						Public Works / Engineering City of Buellton / City of Solvang				Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	N/A	N/A	N/A							The Cities do not discharge to a waterbody that is designated as Areas of Special Biological Significance (ASBS) and therefore, the Cities propose to remove this Permit Section and Element from the guidance document.	Cities will proceed implementing changes per revised guidance document submitted.
E.13.b	TMDL Monitoring - MS4s or TMDLs must comply with attachments G and consult with Regional Board within 1 year of effective date to determine monitoring requirements and schedule. And shall implement TMDL monitoring as specified by RB Executive Order	The Cities will review the status of the U.S. EPA requirements annually (currently TMDL compliance for the Santa Ynez River (Lake Cachuma to below City of Lompoc) is estimated as 2021 by the EPA). Therefore, Section E.13 will not be required until TMDL studies are completed for this area.	2014						Public Works / Engineering City of Buellton / City of Solvang				Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	N/A	N/A	N/A							The Santa Ynez River is a 303(d) impaired water body but was not identified within "Phase II Permit Traditional Small MS4 Attachment G-Region Specific Requirements" and satisfies Regional Water Board Agreement TMDLs; and therefore, the Cities propose to remove this Permit Section and Element from the guidance document. Both Cities will continue to monitor the status of potential TMDLs for the Santa Ynez River (Cachuma Lake to below city of Lompoc) Waterbody segment.	Cities will proceed implementing changes per revised guidance document submitted.
E.13.c	303(d) Monitoring - MS4s discharging to 303(d) listed waterbodies shall consult with Regional Board within 1 year of effective date to determine whether monitoring is necessary.	The Santa Ynez River (Lake Cachuma to below City of Lompoc) is listed as impaired for turbidity, temperature, total dissolved solids and sedimentation/siltation, as defined by the CWA 303(d). With these impairments no monitoring is required at this time.	2014						Public Works / Engineering City of Buellton / City of Solvang				Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	N/A	N/A	N/A	Ongoing implementation of BMP No modifications.							Continue as is and updated as needed.
E.13.d	Receiving Water Monitoring and Special Studies (Select either Receiving Water Monitoring or Special Studies, if not already conducting E.13.a, b or c monitoring)	The City of Buellton and City of Solvang's population is 4,863 and 5,245 respectively (<50,000) and therefore does not require receiving water monitoring or special studies at this time.							Public Works / Engineering City of Buellton / City of Solvang				Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	N/A	N/A	N/A							The Cities in collaboration with the Cities of Goleta, Carpinteria and the County of Santa Barbara have implemented a 303(d) Monitoring Program in accordance with E.13.c in lieu of E.13.a, E.13.b, E.13.d.1 and E.13.d.2; and therefore, the Cities propose to remove this Permit Section and Element from the guidance document.	Cities will proceed implementing changes per revised guidance document submitted.
E.13.d.1	Receiving Water Monitoring	The Cities will utilize existing monitoring well data as applicable.	2014						Public Works / Engineering City of Buellton / City of Solvang				Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	N/A	N/A	N/A							The Cities in collaboration with the Cities of Goleta, Carpinteria and the County of Santa Barbara have implemented a 303(d) Monitoring Program in accordance with E.13.c in lieu of E.13.a, E.13.b, E.13.d.1 and E.13.d.2; and therefore, the Cities propose to remove this Permit Section and Element from the guidance document.	Cities will proceed implementing changes per revised guidance document submitted.
	Select one urban/rural site and one urban area site to monitor		2014						Public Works / Engineering City of Buellton / City of Solvang				Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	N/A	N/A	N/A							The Cities in collaboration with the Cities of Goleta, Carpinteria and the County of Santa Barbara have implemented a 303(d) Monitoring Program in accordance with E.13.c in lieu of E.13.a, E.13.b, E.13.d.1 and E.13.d.2; and therefore, the Cities propose to remove this Permit Section and Element from the guidance document.	Cities will proceed implementing changes per revised guidance document submitted.

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PERMIT SECTION AND ELEMENT	Existing BMP Number (See BMP Details for Description)	Measurable Goals	Permit Compliance Year (June 30th unless otherwise noted)	Implementation Permit Year				Responsible Implementing Party		Additional Implementation Notes	A	B	C	D	Pollutant(s) of Concern	PEAP	Implementation	Effectiveness Level	Score	None	Improve	Continue and Expand	Discontinue and Replace	Shift Priorities	BMP Modification
				2014	2015	2016	2017	2018	Local MS4 Department		Id. Regional Organization or Co-permittee	Is/are existing locally specific SWMP BMP(s) more protective of water quality than minimum requirements of this order? (Y/N) If yes, complete column B.	If Column A is "Yes", indicate if you will Maintain, Reduce or Cease BMP(s) and complete Column C. If Reduce or Cease, also complete column D.	Provide brief description of locally specific SWMP BMP(s) that is more protective of water quality, including measurable goal(s). See BMP Detail Spreadsheet for further detail and Measurable Goals.											
E.13.d.1 (Ops.)	Monitor urban/rural and urban area sites	The Santa Ynez River (Luis Cachuma to below City of Lompoc) is listed as impaired for sulfate, temperature, total dissolved solids, and sedimentation/siltation, as defined by the CWA 303(d). With these impairments no monitoring is required at this time.	2015					Public Works / Engineering	City of Buellton / City of Solvang		N		Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	N/A	N/A	N/A					The Cities in collaboration with the Cities of Goleta, Carpinteria and the County of Santa Barbara have implemented a 303(d) Monitoring Program in accordance with E.13.c in lieu of E.13.a, E.13.b, E.13.d.1 and E.13.d.2; and therefore, the Cities propose to remove this Permit Section and Element from the guidance document.	Cities will proceed implementing changes per revised guidance document submitted.	
	Complete and have available a report that includes a summary of baseline data collectors and discussion of monitoring program results		2015					Public Works / Engineering	City of Buellton / City of Solvang		N		Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	N/A	N/A	N/A					The Cities in collaboration with the Cities of Goleta, Carpinteria and the County of Santa Barbara have implemented a 303(d) Monitoring Program in accordance with E.13.c in lieu of E.13.a, E.13.b, E.13.d.1 and E.13.d.2; and therefore, the Cities propose to remove this Permit Section and Element from the guidance document.	Cities will proceed implementing changes per revised guidance document submitted.	
	Complete and have available a report that includes a comparison of data collection to baseline data and discussion of monitoring program results		2018					Public Works / Engineering	City of Buellton / City of Solvang		N		Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	N/A	N/A	N/A					The Cities in collaboration with the Cities of Goleta, Carpinteria and the County of Santa Barbara have implemented a 303(d) Monitoring Program in accordance with E.13.c in lieu of E.13.a, E.13.b, E.13.d.1 and E.13.d.2; and therefore, the Cities propose to remove this Permit Section and Element from the guidance document.	Cities will proceed implementing changes per revised guidance document submitted.	
E.13.d.2 Special Studies																									
	Develop and implement special study monitoring program and submit to Regional Board for review and approval	Not Applicable	2014					Public Works / Engineering	City of Buellton / City of Solvang		N		Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	N/A	N/A	N/A					The Cities in collaboration with the Cities of Goleta, Carpinteria and the County of Santa Barbara have implemented a 303(d) Monitoring Program in accordance with E.13.c in lieu of E.13.a, E.13.b, E.13.d.1 and E.13.d.2; and therefore, the Cities propose to remove this Permit Section and Element from the guidance document.	Cities will proceed implementing changes per revised guidance document submitted.	
	Implement approved special study plan	Not Applicable	2015					Public Works / Engineering	City of Buellton / City of Solvang		N		Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	N/A	N/A	N/A					The Cities in collaboration with the Cities of Goleta, Carpinteria and the County of Santa Barbara have implemented a 303(d) Monitoring Program in accordance with E.13.c in lieu of E.13.a, E.13.b, E.13.d.1 and E.13.d.2; and therefore, the Cities propose to remove this Permit Section and Element from the guidance document.	Cities will proceed implementing changes per revised guidance document submitted.	
	Complete and have available a report that includes a summary of baseline data collectors and discussion of monitoring program results	Not Applicable	2015					Public Works / Engineering	City of Buellton / City of Solvang		N		Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	N/A	N/A	N/A					The Cities in collaboration with the Cities of Goleta, Carpinteria and the County of Santa Barbara have implemented a 303(d) Monitoring Program in accordance with E.13.c in lieu of E.13.a, E.13.b, E.13.d.1 and E.13.d.2; and therefore, the Cities propose to remove this Permit Section and Element from the guidance document.	Cities will proceed implementing changes per revised guidance document submitted.	
	Complete and have available a report that includes a comparison of data collection to baseline data and discussion of monitoring program results	Not Applicable	2018					Public Works / Engineering	City of Buellton / City of Solvang		N		Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	N/A	N/A	N/A					The Cities in collaboration with the Cities of Goleta, Carpinteria and the County of Santa Barbara have implemented a 303(d) Monitoring Program in accordance with E.13.c in lieu of E.13.a, E.13.b, E.13.d.1 and E.13.d.2; and therefore, the Cities propose to remove this Permit Section and Element from the guidance document.	Cities will proceed implementing changes per revised guidance document submitted.	

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NPDES General Permit - Corresponding Permit Section														Program Effectiveness Assessment					Proposed Modifications					
A.1.b.4.a Overall Planning														A.1.b.4.c and d (Required for Renewal Permittees only)										
PERMIT SECTION AND ELEMENT	Existing BMP Number (See BMP Details for Description)	Measurable Goals	Permit Compliance Year (June 30th unless otherwise noted)	Implementation Permit Year				Responsible Implementing Party	Additional Implementation Notes	A Is/are existing locally specific SBMP BMP(s) more protective of water quality than minimum requirements of this order? (Y/N) If yes, complete column B.	B If Column A is "Yes", indicate if you will Maintain, Reduce or Cease BMP(s) and complete Column C. If Reduce or Cease, also complete column D.	C Provide brief description of locally specific SBMP BMP(s) that is more protective of water quality, including measurable goal(s). See BMP Detail Spreadsheet for further detail and Measurable Goals.	D Demonstrate that Reduction or Cessation of more protective BMP(s) is in compliance with this Order and the maximum extent practicable standard, and will not result in increased pollutant discharges (Justification for Reduction or Cessation of BMP(s))	Pollutant(s) of concern	PEAIP	Implementation	Effectiveness Level	Score	None	Improve	Continue and Expand	Discontinue and Replace	Shift Priorities	BMP Modification
				2014	2015	2016	2017																	
<p>E.14 PROGRAM EFFECTIVENESS ASSESSMENT</p> <p>In accordance with the requirements of the General Permit, the Cities intend to conduct periodic assessments and reporting on the effectiveness of its municipal storm water program implemented through this Guidance Document. Due to the fact that measurable improvement in water quality will take time to demonstrate, the Cities propose an iterative approach of short-term and long-term effectiveness assessments to ensure progress achieving broader program goals is maintained. The Cities will utilize the guidance within the Municipal Stormwater Program Effectiveness Assessment Guide (California Stormwater Quality Association [CASQA], 2007) as a framework for conducting future program effectiveness assessments. The Cities are confident that using the approach and strategy defined within the CASQA guide will assist the Cities in achieving their goals efficiently and cost-effectively.</p> <p>The Cities will evaluate measurable goals to determine their effectiveness at complying with General Permit and Post-Construction Requirement conditions, protecting water quality, and reducing pollutants in stormwater to the MEP and will modify its measurable goals and activities to increase the effectiveness of its stormwater program. The Cities will develop a defined strategy for assessing program and BMP effectiveness. This will include identification of quantifiable measures, appropriate to each BMP, that assess effectiveness at achieving regulatory compliance, meeting measurable goals, changing awareness, changing behavior, and reducing pollutant loads. These measures will be used during annual effectiveness assessments.</p> <p>The Cities will initially establish the purpose or focus of the assessment and conduct a thorough evaluation of measurable goals specified within this Guidance Document for their ability to adequately support the assessment of six "Outcome Levels" defined within the CASQA guide. Outcome Levels are intended to categorize and describe the desired results or goals of programs and minimum control measures. They include:</p> <ul style="list-style-type: none"> Level 1: Documenting activities. Level 2: Rating awareness. Level 3: Changing behavior. Level 4: Reducing loads from sources. Level 5: Improving runoff quality, and Level 6: Protecting receiving water quality. <p>During this evaluation, the Cities will identify specific water quality and implementation "Assessment Methods" it will use to assess program and BMP effectiveness. CASQA identifies the following Assessment Methods for potential use: confirmation, tabulation, surveys, inspections, quantification, and monitoring. For the purpose of supporting long-term effectiveness assessments, reference or baseline conditions will also be established. Where necessary, additional measurable goals will be incorporated into the Guidance Document and their inclusion noted within the Cities' Annual Report. The Cities will make an effort to include more quantifiable measures of BMP and program effectiveness.</p> <p>The Cities will continue to implement the effectiveness strategy established. The Cities will continue to conduct an annual integrated assessment of program implementation efforts as described within the CASQA guide. More specifically, the Cities intend to determine relationships between program implementation assessments and water quality assessments with the ultimate goal of establishing whether or not program implementation is protecting or improving water quality. The Cities intend to consider the various factors which could present challenges for continued assessment including participation rates, spatial and temporal scales, implementation of multiple activities, rainfall and runoff characteristics, and costs. Given the Cities' budgetary constraints and commitment to improving and protecting water quality, long-term effectiveness will be a critical step for the Cities to achieve their goals efficiently and cost-effectively.</p>																								
<p>E.14.a Program Effectiveness Assessment and Improvement Plan (PEAIP)</p>																								
Submit PEAIP		The Cities intend to conduct periodic assessments and reporting on the effectiveness of its Municipal Storm Water Program. The Cities will utilize the guidance within the Municipal Stormwater Program Effectiveness Assessment Guide (California Stormwater Quality Association [CASQA], 2007) as a framework for conducting future program effectiveness assessments.	2015	X	X	X	X	Public Works / Engineering	City of Buellton / City of Solvang	Y	Maintain	Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	N/A	N/A	N/A	Ongoing implementation of BMP. No modifications.					Continue as is and updated as needed.	

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NPDES General Permit - Corresponding Permit Section														Program Effectiveness Assessment					Proposed Modifications							
A.1.b.4.a Overall Planning														A.1.b.4.c and d (Required for Renewal Permittees only)												
PERMIT SECTION AND ELEMENT	Existing BMP Number (See BMP Details for Description)	Measurable Goals	Permit Compliance Year (June 30th unless otherwise noted)	Implementation Permit Year				Responsible Implementing Party		Additional Implementation Notes	A Is/are existing locally specific SBMP BMP(s) more protective of water quality than minimum requirements of this order? (Y/N) If yes, complete column B.	B If Column A is "Yes", indicate if you will Maintain, Reduce or Cease BMP(s) and complete Column C. If Reduce or Cease, also complete Column D. If Detail Spreadsheet for further detail and Measurable Goals.	C Provide brief description of locally specific SBMP BMP(s) that is more protective of water quality, including measurable goal(s). See BMP Detail Spreadsheet for further detail and Measurable Goals.	D Demonstrate that Reduction or Cessation of more protective BMP(s) is in compliance with this Order and the maximum extent practicable standard, and will not result in increased pollutant discharges (Justification for Reduction or Cessation of BMP(s))	Pollutant(s) of concern	PEAP	Implementation	Effectiveness Level	Score	None	Improve	Continue and Expand	Discontinue and Replace	Shift Priorities	BMP Modification	
				2014	2015	2016	2017	2018	Local MS4 Department																	Id. Regional Organization or Co-permittee
E.14.b Storm Water Program Modifications																										
Identify and summarize BMP and/or program modifications identified in priority program areas that will be made in the next permit term		The Cities will assess BMP and program effectiveness using the effectiveness assessment methods. The Cities will integrate the results of implementation efforts and water quality monitoring efforts for the purpose of identifying opportunities for program modification. Proposed program modifications will always be noted within the Cities' Annual Report.	2016					X	Public Works / Engineering City of Buellton / City of Solvang		Y	Maintain	Public Works / Engineering City of Buellton / City of Solvang	Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	N/A	N/A	N/A						This program element will be completed and submitted during reporting year 2017-2018. The Stormwater Program Modifications Five Year Report will provide for improvement of BMPs that are underperforming, through implementation of the proposed changes within this guidance document.	Cities will proceed implementing changes per revised guidance document submitted.
E.15 TOTAL MAXIMUM DAILY LOADS COMPLIANCE REQUIREMENTS																										
E.15.a Comply with all approved TMDLs (Attachment G)		The Cities will review the status of the U.S. EPA requirements annually (currently TMDL completion for the Santa Ynez River is estimated at 2021 by the EPA). Therefore, Section E.15 will not be required until TMDL studies are completed for this area (Lake Cachuma to below City of Lompoc).	2014						Public Works / Engineering City of Buellton / City of Solvang	http://www.waterboards.ca.gov/water_issues/programs/tmdl/longrange2010.shtml	N		Public Works / Engineering City of Buellton / City of Solvang	Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	N/A	N/A	N/A						The Santa Ynez River is a 303(d) impaired water body but was not identified within "Phase II Permit Traditional Small MS4 Attachment G-Region Specific Requirements" that outlines Regional Water Board Approved TMDLs; and therefore, the Cities propose to remove this Permit Section and Element from the guidance document. Both Cities will continue to monitor the status of potential TMDLs for the Santa Ynez River (Cachuma Lake to below city of Lompoc) Waterbody segment.	Cities will proceed implementing changes per revised guidance document submitted.
E.15.b Waste load allocations are incorporated herein by reference as enforceable parts of this Order		The Cities will review the status of the U.S. EPA requirements annually.	2014	X	X	X	X	X	Public Works / Engineering City of Buellton / City of Solvang	http://www.waterboards.ca.gov/water_issues/programs/tmdl/longrange2010.shtml	N		Public Works / Engineering City of Buellton / City of Solvang	Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	N/A	N/A	N/A						The Santa Ynez River is a 303(d) impaired water body but was not identified within "Phase II Permit Traditional Small MS4 Attachment G-Region Specific Requirements" that outlines Regional Water Board Approved TMDLs; and therefore, the Cities propose to remove this Permit Section and Element from the guidance document. Both Cities will continue to monitor the status of potential TMDLs for the Santa Ynez River (Cachuma Lake to below city of Lompoc) Waterbody segment.	Cities will proceed implementing changes per revised guidance document submitted.
E.15.c Regional Board revises TMDLs within one year of effective date and may propose modifications to requirements		The Cities will review the status of the U.S. EPA requirements annually (currently TMDL completion for the Santa Ynez River is estimated at 2021 by the EPA). Therefore, Section E.15 will not be required until TMDL studies are completed for this area (Lake Cachuma to below City of Lompoc).	2014						Public Works / Engineering City of Buellton / City of Solvang	http://www.waterboards.ca.gov/water_issues/programs/tmdl/longrange2010.shtml	N		Public Works / Engineering City of Buellton / City of Solvang	Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	N/A	N/A	N/A						The Santa Ynez River is a 303(d) impaired water body but was not identified within "Phase II Permit Traditional Small MS4 Attachment G-Region Specific Requirements" that outlines Regional Water Board Approved TMDLs; and therefore, the Cities propose to remove this Permit Section and Element from the guidance document. Both Cities will continue to monitor the status of potential TMDLs for the Santa Ynez River (Cachuma Lake to below city of Lompoc) Waterbody segment.	Cities will proceed implementing changes per revised guidance document submitted.
E.15.d Report status of implementation via SMARTS		The Cities will review the status of the U.S. EPA requirements annually.	2014						Public Works / Engineering City of Buellton / City of Solvang	http://www.waterboards.ca.gov/water_issues/programs/tmdl/longrange2010.shtml	N		Public Works / Engineering City of Buellton / City of Solvang	Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	N/A	N/A	N/A						The Santa Ynez River is a 303(d) impaired water body but was not identified within "Phase II Permit Traditional Small MS4 Attachment G-Region Specific Requirements" that outlines Regional Water Board Approved TMDLs; and therefore, the Cities propose to remove this Permit Section and Element from the guidance document. Both Cities will continue to monitor the status of potential TMDLs for the Santa Ynez River (Cachuma Lake to below city of Lompoc) Waterbody segment.	Cities will proceed implementing changes per revised guidance document submitted.
E.15.e Comply with Clean Water Act Sections 303a,306 and 314		The Cities will review the status of the U.S. EPA requirements annually (currently TMDL completion for the Santa Ynez River is estimated at 2021 by the EPA). Therefore, Section E.15 will not be required until TMDL studies are completed for this area (Lake Cachuma to below City of Lompoc).	2014						Public Works / Engineering City of Buellton / City of Solvang	http://www.waterboards.ca.gov/water_issues/programs/tmdl/longrange2010.shtml	N		Public Works / Engineering City of Buellton / City of Solvang	Not reducing or ceasing BMPs as described therefore not applicable.	N/A	N/A	N/A	N/A	N/A						The Santa Ynez River is a 303(d) impaired water body but was not identified within "Phase II Permit Traditional Small MS4 Attachment G-Region Specific Requirements" that outlines Regional Water Board Approved TMDLs; and therefore, the Cities propose to remove this Permit Section and Element from the guidance document. Both Cities will continue to monitor the status of potential TMDLs for the Santa Ynez River (Cachuma Lake to below city of Lompoc) Waterbody segment.	Cities will proceed implementing changes per revised guidance document submitted.

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NPDES General Permit - Corresponding Permit Section													Program Effectiveness Assessment					Proposed Modifications							
A.1.b.4.a Overall Planning																									
A.1.b.4.b																									
PERMIT SECTION AND ELEMENT	Existing BMP Number (See BMP Details for Description)	Measurable Goals	Permit Compliance Year (June 30th unless otherwise noted)	Implementation Permit Year				Responsible Implementing Party		Additional Implementation Notes	A Is/are existing locally specific SWMP BMP(s) more protective of water quality than minimum requirements of this order? (Y/N). If yes, complete column B.	B If Column A is "Yes", indicate if you will Maintain, Reduce or Cease BMP(s) and complete Column C. If Reduce or Cease, also complete column D.	C Provide brief description of locally specific SWMP BMP(s) that is more protective of water quality, including measurable goal(s). See BMP Detail Spreadsheet for further detail and Measurable Goals.	D Demonstrate that Reduction or Cessation of more protective BMP(s) is in compliance with this Order and the maximum extent practicable standard, and will not result in increased pollutant discharges (Justification for Reduction or Cessation of BMP(s))	Pollutant(s) of concern	PEA/P	Implementation	Effectiveness Level	Score	None	Improve	Continue and Expand	Discontinue and Replace	Shift Priorities	BMP Modification
				2014	2015	2016	2017	2018	Local MS4 Department																
E.1a ANNUAL REPORTING PROGRAM																									
<p>The purpose of reporting is to document successful implementation of the General Permit, Post-Construction Requirements, and this Guidance Document and determine the program's effectiveness at reducing pollutants to the MEP and protect water quality. An annual report for both Cities (as co-permittees) will be submitted annually on the SMARTS program. The State intends these annual reports to be submitted every October starting in 2014.</p> <p>The Cities will monitor the implementation of its program and the overall effectiveness by measuring and reporting the data discussed in the individual Minimum Control Measures sections discussed in this Guidance Document.</p> <p>The Cities will report annually on the SMARTS website and report all findings on related to the General Permit, Post-Construction Requirements, and BMPs including their measurable goals, changes that were made and the effectiveness of each.</p>																									
E.1a.a	Use SMARTS to report and certify	Access and submit all requirements under the SMARTS program	2014-2018	X	X	X	X	X	Public Works / Engineering	City of Buellton / City of Solvang			Not reducing or ceasing BMPs as described therefore not applicable	N/A	N/A	N/A	N/A	N/A	Ongoing implementation of BMP. No modifications.				Continue as is and updated as needed.		
E.1a.b	Complete and retain annual reports and make available to RWQCB during working hours	See BMP Spreadsheet	2014-2018	X	X	X	X	X	Public Works / Engineering	City of Buellton / City of Solvang		Maintain	Prepare an annual report covering both Cities for internal purposes and for the annual monitoring report required under the General Permit.	N/A	N/A	N/A	N/A	N/A	Ongoing implementation of BMP. No modifications.				Continue as is and updated as needed.		
E.1a.c	Submit detailed written or oral report to RWQCB if directed	See BMP Spreadsheet	2014-2018	X	X	X	X	X	Public Works / Engineering	City of Buellton / City of Solvang		Maintain	Enhancing BMPs would be based on an annual report covering both Cities and developed in consultation with the Community Interest Group and the Central Coast Regional Water Quality Control Board (RWQCB).	N/A	N/A	N/A	N/A	N/A	Ongoing implementation of BMP. No modifications.				Continue as is and updated as needed.		
E.1a.d	May coordinate reporting if regional programs	Not Applicable	2014-2018	X	X	X	X	X	Public Works / Engineering	City of Buellton / City of Solvang			Both Cities are currently not covered under a regional program but will coordinate appropriately should the Cities become encompassed in another program.	N/A	N/A	N/A	N/A	N/A				The Cities are not covered under a regional program and therefore, the Cities propose to remove this Permit Section and Element from the guidance document.	Cities will proceed implementing changes per revised guidance document submitted.		

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NOTE: YELLOW HIGHLIGHTED BMPs ARE ADDITIONAL BMPs THE CITIES WILL MAINTAIN THOUGH NOT REQUIRED BY THE GENERAL PERMIT										Proposed Modification			
BMP #	BMP Description	Target POCs	BMP Implementation Data					Permit Section Reference(s)	Issue	Modification			
			Measurable Goals		Effectiveness Measure		Required Per Permit?				Continuing BMP Implementation?		
			Y	N	Y	N	Y				N	Y	N
PUBLIC OUTREACH AND EDUCATION													
PE.1	Brochures	Pathogens, Sediments, Nutrients (P, N, NO3, NO2), Hydrocarbons (D&G, lubricants), Pesticides, Gross pollutants (litter, trash, debris)	a. Brochures and posters provided in Spanish and English will be available online through the link to the County's website, at city offices, at events, at City Council meetings and by mail upon request. b. Distribute LID brochure to 100% of zoning applicants and by request online through the Planning Department website.	a. Maintain a supply of brochures and update links on the website to promote stormwater awareness. b. City Staff to weekly restock brochures and displays.	X			X		E.7.a (d) (g) (h) (i); E.11.j	<p>Measurable Goals</p> <p>a. The Cities websites contain a link to both the County of Santa Barbara's Project Clean Water and Waste Wise websites that provide electronic versions of the brochures and/or posters in English and/or Spanish. Some of the brochures are not available in Spanish, and can become obsolete at any time. In addition, City events may change, and therefore, the distribution of brochures will be based on which City events will provide the most exposure. Although posters are not currently available in English and Spanish on the County's website, the City's do maintain posters in English and not Spanish under the Stormwater Management webpage.</p> <p>b. Discontinue LID brochure distribution to all zoning and/or development applications. LID brochures are available within brochure displays within the Planning Department. LID brochures are available within brochure displays within the Planning Department. LID brochures are also available online through the City's Stormwater Management webpage as well as through the Central Coast Low Impact Development Initiative and the County of Santa Barbara's Project Clean Water websites that are maintained on the Resource Section this webpage. It should be noted that all projects that are required to meet Post-Construction Requirements must follow the County of Santa Barbara's Stormwater Technical Guide for low impact development. This guide is available online through both the City and the County's website.</p> <p>Effectiveness Measure</p> <p>b. With minimal applicant traffic through the City Planning Department/Division, the restocking of the stormwater display does not occur on a weekly basis but rather restocked monthly and/or as needed.</p>	<p>Measurable Goals</p> <p>a. The Cities will maintain brochures and posters in English and Spanish (when available) on their Stormwater Management webpages as well as links to the County of Santa Barbara's Project Clean Water, Waste Wise and the Central Coast Low Impact Development Initiative websites.</p> <p>b. The Cities will maintain LID brochures within their Planning Departments and online through their Stormwater Management webpages. The Cities will also maintain links to the County of Santa Barbara's Project Clean Water, Waste Wise and the Central Coast Low Impact Development Initiative websites.</p> <p>Effectiveness Measure</p> <p>b. The Cities will maintain their stormwater displays within designated City offices and/or locations and will restock as needed.</p>	
PE.2	Webpage	Pathogens, Sediments, Nutrients (P, N, NO3, NO2), Hydrocarbons (D&G, lubricants), Pesticides, Gross pollutants (litter, trash, debris)	a. Maintain the stormwater webpage quarterly to feature current SWMP documents and general information, and provide links to the County webpage. b. Publish webpage information on all educational documents. c. Add a question to the online direct mail survey to insure residents are aware of the Stormwater webpage and County links.	a. Update information on a quarterly basis. b. Work to get a website that can compile number of hits. c. The annual survey will contain one question pertaining to the stormwater webpage.	X			X		E.7.a (b) (e)	<p>Measurable Goals</p> <p>a. The Cities website maintains a Stormwater webpage on a quarterly basis as well as continual basis through the year when content information changes and/or new information is provided/developed.</p> <p>b. The Cities webpage is referenced on most City's generated stormwater educational documents but may not be referenced on all stormwater educational documents such as posters etc.</p> <p>c. Its not practical or cost effective to provide direct mail survey to all residents and business within the Cities jurisdiction. Each City has included a question pertaining to the webpage or within direct mail and/or online survey.</p>	<p>Measurable Goals</p> <p>a. Maintain the stormwater webpage to feature current SWMP documents and general information, and provide links to the County webpage.</p> <p>b. Publish webpage information on all educational documents when appropriate.</p> <p>c. Add a question to the direct mail and/or online survey to insure residents are aware of the Stormwater webpage and County links.</p>	
PE.3	Event Participation	Pathogens, Sediments, Nutrients (P, N, NO3, NO2), Hydrocarbons (D&G, lubricants), Pesticides, Gross pollutants (litter, trash, debris)	a. A booth or stormwater exhibit will be staffed by the Cities - for the purpose of educating people and distributing information about stormwater issues - at the annual clean up event and two other city events to be determined, based on which events will provide the most exposure. b. A short quiz or contest will be held to identify areas of concern.	a. Staff will document the numbers of adults and children in attendance at each event (and when possible identify attendees to add to an interested parties list), types of brochures distributed and other pertinent information at each event and maintain an excel spreadsheet containing types of brochures and other information distributed or requested and evaluate annually. b. Distribute, tabulate and review answer to a short quiz to identify areas of concern or that require more focus.	X			X		E.7.a (b) (e)	<p>Measurable Goals</p> <p>a. City events may change as a result of lack of community interest/participation; therefore, the distribution of brochures will be based on which City events will provide the most exposure.</p> <p>b. Due to lack of participation in taking a quiz or contest offered to adults and children at events, the Cities have created an online survey in lieu of the quiz. As an incentive, the Cities have offered stormwater giveaways at the Stormwater Display Booth for adults and children interested in taking an event or website survey.</p> <p>Effective Measure</p> <p>Due to lack of participation, the Cities are not able to identify areas of concern or that require more focus at this time.</p>	<p>Measurable Goals</p> <p>a. A booth or stormwater exhibit will be staffed by the Cities for the purpose of educating people and distributing stormwater information about at City events which provide the most exposure.</p> <p>b. The Cities will continue to maintain an online stormwater survey and promote the participation of event surveys.</p> <p>Effective Measure</p> <p>b. The Cities will continue to review answers to event and/or online surveys to identify areas of concern or that require more focus.</p>	
PE.4	Educational programs for children	Pathogens, Sediments, Nutrients (P, N, NO3, NO2), Hydrocarbons (D&G, lubricants), Pesticides, Gross pollutants (litter, trash, debris)	a. The Cities will distribute, review and revise the materials distributed as required throughout the life of the permit with a goal of educating 50% of school children (K-8) every two years. City staff will coordinate with school staff to ensure that 50% of school children (K-8) receive stormwater education as specified. b. Staff will also conduct semi-annual meetings with teachers and parks and recreation staff to evaluate and adjust any programs offered. c. The Cities will hold an after-program contest/quiz to determine if the information was assimilated.	a. Document the types of educational materials distributed and the numbers of children in receipt of the materials and participating in any type of clean up/stormwater related activity. b. Document attendance and topics discussed c. Answers will be evaluated to determine areas requiring more stress. Tabulate responses and areas that require additional focus and adjust program accordingly.	X			X		E.7.a (b) (e) (j)	<p>Measurable Goals</p> <p>a-b. The Cities are utilizing alternative approaches to providing stormwater education such as stormwater poster contests and third party vendor stormwater presentations (via Shows that Teach, Science Discovery, etc.) to school children. Prior to any third party vendor presentations to the schools, the Cities will review stormwater education materials provided by third party vendors prior to coordinating the presentations with the school principal which saves time and resources and eliminates need for semi-annual meetings with teachers.</p> <p>Due to lack of interest/participation by school(s), it may not be feasible for each City to provide stormwater school education to 50% (K-8) school children every 2 years as the stormwater education curriculum covers (K-8) and not (K-8). In addition, it is more feasible for the Cities to rotate school education programs on an annual basis.</p> <p>c. The third party vendor have built-in interactive audience quiz into the stormwater presentations; therefore, the Cities do not hold an after program contest/quiz.</p> <p>Effectiveness Measure</p> <p>a-c. The Cities distribute educational materials to school children at City events such as the Santa Ynez Valley Botanical Garden's Earth Day, Buellton BBQ Bonanza through use of color/activity books and stormwater bookmarks and will continue documentation of these materials.</p> <p>Although the City of Buellton participated in a 7th grade field trip at the Santa Ynez Botanical Garden (2015) and the City of Solvang's hosted a Kind Kids Programs (2015-2017) that conducted stormwater related cleanup at a local park, neither City typically organizes annual stormwater related cleanup activities with school children; and therefore, the Cities cannot document annual participation in stormwater related cleanup activities; and therefore, the Cities propose to remove this requirement from this effective measure and continue to document the types of educational materials distributed to children at City sponsored events.</p>	<p>Measurable Goals</p> <p>a. The Cities will continue to offer third party vendor stormwater presentations to (K-6) to schools within the City of Buellton and Solvang on a rotating basis. Each City will coordinate with school principal to ensure stormwater education is provided to school children.</p> <p>b. Remove</p> <p>c. Remove</p> <p>Effective Measure</p> <p>a. The Cities continue to document the types of stormwater presentations as well as educational materials provided to school children at City sponsored events during the reporting year.</p>	
PE.5	Storm Drain Marking	Pathogens, Sediments, Nutrients (P, N, NO3, NO2), Hydrocarbons (D&G, lubricants), Pesticides, Gross pollutants (litter, trash, debris)	a. The Cities have already completed marking 100% percent of the storm drains within its jurisdiction. Staff will continue to monitor and repair the existing markers by checking them annually and replacing as necessary. b. All new storm drains will be required to be marked as installed. Such marking will be required in conditions of approval for any development or redevelopment project c. In order to determine if the general public identifies with the storm drain markers add one question in the online/direct mail survey addressing the purpose of the markers.	a. Staff will update the storm drain map accordingly as marker maintenance/updates occur. c. Answers will be tabulated and staff will identify areas that require additional focus and adjust programs accordingly.	X			X		E.7.a (b) (e); E.11.g	<p>Measurable Goals</p> <p>a. The Cities may not be able to inspect and mark 100% of the storm drains within its jurisdiction due to resource constraints and/or when assessment areas are inaccessible or not visible.</p>	<p>Measurable Goals</p> <p>a. The Cities have already completed marking 100% percent of the storm drains within its jurisdiction. Staff will continue to monitor and repair the existing markers by checking structures within high-priority areas them annually and replacing as necessary.</p>	
PE.6	Stormwater Hotline	Pathogens, Sediments, Nutrients (P, N, NO3, NO2), Hydrocarbons (D&G, lubricants), Pesticides, Gross pollutants (litter, trash, debris)	a. The Cities will promote the use of the hotline through all printed materials and the web site. b. The Cities will log the number of all calls, and respond to 100% of calls received within 24 hours by sending the necessary personnel to address the problem. The Cities will document the nature of each call, the date, location, and type of any discharge reported, the Cities' response, including enforcement and abatement actions, and the results of the Cities' response. c. Include a question about the hotline in the online and direct mail surveys.	a. Log number of calls received. b. Document number of calls, answers and types of responses. c. Answers will be tabulated and staff will identify areas that require additional focus and adjust programs accordingly.	X			X		E.7.a (b) (e); E.11.j	<p>Measurable Goals</p> <p>a. City Staff responds within 72 hours to complaints or notice of a spill discharge or illicit connection and within 24 hours if related to sewage and/or significantly contaminated discharges and not 24 hours as identified within this measurable goal. These response times are consistent with Section E.9 of the general permit.</p> <p>c. Its not practical or cost effective to provide direct mail survey to all residents and business within the Cities jurisdiction. Each City has included a question pertaining to the hotline within a direct mail and/or online survey.</p>	<p>Measurable Goals</p> <p>b. City staff will respond to a complaint or notice of a spill discharge or illicit connection within 72 hours; and 24 hours if related to sewage and/or significantly contaminated discharges.</p> <p>b. Include a question regarding the hotline, in the direct mail and/or online surveys.</p>	

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NOTE: YELLOW HIGHLIGHTED BMPs ARE ADDITIONAL BMPs THE CITIES WILL MAINTAIN THOUGH NOT REQUIRED BY THE GENERAL PERMIT

BMP Implementation Data										Proposed Modification	
BMP #	BMP Description	Target POCs	Measurable Goals	Effectiveness Measure	Required Per Permit?		Continuing BMP Implementation?		Permit Section Reference(s)	Issue	Modification
					Y	N	Y	N			
PE.7	Direct Mail/ Media campaign	Pathogens, Sediments, Nutrients (P, N, NO3, NO2), Hydrocarbons (O&G, lubricants), Pesticides, Gross pollutants (litter, trash, debris)	a. Staff will place stormwater related articles in three issues of a local newspaper annually. b. Include a question regarding news articles, in the online and direct mail surveys.	b. Answers will be tabulated and staff will identify areas that require additional focus and adjust programs accordingly.	X		X		E.7.a (b) (e)	<p>Measurable Goals</p> <p>b. Its not practical or cost effective to provide direct mail survey to all residents and business within the Cities jurisdiction. Each City has included a question pertaining to news articles on either within a direct mail and/or online survey.</p>	<p>Measurable Goals</p> <p>b. Include a question regarding news articles, in the direct mail and/or online surveys.</p>
PE.8	Business Outreach	Pathogens, Sediments, Nutrients (P, N, NO3, NO2), Hydrocarbons (O&G, lubricants), Pesticides, Gross pollutants (litter, trash, debris)	a. Distribute Informational materials/brochures pertaining to business, already developed by the County at zoning clearance and annually to businesses. b. Staff will ask business owners during any site visit or other interaction: 1) if they are familiar with the stormwater program; 2) if they are aware of the requirements imposed for their type of business; 3) and if they believe their business to be in compliance with those requirements. Staff will visit 75% of all new businesses and 20% of existing businesses annually, with a target of increasing awareness by 10% annually. c. During any site visit Staff will inspect businesses for compliance with stormwater requirements. Staff will visit 75% of all new businesses and 20% of existing businesses annually. d. Staff will achieve compliance with stormwater requirements at all businesses inspected annually through the use of established enforcement procedures.	a. The Cities will compile number of materials/brochures, zoning clearance information distributed and the names of recipients when available, annually to businesses b. The number of businesses reached and answers will be tabulated and staff will identify areas that require additional focus and adjust programs accordingly. c. The number of businesses inspected will be tabulated on and staff will identify areas that require additional focus and adjust programs accordingly.	X		X		E.7.a (k, l, m)	<p>Measurable Goals</p> <p>a. The Cities distribute information materials/brochures developed by the County, Cities or jointly at each zoning clearance. b. City staff may not have the ability to ask questions during each site visit or interaction and/or inspect 75% of all new businesses and 20% of existing business annual/due to resource constraints and/or meet the target of increase awareness due to high turnover rate.</p> <p>Effectiveness Measure</p> <p>a. Its not practical for each City to compile number of materials/brochures, zoning clearance information distributed and the names of recipients when available, annually to businesses.</p>	<p>Measurable Goals</p> <p>a. The Cities will distribute stormwater informational materials/brochures to new and existing business at the time of application and/or during site visits, target audience direct mailers and/or as needed. The Cities will also maintains stormwater informational materials/brochures within designated City offices and/or locations and on each City's website. b. When possible, City staff will continue to ask business owners during site visits or other interaction: 1) if they are familiar with the stormwater program; 2) if they are aware of the requirements imposed for their type of business; 3) and if they believe their business to be in compliance with those requirements.</p> <p>Effectiveness Measure</p> <p>a. Remove</p>
PE.9	Public Survey	Sediment, Nutrients (P, N, NO3, NO2), Metals, Detergents, Hydrocarbons (O&G, lubricants), Pesticides, Gross pollutants (litter, trash, debris), Toxics (organics, hazardous waste, etc.)	a. The Cities will develop a quiz or survey containing at least one question pertaining to each of the Cities' stormwater related public education and outreach activities. b. Administer the survey through community events and displays.	b. Answers will be tabulated and staff will identify areas that require additional focus and adjust programs accordingly as well as attempt to draw more individuals to participate in the survey/quiz.	X		X		E.7.a (b) (e)	<p>Measurable Goals</p> <p>a. The Cities developed a survey and not a quiz pertaining to each of the Cities stormwater related public education and outreach activities. b. Due to lack of participation in taking a quiz or contest offered to adults and children at events, the Cities have created an online survey in lieu of the quiz. As an incentive, the Cities have offered stormwater giveaways at the Stormwater Display Booth for adults and children interested in taking an event or online survey.</p>	<p>Measurable Goals</p> <p>a. The Cities will develop a survey containing at least one question pertaining to each of the Cities' stormwater related public education and outreach activities. b. Administer the survey through community events and/or online.</p>
PE.10	Ongoing Assessment of Community-Based Social Marketing Strategies	Sediment, Nutrients (P, N, NO3, NO2), Metals, Detergents, Hydrocarbons (O&G, lubricants), Pesticides, Gross pollutants (litter, trash, debris), Toxics (organics, hazardous waste, etc.)	a. Assess community-based marketing strategies, and determine how they might increase the effectiveness of the Cities' public education and outreach program. b. Modify the Cities' public education and outreach efforts, as necessary, to incorporate community-based social marketing strategies where the Cities determine they can improve the public education and outreach program.		X		X		Attachment E		
PUBLIC PARTICIPATION AND INVOLVEMENT											
PI.1	Hold Regular Public Meetings	Sediment, Nutrients (P, N, NO3, NO2), Metals, Detergents, Hydrocarbons (O&G, lubricants), Pesticides, Gross pollutants, Toxics (organics, hazardous waste, etc.)	a. The Cities will present the NPDES permit report, and any pertinent comments annually at City Planning Commission and /or City Council meetings and two other events annually. Feedback received and the Cities' response will be documented and tracked. Comments pertaining to new stormwater ordinances will be solicited prior to and during code development. Information requested will be sent to any interested party. b. Survey to include a question about public meetings.	a. Attendance will be documented. Meetings are noticed per the Brown Act. b. Answers will be tabulated and staff will identify areas that require additional focus or trends and adjust programs accordingly.	X		X		E.8 (a)	<p>Measurable Goals</p> <p>a. The Cities provide the Stormwater Management Program Report to the City Council but typically do not present the report to the Planning Commission or present at two other events annually. The Cities also uploads the Stormwater Management Program Report to each City's website and/or maintain a hard copy within City Hall. b. The Cities have not included a question about public meeting in the survey; and, therefore, the Cities propose to remove this requirement from this Permit Section and Element.</p> <p>Effectiveness Measure</p> <p>b. The Cities have not included a question about public meeting in the survey; and, therefore, the Cities propose to remove this requirement from this Permit Section and Element.</p>	<p>Measurable Goals</p> <p>a. The Cities will continue to provide the Stormwater Management Program Report annually to the City Council as well as upload the report to each City's website and/or maintain a hard copy within City Hall. b. Remove</p> <p>Effectiveness Measure</p> <p>b. Remove</p>
PI.2	Establish Interagency/ Stakeholder Communication	Pathogens, Sediments, Nutrients (P, N, NO3, NO2), Hydrocarbons (O&G, lubricants), Pesticides, Gross pollutants (litter, trash, debris)	a. Staff will attend as many applicable meetings as financially possible (i.e. SBCAMM, meetings, and CASQA meetings/workshops), maintaining a 75% attendance rating at SBCAMM meetings annually. b. Staff will coordinate with County and other local cities on CASQA information.	a. Provide sign in sheets and document any programs/ideas BMPs that have been obtained. Document ideas used. b. Staff will identify areas that require additional focus adjust programs accordingly.	X		X		E.8 (a) (e)		
PI.3	Community Cleanup	Pathogens, Sediments, Nutrients (P, N, NO3, NO2), Hydrocarbons (O&G, lubricants), Pesticides, Gross pollutants (litter, trash, debris)	a. Cities will sponsor one clean up event annually. b. The Cities will promote the clean up day by placing advertising posters at other city events and/or meetings and at various city buildings, and publishing 1-3 news articles in local news media.	a-b. Document community clean-up locations and attendance. Measure amount of waste collected at each event by number of bags collected. Total collection may be obtained from Marborg's Annual Reports.	X		X		E.8 (a) (c)	<p>Measurable Goals</p> <p>a. The Cities sponsor quarterly clean up events and not just one annually. To increase participations annually, the Cities promote the clean up through direct mailers by waste contractors and via the City's and Less is More website. The waste contractor provides clean up event data that includes attendees and amount and type of waste collected at each event. b. The Cities will promote the clean up day by placing advertising posters at other city events and/or meetings and at various city buildings, and publishing 1-3 news articles in local news media. To increase participations annually, the Cities promote the cleanup through direct mailers by waste contractors and via the City's and Less is More website.</p>	<p>Measurable Goals</p> <p>a. The Cities will continue to sponsor clean up events quarterly. b. The Cities will continue to promote clean up day through direct mailers by waste contractors and via the City's and Less is More website.</p>
PI.4	Hazardous Waste Facility (Solvang Only)	Pathogens, Sediments, Nutrients (P, N, NO3, NO2), Hydrocarbons (O&G, lubricants), Pesticides, Gross pollutants (litter, trash, debris)	The City of Solvang will provide information pertaining to the hazardous waste facility in the City of Solvang. Information will be available on the website and updated quarterly, it will be mentioned in 1-3 news articles (print and/or radio) annually.	Staff will assess effectiveness of the use of this facility and the impact it has on overall water quality by including a question regarding the hazardous waste facility on the annual survey.	X		X		E.8 (a)	Solvang Does not have a Hazardous Waste Facility and promotes clean up day through direct mailers by waste contractors and via the City's and Less is More website; and therefore, the Cities propose to remove this requirement form the Permit Section and Element of this guidance document.	
PI.5	Interested Parties List	Sediment, Nutrients (P, N, NO3, NO2), Metals, Detergents, Hydrocarbons (O&G, lubricants), Pesticides, Gross pollutants (litter, trash, debris), Toxics (organics, hazardous waste, etc.)	a. Develop an interested parties list by making sign-up opportunities available on the Cities' websites, at public meetings related to the stormwater program, at public events attended by City staff for the purpose of providing stormwater education, and at the clean up day. b. Staff will send information about all developments in the Cities' stormwater program and about all upcoming meetings and events to people signed up on the interested parties list.		X		X		E.8 (a) (b) (d)		

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BMP #	BMP Description	Target POCs	Measurable Goals	Effectiveness Measure	Required Per Permit?		Continuing BMP Implementation?		Permit Section Reference(s)	Issue	Modification
					Y	N	Y	N			
ILICIT DISCHARGE DETECTION AND ELIMINATION											
ID.1	Storm drain system mapping	Pathogens, Sediments, Nutrients (P, N, NO3, NO2), Hydrocarbons (D&G, lubricants), metals, chlorine	a. The Cities will have a 100% complete storm drain map. b. This map will be updated and revised annually to include any changes to existing storm drains or new development.	a. Update and revise map. b. Utilize maps to track sources of illicit discharges. Staff will identify areas that require additional focus.	X		X		E.9.a		
ID.2	Stormwater Ordinance	Pathogens, Sediments, Nutrients (P, N, NO3, NO2), Metals, Detergents, Hydrocarbons (D&G, lubricants), Pesticides, Gross pollutants (litter, trash, debris), Toxics (organics, hazardous waste, etc.)	a. The Cities will evaluate the scope of existing ordinances and codes including excavation and grading codes, and the level of success in addressing illicit discharge under existing regulations. The Cities will use the minimum requirements of the General Permit as criteria for evaluation of the existing codes and ordinances. b. The Cities will modify its existing ordinances, or develop new ordinances, where necessary. c. The Cities will adopt and begin implementing and enforcing its revised and/or new ordinances.	a. 100% of applicable ordinances will be reviewed and evaluated.	X		X		E.6.a; E.10.a		
ID.3	Education and Outreach	Sediment, Nutrients (P, N, NO3, NO2), Metals, Detergents, Hydrocarbons (D&G, lubricants), Pesticides, Gross pollutants (litter, trash, debris), Toxics (organics, hazardous waste, etc.)	a. Information pertaining to commercial training events held by the County and other local entities will be distributed (as it is available) to interested parties and during site visits. b. Illicit discharge will be addressed in 1 of every 3 stormwater outreach articles that appear in local papers. c. The Cities will evaluate the economic viability of holding its own commercial training events. As an alternative, the Cities may partner with the County and other local entities hosting commercial training events.	b. The numbers of these articles containing ID information that are printed will be documented. c. The number of commercial training events and the number of attendees that visit each event will be documented.	X		X		E.7.a (h)		
ID.4	Municipal Staff Training	Sediment, Nutrients (P, N, NO3, NO2), Metals, Detergents, Hydrocarbons (D&G, lubricants), Pesticides, Gross pollutants (litter, trash, debris), Toxics (organics, hazardous waste, etc.)	a. The Cities will train all relevant staff annually; all Public Works staff in call/complaint receipt procedures; all PW field and vendor staff in detecting illicit discharges and connections; all field and vendor staff in spill and complaint response procedures; all PW field and vendor staff in field investigation and abatement procedures annually. b. 100% City employee participation in annual in-house training for illicit discharge awareness and best management practices at work and home. c. 100% of City municipal staff responsible for illicit detection and elimination will use pocket guides to be developed to identify illicit discharges and connections in the field. d. The Cities will have a Professional Engineer or a certified Stormwater Inspector on staff.	a. Staff attendance will be documented and quiz answers evaluated and questions changed to address points requiring more focus. b. Employee participation documented. Staff will identify areas that require additional focus and adjust programs accordingly. c. City Staff will begin drafting a pocket guide to assist in municipal staff identifying illicit discharges.	X		X		E.7.b; E.7.b.1	Effectiveness Measure c. The Cities drafted and implemented a Recognizing and Reporting Stormwater Pollution Pocket Guide. Completed.	Effectiveness Measure c. Remove
ID.5	Elimination of Illicit Discharge Sources	Sediment, Nutrients (P, N, NO3, NO2), Metals, Detergents, Hydrocarbons (D&G, lubricants), Pesticides, Gross pollutants (litter, trash, debris), Toxics (organics, hazardous waste, etc.)	a. City Staff will respond to complaints within 24 hours of receiving the complaint, referral or notice. b. Staff will add one question about spill response to the direct mail survey. c. City staff will identify and prioritize potential sources and areas of illicit discharges on the basis of their potential to contribute pollutants to the Cities' MS4 and map if necessary. d. Staff or designated volunteers will conduct quarterly inspections of priority potential discharge areas and known trouble spots looking for evidence of illegal dumping and illicit discharges. e. City ordinances will be modified to prohibit any of the allowable non-stormwater discharges that are determined to be a significant source of pollutants. f. Staff or designated volunteers will walk the length of all creeks within the Cities' boundaries annually looking for evidence of illegal dumping and illicit discharges. g. City staff will inspect 25% of City storm drain catch basins/drainage inlets annually for evidence of illicit discharges. h. The Cities will track discharges, maintain records of responses, and implement all enforcement provisions currently utilized in the City and of impose BMPs if necessary, to assure compliance. i. The Cities will establish on-going compliance through subsequent inspections. j. The Cities will record on a spreadsheet to evaluate EHS inspections and Fire Dept. hazmat inspections/spill responses on the basis of content that pertains to stormwater quality. k. The Cities will compile a comprehensive inventory of all businesses in the Cities with the potential to discharge pollutants to the MS4, organized by type of business. The Cities will complete the inventory of existing businesses; and will maintain the inventory by keeping it current. Staff will use the inventory to prioritize businesses for education, site visits, and site inspections.	a. Staff will document number/type of complaint responses. b. Identify areas that require additional attention and adjust programs accordingly. c. Document areas and numbers of illicit discharges; develop water quality testing procedure if necessary. h. A spreadsheet showing the progress of program development will be established. k. 100 % of EHS inspections and Fire Dept. hazmat inspections /spill responses will be recorded and evaluated. +k. Staff will identify areas that require additional focus and adjust programs accordingly.	X		X		E.9.b, d, e; E.11.j	Measurable Goals a. City Staff responds within 72 hours to complaints or notice of a spill discharge or illicit connection and within 24 hours if related to sewage and/or significantly contaminated discharges and not 24 hours as identified within this measurable goal. These response times are consistent with Section E.9.d of the general permit. b. Its not practical or cost effective to provide direct mail survey to all residents and business within the Cities jurisdiction. Each City has included a question pertaining to spill response on either within a direct mail survey and/or within an online survey. d. Staff or designated volunteers will conduct quarterly inspections of priority potential discharge areas and known trouble spots looking for evidence of illegal dumping and illicit discharges. f. City Staff and/or designated volunteers will not be able to walk the entire length of all creeks within the Cities boundaries annually looking for evidence due to areas that may be inaccessible due to overgrowth with vegetation (including poison oak). The Cities will conduct a site walk of the river looking for evidence of illegal dumping and illicit discharges when feasible. g. 25 % of the Cities storm drain catch basins/drainage inlets are located within high priority areas; and are cleaned annually. j. The Cities do not have direct access to EHS inspections and/or Fire Dept. hazmat inspection reports. Annually, the Cities download a copy of the State of California Office of Emergency Services' Hazmat Spill Notifications Database to search Hazardous Materials Spill Reports that occurred within each City jurisdiction. If found the Cities will review report to determine known impacts to water and if follow-up is needed. k. The Cities do not have direct access to EHS inspections and/or Fire Dept. hazmat inspection reports. Annually, the Cities download a copy of the State of California Office of Emergency Services' Hazmat Spill Notifications Database to search Hazardous Materials Spill Reports that occurred within each City jurisdiction. If found the Cities will review report to determine known impacts to water etc.	Measurable Goals a. City staff will respond to a complaint or notice of a spill discharge or illicit connection within 72 hours; and 24 hours if related to sewage and/or significantly contaminated discharges. b. City staff will add one question about spill response to the direct mail and/or online survey. d. City staff will conduct inspections of priority areas annually looking for evidence of illegal dumping and illicit discharges. f. City staff will conduct a site walk of the river and/or creek looking for evidence of illegal dumping and illicit discharges when feasible. g. City staff will continue to monitor storm drains, catch basins and area drains within high-priority areas annually for evidence of illicit discharges. j. The Cities will download a copy of the State of California Office of Emergency Services' Hazmat Spill Notifications Database to search Hazardous Materials Spill Reports that occurred within each City jurisdiction. If found the Cities will review report to determine known impacts to water and if follow-up is needed. k. The Cities will download a copy of the State of California Office of Emergency Services' Hazmat Spill Notifications Database to search Hazardous Materials Spill Reports that occurred within each City jurisdiction. If found the Cities will review report to determine known impacts to water etc.
ID.6	Commercial Drain Filters (Buellton Only)	Sediment, Nutrients (P, N, NO3, NO2), Metals, Detergents, Hydrocarbons (D&G, lubricants), Pesticides, Gross pollutants (litter, trash, debris), Toxics (organics, hazardous waste, etc.)	a. 100% of commercial area drain connections will require filters. b. City Staff will inspect all commercial drain connections for serviceable filters annually prior to the first storm event.	a. Staff will document number/type of drain filters b. Identify areas that require additional and adjust programs accordingly			X	X			
ID.7	Wastewater Programs	Pathogens, Sediments, Nutrients (P, N, NO3, NO2), Hydrocarbons (D&G, lubricants), metals, chlorine	a. The Cities will develop a standard SSO Response Procedure which will outline and identify the steps and forms required to respond to a sanitary sewer overflow and prevent contact with surface water. b. The Cities will implement the SSO Response Procedure. c. Staff will respond to septic inspection reports to insure repair or elimination of deficiencies and illegal connections.	a-c. Staff will identify areas that require additional focus and adjust programs accordingly. b. Develop a report spreadsheet that documents aspects of inspection and reporting, the number of notices to correct, illegal connections and septic to sewer conversions.			X	X			
ID.8	Mutt Mitt Programs	Pathogens, Pesticides, Gross pollutants (litter, trash, debris), Toxics	a. The Cities will have at least one Mutt Mitt station in each City Park and will evaluate the need for additional stations. b. The Cities provide the required mitts for all the stations during weekly station capacity evaluation. If a station is completely depleted for more than four inspections in a six week period an additional station will be added to the specific area. c. The Cities will update newly designated Mutt Mitt Station locations on park information. d. One question in the surveys will pertain to Mutt Mitts.	a. Cities will work to install Mutt Mitts where not already installed and provide 100% of the required mitts for all the stations and document the quantity of mutt mitts for pet waste disposal that are provided. a-d. Staff will identify areas that require additional focus and adjust accordingly.			X	X			

**CITY OF BUELLTON & CITY OF SOLVANG
STORMWATER MANAGEMENT GUIDANCE DOCUMENT**

NOTE: YELLOW HIGHLIGHTED BMPs ARE ADDITIONAL BMPs THE CITIES WILL MAINTAIN THOUGH NOT REQUIRED BY THE GENERAL PERMIT										Proposed Modification	
BMP #	BMP Description	Target POCs	Measurable Goals	Effectiveness Measure	Required Per Permit?		Continuing BMP Implementation?		Permit Section Reference(s)	Issue	Modification
					Y	N	Y	N			
					BMP Implementation Data						
CONSTRUCTION SITE RUNOFF CONTROL											
CS.1	Construction Site Enforcement and Inspections	Sediment Hydrocarbons (D&G, lubricants) Metals Gross Pollutants (trash, debris)	a. The Cities will enforce all General Permit and City grading and municipal code requirements at all construction sites. b. The Cities will implement escalating enforcement to obtain compliance, which may include verbal warnings, letters to correct, stop work orders, construction bonds, etc. c. City staff will inspect all construction sites in accordance with construction permit requirements including but not limited to prior to the rainy season, prior to any forecast storm, after rain events that cause runoff, at 24-hour intervals during extended rain events, and at least monthly.	a. Document and evaluate enforcement actions for 100% of sites where projects BMPs failed and provide in annual report. b. Document and evaluate 100% project site inspections. c. Staff will identify areas that require additional focus and adjust programs accordingly.	X		X		E.10.c	Measurable Goals c. Due to budget and/or resource constraints, it is not feasible to inspect every construction site prior to any forecast storm, after rain events that cause runoff, at 24-hour intervals during extended rain events as required within the guidance document. The Cities will conduct construction inspections consistent with Section E.10 of the general permit. These inspections would include prior to land disturbance (during the rainy season), during active construction and following active construction. Effectiveness Measure b. The Cities document construction site inspections but do not evaluate the amount of inspections.	Measurable Goals c. City staff will inspect all construction sites in accordance with construction permit requirements including but not limited to prior to land disturbance (during the rainy season) during active construction and following active construction. Effectiveness Measure b. Document construction site inspections.
CS.2	Development of Construction Site Inspection and Enforcement Procedures	Sediment Hydrocarbons (D&G, lubricants) Metals Gross Pollutants (trash, debris)	a. The Cities will develop and adopt inspection and enforcement procedures. b. The Cities will develop an inspection checklist for use by City inspectors to ensure comprehensive inspections c. The Cities will develop a tracking system to track site inspections, BMP performance, site compliance with General Permit and City requirements, and enforcement actions. d. The Cities will implement the inspection and enforcement procedures, inspection checklist, and site tracking system. e. The Cities will implement its current inspection and enforcement procedures, inspection checklist, and site tracking system while they are under review.	b. The Cities will document and evaluate 100% project site inspections and enforcement actions and provide the information in the annual report. Documentation will include but is not limited to an inspection checklist modeled on the existing statewide SWPPP checklist and city-wide project tracking system. a-e. Staff will identify areas that require additional focus and adjust programs accordingly.	X		X		E.10.c	Measurable Goals a. The Cities completed the development and adopted an inspection and enforcement procedures; and therefore, the Cities propose to remove this requirement from this Permit Section and Element. b. The Cities completed the development and implementation of an inspection checklist to ensure comprehensive inspections; and therefore, the Cities propose to remove this requirement from this Permit Section and Element. c. The Cities completed the development of a tracking system to track site inspections, BMP performance, site compliance with General Permit and City requirements, and enforcement actions and therefore, the Cities propose to remove this requirement from this Permit Section and Element. d. The Cities completed the implementation of inspection and enforcement procedures, inspection checklist, and site tracking system. This measurable goal is duplicative; the Cities propose to remove this requirement from this Permit Section and Element. e. The Cities continue to implement its current inspection and enforcement procedures, inspection checklist, and site tracking system. This measurable goal is duplicative; the Cities propose to remove this requirement from this Permit Section and Element. Effectiveness Measure b. The Cities document but do not evaluate 100% project site inspections and enforcement actions and provide the information in the annual report. Documentation includes the inspection checklist and tracking inspection types and dates as well as enforcement measures tracking log. The inspection checklist was developed in accordance to the E.10.c and from review of the existing statewide SWPPP checklist and other municipal inspection forms.	Measurable Goals The Cities will continue to implement inspection and enforcement procedures, inspection checklists to ensure comprehensive inspections, and track site inspections (including BMP performance, site compliance with General Permit and City requirement and enforcement actions (if any)). Enforcement Actions The Cities will continue to document construction site inspections utilizing inspection checklists and maintain a log to track the inspection types and dates and enforcement actions (if any).
CS.3	Development of Procedures for Review of Grading/Erosion Control/ Construction Site Plans	Sediment Hydrocarbons (D&G, lubricants) Gross Pollutants (trash, debris)	a. Review existing construction site plan and grading/erosion control plan procedures for effectiveness in achieving compliance with the General Permit and City requirements for construction sites. b. The Cities will adopt the new criteria for the review of grading/erosion control SWPPPs and construction site plans that will achieve compliance with the General Permit. c. The Cities will implement the new procedures. d. The Cities will implement its current construction site plan and grading/erosion control SWPPPs plan review procedures until new procedures are adopted.	a-d. Staff will identify areas that require additional focus and adjust programs accordingly c-d. Document that these requirements are enforced on 100% of applicable projects.	X		X		E.10.b		
CS.4	Discretionary Projects -Conditions of Approval	Sediment Hydrocarbons (D&G, lubricants) Gross Pollutants (trash, debris)	a. The Cities will modify existing or develop new conditions of approval that will achieve compliance with the General Permit. They will include: - A requirement that all projects disturbing an acre or more of ground, or which are part of a larger development or sale disturbing an acre or more of ground, implement BMPs to control erosion and sediment, as well as pollutants from construction materials and construction-related wastes. - A requirement that all projects disturbing an acre or more of ground, or which are part of a larger development or sale disturbing an acre or more of ground, have a construction site plan indicating the location of erosion and sediment control BMPs, as well as BMPs to control pollutants from construction materials and construction-related wastes, approved by the City prior to the beginning of grading. • A requirement that all projects disturbing more than 50 cubic yards of soil will implement BMPs: • A requirement that all projects disturbing 50 cubic yards of soil or more submit a grading/erosion control plan for approval by the Cities prior to the beginning of grading. • A requirement that sites regulated by the State Construction Stormwater General Permit show proof of having submitted a NOI to the State Water Board prior to grading permit approval. • A requirement that sites regulated by the State Construction Stormwater General Permit submit a SWPPP. b. The Cities will adopt the new conditions of approval as necessary. c. The Cities will implement the new conditions of approval. d. The Cities will implement the new conditions of approval. e. The Cities will implement existing conditions of approval until it adopts new conditions of approval.	a-c. Staff will identify areas that require additional focus and adjust programs accordingly.	X		X		E.10.b		
CS.5	Staff Training	Sediment Pathogens (indicator bacteria) Hydrocarbons (D&G, lubricants) Metals Gross Pollutants (trash, debris) Detergents Toxics (organics, hazardous waste, etc.)	a. The Cities will provide annual training of 100% of grading, construction site inspectors and planning staff responsible for plan checks. b. One staff member will be a certified GSD/GSP or PE.	a-b. Staff will identify areas that require additional focus and adjust programs accordingly.	X		X		E.7.b.2 (a)		
CS.6	Construction Workshops	Sediment Pathogens (indicator bacteria) Hydrocarbons (D&G, lubricants) Metals Gross Pollutants (trash, debris) Detergents Toxics (organics, hazardous waste, etc.)	a. At least one annual workshop will be held in conjunction with other local agencies. The workshops will be advertised at least one month prior to date in local papers and through interoffice communication. b. Public forums will take place at the annual presentations of the NPDES Permit (see P1.1) The Public will be provided with information on how to recognize and report potential permit violations.	a-b. Number of attendees and comments made will be documented. Staff will identify areas that require additional focus and adjust programs accordingly.	X		X		E.7.b.2 (b)	Measurable Goals a. The Cities do not typically hold an annual Construction Outreach and Education workshop with other local agencies but rather forward information on upcoming workshops to the local construction community; and therefore, the Cities propose to remove this requirement from this Permit Section and Element. b. Public Forums typically do not take place at annual meeting but rather the Cities maintain Recognizing and Reporting Stormwater Pollution brochures at stormwater displays located within designated City offices and/or locations as well as have them available at events and each City's website; and therefore, the Cities propose to remove this requirement from this Permit Section and Element. Effectiveness Measure a-b. Public Forums typically do not take place at annual meeting; and therefore, the Cities propose to remove this requirement from this Permit Section and Element.	Measurable Goals The Cities will continue to forward information on upcoming workshops to the local construction community. The City will continue to maintain Recognizing and Reporting Stormwater Pollution brochures at stormwater displays within designated City offices and/or locations as well as have them available at events and each City's website. Effectiveness Measure a. The Cities will continue to forward information on upcoming workshops to the local construction community. b. Remove
CS.7	Construction Site Stormwater Control Ordinance	Sediment Hydrocarbons (D&G, lubricants) Gross Pollutants (trash, debris)	a. Review current codes, ordinances, and standards for compliance with the General Permit, and modify them as necessary. b. Adopt modified (or new) codes, ordinances, and/or standards which will achieve compliance with the General Permit. c. Implement and enforce modified and/or new codes, ordinances, and standards. d. Implement and enforce current codes, ordinances, and standards while they are being reviewed and modified.		X		X		E.6.a		
CS.8	Procedures for Receipt and Consideration of Information from the Public	Sediment Hydrocarbons (D&G, lubricants) Gross Pollutants (trash, debris)	a. The Cities will maintain a public hotline (see description and measurable Goals for BMPs PE.6). b. The Cities will conduct public forums at the annual presentations of the NPDES Permit (see P1.1). The Public will be provided with information on how to recognize and report potential permit violations. All comments received will be documented annually and analyzed and procedures adjusted to provide maximum effectiveness.		X		X		E.9.d		
POST-CONSTRUCTION RUNOFF CONTROL											

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BMP #	BMP Description	Target POCs	Measurable Goals	Effectiveness Measure	Required Per Permit?		Continuing BMP Implementation?		Permit Section Reference(s)	Issue	Modification
					Y	N	Y	N			
PC.1	Review Regulations	Sediment Pathogens (indicator bacteria) Hydrocarbons (D&G, lubricants) pesticides	<p>a. The Cities will analyze its conceptual review process and all of its enforceable mechanisms related to new and redevelopment to identify modifications and/or additions necessary to effectively implement the following:</p> <ul style="list-style-type: none"> LID principles and features included in the Post-Construction Requirements of the Central Coast Regional Water Quality Control Board. <p>b. The Cities will adopt modifications to these enforceable mechanisms, or adopt new mechanisms, to i) effectively resolve regulatory conflicts; ii) achieve the desired watershed conditions; and iii) implement hydromodification controls, LID principles and features, for all new and redevelopment projects.</p> <p>c. The Cities will apply and enforce new and/or revised enforceable mechanisms to all applicable new and redevelopment projects which disturb 50 cubic yards or more of soil, or an acre or more of ground, or which are part of a larger plan of development or sale disturbing an acre or more of ground.</p> <p>d. While the above revisions are taking place, the Cities will enforce and apply all existing codes, conditions of approval and requirements to 100% of all projects in the Cities which disturb 50 cubic yards or more of soil, or an acre or more of ground, or which are part of a larger plan of development or sale disturbing an acre or more of ground.</p>	<p>a. 100% of all applicable codes will be reviewed.</p> <p>a-d. Staff will identify areas that require additional focus and adjust programs accordingly.</p>	X		X		E.12.a, g, j		

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BMP Implementation Data										Proposed Modification	
BMP #	BMP Description	Target POCs	Measurable Goals	Effectiveness Measure	Required Per Permit?		Continuing BMP Implementation?		Permit Section Reference(s)	Issue	Modification
					Y	N	Y	N			
PC.2	Staff Training	Sediment Pathogens (indicator bacteria) Hydrocarbons (D&G, lubricants) Metals Gross Pollutants (trash, debris) Detergents Toxics (organics, hazardous waste, etc.)	a. The Cities will develop and maintain a fact sheet on all BMPs currently adopted and in use by the Cities, and distribute the fact sheet to all relevant personnel. b. The Cities will train inspectors and plan review staff in the proper implementation of Post-Construction Requirements and City requirements for LID, hydromodification control, and will conduct annual training for all relevant staff based on the training materials. c. During annual training, City staff will conduct group review of the previous year to evaluate staff performance and training effectiveness.	b. Document attendance at annual training and certify that all relevant personnel received training. a-c. Staff will identify areas that require additional focus adjust programs accordingly.		X	X				
PC.3	Plan Review	Sediment Pathogens (indicator bacteria) Hydrocarbons (D&G, lubricants) pesticides	a. The Cities will evaluate its existing plan review procedures for their effectiveness in ensuring compliance with the Post-Construction Requirements, LID requirements the Cities will apply to projects reviewed and will modify the procedures as necessary. b. The Cities will develop a plan review checklist consistent with the Post-Construction Requirements that the Cities will apply to projects reviewed. c. The Cities will implement its plan review procedures and checklist to review all new and redevelopment projects for compliance with the Post-Construction stormwater management requirements. d. The Cities will modify its plan review procedures and checklist to incorporate long-term post-construction stormwater management requirements related to LID, hydromodification control, as provided in the Post-Construction Requirements. e. The Cities will implement its modified plan review procedures and checklist to review all new and redevelopment projects for compliance with the Post-Construction stormwater management requirements.		X		X		E.12.b, c, e, g		
PC.4	Inspection of Post-Construction Stormwater BMPs	Sediment Pathogens (indicator bacteria) Hydrocarbons (D&G, lubricants) pesticides	a. The Cities will evaluate its existing inspection procedures for their effectiveness in ensuring compliance with the Post-Construction stormwater management requirements and will modify the procedures as necessary. b. The Cities will develop an inspection checklist consistent with the Post-Construction stormwater management requirements. c. The Cities will develop a system to track Post-Construction stormwater management BMPs from plan review through long-term maintenance. d. The Cities will inspect all post-construction stormwater management BMPs for proper performance prior to project completion. Proper performance will be a condition of final project approval. e. The Cities will modify its inspection procedures, inspection checklist, and tracking system to incorporate long-term post-construction stormwater management requirements as described in the Central Coast's Post-Construction Requirements. f. The Cities will implement its modified inspection procedures, inspection checklist, and tracking system for all new and redevelopment projects.		X		X		E.12.c, d, h, i		
PC.5	Long-Term Maintenance of Post-Construction Stormwater BMPs	Sediment Pathogens (indicator bacteria) Hydrocarbons (D&G, lubricants) Pesticides, gross pollutants (trash, debris)	a. The Cities will develop and adopt a long-term maintenance agreement for post-construction stormwater BMPs. The agreement will clarify the responsibility for long-term BMP maintenance, establish BMP maintenance and performance standards, establish inspection expectations, identify reporting requirements, and establish necessary authority to enforce the agreement, including the authority for the City to take over maintenance of BMPs and to collect compensation for that maintenance. b. The Cities will implement and enforce the long-term maintenance agreement. c. The Cities will track performance and inspection information for all post-construction stormwater management BMPs in operation in the Cities.		X		X		E.12.c, e, g, h		
PC.6	Master Drainage Plan	Sediment Pathogens (indicator bacteria) Hydrocarbons (D&G, lubricants) Metals Gross Pollutants (trash, debris) Detergents Toxics (organics, hazardous waste, etc.)	a. The Master Drainage Plan will be 80% complete by the end of year 5.	Staff will identify areas that require additional focus and adjust programs accordingly.	X		X		E.12.f, k	The Cities have completed the 80% of the development of the Master Drainage Plan by year 5; and therefore, the Cities propose to remove this requirement from the Permit Section and Element of this guidance document.	Removed BMP PC6
PC.7	Long-Term Watershed protection and Plan	Sediment Pathogens (indicator bacteria) Hydrocarbons (D&G, lubricants) Metals Gross Pollutants (trash, debris) Detergents Toxics (organics, hazardous waste, etc.)	a. The Cities will establish long-term watershed protection as a City objective by applying the Central Coast Regional Water Quality Control Board Post-Construction Requirements. b. The Cities will develop and adopt a plan for long-term watershed protection by implementing the CORWQCB Post-Construction Requirements. The plan will include specific measurable Goals, effectiveness measures, and an implementation schedule to accomplish the following tasks: - Characterize the Cities' watersheds and sub-watersheds. - Evaluate existing watershed protection efforts, including land use policies, plans, ordinances, guidance manuals, development project review procedures, and BMPs. - Establish a minimum setback of 30 feet from the top-of-bank of any identified riparian area for any development, construction, or grading. Integrate stormwater management measures and water quality objectives into all aspects of land use planning and development. - Develop a strategy to achieve desired watershed conditions making use of land use policies, plans, ordinances, guidance manuals, development project review procedures, BMPs and the implementation of the Post-Construction Requirements. - Develop measures that indicate how the Cities' watershed protection efforts achieve desired watershed conditions through implementation of the Post-Construction Requirements; and - Adapt or change the efforts, if warranted.		X		X		E.12.c, e, f, k		
PC.8	Use of LID	Sediment Pathogens (indicator bacteria) Hydrocarbons (D&G, lubricants) pesticides	a. The Cities will apply LID principles from the Post Construction Requirements to all applicable new and redevelopment projects. b. The Cities will track its accomplishments implementing Post-Construction Requirement LIDs and will develop a tracking report indicating LID design principles and features incorporated into applicable new and redevelopment projects and report in its annual reports. c. The Cities will apply and enforce the Post-Construction long-term LID criteria for all new and redevelopment projects. d. The Cities will develop and advertise guidance on how to achieve and demonstrate compliance with the Post-Construction LID requirements, and will make it available to new and redevelopment project applicants. The Cities will also distribute the guidance to all zoning applicants.		X		X		E.12.c, e, f, k		

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BMP #	BMP Description	Target POCs	Measurable Goals	Effectiveness Measure	Required Per Permit?		Continuing BMP Implementation?		Permit Section Reference(s)	Issue	Modification
					Y	N	Y	N			
PC-9	Education and Outreach	Sediment Pathogens (indicator bacteria) Hydrocarbons (D&G, lubricants) Metals Gross Pollutants (trash, debris) Detergents Toxics (organics, hazardous waste, etc.)	a. The Cities will include Post-Construction Requirements in the existing education and outreach programs implementation and will partner with other agencies to promote training, courses, and events promoting the understanding of the Central Coast RWQCB Post-Construction Requirements to the proper target audiences. The Cities will continue to distribute guidance materials to all zoning applicants. b. The Cities will track its accomplishments implementing the education and outreach plan supporting the Post-Construction Requirements and include those accomplishments in the annual report. c. The Cities will modify advertisement, and make available design guidance materials that optimize the application of the Post Construction Requirements and features, suitable to all stakeholders (including City planning and plan review staff and the development community) for use in the Cities.				X	X			

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BMP #	BMP Description	Target POCs	BMP Implementation Data					Permit Section Reference(s)	Issue	Modification	
			Measurable Goals	Effectiveness Measure	Required Per Permit?		Continuing BMP Implementation?				
					Y	N	Y				N
POLLUTION PREVENTION AND GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS											
PP.1	Adoption/ Development of City-wide BMPs	Sediment Pathogens (indicator bacteria) Hydrocarbons (D&G, lubricants) metals , nutrients	a. The Cities will identify BMPs the Cities will implement for all municipal operations. BMPs will be chosen from the CASQA handbook on a case by case basis. b. The Cities will implement all existing BMPs in the first year, and in all subsequent years unless they are replaced with more effective BMPs. c. City staff will develop and implement a tracking system document implementation, effectiveness, inspection, inspection results, and maintenance/replacement of all municipal BMPs. City staff will perform annual evaluation of the appropriateness and effectiveness of BMPs, reviewing 50% of the BMPs for municipal operations each year, and will revise or replace BMPs as necessary.	b. 100% of BMPs incorporated will be documented.	X		X		E.11.c, h, j; E.16.b	Measurable Goals c. City staff will continue to develop and/or implement a tracking system document the inspection, inspection results as identified during the inspection. The Cities are not utilizing the CASQA Facility Assessment Form that provides for an evaluation and rating of the effectiveness of BMPs. Based on the finding of the hotspot inspections, the City will continue to review and implement and/or replace BMPs identified within the CASQA Municipal BMP Handbook when needed. Effectiveness Measure b. The Cities utilizes the Urban Subwatershed and Site Reconnaissance's Hotspot Site Investigations Form to document BMPs implemented at each hotspot during the quarterly and/or annual inspections of site specific activities and not 100% of BMPs implemented at a site.	Measurable Goals c. City staff will continue to develop and/or implement a tracking system document the inspection, inspection results as identified during the inspection. The Cities will continue to review and implement and/or replace BMPs identified within the CASQA Municipal BMP Handbook when needed. Effectiveness Measure b. The Cities will continue to utilize the Urban Subwatershed and Site Reconnaissance's Hotspot Site Investigations Form to document BMPs implemented at each hotspot during the quarterly and/or annual inspections of site specific activities.
PP.2	Purchasing and Contracts	Sediment Nutrients (P, N, NO3, NO2) Metals Detergents Hydrocarbons (D&G, lubricants) Pesticides Gross pollutants (litter, trash, debris) Toxics (organics, hazardous waste, etc.	a. The Cities will identify and evaluate contractual language used in all City contracts to determine whether contractors have policies protective of water quality. b. Revise contractual language to require contractors to implement City-approved BMPs for all operations to reduce pollutants in stormwater to the MEP and to protect water quality, and use the revised language in City contracts. c. Document vendor/contractor projects and BMP effectiveness in inspection reports as well as report the number of Notice of Violations per project and the number of corrective actions, along with deadlines and schedules of corrective action. d. Evaluate contractor compliance with BMPs. e. Staff will inspect all contractor activities annually for compliance with contract language requiring City-approved BMPs. f. The Cities will enforce compliance for 100% of contractor activities where the Cities identify a violation using established enforcement methods.	c. Count the number of violation notices sent and corrective actions taken. Staff will evaluate the effectiveness of the contract review and modify it as necessary		X	X				
PP.3	Training by City Departments	Sediment Nutrients (P, N, NO3, NO2) Metals Detergents Hydrocarbons (D&G, lubricants) Pesticides Gross pollutants (litter, trash, debris) Toxics (organics, hazardous waste, etc.	a. The Cities will provide annual training for key staff (currently the City Engineer, Project Engineers and Stormwater Compliance Officer) in the proper implementation of all BMPs adopted by the Cities for municipal operations. The Cities will also develop and keep current a list of staff who will be trained in the implementation of each BMP. b. City departmental managers will develop guidance on their Department's responsibilities for storm water management and will provide this information to all relevant personnel. c. The Cities will develop (or adopt an existing) Fact Sheet on all BMPs currently adopted and in use by the Cities. The Cities will keep the Fact Sheet current and will distribute it to all personnel responsible for installing, implementing, maintaining, or enforcing BMPs. d. The Cities will prepare materials for training all staff responsible for installing, implementing, maintaining, or enforcing BMPs in the proper installation, implementation, maintenance, and enforcement of BMPs, and will update these materials annually. e. The Cities will conduct annual training using the training materials for all staff responsible for installing, implementing, maintaining, or enforcing BMPs.	a-e. Staff will evaluate the effectiveness of the annual training and modify it as necessary.	X		X		E.7.b.3	Measurable Goals a. The Cities distribute training materials to all City staff responsible for installing, implementing, maintaining, inspecting and/or enforcing BMPs. The Cities do not keep a list of who will be trained but rather keep a list of who was trained. b. Each City's Engineering Department/Division are responsible for developing stormwater management guidance and not the departmental managers; and therefore, the Cities have completed the development of stormwater management guidance. c. The Cities did not develop a Fact Sheet that includes all BMPs currently adopted and in use by the Cities but rather developed BMP Guides for Homeowners, Businesses etc. that are provided to City staff during annual stormwater training. The City also incorporated currently used BMPs into the Operations and Maintenance Assessment Activities Inspection Form that are reviewed and used by City staff to conduct assessment of their activities on a quarterly basis. d. The Cities utilizes does not prepare but utilizes third party training materials for training all staff responsible for installing, implementing, maintaining, inspecting and/or enforcing BMPs, and will change use of training materials as new training materials become available. e. The Cities will conduct annual training using the training materials for all staff responsible for installing, implementing, maintaining, or enforcing BMPs as well as inspection of BMPs.	Measurable Goals a. The Cities will continue to distribute training materials to all City staff responsible for installing, implementing, maintaining, inspecting and/or enforcing BMPs. The Cities will continue to maintain training records that include a list of who was trained. b. Remove. c. The Cities will continue to incorporate currently used BMPs into the Operations and Maintenance Assessment Activities Inspection Form (as needed) that are reviewed and used by City staff to conduct assessment of their activities on a quarterly basis. d. The Cities will continue to utilize third party training materials for training all staff responsible for installing, implementing, maintaining, inspecting and/or enforcing BMPs, and will change use of training materials as new training materials become available. e. The Cities will conduct annual training using the training materials for all staff responsible for installing, implementing, maintaining, or enforcing BMPs as well as inspection of BMPs or as needed.
GH.1	Street Sweeping	Pathogens, Sediment Nutrients (P, N, NO3, NO2) Hydrocarbons (D&G, lubricants) Pesticides Gross pollutants (litter, trash, debris)	a. The Cities will sweep City streets and City-owned public parking lots twice per month. The sweeping activity will discharge no wastes or water into the storm drain system.	a. Document lane-miles swept and verify status of sweeping contract to see if weight of solids removed can be documented. Staff will evaluate the effectiveness of the long-term maintenance strategy modify it as necessary.	X		X		E.11.g, j	Effective Measure a. The Cities Street Sweeping Contractor documents lane-miles swept and provides a report and/or weight tickets of solids removed. City staff will evaluate the effectiveness of the long-term maintenance strategy when needed.	Effective Measure a. The Cities Street Sweeping Contractor will continue to document lane-miles swept and provides a report and/or weight tickets of solids removed. City staff will evaluate the effectiveness of the long-term maintenance strategy when needed.
GH.2	Storm Drain Cleaning	Pathogens, Sediment Nutrients (P, N, NO3, NO2) Hydrocarbons (D&G, lubricants) Pesticides Gross pollutants (litter, trash, debris)	a. The Cities will clean all open channels and storm drain inlets annually prior to the rainy season. The Cities will also clean catch basins, pipelines, open channels, and storm inlets on an-as needed basis. b. City staff will determine the cost effectiveness of cleaning the storm drain system using a Vector truck as part of routine maintenance. c. If regular cleaning with a Vector truck is cost-effective, City staff will prepare a cleaning schedule, and will implement the schedule in all subsequent years.	a-b. The amounts of debris and frequency of cleaning will be documented and evaluated and schedules adjusted to maintain a clear system. Staff will evaluate the effectiveness of the long-term maintenance strategy and make recommendation for future assessments and modify it as necessary.	X		X		E.11.e, f, g, j	Measurable Goals a. The City does not typically clean pipelines and/or open channels but will continue to monitor and clean all storm drain catch basin/drainage inlets located within high priority areas annually and/or as needed. b. City staff will determine the cost effectiveness of cleaning the storm drain system using a Vector truck as part of routine maintenance. The City of Solvang has a Vector truck that can be utilized when needed; and therefore, the Cities propose to remove this requirement from this Program Section and Element. c. If regular cleaning with a Vector truck is cost-effective, City staff will prepare a cleaning schedule, and will implement the schedule in all subsequent years. The City of Solvang completed the preparation of a cleaning schedule and continues to maintain an annual storm drain maintenance cleaning schedule. The City proposes to remove this requirement from this Program Section and Element.	Measurable Goals a. The Cities will continue to monitor and clean all storm drain catch basin/drainage inlets located within high priority areas annually and/or as needed. b. Remove c. Remove
GH.3	Trash, Green Waste and Recycling	Gross pollutants (litter, trash, debris)	a. The Cities will empty public trash receptacles 4 times per week, and as needed. In addition, the Cities will evaluate the effectiveness of the public trash receptacle activity, and modify it as needed. b. The Cities will empty green waste bins every two weeks, and as needed. In addition, the Cities will evaluate the effectiveness of the public trash receptacle activity, and modify it as needed. c. The Cities will empty public recycling bins every two weeks, and as needed. In addition, the Cities will evaluate the effectiveness of the public recycling receptacle activity, and modify it as needed. d. Include 1-2 questions relating to recycling in surveys. e. Publish 1 article annually relating to trash, green waste and/or recycling in local papers.	a-c. The amounts of waste and frequency of emptying will be documented in the Contractors annual reports and Cities' schedules adjusted to maintain a viable system.	X		X		E.11.g, j	Measurable Goals a. The Cities continues to empty public trash receptacles 4 times per week, and/or as needed but does not evaluate the effectiveness of the public trash receptacle activity; and therefore, the Cities propose to remove this requirement from this Permit Section and Element. b. The Cities continues to empty green waste bins every two weeks, and/or as needed but does not evaluate the effectiveness of the public trash receptacle activity, and modify it as needed. c. The Cities will empty public recycling bins every two weeks, and as needed but does not evaluate the effectiveness of the public recycling receptacle activity, and modify it as needed. d. The Cities have not included a question related to recycling in the survey; and, therefore, the Cities propose to remove this requirement from this Permit Section and Element. e. Although the Cities will publish pollution prevention articles in the local paper that may include topics such as trash, green waste and/or recycling, the Cities waste contractors promote regularly promote trash, green waste and/or recycling through direct mailers.	Measurable Goals a. The Cities will continue to empty public trash receptacles, green waste and recycling bins as needed. b. Remove (refer to item a) c. Remove (refer to item a) d. Remove e. The Cities waste contractors will continue promote regularly promote trash, green waste and/or recycling through direct mailers.

Table 3-2: Potential Illicit Discharge Sources

Accidents Spills of Vehicle Fluids (antifreeze, gas, oil, grease, hydraulic fluids, lubricants) Glass Asbestos Brake Fibers	Carpet/Residential Cleaning	Paint
	Cement Washing	
	Equipment Cleaning	
Auto Dealers	Food Facility Cleaning Facility Cleaning - gray water Cooking Equipment - grease, oil and hazardous cleaning agents Grease Trap Dumpsters; Floor Mats	Parking Lots
Auto Shops	Gas Stations/ Service Stations	Pools and Spas
Auto - Residential Cleaning	Illicit Connections Residential Commercial Industrial	Residential Grey Water Hazardous Materials Pesticides Fertilizers Sediments
Businesses Wash down	Illegal Dumping Solids Liquids	Restaurants
		RV Waste
Car Wash	Industrial Cooling Water	Sewage Spills
Commercial Irrigation	Mobile Pet Services	Septic Spills
Construction Sediment Concrete Cuttings & Wash	Oil Drips/Fuel Leaks (new/used) Commercial Residential / Apartments	Sumps/Dewatering

Table 6-1: City Facilities

<u>Facility</u>	<u>Potential Pollutant Sources</u>	<u>Responsible Department</u>	<u>BMP</u>
City-wide	Hazardous Waste/ Hazardous Waste Spills	County Fire Department	PE.1, PE.6, PE.8, GH.1, GH.2, GH.3, ID.4, ID.5, ID.6, ID.7
City Hall	Trash bin, parking lot, janitorial wastes, landscaping, litter	Public Works (Maintenance), all City staff, Parks and Recreation	PE.1, PE.6, GH.1, GH.2, GH.3, ID.4, ID.5, ID.6, ID.7
City Office/Library Annex	Public recycling bins, staff picnic area, parking lot, landscaping, litter	Public Works, Parks and Recreation, all City Staff	PE.1, PE.6, GH.1, GH.2, GH.3, ID.4, ID.5, ID.6, ID.7
Fire Station	Vehicle washing, janitorial wastes	Fire, Ambulance staff	PE.1, PE.6, GH.1, GH.2, GH.3, ID.4, ID.5, ID.6
Municipal Annex	Public recycling bins, staff picnic area, litter parking lot, landscaping.	Public Works, Parks and Rec, all City staff	PE.1, PE.6, GH.1, GH.2, GH.3, ID.4, ID.5, ID.6,
Water & Maintenance Shop, including storage areas	Equipment storage, parking, trash bins, public recycling bins, litter. (all shop maintenance conducted indoors)	Public Works	PE.1, PE.6, GH.1, GH.2, GH.3, ID.4, ID.5, ID.6, ID.7
Wastewater Treatment Plant	Two-vehicle parking lot, small shop, equipment storage, trash bins, litter.	Public Works, Wastewater	PE.1, PE.6, GH.1, GH.2, GH.3, ID.4, ID.5, ID.6, ID.7
Riverview Park/ Oak Valley Park	Trash bins, parking, equipment storage, two rest rooms, litter	Maintenance, Parks and Recreation	PE.1, PE.6, GH.1, GH.2, GH.3, ID.4, ID.5, ID.6, ID.7
Veteran's Memorial Building	Trash bins, parking, litter	Maintenance, Parks and Rec	PE.1, PE.6, GH.1, GH.2, GH.3, ID.4, ID.5, ID.6,
Solvang Park	Trash bins, litter, parking	Maintenance, Parks and Rec	PE.1, PE.6, GH.1, GH.2, GH.3, ID.4, ID.5, ID.6, ID.7
Sunny Fields Park	Trash bins, litter, parking	Maintenance, Parks and Rec	PE.1, PE.6, GH.1, GH.2, GH.3, ID.4, ID.5, ID.6, ID.7
Hans Christian Anderson Park, Park Residence	Trash bins, litter, vehicle wastes, parking, equipment storage	Maintenance, Parks and Rec	PE.1, PE.6, GH.1, GH.2, GH.3, ID.4, ID.5, ID.6, ID.7
Parking lots	Vehicle wastes, litter	Maintenance (Public Works)	PE.1, PE.6, GH.1, GH.2, GH.3, ID.4, ID.5, ID.6, ID.7
Restrooms at Public Parking lots	Janitorial wastes, litter	Maintenance, Parks and Rec	PE.1, PE.6, GH.1, GH.2, GH.3, ID.4, ID.5, ID.6,
Police Department (Buellton Only)	Trash bins, parking, equipment storage, litter	Maintenance (Public Works)	PE.1, PE.6, GH.1, GH.2, GH.3, ID.4, ID.5, ID.6, ID.7
Streets and storm drains	Vehicle wastes, litter, unknown material including illegal dumping	Maintenance (Public Works)	PE.1, PE.6, GH.1, GH.2, GH.3, ID.4, ID.5, ID.6, ID.7
Water Supply Reservoirs (Buellton Only) and Groundwater Wells	Belowground tanks, no potential pollutants	Water (Public Works)	PE.1, PE.6, GH.1, GH.2, GH.3, ID.4, ID.5, ID.6, ID.7

Table 6-2: City Activities

<u>Activity</u>	<u>Potential Pollutant Sources</u>	<u>Responsible Department</u>	<u>BMP</u>
City -wide	Hazardous materials/ Hazardous materials spills	County Fire Department	PI.4,PE.1,PE.6,PE.8,GH.1,GH.2, GH.3, ID.4, ID.5, ID.6, ID.7
Park, and street tree maintenance (mowing, trimming, watering, and weed management.)	Over application of pesticides, herbicides, spills during mobilization and storage, improper green waste disposal	Parks and Rec, and Public Works	PE.1, PE.6, GH.1, GH.2, GH.3, ID.4, ID.5, ID.6, ID.7
Trash removal and temporary storage	Trash that misses the bins, trash bin liquid discharges	Maintenance (contractor)	GH.1, GH.2, GH.3, ID.4, ID.5, ID.6, ID.7
Vehicle maintenance, Washing, Minor repairs (i.e., oil changes)	Improperly managed wastes, including solids, liquids, and hazardous materials, contaminated wash water	All (about 15 vehicles distributed in each department, including tractors, and other equipment)	PE.1, PE.6, GH.1, GH.2, GH.3, ID.4, ID.5, ID.6, ID.7
Janitorial service (in-house and contractor)	Improper disposal of wash water and other waste products into storm drain system	Contractor	PE.1, PE.5, PE.6, GH.1, GH.2, PP.2, PP.3, ID.4, ID.5, ID.6, ID.7
Construction (contractors)	Improperly managed construction wastes, sediment runoff, staging area runoff (equipment leaks or spills)	Public Works/Contract Engineers	PE.1, PE.5, PE.6, GH.1, GH.2, PP.2, PP.3, CS.3, CS.4, CS.5, CS.6, PC.2, PC.3, PC.4, PC.5, ID.4, ID.5, ID.6, ID.7
Water pressure testing – discharged into storm drain	Pollutants which may be present in gutters, & storm drains, i.e., trash, organics, etc.	Water (Public Works)	GH.1, GH.2, PP.3, ID.4, ID.5, ID.6,
Water Line Flushing	debris	Water (Public Works)	GH.1, GH.2, PP.3, ID.4, ID.5, ID.6,
Water supply reservoir maintenance (Buellton Only)	Every two years cleaned with rinse waters disposed to storm drain (no cleansers)	Water (Public Works)	GH.1, GH.2, PP.3, ID.4, ID.5, ID.6,
Wells (groundwater)	Use sodium hypochlorite and aqueous ammonia as disinfectants	Water (Public Works)	GH.2, PP.1, PP.2, PP.3, ID.4, ID.5,
Fire hose testing –discharged into storm drain	Any pollutants present in street, gutters, & storm drains	County Fire (See County of Santa Barbara SWMP)	GH.1, GH.2, PP.3, ID.4, ID.5, ID.6,

2017-2018

Phase II Small MS4 Annual - Report

REPORTING PERIOD:07/01/2017 - 06/30/2018

WDID No: 3 42M2000150

Permittee Information

City of Buellton

Marc Bierdzinski

marcb@cityofbuellton.com

PO Box 1819

Buellton

CA

93427

Phase II Small MS4 Annual - Report - 2017-2018
Questions & Answers

Q No.	Text	DropDown Answer	CheckBoxAnswer	DescriptiveAnswer	Date Answer	Number Answer
1	<p>Did the Permittee upload the Central Coast Post-Construction Stormwater Requirements annual reporting form and all other documents required in the form? Access form here. If the form does not open, right click on the hyperlink and chose the option, 'Save Target As'. To get full utilization of the form, the form must be viewed and completed using Adobe software. Adobe Reader can be downloaded for free.</p>	Yes				

Phase II Small MS4 Annual - Report - 2017-2018
CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Rose Hess	Title: Director of Public Works	Date: 10/15/2018
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**Phase II Small MS4 Annual - Report - 2017-2018
ATTACHMENTS**

Attachment Title	Description	Date Uploaded	Attachment Type	Attachment Hash	Doc Part No/Total Parts
PCRs Annual Report FY2017-2018-Long-Term Operation and Maintenance-Solvang	PCRs Annual Report FY2017-2018-Long-Term Operation and Maintenance-Solvang	2018-10-15 13:18:33.0	Supporting Documentation	f721d0fb383b2db836f67aaf26ae2342b446d0c7dd1d54d18533af4cc141a0	1/1
Stormwater Control Plan Template for Small (Tier 1) Projects-Sample-2014 Template	Stormwater Control Plan Template for Small (Tier 1) Projects-Sample-2014 Template	2018-10-15 13:21:30.0	Supporting Documentation	2a3865208864c67ba3174d85b2f14ce3f29c632346bb2337e3d1874f12c754b	1/1
Stormwater Control Plan Template for Small (Tier 1) Projects-Sample-2017 Template	Stormwater Control Plan Template for Small (Tier 1) Projects-Sample-2017 Template	2018-10-15 13:21:31.0	Supporting Documentation	a94e0f43d936e2ede89c6114a5ac35ae65a5512c43f44f16fd4943e20b	1/1
PCRs Annual Report FY2017-2018-Buellton	PCRs Annual Report FY2017-2018-Buellton	2018-10-14 18:32:55.0	Supporting Documentation	4ef73b9e63f7b052a8eafb86b94d9215dfd85dfd6dd828e3f178f87dbcf	1/1
PCRs Annual Report FY2017-2018-Long-Term Operation and Maintenance-Buellton	PCRs Annual Report FY2017-2018-Long-Term Operation and Maintenance-Buellton	2018-10-14 18:32:55.0	Supporting Documentation	4adb1a84d45733c63f3b46c8f5c3b968c27d9d51d674741bc9678ba741d2df1	1/1
PCRs Annual Report FY2017-2018-Solvang	PCRs Annual Report FY2017-2018-Solvang	2018-10-14 18:32:58.0	Supporting Documentation	adf8224a3fc27684de9d6e9641fdc8c209293e49eb46f43eb3ce1c0195487d	1/1

Central Coast Post-Construction Stormwater Management Requirements (PCRs)

Resolution No. R3-2013-0032
Annual Reporting Form
August 2014 Version

Due Date: By October 15, 2014 and October 15 annually thereafter, Permittees must submit this reporting form.

Instructions: Complete form electronically. Answer questions and supply requested information for the Reporting Period only. Upload completed form to Storm Water Multiple Application and Report Tracking System (SMARTS) and name the file, "PCRs Annual Report [insert reporting period]". Also, upload requested attachments to SMARTS using specified nomenclature.

SECTION I: GENERAL PERMITTEE INFORMATION

WDID# and Permittee Name

County:

SECTION II: REPORTING PERIOD

Reporting Period:

SECTION III: COMPLETED PROJECTS

How many projects, that received occupancy completion documentation (e.g., Certificate of Occupancy) during the Reporting Period, created and/or replaced \geq 2,500 square feet of impervious surface?

SECTION III: CONTINUED ...

Project categories based on created and/or replaced impervious surface area		Number of Projects in each category that received occupancy completion documentation (e.g., Certificate of Occupancy) during the Reporting Period and had an approval per PCRs Provision B.1.c
Lower Bound	Upper Bound	
≥ 2,500 square feet	<5,000 square feet Net Impervious Area (all projects except single-family homes) and <15,000 square feet Net Impervious Area (only single-family homes)	0
≥5,000 square feet Net Impervious Area (all projects except single-family homes) and ≥15,000 square feet Net Impervious Area (only single-family homes)	<15,000 square feet (all projects except single-family homes) and <15,000 square feet Net Impervious Area (only single-family homes)	0
≥15,000 square feet (all projects except single-family homes) and ≥15,000 square feet Net Impervious Area (only single-family homes)	<22,500 square feet	0
≥22,500 square feet	N/A	1
Total		1

SECTION IV: PROJECTS SUBJECT TO POST-CONSTRUCTION REQUIREMENTS

Performance Requirements*	Number of Projects subject to Performance Requirements that received completion documentation during the Reporting Period	Number of Projects with structural Water Quality Treatment, Runoff Retention, and/or Peak Management controls	Number of Projects where field verification of Site Design, Water Quality Treatment, Runoff Retention, and/or Peak Management controls was completed	Number of Projects where field verification confirmed <u>ALL</u> Site Design, Water Quality Treatment, Runoff Retention, and/or Peak Management controls were implemented in accordance with PCRs
Only No. 1	0	N/A		
Only Nos. 1 and 2		0		
Only Nos. 1, 2, and 3			0	
Only Nos. 1, 2, 3, and 4				1
Total	0	0	0	1

* Only include projects once in table. For example, if a project triggers all four performance requirements, only address that project in the, "Only Nos. 1, 2, 3, and 4" row. Do not also count the project in the cells for the above three rows.

SECTION V: SPECIAL CIRCUMSTANCES AND ALTERNATIVE COMPLIANCE

Note: If the Permittee did not grant any Special Circumstances and/or Alternative Compliance for Projects that received completion documentation during the Reporting Period, skip Section V.

To add another Project, click 'Add Row'

Add Row

Delete Row

Names of Projects that received completion documentation during the Reporting Period and the Permittee granted Special Circumstances and/or Alternative Compliance	Alternative Compliance type (Select all that apply)									If technical infeasibility is rationale for Alternative Compliance, does Project's Stormwater Control Plan adequately demonstrate basis for infeasibility?
	Watershed or Regional Plan	Urban Sustainability Area	Highly Altered Channel Special Circumstance	Intermediate Flow Control Facility Special Circumstance	Historic Lake or Wetland Special Circumstance	Technical Infeasibility Performance Requirement No. 2	Technical Infeasibility Performance Requirement No. 3	Technical Infeasibility Performance Requirement No. 4		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A

SECTION V: CONTINUED ...

To add another Project, click 'Add Row'

Add Row

Delete Row

Names of Projects that received completion documentation during the Reporting Period and the Permittee granted Special Circumstances and/or Alternative Compliance	Alternative Compliance type (Select all that apply)										If technical infeasibility is rationale for Alternative Compliance, does Project's Stormwater Control Plan adequately demonstrate basis for infeasibility?
	Watershed or Regional Plan	Urban Sustainability Area	Highly Altered Channel Special Circumstance	Intermediate Flow Control Facility Special Circumstance	Historic Lake or Wetland Special Circumstance	Technical Infeasibility Performance Requirement No. 2	Technical Infeasibility Performance Requirement No. 3	Technical Infeasibility Performance Requirement No. 4			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A

SECTION VI: MITIGATION PROJECTS CONSTRUCTED FOR ALTERNATIVE COMPLIANCE

Were there any mitigation projects constructed for Alternative Compliance during the Reporting Period? Yes No
If yes, did the Permittee upload to SMARTS the below information?

- A summary description of mitigation projects constructed during the Reporting Period comparing the expected aggregate results of Alternative Compliance projects to the results that would otherwise have been achieved by meeting the numeric Performance Requirements on-site. The summary should quantitatively compare results. For example, if the Alternative Compliance project is mitigating for a project that could not fully meet Performance Requirement No. 3 onsite, then the summary should quantify the following: 1) onsite retention volume required by Performance Requirement No. 3, 2) volume of runoff actually retained on site, and 3) volume of runoff retained at the Alternative Compliance project site.
- For public offsite mitigation projects, a summation of total offsite mitigation funds raised to date and a description (including location, general design concept, volume of water expected to be retained, and total estimated budget) of all pending public offsite mitigation projects

SMARTS upload title: *"PCRs Annual Report [insert reporting period] – Mitigation Projects"*

SECTION VII: LONG-TERM OPERATION AND MAINTENANCE

Did the Permittee upload to SMARTS a copy (e.g., screenshot) of the structural Stormwater Control Measure Operation and Maintenance database that shows all entries from the Reporting Period (see PCRs Provision E.3)? Yes No

SMARTS upload title: *"PCRs Annual Report [insert reporting period] – Long-Term Operation and Maintenance"*

SECTION VIII: ADDITIONAL UPLOADS

Did the Permittee upload to SMARTS information to demonstrate Performance Requirement No. 1 was applied to all applicable projects during the Reporting Period (including sample checklist)? Yes No

SMARTS upload title: *"PCRs Annual Report [insert reporting period] – Performance Req No1 Implementation"*

CITY OF BUELLTON
 POST-CONSTRUCTION MANAGEMENT REQUIREMENTS FOR DEVELOPMENT PROJECTS IN THE CENTRAL COAST REGION
 RESOLUTION NO. R3-2013-0032
 Section E Operation and Maintenance for Structural Stormwater Control Measures (SCM)

Entry No.	Project Name	Project Number (City # / MNS # / TetraTech #)	Project Address	SCM ID Number	SCM Type (List Applicable Codes*)	SCM Description (DMA#)	Completion Date (MM/DD/YY)				O&M Location (physical and/or electronic)	O&M Responsible Party		O&M Funding Source	O&M Maintenance Verification	Problems Identified During Inspection (including Vector or Nuisance Problems)
							Construction	PCR Field Verification	Final Project Approval / Occupancy	O&M Plan Approval	Plan/Agreement	Name	Phone Number			
#	Tyson Development	##-ABC-## / 12345	5555 Tower Road; Tower City, CA 55555	PR4: Peak Management	SDRR2, WQT1	Retention/Retention Basin (DMA #)	7/1/14	12/15/14	2/15/15					Private		
5	Hampton Inn	14-FDP-01 / CIBUE.140183.00	600 McMurray Road, Buellton, CA 93427	PR4: Peak Management	SDRR2,SDRR3, WQT2, RR1, RR8, RR9, PM1	(1) Direct Infiltration - Retention/Retention Basin (SCM-1) DMAs Drain to SCM Concrete or Asphalt (IMP-1-Overflow, IMP-4, IMP-6, IMP-7) Roof (Roof-1, Roof-2, Roof-3, Roof-4, Roof-5, Roof-6, Roof-7) (2) Self-Treating Areas - Landscape Area (LS-1, LS-2, LS-3, LS-4, LS-5, LS-6, LS-7, LS-8, LS-9, LS-10, LS-11, LS-12, LS-13, LS-14, LS-15, LS-16, LS-17, LS-18, LS-19, LS-20) (3) Self-Retaining Areas - Landscape Area (DMA SR-1, DMA SR-2, DMA SR-3, DMA SR-4, DMA SR-5) DMAs Drain to Self-Retaining Areas Concrete or Asphalt (IMP-1 to SR1, IMP-2 to SR-1, IMP-3 to SR-4, IMP-5 to SR-3, IMP-8 to SR-1)	5/4/18	Initial 8/17/17; Follow-up: 4/9/18, 4/25/18, 5/18/18	6/16/17	7/28/16	Plan: Hard Copy-MNS Engineer Project File & Electronic Copy - MNS Engineer Electronic File and City of Buellton PWD Electronic File	James Flagg, Ocean Park Hotel BLT LLC	(805) 544-0800	Private		No
8	Tilton Engineering	14-FDP-04 / CIBUE.150087	890 McMurray Road, Buellton, CA 93427	PR4: Peak Management	SDRR2, SDRR4, WQT1, RR1, RR8, RR9, PM1	(1) Direct Infiltration - Stormtech Chamber MC-3500 (Underground Storage 1 & 2) DMAs Drain to SCM Concrete and Asphalt (Parking South, Parking North, Sidewalk South, Sidewalk North) Crushed Aggregate (Gravel South, Gravel North, Existing Concrete) (2) Self-Retaining Areas - Landscape Area (Landscape 12, Landscape 13, Landscape 14, Landscape 15, Landscape 16, Landscape 17) DMAs Drain to Self-Retaining Areas Concrete or Asphalt (Sidewalk Corner to Landscape 12, Sidewalk West to Landscape 14)	11/2/16	11/28/16	12/28/16	8/31/16	Plan: Hard Copy-MNS Engineer Project File & Electronic Copy - MNS Engineer Electronic File and City of Buellton PWD Electronic File	Todd Cooper-Tilton Engineering, Inc.	(805) 688-2353	Private	10/31/17	No
9	Chumash Mixed Use Project	CIBUE.121089.00	890 McMurray Road, Buellton, CA 93427	PR4: Peak Management	On Hold											
11	Fig Mountain Brewery Expansion	CIBU.160366	73/75 Industrail Way, Buellton, CA 93427	PR4: Peak Management	SSD2, WQT1, RR1, RR4-RR9, PM1	(1) Direct Infiltration - Stormtech Chamber MC-4500 (SCM-1 Underground Storage) DMAs Drain to SCM Concrete or Asphalt (P-1, P-2, P-3, TS-2, TS-3, TS-4, CONC 1, CONC 2, L-2) Landscape Area (L-4, L-5) Roof (BLD 1 East Half, BLD West Half and BLD 2 West Half) (2) Self-Treating Area - Landscape Area (L-1, L-3, L-6, L-7, L-8, BLD East Half) (3) Self-Retaining Area - Crushed Aggregate (Beer 2) Landscape Area (L-15)					Plan: Hard Copy-MNS Engineer Project File & Electronic Copy - MNS Engineer Electronic File and City of Buellton PWD Electronic File	Jim Dientenhofer Jamie Dientenhofer	Jim (805) 806-1008 Jamie (805) 694-2252	Private		
12	270 Industrial Way	80000 / 200-155059-17001-07	270 IndustrialWay, Buellton, CA 93427	PR2: Water Quality Treatment	WQT1, RR1, RR4-RR9, PM1	(1) Direct Infiltration - Stormtech Chamber SC-160 (Underground Storage 1 & 2) DMAs Drain to SCM Concrete and Asphalt (AC P-1, ACP-2, ACP-3, C-2, C-3 & C-4) (2) Self-Treating Areas - Landscape Area (L-2 & L-3)					Plan: Hard Copy-MNS Engineer Project File & Electronic Copy - MNS Engineer Electronic File and City of Buellton PWD Electronic File	John Peterson	(805) 331-5932	Private		
13	Buellton 5 Acre Building (aka The Network)	90044 / 155059-1701-08	Industrial Way, Buellton, CA 93427	PR4: Peak Management	TBD	TBD										
*SCM Type Code	SDRR1: Direct roof runoff into cisterns or rain barrels for reuse SDRR2: Direct roof runoff onto vegetation areas SDRR3: Direct runoff from sidewalks, walkways and/or patios onto vegetated areas SDRR4: Direct runoff from driveways and/or uncovered parking lots, onto vegetated areas SDRR5: Construct bike lanes, driveways, uncovered parking lots, sidewalks, walkways and patios with permeable surfaces WQT1: LID Treatment System - Harvesting and Use, Infiltration and Evapotranspiration SCM w/Hydraulic Sizing Criteria (Retain Stormwater Runoff- 85 percentile 24-hour storm event based on local rainfall data) WQT2: Biofiltration Treatment System (Treat Storm Water Runoff - 0.2 inches/hour intensity or 2 X's 85 percentile hourly rainfall for the applicable area, based on historical records of hourly rainfall depth) WQT3a: Non-Retention Treatment Systems w/Hydraulic Sizing Criteria - Volume Hydraulic Design Basis (Treat Stormwater Runoff - 85 percentile 24-hour storm event, based on local rainfall data) WQT3b: Non-Retention Treatment Systems w/Hydraulic Sizing Criteria - Flow Hydraulic Design Basis (Treat Storm Water Runoff - 0.2 inches/hour intensity or 2 X's 85 percentile hourly rainfall for the applicable area, based on historical records of hourly rainfall depth) RR1: Retain 95th Percentile Rainfall Event - Optimizing Infiltration via Storage RR2: Retain 95th Percentile Rainfall Event - Optimizing Infiltration via Rainfall Harvesting RR3: Retain 95th Percentile Rainfall Event - Optimizing Infiltration via Evapotranspiration															

CITY OF BUELLTON
POST-CONSTRUCTION MANAGEMENT REQUIREMENTS FOR DEVELOPMENT PROJECTS IN THE CENTRAL COAST REGION
RESOLUTION NO. R3-2013-0032
Section E Operation and Maintenance for Structural Stormwater Control Measures (SCM)

RR4: LID - Site Assessment Measures
RR5: LID - Site Design Measures
RR6: LID - Delineation of discrete Drainage Management Areas
RR7: LID - Undisturbed and Natural Landscape Areas
RR8: LID: Structural Stormwater Control Measures
RR9: Hydrologic Analysis and Structural Control Measuring Sizing
PM1: Post-development peak flows, discharge from the site, shall not exceed pre-project peak flows for the 2-10 year storm events.

Central Coast Post-Construction Stormwater Management Requirements (PCRs)

Resolution No. R3-2013-0032
Annual Reporting Form
August 2014 Version

Due Date: By October 15, 2014 and October 15 annually thereafter, Permittees must submit this reporting form.

Instructions: Complete form electronically. Answer questions and supply requested information for the Reporting Period only. Upload completed form to Storm Water Multiple Application and Report Tracking System (SMARTS) and name the file, "PCRs Annual Report [insert reporting period]". Also, upload requested attachments to SMARTS using specified nomenclature.

SECTION I: GENERAL PERMITTEE INFORMATION

WDID# and Permittee Name

County:

SECTION II: REPORTING PERIOD

Reporting Period:

SECTION III: COMPLETED PROJECTS

How many projects, that received occupancy completion documentation (e.g., Certificate of Occupancy) during the Reporting Period, created and/or replaced \geq 2,500 square feet of impervious surface?

SECTION III: CONTINUED ...

Project categories based on created and/or replaced impervious surface area		
Lower Bound	Upper Bound	Number of Projects in each category that received occupancy completion documentation (e.g., Certificate of Occupancy) during the Reporting Period and had an approval per PCRs Provision B.1.c
≥ 2,500 square feet	<5,000 square feet Net Impervious Area (all projects except single-family homes) and <15,000 square feet Net Impervious Area (only single-family homes)	1
≥5,000 square feet Net Impervious Area (all projects except single-family homes) and ≥15,000 square feet Net Impervious Area (only single-family homes)	<15,000 square feet (all projects except single-family homes) and <15,000 square feet Net Impervious Area (only single-family homes)	0
≥15,000 square feet (all projects except single-family homes) and ≥15,000 square feet Net Impervious Area (only single-family homes)	<22,500 square feet	0
≥22,500 square feet	N/A	0
Total		1

SECTION IV: PROJECTS SUBJECT TO POST-CONSTRUCTION REQUIREMENTS

Performance Requirements*	Number of Projects subject to Performance Requirements that received completion documentation during the Reporting Period	Number of Projects with structural Water Quality Treatment, Runoff Retention, and/or Peak Management controls	Number of Projects where field verification of Site Design, Water Quality Treatment, Runoff Retention, and/or Peak Management controls was completed	Number of Projects where field verification confirmed <u>ALL</u> Site Design, Water Quality Treatment, Runoff Retention, and/or Peak Management controls were implemented in accordance with PCRs
Only No. 1	1	N/A		
Only Nos. 1 and 2		0		
Only Nos. 1, 2, and 3			0	
Only Nos. 1, 2, 3, and 4				0
Total	1	0	0	0

* Only include projects once in table. For example, if a project triggers all four performance requirements, only address that project in the, "Only Nos. 1, 2, 3, and 4" row. Do not also count the project in the cells for the above three rows.

SECTION V: SPECIAL CIRCUMSTANCES AND ALTERNATIVE COMPLIANCE

Note: If the Permittee did not grant any Special Circumstances and/or Alternative Compliance for Projects that received completion documentation during the Reporting Period, skip Section V.

To add another Project, click 'Add Row'

Add Row

Delete Row

Names of Projects that received completion documentation during the Reporting Period and the Permittee granted Special Circumstances and/or Alternative Compliance	Alternative Compliance type (Select all that apply)									If technical infeasibility is rationale for Alternative Compliance, does Project's Stormwater Control Plan adequately demonstrate basis for infeasibility?
	Watershed or Regional Plan	Urban Sustainability Area	Highly Altered Channel Special Circumstance	Intermediate Flow Control Facility Special Circumstance	Historic Lake or Wetland Special Circumstance	Technical Infeasibility Performance Requirement No. 2	Technical Infeasibility Performance Requirement No. 3	Technical Infeasibility Performance Requirement No. 4		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A

SECTION V: CONTINUED ...

To add another Project, click 'Add Row'

Add Row

Delete Row

Names of Projects that received completion documentation during the Reporting Period and the Permittee granted Special Circumstances and/or Alternative Compliance	Alternative Compliance type (Select all that apply)							If technical infeasibility is rationale for Alternative Compliance, does Project's Stormwater Control Plan adequately demonstrate basis for infeasibility?	
	Watershed or Regional Plan	Urban Sustainability Area	Highly Altered Channel Special Circumstance	Intermediate Flow Control Facility Special Circumstance	Historic Lake or Wetland Special Circumstance	Technical Infeasibility Performance Requirement No. 2	Technical Infeasibility Performance Requirement No. 3		Technical Infeasibility Performance Requirement No. 4
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A

SECTION VI: MITIGATION PROJECTS CONSTRUCTED FOR ALTERNATIVE COMPLIANCE

Were there any mitigation projects constructed for Alternative Compliance during the Reporting Period? Yes No

If yes, did the Permittee upload to SMARTS the below information?

- A summary description of mitigation projects constructed during the Reporting Period comparing the expected aggregate results of Alternative Compliance projects to the results that would otherwise have been achieved by meeting the numeric Performance Requirements on-site. The summary should quantitatively compare results. For example, if the Alternative Compliance project is mitigating for a project that could not fully meet Performance Requirement No. 3 onsite, then the summary should quantify the following: 1) onsite retention volume required by Performance Requirement No. 3, 2) volume of runoff actually retained on site, and 3) volume of runoff retained at the Alternative Compliance project site.
- For public offsite mitigation projects, a summation of total offsite mitigation funds raised to date and a description (including location, general design concept, volume of water expected to be retained, and total estimated budget) of all pending public offsite mitigation projects

SMARTS upload title: "PCRs Annual Report [insert reporting period] – Mitigation Projects"

SECTION VII: LONG-TERM OPERATION AND MAINTENANCE

Did the Permittee upload to SMARTS a copy (e.g., screenshot) of the structural Stormwater Control Measure Operation and Maintenance database that shows all entries from the Reporting Period (see PCRs Provision E.3)? Yes No

SMARTS upload title: "PCRs Annual Report [insert reporting period] – Long-Term Operation and Maintenance"

SECTION VIII: ADDITIONAL UPLOADS

Did the Permittee upload to SMARTS information to demonstrate Performance Requirement No. 1 was applied to all applicable projects during the Reporting Period (including sample checklist)? Yes No

SMARTS upload title: "PCRs Annual Report [insert reporting period] – Performance Req No1 Implementation"

CITY OF SOLVANG
 POST-CONSTRUCTION MANAGEMENT REQUIREMENTS FOR DEVELOPMENT PROJECTS IN THE CENTRAL COAST REGION
 RESOLUTION NO. R3-2013-0032
 Section E Operation and Maintenance for Structural Stormwater Control Measures (SCM)

Entry No.	Project Name	Project Number (City #)	Project Address	SCM ID Number	SCM Type (List Applicable Codes*)	SCM Description (DMA#)	Completion Date (MM/DD/YY)				O&M Location (physical and/or electronic)	O&M Responsible Party		O&M Funding Source	O&M Maintenance Verification	Problems Identified During Inspection (including Vector or Nuisance Problems)
							Construction	Field Verification	Final Project Approval / Occupancy	O&M Plan Approval	Plan/Agreement	Name	Phone Number			
#	Tyson Development	PW XXX	Tower City, CA 55555	PR4: Peak Management	SDRR2, WQT1	Retention/Retention Basin (DMA #)	7/1/14	12/15/14	2/15/15				Private			
6	The Merkantile	PW 083	1980-1992 Old Mission Road, Solvang, CA 93463	PR4: Peak Management	SDRR2, SDRR4, SDRR5, WQT1, RR1, RR4-RR6, RR8-RR9, PM1	(1) Bioretention Basin (SCM 34) (2) Direct Infiltration - Permeable Pavement (SCM 46, SCM 47, SCM 48, SCM 49, SCM 50, SCM 51, SCM 52) DMAs Drain to SCM Roof (DMA 1, 10 to SCM 47, DMA 2, 9, 20 to SCM 52, DMA 3, 4, 8, 19, 28, 29 to SCM 34, DMA 5, 7, 21, 22 to SCM 46, DMA 6, 23, 26, 27 to SCM 51, DMA 11, 12 to SCM 48, DMA 13, 14, 15, 16 to SCM 49, DMA 17, 18 to SCM 50) Concrete or Asphalt (DMA 9 to SCM 52, DMA 10 to SCM 47, DMA 11-12 to SCM 48, DMA 12 to SCM 48) Pervious Concrete (DMA 46 to SCM 46, DMA 52 to SCM 52) Porous Asphalt (DMA 47 to SCM 47, DMA 48 to SCM 48, DMA 49 to SCM 49, DMA 50 to SCM 50, DMA 51 to SCM 51) (3) Self-Treating Areas - Landscape Area (DMA 30, DMA 32, DMA 33, DMA 40, DMA 41, DMA 42, DMA 43, DMA 44, DMA 45) (4) Self-Retaining Areas - Landscape Area (DMA 31, DMA 34, DMA 35, DMA 36, DMA 37, DMA 38, DMA 39) DMAs Drain to Self-Retaining Area Concrete Asphalt (DMA 24 to DMA 38, DMA 25 to DMA 39)					Refer to SWCP	Joshua Richman	(805) 350-1791	Private		
7	170192 Ken & Jackie Gruendyke	N/A	1514 Kronborg Drive Solvang, CA 93463	PR1: Site Design and Runoff Reduction	SDRR2	N/A	1/4/18	1/4/18	N/A	N/A	N/A - Tier 1	Ken & Jackie Gruendyke	(805) 688-81	Private	N/A	
*SCM Type Code	SDRR1: Direct roof runoff into cisterns or rain barrels for reuse SDRR2: Direct roof runoff onto vegetation areas SDRR3: Direct runoff from sidewalks, walkways and/or patios onto vegetated areas SDRR4: Direct runoff from driveways and/or uncovered parking lots, onto vegetated areas SDRR5: Construct bike lanes, driveways, uncovered parking lots, sidewalks, walkways and patios with permeable surfaces WQT1: LID Treatment System - Harvesting and Use, Infiltration and Evapotranspiration SCM w/Hydraulic Sizing Criteria (Retain Stormwater Runoff- 85 percentile 24-hour storm event based on local rainfall data) WQT2: Biofiltration Treatment System (Treat Storm Water Runoff - 0.2 inches/hour intensity or 2 X's 85 percentile hourly rainfall for the applicable area, based on historical records of hourly rainfall depth) WQT3a: Non-Retention Treatment Systems w/Hydraulic Sizing Criteria - Volume Hydraulic Design Basis (Treat Stormwater Runoff - 85 percentile 24-hour storm event, based on local rainfall data) WQT3b: Non-Retention Treatment Systems w/Hydraulic Sizing Criteria - Flow Hydraulic Design Basis (Treat Storm Water Runoff - 0.2 inches/hour intensity or 2 X's 85 percentile hourly rainfall for the applicable area, based on historical records of hourly rainfall depth) RR1: Retain 95th Percentile Rainfall Event - Optimizing Infiltration via Storage RR2: Retain 95th Percentile Rainfall Event - Optimizing Infiltration via Rainfall Harvesting RR3: Retain 95th Percentile Rainfall Event - Optimizing Infiltration via Evapotranspiration RR4: LID - Site Assessment Measures RR5: LID - Site Design Measures RR6: LID - Delineation of discrete Drainage Management Areas RR7: LID - Undisturbed and Natural Landscape Areas RR8: LID: Structural Stormwater Control Measures RR9: Hydrologic Analysis and Structural Control Measuring Sizing PM1: Post-development peak flows, discharge from the site, shall not exceed pre-project peak flows for the 2-10 year storm events.															

Stormwater Control Plan for a Small (Tier 1) Land Development Project

Introduction

The California Regional Water Quality Control Board for the Central Coast Region (Water Board) adopted the Post-Construction Requirements (PCRs) in July 2013. As of March 6, 2014, development projects that create or replace 2,500 square feet* or more of impervious surface (roofs or pavement) must incorporate specified measures to reduce runoff. This requirement is part of municipalities' comprehensive effort to reduce runoff pollution.

It is fairly easy to achieve compliance with the stormwater requirements for most small land development projects. However, compliance for each project must be carefully documented. Please complete the following form and include it with your land use permit application submittal.

Staff will review your site plan to confirm that the following design strategies have been incorporated into your project:

- Limit disturbance of creeks and natural drainage features
- Minimize compaction of highly permeable soils
- Limit clearing and grading of native vegetation at the site to the minimum area needed to build the project, allow access, and provide fire protection
- Minimize impervious surfaces by concentrating improvements on the least sensitive portions of the site, while leaving the remaining land in a natural undisturbed state

*Projects that create or replace 5,000 square feet or more of impervious surface except for detached single-family homes, and single-family homes that create or replace 15,000 square feet or more of impervious surface, require a more comprehensive Stormwater Control Plan. See Santa Barbara Project Clean Water's *Stormwater Technical Guide*.

Step-by-Step Instructions

The steps are:

1. Fill out the Project Data Form (below) and select one or more runoff reduction measures.
2. Prepare a site plan or sketch. Specify and design the runoff reduction measures you will use to meet the stated minimum requirements.
3. Complete your submittal, which will include:
 - Project Data Form
 - Site Plan or Sketch
 - Completed checklist for each Runoff Reduction Measure selected

Step 1: Project Data Form

Complete all fields.

Project Name / Case File Number	
Application Submittal Date [to be verified by municipal staff]	
Project Location [Street Address if available, or intersection and/or APN]	
Name of Owner or Developer	
Project Type and Description [Examples: "Single Family Residence," "Parking Lot Addition," "Retail and Parking"]	
Total Project Site Area (acres)	
Total New Impervious Surface Area (square feet) [Sum of currently pervious areas that will be covered with new impervious surfaces]	
Total Replaced Impervious Surface Area [Sum of currently impervious areas that will be covered with new impervious surfaces.]	
Total Pre-Project Impervious Surface Area	
Total Post-Project Impervious Surface Area	
Runoff Reduction Measure(s) Selected (Check one or more)	<input type="checkbox"/> 1. Disperse runoff from roofs or pavement to vegetated area <input type="checkbox"/> 2. Permeable pavement <input type="checkbox"/> 3. Cisterns or Rain Barrels <input type="checkbox"/> 4. Bioretention Facility or Planter Box

Sample

Step 2: Delineate impervious areas and locations of runoff reduction measures

Delineate the impervious area. On an attached site plan or sketch, show the impervious area—for example, a roof, or portion of a roof, or a paved area—that will drain to your runoff reduction measure. Typically these delineations follow roof ridge lines or grade breaks. Alternatively, show the type and extent of pervious paving. An example sketch is attached.

Indicate the location and type of runoff reduction measure you've selected. At least one measure, designed to manage runoff from some amount of impervious area—or to avoid creating runoff—is required.

For each measure selected, fill out the brief checklist to demonstrate how your design and submittal meet minimum standards.

Step 3: Complete and submit your plan

Your Stormwater Control Plan will accompany your land use application submittal and will include:

1. Project Data Form including the runoff reduction measures(s) selected
2. Site plan or sketch showing runoff management from impervious areas
3. Checklist of runoff reduction design standards (see below)

Sample

Runoff Reduction Design Standards Checklist

Measure 1: Disperse runoff from roofs or pavement to vegetated areas.

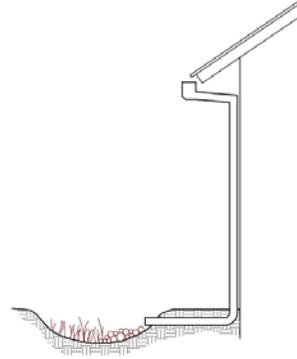
This is the simplest option. Downspouts can be directed to vegetated areas adjacent to buildings, or extended via pipes to reach vegetated areas further away. Paved areas can be designed with curb cuts, or without curbs, to direct flow into surrounding vegetation.

On the site plan, show:

- Each impervious area from which runoff will be directed, and its square footage.
- The vegetated areas that will receive runoff, and the approximate square footage of each.
- If necessary, explain in notes on the plan how runoff will be routed from impervious surfaces to vegetated areas.

Confirm the following standards are met:

- Tributary impervious square footage in no instance exceeds twice the square footage of the receiving pervious area. On your sketch, show rough dimensions that will confirm this criterion is met.
- Roof areas collect runoff and route it to the receiving pervious area via gutters and downspouts.
- Paved areas are sloped so drainage is routed to the receiving pervious area.
- Runoff is dispersed across the vegetated area (for example, with a splash block) to avoid erosion and promote infiltration.
- Vegetated area has amended soils, vegetation, and irrigation as required to maintain soil stability and permeability.
- Any area drains within the vegetated area have inlets at least 3 inches above surrounding grade.
- Additional comments: _____



Connecting a roof leader to a vegetated area. The head from the eave height makes it possible to route roof drainage some distance away from the building.

Sample

Measure 2: Permeable Pavement

Permeable pavements may include pervious concrete, pervious asphalt, porous pavers, crushed aggregate, open pavers with grass or plantings (turf block), open pavers with gravel, or solid pavers with open (non-grouted) joints.

Show on your site plan:

- Location, extent and types of pervious pavements.

Confirm the following standards are met:

- No erodible areas drain on to permeable pavement.
- Subgrade compaction is minimal.
- Reservoir base course is of open-graded crushed stone. Base depth (3" or more) is adequate to retain rainfall and support design loads (more depth may be required).
- No subdrain is included or, if a subdrain is included, outlet elevation is a minimum of 3 inches above bottom of base course.
- Subgrade is level and slopes are not so steep that subgrade is prone to erosion.
- Rigid edge is provided to retain granular pavements and unit pavers.
- Solid unit pavers, if used, are set in sand or gravel with minimum 1/8 inch gaps between the pavers. Joints are filled with an open-graded aggregate free of fines.
- Permeable concrete or porous asphalt, if used, are installed by industry certified professionals according to the vendor's recommendations.
- Selection and location of pavements incorporates Americans with Disabilities Act requirements (if applicable), site aesthetics, and uses.
- Additional comments: _____



Check with local Fire Department for applicability criteria using permeable pavement.

Measure 3: Cisterns or Rain Barrels

Use of cisterns or rain barrels to comply with this requirement may be subject to municipality approval. Planning and Building Permits may be required for larger systems.

Show on your site plan:

- Impervious areas tributary to each cistern or rain barrel.
- Location of each cistern or rain barrel.



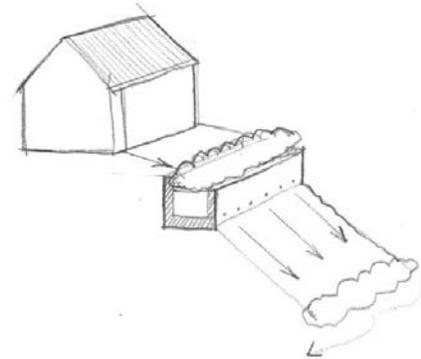
Confirm the following standards are met:

- Rain barrels are sited at or above grade on a sound and level surface at or near gutter downspouts.
- Gutters tributary to rain barrels are screened with a leaf guard or maximum ½-inch to ¼-inch-minimum corrosion-resistant metallic hardware fabric.
- Water collected will be used for irrigation only.
- Openings are screened with a corrosion-resistant metallic fine mesh (1/16 inch or smaller) to prevent mosquito harborage.
- Lids are secured to prevent entry by children.
- Rain barrels and gutters are to be cleaned annually.
- Additional comments:

Sample

Measure 4: Bioretention Facility or Planter Box

An above-ground planter box may be appropriate if the development site lacks level landscaped areas for dispersion and pervious pavements are not practical. Planter boxes and bioretention facilities can treat runoff from impervious surfaces 25 times their area (sizing factor of 0.04).



Detailed design guidance for bioretention facilities is in the *Stormwater Technical Guide*.

Show on your site plan:

- Impervious areas tributary to the facility.
- Location and footprint of facility.

Flow-through planter built into a hillside. Flows from the underdrain and overflow must be directed in accordance with local requirements.

Confirm the following standards are met:

- Ponding depth is 4"-6" minimum.
- Minimum 18" depth soil mix (60%-70% sand; 30%-40% compost) with minimum long-term infiltration rate of 5"/hour.
- Surface area of soil mix is a minimum 0.04 times the tributary impervious area.
- "Class 2 permeable" (Caltrans specification 68-2.02(F)(3) drainage layer 12" deep.
- No filter fabric.
- Perforated pipe (PVC SDR 35 or approved equivalent) underdrain.
- Connection with sufficient head to storm drain or discharge point.
- Underdrain has a clean-out port consisting of a vertical, rigid, non-perforated PVC pipe, connected to the underdrain via a sweep bend, with a minimum diameter of 4" and a watertight cap.
- Overflow outlet connected to a downstream storm drain or approved discharge point.
- Planter is set level.
- Emergency spillage will be safely conveyed overland.
- Plantings are suitable to the climate, exposure, and a well-drained soil.
- Irrigation system, if any, controlled as a separate zone.
- Additional comments: _____

Sample

Sample

Useful Resources

The following references may be useful for design. Designs must meet the minimum standard specifications herein.

Santa Barbara Project Clean Water Stormwater Technical Guide. Available at <http://www.sbprojectcleanwater.org>

Start At the Source: Design Guidance Manual for Stormwater Quality.
Bay Area Stormwater Management Agencies Association, 1999.

California Nevada Cement Association, www.cncpc.org

[Specifier's Guide for Pervious Concrete](#), Colorado Ready Mixed Concrete Association. www.crmca.org
Interlocking Concrete Pavement Institute
<http://www.icpi.org/>

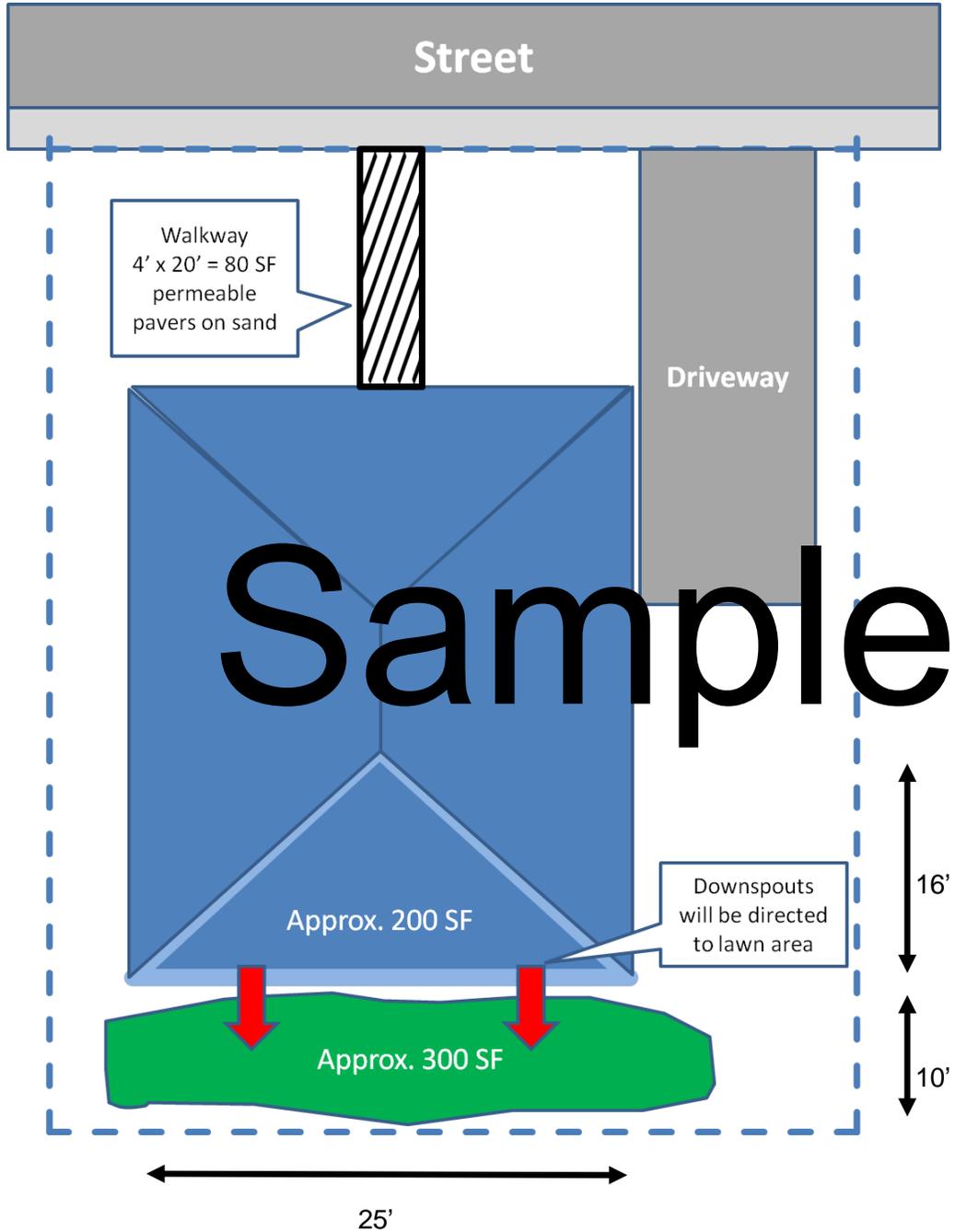
Porous Pavements, by Bruce K. Ferguson. 2005. ISBN 0-8493-2670-2

Sample

Example Sketch

The example below illustrates the level of detail required.

Not to Scale



Tier 1 Stormwater Control Plan

For Small (Tier 1) Land Development Projects

Development projects that create or replace 2,500 sf or more of impervious surface (roofs or pavement) must incorporate specific measures to reduce stormwater runoff. This Stormwater Control Plan template applies to Small Tier 1 Projects¹. Please complete the following template and include with your land use permit application submittal.

It is fairly easy to accomplish the stormwater requirements for most small land development projects. However, compliance must be carefully documented. The municipal stormwater staff will review your Tier 1 Stormwater Control Plan, site plan, and associated permit submittals to confirm that the following design strategies have been incorporated:

- Limit disturbance of creeks and natural drainage features
- Minimize compaction of highly permeable soils
- Limit clearing and grading of native vegetation at the site to the minimum area needed to build the project, allow access, and provide fire protection
- Minimize impervious surfaces by concentrating improvements on the least-sensitive portions of the site, while leaving the remaining land in a natural undisturbed state
- Minimize stormwater runoff by implementing one or more site design measures, consistent with the checklist below.

Here are the simple step-by-step instructions for completing a Tier 1 Stormwater Control Plan for Small (Tier 1) Land Development projects:

Step 1: Project Data Form

¹ Projects that create or replace 5,000 sf or more of impervious surface (not single-family), and all other projects including single-family projects that create or replace 15,000 sf or more of impervious surface, require a more comprehensive *Stormwater Control Plan*. Please see Santa Barbara County's Stormwater Technical Guide for more information, including definition of "net impervious" as applicable . www.sbprojectcleanwater.org

Complete all fields in the Project Data form. Select one or more runoff reduction measures.

Step 2: Delineate Impervious Areas and Runoff Reduction Measures

Delineate the impervious area. On an attached site plan or sketch, show the impervious area—for example, a roof, or portion of a roof, or a paved area—that will drain to your runoff reduction measure. Typically these delineations follow roof ridge lines or grade breaks. Alternatively, show the type and extent of pervious paving. An example sketch follows.

Indicate the location and type of runoff reduction measure(s) you've selected. On the site plan or sketch, show the reduction measure(s) selected. At least one measure is required that is designed to minimize runoff from some amount of impervious area.

Step 3: Complete Checklist and Submit Your Tier 1 Stormwater Control Plan

For each measure selected, fill out the brief checklist to verify that your design meets the minimum standards. Include the checklist with your Stormwater Control Plan. This Stormwater Control Plan will accompany your land use application submittal and include:

1. Project Data form including the runoff reduction measures(s) selected
2. Site plan or sketch showing runoff management from impervious areas (see attached)
3. Checklist of runoff reduction measures design standards (see below)

Sample

Tier 1 Stormwater Control Plan Project Data

[Complete all fields]

Project Name / Case File Number	
Project Location [Street Address if available, or intersection and/or APN]	
Name of Owner or Developer	
Project Type and Description [Examples: "Single Family Residence," "Parking Lot Addition," "Retail and Parking"]	
Total New Impervious Surface Area (square feet) [Sum of currently pervious areas that will be covered with new impervious surfaces]	
Total Replaced Impervious Surface Area [Sum of currently impervious areas that will be covered with new impervious surfaces]	
Total Pre-Project Impervious Surface Area	
Total Post-Project Impervious Surface Area	
Runoff Reduction Measure(s) Selected (Check one or more)	<ul style="list-style-type: none"> <input type="checkbox"/> 1. Disperse runoff from roofs or pavement to vegetated area <input type="checkbox"/> 2. Permeable pavement <input type="checkbox"/> 3. Cisterns or Rain Barrels <input type="checkbox"/> 4. Bioretention Facility or Planter Box

Sample

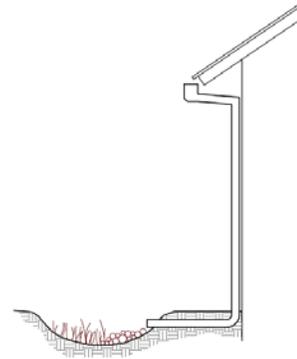
Stormwater Control Plan Runoff Reduction Measures Design Standards Checklist

Measure 1: Disperse runoff from roofs or pavement to vegetated areas.

This is the simplest option. Downspouts can be directed to [flat or concave](#) vegetated areas adjacent to buildings, or extended via pipes to reach vegetated areas further away. Paved areas can be designed with curb cuts, or without curbs, to direct flow into surrounding vegetation.

On the site plan, show:

- Each impervious area from which runoff will be directed, and its square footage.
- The vegetated areas that will receive runoff, and the approximate square footage of each.
- If necessary, explain in notes on the plan how runoff will be routed from impervious surfaces to vegetated areas.



Connecting a roof leader to a vegetated area. The head from the eave height makes it possible to route roof drainage some distance away from the building.

Confirm the following standards are met:

- [Pervious areas must be relatively flat and if graded, the surface should be slightly concave.](#)
Tributary impervious square footage in no instance exceeds twice the square footage of the receiving pervious area. On your sketch, show rough dimensions that will confirm this criterion is met.
- Roof areas collect runoff and route it to the receiving pervious area via gutters and downspouts.
- Paved areas are sloped so drainage is routed to the receiving pervious area.
- Runoff is dispersed across the vegetated area (for example, with a splash block) to avoid erosion and promote infiltration.
- Vegetated area has amended soils, vegetation, and irrigation as required to maintain soil stability and permeability.
- Any area drains within the vegetated area have inlets at least 3 inches above surrounding grade.
- Additional comments: _____

Sample

Measure 2: Permeable Pavement

Permeable pavements may include pervious concrete, pervious asphalt, porous pavers, crushed aggregate, open pavers with grass or plantings (turf block), open pavers with gravel, or solid pavers with open (non-grouted) joints.

Show on your site plan:

- Location, extent and types of pervious pavements.

Confirm the following standards are met:

- No erodible areas drain on to permeable pavement.
- Subgrade compaction is minimal.
- Reservoir base course is of open-graded crushed stone. Base depth (3" or more) is adequate to retain rainfall and support design loads (more depth may be required).
- No subdrain is included or, if a subdrain is included, outlet elevation is a minimum of 3 inches above bottom of base course.
- Subgrade is level and slopes are not so steep that subgrade is prone to erosion.
- Rigid edge is provided to retain granular pavements and unit pavers.
- Solid unit pavers, if used, are set in sand or gravel with minimum 1/8 inch gaps between the pavers. Joints are filled with an open-graded aggregate free of fine material.
- Permeable concrete or porous asphalt, if used, are installed by industry certified professionals according to the vendor's recommendations.
- Selection and location of pavements incorporates Americans with Disabilities Act requirements (if applicable), site aesthetics, and uses.
- Additional comments: _____



Sample

Check with local Fire Department for applicability criteria using permeable pavement.

Measure 3: Cisterns or Rain Barrels

Use of cisterns or rain barrels to comply with this requirement may be subject to municipality approval. Planning and Building Permits may be required for very large systems.

Show on your site plan:

- Impervious areas tributary to each cistern or rain barrel.
- Location of each cistern or rain barrel.



Confirm the following standards are met:

- Rain barrels are sited at or above grade on a sound and level surface at or near gutter downspouts.
- Gutters tributary to rain barrels are screened with a leaf guard or maximum ½-inch to ¼-inch-minimum corrosion-resistant metallic hardware fabric.
- Water collected will be used for irrigation only.
- Openings are screened with a corrosion-resistant metallic fine mesh (1/16 inch or smaller) to prevent mosquito harborage.
- Lids are secured to prevent entry by children.
- Rain barrels and gutters are to be cleaned annually.
- Additional comments

Sample

Measure 4: Bioretention Facility or Planter Box

An above-ground planter box may be appropriate if the development site lacks level landscaped areas for dispersion and pervious pavements are not practical. Planter boxes and bioretention facilities can treat runoff from impervious surfaces 25 times their area (sizing factor of 0.04).

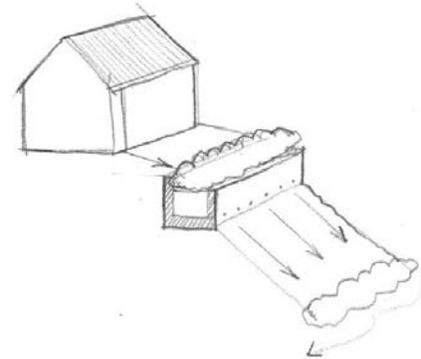
Detailed design guidance for bioretention facilities is in the *Stormwater Technical Guide*.

Show on your site plan:

- Impervious areas tributary to the facility.
- Location and footprint of facility.

Confirm the following standards are met:

- Ponding depth is 4"-6" minimum.
- Minimum 18" depth soil mix (60%-70% sand; 30%-40% compost) with minimum long-term infiltration rate of 5"/hour.
- Surface area of soil mix is a minimum 0.04 times the tributary impervious area.
- "Class 2 permeable" (Caltrans specification 68-2.02(F)(3) drainage layer 12" deep.
- No filter fabric.
- Perforated pipe (PVC 6" SD or 35 or approved equivalent) underdrain.
- Connection with sufficient head to storm drain or discharge point.
- Underdrain has a clean-out port consisting of a vertical, rigid, non-perforated PVC pipe, connected to the underdrain via a sweep bend, with a minimum diameter of 4" and a watertight cap.
- Overflow outlet connected to a downstream storm drain or approved discharge point.
- Planter is set level.
- Emergency spillage will be safely conveyed overland.
- Plantings are suitable to the climate, exposure, and a well-drained soil.
- Irrigation system, if any, controlled as a separate zone.
- Additional comments: _____



Flow-through planter built into a hillside. Flows from the underdrain and overflow must be directed in accordance with local requirements.

Sample

Sample

Useful Resources

The following references may be useful for design. Designs must meet the minimum standard specifications herein.

Santa Barbara Project Clean Water Stormwater Technical Guide. Available at <http://www.sbprojectcleanwater.org>

Start At the Source: Design Guidance Manual for Stormwater Quality.
Bay Area Stormwater Management Agencies Association, 1999.

California Nevada Cement Association, www.cncpc.org

[Specifier's Guide for Pervious Concrete](#), Colorado Ready Mixed Concrete Association. www.crmca.org
Interlocking Concrete Pavement Institute
<http://www.icpi.org/>

Porous Pavements, by Bruce K. Ferguson. 2005. ISBN 0-8493-2670-2

Sample

Stormwater Control Plan Example Sketch

The example below illustrates the level of detail required. This site plan addresses two Runoff Reduction Measures: permeable paving and dispersing runoff to vegetated areas.

Not to Scale

