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## Memorandum

**DATE:** December 17, 2019  
**TO:** Bea Bea Jimenez, Manager, Land Development, OC Development Services  
**FROM:**  Tracy Ingebrigtsen, Manager Countywide Compliance Program, OC Environmental Resources  
**SUBJECT:** Updated Guidelines for the Preparation of Water Quality Management Plans for the Ranch Plan Planned Community

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In collaboration and consultation with Rancho Mission Viejo (RMV) and the County of Orange, the Guidelines for the Preparation of Water Quality Management Plans (WQMPs) for the Ranch Plan Planned Community have been updated to streamline the document preparation, review and approval process for both RMV and County staff. The updates include the consolidation of five different WQMP levels into three, update of the tracking spreadsheet and clarification of guideline language.

To document the history and evolution of the development of WQMPs within the RMV Ranch Plan the following documents are attached:

- August 29, 2019 – Approved Updated Guidelines for the Preparation of Water Quality Management Plans for the Ranch Plan Planned Community
- February 3, 2015 - Applicability of Regional Low Impact Development Best Management Practices for the Ranch Plan Planned Community (Memo plus four attachments)
- February 6, 2012 - Guidelines for the Preparation of Water Quality Management Plans for the Ranch Plan Planned Community
- November 21, 2006 - Review of the Ranch Plan Water Quality Management Plans (WQMPs)

Please direct any questions regarding this memo to Tracy Ingebrigtsen at (714) 955-0687.

## Guidelines for the Preparation of Water Quality Management Plans for the Ranch Plan Planned Community

The purpose of these guidelines is to clarify for OC Public Works staff, plan check consultants, and development applicants, the process for preparation and review of Water Quality Management Plans (WQMPs) within the Ranch Plan Planned Community. This document is meant for guidance purposes only and does not include all compliance requirements.

A unique Watershed Based Approach to Water Quality Management within the Ranch Plan Planned Community was set forth by the Board of Supervisors as part of the November 2004 approval of the Ranch Plan Planned Community and certification of EIR 589, including Section 4.5 (Water Resources) and Technical Appendix C-2 (Community-Wide WQMP).

This unique watershed based approach (i.e., allowable use of regional Best Management Practices [BMPs]) is recognized by the San Diego Regional Water Quality Control Board (South Orange County) MS4 Permit (December 2009) and the *Orange County Stormwater Program New Development/Significant Redevelopment Program Technical Guidance Document for Preparation of Conceptual, Preliminary, and Project WQMPs*, which states:

"Where a development project greater than 100 acres in total project size, or smaller than 100 acres in size yet part of a larger common plan of development that is over 100 acres, has been prepared using watershed and/or sub-watershed based water quality, hydrologic, and fluvial geomorphologic planning principles that implement regional LID BMPs in accordance with the sizing and location criteria of the South County Permit and acceptable to the San Diego Regional Board, such standards shall govern review of projects with respect to Section F.1 of the South County Permit and shall be deemed to satisfy the South County Permit requirements for LID site design, buffer zone, infiltration and groundwater protection standards, source control, treatment control, and hydromodification control standards. Regional BMPs in such plans shall clearly exhibit that they will not result in a net impact from pollutant loadings over and above the impact caused by capture and retention of the design storm with on-site LID BMPs."

A Project-Specific WQMP will be required for each Regional BMP if the BMP is not included and adequately addressed in another WQMP prepared for a larger project area.

## **Ranch Plan Community-Wide, Watershed Based WQMP (Approved):**

The November 2004 approval of the Ranch Plan Planned Community and certification of EIR 589, including Section 4.5 (Water Resources) and Technical Appendix C-2 (Community-Wide WQMP) is the parent document of all subsequent Ranch Plan WQMPs (noted below).

Each subsequent WQMP must be prepared in compliance with the San Diego Region Water Quality Board Order No. R9-20013-001 as amended by Order Nos. R9-2015-0001 and R9-2015-0100, the current Model Water Quality Management Plan (Model WQMP) for South Orange County, the current Orange County Technical Guidance Manual (TGD) and the current South Orange County Hydromodification Management Plan (HMP). In addition, each WQMP must be prepared utilizing the appropriate current South Orange County WQMP Template.

The above documents can be found online at:

<http://www.ocwatersheds.com/documents/wqmp>

The process by which Rancho Mission Viejo will demonstrate and the County of Orange will verify compliance with the above documents will comprise three levels of WQMPs including:

- I. Conceptual Planning Area WQMP
- II. Rough Grade "A" TTM WQMP
- III. Project Specific "B" TTM WQMP

The County of Orange OC Development Services and OC Watersheds will plan check, provide comments, review updated WQMPs, and ultimately approve RMV WQMPs for each of the three levels identified above.

The details of each of the WQMP levels identified above and the process by which Rancho Mission Viejo will demonstrate and the County of Orange will verify compliance with the above documents will be:

### **I. Conceptual Planning Area WQMP-Individual Planning Area Scale (Master Area Plans):**

The Conceptual Planning Area WQMP will include and reference the full name of and be consistent with the Runoff Management Plan (ROMP) for the Planning Area it is covering. Conceptual Planning Area WQMP will include and reference any 401 Certifications in the Planning area. The following are the specifics of the Conceptual Planning Area WQMP:

- a. Prior to the approval of a Master Area Plan for each Planning Area, the applicant shall prepare a Conceptual Planning Area WQMP that:
  - i) is consistent with the terms and content of the *Conceptual Water*

*Quality Approach for the Ranch Plan- EIR 589, Section 4.5 (Water Resources) and Technical Appendix C-2 (Community-Wide WQMP), and*

- ii) provides more particularized information and detail concerning how the provisions of the *Watershed Based Approach to Water Quality Management Within the Ranch Plan- EIR 589, Section 4.5 (Water Resources) and Technical Appendix C-2 (Community-Wide WQMP)* will be implemented within the area covered by the individual Master Area Plan.
- b. At a minimum, each Conceptual Planning Area WQMP will provide supplemental and refined information concerning:
- i) how site design, source control, treatment control, and hydromodification control BMPs will be implemented at the Master Area Plan level for the area in question, consistent with current Technical Guidance Document (Section 3 and Section 6).
  - ii) potential LID/DCV treatment BMPs and hydromodification control facility sizing and location within the subject Master Area Plan area, and
  - iii) monitoring, operation and maintenance of stormwater BMPs within the relevant Master Area Plan area. (EIR 589, Mitigation Measure 4.5-3).
- c. Each Conceptual Planning Area WQMP will include analyses that demonstrate that proposed regional treatment and hydromodification control BMPs will not result in a net impact from pollutant loadings over and above the impact caused by capture and retention of the design storm with on-site LID BMPs, per the requirement of the South Orange County MS4 Permit.

**II. Rough Grade “A” TTM WQMP - Subarea Scale (Master “A” Tentative Tract Map):**

The Rough Grade “A” TTM (Tentative Tract Map) WQMP will include and reference the full name of and be consistent with the Runoff Management Plan (ROMP) for the Planning Area it is located in. The Rough Grade “A” TTM WQMP will include and reference the full name of the Conceptual Planning Area WQMP for the Planning Area it is located in. Rough Grade “A” TTM WQMP will include and reference any 401 Certifications in the Subarea. If a BMP in the Rough Grade “A” TTM WQMP shares capacity with another Rough Grade “A” TTM WQMP it must be identified and accounted for in both Rough Grade “A” TTM WQMPs. The following are the specifics of the Rough Grade “A” TTM WQMP:

- a. Prior to first TTM level Rough Grade permit within each Master "A" Tentative Tract Map for any portion of the project area that is the subject of an approved Master Area Plan, the applicant shall prepare a Rough Grade "A" TTM WQMP that:
- i) is consistent with the terms and content of the Community -Wide WQMP,
  - ii) is consistent with the terms and content of the relevant Conceptual Planning Area WQMP (see MM 4.5-3), and
  - iii) provides more particularized information and detail concerning how the provisions of the Conceptual Planning Area WQMP will be implemented within the area covered by the individual Subarea Plan.
  - iv) provides detailed information (by amendment if necessary) about RMV community facilities and amenities (e.g. community recreation facilities, dog parks).
- b. At a minimum, each Rough Grade "A" TTM WQMP will provide supplemental and refined information concerning:
- i) How LID/DCV treatment BMPs, and hydromodification control BMPs will be implemented at the Subarea Plan level,
  - ii) The specific calculations for size, location and design features to be used for the construction of the LID/DCV treatment BMPs and hydromodification control facilities to be developed within the subject Subarea Plan, and
  - iii) Monitoring, operation and maintenance of the stormwater BMPs within the relevant Subarea Plan (EIR 589, Mitigation Measure 4.5-4),
  - iv) Specifically, if there are WQ basins included within the grading permit boundaries, the WQMP must provide evidence the sizing of these facilities is adequate,
  - v) The BMP Exhibit (Site Plan) for the RMV community facilities and amenities (e.g. community recreation facilities, dog parks), which must meet all requirements in the Model WQMP and WQMP Template and must also:
    - a) include the proposed uses in the project description;
    - b) depict footprints of all buildings and facilities;
    - c) all items listed in (vi.) below;
    - d) be consistent with associated grading and building plans for project site.

vi) For the RMV community facilities and amenities (e.g. community recreation facilities, dog parks), prior to the issuance of any precise grading or building permit, the applicant shall submit for review and approval by the Manager, Land Development, a Rough Grade "A" TTM WQMP that meets the requirements of the Model WQMP and WQMP Template for the RMV community facilities and amenities that:

a) Specifically identifies applicable LID/DCV treatment BMPs and hydromodification control BMPs from the applicable Conceptual Planning Area WQMP that will be used to control runoff from the Subarea except for Project Scale (Precise Grading Plans for Site Development Permits), where the Rough Grade "A" TTM WQMP shall 1) identify the LID/DCV treatment BMPs and hydromodification control BMPs by reference for the Subarea; 2) identify the impervious area for the Subarea; and 3) include Site Design and Source Control BMPs for the RMV community facilities and amenities as identified in Sections a.2 and a.3, below. This Rough Grade "A" TTM WQMP shall:

1. Identify the regional water quality and/or hydromodification control facilities (if applicable) for the project and the capacity utilized by the project of the regional water quality and/or hydromodification control facilities;
2. Include the applicable Site Design BMPs as defined in the current Technical Guidance Document (Section 6), such as minimizing impervious areas, maximizing permeability, minimizing directly connected impervious areas, creating reduced or "zero discharge" areas, and conserving natural areas for the RMV community facilities and amenities;
3. Include the applicable Routine structural and non-structural Source Control BMPs as defined in the current Drainage Area Management Plan (DAMP) and the current Technical Guidance Document (Section 3 and Section 6) for the RMV community facilities and amenities. (County Standard Condition WQ01)

b) Demonstrates how surface runoff and subsurface drainage shall be managed and directed to the nearest acceptable drainage facility (as applicable), via sump pumps if necessary. (Standard Condition of Approval, WQ03)

**III. Project Specific “B” TTM WQMP - Project Scale also known as Builder WQMP (Precise Grading Plans for Site Development Permits and "B" Tentative Tract Maps).**

The Project Specific “B” TTM (Tentative Tract Map) WQMP will include and reference the full name of and be consistent with the Runoff Management Plan (ROMP) for the Planning Area it is located in. The Project Specific “B” TTM WQMP will include and reference the full name of the Conceptual Planning Area WQMP for the Planning Area it is located in. The Project Specific WQMP will include and reference the full name of the Rough Grade “A” TTM WQMP for the Subarea it is located in. The Project Specific “B” TTM WQMP will include and reference any 401 Certifications in the Subarea. The following are the specifics of the Project Specific “B” TTM WQMP:

- a. A Project Specific WQMP is not necessary for any project that has been covered by a previously approved Project Specific WQMP and which has had no changes from the previous site plan. A copy of the previously approved Project Specific WQMP that covers the tract/site is required at time of submittal of the Project Specific “B” TTM. A Project Specific “B” TTM WQMP is not needed for the RMV community facilities and amenities (e.g. community recreation facilities, dog parks), which are included in the Rough Grade “A” TTM WQMP.
- b. The BMP Exhibit (Site Plan) included in each Project Specific “B” TTM WQMP must meet all requirements in the Model WQMP and WQMP Template and must also:
  - i) include the proposed uses in the project description
  - ii) depict footprints of all buildings and facilities
  - iii) all items listed in (c.) below
  - iv) be consistent with associated grading and building plans for project site
- c. Prior to the issuance of any precise grading or building permit, the applicant shall submit for review and approval by the Manager, Land Development, a Project Specific “B” TTM WQMP that meets the requirements of the Model WQMP and WQMP Template that:
  - i) Specifically identifies applicable LID/DCV treatment BMPs and hydromodification control BMPs from the applicable Conceptual



Planning Area and Rough Grade "A" TTM WQMPs that will be used to control runoff from the project, except for Project Scale (Precise Grading Plans for Site Development Permits and "B" Tentative Tract Maps including amenities) that have already been included in the applicable Rough Grade "A" TTM WQMP, where the Project Specific "B" TTM WQMP shall 1) identify the LID/DCV treatment BMPs and hydromodification control BMPs by reference to the applicable Rough Grade "A" TTM WQMP; 2) verify that the impervious area associated with the project scale area is no greater than that assumed in the Rough Grade "A" TTM WQMP; and 3) include Site Design and Source Control BMPs as identified in Sections i.2 and i.3, below. This Project Specific "B" TTM WQMP shall:

1. Identify the regional water quality and/or hydromodification control facilities (if applicable) for the project and the capacity utilized by the project of the regional water quality and/or hydromodification control facilities;
  2. Include the applicable Site Design BMPs as defined in the current Technical Guidance Document (Section 6), such as minimizing impervious areas, maximizing permeability, minimizing directly connected impervious areas, creating reduced or "zero discharge" areas, and conserving natural areas for the RMV community facilities and amenities ;
  3. Include the applicable Routine structural and non-structural Source Control BMPs as defined in the current Drainage Area Management Plan (DAMP) and the current Technical Guidance Document (Section 3 and Section 6). (County Standard Condition WQ01)
- ii) Demonstrates how surface runoff and subsurface drainage shall be managed and directed to the nearest acceptable drainage facility (as applicable), via sump pumps if necessary. (Standard Condition of Approval, WQ03)

#### **Regional BMP Tracking, County Plan Check, & WQMP/BMP Close Out Procedures**

A Regional BMP tracking form will be submitted as part of Rough Grade "A" TTM WQMP submittals. All of the projects where Project Specific "B" TTM WQMPs will be developed in the TTM will be identified in the tracking spreadsheet with the impervious and pervious area thresholds and water quality volume and hydromodification volumes identified for each project identified. The County Plan Checker will use this tracking spreadsheet as Project Specific "B" TTM WQMPs are submitted to the County for review to verify if impervious and pervious area thresholds and water quality volume and hydromodification volumes associated with



**Figure 1: County of Orange-RMV Regional BMP Tracking Spreadsheet Template**

Subarea X.1		County of Orange - Rancho Mission Viejo - Urban BMP Tracking Form Template																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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BMP Categories (List all that apply):		Biofiltration, Infiltration, Detention with Capture & Use, Detention Only (Hydromodification management only)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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Type	Total Project Area (acres)	Proposed Impervious Area (Acres)	Proposed Pervious Area (Acres)	Impervious %	Pervious %	Low Impact development design capture volume (50/50/50, in cubic feet)	Hydromodification Volume (acres)	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14	B15	B16	B17	B18	B19	B20	B21	B22	B23	B24	B25	B26	B27	B28	B29	B30	B31	B32	B33	B34	B35	B36	B37	B38	B39	B40	B41	B42	B43	B44	B45	B46	B47	B48	B49	B50	B51	B52	B53	B54	B55	B56	B57	B58	B59	B60	B61	B62	B63	B64	B65	B66	B67	B68	B69	B70	B71	B72	B73	B74	B75	B76	B77	B78	B79	B80	B81	B82	B83	B84	B85	B86	B87	B88	B89	B90	B91	B92	B93	B94	B95	B96	B97	B98	B99	B100	B101	B102	B103	B104	B105	B106	B107	B108	B109	B110	B111	B112	B113	B114	B115	B116	B117	B118	B119	B120	B121	B122	B123	B124	B125	B126	B127	B128	B129	B130	B131	B132	B133	B134	B135	B136	B137	B138	B139	B140	B141	B142	B143	B144	B145	B146	B147	B148	B149	B150	B151	B152	B153	B154	B155	B156	B157	B158	B159	B160	B161	B162	B163	B164	B165	B166	B167	B168	B169	B170	B171	B172	B173	B174	B175	B176	B177	B178	B179	B180	B181	B182	B183	B184	B185	B186	B187	B188	B189	B190	B191	B192	B193	B194	B195	B196	B197	B198	B199	B200	B201	B202	B203	B204	B205	B206	B207	B208	B209	B210	B211	B212	B213	B214	B215	B216	B217	B218	B219	B220	B221	B222	B223	B224	B225	B226	B227	B228	B229	B230	B231	B232	B233	B234	B235	B236	B237	B238	B239	B240	B241	B242	B243	B244	B245	B246	B247	B248	B249	B250	B251	B252	B253	B254	B255	B256	B257	B258	B259	B260	B261	B262	B263	B264	B265	B266	B267	B268	B269	B270	B271	B272	B273	B274	B275	B276	B277	B278	B279	B280	B281	B282	B283	B284	B285	B286	B287	B288	B289	B290	B291	B292	B293	B294	B295	B296	B297	B298	B299	B300	B301	B302	B303	B304	B305	B306	B307	B308	B309	B310	B311	B312	B313	B314	B315	B316	B317	B318	B319	B320	B321	B322	B323	B324	B325	B326	B327	B328	B329	B330	B331	B332	B333	B334	B335	B336	B337	B338	B339	B340	B341	B342	B343	B344	B345	B346	B347	B348	B349	B350	B351	B352	B353	B354	B355	B356	B357	B358	B359	B360	B361	B362	B363	B364	B365	B366	B367	B368	B369	B370	B371	B372	B373	B374	B375	B376	B377	B378	B379	B380	B381	B382	B383	B384	B385	B386	B387	B388	B389	B390	B391	B392	B393	B394	B395	B396	B397	B398	B399	B400	B401	B402	B403	B404	B405	B406	B407	B408	B409	B410	B411	B412	B413	B414	B415	B416	B417	B418	B419	B420	B421	B422	B423	B424	B425	B426	B427	B428	B429	B430	B431	B432	B433	B434	B435	B436	B437	B438	B439	B440	B441	B442	B443	B444	B445	B446	B447	B448	B449	B450	B451	B452	B453	B454	B455	B456	B457	B458	B459	B460	B461	B462	B463	B464	B465	B466	B467	B468	B469	B470	B471	B472	B473	B474	B475	B476	B477	B478	B479	B480	B481	B482	B483	B484	B485	B486	B487	B488	B489	B490	B491	B492	B493	B494	B495	B496	B497	B498	B499	B500	B501	B502	B503	B504	B505	B506	B507	B508	B509	B510	B511	B512	B513	B514	B515	B516	B517	B518	B519	B520	B521	B522	B523	B524	B525	B526	B527	B528	B529	B530	B531	B532	B533	B534	B535	B536	B537	B538	B539	B540	B541	B542	B543	B544	B545	B546	B547	B548	B549	B550	B551	B552	B553	B554	B555	B556	B557	B558	B559	B560	B561	B562	B563	B564	B565	B566	B567	B568	B569	B570	B571	B572	B573	B574	B575	B576	B577	B578	B579	B580	B581	B582	B583	B584	B585	B586	B587	B588	B589	B590	B591	B592	B593	B594	B595	B596	B597	B598	B599	B600	B601	B602	B603	B604	B605	B606	B607	B608	B609	B610	B611	B612	B613	B614	B615	B616	B617	B618	B619	B620	B621	B622	B623	B624	B625	B626	B627	B628	B629	B630	B631	B632	B633	B634	B635	B636	B637	B638	B639	B640	B641	B642	B643	B644	B645	B646	B647	B648	B649	B650	B651	B652	B653	B654	B655	B656	B657	B658	B659	B660	B661	B662	B663	B664	B665	B666	B667	B668	B669	B670	B671	B672	B673	B674	B675	B676	B677	B678	B679	B680	B681	B682	B683	B684	B685	B686	B687	B688	B689	B690	B691	B692	B693	B694	B695	B696	B697	B698	B699	B700	B701	B702	B703	B704	B705	B706	B707	B708	B709	B710	B711	B712	B713	B714	B715	B716	B717	B718	B719	B720	B721	B722	B723	B724	B725	B726	B727	B728	B729	B730	B731	B732	B733	B734	B735	B736	B737	B738	B739	B740	B741	B742	B743	B744	B745	B746	B747	B748	B749	B750	B751	B752	B753	B754	B755	B756	B757	B758	B759	B760	B761	B762	B763	B764	B765	B766	B767	B768	B769	B770	B771	B772	B773	B774	B775	B776	B777	B778	B779	B780	B781	B782	B783	B784	B785	B786	B787	B788	B789	B790	B791	B792	B793	B794	B795	B796	B797	B798	B799	B800	B801	B802	B803	B804	B805	B806	B807	B808	B809	B810	B811	B812	B813	B814	B815	B816	B817	B818	B819	B820	B821	B822	B823	B824	B825	B826	B827	B828	B829	B830	B831	B832	B833	B834	B835	B836	B837	B838	B839	B840	B841	B842	B843	B844	B845	B846	B847	B848	B849	B850	B851	B852	B853	B854	B855	B856	B857	B858	B859	B860	B861	B862	B863	B864	B865	B866	B867	B868	B869	B870	B871	B872	B873	B874	B875	B876	B877	B878	B879	B880	B881	B882	B883	B884	B885	B886	B887	B888	B889	B890	B891	B892	B893	B894	B895	B896	B897	B898	B899	B900	B901	B902	B903	B904	B905	B906	B907	B908	B909	B910	B911	B912	B913	B914	B915	B916	B917	B918	B919	B920	B921	B922	B923	B924	B925	B926	B927	B928	B929	B930	B931	B932	B933	B934	B935	B936	B937	B938	B939	B940	B941	B942	B943	B944	B945	B946	B947	B948	B949	B950	B951	B952	B953	B954	B955	B956	B957	B958	B959	B960	B961	B962	B963	B964	B965	B966	B967	B968	B969	B970	B971	B972	B973	B974	B975	B976	B977	B978	B979	B980	B981	B982	B983	B984	B985	B986	B987	B988	B989	B990	B991	B992	B993	B994	B995	B996	B997	B998	B999	B1000
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**Table 1: RMV WQMP Nomenclature**

<b>WQMP Level</b>	<b>Planning Level</b>	<b>Previous Nomenclature</b>	<b>Proposed Nomenclature</b>	<b>OCPW Reviewer</b>
EIR Ranch Planned Community		<ul style="list-style-type: none"> <li>• Community Wide WQMP</li> <li>• Technical Appendix C-2</li> </ul>	Community Wide WQMP	OCPW OC Development Services OCPW Watersheds
Planning Area	Master Area Plan	<ul style="list-style-type: none"> <li>• Planning Area WQMP</li> <li>• Conceptual Master Area Plan WQMP</li> <li>• Draft Master Area Plan WQMP</li> <li>• Final Master Area Plan WQMP</li> </ul>	Conceptual Planning Area WQMP	OCPW OC Development Services OCPW Watersheds
Planning Subarea	Subarea Plan/Master "A" Tentative Tract Map/GA (interim) grading permit	<ul style="list-style-type: none"> <li>• Interim Grading WQMP</li> <li>• Project Specific Subarea WQMP</li> <li>• Conceptual Sub-Area Plan WQMP</li> <li>• Sub-Area Plan WQMP</li> <li>• Final Project Specific WQMP- Sub Area</li> <li>• Master Subarea "A" TTM WQMP</li> </ul>	Rough Grade "A" TTM WQMP	OCPW OC Development Services OCPW Watersheds
Project	Builder WQMP, Precise Grading Plans, "B" Tentative Tract Maps	<ul style="list-style-type: none"> <li>• Builder WQMP</li> <li>• Conceptual Project Specific WQMP</li> <li>• Project Specific WQMP</li> <li>• Final Project Specific WQMP – Project Scale</li> </ul>	Project Specific "B" TTM WQMP	OCPW OC Development Services

**List of Acronyms**

BMP - Best Management Practice

EIR – Environmental Impact Report

DAMP - Drainage Area Management Plan

DCV – Design Capture Volume

HMP - Hydromodification Management Plan

LID – Low Impact Development

MS4 – Municipal Separate Storm Sewer System

RMV - Rancho Mission Viejo

ROMP - Runoff Management Plan

TGD - Technical Guidance Document

TTM – Tentative Tract Map

WQMP - Water Quality Management Plan

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## Memorandum

**DATE:** February 3, 2015

**TO:** OC Development Services/Land Development  
Project Manager: Rose Fistrovic

**FROM:** Manager, Water Quality Compliance

**SUBJECT:** Applicability of Regional Low Impact Development Best Management Practices for the Ranch Plan Planned Community

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Further to our discussions, Water Quality Compliance has reviewed the two guidance memoranda prepared by Geosyntec, specifically, the memoranda of December 20, 2013 (Geosyntec to Richard Boon) and January 9, 2015 (Geosyntec to Gene Strojek). These memoranda are not found to be presenting conflicting interpretations of the Model Water Quality Management Plan (Model WQMP)/Technical Guidance Document (TGD). Moreover, in the unique and specific case of the Rancho Mission Viejo Project, this project's emphasis on the use, in the first instance, of Regional Best Management Practices (BMPs) is appropriate and consistent with the south Orange County Municipal Stormwater Permit (Board Order - R9-2009-0002).

Section F.1.d of Board Order R9-2009-0002 requires the County to ensure that development project proponents mitigate potential water quality impacts by incorporating Low Impact Development (LID) BMPs into the project starting with consideration of the project's site. The use of regional BMPs must be a subordinate consideration in all instances except one. The Geosyntec memo of December 20, 2013 discusses the differences in implementation of the Model WQMP/TGD in north versus south Orange County since these documents deal with two sets of municipal stormwater permit requirements. The memo did not discuss the single exception to the primacy of onsite mitigation created in Section F.1.d(11) of Board Order R9-2009-0002.

Section F.1.d(11) of Board Order R9-2009-0002 (see language below) allows the use of master planned regional LID BMPs where a specific set of criteria are met. The "regional approach" to LID BMP implementation being taken by the Rancho Mission Viejo Project is consistent with this provision and it has been deemed acceptable by the San Diego regional Water Quality Control Board (see attached letter dated March 13, 2014 from David Gibson to Mary Anne Skorpanich).

The project documentation must, however, demonstrate that the regional BMPs are capturing and retaining the volume of runoff produced from the 24-hour 85th percentile storm event as defined in section F.1.d.(6)(a)(i) such that the regional approach performs equivalently to an on-site mitigation scheme. The Geosyntec memo of January 9, 2015 presents this same interpretation. Section F.1.d(11) provides additional guidance in the event that portion of the design capture volume is not retained.

*F.1.d(11): Where a development project, greater than 100 acres in total project size or smaller than 100 acres in size yet part of a larger common plan of development that is over 100 acres, has been prepared using watershed and/or sub-watershed based water quality, hydrologic, and fluvial geomorphologic planning principles that implement regional LID BMPs in accordance with the sizing and location criteria of this Order and acceptable to the Regional Board, such standards shall govern review of projects with respect to Section F.1 of this Order and shall be deemed to satisfy this Order's requirements for LID site design, buffer zone, infiltration and groundwater protection standards, source control, treatment control, and hydromodification control standards. Regional BMPs must clearly exhibit that they will not result in a net impact from pollutant loadings over and above the impact caused by capture and retention of the design storm. Regional BMPs may be used provided that the BMPs capture and retain the volume of runoff produced from the 24-hour 85th percentile storm event as defined in section F.1.d.(6)(a)(i) and that such controls are located upstream of receiving waters. Any volume that is not retained by the LID BMPs, up to the design capture volume, must be treated using LID biofiltration (emphasis added). Where regional LID implementation has been shown to be technically infeasible (per section F.1.d.7.b) any volume up to and including the design capture volume, not retained by LID BMPs, nor treated by LID biofiltration, must be treated using conventional treatment control BMPs in accordance with Section F.1.d.(6) and participation in the LID waiver program in Section F.1.d.(7). [R9-2009-0002; page 41 of 91; December 16, 2009]*

In order to demonstrate compliance with Permit Provision F.1.d(11), RMV Community Development, LLC, or the builders will need to provide an accounting of post-development runoff volume showing that the collective runoff volume from each development sub-section does not exceed the design volume of water quality treatment basin(s) in the approved Master Area WQMP for each respective Planning Area. Attached is an example summary of Builder WQMP post-development runoff assumptions for Planning Area 2.

Notwithstanding the above, the Conceptual WQMP for the Rancho Mission Viejo Project, dated June 7, 2004, intended to consider and incorporate, where applicable and feasible, site design BMPs (see attached excerpt from the Conceptual WQMP for the Rancho Mission Viejo Project). The intent to incorporate these site design principals was carried forward into the Planning Area 2 South Rough Grading WQMP, dated January 20, 2014 (see attached excerpt from the Rough Grading WQMP for Planning Area 2 South).

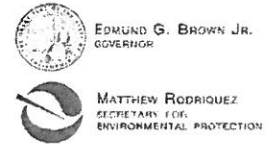
Water Quality Compliance therefore concludes that the reliance by RMV Community Development, LLC, and the builders on regional BMPs is an approach that conforms with Permit Provision Permit Provision F.1.d(11). However, for the project to proceed in a manner that it is consistent with the commitments made in approved environmental documentation, such as the Conceptual WQMP, site design BMPs must be considered and incorporated where feasible at the Project WQMP scale.

Please direct any questions regarding this memo to Richard Boon at (714) 955-0670.



Chris Crompton

- Attachments: 1) March 13, 2014 Letter from David W. Gibson (San Diego Regional Board) to Mary Anne Skorpanich (County of Orange). Subject: Rancho Mission Viejo Development Project Compliance with Development Planning Requirements Under the South Orange County Municipal Separate Storm Sewer (MS4) Permit, Order R9-2009-0002.
- 2) Planning Area 2.1 Builder WQMP Assumptions
- 3) Excerpt from Conceptual WQMP for the Rancho Mission Viejo Project, dated June 7, 2004
- 4) Excerpt from Rough Grading WQMP for Planning Area 2 South, dated January 20, 2014



## California Regional Water Quality Control Board, San Diego Region

March 13, 2014

Mary Anne Skorpanich  
Manager, OC Watersheds  
Orange County Public Works  
2301 N. Glassell Street  
Orange, California 92865-2773

**In reply refer to:**  
**PIN number CW-658018:lwals**

**Subject: Rancho Mission Viejo Development Project Compliance with Development Planning Requirements Under the South Orange County Municipal Separate Storm Sewer System (MS4) Permit, Order No. R9-2009-0002**

Ms. Skorpanich:

The South Orange County Municipal Separate Storm Sewer System (MS4) Permit, Order No. 2009-0002 (Order), provision F.1.d(11) provides an alternative method of compliance for development projects which are based on acceptable watershed and/or sub-watershed scale planning and best management practices (BMP) site design criteria. By letter dated January 21, 2014, you requested the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) acceptance of the County approved regional storm water planning and site design principles for the Rancho Mission Viejo Ranch Development Project (Project) pursuant to provision F.1.d(11) of the Order. The Project is a large master planned development comprised of 23,000 acres in the south-eastern portion of Orange County.

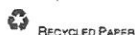
As you know, provision F.1.d of the Order requires each south Orange County Copermittee to impose requirements on Priority Development Projects (PDPs) to manage water quality and hydromodification impacts of the discharges from these PDPs. Further, provision F.1.d(11) of the Order allows a Copermittee to accept a regional watershed and/or sub watershed scale low impact development (LID) BMP project design, for development projects greater than 100 acres or smaller than 100 acres in size, but part of a larger common plan of development that is over 100 acres. This provision also requires that the San Diego Water Board make a determination as to the acceptability of the watershed and/or sub watershed based design standards.

You indicated in your February 4, 2014 email that the County of Orange relied upon the following technical and planning documents to determine that the Project design satisfies provision F.1.d(11) of the Order:

1. The Ranch Plan, Master Plan of development submitted to and approved by the Orange County Board of Supervisors on November 8, 2004;

HENRY ABARBANEL, CHAIR | DAVID GIBSON, EXECUTIVE OFFICER

2375 Northside Drive, Suite 100, San Diego, CA 92108-2700 | (619) 516-1990 | [www.waterboards.ca.gov/sandiego](http://www.waterboards.ca.gov/sandiego)





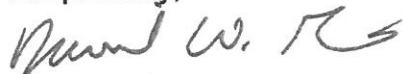
2. The Ranch Plan Program Final Environmental Impact Report (EIR) 589 certified by the Orange County Board of Supervisors on November 8, 2004 with approval of the Ranch Plan;
3. Addendum No. 1 to the Final EIR 589: July 26, 2006, used in conjunction with approval of Planning Area (PA)1;
4. Addendum No. 1.1 to Final EIR 589: February 24, 2011, and PA2 Addendum to Final EIR 589: March 27, 2013, used in conjunction with Planning Commission approval of PA2;
5. The comprehensive regional storm water plan: Ranch Plan Planned Community Runoff Management Plan (ROMP) dated April 16, 2013; and
6. The San Juan Creek Watershed Study, (PACE Engineering, Inc.): July 2010.

You further indicated that these documents describe the entire Project (i.e. to full build out) and the County of Orange's finding of applicability of provision F.1.d(11) applies to all phases of the Project.

The documents you have identified supports the County's determination that the Project is designed using watershed and sub-watershed scale based water quality, hydrologic, and fluvial geomorphologic planning principles. The County approved storm water planning and site design principles for the Project you have cited satisfy the requirements of provision F.1.d(11) of the Order and the County may proceed with any remaining approvals of the Project on that basis.

In the subject line of any response, please include the Primary Identification Number (PIN) CW-658018:lwalsh. If you would like to discuss this matter further please contact Laurie Walsh at (619) 521-3373, email: [Laurie.Walsh@waterboards.ca.gov](mailto:Laurie.Walsh@waterboards.ca.gov).

Respectfully,



David W. Gibson  
Executive Officer

California Regional Water Quality Control Board, San Diego Region

DWG:dtb:esb:law

cc: Distribution list via email: Orange County Copermittees

Tech Staff Info & Use	
Order No.	R9-2009-0002
Party ID	525472
NPDES No.	CAS108740
Reg. Measure ID	332672
Place ID	CW-658018

PA 2.1  
Summary of Builder WQMP Assumptions

Project Name	Grading Permit No.	Tract No.	WQMP Report No.	Project Address	Dwelling Units	Project Area (acre)	% of Impervious (Pre-Project)	% of Impervious (Post Project)	Pre Development DCV (cuft)	Post Development DCV (cuft)
Meritage MR 23 PA 2.1	GB 140120	17566	WQ 14-0028	17566 Cow Camp Rd Mission Viejo, CA 92694	58	10.1	0	60 (6.1 acre)	4950	19798
Lyon AQ1 PA2.1	GB 140152, 140153	17571	WQ 14-0044	17571 Cow Camp Rd Mission Viejo, CA 92694	90	14.22	0	86 (12.2 acre)	6968	30661
Lyon MR1 PA2.1	GB140101, GB140102	17569	WQ 14-0031	17561 MR1 Cow Camp Rd Mission Viejo, CA 92694	94	5.41	0	74.6 (4.036 acre)		10,019
Ryland MR17 PA2.1	GB 140094, GB140095	17573	WQ 14-0030	17573 Cow Camp Rd Mission Viejo, CA 92694	50	5.65	0	76.1 (4.3 acre)		13,309
Ryland MR19 PA2.1	GB 140090, GB140091	17574	WQ 14-0029	17574 Cow Camp Rd Mission Viejo, CA 92694	45	6.31	0	86 (12.2 acre)		15,337
RMV MR22 PA 2.1	GB140119	17565	WQ 14-0040	17565 Cow Camp Rd Mission Viejo, CA 92694	60	7.38	3	46 (3.38 acre)	-	11967
Tri Pointe MR24 PA2.1	GB 140141	17572	WQ 14-0041	17572 Cow Camp Rd Mission Viejo, CA 92694	66	14.87	0	51.9 (7.72 acres)	-	Report not updated
Shea AQ13 PA 2.1	GB 140122	17568	WQ 14-0039	17566 Cow Camp Rd Mission Viejo, CA 92694	63	12.9	0	60 (7.74 acre)	6292	25169
Warrington MR14 PA2.1	GB 140107, 140108	17576	WQ 14-0024	APN 125-161-31 Mission Viejo, CA	62	6.67	0	58 (3.87 acre)	not calculated	14164
Shea AQ13 PA 2.1	GB 140122	17568	WQ 14-0039	17566 Cow Camp Rd Mission Viejo, CA 92694	63	12.9	0	60 (7.74 acre)	6292	25169
Tri Pointe MR15 PA2.1	GB 140113	17577	WQ 14-0027	17577 Cow Camp Rd Mission Viejo, CA 92694	87	14.87	0	57.9 (5.125 acres)	-	16895
Shea AQ21 PA 2.1	GB 140112	17570	WQ 14-0025	17570 Cow Camp Rd Mission Viejo, CA 92694	70	16.81	3	55 (9.26 acre)		Report not updated

# Attachment 3: Excerpt From Conceptual WQMP

DESIGN OPTIONS FROM THE RANCHO MISSION VIEJO CONCEPTUAL WQMP, DATED 6/7/2004

**Table 4-1: Implementation of Site Design BMPs**

LOCAL WQMP SITE DESIGN OPTION/CHARACTERISTICS	PROJECT IMPLEMENTATION
Design Options	
1. <i>Maximize the permeable area.</i>	<ul style="list-style-type: none"> <li>• The proposed development areas are predominantly located on the less infiltrative soils to preserve the permeable substrate often located in the major side canyons and along the valley floor.</li> <li>• In areas not subject to mass grading, the smallest site disturbance area possible will be delineated and flagged and temporary storage of construction equipment will be restricted in these areas to minimize soil compaction on site.</li> </ul>
2. <i>Conserve natural areas.</i>	<ul style="list-style-type: none"> <li>• 67% of the total Project area will be conserved as open space in the B-4 Alternative.</li> <li>• 71% of the total Project area will be conserved as open space in the B-9 Alternative.</li> </ul>
3. <i>Construct walkways, trails, patios, overflow parking lots, alleys, driveways, low-traffic streets and other low traffic areas with open-jointed paving materials or permeable surfaces, such as pervious concrete, porous asphalt, unit pavers, and granular materials.</i>	<ul style="list-style-type: none"> <li>• Trails in reserve areas and parks, and golf cart paths will be constructed with open-jointed paving materials, granular materials, or other pervious materials.</li> </ul>
4. <i>Construct streets, sidewalks and parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised. Incorporate landscaped buffer areas between sidewalks and streets.</i>	<ul style="list-style-type: none"> <li>• Streets, sidewalks, and parking lot aisles will be constructed to the minimum widths specified in the County Land Use Code and in compliance with regulations for the Americans with Disabilities Act and safety requirements for fire and emergency vehicle access.</li> </ul>
5. <i>Reduce widths of street where off-street parking is available.</i>	<ul style="list-style-type: none"> <li>• Streets, sidewalks, and parking lot aisles will be constructed to the minimum widths specified in the County Land Use Code and in compliance with regulations for the Americans with Disabilities Act and safety requirements for fire and emergency vehicle access.</li> </ul>

LOCAL WQMP SITE DESIGN OPTION/CHARACTERISTICS	PROJECT IMPLEMENTATION
6. <i>Maximize canopy interception and water conservation by preserving existing native trees and shrubs, and planting additional native or drought tolerant trees and large shrubs.</i>	<ul style="list-style-type: none"> <li>Existing native trees and shrubs will be conserved in the open space reserve areas.</li> <li>Native or drought tolerant non-invasive trees and large shrubs will be incorporated into non-reserve open space and landscaped areas, where feasible.</li> </ul>
7. <i>Minimize the use of impervious surfaces, such as decorative concrete, in the landscape design</i>	<ul style="list-style-type: none"> <li>Impervious surfaces will be minimized in landscape design.</li> </ul>
8. <i>Use natural drainage systems.</i>	<ul style="list-style-type: none"> <li>Vegetated swales will be used to collect runoff where feasible. Bioinfiltration swales will be used to route flows from the FD/WQ basins to the stream channel.</li> </ul>
9. <i>Where soils conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration.</i>	<ul style="list-style-type: none"> <li>Infiltration basins are used in the combined control system to manage increases in runoff volume.</li> </ul>
10. <i>Construct onsite ponding areas or retention facilities to increase opportunities for infiltration</i>	<ul style="list-style-type: none"> <li>The combined control system includes a FD/WQ basin, an infiltration basin, and vegetated swales that will provide opportunities for infiltration where soil conditions are suitable.</li> </ul>
11. <i>Other site design options that are comparable, and equally effective</i>	<ul style="list-style-type: none"> <li>Low impact design concepts that are distributed within the development bubble will be considered as options that could reduce the need for treatment.</li> </ul>
<b><i>Design Characteristics</i></b>	
1. <i>Where landscaping is proposed, drain rooftops into adjacent landscaping prior to discharging to the storm drain.</i>	<ul style="list-style-type: none"> <li>Roof runoff for low-density housing, education, or commercial development may be directed to planter boxes or vegetated swales located in common areas, or within individual lots.</li> </ul>
2. <i>Where landscaping is proposed, drain impervious sidewalks, walkways, trails, and patios into adjacent landscaping.</i>	<ul style="list-style-type: none"> <li>Runoff from sidewalks, walkways, trails, and patios will be directed into adjacent landscaping or to vegetated swales.</li> </ul>
3. <i>Increase the use of vegetated drainage swales in lieu of underground piping or imperviously lined swales.</i>	<ul style="list-style-type: none"> <li>Unlined vegetated swales will be incorporated except where such infiltration will affect slope stability.</li> </ul>

LOCAL WQMP SITE DESIGN OPTION/CHARACTERISTICS	PROJECT IMPLEMENTATION
<p>4. <i>Use one or more of the following:</i></p> <ul style="list-style-type: none"> <li>a. <i>Rural swale system: street sheet flows to vegetated swale or gravel shoulder, curbs at street corners, culverts under driveways and street crossings</i></li> <li>b. <i>Urban curb/swale system: street slopes to curb; periodic swale inlets drain to vegetated swale/biofilter</i></li> <li>c. <i>Dual drainage system: First flush captured in street catch basins and discharged to adjacent vegetated swale or gravel shoulder, high flows connect directly to municipal storm drain systems</i></li> <li>d. <i>Other design concepts that are comparable and equally effective</i></li> </ul>	<ul style="list-style-type: none"> <li>• Conveyance design will incorporate a rural swale design in estate areas and an urban curb/swale system in residential areas or other design concepts that are comparable and equally effective.</li> </ul>
<p>5. <i>Use one or more of the following features for design of driveways and private residential parking areas:</i></p> <ul style="list-style-type: none"> <li>a. <i>Design driveways with shared access, flared (single lane at street) or wheel strips (paving only under tires); or, drain into landscaping prior to discharging to the municipal storm drain system</i></li> <li>b. <i>Uncovered temporary or guest parking on private residential lots may be: paved with a permeable surface; or, designed to drain into landscaping prior to discharging to the municipal storm drain system</i></li> <li>c. <i>Other design concepts that are comparable and equally effective</i></li> </ul>	<ul style="list-style-type: none"> <li>• Uncovered temporary or guest parking in residential areas will be paved with a permeable surface, designed to drain into landscaping prior to discharging to the municipal storm drain system, or other design concepts that are comparable and equally effective.</li> </ul>
<p>6. <i>Use one or more of the following design concepts for the design of parking areas:</i></p> <ul style="list-style-type: none"> <li>a. <i>Where landscaping is proposed in parking areas, incorporate landscape areas into the drainage design</i></li> <li>b. <i>Overflow parking (parking stalls provided in excess of the Permittee's minimum parking requirements) may be constructed with permeable paving</i></li> <li>c. <i>Other design concepts that are comparable and equally effective</i></li> </ul>	<ul style="list-style-type: none"> <li>• Where landscaping is proposed in parking areas, landscape areas will be incorporated into the drainage design, or other design concepts that are comparable and equally effective.</li> </ul>

# Attachment 4: Excerpt From Rough Grading WQMP

DESIGN OPTIONS FROM THE PLANNING AREA 2 ROUGH GRADING WQMP, DATED 1/20/2004

*Rough Grading Water Quality Management Plan  
The Ranch Plan Planning Area 2 South*

Runoff from developed areas may be reduced by using alternative materials or surfaces with a lower coefficient of runoff, or C Factor. The C Factor is a measure of the ability of a surface to produce runoff. Surfaces that produce higher volumes of runoff are represented by higher C Factors. By incorporating more pervious lower-C-factor surfaces into a development, lower volumes of runoff will be produced. Lower volumes and rates of runoff translate directly to smaller treatment design volumes.

The Local WQMP requires that the site design options and characteristics listed in Table 8 be considered and incorporated, where applicable and feasible, during the site planning and approval process consistent with applicable General Plan policies, other development standards and regulations, and any site design BMPs included in an applicable regional or watershed program. The site design BMPs that are incorporated into the Planning Area 2 project, including in Subarea 2.1 and Subarea 2.2, are listed in Table 8.

**Table 8: Implementation of Site Design BMPs**

Technique	Included		Brief Description of Method
	Yes	No	
<i>Minimize Impervious Area/Maximize Permeability (C-Factor Reduction)</i>	X		<ul style="list-style-type: none"> <li>In areas not subject to mass grading, the smallest site disturbance area possible will be delineated and flagged and temporary storage of construction equipment will be restricted in these areas to minimize soil compaction on site.</li> <li>Extensive landscaped areas will be incorporated into the developed areas.</li> <li>A community trail (Trail Y) will use existing graded Ranch roads that are pervious. Regional riding and hiking trails will be designed to comply with the standards outlined in the Recreation Element of the County General Plan.</li> <li>Streets, sidewalks, and parking lot aisles will be constructed to the minimum widths specified in the County Land Use Code and in compliance with regulations for the Americans with Disabilities Act and safety requirements for fire and emergency vehicle access.</li> <li>Impervious surfaces will be minimized in landscape design.</li> </ul>
<i>Minimize Directly Connected Impervious Areas (DCIAs) (C-Factor Reduction)</i>	X		<ul style="list-style-type: none"> <li>Vegetated swales, or other design concepts that are comparable and equally effective, will be used to convey runoff where feasible.</li> <li>Roof runoff for low-density housing, education, or commercial development may be directed to planter boxes or vegetated swales located in common areas, or other design concepts that are comparable and equally effective.</li> <li>Runoff from sidewalks, walkways, trails, and patios will be directed into adjacent landscaping, to vegetated swales, or other design concepts that are comparable and equally effective.</li> <li>Unlined vegetated swales will be incorporated except where such infiltration will affect slope stability.</li> <li>Uncovered, off-road temporary or guest parking in residential areas will be paved with a permeable surface, designed to drain into landscaping before discharging to the municipal storm drain system, or other design concepts that are comparable and</li> </ul>



Technique	Included		Brief Description of Method
	Yes	No	
			<p>equally effective.</p> <ul style="list-style-type: none"> <li>Conveyance design will incorporate design concepts that are comparable and equally effective as an urban curb/swale system.</li> <li>Where landscaping is proposed in parking areas, landscape areas will be incorporated into the drainage design, or other design concepts that are comparable and equally effective.</li> </ul>
<i>Create Reduced or "Zero Discharge" Areas (Runoff Volume Reduction)</i>	X		<ul style="list-style-type: none"> <li>Existing native trees and shrubs will be conserved in the open space reserve areas.</li> <li>Native or drought-tolerant non-invasive trees and large shrubs will be incorporated into non-reserve open space and landscaped areas, where feasible.</li> <li>The stormwater collection and treatment system will include extended detention basins, bioretention basins, and/or biofiltration basins that will provide opportunities for infiltration where soil conditions are suitable, or harvest and use where stored runoff will be used for irrigation reuse.</li> </ul>
<i>Conserve Natural Areas (C-Factor Reduction)</i>	X		<ul style="list-style-type: none"> <li>35% of the total planning area will be conserved as open space.</li> <li>Additional open space and parks will be provided internal to the development area boundary.</li> <li>Additional open space will be provided through the Open Space Dedication Program in Planning Area 10 in accordance with the County of Orange/RMV Open Space Agreement</li> </ul>

### Design Objectives

The following guidelines shall be implemented to address specific concerns highlighted by the Regional Board:

- Onsite irrigation drainage and any sub-drain systems shall not discharge in an uncontrolled manner down bluffs;
- Roof runoff shall be directed into adjacent landscaping before discharging to the storm drain, to vegetated conveyance or treatment BMPs, and/or to storage facilities for irrigation reuse; and
- Landscaping plans for slopes exceeding one acre and all upland common areas shall use landscape materials that are adaptable to the existing climate and soil conditions.

The selection criteria of structural LID BMPs will be based on the maximum extent practicable standards. Selection will be determined on a site-specific basis considering underlying soil and groundwater conditions, slope stability, structural and utility conflicts, and constructability. The selection hierarchy of structural LID BMPs will follow this order; infiltration, harvest and use, evapotranspiration, and biotreatment. If all structural LID BMPs were deemed infeasible onsite, the design would investigate alternative options



# Guidelines for the Preparation of WQMPs in the Ranch Plan Planned Community

## OC Planning

☎ 714.667.8888

📠 714.667-8885

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✉ [ocpCustomerCare@ocpw.ocgov.com](mailto:ocpCustomerCare@ocpw.ocgov.com)



## **Guidelines for the Preparation of Water Quality Management Plans for the Ranch Plan Planned Community**

The purpose of these guidelines is to clarify for OC Public Works staff, plan check consultants, and development applicants, the process for preparation and review of Water Quality Management Plans (WQMPs) within the Ranch Plan Planned Community. This document is meant for guidance purposes only and does not include all compliance requirements.

A unique **Watershed Based Approach to Water Quality Management within the Ranch Plan Planned Community** was set forth by the Board of Supervisors as part of the November 2004 approval of the Ranch Plan Planned Community and certification of EIR 589, including Section 4.5 (Water Resources) and Technical Appendix C-2 (Community-Wide WQMP).

This unique watershed based approach (i.e., allowable use of regional Best Management Practices [BMPs]) is recognized by the San Diego Regional Water Quality Control Board (South Orange County) MS4 Permit (December 2009) and the *Orange County Stormwater Program New Development/Significant Redevelopment Program Technical Guidance Document for Preparation of Conceptual, Preliminary, and Project WQMPs*, which states:

“Where a development project greater than 100 acres in total project size, or smaller than 100 acres in size yet part of a larger common plan of development that is over 100 acres, has been prepared using watershed and/or sub-watershed based water quality, hydrologic, and fluvial geomorphologic planning principles that implement regional LID BMPs in accordance with the sizing and location criteria of the South County Permit and acceptable to the San Diego Regional Board, such standards shall govern review of projects with respect to Section F.1 of the South County Permit and shall be deemed to satisfy the South County Permit requirements for LID site design, buffer zone, infiltration and groundwater protection standards, source control, treatment control, and hydromodification control standards. Regional BMPs in such plans shall clearly exhibit that they will not result in a net impact from pollutant loadings over and above the impact caused by capture and retention of the design storm with on-site LID BMPs.”

A Project-Specific WQMP will be required for each Regional BMP if the BMP is not included and adequately addressed in another WQMP prepared for a larger project area.

**Ranch Plan Community-Wide, Watershed Based WQMP (Approved):**

The November 2004 approval of the Ranch Plan Planned Community and certification of EIR 589, including Section 4.5 (Water Resources) and Technical Appendix C-2 (Community-Wide WQMP) is the parent document of all subsequent Ranch Plan WQMPs (noted below).

Each subsequent WQMP must be prepared in compliance with the San Diego Region Water Quality Board Order No. R9-2009-0002, the Model Water Quality Plan (Model WQMP) for South Orange County, Orange County Technical Guidance Manual (TGD) and South Orange County Hydromodification Management Plan (HMP). In addition, each WQMP must be prepared utilizing the appropriate South Orange County WQMP Template.

The above documents can be found online at:

<http://www.ocplanning.net/WaterQuality.aspx>.

The process by which Rancho Mission Viejo will demonstrate, and the County of Orange will verify, compliance with the above documents will be:

**Planning Area WQMP – Individual Planning Area Scale (Master Area Plans):**

- a. Prior to the approval of a Master Area Plan for each Planning Area, the applicant shall prepare a Master Area Plan WQMP that:
  - i) is consistent with the terms and content of the Conceptual Water Quality Approach for the Ranch Plan - EIR 589, Section 4.5 (Water Resources) and Technical Appendix C-2 (Community-Wide WQMP), and
  - ii) provides more particularized information and detail concerning how the provisions of the Watershed Based Approach to Water Quality Management Within the Ranch Plan - EIR 589, Section 4.5 (Water Resources) and Technical Appendix C-2 (Community-Wide WQMP) will be implemented within the area covered by the individual Master Area Plan.
- b. At a minimum, each Master Area Plan WQMP will provide supplemental and refined information concerning:
  - i) how site design, source control, treatment control, and hydromodification control BMPs will be implemented at the Master Area Plan level for the area in question,
  - ii) potential structural treatment and hydromodification control facility sizing and location within the subject Master Area Plan area, and

- iii) monitoring, operation and maintenance of stormwater BMPs within the relevant Master Area Plan area. (EIR 589, Mitigation Measure 4.5-3).
- c. Each Master Area Plan WQMP will include analyses that demonstrate that proposed regional treatment and hydromodification control BMPs will not result in a net impact from pollutant loadings over and above the impact caused by capture and retention of the design storm with on-site LID BMPs, per the requirement of the South Orange County MS4 Permit.

**Interim Grading WQMP - Subarea Scale (Master "A" Tentative Tract Map):**

- a. Prior to first GA (interim) grading permit within each Master "A" Tentative Tract Map or Subarea Plan for any portion of the project area that is the subject of an approved Master Area Plan, the applicant shall prepare a Interim Grading WQMP that:
  - i) is consistent with the terms and content of the Community - Wide WQMP,
  - ii) is consistent with the terms and content of the relevant Master Area Plan WQMP (see MM 4.5-3), and
  - iii) provides more particularized information and detail concerning how the provisions of the Conceptual WQMP and the relevant Master Area Plan WQMP will be implemented within the area covered by the individual Subarea Plan.
- b. At a minimum, each Interim Grading WQMP will provide supplemental and refined information concerning:
  - i) How site-design, source-control, treatment control, and hydromodification control BMPs will be implemented at the Subarea Plan level,
  - ii) The specific calculations for size, location and design features to be used for the construction of the structural treatment and hydromodification control facilities to be developed within the subject Subarea Plan, and
  - iii) Monitoring, operation and maintenance of the stormwater BMPs within the relevant Subarea Plan (EIR 589, Mitigation Measure 4.5-4),
  - iv) Specifically, if there are WQ basins included within the GA grading permit boundaries, the WQMP must provide evidence the sizing of these facilities is adequate,

- v) Also, if model homes are Project Scale (precise grading and building permit approved) improvements allowed per this Interim WQMP, the applicant must demonstrate that interim Regional BMPs are in place prior to the eventual installation of permanent Regional BMPs, and
  - vi) Information regarding the option selected (“basin” or “lake”) for that Subarea, as described in the approved Master WQMP for that Planning Area
- c. Prior to issuance of the each GA (interim) grading permit, a condition shall be added to the project require the submittal of a Project Specific WQMP prior to issuance of a subsequent GB (precise) grading permit.

**Conceptual Project Specific WQMP – Project Scale (Discretionary Review Process)**

- a. A Conceptual WQMP is not necessary for any project that has been covered by a previously approved Project Specific WQMP and which has had no changes from the previous site plan. Evidence of inclusion in a previously approved WQMP (e.g., copy of approved BMP Exhibit/Site Plan) is required at time of submittal.
- b. A Conceptual Project Specific WQMP must be submitted with each Planning Application submitted for discretionary approval.
- c. The Conceptual WQMP must address all of the items listed in the Project Specific WQMP below and must meet the requirements of the Model WQMP and WQMP Template.
- d. The Conceptual WQMP must be submitted in the format described in the *“Instructions to Prepare a Conceptual WQMP.”*
- e. The Conceptual WQMP must be used as the basis for the Final WQMP that is submitted prior to issuance of any subsequent grading permit or building permit associated with the site development permit.

**Final Project Specific WQMP - Project Scale (Precise Grading Plans for Site Development Permits and “B” Tentative Tract Maps):**

- a. A Final Project Specific WQMP is not necessary for any project that has been covered by a previously approved Project Specific WQMP and which has had no changes from the previous site plan. Evidence of inclusion in a

previously approved WQMP (e.g., copy of approved BMP Exhibit/Site Plan) is required at time of submittal.

- b. The BMP Exhibit (Site Plan) included in each Final Project Specific WQMP must meet all requirements in the Model WQMP and WQMP Template and must also:
  - i) include the proposed uses in the project description
  - ii) depict footprints of all buildings and facilities
  - iii) all items listed in (c.) below
  - iv) be consistent with associated grading and building plans for project site
- c. Prior to the issuance of any GB precise grading or building permit, the applicant shall submit for review and approval by the Manager, Planned Communities, a Final Project Specific WQMP that meets the requirements of the Model WQMP and WQMP Template that:
  - i) Specifically identifies applicable structural treatment and hydromodification control BMPs from the applicable Planning Area and Interim Grading WQMPs that will be used to control runoff from the project. This Project WQMP shall:
    - 1. Identify the regional water quality and/or hydromodification control facilities (if applicable) for the project;
    - 2. Address Site Design BMPs (as applicable) such as minimizing impervious areas, maximizing permeability, minimizing directly connected impervious areas, creating reduced or “zero discharge” areas, and conserving natural areas;
    - 3. Include the applicable Routine structural and non-structural Source Control BMPs as defined in the current Drainage Area Management Plan (DAMP). (County Standard Condition WQ01)
  - ii) Demonstrates how surface runoff and subsurface drainage shall be managed and directed to the nearest acceptable drainage facility (as applicable), via sump pumps if necessary. (Standard Condition of Approval, WQ03)



# COUNTY OF ORANGE

## RESOURCES & DEVELOPMENT MANAGEMENT DEPARTMENT

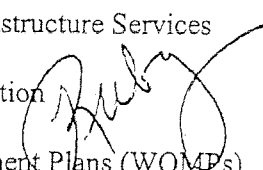
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Telephone: (714) 834-2300  
Fax: (714) 834-5188

DATE: November 21, 2006

TO: Harry Persaud, Manager, PDS/Subdivision & Infrastructure Services

FROM: Ruby Maldonado, Chief, PDS/Special Projects Section 

SUBJECT: Review of the Ranch Plan Water Quality Management Plans (WQMPs)

In consultation with Jay Bullock and Sam Couch, representatives of Rancho Mission Viejo (RMV), the County has developed the following Five-Level review process for WQMPs that are submitted for the Ranch Plan Planned Community:

- Level One: The 2004 certification of EIR 589, including the water quality analysis in Section 4.5 (Water Resources) and Technical Appendix C-2 (Conceptual WQMP) set the **Long-Range Regional Water Quality Approach** for the entire Ranch Plan Planned Community, and shall be the basis for all subsequent WQMPs.
- Level Two: Prior to the approval of each Master Area Plan, RMV will submit at least 3 copies of the **Draft WQMP for Master Area Plan – Planning Area “1” (or “2”, or “3”, or “4”, or “5”)** as part of the environmental review process to PDS/Environmental Planning. This WQMP will be “conceptual” in nature due to the preliminary land planning at this stage and will meet the definition of a “conceptual WQMP” for this project.

PDS/Environmental Planning will submit the Draft WQMP for review and comment by PDS/Special Projects and Watershed and Coastal Resources. This review shall focus on consistency with the regional approach laid out in Level One. PDS/Special Projects will maintain a checklist of what is expected as part of the Draft WQMP, in addition to the details required prior to clearance of Mitigation 4.5-3.

- Level Three: Prior to issuance of the first grading permit in the area covered by the Draft WQMP, RMV will submit the **Final WQMP for Master Area Plan – Planning Area “1” (or “2”, or “3”, or “4”, or “5”)** for review and approval by PDS/Special Projects. It will be based upon the Draft WQMP submitted at Level Two but may contain refinements as necessary. Review by Watershed and Coastal Resources shall focus on consistency with the regional approach laid out in Levels One and Two.



- Level Four: Prior to issuance of the first grading permit in each Subarea (usually the mass grading GA for each "A" TT Map), RMV will submit a **Subarea WQMP** for review and approval by PDS/Special Projects. Again, Mitigation 4.5-4 requires additional details to be addressed prior to clearance. Watershed and Coastal Resources is not involved in this level of review, as long as it is clear that the Subarea WQMP is consistent with the regional approach outlined in Levels One and Two.

The Subarea WQMP will contain post-construction BMPs selected by RMV that will be appropriate to meet the NPDES requirements for the type of proposed construction and future land uses. (The first **Subarea WQMP** in each Planning Area may be submitted concurrently with the **Final WQMP for Master Area Plan** for that Planning Area.)

- Level Five: Prior to the issuance of GB grading permits and/or building permits for construction of buildings, a more detailed **Project Specific WQMP** is necessary for review and approval by PDS/Special Projects, unless all of the specific land use development related BMP issues have clearly been addressed by either the Level Three Final WQMP or Level Four Subarea WQMP. Again, Watershed and Coastal Resources is not involved in this level of review, as long as it is clear that the WQMP is consistent with the regional approach outlined in Levels One and Two. Mitigation 4.5-8 requires additional details to be addressed prior to clearance.

The review and approval of the Final WQMP for Planning Area 1, which has previously been submitted, will be completed by PDS/Special Projects. All subsequent WQMPs will be reviewed by the Professional Engineering Services (PES) team assembled to provide Plan Review services to RDMD. This review will be supervised by PDS/Special Projects and the approval of each WQMP will remain the responsibility of PDS/Special Projects.

If you have any questions regarding the WQMP Five-Level review and approval process for the Ranch Plan Planned Community, please let me know.

cc: Tim Neely, Director, PDS  
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 Rick Sherry, PDS/Special Projects  
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