Appendix 4: Historical Site Conditions

Phase I Environmental Site Assessment or Other Information on Past Site Use

Not Applicable.

Appendix 5: LID Infeasibility

LID Technical Infeasibility Analysis

Not Applicable.

Appendix 6: BMP Design Details

BMP Sizing, Design Details and other Supporting Documentation

Santa Ana Watershed - BMP Design Volume, V_{BMP}

(Rev. 10-2011)

Legend: Required Entries / Calculated Cells

*(Note this worksheet shall **only** be used in conjunction with BMP designs from the **LID BMP Design Handbook**)*

Company Name: KHR Associates — Date: 5/19/2020

Designed by: James H. Kawamura — Case No:

Company Project Number/Name: Magnolia Flats

BMP Identification

BMP NAME / ID: Drywell #1

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

85th Percentile, 24-hour Rainfall Depth, from the Isohyetal Map in Handbook Appendix E

D_{85} = 0.60 inches

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	Design Storm Depth (in)	Design Capture Volume, V_{BMP} (cubic feet)	Proposed Volume on Plans (cubic feet)
1A	80,319	Ornamental Landscaping	0.1	0.11	8871.9			
1B	143,366	Roofs	1	0.89	127882.5			
1C	47,392	Concrete or Asphalt	1	0.89	42273.7			
1D	105,063	Concrete or Asphalt	1	0.89	93716.2			
	376140	Total			272744.3	0.60	13637.2	13,655

Notes:

The maximum design flow rate for the Aqua-Swirl Model AS-2 pretreatment system is 1.1 cfs.

Santa Ana Watershed - BMP Design Flow Rate, Q_{BMP}
(Rev. 10-2011)

Legend: Required Entries / Calculated Cells

*(Note this worksheet shall **only** be used in conjunction with BMP designs from the **LID BMP Design Handbook**)*

Company Name: KHR Asssociates — Date: 5/19/2020
Designed by: James H. Kawamura — Case No:
Company Project Number/Name: Magnolia Flats

BMP Identification

BMP NAME / ID: Drywell #1

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

Design Rainfall Intensity: I = 0.20 in/hr

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMAs

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type (use pull-down menu)	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Design Rainfall Intensity (in/hr)*	*Design Flow Rate (cfs)*	*Proposed Flow Rate (cfs)*
1A	*80,319*	*Ornamental Landscaping*	*0.1*	*0.11*	*8871.9*			
1B	*143,366*	*Roofs*	*1*	*0.892*	*127882.5*			
1C	*47,392*	*Concrete or Asphalt*	*1*	*0.892*	*42273.7*			
1D	*105,063*	*Concrete or Asphalt*	*1*	*0.892*	*93716.2*			
	376140		*Total*		*272744.3*	*0.20*	*1.3*	*1.3*

Notes:

DRYWELL INFILTRATION CALCULATIONS:

Drywell #1

$K_{sat,measured}$:	5.50	in/hr		
Number of Drywells; $DW_{quantity}$:	3	each		
Drywell Diameter:	4	feet		
$Drywell_{chamber}$:	13	linear feet		
$Drywell_{gravel}$:	33	linear feet		
FS (Factor of Safety):	3			
T (Drawdown Time):	72	hr		
CMP Diameter (detention):	8	feet	Radius:	4 feet
CMP_{Length}:	252	linear feet		

V_{BMP} (CF) = from WQMP Section D.5

V_{BMP} (CF) = 13,638 C.F.

Determine $K_{sat,design}$

$K_{sat,design} = K_{sat,measured} \div FS$

$K_{sat,design}$ = 1.83 in/hr 0.153 ft/hr

Determine A_{min}

$A_{min} = (V_{BMP} \times 12\ in/ft) \div (T \times K_{sat,design})$

A_{min} = 1,240 S.F.

Determine V_{actual}

$V_{actual} = (((\pi r^2) x Drywell_{chamber}) + ((\pi r2 x Drywell_{gravel}) x 0.40)) x DW_{quantity}$

V_{actual} = 988 C.F.

Determine A_{actual}

$A_{actual} = ((2\pi r) x Drywell_{gravel}) x DW_{quantity}$

A_{actual} = 1,244 S.F.

Determine T_{actual}

$T_{actual} = (V_{design} \times 12\ in/ft) \div (A_{actual} \times K_{sat,design})$

T_{actual} = 71.75 hr

Determine V_{detain}

$V_{detain} = V_{BMP} - V_{actual}$

V_{detain} = 12,650 C.F.

Determine $V_{CMP,detention}$

$V_{CMP,detention} = (\pi r^2) x CMP_{Length}$

$V_{CMP,detention}$ = 12,667 C.F.

Santa Ana Watershed - BMP Design Volume, V_{BMP}

(Rev. 10-2011)

Legend: Required Entries / Calculated Cells

(Note this worksheet shall only be used in conjunction with BMP designs from the LID BMP Design Handbook)

Company Name: KHR Associates — Date: 5/19/2020

Designed by: James H. Kawamura — Case No:

Company Project Number/Name: Magnolia Flats

BMP Identification

BMP NAME / ID: Drywell #2

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

85th Percentile, 24-hour Rainfall Depth, from the Isohyetal Map in Handbook Appendix E

D_{85} = 0.60 inches

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	Design Storm Depth (in)	Design Capture Volume, V_{BMP} (cubic feet)	Proposed Volume on Plans (cubic feet)
2A	12,543	Ornamental Landscaping	0.1	0.11	1385.5			
2B	9,126	Roofs	1	0.89	8140.4			
2C	10,323	Concrete or Asphalt	1	0.89	9208.1			
2D	35,952	Concrete or Asphalt	1	0.89	32069.2			
	67944	Total			50803.2	0.60	2540.2	2,546

Notes:

The maximum design flow rate for the Aqua-Swirl Model AS-2 pretreatment system is 1.1 cfs.

Santa Ana Watershed - BMP Design Flow Rate, Q_{BMP}
(Rev. 10-2011)

Legend: Required Entries / Calculated Cells

*(Note this worksheet shall **only** be used in conjunction with BMP designs from the **LID BMP Design Handbook**)*

Company Name: KHR Asssociates — Date: 5/19/2020
Designed by: James H. Kawamura — Case No:
Company Project Number/Name: Magnolia Flats

BMP Identification

BMP NAME / ID: Drywell #2

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

Design Rainfall Intensity: I = 0.20 in/hr

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

	DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type (use pull-down menu)	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	Design Rainfall Intensity (in/hr)	Design Flow Rate (cfs)	Proposed Flow Rate (cfs)
DMAs	2A	12,543	Ornamental Landscaping	0.1	0.11	1385.5			
	2B	9,126	Roofs	1	0.892	8140.4			
	2C	10,323	Concrete or Asphalt	1	0.892	9208.1			
	2D	35,952	Concrete or Asphalt	1	0.892	32069.2			
		67944		Total		50803.2	0.20	0.2	1.1

Notes:

DRYWELL INFILTRATION CALCULATIONS:

Drywell #2

$K_{sat,measured}$:	2.30	in/hr		
Number of Drywells; $DW_{quantity}$:	1	each		
Drywell Diameter:	4	feet		
$Drywell_{chamber}$:	13	linear feet		
$Drywell_{gravel}$:	44	linear feet		
FS (Factor of Safety):	3			
T (Drawdown Time):	72	hr		
CMP Diameter (detention):	8	feet	Radius:	4 feet
CMP_{Length}:	43	linear feet		

V_{BMP} (CF) = from WQMP Section D.5

V_{BMP} (CF) = 2,540 C.F.

Determine $K_{sat,design}$

$K_{sat,design} = K_{sat,measured} \div FS$

$K_{sat,design}$ = 0.77 in/hr 0.064 ft/hr

Determine A_{min}

$A_{min} = (V_{BMP} \times 12\ in/ft) \div (T \times K_{sat,design})$

A_{min} = 552 S.F.

Determine V_{actual}

$V_{actual} = (((\pi r^2) x Drywell_{chamber}) + ((\pi r2 x Drywell_{gravel}) x 0.40)) x DW_{quantity}$

V_{actual} = 385 C.F.

Determine A_{actual}

$A_{actual} = ((2\pi r) x Drywell_{gravel}) x DW_{quantity}$

A_{actual} = 553 S.F.

Determine T_{actual}

$T_{actual} = (V_{design} \times 12\ in/ft) \div (A_{actual} \times K_{sat,design})$

T_{actual} = 71.90 hr

Determine V_{detain}

$V_{detain} = V_{BMP} - V_{actual}$

V_{detain} = 2,155 C.F.

Determine $V_{CMP,detention}$

$V_{CMP,detention} = (\pi r^2) x CMP_{Length}$

$V_{CMP,detention}$ = 2,161 C.F.

Santa Ana Watershed - BMP Design Volume, V_{BMP}

(Rev. 10-2011)

Legend: Required Entries / Calculated Cells

*(Note this worksheet shall **only** be used in conjunction with BMP designs from the **LID BMP Design Handbook**)*

Company Name: KHR Associates — Date: 5/19/2020

Designed by: James H. Kawamura — Case No:

Company Project Number/Name: Magnolia Flats

BMP Identification

BMP NAME / ID: Drywell #3

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

85th Percentile, 24-hour Rainfall Depth, from the Isohyetal Map in Handbook Appendix E

D_{85} = 0.60 inches

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	Design Storm Depth (in)	Design Capture Volume, V_{BMP} (cubic feet)	Proposed Volume on Plans (cubic feet)
3A	29,260	Ornamental Landscaping	0.1	0.11	3232			
3B	49,954	Roofs	1	0.89	44559			
3C	42,312	Concrete or Asphalt	1	0.89	37742.3			
3D	79,571	Concrete or Asphalt	1	0.89	70977.3			
	201097	Total			156510.6	0.60	7825.5	7,852

Notes:

The maximum design flow rate for the Aqua-Swirl Model AS-2 pretreatment system is 1.1 cfs.

Santa Ana Watershed - BMP Design Flow Rate, Q_{BMP}
(Rev. 10-2011)

Legend: Required Entries / Calculated Cells

*(Note this worksheet shall **only** be used in conjunction with BMP designs from the **LID BMP Design Handbook**)*

Company Name: KHR Asssociates — Date: 5/19/2020
Designed by: James H. Kawamura — Case No:
Company Project Number/Name: Magnolia Flats

BMP Identification

BMP NAME / ID: Drywell #3

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

Design Rainfall Intensity — I = 0.20 in/hr

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

	DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type (use pull-down menu)	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	Design Rainfall Intensity (in/hr)	Design Flow Rate (cfs)	Proposed Flow Rate (cfs)
DMAs	3A	33,466	Ornamental Landscaping	0.1	0.11	3696.6			
	3B	55,763	Roofs	1	0.892	49740.6			
	3C	42,448	Concrete or Asphalt	1	0.892	37863.6			
	3D	80,020	Concrete or Asphalt	1	0.892	71377.8			
		211697		Total		162678.6	0.20	0.7	1.1

Notes:

DRYWELL INFILTRATION CALCULATIONS:

Drywell #3

$K_{sat,measured}$:	2.50	in/hr		
Number of Drywells; $DW_{quantity}$:	4	each		
Drywell Diameter:	4	feet		
$Drywell_{chamber}$:	13	linear feet		
$Drywell_{gravel}$:	33	linear feet		
FS (Factor of Safety):	3			
T (Drawdown Time):	72	hr		
CMP Diameter (detention):	8	feet	Radius:	4 feet
CMP_{Length}:	130	linear feet		

V_{BMP} (CF) = from WQMP Section D.5

V_{BMP} (CF) = 7,826 C.F.

Determine $K_{sat,design}$

$K_{sat,design} = K_{sat,measured} \div FS$

$K_{sat,design}$ = 0.83 in/hr 0.069 ft/hr

Determine A_{min}

$A_{min} = (V_{BMP} \times 12\ in/ft) \div (T \times K_{sat,design})$

A_{min} = 1,565 S.F.

Determine V_{actual}

$V_{actual} = (((\pi r^2) x Drywell_{chamber}) + ((\pi r2 x Drywell_{gravel}) x 0.40)) x DW_{quantity}$

V_{actual} = 1,317 C.F.

Determine A_{actual}

$A_{actual} = ((2\pi r) x Drywell_{gravel}) x DW_{quantity}$

A_{actual} = 1,659 S.F.

Determine T_{actual}

$T_{actual} = (V_{design} \times 12\ in/ft) \div (A_{actual} \times K_{sat,design})$

T_{actual} = 67.94 hr

Determine V_{detain}

$V_{detain} = V_{BMP} - V_{actual}$

V_{detain} = 6,509 C.F.

Determine $V_{CMP,detention}$

$V_{CMP,detention} = (\pi r^2) x CMP_{Length}$

$V_{CMP,detention}$ = 6,535 C.F.

Santa Ana Watershed - BMP Design Volume, V_{BMP}

(Rev. 10-2011)

Legend: Required Entries / Calculated Cells

*(Note this worksheet shall **only** be used in conjunction with BMP designs from the **LID BMP Design Handbook**)*

Company Name: KHR Associates — Date: 5/19/2020

Designed by: James H. Kawamura — Case No:

Company Project Number/Name: Magnolia Flats

BMP Identification

BMP NAME / ID: Drywell #4

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

85th Percentile, 24-hour Rainfall Depth, from the Isohyetal Map in Handbook Appendix E

D_{85} = 0.60 inches

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	Design Storm Depth (in)	Design Capture Volume, V_{BMP} (cubic feet)	Proposed Volume on Plans (cubic feet)
4A	8,952	Ornamental Landscaping	0.1	0.11	988.8			
4B	21,664	Roofs	1	0.89	19324.3			
4C	6,555	Concrete or Asphalt	1	0.89	5847.1			
4D	55,635	Concrete or Asphalt	1	0.89	49626.4			
	92806	Total			75786.6	0.60	3789.3	3,825

Notes:

The maximum design flow rate for the Aqua-Swirl Model AS-2 pretreatment system is 1.1 cfs.

Santa Ana Watershed - BMP Design Flow Rate, Q_{BMP}
(Rev. 10-2011)

Legend: Required Entries / Calculated Cells

*(Note this worksheet shall **only** be used in conjunction with BMP designs from the **LID BMP Design Handbook**)*

Company Name: KHR Asssociates — Date: 5/19/2020
Designed by: James H. Kawamura — Case No:
Company Project Number/Name: Magnolia Flats

BMP Identification

BMP NAME / ID: Drywell #4

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

Design Rainfall Intensity: I = 0.20 in/hr

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

	DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type (use pull-down menu)	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	Design Rainfall Intensity (in/hr)	Design Flow Rate (cfs)	Proposed Flow Rate (cfs)
DMAs	4A	8,952	Ornamental Landscaping	0.1	0.11	988.8			
	4B	21,664	Roofs	1	0.892	19324.3			
	4C	6,555	Concrete or Asphalt	1	0.892	5847.1			
	4D	55,635	Concrete or Asphalt	1	0.892	49626.4			
		92806		Total		75786.6	0.20	0.3	1.1

Notes:

DRYWELL INFILTRATION CALCULATIONS:

Drywell #4

$K_{sat,measured}$:	2.30 in/hr		
Number of Drywells; $DW_{quantity}$:	2 each		
Drywell Diameter:	4 feet		
$Drywell_{chamber}$:	13 linear feet		
$Drywell_{gravel}$:	33 linear feet		
FS (Factor of Safety):	3		
T (Drawdown Time):	72 hr		
CMP Diameter (detention):	8 feet	Radius:	4 feet
CMP_{Length}:	63 linear feet		

V_{BMP} (CF) = from WQMP Section D.5

V_{BMP} (CF) = 3,782 C.F.

Determine $K_{sat,design}$

$K_{sat,design} = K_{sat,measured} \div FS$

$K_{sat,design}$ = 0.77 in/hr 0.064 ft/hr

Determine A_{min}

$A_{min} = (V_{BMP} \times 12 \text{ in/ft}) \div (T \times K_{sat,design})$

A_{min} = 822 S.F.

Determine V_{actual}

$V_{actual} = (((\pi r^2) x Drywell_{chamber}) + ((\pi r2 x Drywell_{gravel}) x 0.40)) x DW_{quantity}$

V_{actual} = 658 C.F.

Determine A_{actual}

$A_{actual} = ((2\pi r) x Drywell_{gravel}) x DW_{quantity}$

A_{actual} = 829 S.F.

Determine T_{actual}

$T_{actual} = (V_{design} \times 12 \text{ in/ft}) \div (A_{actual} \times K_{sat,design})$

T_{actual} = 71.37 hr

Determine V_{detain}

$V_{detain} = V_{BMP} - V_{actual}$

V_{detain} = 3,124 C.F.

Determine $V_{CMP,detention}$

$V_{CMP,detention} = (\pi r^2) x CMP_{Length}$

$V_{CMP,detention}$ = 3,167 C.F.

Table 17. BMP Performance – Influent/Effluent Water Quality.

BMP	Sediment (mg/L)	Nitrogen (mg/L)	Phosphorus (mg/L)	Metals – Zn (µg/L)	Oil and Grease (mg/L)	Bacteria (#/100mL)	Temp	Notes
Bioretention without underdrain	0	0	0	0	0	0	Excellent	Infiltration practices are assumed to have zero discharge
Bioretention with underdrain	34/15.5*	1.68/1.14†	0.61/0.16*	107/46*	30.8/2.5‡	641.5/86.5§	Moderate**	
Permeable Pavement without underdrain	0	0	0	0	0	0	Excellent	Infiltration practices are assumed to have zero discharge
Permeable Pavement with underdrain	xx/17.0††	xx/1.23††	xx/0.09††	xx/17††	xx/0.018‡‡	No data	Moderate	
Capture and Reuse	0	0	0	0	0	0	Excellent	Infiltration practices are assumed to have zero discharge
Vegetated Roofs	No data	1.3/1.63***	0.012/0.057***	No data	N/A	xx/22§	Moderate	
Downspout Disconnection	0	0	0	0	0	0	Excellent	Infiltration practices are assumed to have zero discharge
Soil Amendments	0	0	0	0	0	0	Excellent	Infiltration practices are assumed to have zero discharge
Vegetated Filter Strips	114/27.6§§	1.12/0.66‡‡	0.38/0.86§§	355/79§§	No data	No data	Low	
Vegetated Swales	114/58.9§§	No data	0.38/0.62§§	355/96§§	No data	13,492/5,947§	Low	
Infiltration Basins	0	0	0	0	0	0	Excellent	Infiltration practices are assumed to have zero discharge
Infiltration Trenches	0	0	0	0	0	0	Excellent	Infiltration practices are assumed to have zero discharge

Source: Data assembled by the Low Impact Development Center, Inc.

Table 17 (Cont.): BMP Performance – Influent/Effluent Water Quality.

BMP	Sediment (mg/L)	Nitrogen (mg/L)	Phosphorus (mg/L)	Metals – Zn (µg/L)	Oil and Grease (mg/L)	Bacteria (#/100mL)	Temp	Notes
Dry Wells	0	0	0	0	0	0	Excellent	Infiltration practices are assumed to have zero discharge
Dry Ponds	114/46.6§§	0.96/0.98‡‡	0.38/0.28§§	355/136§§	2.72/2.54‡‡	2,218/1,741§	Poor	
Constructed Wetlands	37.8/17.8††	2.12/1.15††	0.27/0.14††	47/31††	No data	2,097/257§	Poor**	
Wet Ponds	114/11.8§§	2.29/1.46‡‡	0.38/0.54§§	355/37§§	0.82/0.88‡‡	2,693/446.4§	Poor**	
Media Filters / Filter Basins	114/11.3§§	No data	0.38/0.25§§	355/36§§	No data	1,820/541.3§	Poor	Includes Austin sand filter, Delaware sand filter, Multi-chambered treatment trains
Proprietary Devices	varies	varies	varies	varies	varies	varies	Poor	Performance is device-specific

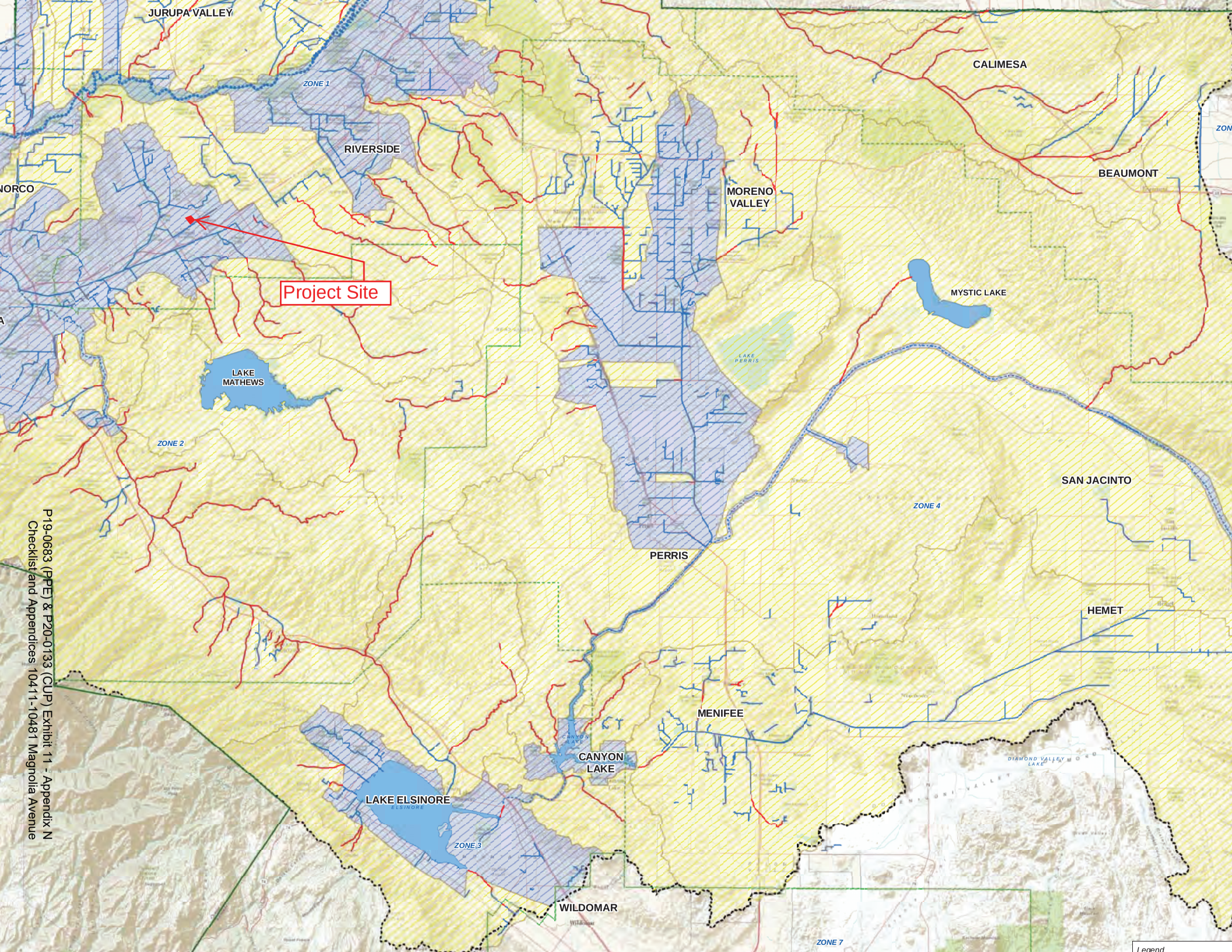
Key: *Davis, 2007 §Clary et al, 2008 †Hunt et al, 2008 ‡Hong et al, 2006 ***Teemusk and Mander, 2007
**Jones and Hunt, 2008 §§Caltrans, 2004 ††Geosyntec, 2008 ‡‡International Stormwater BMP Database, 2009

Source: Data assembled by the Low Impact Development Center, Inc.

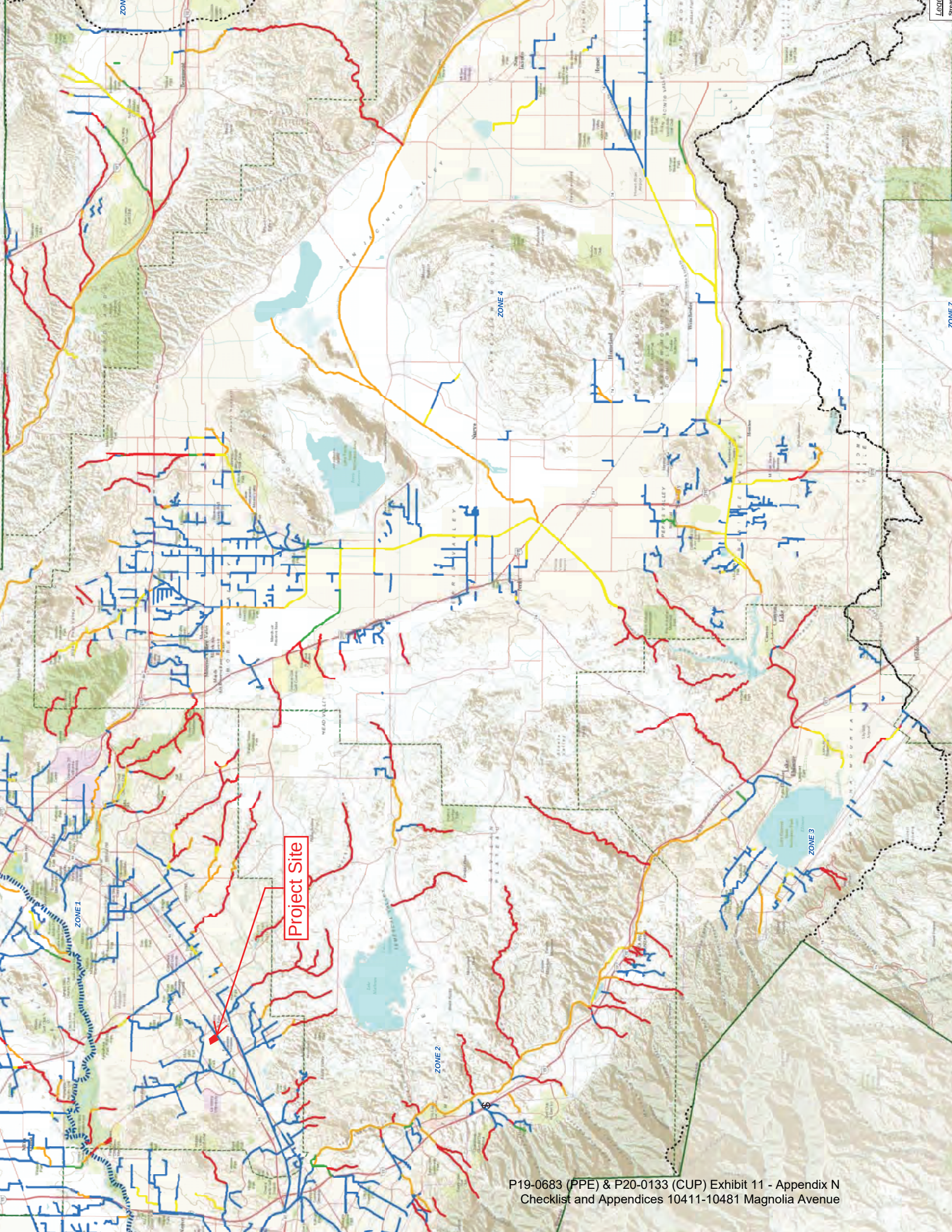
Appendix 7: Hydromodification

Supporting Detail Relating to Hydrologic Conditions of Concern

HCOC Applicability Map


JURUPA VALLEY
ZONE 1
RIVERSIDE
NORCO
CALIMESA
BEAUMONT
MORENO VALLEY
Project Site
MYSTIC LAKE
LAKE MATHEWS
LAKE PERRIS
ZONE 2
SAN JACINTO
ZONE 4
PERRIS
HEMET
MENIFEE
CANYON LAKE
LAKE ELSINORE
ZONE 3
WILDOMAR
ZONE 7
P19-0683 (PPE) & P20-0133 (CUP) Exhibit 11 - Appendix N
Checklist and Appendices 10411-10481 Magnolia Avenue

Existing Stream Channel Delineation Map


Project Site
ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 7
60

Appendix 8: Source Control

Pollutant Sources/Source Control Checklist

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

How to use this worksheet (also see instructions in Section G of the WQMP Template):

1. Review Column 1 and identify which of these potential sources of stormwater pollutants apply to your site. Check each box that applies.
2. Review Column 2 and incorporate all of the corresponding applicable BMPs in your WQMP Exhibit.
3. Review Columns 3 and 4 and incorporate all of the corresponding applicable permanent controls and operational BMPs in your WQMP. Use the format shown in Table G.1on page 23 of this WQMP Template. Describe your specific BMPs in an accompanying narrative, and explain any special conditions or situations that required omitting BMPs or substituting alternative BMPs for those shown here.

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	**... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE**		
1 **Potential Sources of Runoff Pollutants**	**2** **Permanent Controls—Show on WQMP Drawings**	**3** **Permanent Controls—List in WQMP Table and Narrative**	**4** **Operational BMPs—Include in WQMP Table and Narrative**
☒ **A.** On-site storm drain inlets	☒ Locations of inlets.	☒ Mark all inlets with the words "Only Rain Down the Storm Drain" or similar. Catch Basin Markers may be available from the Riverside County Flood Control and Water Conservation District, call **951.955.1200** to verify.	☒ Maintain and periodically repaint or replace inlet markings. ☒ Provide stormwater pollution prevention information to new site owners, lessees, or operators. ☒ See applicable operational BMPs in Fact Sheet SC-44, "Drainage System Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com ☐ Include the following in lease agreements: "Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains."
☐ **B.** Interior floor drains and elevator shaft sump pumps		☐ State that interior floor drains and elevator shaft sump pumps will be plumbed to sanitary sewer.	☐ Inspect and maintain drains to prevent blockages and overflow.
☐ **C.** Interior parking garages		☐ State that parking garage floor drains will be plumbed to the sanitary sewer.	☐ Inspect and maintain drains to prevent blockages and overflow.

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on WQMP Drawings**	3 **Permanent Controls—List in WQMP Table and Narrative**	4 **Operational BMPs—Include in WQMP Table and Narrative**
☐ **D1.** Need for future indoor & structural pest control		☐ Note building design features that discourage entry of pests.	☐ Provide Integrated Pest Management information to owners, lessees, and operators.
☒ **D2.** Landscape/ Outdoor Pesticide Use	☐ Show locations of native trees or areas of shrubs and ground cover to be undisturbed and retained. ☐ Show self-retaining landscape areas, if any. ☐ Show stormwater treatment and hydrograph modification management BMPs. (See instructions in Chapter 3, Step 5 and guidance in Chapter 5.)	State that final landscape plans will accomplish all of the following. ☐ Preserve existing native trees, shrubs, and ground cover to the maximum extent possible. ☒ Design landscaping to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution. ☐ Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions. ☒ Consider using pest-resistant plants, especially adjacent to hardscape. To insure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.	☒ Maintain landscaping using minimum or no pesticides. ☐ See applicable operational BMPs in "What you should know for.....Landscape and Gardening" at http://rcflood.org/stormwater/Error! Hyperlink reference not valid. ☒ Provide IPM information to new owners, lessees and operators.

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

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☒ **E.** Pools, spas, ponds, decorative fountains, and other water features.	☒ Show location of water feature and a sanitary sewer cleanout in an accessible area within 10 feet. (Exception: Public pools must be plumbed according to County Department of Environmental Health Guidelines.)	If the Co-Permittee requires pools to be plumbed to the sanitary sewer, place a note on the plans and state in the narrative that this connection will be made according to local requirements.	☒ See applicable operational BMPs in "Guidelines for Maintaining Your Swimming Pool, Jacuzzi and Garden Fountain" at http://rcflood.org/stormwater/
☐ **F.** Food service	☐ For restaurants, grocery stores, and other food service operations, show location (indoors or in a covered area outdoors) of a floor sink or other area for cleaning floor mats, containers, and equipment. ☐ On the drawing, show a note that this drain will be connected to a grease interceptor before discharging to the sanitary sewer.	☐ Describe the location and features of the designated cleaning area. ☐ Describe the items to be cleaned in this facility and how it has been sized to insure that the largest items can be accommodated.	☐ See the brochure, "The Food Service Industry Best Management Practices for: Restaurants, Grocery Stores, Delicatessens and Bakeries" at http://rcflood.org/stormwater/ Provide this brochure to new site owners, lessees, and operators.
☒ **G.** Refuse areas	☒ Show where site refuse and recycled materials will be handled and stored for pickup. See local municipal requirements for sizes and other details of refuse areas. ☐ If dumpsters or other receptacles are outdoors, show how the designated area will be covered, graded, and paved to prevent run-on and show locations of berms to prevent runoff from the area. ☐ Any drains from dumpsters, compactors, and tallow bin areas shall be connected to a grease removal device before discharge to sanitary sewer.	☒ State how site refuse will be handled and provide supporting detail to what is shown on plans. ☒ State that signs will be posted on or near dumpsters with the words "Do not dump hazardous materials here" or similar.	☒ State how the following will be implemented: Provide adequate number of receptacles. Inspect receptacles regularly; repair or replace leaky receptacles. Keep receptacles covered. Prohibit/prevent dumping of liquid or hazardous wastes. Post "no hazardous materials" signs. Inspect and pick up litter daily and clean up spills immediately. Keep spill control materials available on-site. See Fact Sheet SC-34, "Waste Handling and Disposal" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

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☐ **H.** Industrial processes.	☐ Show process area.	☐ If industrial processes are to be located on site, state: "All process activities to be performed indoors. No processes to drain to exterior or to storm drain system."	☐ See Fact Sheet SC-10, "Non-Stormwater Discharges" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com See the brochure "Industrial & Commercial Facilities Best Management Practices for: Industrial, Commercial Facilities" at http://rcflood.org/stormwater/

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☐ **I.** Outdoor storage of equipment or materials. (See rows J and K for source control measures for vehicle cleaning, repair, and maintenance.)	☐ Show any outdoor storage areas, including how materials will be covered. Show how areas will be graded and bermed to prevent run-on or run-off from area. ☐ Storage of non-hazardous liquids shall be covered by a roof and/or drain to the sanitary sewer system, and be contained by berms, dikes, liners, or vaults. ☐ Storage of hazardous materials and wastes must be in compliance with the local hazardous materials ordinance and a Hazardous Materials Management Plan for the site.	Include a detailed description of materials to be stored, storage areas, and structural features to prevent pollutants from entering storm drains. Where appropriate, reference documentation of compliance with the requirements of Hazardous Materials Programs for: ▪ Hazardous Waste Generation ▪ Hazardous Materials Release Response and Inventory ▪ California Accidental Release (CalARP) ▪ Aboveground Storage Tank ▪ Uniform Fire Code Article 80 Section 103(b) & (c) 1991 ▪ Underground Storage Tank www.cchealth.org/groups/hazmat/	☐ See the Fact Sheets SC-31, "Outdoor Liquid Container Storage" and SC-33, "Outdoor Storage of Raw Materials" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

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☐ **J.** Vehicle and Equipment Cleaning	☐ Show on drawings as appropriate: (1) Commercial/industrial facilities having vehicle/equipment cleaning needs shall either provide a covered, bermed area for washing activities or discourage vehicle/equipment washing by removing hose bibs and installing signs prohibiting such uses. (2) Multi-dwelling complexes shall have a paved, bermed, and covered car wash area (unless car washing is prohibited on-site and hoses are provided with an automatic shut-off to discourage such use). (3) Washing areas for cars, vehicles, and equipment shall be paved, designed to prevent run-on to or runoff from the area, and plumbed to drain to the sanitary sewer. (4) Commercial car wash facilities shall be designed such that no runoff from the facility is discharged to the storm drain system. Wastewater from the facility shall discharge to the sanitary sewer, or a wastewater reclamation system shall be installed.	☐ If a car wash area is not provided, describe any measures taken to discourage on-site car washing and explain how these will be enforced.	Describe operational measures to implement the following (if applicable): ☐ Washwater from vehicle and equipment washing operations shall not be discharged to the storm drain system. Refer to "Outdoor Cleaning Activities and Professional Mobile Service Providers" for many of the Potential Sources of Runoff Pollutants categories below. Brochure can be found at http://rcflood.org/stormwater/ ☐ Car dealerships and similar may rinse cars with water only.

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

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☐ **K.** Vehicle/Equipment Repair and Maintenance	☐ Accommodate all vehicle equipment repair and maintenance indoors. Or designate an outdoor work area and design the area to prevent run-on and runoff of stormwater. ☐ Show secondary containment for exterior work areas where motor oil, brake fluid, gasoline, diesel fuel, radiator fluid, acid-containing batteries or other hazardous materials or hazardous wastes are used or stored. Drains shall not be installed within the secondary containment areas. ☐ Add a note on the plans that states either (1) there are no floor drains, or (2) floor drains are connected to wastewater pretreatment systems prior to discharge to the sanitary sewer and an industrial waste discharge permit will be obtained.	☐ State that no vehicle repair or maintenance will be done outdoors, or else describe the required features of the outdoor work area. ☐ State that there are no floor drains or if there are floor drains, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements. ☐ State that there are no tanks, containers or sinks to be used for parts cleaning or rinsing or, if there are, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements.	In the Stormwater Control Plan, note that all of the following restrictions apply to use the site: ☐ No person shall dispose of, nor permit the disposal, directly or indirectly of vehicle fluids, hazardous materials, or rinsewater from parts cleaning into storm drains. ☐ No vehicle fluid removal shall be performed outside a building, nor on asphalt or ground surfaces, whether inside or outside a building, except in such a manner as to ensure that any spilled fluid will be in an area of secondary containment. Leaking vehicle fluids shall be contained or drained from the vehicle immediately. ☐ No person shall leave unattended drip parts or other open containers containing vehicle fluid, unless such containers are in use or in an area of secondary containment. Refer to "Automotive Maintenance & Car Care Best Management Practices for Auto Body Shops, Auto Repair Shops, Car Dealerships, Gas Stations and Fleet Service Operations". Brochure can be found at http://rcflood.org/stormwater/ Refer to Outdoor Cleaning Activities and Professional Mobile Service Providers for many of the Potential Sources of Runoff Pollutants categories below. Brochure can be found at http://rcflood.org/stormwater/

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☐ L. Fuel Dispensing Areas	☐ Fueling areas[6] shall have impermeable floors (i.e., portland cement concrete or equivalent smooth impervious surface) that are: a) graded at the minimum slope necessary to prevent ponding; and b) separated from the rest of the site by a grade break that prevents run-on of stormwater to the maximum extent practicable. ☐ Fueling areas shall be covered by a canopy that extends a minimum of ten feet in each direction from each pump. [Alternative: The fueling area must be covered and the cover's minimum dimensions must be equal to or greater than the area within the grade break or fuel dispensing area[1].] The canopy [or cover] shall not drain onto the fueling area.		☐ The property owner shall dry sweep the fueling area routinely. ☐ See the Fact Sheet SD-30 , "Fueling Areas" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

[6] The fueling area shall be defined as the area extending a minimum of 6.5 feet from the corner of each fuel dispenser or the length at which the hose and nozzle assembly may be operated plus a minimum of one foot, whichever is greater.

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☐ **M.** Loading Docks	☐ Show a preliminary design for the loading dock area, including roofing and drainage. Loading docks shall be covered and/or graded to minimize run-on to and runoff from the loading area. Roof downspouts shall be positioned to direct stormwater away from the loading area. Water from loading dock areas shall be drained to the sanitary sewer, or diverted and collected for ultimate discharge to the sanitary sewer. ☐ Loading dock areas draining directly to the sanitary sewer shall be equipped with a spill control valve or equivalent device, which shall be kept closed during periods of operation. ☐ Provide a roof overhang over the loading area or install door skirts (cowling) at each bay that enclose the end of the trailer.		☐ Move loaded and unloaded items indoors as soon as possible. ☐ See Fact Sheet SC-30, "Outdoor Loading and Unloading," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

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☒ **N.** Fire Sprinkler Test Water		☒ Provide a means to drain fire sprinkler test water to the sanitary sewer.	☐ See the note in Fact Sheet SC-41, "Building and Grounds Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com
O. Miscellaneous Drain or Wash Water or Other Sources ☐ Boiler drain lines ☐ Condensate drain lines ☐ Rooftop equipment ☐ Drainage sumps ☒ Roofing, gutters, and trim. ☐ Other sources		☐ Boiler drain lines shall be directly or indirectly connected to the sanitary sewer system and may not discharge to the storm drain system. ☐ Condensate drain lines may discharge to landscaped areas if the flow is small enough that runoff will not occur. Condensate drain lines may not discharge to the storm drain system. ☐ Rooftop equipment with potential to produce pollutants shall be roofed and/or have secondary containment. ☐ Any drainage sumps on-site shall feature a sediment sump to reduce the quantity of sediment in pumped water. ☒ Avoid roofing, gutters, and trim made of copper or other unprotected metals that may leach into runoff. Include controls for other sources as specified by local reviewer.	

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☒ P. Plazas, sidewalks, and parking lots.			☒ Sweep plazas, sidewalks, and parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect washwater containing any cleaning agent or degreaser and discharge to the sanitary sewer not to a storm drain.

Appendix 9: O&M

Operation and Maintenance Plan and Documentation of Finance, Maintenance and Recording Mechanisms

WQMP
Operation & Maintenance (O&M) Plan

Project Name:

Magnolia Flats

Prepared for:

Magnolia Partnership, LLC

1201 Dove Street, Suite 520

Newport Beach, CA 92660

(949) 975-1122

Prepared on:

November 18, 2019

This O&M Plan describes the designated responsible party for implementation of this WQMP, including: operation and maintenance of all the structural BMP(s), conducting the training/educational program and duties, and any other necessary activities. The O&M Plan includes detailed inspection and maintenance requirements for all structural BMPs, including copies of any maintenance contract agreements, manufacturer's maintenance requirements, permits, etc.

1. Project Information

APN: 143-180-028-7; 143-180-031-9; 148-180-026-5; 148-180-032-0
Address: 10411-10491 Magnolia Avenue, Riverside, CA 92505
Site Size: 16.6 acres (722,171 sq. ft.)

2. Responsible Party

The responsible party for implementation of this WQMP is:

Name: Magnolia Partnership, LLC
Contact Person: Darrin Olson
Address: 1201 Dove Street, Suite 520, Newport Beach, CA 92660
Phone: (949) 975-1122
Email: dolson@realmre.com

3. Record Keeping

Parties responsible for the O&M plan shall retain records for at least 5 years. All training and educational activities and BMP operation and maintenance shall be documented to verify compliance with this O&M Plan. A sample Training Log and Inspection and Maintenance Log are included in Appendix 3 of this document. The **WQMP Verification Form** (**Appendix 5**) shall be completed accurately and retained as part of this document.

4. Vector Control

Standing water which exists for longer than 72 hours may contribute to mosquito breeding areas. Best Management Practices (BMPs) shall be inspected for standing water on a regular basis. Standing water may indicate that the BMP is not functioning properly and proper action to remedy the situation shall be taken in a timely manner. Elimination of standing water and managing garbage, lawn clippings, and pet droppings, can help decrease the presence of mosquitoes and flies in the area. The County Vector Control District may be contacted for more information and support.

5. Inspections

The local jurisdiction may conduct a site inspection to evaluate compliance with the project specific WQMP. This document, including the appendix logs and the applicable WQMP should be shown to the inspector, as proof of maintenance.

6. Operation and Maintenance Requirements

This table is a summary of information provided in the site specific WQMP, and is not an all-inclusive list. For more detailed information on operation and maintenance requirements, refer

to approved Project WQMP, Manufacturer's recommendations, CASQA BMP Fact Sheets, and Technical Guidance Manual.

BMP	Implementation, Inspection and Maintenance Requirements	Frequency
N1. Education for Property Owners, Tenants and Occupants	For developments with no Property Owners Association (POA) or with POA of less than fifty (50) dwelling units, practical information materials will be provided to the first residents/occupants/tenants on general housekeeping practices that contribute to the protection of stormwater quality. These materials will be initially developed and provided to first residents/occupants/tenants by the developer. Thereafter such materials will be available through the local jurisdiction's stormwater education program. Different materials for residential, office commercial, retail commercial, vehicle-related commercial and industrial uses have been developed. For developments with POA and residential projects of more than fifty (50) dwelling units, project conditions of approval will require that the POA periodically provide environmental awareness education materials, made available by the municipalities, to all members. Among other things, these materials will describe the use of chemicals (including household type) that should be limited to the property, with no discharge of wastes via hosing or other direct discharge to gutters, catch basins and storm drains. Educational materials available from the Riverside County Stormwater Program and can be downloaded at: http://www.rcwatershed.org	Information to be initially provided to owners & tenants upon sale or lease agreement. Educational materials will be provided to owners and/or tenants annually, thereafter.
N2. Activity Restriction	If a POA is formed, conditions, covenants and restrictions (CCRs) must be prepared by the developer for the purpose of surface water quality protection. An example would be not allowing car washing outside of established community car wash areas in multi-unit complexes. Alternatively, use restrictions may be developed by a building operator through lease terms, etc. These restrictions must be included in the Project WQMP.	Continuous

BMP	Implementation, Inspection and Maintenance Requirements	Frequency
N3. Common Area Landscape Management & Efficient Landscape Design	Landscape Management Includes: • Mitigation of the potential dangers of fertilizer and pesticide usage through the incorporation of an Integrated Pest Management Program (IPM). • Monitor for runoff and efficiency regularly. • Implementation of a water budget. • Irrigation systems shall be automatically controlled and designed, installed, and maintained so as to minimize overspray and runoff onto streets, sidewalks, driveways, structures, windows, walls, and fences. • Use of native and drought tolerant species when replanting.	Weekly
N4. BMP Maintenance	The RP will ensure implementation of each non-structural BMP and scheduled cleaning and/or maintenance of all structural BMP facilities.	Ongoing
N11. Common Area Litter Control	For industrial/commercial developments and for developments with POAs, the owner/POA are required to implement trash management and litter control procedures in the common areas aimed at reducing pollution of drainage water. The owner/POA may contract with their landscape maintenance firms to provide this service during regularly scheduled maintenance, which should consist of litter patrol, emptying of trash receptacles in common areas, and noting trash disposal violations by tenants/homeowners or businesses and reporting the violations to the owner/POA for investigation.	Daily inspection and weekly sweeping and clean-up or as needed prior to rain events.
N12. Contractor/Employee Training	All contractors shall be trained and made aware of this WQMP and operation and maintenance requirements of BMPs. This BMP requires an education program (see N1) as it would apply to future employees of individual businesses. The developer prepares manual(s) for initial purchasers of a business site or for a development that is constructed for an unspecified use; the developer makes a commitment on behalf of POA or future business owner to prepare the training. An example would be a provision to provide training on the proper storage and use of fertilizers and pesticides, or training on the implementation of hazardous spill contingency plans. All contractors shall be trained and made aware of this WQMP and operation and maintenance requirements of BMPs.	At first hire and annually thereafter for HOA personnel and employees, to include the educational materials contained in the approved Water Quality Management Plan.

BMP	Implementation, Inspection and Maintenance Requirements	Frequency
N14. Catch Basin Inspection Program	Catch basins will be owned, inspected and maintained by the HOA/RP. For industrial/commercial developments and for developments with privately maintained drainage systems, the owner is required to have at least 80 percent of drainage facilities inspected, cleaned and maintained on an annual basis with 100 percent of the facilities included in a two-year period. Cleaning should take place in the late summer/early fall prior to the start of the rainy season. Drainage facilities include catch basins (storm drain inlets), detention basins, retention basins, sediment basins, open drainage channels and lift stations.	At a minimum, basins will be inspected and cleaned around October 1ST of each year, prior to "first flush" storm, or as necessary after large storm events to clear inlets of trash, debris and silt.
N15. Vacuum Sweeping of Private Streets and Parking Lots	Streets and parking lots are required to be swept on a regular frequency based usage and field observations of waste accumulation, using a vacuum assisted sweeper. At a minimum all paved areas of a business shall be swept, in late summer or early fall, prior to the start of the rainy season or equivalent, as required by the governing jurisdiction.	At a minimum, annually. As needed to remove excess debris.
S1. Provide storm drain system stenciling and signage	Storm drain stencils are highly visible source control messages, typically placed directly adjacent to storm drain inlets. The stencils contain a brief statement that prohibits the dumping of improper materials into the MS4. Graphical icons, either illustrating anti-dumping symbols or images of receiving water fauna, are effective supplements to the anti-dumping message. Stencils and signs alert the public to the destination of pollutants discharged into stormwater. The following requirements should be included in the project design and shown on the project plans: • Provide stenciling or labeling of all storm drain inlets and catch basins, constructed or modified, within the project area with prohibitive language (such as: "No Dumping – Flows to Creek") and/or graphical icons to discourage illegal dumping. • Post signs and prohibitive language and/or graphical icons, which prohibit illegal dumping at public access points along channels and creeks within the project area. • Maintain legibility of stencils and signs. • See CASQA Stormwater Handbook BMP Fact Sheet SD-13 for additional information.	Catch basin labels will be inspected once annually and relabeled as necessary to maintain legibility.

BMP	Implementation, Inspection and Maintenance Requirements	Frequency
S3. Design and construct trash and waste storage areas to reduce pollution introduction	Design trash storage areas to reduce pollutant introduction. All trash container areas shall meet the following requirements (limited exclusion: detached residential homes): • Paved with an impervious surface, designed not to allow run-on from adjoining areas, designed to divert drainage from adjoining roofs and pavements diverted around the area, screened or walled to prevent off-site transport of trash; and • Provide solid roof or awning to prevent exposure to direct precipitation. • Connection of trash area drains to the MS4 is prohibited. See CASQA Stormwater Handbook Section 3.2.9 and BMP Fact Sheet SD-32 for additional information.	Weekly inspect trash dumpster to insure it is kept in a non-leaking condition. Replace/repair as needed.

BMP	Implementation, Inspection and Maintenance Requirements	Frequency
S4. Use efficient irrigation systems & landscape design, water conservation, smart controllers, and source control	The Water Conservation in Landscaping Act of 2006, Assembly Bill 1881 (AB 1881), requires adoption of the Model Water Efficient Landscape Ordinance designed to improve public and private landscaping and irrigation practices for new development projects or rehabilitation of significant landscape areas. The ordinance reduces outdoor water waste through improvements in irrigation efficiency and selection of plants requiring less water. The ordinance requires development of water budgets for landscaping, use of recycled water if available, routine irrigation audits and scheduling of irrigation based on localized climate. For existing landscapes greater than one-acre in size, the water purveyors are required to implement programs, such as irrigation water use analyses, irrigation surveys, and irrigation audits to reduce landscape water use to a level not exceeding the Maximum Applied Water Allowance (MAWA) as specified in the ordinance. Landscape audits are required to be conducted by a certified landscape auditor. Irrigation practices shall also comply with any more stringent local ordinances related to irrigation efficiency. The project proponent should also consult the LIP for the area in which the project is planned for development. In general, the following methods to reduce excessive irrigation runoff shall be considered, and incorporated for all landscaped areas: • Employing rain shutoff devices to prevent irrigation after precipitation. • Designing irrigation systems to each landscape area's specific water requirements. • Using flow reducers or shutoff valves triggered by a pressure drop to control water loss in the event of broken sprinkler heads or lines. • The timing and application methods of irrigation water shall be designed to minimize the runoff of excess irrigation water into the municipal storm drain system. • Employing other comparable, equally effective, methods to reduce irrigation water runoff. • Group plants with similar water requirements in order to reduce excess irrigation runoff and promote surface filtration. Choose plants with low irrigation requirements (for example, native or drought tolerant species). Consider other design features, such as:	Monthly

BMP	Implementation, Inspection and Maintenance Requirements	Frequency
	• Use mulches (such as wood chips or shredded wood products) in planter areas without ground cover to minimize sediment in runoff. • Install appropriate plant materials for the location, in accordance with amount of sunlight and climate, and use native plant material where possible and/or as recommended by the landscape architect. • Leave a vegetative barrier along the property boundary and interior watercourses, to act as a pollutant filter, where appropriate and feasible. • Choose plants that minimize or eliminate the use of fertilizer or pesticides to sustain growth.	
SD-13 Provide Storm Drain System Stenciling and Signage	• All catch basins where applicable in paved areas, will be marked or stenciled with "No Dumping - Drains to Ocean, No Descargue Basura" language. This will be done in a location that can be clearly seen by all and will be routinely inspected and re-labeled, as necessary. Thereafter, the owner/operator shall routinely inspect and re-label the catch basins, as necessary.	Catch basin labels will be inspected once annually and relabeled as necessary to maintain legibility.

BMP	Implementation, Inspection and Maintenance Requirements	Frequency
MaxWell IV Drywell	1. Inspection Procedures: The settling chambers and internal components of the unit will be inspected regularly. Additionally, an assessment of the site drainage will be conducted to insure that the system meets operation guidelines. The visual inspection will ascertain that the unit is functioning properly (no blockages or obstructions to inlet and/or infiltration chamber), measuring the amount of solid materials, fine sediment, and floating trash and debris within the chamber. Schedules for inspections and cleanout will be based on storm events and pollutant accumulation due to failure of upstream pre-treatment device. During the rainfall season, the unit will be inspected at least once every 30 days. Accumulation of sediment and floatable material captured by the MaxWell IV will be recorded in a maintenance log. 2. Cleanout Procedures: Truck mounted hydro-vactor equipment will be used to clean the system utilizing water and air to dislodge and remove debris and sediment deposits. All chambers, inlets, connecting piping and catch basis are cleaned and the contents discharged. The accumulated contents are transported off-site for disposal. Within each chamber, geotextile fabric base seals and hydrophobic petrochemical sponges are removed and replaced. Inlet grates and covers are re-installed and then re-secured with the existing locking devices. 3. Maintenance Log: Keep on-site a log of all inspections and maintenance performed on the MaxWell IV.	As recommended.