PRIORITY
WATER QUALITY MANAGEMENT PLAN
(WQMP)

For:

(Insert Project Name)
(Site address or tract/lot number)

Prepared for:
(Insert Owner/Developer Name)
(Insert Address)
(Insert City, State, ZIP)
(Insert Telephone)

Prepared by:
(Insert Consulting/Engineering Firm Name)
(Engineer Name and Registration Number) {Stamp on Final}
(Insert Address)
(Insert City, State, ZIP)
(Insert Telephone)

(Insert Date Prepared/Revised)

_____ _____
Public Works Director **Date**

_____ _____
City Engineer **Date**

OWNER'S CERTIFICATION

WATER QUALITY MANAGEMENT PLAN

FOR

(Insert Project Name)

This Water Quality Management Plan (WQMP) for the [insert project name] has been prepared for [insert name of owner/developer]. This WQMP is intended to comply with the requirements of the City of Orange's [Tract/Parcel Map #__, Conditional Use Permit #__, and/or Site Development Permit/Application #__] requiring the preparation of a Water Quality Management 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 City of Orange Local Implementation Plan (LIP), and the intent of NPDES Permit and Waste Discharge Requirements for the City of Orange, County of Orange, Orange County Flood Control District and the incorporated Cities of Orange County within the Santa Ana Region.

This WQMP will be reviewed with the facility operator, facility supervisors, employees, tenants, maintenance and service contractors, or any other party having responsibility for implementing portions of this WQMP. Maintenance requirements within Section V and Appendix D will be adhered to with particular emphasis on maintaining the BMPs described within Sections IV and V. The Owner's Annual Self Certification Statement along with a BMP maintenance implementation table will be submitted by June 30th every year following project completion. At least one copy of the approved WQMP shall be available on the subject property in perpetuity.

Once the undersigned transfers its interest in the property, its successors-in-interest shall bear the aforementioned responsibility to implement and amend the WQMP. The City of Orange will be notified of the change of ownership and the new owner will submit a new certification.

Signature: _____ Date: _____

Name: _____

Title: _____

Company: _____

Address: _____

Telephone Number: _____

Notice of Transfer of Responsibility

Water Quality Management Plan (WQMP)

WQMP Number – As assigned by the City of Orange:_____

Submission of this Notice of Transfer of Responsibility constitutes notice to the City that responsibility for the Water Quality Management Plan (WQMP) for the subject property identified below, and implementation of that plan, is being transferred from the Previous Owner (and his/her agent) of the site (or portion thereof) to the New Owner, as further described below.

I. Owner/ Responsible Party Information

Company/ Individual:_____ Contact Person:_____

Street Address:_____ Title:_____

City _____State____ Zip_____ Phone:_____

II. Information about Site Relevant to WQMP

Name of Project: _____
Title of WQMP applicable to site: _____
Street Address of the site: _____
Date of Transfer of Responsibility: _____

III. New Owner (Upon Transfer)/ Responsible Party Information

Company/ Individual:_____ Contact Person:_____

Street Address:_____ Title:_____

City _____State____ Zip_____ Phone:_____

Table of Contents

Appendices

List of Tables

I. Discretionary Permit Number(s), Water Quality Condition Number(s) and Conditions of Approval

Tract No____ Lot No._____

GPS Coordinates: _____ _____

Water Quality Conditions (WQMP conditions listed below)

A complete copy of the signed Conditions of Approval, Resolution Number _____ dated _____ are included as Appendix A

Conditions of Approval:

Insert text providing the discretionary permit numbers and the conditions of approval related to water quality (stated verbatim).

II. Project Description

Refer to Section 2.2 of the Technical Guidance Document for completion of this section.

Planning Area (Location):_____

Project Site Area (ac):_____

Project Disturbed Area (ac): _____

Percent Change in Impermeable Surfaces: _____

SIC Code (if applicable)

Project Description

Describe general characteristics including land cover, land use, project areas, landscaping, paved areas, material or wastes stored on site and other project features

Project Purpose and Activities

Identify purpose of project and proposed activities

Potential Storm Water Pollutants

List expected pollutants. See Section 2.2.2.2 and Table 2.1 of the Technical Guidance Document for information on expected project pollutants

Hydrologic Conditions of Concern

Describe applicable hydrologic conditions of concern. Post Development conditions must meet pre-development conditions, including time of concentration, volume, velocity and matching 2-year hydrographs. See Section 2.2.3 of Technical Guidance Document for additional information.

Post Development Drainage Characteristics

Describe onsite and affected offsite post development drainage characteristics.

Commercial Projects

Describe food preparation and eating areas, where materials will be stored or delivered, outdoor storage areas, materials exposed to rain, any onsite vehicle washing and other information not included in Project Description. (Delete if not used or note as NA).

Residential Projects

Describe lots and lot size, home size and note whether attached or detached and their number, total number of buildings or units. Describe any pools, tot lots, open space, etc. (Delete if not used or note as NA)

Site Ownership and any Easements

Describe any easements and ownership of Project by others and identify in Site Plan Section VI. Identify entity and contact information.

III. Site Description

Refer to Section 2.3 of the Technical Guidance Document for completion of this section

Reference Location Map:

Site Address:

Zoning:

Predominant Soil type:

Pre-project percent pervious: _____ **Post-project percent pervious: _____**

Pre-project percent impervious: _____ **Post-project percent impervious: _____**

Site Characteristics

Describe the existing site, whether developed, undeveloped, vacant, built upon, existing buildings, topography, soils, geology, geotechnical conditions, depth to groundwater and its condition (polluted), infiltration capacity, existing utilities, other features and existing site drainage conditions.

Watershed Characteristics

Watershed:

Downstream Receiving Waters:

Water Quality Impairments (if applicable):

Identify hydromodification susceptibility:

Identify watershed management priorities:

IV. Best Management Practices

This section describes the selection of BMPs for the project and how they are able to treat the pollutants targeted. Refer to Section 2.4 of the Technical Guidance Document for additional information.

For any selected BMP with the potential to have nuisance water (standing water) within the BMP please discuss the process to address this potential problem in the vector control paragraph IV.6

IV.1 Site Design and Drainage Characteristics

Complete Table 1.

Table 1

Site Design BMPs

Technique	Included?		If no, state justification.
	Yes	No	
Minimize Directly Connected Impervious Areas (DCIAs) (C-Factor Reduction)			
Create Reduced or "Zero Discharge" Areas (Runoff Volume Reduction)[1]			
Minimize Impervious Area/Maximize Permeability (C-Factor Reduction)[2]			
Conserve Natural Areas (C-Factor Reduction)			

1 Detention and retention areas incorporated into landscape design provide areas for retaining and detaining stormwater flows, resulting in lower runoff rates and reductions in volume due to limited infiltration and evaporation. Such Site Design BMPs may reduce the size of Treatment Control BMPs.

2 The "C Factor" is a representation 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 lowering treatment requirements.

Insert narrative discussion of <u>each</u> Site Design BMP selected and how its implementation will reduce runoff and the pollutants affected.

IV.2 Source Control BMPs

IV.2.1 Routine Non-Structural BMPs

Complete Table 2.

Table 2

Routine Non-Structural BMPs

BMP No.	Name	Check One		If not applicable, state brief reason.
		Included	Not Applicable	
N1	Education for Property Owners, Tenants and Occupants			
N2	Activity Restriction			
N3	Common Area Landscape Management			
N4	BMP Maintenance			
N5	Title 22 CCR Compliance			
N6	Local Water Quality Permit Compliance		X	This BMP is not applicable. The City of Orange does not issue water quality permits.
N7	Spill Contingency Plan			
N8	Underground Storage Tank Compliance			
N9	Hazardous Materials Disclosure Compliance			
N10	Uniform Fire Code Implementation			
N11	Common Area Litter Control			
N12	Employee Training			
N13	Housekeeping of Loading Docks			
N14	Common Area Catch Basin Inspection			
N15	Street Sweeping Private Streets and Parking Lots			

Insert narrative discussion of how each Routine Nonstructural BMP selected is to be implemented to reduce runoff and minimize pollutants in the project.

IV.2.2 Routine Structural BMPs

Complete Table 3.

Table 3

Routine Structural BMPs

Name	Check One		If not applicable, state brief reason
	Included	Not Applicable	
Provide storm drain system stenciling and signage- "No Dumping – Drains to Ocean"			
Design and construct outdoor material storage areas to reduce pollution introduction			
Design and construct trash and waste storage areas to reduce pollution introduction			
Use efficient irrigation systems & landscape design			
Protect slopes and channels and provide energy dissipation			
Incorporate requirements applicable to individual project features			
a. Dock areas			
b. Maintenance bays			
c. Vehicle or community wash areas			
d. Outdoor processing areas			
e. Equipment wash areas			
f. Fueling areas			
g. Hillside landscaping			
h. Wash water control for food preparation areas			

Insert narrative discussion of how each Routine Structural BMP selected is to be implemented to reduce runoff and minimize pollutants in the project.

IV.3 Low Impact Development BMP Selection

Refer to Section 2.4.2.3 and 4.1 in the TGD for selecting LID BMPs.

IV.3.1 Hydrologic Source Controls

Select from the following table all hydrologic source control BMPs that are used by the project and identify in Site Plan. See Section 4.2 of Technical Guidance Document for additional information.

Table 4

Hydrologic Source Control BMPs

Name	Check If Used
Localized on-lot infiltration	☐
Impervious area dispersion (e.g. roof top disconnection)	☐
Street trees (canopy interception)	☐
Residential rain barrels (not actively managed)	☐
Green roofs/Brown roofs	☐
Blue roofs	☐
Other:	☐
Other:	☐
Other:	☐
Other:	☐
Other:	☐
Other:	☐
Other:	☐
Other:	☐

Describe how each of the BMPs checked above is used in the project and how it will reduce project runoff.

IV.3.2 Infiltration BMPs

Identify infiltration BMPs to be used in project. See Section 2.4.2.4 of the Technical Guidance Document for infiltration infeasibility criteria and 4.3 for information of BMP selection.

Table 5

Infiltration BMPs

Name	Check If Used
Bioretention without underdrains	☐
Rain gardens	☐
Porous landscaping	☐
Infiltration planters	☐
Retention swales	☐
Infiltration trenches	☐
Infiltration basins	☐
Drywells	☐
Subsurface infiltration galleries	☐
French drains	☐
Permeable asphalt	☐
Permeable concrete	☐
Permeable concrete pavers	☐
Other:	☐
Other:	☐

Describe how each BMP checked above is used in the project. Identify if the LID Design Storm Capture Volume is fully met.

Indicate the effectiveness of the chosen BMP(s) to remove the specific project pollutants.

*Infiltration BMP(s), i.e. infiltration trenches and basins, etc., require pre-treatment prior to infiltration

IV.3.3 Evapotranspiration, Rainwater Harvesting BMPs

Identify any evapotranspiration and/or, rainwater harvesting BMPs used by the project See Section 4.4 and 4.4 of the Technical Guidance Document for additional information. (Delete if not used).

Table 6

Evapotranspiration, Rainwater Harvesting BMP

Name	Check If Used
All HSCs; *See Section IV.3.1*	☐
Surface-based infiltration BMPs	☐
Biotreatment BMPs	☐
Above-ground cisterns and basins	☐
Underground detention	☐
Other:	☐
Other:	☐
Other:	☐

Describe how each BMP checked above is used in the project. Identify the LID Design Storm Volume captured.

IV.3.4 Biotreatment BMPs

Describe any biotreatment BMPs used in the project and include separate sections for selection, suitability, sizing, and infeasibility, as applicable. See Section 4.6 of the Technical Guidance Document for additional information. (Delete if not used).

Table 7
Biotreatment BMPs

Bioretention with underdrains	☐
Storm water planter boxes with underdrains	☐
Rain gardens with underdrains	☐
Constructed wetlands	☐
Vegetated swales	☐
Vegetated filter strips	☐
Proprietary vegetated biotreatment systems	☐
Wet extended detention basin	☐
Dry extended detention basins	☐
Other:	☐
Other:	☐

Describe how each BMP checked above is used in the project. Identify the portion of the LID Design Storm Volume captured. Identify the infeasibility constraints that do not allow the use of infiltration BMPs, evaporation, rainwater harvesting or a combination and document in narrative form below and the information required in Appendix XI of the Technical Guidance Document.

Indicate the effectiveness of the chosen BMP(s) to remove the specific project pollutants.

IV.3.5 Hydromodification Control BMPs

Describe any hydromodification control BMPs used in project. Refer to Section 5 of the Technical Guidance Document for additional information. Include sections for selection, suitability, sizing, and infeasibility, as applicable. Detail compliance with Conditions of Approval (if applicable). (Delete if not used or note NA).

IV.3.6 Regional/Sub-Regional LID BMPs

Describe regional/sub-regional LID BMPs in which the project will participate. Refer to Section 7.II-2.4.3.2 of the Model WQMP for assistance in completing section. (Delete if not used or note NA).

IV.3.7 Treatment Control BMPs

Describe any Treatment control BMPs used in project. Treatment control BMPs can only be considered if the project conformance analysis indicates that it is not feasible to retain the full design capture volume with LID BMPs. Include sections for selection, sizing, and infeasibility, as applicable. (Delete if not used or note NA).

Indicate the effectiveness of the chosen BMP(s) to remove the specific project pollutants.

IV. 4 Water Quality Credits

Describe any water quality credits applicable to project (credits can only be taken if proposed LID BMPs cannot capture entire Design Storm Volume). Refer to Section 7.II-3.1 of the Model WQMP. (Delete if not used or note NA).

IV.5 Alternative Compliance Plan

Describe the alternative compliance plan (if applicable). Include alternative compliance obligations (i.e., gallons, pounds) and describe proposed alternative compliance measures. Refer to Section 7.II 3.0 in the Model WQMP. (Delete if not used or note NA).

IV.6 Vector Control

For each BMP with the potential for standing nuisance water describe how vector control issues will be addressed.

IV.7 Drainage Management Area (DMA)

Describe each DMA used in project, the BMPs in each DMA and the area treated.

DMA Number	BMPs	Area Treated
1		
2		
3		
4		
5		
6		
Total Area		

Total Project Area=

(Note if all project design storm volume is captured by these BMPs).

IV.8 Calculations

Provide calculations for all LID, Structural and Treatment BMPs selected. All calculations must be signed by a registered civil engineer. Individual or worksheets provided in Technical Guidance Document (if applicable) may be used.

V. Implementation, Maintenance and Inspection Responsibility for BMPs (O&M Plan)

Responsible Party Information (Local Contact Information)

Name: _____ Title: _____

Company: _____ Phone Number: _____

Complete frequency matrix. Expand or increase each cell box to provide the information required.

Table 8 - Frequency Inspection Matrix

BMP	Responsible Party	*Maintenance Activity	*Inspection/Maintenance Frequency
Source Control BMPs (Structural and Non-structural)			
Low Impact Development and Treatment BMPs			

*Attach in appendix additional inspection, maintenance and operations information if required.

Regulatory Permits

Identify any regulatory permits required.

Funding

Identify how the installation and on-going maintenance for all BMPs will be funded.

OWNER SELF CERTIFICATION STATEMENT

As the owner representative of the insert project name for which a Water Quality Management Plan (WQMP) was approved by the City, I hereby certify under penalty of law that all Best Management Practices contained within the approved Project WQMP have been maintained and inspected in accordance with the schedule and frequency outlined in the approved WQMP Maintenance Table.

The maintenance activities and inspections conducted are shown in the attached table and have been performed by qualified and knowledgeable individuals. Structural Treatment BMPs have been inspected and certified by a licensed professional engineer.

To the best of my knowledge, the information submitted is true and accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and citations for violating water quality regulations.

Signed: _____

Name: _____

Title: _____

Company: _____

Address: _____

Telephone Number: _____

Date: _____

BMP Implementation Tracking Table

BMP	Activity	Completion Dates or Frequency	Initial
Source Control BMPs (Structural and Nonstructural)			
Low Impact Development and Treatment BMPs			

* This sheet is to be submitted annually with the Owner Self Certification Statement.
** Structural Treatment BMPs should be certified by a Licensed Professional Engineer.

VI. Location Map, Site Plan, and BMP Details

Include a location map that identifies project location and proximity to nearby water bodies. In an 11X17 sheet Identify land use, cover, feasibility constraints, structures, buildings, number of units, landscape areas, storm drain inlets, storm drain facilities, drainage flow direction, structural and treatment BMP locations, dumpsters, trash enclosures, wash areas, etc.

Delineate drainage management areas showing limits (acreage) of each drainage area for all structural, treatment and Low Impact Development BMPs used and provide BMP details on plan or in Appendix C.

VII. Educational Materials

Refer to the City's website www.cityoforange.org or the Orange County Stormwater Program (ocwatersheds.com) for a library of materials available. Attach *only* the educational materials specifically applicable to the project.

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

Appendix A:

Conditions of Approval

Resolution Number_____ dated_____

Appendix B:

Educational Material

Appendix C:

BMP Details

Appendix D:

BMP Maintenance Information

Appendix E:

Geotechnical Information

(Storm water infiltration BMP evaluation)

Appendix F:

Hydrology Information

(Q2 – Two-year frequency storm evaluation)