

# **Priority Project Preliminary Water Quality Management Plan (WQMP)**

**Project Name:**

**PLACENTIA AVENUE SITE, TTM 17772**

1560 PLACENTIA AVENUE, NEWPORT BEACH, CA 92660

APN: 424-131-18

**Prepared for:**

EBB Tide, LLC  
PO Box 19583  
Irvine, CA 92623  
Contact: Sunti Kumjim  
Project Manager  
(949) 274-5683

**Prepared by:**

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**Preparation Date:**

July 2014  
Revised September 2014

**Water Quality Management Plan (WQMP)**  
**Placentia Ave- Newport Beach**

<b>Project Owner's Certification</b>			
Permit/Application No.	PA 2014-110	Grading Permit No.	TBD
Tract/Parcel Map No.	TTM 17772	Building Permit No.	TBD
CUP, SUP, and/or APN (Specify Lot Numbers if Portions of Tract)			APN: 424-131-18 1560 Placentia Ave.

This Water Quality Management Plan (WQMP) has been prepared for EBB Tide, LLC by C&V Consulting. The WQMP is intended to comply with the requirements of the local NPDES Stormwater Program requiring the preparation of the plan.

The undersigned, while it owns the subject property, is responsible for the implementation of the provisions of this plan and will ensure that this plan is amended as appropriate to reflect up-to-date conditions on the site consistent with the current Orange County Drainage Area Management Plan (DAMP) and the intent of the non-point source NPDES Permit for Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and the incorporated Cities of Orange County within the Santa Ana Region. Once the undersigned transfers its interest in the property, its successors-in-interest shall bear the aforementioned responsibility to implement and amend the WQMP. An appropriate number of approved and signed copies of this document shall be available on the subject site in perpetuity.

<b>Owner: Sunti Kumjim</b>			
Title	Project Manager		
Company	EBB Tide, LLC		
Address	PO Box 19583 Irvine, CA 92623		
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Signature		9/9/14	Date

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## Attachments

Attachment A .	.....	Educational Materials
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Attachment G.	.....	Preliminary WQMP Exhibit & Tentative Tract Map, Sheets 3 & 4

# Section I Discretionary Permit(s) and Water Quality Conditions

<b>Project Information</b>			
Permit/ Application No.	PA 2014-110	Tract/Parcel Map No.	TTM 17772
Additional Information/ Comments:	1560 Placentia Avenue, Newport Beach, CA 92660		
<b>Water Quality Conditions</b>			
Water Quality Conditions (list verbatim)	Conditions of Approval for this project have not been issued at this time. This section will be completed during final engineering at a later date.		
<b>Watershed-Based Plan Conditions</b>			
Provide applicable conditions from watershed - based plans including WIHMPs and TMDLS.	Lower Newport Bay has established TMDL for Sediment, Nutrient, Fecal Coliform and Toxicity.  Additional information to be provided during final engineering.  No WHIMPs are available for the Newport Bay Watershed at this time.		

## Section II Project Description

### II.1 Project Description

Description of Proposed Project				
Development Category (Verbatim from WQMP):	Priority Project - Category 1 per City of Newport Beach, Grading Plan Checklist  Per Orange County Model WQMP, Exhibit 7.11-1.2 for Priority Projects: "New development projects that create 10,000 square feet or more of impervious surface. This category includes commercial, industrial, residential housing subdivisions, mixed-used, and public projects on private or public projects on private or public property that falls under the planning and building authority or the Permittees."			
Project Area (ft <sup>2</sup> ): 202,554	Number of Dwelling Units: 83		SIC Code: n/a	
Narrative Project Description:	The proposed project will consist of approximately 83 townhome units located at 1560 Placentia Avenue in the City of Newport Beach. At a conceptual level, the project will utilized a proposed land use designation of Medium Residential. The project proposes three (3) plan types, with 2-3 bedrooms units with flex bedroom addition with 3.5 bathrooms. Each unit will be detached with individual two (2) garage and private back/ rear yards. The proposed development will provide washer/ dryer hook-ups and individual trash service. The proposed plan types will range from approximately 2,167 to 2,503 square feet.  A proposed community open space area equipped with landscaping and outdoor seating has been incorporated into the site design. An additional 42 onsite guest parking is provided. The site has one (1) proposed project entry off of Placentia Avenue. Various landscaping and walkways with decorative pavement has been included within the design concept.			
Project Area	Pervious		Impervious	
	Area (acres or sq ft)	Percentage	Area (acres or sq ft)	Percentage
Pre-Project Conditions	0.47	10%	4.18	90%
Post-Project Conditions	1.33	29%	3.32	71%

Drainage  
Patterns/Connections

Currently the site is developed as a Pre-manufacture red Mobile Home facility and majority of the site paved or impervious cover. Generally, the site surface flows to the northerly property line to a sump area with a restricted pump.

Typically developments are designed match the existing historical drainage pathways, however this project due to the existing use, the site proposes to connect to an existing City storm drain system within Placentia Avenue. Matching the existing drainage condition to the north is not feasible and will cause cross lot drainage concerns.

The proposed onsite storm water runoff will be collected by a series of onsite catch basins. These catch basins will convey storm water runoff to Biofiltration Systems that will treat the storm water runoff before conveying downstream. At the most downstream end of the proposed onsite storm drain system will be an in stream Filtration device. This device will treat the storm water runoff collected by the Biofiltration systems.

Due to the proximity of the site to the Lower Newport Bay/ Pacific Ocean, the secondary treatment facility (Filtration Device) will ensure that all pollutants of concern procedure by this development will be captured.

During final engineering, all onsite catch basins, pipe sizing and area drain system will be calculated and designed.

Refer to the Preliminary WQMP Exhibit located in Attachment G of this report.

## II.2 Potential Stormwater Pollutants

Pollutants of Concern			
Pollutant	Circle One:		Additional Information and Comments
	E=Expected to be of concern	N=Not Expected to be of concern	
Suspended-Solid/ Sediment	E	N	
Nutrients	E	N	
Heavy Metals	E	N	
Pathogens (Bacteria/Virus)	E	N	
Pesticides	E	N	
Oil and Grease	E	N	
Toxic Organic Compounds	E	N	
Trash and Debris	E	N	

### II.3 Hydrologic Conditions of Concern

No - Show map

Yes - Describe applicable hydrologic conditions of concern below.

Refer to the Susceptibility Analysis for Newport Bay-Newport Coastal Streams, Figure XVI-3d per the Technical Guidance Document (TGD) located with Attachment D of this report.

The proposed development's storm water runoff will enter into a City Storm Drain facility and ultimately outlet to the Lower Newport Bay/ Pacific Ocean.

All downstream streams are considered engineered; therefore HCOCs are not required for this site.

## II.4 Post Development Drainage Characteristics

Currently, the site surface flows to the center of the northerly property line to a sump area with a non-restricted pump.

The proposed project will extend the existing City Storm Drain from 15<sup>th</sup> Street and Placentia Avenue to the site. The proposed site will convey and ultimately connect to the existing storm drain extension. Since time of concentration is greater to the existing pump versus the proposed system the proposed development will increase runoff but will mitigate flow by use of an orifice plate.

The proposed onsite storm water runoff will be collected by a series of onsite catch basins. These catch basins will convey storm water runoff to Biofiltration Systems that will treat the storm water runoff before conveying downstream. At the most downstream end of the proposed onsite storm drain system will be an in stream Filtration device. This device will treat the storm water runoff collected by the Biofiltration systems.

Due to the proximity of the site to the Lower Newport Bay/ Pacific Ocean, the secondary treatment facility (Filtration Device) will ensure that all pollutants of concern procedure by this development will be captured.

During final engineering, all onsite catch basins, pipe sizing and area drain system will be calculated and designed.

## II.5 Property Ownership/Management

Ebb Tide LLC, (Owner/Developer) will coordinate a Homeowner's Association (HOA) or Property Management Company (PMC) to manage the operation and maintenance of the property.

Ebb Tide LLC

4 Park Plaza #1000

Irvine, CA 92610

949-916-3800

## Section III Site Description

### III.1 Physical Setting

Planning Area/ Community Name	City of Newport Beach, near the border of the City of Costa Mesa
Location/Address	1560 Placentia Avenue
	Newport Beach, CA 92660
Land Use	Multiple-Unit Residential (RM) per City of Newport Beach's General Plan
Zoning	Multiple-Unit Residential (RM) per City of Newport Beach's Zoning District
Acreage	4.65 acres
Predominant Soil Type	Per TGD, Figure XVI2a, NRCS Hydrology Soils Group the site is located within Soil Type D. Refer to Attachment D of this report for a copy of the map.  For site specific soil information, refer to Section III.2 and Attachment E of this report.

### III.2 Site Characteristics

Precipitation Zone	0.70" Per Rainfall Zone, Figure XVI-1 per the Orange County Technical Guidance
Topography	The existing site is generally flat, sloping towards the center of the northerly property line. Per field survey, the site ranges in elevations from 105.5 to 103.4 feet above mean sea level.
Drainage Patterns/Connections	The existing site is flat in nature and sheet flows to the existing sump area located in the center of the northerly property line. The existing site is mostly impervious and was utilized as a pre-manufactured mobile home facility. No underground storm drain exists in the project site.

<p>Soil Type, Geology, and Infiltration Properties</p>	<p>Per the Preliminary Geotechnical Review Summary prepared by Associated Soils Engineering dated February 24, 2014, the following geotechnical conditions were presented for the site based on five (5) drillings at depths to a maximum of 50 feet below the existing ground surface:</p> <p>“Terrace Deposits: silty sandy clay and silt, dense, moist”</p> <p>“Active Newport-Inglewood fault zones less than 0.5 miles to the southwest”</p> <p>Refer to Attachment E of this report for a copy of the Geotechnical information.</p>
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<p style="text-align: center;"><b>Site Characteristics (continued)</b></p>	
<p>Hydrogeologic (Groundwater) Conditions</p>	<p>Per the Preliminary Geotechnical Review Summary prepared by Associated Soils Engineering dated February 24, 2014,</p> <p>“Groundwater [was] not encountered during [explorations] on in CPT soundings to a maximum depth of 50 feet.”</p> <p>Per TGD, Figure XVI-2d, North Orange County Mapped Depth to First Groundwater the site is located within areas having groundwater levels at approximately 30 feet. Refer to Attachment D of this report for a copy of the map.</p> <p>Refer to Attachment E of this report for a copy of the Geotechnical information.</p>
<p>Geotechnical Conditions (relevant to infiltration)</p>	<p>Per the Preliminary Geotechnical Review Summary prepared by Associated Soils Engineering dated February 24, 2014,</p> <p>“Water Infiltration Rates consist of 0.045 inches per hour”</p> <p>Due to the low infiltration rates, this site will not be suitable for infiltration BMPs.</p> <p>Refer to Attachment E of this report for a copy of the Geotechnical information.</p>
<p>Off-Site Drainage</p>	<p>No off site drainage enters the property.</p>

Utility and Infrastructure Information	<p>Utilities are proposed to be underground, including proposed Water, Sanitary Sewer and Storm Drain systems.</p> <p>The City of Newport Beach services this site for Storm Drain and Sanitary Sewer services.</p> <p>Mesa Consolidated Water District services this site for Water services.</p>
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### III.3 Watershed Description

Receiving Waters	The proposed site's storm water runoff will enter into an existing City Storm Drain system that will outlet to the Lower Newport Bay/ Pacific Ocean.
303(d) Listed Impairments	Metals, Organics/ Pesticides, Bacteria, Nutrients, Sediment Toxicity
Applicable TMDLs	Lower Newport Bay has established TMDL for Sediment, Nutrient, Fecal Coliform and Toxicity.
Pollutants of Concern for the Project	Suspended solids, Sediment, Nutrients, Pathogens (Bacteria/ Virus), Oil & Grease, Trash & Debris
Environmentally Sensitive and Special Biological Significant Areas	The project site is not located within any known Environmentally Sensitive Areas (ESA) or Areas of Special Biological Significance (ASBS).

## Section IV Best Management Practices (BMPs)

### IV. 1 Project Performance Criteria

Is there an approved WIHMP or equivalent for the project area that includes more stringent LID feasibility criteria or if there are opportunities identified for implementing LID on regional or sub-regional basis?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
If yes, describe WIHMP feasibility criteria or regional/sub-regional LID opportunities.	n/a	

## Project Performance Criteria (continued)

<p>If HCOC exists, list applicable hydromodification control performance criteria (Section 7.II-2.4.2.2 in MWQMP)</p>	<p>Per 7.II-2.4.2.2 of the Model WQMP, HCOC exists for when the post-construction time of concentration and volume of storm water increases beyond 5% of a 2-year storm event thus potentially increasing the downstream erosion and adversely impacts on physical structure, aquatic, and riparian habitat.</p> <p>If the excess volume cannot feasibly be retained, then retain the excess volume from the 2-year runoff event to the maximum extent possible and implement on-site hydromodification controls such that post-development runoff 2-year peak flow rate is not greater than 110% of the pre-development runoff 2-year peak flow rate.</p>
<p>List applicable LID performance criteria (Section 7.II-2.4.3 from MWQMP)</p>	<p>Per 7.II-2.4.2.3 if the Model WQMP, the available LID Treatment BMPs to be utilized in reducing the post-development impacts include shallow infiltration, harvest and use, evapotranspiration, or biotreat/biofilter, the 85<sup>th</sup> percentile of a 24-hour storm event.</p>
<p>List applicable treatment control BMP performance criteria (Section 7.II-3.2.2 from MWQMP)</p>	<p>Per 7.II-3.2.2 of the Model WQMP, if the LID performance criteria are not feasibly met by retention and/or biotreatment, then sizing of onsite treatment control BMPs are required. Sizing of these treatment control BMPs will include, if applicable, any Water Quality credits as calculated per the Technical Guidance Document. If the additional required volume cannot be met, however has a medium to high effectiveness for reducing the primary POCs, the project is considered to be in compliance, then a waiver application and participation in an alternative program may be not required.</p> <p>If the cost of providing treatment control BMPs greatly outweighs the pollution control benefits, a waiver of treatment control and LID requirements can be requested.</p>
<p>Calculate LID design storm capture volume for Project.</p>	<p><math>DCV_{EX} = 4.65 \text{ ac} \times ((0.90 \times 0.75) + 0.15) \times 0.70 \text{ in} \times 43560 \text{ sf/sc} \times (1/12) \text{ in/ft} = 9,748 \text{ cf}</math>        (simple method)</p> <p><math>DCV_{PROP} = 4.765 \text{ ac} \times ((0.71 \times 0.75) + 0.15) \times 0.53 \text{ in} \times 43560 \text{ sf/sc} \times (1/12) \text{ in/ft} = 6,106 \text{ cf}</math>        (Worksheet A &amp; B – Reference Attachment C)</p>

## IV.2. SITE DESIGN AND DRAINAGE PLAN

The site is divided into five (5) Drainage Management Areas as noted below. The proposed DMAs were derived from the project's separately prepared Preliminary Hydrology Report based on the propose drainage design. Each drainage area will have sump areas to collect and convey storm water runoff. Runoff will be collected by catch basins equipped with a two (2) Filterra Biofiltration System (or approved equal) that will treat the storm water runoff before outleting into the onsite storm drain system. Area drain systems to collect roof runoff and landscaped areas will be designed during final engineering. Runoff from these areas will be conveyed to the Biofiltration Systems.

The storm drain system will then convey the drainage to an in steam Katchall Kleenspout Filtration Device (or approved equal) for additional treatment. Flows in excess of the design capture volume and system capacity will by-pass the catch basins and discharge through the proposed driveway directly to the Placentia Avenue.

Small amounts of untreated drainage will not be intercepted by on-site drainage system at the driveways and will be discharged directly to the streets. This is caused by the grade breaks associated with entering the site at the driveways and sidewalks and is not a significant impact to the project.

Refer to Attachment G to reference the proposed Preliminary Grading & Drainage and Utility Plans to support the entitlement and Tentative Tract Map.

Refer to Attachment C of this report for BMP information.

### **Drainage Management Areas (DMA):**

Refer to the Preliminary WQMP Exhibit in Attachment Gof this report for reference to the Drainage Management Areas.

<b>Drainage Area No. (DMA)</b>	<b>Area (ac)</b>	<b>DCV (cf)</b>	<b>Design Flow Rate (cfs) *</b>	<b>Proposed BMPs</b>
A	0.78	1,024	0.117	(2) Filterra Biofiltration Systems (or approved equal) Model 4x6.5 (Treatment Capacity 0.06 cfs, each)
B	0.94	1,234	0.142	(2) Filterra Biofiltration Systems (or approved equal) Model 4x8 (Treatment Capacity 0.07 cfs, each)
C	0.85	1,116	0.128	(2) Filterra Biofiltration Systems (or

				approved equal) Model 4x8 (Treatment Capacity 0.07 cfs, each)
D	1.08	1,393	0.163	(2) Filterra Biofiltration Systems (or approved equal) Model 4x10 (Treatment Capacity 0.09 cfs, each)
E	1.02	1,339	0.154	(2) Filterra Biofiltration Systems (or approved equal) Model 4x10 (Treatment Capacity 0.09 cfs, each)
Σ	4.65	6,106	0.70	--
Overall	4.65	6,106	0.70	(1) Katchall Kleenspout Filtration Device (or approved equal) Model 446 – Size 4’x4’x6’ (Filtered Flow Capacity 7.2 cfs)

### IV.3 LID BMP SELECTION AND PROJECT CONFORMANCE ANALYSIS

#### IV.3.1 Hydrologic Source Controls

Name	Included?
Localized on-lot infiltration	<input type="checkbox"/>
Impervious area dispersion (e.g. roof top disconnection)	<input checked="" type="checkbox"/>
Street trees (canopy interception)	<input checked="" type="checkbox"/>
Residential rain barrels (not actively managed)	<input type="checkbox"/>
Green roofs/Brown roofs	<input type="checkbox"/>
Blue roofs	<input type="checkbox"/>
Impervious area reduction (e.g. permeable pavers, site design)	<input type="checkbox"/>
Other:	<input type="checkbox"/>

\*HSC BMPs have been implemented within the overall site design. Refer to Worksheets A & B within Attachment F of this report. For BMP locations, refer to the Preliminary WQMP Exhibit within Attachment F of this report.

**Impervious Area Dispersion:** Impervious area dispersion refers to the practice of routing runoff from pervious areas, such as rooftops, walkways, and patios onto the surface of adjacent pervious areas. Runoff-is dispersed uniformly via splash block and soaks into the ground as it moves slowly across the surface of pervious areas. Minor ponding may occur, but it is not the intent of this practice to actively promote on-lot storage or infiltration. Standing water is not allowed. This is the first element in the treatment train.

**Street Trees:** By intercepting rainfall, trees can provide several aesthetic and storm water benefits including peak flow control, increased infiltration and ET, and runoff temperature reduction. The

volume of precipitation intercepted by the canopy reduces the treatment volume required for downstream treatment BMPs. Shading reduces the heat island effect as well as the temperature of adjacent impervious surfaces, over which storm water flows, and thus reduces the heat transferred to downstream receiving waters. Tree roots also strengthen the soil structure and provide infiltrative pathways, simultaneously reducing erosion potential and enhancing infiltration.

### IV.3.2 Infiltration BMPs

Name	Included?
Bioretention without underdrains	<input type="checkbox"/>
Rain gardens	<input type="checkbox"/>
Porous landscaping	<input type="checkbox"/>
Infiltration planters	<input type="checkbox"/>
Retention swales	<input type="checkbox"/>
Infiltration trenches	<input type="checkbox"/>
Infiltration basins	<input type="checkbox"/>
Drywells	<input type="checkbox"/>
Subsurface infiltration galleries	<input type="checkbox"/>
French drains	<input type="checkbox"/>
Permeable asphalt	<input type="checkbox"/>
Permeable concrete	<input type="checkbox"/>
Permeable concrete pavers	<input type="checkbox"/>
Other:	<input type="checkbox"/>
Other:	<input type="checkbox"/>

Infiltration BMPs cannot be utilized on this due to the sites soils are not suitable for infiltration.

**IV.3.3 Evapotranspiration, Rainwater Harvesting BMPs**

Name	Included?
All HSCs; <i>See Section IV.3.1</i>	<input type="checkbox"/>
Surface-based infiltration BMPs	<input type="checkbox"/>
Biotreatment BMPs	<input type="checkbox"/>
Above-ground cisterns and basins	<input type="checkbox"/>
Underground detention	<input type="checkbox"/>
Other:	<input type="checkbox"/>
Other:	<input type="checkbox"/>
Other:	<input type="checkbox"/>

n/a

### IV.3.4 Biotreatment BMPs

Name	Included?
Bioretention with underdrains	<input type="checkbox"/>
Stormwater planter boxes with underdrains	<input type="checkbox"/>
Rain gardens with underdrains	<input type="checkbox"/>
Constructed wetlands	<input type="checkbox"/>
Vegetated swales	<input type="checkbox"/>
Vegetated filter strips	<input type="checkbox"/>
Proprietary vegetated biotreatment systems	<input checked="" type="checkbox"/>
Wet extended detention basin	<input type="checkbox"/>
Dry extended detention basins	<input type="checkbox"/>
Other:	<input type="checkbox"/>
Other:	<input type="checkbox"/>

**Proprietary Vegetated Biotreatment System:**

The proposed development will be utilizing a proprietary vegetated biotreatment system in which is referred to within this report as a Biofiltration System. Kristar Filterra Biofiltration Systems use wetlands technology with an engineered mixed planting media that filters storm water runoff through a natural process. The Filterra units are pre-cast concrete vaults that can be sized to accommodate runoff flows of a 25-year storm event, thus treating more than the required water quality flows. Each vault includes a pre-plumbed drip irrigation to keep the plant life sustained during storm events. Each Drainage Management Area will have at a minimum one (1) Biofiltration system to treat the storm water runoff.

The Kristar Filterra Biofiltration systems have a treatment capacity of 0.37 cfs. The treatment is governed by the amount of infiltrating plant media surface. The biofiltration system will convey flows through a curb inlet opening. This inlet will be equipped with a trash rack to prevent unnecessary media clogging.

Biofiltration systems were selected as the primary BMP due to the pollutant removal rates, relatively low footprint and overall maintenance schedule. Trees and/ or planting can easily be incorporated into the overall Landscape and Architectural design throughout the entire site. Alternative bioretention BMPs, such as vegetative swales, bioretention areas and detention

facilities would require vast amount of space to treat a project of this size and could potentially create drowning hazards due to the required depths in order to accommodate the required design capture volume. In addition, alternative bioretention BMPs such as the vegetative swales have a relative low performance rating per the TGD, Table 4.2 in comparison to the third party pollutant removal testing provided by Kristar. Each Biofiltration System BMP selected can be designed to remove specific pollutants based on the proposed development.

Refer to Attachment C of this report for information regarding BMP specification and the third party pollutant removal testing.

Refer to Section V of this report for additional information related to long maintenance.

Per Worksheet D located within Attachment F of this report calculates the required Treatment flow rate of 0.70 cfs for the entire site. The DMA design flow rates were prorated based on the drainage area's acreage.

Refer to the Preliminary WQMP Exhibit located in Attachment G of this report for proposed BMP locations.

### IV.3.5 Hydromodification Control BMPs

BMP Name	BMP Description
Impervious Area Dispersion	Roof downspouts will outlet onto splash blocks to allow natural infiltration of runoff through the project's landscaping before entering into the onsite area drain/ storm drain system.
Street Trees	Street Trees with mature canopy's will be incorporated into the site design to allow for precipitation capture by the tree's foliage and root system.

### IV.3.6 Regional/Sub-Regional LID BMPs

<b>Regional/Sub-Regional LID BMPs</b>
n/a

### IV.3.7 Treatment Control BMPs

<b>Treatment Control BMPs</b>	
BMP Name	BMP Description
Katchall Kleenspout Filtration Device (or approved equal)	Due to the proximity of the site to the Lower Newport Bay/ Pacific Ocean, an in stream filtration device will be incorporated into the proposed onsite storm drain system to treat all of the storm water runoff leaving the site. This will ensure that the pollutants of concern associated with this development type will be captured.

**IV.3.8 Non-structural Source Control BMPs**

<b>Non-Structural Source Control BMPs</b>				
Identifier	Name	Check One		If not applicable, state brief reason
		Included	Not Applicable	
N1	Education for Property Owners, Tenants and Occupants	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N2	Activity Restrictions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N3	Common Area Landscape Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N4	BMP Maintenance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N5	Title 22 CCR Compliance (How development will comply)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N6	Local Industrial Permit Compliance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Residential Project
N7	Spill Contingency Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N8	Underground Storage Tank Compliance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
N9	Hazardous Materials Disclosure Compliance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N10	Uniform Fire Code Implementation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N11	Common Area Litter Control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N12	Employee Training	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N13	Housekeeping of Loading Docks	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
N14	Common Area Catch Basin Inspection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N15	Street Sweeping Private Streets and Parking Lots	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N16	Retail Gasoline Outlets	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

**IV.3.9 Structural Source Control BMPs**

<b>Structural Source Control BMPs</b>				
Identifier	Name	Check One		If not applicable, state brief reason
		Included	Not Applicable	
S1	Provide storm drain system stenciling and signage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
S2	Design and construct outdoor material storage areas to reduce pollution introduction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
S3	Design and construct trash and waste storage areas to reduce pollution introduction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
S4	Use efficient irrigation systems & landscape design, water conservation, smart controllers, and source control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
S5	Protect slopes and channels and provide energy dissipation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No proposed slopes
	Incorporate requirements applicable to individual priority project categories (from SDRWQCB NPDES Permit)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
S6	Dock areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Residential project
S7	Maintenance bays	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Residential project
S8	Vehicle wash areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No proposed car washing areas
S9	Outdoor processing areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Residential project
S10	Equipment wash areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Residential project
S11	Fueling areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Residential project
S12	Hillside landscaping	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No hillside landscaping
S13	Wash water control for food preparation areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Residential project
S14	Community car wash racks	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No proposed community car washing areas

## IV.4 ALTERNATIVE COMPLIANCE PLAN (IF APPLICABLE)

### IV.4.1 Water Quality Credits

<b>Description of Proposed Project</b>				
Project Types that Qualify for Water Quality Credits (Select all that apply):				
<input type="checkbox"/> Redevelopment projects that reduce the overall impervious footprint of the project site.	<input type="checkbox"/> Brownfield redevelopment, meaning redevelopment, expansion, or reuse of real property which may be complicated by the presence or potential presence of hazardous substances, pollutants or contaminants, and which have the potential to contribute to adverse ground or surface WQ if not redeveloped.	<input type="checkbox"/> Higher density development projects which include two distinct categories (credits can only be taken for one category): those with more than seven units per acre of development (lower credit allowance); vertical density developments, for example, those with a Floor to Area Ratio (FAR) of 2 or those having more than 18 units per acre (greater credit allowance).		
<input type="checkbox"/> Mixed use development, such as a combination of residential, commercial, industrial, office, institutional, or other land uses which incorporate design principles that can demonstrate environmental benefits that would not be realized through single use projects (e.g. reduced vehicle trip traffic with the potential to reduce sources of water or air pollution).	<input type="checkbox"/> Transit-oriented developments, such as a mixed use residential or commercial area designed to maximize access to public transportation; similar to above criterion, but where the development center is within one half mile of a mass transit center (e.g. bus, rail, light rail or commuter train station). Such projects would not be able to take credit for both categories, but may have greater credit assigned		<input type="checkbox"/> Redevelopment projects in an established historic district, historic preservation area, or similar significant city area including core City Center areas (to be defined through mapping).	
<input type="checkbox"/> Developments with dedication of undeveloped portions to parks, preservation areas and other pervious uses.	<input type="checkbox"/> Developments in a city center area.	<input type="checkbox"/> Developments in historic districts or historic preservation areas.	<input type="checkbox"/> Live-work developments, a variety of developments designed to support residential and vocational needs together – similar to criteria to mixed use development; would not be able to take credit for both categories.	<input checked="" type="checkbox"/> In-fill projects, the conversion of empty lots and other underused spaces into more beneficially used spaces, such as residential or commercial areas.
Calculation of Water Quality Credits (if applicable)	Water Quality Credits will not be utilized on this site as the total required Flow Rate will be treated with onsite Biofiltration Systems.			

### IV.4.2 Alternative Compliance Plan Information

n/a

## Section V Inspection/Maintenance Responsibility for BMPs

<b>BMP Inspection/Maintenance</b>			
<b>BMP</b>	<b>Reponsible Party(s)</b>	<b>Inspection/ Maintenance Activities Required</b>	<b>Minimum Frequency of Activities</b>
Education for Property Owners, Tenants, & Occupants (N1)	HOA and individual homeowners	WQMP to be a part of Title Documents as part of purchase. HOA to give yearly report to residents.	As needed for property sales and once a year for reporting to residents.
Activity Restrictions (N2)	HOA	CC&Rs provided at time of sale and will identify activity restrictions for property and the neighborhood.	CC&Rs provided with property sales. Issue letters of non-compliance, as needed by HOA.
Common Area Landscape Management (N3)	HOA	HOA or appointed Property management company to provide maintenance of landscaping to meet current water efficiency and keep plants healthy and bio areas maintained with proper soil amendments.	Regular maintenance once a week and monthly inspections to determine deficiencies.
BMP Maintenance (N4)	HOA	HOA or appointed Property management company to provide maintenance of BMPs per the requirements of the	Regular maintenance once a week and monthly inspections to determine deficiencies.

		WQMP. Landscape must be maintained with proper soil amendments and densely populated with vegetation.	
Common Area Litter Control (N11)	HOA	HOA or appointed Property Management Company to provide maintenance and to empty common area trash cans.	Regular maintenance once a week.
Street Sweeping Private Streets and Parking Lots (N15)	HOA	HOA or appointed Property Management Company to provide maintenance of Private Streets.	Regular street sweeping once a month.
Efficient Irrigation Systems & Landscape Design (S4)	HOA	HOA or appointed Property Management Company to provide maintenance of landscaping to meet current water efficiency standards, and keep plants healthy.	Regular maintenance once a week and monthly inspection to determine deficiencies.
Kristar Filterra Biofiltration Systems (or approved equal)	HOA	HOA or appointed Property Management Company to provide maintenance of facilities.	Refer to manufacturer's maintenance specifications and requirements. Kristar provides maintenance for the 1 <sup>st</sup> year of use, thereafter an approved professional will need to conduct maintenance at a minimum 2 times per

			year and before the start of the rainy season. All debris/ trash removed, repairs conducted and planting assessed.
Katchall Kleenspout Filtration Device (or approved equal)	HOA	HOA or appointed Property Management Company to provide maintenance of filtration device.	Refer to manufacturer's maintenance specifications and requirements. Regular maintenance at a minimum of 2 time per year and before the start of the rainy season. Remove all debris/ trash, replace media filter and repair as needed.

## Section VI Site Plan and Drainage Plan

### VI.1 SITE PLAN AND DRAINAGE PLAN

Include a site plan and drainage plan sheet set containing the following minimum information:

- Project location
- Site boundary
- Land uses and land covers, as applicable
- Suitability/feasibility constraints
- Structural BMP locations
- Drainage delineations and flow information
- Drainage connections
- BMP details

### VI.2 ELECTRONIC DATA SUBMITTAL

The minimum requirement is to provide submittal of PDF exhibits in addition to hard copies. Format must not require specialized software to open.

If the local jurisdiction requires specialized electronic document formats (CAD, GIS) to be submitted, this section will be used to describe the contents (e.g., layering, nomenclature, georeferencing, etc.) of these documents so that they may be interpreted efficiently and accurately.

## Section VII Educational Materials

Education Materials			
Residential Material ( <a href="http://www.ocwatersheds.com">http://www.ocwatersheds.com</a> )	Check If Applicable	Business Material ( <a href="http://www.ocwatersheds.com">http://www.ocwatersheds.com</a> )	Check If Applicable
The Ocean Begins at Your Front Door	<input checked="" type="checkbox"/>	Tips for the Automotive Industry	<input type="checkbox"/>
Tips for Car Wash Fund-raisers	<input type="checkbox"/>	Tips for Using Concrete and Mortar	<input type="checkbox"/>
Tips for the Home Mechanic	<input checked="" type="checkbox"/>	Tips for the Food Service Industry	<input type="checkbox"/>
Homeowners Guide for Sustainable Water Use	<input checked="" type="checkbox"/>	Proper Maintenance Practices for Your Business	<input type="checkbox"/>
Household Tips	<input checked="" type="checkbox"/>	<b>Other Material</b>	<b>Check If Attached</b>
Proper Disposal of Household Hazardous Waste	<input checked="" type="checkbox"/>		
Recycle at Your Local Used Oil Collection Center (North County)	<input type="checkbox"/>		<input type="checkbox"/>
Recycle at Your Local Used Oil Collection Center (Central County)	<input type="checkbox"/>		<input type="checkbox"/>
Recycle at Your Local Used Oil Collection Center (South County)	<input type="checkbox"/>		<input type="checkbox"/>
Tips for Maintaining a Septic Tank System	<input type="checkbox"/>		<input type="checkbox"/>
Responsible Pest Control	<input checked="" type="checkbox"/>		<input type="checkbox"/>
Sewer Spill	<input type="checkbox"/>		<input type="checkbox"/>
Tips for the Home Improvement Projects	<input checked="" type="checkbox"/>		<input type="checkbox"/>
Tips for Horse Care	<input type="checkbox"/>		<input type="checkbox"/>
Tips for Landscaping and Gardening	<input checked="" type="checkbox"/>		<input type="checkbox"/>
Tips for Pet Care	<input checked="" type="checkbox"/>		<input type="checkbox"/>
Tips for Pool Maintenance	<input type="checkbox"/>		<input type="checkbox"/>
Tips for Residential Pool, Landscape and Hardscape Drains	<input type="checkbox"/>		<input type="checkbox"/>
Tips for Projects Using Paint	<input checked="" type="checkbox"/>		<input type="checkbox"/>