Site Design Requirement	Applied?		
4.3.6 Runoff Collection	☒Yes	☐No	☐N/A
Discussion / justification if 4.3.6 not implemented:			
4.3.7 Landscaping with Native or Drought Tolerant Species	☒Yes	☐No	☐N/A
Discussion / justification if 4.3.7 not implemented:			
4.3.8 Harvesting and Using Precipitation	☐Yes	☒No	☐N/A
Discussion / justification if 4.3.8 not implemented: According to Worksheet B.3-1, in Attachment 1a, full capture and use techniques are not feasible for the project.			

Note: Show all site design measures described above that are included in design capture volume calculations in the plan sheets of Attachment 5.

Step 6: PDP Structural BMPs

All PDPs must implement structural BMPs for storm water pollutant control (see Chapter 5 of the BMP Design Manual). Selection of PDP structural BMPs for storm water pollutant control must be based on the selection process described in Chapter 5. PDPs subject to hydromodification management requirements must also implement structural BMPs for flow control for hydromodification management (see Chapter 6 of the BMP Design Manual). Both storm water pollutant control and flow control for hydromodification management can be achieved within the same structural BMP(s).

PDP structural BMPs must be verified by the County at the completion of construction. This may include requiring the project owner or project owner's representative and engineer of record to certify construction of the structural BMPs (see Section 1.12 of the BMP Design Manual). PDP structural BMPs must be maintained into perpetuity, and the County must confirm the maintenance (see Section 7 of the BMP Design Manual).

Use this section to provide narrative description of the general strategy for structural BMP implementation at the project site in the box below. Then complete the PDP structural BMP summary information sheet (Step 6.2) for each structural BMP within the project (copy the BMP summary information sheet [Step 6.2] as many times as needed to provide summary information for each individual structural BMP).

Step 6.1: Description of structural BMP strategy

Describe the general strategy for structural BMP implementation at the site. This information must describe how the steps for selecting and designing storm water pollutant control BMPs presented in Section 5.1 of the BMP Design Manual were followed, and the results (type of BMPs selected). For projects requiring hydromodification flow control BMPs, indicate whether pollutant control and flow control BMPs are integrated or separate. At the end of this discussion provide a summary of all the structural BMPs within the project including the type and number.

Otay 250 will construct rough graded pads and public roads. Per the 2013 MS4 Permit, selection of BMPs for the project was completed using the feasibility analysis worksheet, B.3-1, from the County BMP Design Manual. After completing Worksheet B.3-1, both infiltration and harvest and use were determined to be infeasible and based on the result of Feasibility Category 5, biofiltration BMPs were selected. The project proposes 7 dual purpose biofiltration/detention basins located throughout the site to provide pollutant control, hydromodification, and 100 year peak mitigation. Some of the pads are considered as self-mitigating DMAs and have storm drains that discharges directly to public storm drains offsite. Most of the proposed pads drain to BMPs that are sized to manage the pad area in a naturalistic state. When the pads are developed, they will include BMPs to manage new impervious areas proposed at that time, and the future improvements will be documented in future PDP SWQMPs.

(Continue on following page as necessary.)

Description of structural BMP strategy continued (Page reserved for continuation of description of general strategy for structural BMP implementation at the site)
(Continued from previous page)

Step 6.2: Structural BMP Checklist

(Copy this page as needed to provide information for each individual proposed structural BMP)	
Structural BMP ID No. BF1 – BF7	
Construction Plan Sheet No.	
Type of structural BMP: ☐ Retention by harvest and use (HU-1) ☐ Retention by infiltration basin (INF-1) ☐ Retention by bioretention (INF-2) ☐ Retention by permeable pavement (INF-3) ☐ Partial retention by biofiltration with partial retention (PR-1) ☒ Biofiltration (BF-1) ☐ Biofiltration with Nutrient Sensitive Media Design (BF-2) ☐ Proprietary Biofiltration (BF-3) meeting all requirements of Appendix F ☐ Flow-thru treatment control with prior lawful approval to meet earlier PDP requirements (provide BMP type/description in discussion section below) ☐ Flow-thru treatment control included as pre-treatment/forebay for an onsite retention or biofiltration BMP (provide BMP type/description and indicate which onsite retention or biofiltration BMP it serves in discussion section below) ☐ Flow-thru treatment control with alternative compliance (provide BMP type/description in discussion section below) ☐ Detention pond or vault for hydromodification management ☐ Other (describe in discussion section below)	
Purpose: ☐ Pollutant control only ☐ Hydromodification control only ☒ Combined pollutant control and hydromodification control ☐ Pre-treatment/forebay for another structural BMP ☐ Other (describe in discussion section below)	
Who will certify construction of this BMP? Provide name and contact information for the party responsible to sign BMP verification forms (See Section 1.12 of the BMP Design Manual)	Bryan T. Hill, R.C.E. 69339 Stevens Cresto Engineering, Inc. 9665 Chesapeake Drive, Suite 200 San Diego, CA 92123 (858) 694-5660
Who will be the final owner of this BMP?	☐ HOA ☒ Property Owner ☐ County ☐ Other (describe)
Who will maintain this BMP into perpetuity?	☐ HOA ☒ Property Owner ☐ County ☐ Other (describe)
What Category (1-4) is the Structural BMP? Refer to the Category definitions in Section 7.3 of the BMP DM. Attach the appropriate maintenance agreement in Attachment 3.	2

Discussion (as needed): *(Continue on subsequent pages as necessary)*

Step 6.3: Offsite Alternative Compliance Participation Form

PDP INFORMATION	
Record ID:	**N/A**
Assessor's Parcel Number(s) [APN(s)]	
What are your PDP Pollutant Control Debits? *See Attachment 1 of the PDP SWQMP	
What are your PDP HMP Debits? (if applicable) *See Attachment 2 of the PDP SWQMP	
ACP Information	
Record ID:	
Assessor's Parcel Number(s) [APN(s)]	
Project Owner/Address	
What are your ACP Pollutant Control Credits? *See Attachment 1 of the ACP SWQMP	
What are your ACP HMP Debits? (if applicable) *See Attachment 2 of the ACP SWQMP	
Is your ACP in the same watershed as your PDP? ☐ Yes ☐ No	Will your ACP project be completed prior to the completion of the PDP? ☐ Yes ☐ No
Does your ACP account for all Deficits generated by the PDP? ☐ Yes ☐ No (PDP and/or ACP must be redesigned to account for all deficits generated by the PDP.	What is the difference between your PDP debits and ACP Credits? *(ACP Credits -Total PDP Debits = Total Earned Credits)

ATTACHMENT 1

BACKUP FOR PDP POLLUTANT CONTROL BMPS

This is the cover sheet for Attachment 1.

Indicate which Items are Included behind this cover sheet:

Attachment Sequence	Contents	Checklist
Attachment 1a	Storm Water Pollutant Control Worksheet Calculations -Worksheet B.3-1 (Required) -Worksheet B.1-1 (Required) -Worksheet B.4-1 (if applicable) -Worksheet B.4-2 (if applicable) -Worksheet B.5-1 (if applicable) -Worksheet B.5-2 (if applicable) -Worksheet B.5-3 (if applicable) -Worksheet B.6-1 (if applicable) -Summary Worksheet (optional)	☒ Included
Attachment 1b	Form I-8, Categorization of Infiltration Feasibility Condition (Required unless the project will use harvest and use BMPs) Refer to Appendices C and D of the BMP Design Manual to complete Form I-8.	☒ Included ☐ Not included because the entire project will use harvest and use BMPs
Attachment 1c	DMA Exhibit (Required) See DMA Exhibit Checklist on the back of this Attachment cover sheet.	☒ Included
Attachment 1d	Individual Structural BMP DMA Mapbook (Required) -Place each map on 8.5"x11" paper. -Show at a minimum the DMA, Structural BMP, and any existing hydrologic features within the DMA.	☒ Included

Attachment 1a

Storm Water Pollutant Control Worksheet Calculations

- Worksheet B.3-1
- Worksheet B.1-1
- Worksheet B.5-1

Automated Worksheet B.3-1: Project-Scale BMP Feasibility Analysis (V1.1)

Category	#	Description	Value	Units
Capture & Use Inputs	0	Design Capture Volume for Entire Project Site	91,085	cubic-feet
	1	Proposed Development Type	Residential	unitless
	2	Number of Residents or Employees at Proposed Development	0	#
	3	Total Planted Area within Development	134,386	sq-ft
	4	Water Use Category for Proposed Planted Areas	Low	unitless
Infiltration Inputs	5	Is Average Site Infiltration Rate Less than 0.5 Inches per Hour?	Yes	yes/no
	6	Is Retention of the Full DCV Anticipated to Produce Negative Impacts?	Yes	yes/no
	7	Is Retention of Any Volume Anticipated to Produce Negative Impacts?	Yes	yes/no
Calculations	8	36-Hour Toilet Use Per Resident or Employee	0.37	cubic-feet
	9	Subtotal: Anticipated 36 Hour Toilet Use	0	cubic-feet
	10	Anticipated 1 Acre Landscape Use Over 36 Hours	52.14	cubic-feet
	11	Subtotal: Anticipated Landscape Use Over 36 Hours	161	cubic-feet
	12	Total Anticipated Use Over 36 Hours	161	cubic-feet
	13	Total Anticipated Use / Design Capture Volume	0.00	cubic-feet
	14	Are Full Capture and Use Techniques Feasible for this Project?	No	unitless
	15	Is Full Retention Feasible for this Project?	No	yes/no
	16	Is Partial Retention Feasible for this Project?	No	yes/no
Result	17	Feasibility Category	5	1, 2, 3, 4, 5

Worksheet B.3-1 General Notes:

A. Applicants may use this optional worksheet to gauge the feasibility of implementing capture and use techniques on their project site. User input should be provided for yellow shaded cells, values for all other cells will be automatically generated. Projects demonstrating feasibility or potential feasibility via this worksheet are encouraged to incorporate capture and use features in their project.

B. Negative impacts associated with retention may include geotechnical, groundwater, water balance, or other issues identified by a geotechnical engineer and substantiated through completion of Form I-8.

C. Feasibility Category 1: Applicant must implement capture & use, retention, and/or infiltration elements for the entire DCV.

D. Feasibility Category 2: Applicant must implement capture & use elements for the entire DCV.

E. Feasibility Category 3: Applicant must implement retention and/or infiltration elements for the entire DCV.

F. Feasibility Category 4: Applicant must implement partial retention BMPs.

G. Feasibility Category 5: Applicant must implement biofiltration BMPs.

H. PDPs participating in an offsite alternative compliance program are not held to the feasibility categories presented herein.

Automated Worksheet B.1-1: Calculation of Design Capture Volume (V1.1)

Category	#	Description	*i*	*ii*	*iii*	*iv*	*v*	*vi*	*vii*	*viii*	*ix*	*x*	Units
Standard Drainage Basin Inputs	0	Drainage Basin ID or Name	BF-1	BF-2	BF-3	BF-4	BF-5	BF-6	BF-7				unitless
	1	Basin Drains to the Following BMP Type	Biofiltration	Biofiltration	Biofiltration	Biofiltration	Biofiltration	Biofiltration	Biofiltration				unitless
	2	85th Percentile 24-hr Storm Depth	0.60	0.60	0.60	0.60	0.60	0.60	0.60				inches
	3	Impervious Surfaces Not Directed to Dispersion Area (C=0.90)	201,983	80,445	124,435	229,767	377,008	152,441	49,262				sq-ft
	4	Semi-Pervious Surfaces Not Serving as Dispersion Area (C=0.30)											sq-ft
	5	Engineered Pervious Surfaces Not Serving as Dispersion Area (C=0.10)	1,861,023	771,659	363,453	1,077,066	2,019,810	895,142	104,213				sq-ft
	6	Natural Type A Soil Not Serving as Dispersion Area (C=0.10)											sq-ft
	7	Natural Type B Soil Not Serving as Dispersion Area (C=0.14)											sq-ft
	8	Natural Type C Soil Not Serving as Dispersion Area (C=0.23)											sq-ft
	9	Natural Type D Soil Not Serving as Dispersion Area (C=0.30)											sq-ft
Dispersion, Tree Well, & Rain Barrel Inputs (Optional)	10	Does Tributary Incorporate Dispersion, Tree Wells, and/or Rain Barrels?	No	No	No	No	No	No	No	No	No	No	yes/no
	11	Impervious Surfaces **Directed to Dispersion Area** per SD-B (Ci=0.90)											sq-ft
	12	Semi-Pervious Surfaces **Serving as Dispersion Area** per SD-B (Ci=0.30)											sq-ft
	13	Engineered Pervious Surfaces **Serving as Dispersion Area** per SD-B (Ci=0.10)											sq-ft
	14	Natural Type A Soil **Serving as Dispersion Area** per SD-B (Ci=0.10)											sq-ft
	15	Natural Type B Soil **Serving as Dispersion Area** per SD-B (Ci=0.14)											sq-ft
	16	Natural Type C Soil **Serving as Dispersion Area** per SD-B (Ci=0.23)											sq-ft
	17	Natural Type D Soil **Serving as Dispersion Area** per SD-B (Ci=0.30)											sq-ft
	18	Number of Tree Wells Proposed per SD-A											#
	19	Average Mature Tree Canopy Diameter											ft
	20	Number of Rain Barrels Proposed per SD-E											#
	21	Average Rain Barrel Size											gal
Final Adjusted Runoff Factor Calculations	22	Total Area Tributary to BMP	2,063,006	852,104	487,888	1,306,833	2,396,818	1,047,583	153,475	0	0	0	sq-ft
	23	Composite Runoff Factor for Standard Drainage Areas	0.18	0.18	0.30	0.24	0.23	0.22	0.36	0.00	0.00	0.00	unitless
	24	Initial Composite Runoff Factor for Dispersed & Dispersion Areas	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	unitless
	25	Total Impervious Area Dispersed to Pervious Surface	0	0	0	0	0	0	0	0	0	0	sq-ft
	26	Total Pervious Dispersion Area	0	0	0	0	0	0	0	0	0	0	sq-ft
	27	Dispersed Impervious Area / Pervious Dispersion Area	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ratio
	28	Adjustment Factor for Dispersed & Dispersion Areas	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	ratio
	29	Final Adjusted Tributary Runoff Factor	0.18	0.18	0.30	0.24	0.23	0.22	0.36	n/a	n/a	n/a	unitless
Volume Reduction Calculations	30	Final Effective Tributary Area	371,341	153,379	146,366	313,640	551,268	230,468	55,251	0	0	0	sq-ft
	31	Initial Design Capture Volume	18,567	7,669	7,318	15,682	27,563	11,523	2,763	0	0	0	cubic-feet
	32	Volume Reduction per Tree Well	0	0	0	0	0	0	0	0	0	0	cubic-feet
	33	Total Tree Well Volume Reduction	0	0	0	0	0	0	0	0	0	0	cubic-feet
	34	Total Rain Barrel Volume Reduction	0	0	0	0	0	0	0	0	0	0	cubic-feet
Result	35	Design Capture Volume Tributary to BMP	18,567	7,669	7,318	15,682	27,563	11,523	2,763	0	0	0	cubic-feet

Worksheet B.1-1 General Notes:

A. Applicants may use this worksheet to calculate design capture volumes for up to 10 drainage areas User input must be provided for yellow shaded cells, values for all other cells will be automatically generated, errors/notifications will be highlighted in red and summarized below. Upon completion of this worksheet, proceed to the appropriate BMP Sizing worksheet(s).

B. Impervious surfaces include roofs, concrete, asphalt, or pervious pavements with an impervious liner. Semi-pervious surfaces include decomposed granite, cobbles, crushed aggregate, or compacted soils such as unpaved parking. Engineered pervious surfaces include pervious pavements providing full retention of the 85th percentile rainfall depth, or areas with soils that have been amended and mulched per Section 86.709 of the Landscape Ordinance. Dispersion areas are pervious or semi-pervious surfaces that receive runoff from impervious surfaces (C=0.90) and reduce stormwater runoff as outlined in Fact Sheet SD-B.

Automated Worksheet B.5-1: Sizing Biofiltration BMPs (V1.1)

Category	#	Description	*i*	*ii*	*iii*	*iv*	*v*	*vi*	*vii*	*viii*	*ix*	*x*	Units
BMP Inputs	0	Drainage Basin ID or Name	BF-1	BF-2	BF-3	BF-4	BF-5	BF-6	BF-7	-	-	-	unitless
	1	Effective Tributary Area	371,341	153,379	146,366	313,640	551,268	230,468	55,251	-	-	-	sq-ft
	2	Minimum Biofiltration Footprint Sizing Factor	0.030	0.030	0.030	0.030	0.030	0.030	0.030	-	-	-	ratio
	3	Design Capture Volume Tributary to BMP	18,567	7,669	7,318	15,682	27,563	11,523	2,763	-	-	-	cubic-feet
	4	Provided Biofiltration Surface Area	25,000	10,000	13,000	21,000	32,300	13,150	4,800				sq-ft
	5	Provided Surface Ponding Depth	14.4	15	12	15	18	18.2	12				inches
	6	Provided Soil Media Thickness	18	18	18	18	18	18	18				inches
	7	Provided Gravel Storage Thickness	12	12	12	12	12	12	12				inches
	8	Hydromodification Orifice Diameter of Underdrain	6.00	3.80	2.90	4.80	6.00	4.30	1.60				inches
Biofiltration Calculations	9	Max Hydromod Flow Rate through Underdrain	1.756	0.719	0.406	1.140	1.831	0.951	0.125	n/a	n/a	n/a	CFS
	10	Max Soil Filtration Rate Allowed by Underdrain Orifice	3.03	3.10	1.35	2.35	2.45	3.12	1.12	n/a	n/a	n/a	in/hr
	11	Soil Media Filtration Rate	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	in/hr
	12	Soil Media Filtration Rate to be used for Sizing	3.03	3.10	1.35	2.35	2.45	3.12	1.12	5.00	5.00	5.00	in/hr
	13	Depth Biofiltered Over 6 Hour Storm	18.21	18.63	8.09	14.07	14.69	18.75	6.73	0.00	0.00	0.00	inches
	14	Soil Media Pore Space	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	unitless
	15	Gravel Pore Space	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	unitless
	16	Effective Depth of Biofiltration Storage	24.6	25.2	22.2	25.2	28.2	28.4	22.2	0	0	0	inches
	17	Drawdown Time for Surface Ponding	5	5	9	6	7	6	11	0	0	0	hours
	18	Drawdown Time for Entire Biofiltration Basin	8	8	16	11	12	9	20	0	0	0	hours
	19	Total Depth Biofiltered	42.81	43.83	30.29	39.27	42.89	47.15	28.93	0.00	0.00	0.00	inches
	20	Option 1 - Biofilter 1.50 DCV: Target Volume	27,851	11,504	10,977	23,523	41,345	17,285	4,145	0	0	0	cubic-feet
	21	Option 1 - Provided Biofiltration Volume	27,851	11,504	10,977	23,523	41,345	17,285	4,145	0	0	0	cubic-feet
	22	Option 2 - Store 0.75 DCV: Target Volume	13,925	5,752	5,489	11,762	20,672	8,642	2,072	0	0	0	cubic-feet
	23	Option 2 - Provided Storage Volume	13,925	5,752	5,489	11,762	20,672	8,642	2,072	0	0	0	cubic-feet
	24	Percentage of Performance Requirement Satisfied	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	ratio
Result	25	**Deficit of Effectively Treated Stormwater**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**n/a**	**n/a**	**n/a**	cubic-feet

Worksheet B.5-1 General Notes:

A. Applicants may use this worksheet to size Lined Biofiltration BMPs (BF-1) for up to 10 basins. User input must be provided for yellow shaded cells, values for blue cells are automatically populated based on user inputs from previous worksheets, values for all other cells will be automatically generated, errors/notifications will be highlighted in red and summarized below. BMPs fully satisfying the pollutant control performance standards will have a deficit treated volume of zero and be highlighted in green.