CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

October 1, 2015

Mr. Neal Shapiro
City of Santa Monica
Office of Sustainability and the Environment
1717 4th St., Suite 100
Santa Monica, CA 90401-3126

TENTATIVE APPROVAL OF THE CITY OF SANTA MONICA'S REQUEST FOR LOCAL LOW IMPACT DEVELOPMENT ORDINANCE EQUIVALENCY UNDER PART VI.D.7.d.i OF THE LOS ANGELES COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT (Order No. R4-2012-0175, NPDES Permit No. CAS004001)

Dear Mr. Shapiro:

We have reviewed your request for Regional Board approval of the implementation of Santa Monica's current Low Impact Development (LID) Ordinance in lieu of strict compliance with the provisions of the Planning and Development Program of Order No. R4-2012-0175.

A Permittee that has adopted a local LID ordinance prior to the adoption of Order No. R4-2012-0175, and which includes a retention requirement numerically equal to the 0.75-inch, 24-hour rain event or the 85th percentile, 24-hour rain event, whichever is greater, may submit documentation to the Regional Water Board that the alternative requirements in the local ordinance will provide equal or greater reduction in storm water discharge pollutant loading and volume as would have been obtained through strict conformance with Part VI.D.7.c.i. (Integrated Water Quality/Flow Reduction Resources Management Criteria) or Part VI.D.7.c.ii. (Alternative Compliance Measures for Technical Infeasibility or Opportunity for Regional Ground water Replenishment) of this Order. Local ordinances that do not strictly conform to the provisions of this Order must be approved by the Regional Water Board Executive Officer as being "equivalent" in effect to the applicable provisions of this Order in order to substitute for the requirements in Parts VI.D.7.c.i.

Pursuant to Part VI.d.7.d.i, the City of Santa Monica (City) has requested that the implementation of their current local LID Ordinance be deemed equivalent to implementation of the provisions of the Planning and Development Program of Order No. R4-2012-0175. Based on our review of the documentation provided by the City, we have determined that the implementation of the current LID ordinance provides equivalent, if not greater, water quality benefits than those that would be derived from implementation of the provisions of the Planning and Development Program of Order No. R4-2012-0175.

The Regional Water Board is required to provide public notice of the proposed equivalency determination with a minimum 30-day period for public comment. All comments must be received by **5PM on November 2, 2015**. Interested persons are encouraged to submit

comments electronically. Send comments by email to: losangeles@waterboards.ca.gov. Please indicate in the subject line, "Comment Letter – LA County MS4 Permit, Santa Monica LID Equivalency." Written comments submitted through email are requested to be transmitted in Microsoft Word format. Written comments sent by mail should be addressed to:

California Regional Water Quality Control Board
Los Angeles Region
ATTN: Chris Lopez
320 W. 4th Street, Suite 200
Los Angeles, CA 90013

In the event that data is provided that demonstrates the City's LID Ordinance is not providing equivalent water quality benefits as implementing the default Planning and Development Program, the Regional Board Executive Officer reserves the right and ability to rescind the approval.

If you have any questions, please contact Chris Lopez at Chris.Lopez@waterboards.ca.gov or (213) 576-6674.

Sincerely,

Samuel Unger

Samuel Unger, P.E.
Executive Officer

Enclosures: Request for Local Ordinance Equivalency
Request for Local Ordinance Equivalency – Local Ordinance Analysis
Ordinance Number 2317

cc: Jennifer Fordyce, Office of Chief Counsel, State Water Resources Control Board

City of Santa Monica
Civil Engineering Division
1437 4th Street, Suite 300
Santa Monica, CA 90401

City of
Santa Monica

July 21, 2014

Mr. Samuel Unger, P.E.
Executive Officer
Los Angeles Regional Water Quality Control Board
320 W. 4th Street, Suite 200
Los Angeles, CA 90013

RE: Request for Local Ordinance Equivalency per section VI.D.7.d.i of Order No. R4-2012-0175

Dear Mr. Unger:

The City of Santa Monica requests that the Regional Water Quality Control Board (RWQCB) consider making a determination on a proposed Local Ordinance Equivalence beyond the deadline identified in section VI.D.7.d.i of Order No. R4-2012-0175.

Our urban runoff pollution ordinance was first adopted in 1992. It is our position that even with a Stormwater Quality Design Volume based on the ¾", 24-hour rain event, the rigorous application of our ordinance will result in a higher volume of urban runoff mitigated due to the higher number of developments that our ordinance applies to.

We are prepared to perform the analysis for developments in the year 2011 and 2012 if the RWQCB is able to commit to making an equivalency determination based on the analysis.

We look forward to your favorable response. Please feel free to contact me at (310) 458-8234 if you have any questions.

Sincerely,

Rick Valte, P.E.
Watershed Program Manager

Cc: Ivar Ridgeway, RWQCB
Renee Purdy, RWQCB
Neal Shapiro, City of Santa Monica

City of Santa Monica
Civil Engineering Division
1437 4th Street, Suite 300
Santa Monica, CA 90401

September 18, 2014

Mr. Samuel Unger, P.E.
Executive Officer
Los Angeles Regional Water Quality Control Board
320 W. 4th Street, Suite 200
Los Angeles, CA 90013

RE: Request for Local Ordinance Equivalency per section VI.D.7.d.i of Order No. R4-2012-0175 – Local Ordinance Analysis

Dear Mr. Unger:

As a follow up to our Request for Local Ordinance Equivalency, dated July 21, 2014, we have completed a comparison of the actual application of our Urban Runoff Pollution Ordinance against the theoretical application of the LID Ordinance prescribed in the MS4 Permit on development projects in our City from 2010 to 2013.

Our findings are summarized in the table below:

	2010-2013	
	Current SM Ordinance	Proposed MS4
Number of Projects subjected to the ordinance	263	38
Total Project Area (sq. ft.)	2,765,905	991,370
Total Impervious Area (sq. ft.)	1,637,793	739,885
Runoff Volume Retained (cu. ft.)	**103,527**	**64,722**

The MS4 proposed LID Ordinance would only apply to an average of 9 to 10 projects per year due to the built out nature of our City and the fact that redevelopment occurs on lot sizes typically less than an acre in size. Even with a more stringent design storm, the MS4 proposed LID Ordinance resulted in runoff retention slightly more than 50% of the actual runoff retention required by our existing ordinance.

We are submitting herewith the full analysis and Chapter 7.10 of the Santa Monica Municipal Code for your review. With this information, we request that the Regional Water Quality Control Board (RWQCB) make a determination that Chapter 7.10 of the Santa Monica Municipal Code is equivalent to the Planning and Land Development Program identified by section VI.D.7 of Order No. R4-2012-0175.

We look forward to your favorable response. Please feel free to contact me at (310) 458-8234 if you have any questions.

Sincerely,

Rick Valte, P.E.
Watershed Program Manager

Encl: BMP Volume Analysis
Santa Monica Municipal Code Chapter 7.10

Cc: Ivar Ridgeway, RWQCB
Renee Purdy, RWQCB
Neal Shapiro, City of Santa Monica

Summary of Results
BMP Mitigation Volume Analysis
Current Santa Monica Ordinance vs. Proposed MS4 Requirements

	2010	
	Current SM Ordinance	Proposed MS4
Number of Projects	81	11
Total Project Area (sq. ft.)	682,955	141,455
Total Impervious Area (sq. ft.)	395,463	127,855
Required Mitigation Volume (cu. ft.)	**24,716**	**11,101**

	2011	
	Current SM Ordinance	Proposed MS4
Number of Projects	74	10
Total Project Area (sq. ft.)	642,470	134,840
Total Impervious Area (sq. ft.)	381,540	121,680
Required Mitigation Volume (cu. ft.)	**24,512**	**10,697**

	2012	
	Current SM Ordinance	Proposed MS4
Number of Projects	52	11
Total Project Area (sq. ft.)	931,850	595,875
Total Impervious Area (sq. ft.)	558,670	391,470
Required Mitigation Volume (cu. ft.)	**35,416**	**34,154**

	2013	
	Current SM Ordinance	Proposed MS4
Number of Projects	56	6
Total Project Area (sq. ft.)	508,630	119,200
Total Impervious Area (sq. ft.)	302,120	98,880
Required Mitigation Volume (cu. ft.)	**18,883**	**8,771**

	2010-2013	
	Current SM Ordinance	Proposed MS4
Number of Projects	263	38
Total Project Area (sq. ft.)	2,765,905	991,370
Total Impervious Area (sq. ft.)	1,637,793	739,885
Required Mitigation Volume (cu. ft.)	**103,527**	**64,722**

SM-2010

Address	Parcel Area	City URM Achieved	City URM Required	Impervious area
[redacted]				
	8,755	0	313	5,000
			0	
	2,340	150	146	2,340
			0	
	6,800	450	425	6,800
			0	
	28,000	1,750	1,750	28,000
			0	
			0	
	13,000	840	700	11,200
			0	
	7,500	0	469	7,500
			0	
			0	
	18,500	920	1,156	18,500
			0	
			0	
			0	
			0	
			0	
			0	
			0	
	14,400	900	900	14,400
			0	
			0	
			0	
			0	
	14,000	670	656	10,500
			0	
	7,500	410	408	6,525
			0	
	7,000	0	313	5,000
			0	
			0	
	5,600	100	231	3,700
			0	
	16,000	900	902	14,430
			0	
			0	
			0	
			0	

Addresses blocked for privacy

SM-2010

Address	Parcel Area	City URM	City URM	Impervious area
[redacted]			0	
			0	
			0	
			0	
	2,000	65	66	1,050
			0	
	7,720	240	229	3,660
			0	
			0	
			0	
	6,000	270	259	4,150
			0	
	21,000	145	394	6,300
			0	
			0	
	7,870	240	227	3,630
			0	
	13,520	300	289	4,620
			0	
	9,280	300	302	4,830
			0	
	2,800	140	131	2,100
			0	
	1,640	100	103	1,640
			0	
	10,850	350	339	5,425
			0	
	10,820	370	356	5,700
			0	
			0	
	6,750	200	191	3,060
			0	
	7,870	230	219	3,500
			0	
	34,670	1,280	1,222	19,550
			0	
			0	
	7,500	30	206	3,300
			0	
			0	
	22,600	920	919	14,700
			0	
	7,500	235	225	3,600
			0	
	5,530	240	229	3,660
			0	
	8,945	280	266	4,250
			0	
	10,500	245	231	3,700
			0	
	6,000	225	226	3,615
			0	

SM-2010

Address	Parcel Area	City URM	City URM	Impervious area
[redacted]	5,700	300	193	3,085
			0	
			0	
	5,000	125	125	2,000
			0	
			0	
	7,585	220	221	3,530
			0	
			0	
			0	
	7,800	330	313	5,000
			0	
	7,790	335	339	5,420
			0	
	3,305	130	131	2,095
			0	
	7,500	260	250	4,000
			0	
	7,000	270	263	4,200
			0	
			0	
	7,500	180	179	2,860
			0	
	8,400	70	166	2,650
			0	
	7,500	220	209	3,340
			0	
	6,555	240	232	3,710
			0	
	8,535	400	396	6,335
			0	
	8,940	340	306	4,890
			0	
	7,880	400	378	6,040
			0	
	5,000	240	229	3,660
			0	
			0	
	4,610	200	198	3,170
			0	
	6,100	200	188	3,000
			0	
	5,500	170	164	2,630
			0	
			0	
	7,500	240	230	3,680
			0	
	9,000	265	264	4,220
			0	
	14,500	440	538	8,600
			0	
	9,000	160	188	3,000
			0	

SM-2010

Address	Parcel Area	City URM	City URM	Impervious area
[redacted]	8,700	15	156	2,500
			0	
			0	
	7,000	240	238	3,800
			0	
			0	
	6,800	115	110	1,760
			0	
			0	
			0	
	9,000	0	203	3,250
			0	
			0	
	8,000	300	150	2,400
			0	
			0	
	7,000	200	188	3,000
			0	
			0	
	7,250	80	50	800
			0	
	8,940	300	283	4,535
			0	
	8,300	380	364	5,820
			0	
	34,515	560	533	8,535
			0	
			0	
	6,085	200	193	3,085
			0	
	7,630	220	213	3,400
			0	
			0	
	6,300	270	250	4,000
			0	
			0	
	6,400	245	245	3,923
			0	
	4,375	250	240	3,840
			0	
	5,700	160	231	3,700
			0	
	4,500	40	156	2,500
			0	
			0	
	7,500	235	223	3,565
	682,955	**23,040**	**24,716**	**395,463**
	area	achieved	required	impervious

MS4-2010

Address	Parcel Area	Rainfall Aone	MS4 Volume Required	Impervious area
[redacted]				
	8,755	1.0	417	5,000
			0	
	6,800	1.0	567	6,800
			0	
	28,000	1.1	2,567	28,000
			0	
	13,000	1.1	1,027	11,200
			0	
	7,500	1.0	625	7,500
			0	
	18,500	1.0	1,542	18,500
			0	
	14,400	1.1	1,320	14,400
			0	
	14,000	1.0	875	10,500
			0	
	7,500	1.0	544	6,525
			0	
	7,000	1.0	417	5,000
			0	
	16,000	1.0	1,203	14,430
			0	
	141,455		**11,101**	**127,855**

a _____ required impervious

SM-2011

City of Santa Monica

CURRENT SM ORDINANCE VOLUMES

BMP	BusinessType	Address	Project Type 1	Parcel Area (sq. ft.)	Required City UR Ord Mitigation Volume (cu. Ft.)	Achieved City UR Ord Mitigation Volume(cu. ft.)	Impermeable Area (sq. ft.)	Comments
Commercial								
~~Filtering – Downspout Insert~~			~~Interior T.I.~~	~~7,700~~		~~480~~	~~7,700~~	Exclude Filtering
~~Filtering – Downspout Insert~~	~~Gym We~~		~~Interior T.I.~~	~~25,100~~		~~1,560~~	~~25,100~~	Exclude Filtering
~~Filtering – Non-Vortex~~	~~Hotel~~		~~New Building~~	~~30,000~~		~~1,875~~	~~30,000~~	Exclude Filtering
Infiltration -	Hotel		New Building	15,000	756.25	800	12,100	
~~Filtering – Non-Vortex~~			~~New Building~~	~~30,000~~		~~1,380~~	~~21,150~~	Exclude Filtering
Infiltration -			Interior T.I.	7,500	468.75	480	7,500	
Infiltration -	Entertair		Interior T.I.	7,500	468.75	490	7,500	
Infiltration -			New Building	8,000	500	520	8,000	
				38,000	**2193.75**	**2,290**	**35,100**	
Education								
Use - Rain	School		Rainwater Harvesting	3,930	136.25	0	2,180	
Infiltration -	Element		New Building	21,000	900	940	14,400	
				24,930	**1,036**	**940**	**16,580**	

SM-2011

CURRENT SM ORDINANCE VOLUMES

BMP	BusinessType	Address	Project Type 1	Parcel Area (sq. ft.)	Required City UR Ord Mitigation Volume (cu. Ft.)	Achieved City UR Ord Mitigation Volume(cu. ft.)	Impermeable Area (sq. ft.)	Comments
Government								
Infiltration -	television st		nterior T.I.	7,840	490	510	7,840	
Infiltration -	museum		nterior T.I.	44,000	2750	2,700	44,000	
~~Infiltration – Pit (Plastic Box Modules)~~	~~television st~~		~~nterior T.I.~~	~~7,840~~		~~510~~	~~7,840~~	Excluded; seems like a duplicate of above info
				51,840	**3,240**	**3,210**	**51,840**	
Mixed-Use								
~~Filtering – Catch Basin/Channel Insert~~			~~New Building~~	~~22,515~~		~~1,390~~	~~21,145~~	Exclude Filtering
				0	**0**	**0**	**0**	
Multi-Family								
Infiltration -			New Building	6,000	221.875	230	3,550	
Infiltration -			Interior Residential	7,500	272.5	290	4,360	
Infiltration -			New Building	7,500	402.5	400	6,440	
Infiltration -			Garage	6,300	212.5	60	3,400	
~~Filtering – Non-Vortex~~			~~New Building~~	~~7,500~~		~~350~~	~~5,700~~	Exclude Filtering
Infiltration -			Interior Residential	6,210	289.375	300	4,630	
~~Filtering – Non-Vortex~~			~~New Building~~	~~7,500~~		~~350~~	~~5,700~~	Exclude Filtering
Infiltration -			New Building	7,500	431.25	430	6,900	

SM-2011

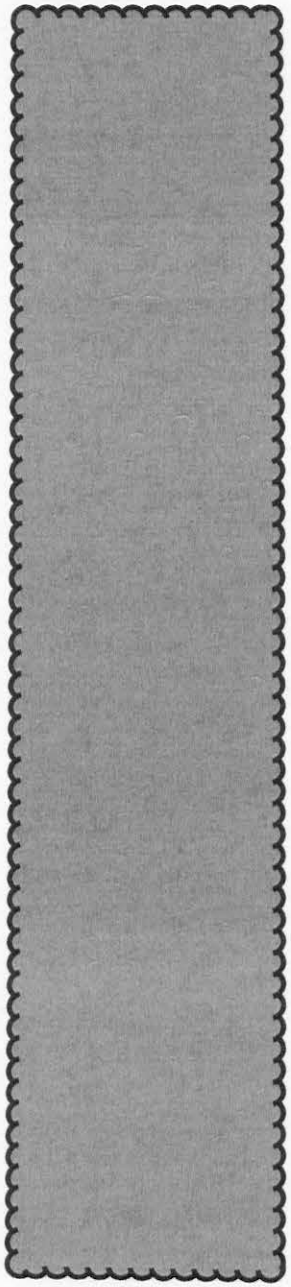
CURRENT SM ORDINANCE VOLUMES

BMP	BusinessType	Address	Project Type 1	Parcel Area (sq. ft.)	Required City UR Ord Mitigation Volume (cu. Ft.)	Achieved City UR Ord Mitigation Volume(cu. ft.)	Impermeable Area (sq. ft.)	Comments
Infiltration -			New Building	9,000	437.5	400	7,000	
				50,010	**2,268**	**2,110**	**36,280**	
Single-Family								
Biofilter -			New Building	15,870	479.375	480	7,670	
Infiltration -			Garage	1,280	80	80	1,280	
Biofilter - No			Interior Residential	2,000	81.25	80	1,300	
Infiltration -			New Building	8,330	392.8125	410	6,285	
Use - Rain			New Building	8,750	406.875	430	6,510	
Biofilter -			New Building	6,100	150	180	2,400	
Infiltration -			New Building	9,000	275	275	4,400	
Infiltration -			New Building	8,000	278.125	290	4,450	
Infiltration -			Interior Residential	7,000	204.375	140	3,270	
Infiltration -			Room/Wing Addition	6,900	168.75	180	2,700	
Biofilter -			Room/Wing Addition	6,000	193.75	0	3,100	
Infiltration -			Room/Wing Addition	9,000	250	310	4,000	
Infiltration -			Interior Residential	9,000	158.75	145	2,540	
Infiltration -			Interior Residential	7,130	285	300	4,560	

SM-2011

CURRENT SM ORDINANCE VOLUMES

BMP	BusinessType	Address	Project Type 1	Parcel Area (sq. ft.)	Required City UR Ord Mitigation Volume (cu. Ft.)	Achieved City UR Ord Mitigation Volume(cu. ft.)	Impermeable Area (sq. ft.)	Comments
Infiltration -			New Building	5,000	176.5625	200	2,825	
Infiltration -			Interior Residential	9,000	335	350	5,360	
Infiltration -			Interior Residential	5,800	187.5	190	3,000	
Infiltration -			New Building	8,700	226.25	240	3,620	
Infiltration -			Accessory Building	6,500	193.75	50	3,100	
Infiltration -			Accessory Building	9,000	281.25	60	4,500	
Infiltration -			New Building	18,500	522.5	520	8,360	
Infiltration -			Interior Residential	6,000	234.375	250	3,750	
Infiltration -			New Building	8,000	218.75	210	3,500	
Infiltration -			Interior Residential	7,000	231.25	240	3,700	
Infiltration -			Interior Residential	5,600	232.5	240	3,720	
Infiltration -			New Building	6,000	240.625	240	3,850	
Infiltration -			Interior T.I.	7,500	168.75	200	2,700	
Infiltration -			Interior T.I.	6,760	200	200	3,200	
Infiltration -			New Building	9,000	250	285	4,000	
Infiltration -			New Building	17,500	406.25	420	6,500	
Infiltration -			Interior Residential	7,000	156.25	160	2,500	



SM-2011

CURRENT SM ORDINANCE VOLUMES

BMP	BusinessType	Address	Project Type 1	Parcel Area (sq. ft.)	Required City UR Ord Mitigation Volume (cu. Ft.)	Achieved City UR Ord Mitigation Volume(cu. ft.)	Impermeable Area (sq. ft.)	Comments
Filtering -		[redacted]	New Building	4,000	179.375	180	2,870	
Use - Rain			New Building	12,500	418.75	450	6,700	
Infiltration -			New Building	8,400	231.25	280	3,700	
~~Infiltration - Pit (Rock)~~			~~New Building~~	~~8,330~~	~~392.8125~~	~~410~~	~~6,285~~	Excluded; seems like a duplicate of above info
Infiltration -			Interior Residential	7,000	187.5	200	3,000	
Infiltration -			New Building	9,820	354.375	370	5,670	
Infiltration -			New Building	7,500	227.5	240	3,640	
Infiltration -			New Building	7,500	231.25	240	3,700	
Infiltration -			Interior T.I.	7,600	196.875	200	3,150	
Infiltration -			Interior Residential	7,500	275	60	4,400	
Infiltration -			New Building	25,400	968.75	1,000	15,500	
Use - Rain			Rainwater Harvesting	6,400	150	0	2,400	
Biofilter -			Interior Residential	7,500	237.5	300	3,800	
Infiltration -			New Building	7,550	296.875	300	4,750	
Use - Rain			Interior Residential	6,300	175	180	2,800	
Infiltration -			Interior Residential	7,500	231.25	250	3,700	
Infiltration -			New Building	8,500	268.75	300	4,300	

SM-2011

CURRENT SM ORDINANCE VOLUMES

BMP	BusinessType	Address	Project Type 1	Parcel Area (sq. ft.)	Required City UR Ord Mitigation Volume (cu. Ft.)	Achieved City UR Ord Mitigation Volume(cu. ft.)	Impermeable Area (sq. ft.)	Comments
Infiltration -		[redacted]	Floor Addition	9,000	343.75	350	5,500	
Infiltration -			Garage	9,000	250	50	4,000	
Infiltration -			Interior Residential	7,500	268.75	300	4,300	
Infiltration -			New Building	7,500	168.75	180	2,700	
Infiltration -			Room/Wing Addition	7,500	206.25	200	3,300	
~~Infiltration – Pit (Rock)~~			~~New Building~~	~~8,700~~	~~226.25~~	~~240~~	~~3,620~~	Excluded; seems like a duplicate of above info
Infiltration -		E	Interior Residential	9,500	327.5	450	5,240	
~~Infiltration – Pit (Plastic Box Modules)~~			~~New Building~~	~~8,400~~	~~231.25~~	~~280~~	~~3,700~~	Excluded; seems like a duplicate of above info
Infiltration -			Interior Residential	7,500	300	315	4,800	
~~Infiltration – Pit (Plastic Box Modules)~~			~~New Building~~	~~8,400~~	~~231.25~~	~~280~~	~~3,700~~	Excluded; seems like a duplicate of above info
Infiltration -			New Building	6,400	258.125	270	4,130	
Infiltration -			Interior Residential	1,600	62.5	100	1,000	
Infiltration -			Interior Residential	7,500	308.75	320	4,940	
Infiltration -			Garage	7,000	62.5	60	1,000	

SM-2011

CURRENT SM ORDINANCE VOLUMES

BMP	BusinessType	Address	Project Type 1	Parcel Area (sq. ft.)	Required City UR Ord Mitigation Volume (cu. Ft.)	Achieved City UR Ord Mitigation Volume(cu. ft.)	Impermeable Area (sq. ft.)	Comments
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~9,000~~	~~250~~	~~285~~	~~4,000~~	Excluded; seems like a duplicate of above info
Use - Rain			Rainwater Harvesting	9,500	256.25	30	4,100	
				477,690	**15,109**	**14,530**	**241,740**	
				642,470	**24,512**	**23,080**	**381,540**	

MS4-2011

BMP Stats by Land Use and Facility

City of Santa Monica From 01/01/2011 To 12/31/2011

PROPOSED MS4 POLICY VOLUMES

BMP	BusinessType	Address	Project Type 1	Parcel Area (sq. ft.)	Rainfall Zone (in.)	Proposed MS4 Mitigation Volume(cu. ft.)	Impermeable Area (sq. ft.)	Comments
Commercial								
~~Filtering - Downspout Insert~~			~~Interior T.I.~~	~~7,700~~			~~7,700~~	Exclude Filtering
~~Filtering - Downspout Insert~~	~~Gym Workou~~		~~Interior T.I.~~	~~25,100~~			~~25,100~~	Exclude Filtering
~~Filtering - Non-Vortex~~	~~Hotel~~		~~New Building~~	~~30,000~~			~~30,000~~	Exclude Filtering
Infiltration - Pit (Rock)	Hotel		New Building	15,000	1.0	1,008	12,100	* - See note at bottom
~~Filtering - Non-Vortex~~			~~New Building~~	~~30,000~~			~~21,150~~	Exclude Filtering
Infiltration - Pit (Plastic Box Modules)			Interior T.I.	7,500	1.0	625	7,500	* - See note at bottom
Infiltration - Pit (Plastic Box Modules)	Entertainmer production		Interior T.I.	7,500	1.0	625	7,500	* - See note at bottom
Infiltration - Pit (Plastic Box Modules)			New Building	8,000	1.1	733	8,000	* - See note at bottom
				38,000		**2,992**	**35,100**	
Education								
~~Use - Rain Barrel-Cistern~~	~~School~~		~~Rainwater Harvesting~~	~~3,930~~	~~1.0~~		~~2,180~~	< 5,000 square feet of impervious area
Infiltration - Pit (Plastic Box Modules)	Elementary school		New Building	21,000	1.0	1,200	14,400	* - See note at bottom
				21,000		**1,200**	**14,400**	
Government								
Infiltration - Pit (Plastic Box Modules)	television sta		Interior T.I.	7,840	1.1	719	7,840	* - See note at bottom
Infiltration - Pit (Rock)	museum		Interior T.I.	44,000	1.1	4,033	44,000	* - See note at bottom
~~Infiltration - Pit (Plastic Box Modules)~~	~~television sta~~		~~Interior T.I.~~	~~7,840~~			~~7,840~~	Excluded; seems like a duplicate of above info
				51,840		**4,752**	**51,840**	
Mixed-Use								
~~Filtering - Catch Basin/Channel Insert~~			~~New Building~~	~~22,515~~			~~21,145~~	Exclude Filtering
				0		**0**	**0**	
Multi-Family								
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~6,000~~			~~3,550~~	< 5,000 square feet of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~7,500~~			~~4,360~~	< 5,000 square feet of impervious area
Infiltration - Pit (Rock)			New Building	7,500	1.0	537	6,440	* - See note at bottom
~~Infiltration - Pit (Plastic Box Modules)~~			~~Garage~~	~~6,300~~			~~3,400~~	< 5,000 square feet of impervious area
~~Filtering - Non-Vortex~~			~~New Building~~	~~7,500~~			~~5,700~~	Exclude Filtering
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~6,210~~			~~4,630~~	< 5,000 square feet of impervious area
~~Filtering - Non-Vortex~~			~~New Building~~	~~7,500~~			~~5,700~~	Exclude Filtering
Infiltration - Pit (Plastic Box			New Building	7,500	1.0	575	6,900	* - See note at bottom

PROPOSED MS4 POLICY VOLUMES

MS4-2011

BMP	BusinessType	Address	Project Type 1	Project Area (sq. ft.)	Rainfall Zone (in.)	Proposed MS4 Mitigation Volume(cu. ft.)	Impermeable Area (sq. ft.)	Comments
Modules)								
Infiltration - Pit (Plastic Box Modules)			New Building	9,000	1.1	642	7,000	* - See note at bottom
				24,000		**1,753**	**20,340**	
Single-Family								
~~Biofilter - Gutters~~			~~New Building~~	~~15,870~~			~~7,670~~	< 10,000 sq ft of impervious area
~~Infiltration - Depression Basin~~			~~Garage~~	~~1,280~~			~~1,280~~	< 10,000 sq ft of impervious area
~~Biofilter - No Gutters~~			~~Interior Residential~~	~~2,000~~			~~1,300~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Rock)~~			~~New Building~~	~~8,330~~			~~6,285~~	< 10,000 sq ft of impervious area
~~Use - Rain Barrel-Cistern~~			~~New Building~~	~~8,750~~			~~6,510~~	< 10,000 sq ft of impervious area
~~Biofilter - Gutters~~			~~New Building~~	~~6,100~~			~~2,400~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Rock)~~			~~New Building~~	~~9,000~~			~~4,400~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~8,000~~			~~4,450~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~7,000~~			~~3,270~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Room/Wing Addition~~	~~6,900~~			~~2,700~~	< 10,000 sq ft of impervious area
~~Biofilter - Gutters~~			~~Room/Wing~~	~~6,000~~			~~3,100~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Room/Wing Addition~~	~~9,000~~			~~4,000~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~9,000~~			~~2,540~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~7,130~~			~~4,560~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~5,000~~			~~2,825~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~9,000~~			~~5,360~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~5,800~~			~~3,000~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Rock)~~			~~New Building~~	~~8,700~~			~~3,620~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Accessory Building~~	~~6,500~~			~~3,100~~	< 10,000 sq ft of impervious area
~~Infiltration - Depression Basin~~			~~Accessory Building~~	~~9,000~~			~~4,500~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Rock)~~			~~New Building~~	~~18,500~~			~~8,360~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~6,000~~			~~3,750~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Rock)~~			~~New Building~~	~~8,000~~			~~3,500~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~7,000~~			~~3,700~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~5,600~~			~~3,720~~	< 10,000 sq ft of impervious area
~~Infiltration - Concrete Vault~~			~~New Building~~	~~6,000~~			~~3,850~~	< 10,000 sq ft of impervious area
~~Infiltration - Depression Basin~~			~~Interior T.I.~~	~~7,500~~			~~2,700~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior T.I.~~	~~6,760~~			~~3,200~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~9,000~~			~~4,000~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~17,500~~			~~6,500~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~7,000~~			~~2,500~~	< 10,000 sq ft of impervious area

PROPOSED MS4 POLICY VOLUMES

MS4-2011

BMP	BusinessType	Address	Project Type 1	Project Area (sq. ft.)	Rainfall Zone (in.)	Proposed MS4 Mitigation Volume(cu. ft.)	Impermeable Area (sq. ft.)	Comments
~~Filtering - Downspout Insert~~			~~New Building~~	~~4,000~~			~~2,870~~	< 10,000 sq ft of impervious area
~~Use - Rain Barrel-Cistern~~			~~New Building~~	~~12,500~~			~~6,700~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~8,400~~			~~3,700~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Rock)~~			~~New Building~~	~~8,330~~			~~6,285~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~7,000~~			~~3,000~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~9,820~~			~~5,670~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~7,500~~			~~3,640~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~7,500~~			~~3,700~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior T.I.~~	~~7,600~~			~~3,150~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~7,500~~			~~4,400~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~25,400~~	~~1.0~~	~~1,292~~	~~15,500~~	< 1 acre lot
~~Use - Rain Barrel-Cistern~~			~~Rainwater Harvesting~~	~~6,400~~			~~2,400~~	< 10,000 sq ft of impervious area
~~Biofilter - Gutters~~			~~Interior Residential~~	~~7,500~~			~~3,800~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~7,550~~			~~4,750~~	< 10,000 sq ft of impervious area
~~Use - Rain Barrel-Cistern~~			~~Interior Residential~~	~~6,300~~			~~2,800~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~7,500~~			~~3,700~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Rock)~~			~~New Building~~	~~8,500~~			~~4,300~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Floor Addition~~	~~9,000~~			~~5,500~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Garage~~	~~9,000~~			~~4,000~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~7,500~~			~~4,300~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~7,500~~			~~2,700~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Room/Wing Addition~~	~~7,500~~			~~3,300~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Rock)~~			~~New Building~~	~~8,700~~			~~3,620~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Rock)~~			~~Interior Residential~~	~~9,500~~			~~5,240~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~8,400~~			~~3,700~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~7,500~~			~~4,800~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~8,400~~			~~3,700~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~6,400~~			~~4,130~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Rock)~~			~~Interior Residential~~	~~1,600~~			~~1,000~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~7,500~~			~~4,940~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box~~			~~Garage~~	~~7,000~~			~~1,000~~	< 10,000 sq ft of impervious area

PROPOSED MS4 POLICY VOLUMES

MS4-2011

BMP	BusinessType	Address	Project Type 1	Project Area (sq. ft.)	Rainfall Zone (in.)	Proposed MS4 Mitigation Volume(cu. ft.)	Impermeable Area (sq. ft.)	Comments
~~Modules)~~								
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~9,000~~			~~4,000~~	< 10,000 sq ft of impervious area
~~Use - Rain Barrel-Cistern~~			~~Rainwater Harvesting~~	~~9,500~~			~~4,100~~	< 10,000 sq ft of impervious area
				0		0	0	
				134,840		10,697	121,680	

* Since I have no idea if projects "created, added or replaced" more than 5,000 square feet of impervious surface area by the descriptions on this spreadsheet, I have only excluded projects with less than 5,000 square feet total impervious area. (Non-SFR projects only) (conservative result)

SM-2012

BMP Stats by Land Use and Facility

City of Santa Monica From

CURRENT SM ORDINANCE VOLUMES

BMP	BusinessType	Address	Project Type 1	Parcel Area (sq. ft.)	Required City UR Ord Mitigation Volume (cu. ft.)	Achieved City UR Ord Mitigation Volume(cu. ft.)	Impermeable Area (sq. ft.)	Comments
Commercial								
Infiltration -	pharmecutical		New Building	176,700	9412.5	9,400	150,600	
Infiltration -	Retail Market		Interior T.I.	22,500	1150	1,150	18,400	
				199,200	**10,563**	**10,550**	**169,000**	
Education								
~~Filtering –~~	~~School~~		~~Interior T.I.~~	~~37,370~~		~~1,940~~	~~29,600~~	Exclude Filtering
~~Filtering –~~	~~School~~		~~Interior T.I.~~	~~37,370~~		~~1,940~~	~~29,600~~	Exclude Filtering
				0	0	**0**	**0**	
Government								
Infiltration -	Park		Landscape Project	273,700	7687.5	7,700	123,000	
				273,700	**7,688**	**7,700**	**123,000**	
Medical								
Infiltration -	Residential care		Interior T.I.	6,000	337.5	200	5,400	
				6,000	**338**	**200**	**5,400**	
Mixed-Use								
Infiltration -	Coffee House		Floor Addition	4,000	237.5	250	3,800	
~~Filtering –~~			~~New Building~~	~~15,000~~		~~930~~	~~15,000~~	Exclude Filtering
~~Filtering –~~			~~New Building~~	~~22,500~~		~~1,260~~	~~19,230~~	Exclude Filtering
~~Filtering –~~			~~Interior T.I.~~	~~15,000~~		~~900~~	~~15,000~~	Exclude Filtering
				4,000	**238**	**250**	**3,800**	
Multi-Family								
Infiltration -			New Building	7,500	375	470	6,000	
Infiltration -			New Building	8,000	453.125	450	7,250	
~~Filtering –~~			~~New Building~~	~~17,940~~		~~970~~	~~15,300~~	Exclude Filtering
Use - Rain			New Building	33,275	1663.75	1,600	26,620	
~~Filtering –~~			~~New Building~~	~~5,000~~		~~250~~	~~4,000~~	Exclude Filtering
Infiltration -			New Building	5,000	312.5	320	5,000	
Infiltration -			New Building	6,500	218.75	300	3,500	
Infiltration -			New Building	7,500	415.625	415	6,650	
Infiltration -			New Building	16,000	350	200	5,600	

CURRENT SM ORDINANCE VOLUMES

SM-2012

BMP	BusinessType	Address	Project Type 1	Parcel Area (sq. ft.)	Required City UR Ord Mitigation Volume (cu. ft.)	Achieved City UR Ord Mitigation Volume(cu. ft.)	Impermeable Area (sq. ft.)	Comments
~~Infiltration -~~			~~New Building~~	~~7,500~~		~~470~~	~~6,000~~	Excluded; seems like a duplicate of above info
Infiltration -			New Building	7,500	406.25	430	6,500	
				91,275	**4,195**	**4,185**	**67,120**	
Religious								
Infiltration -	Church		New Building	40,200	2356.25	2,470	37,700	
				40,200	**2,356**	**2,470**	**37,700**	
Single-Family								
Infiltration -			Interior Residential	7,000	235.625	300	3,770	
Infiltration -			New Building	8,900	306.25	320	4,900	
Infiltration -			New Building	7,000	187.5	200	3,000	
Infiltration -			Interior Residential	8,940	187.5	200	3,000	
Infiltration -			New Building	6,750	188.75	200	3,020	
Infiltration -			Interior Residential	5,100	143.75	150	2,300	
Infiltration -			New Building	8,700	266.25	280	4,260	
Infiltration -			Interior Residential	5,000	140.625	150	2,250	
Infiltration -			Interior Residential	14,500	300	300	4,800	
Infiltration -			Garage	7,500	234.375	250	3,750	
Infiltration -			Room/Wing Addition	3,200	134.375	120	2,150	
Infiltration -			Interior Residential	5,100	143.75	150	2,300	Excluded; seems like a duplicate of above info
Infiltration -			New Building	5,000	198.125	200	3,170	
Infiltration -			New Building	17,890	523.125	560	8,370	
Infiltration -			Interior Residential	7,700	193.75	200	3,100	
Infiltration -			Interior Residential	7,700	193.75	200	3,100	Excluded; seems like a duplicate of above info
Infiltration -			New Building	11,000	450	470	7,200	
Infiltration -			New Building	8700	330	330	5280	Lot area from SAMOA. Impervious area
Infiltration -			Interior Residential	7,500	268.75	300	4,300	
Infiltration -			Interior Residential	8,600	300	300	4,800	

CURRENT SM ORDINANCE VOLUMES

SM-2012

BMP	BusinessType	Address	Project Type 1	Parcel Area (sq. ft.)	Required City UR Ord Mitigation Volume (cu. ft.)	Achieved City UR Ord Mitigation Volume(cu. ft.)	Impermeable Area (sq. ft.)	Comments
Infiltration -			New Building	11,200	412.5	430	6,600	
Infiltration -			New Building	8,870	334.375	350	5,350	
Infiltration -			New Building	21,930	728.125	720	11,650	
Infiltration -			New Building	7,525	250	260	4,000	
Use - Rain			Interior Residential	6,500	168.75	270	2,700	
Infiltration -			Interior Residential	7,600	200	210	3,200	
Use - Rain			New Building	7,500	236.25	250	3,780	
Infiltration -			Garage	5,000	175	50	2,800	
Infiltration -			New Building	13,000	250	530	4,000	
Infiltration -			New Building	2,350	112.5	140	1,800	
Infiltration -			Floor Addition	7,970	203.125	210	3,250	
Infiltration -			Interior Residential	7,500	268.75	300	4,300	
Infiltration -			Interior Residential	9,550	237.5	250	3,800	
Infiltration -			Garage	7,500	137.5	50	2,200	
Infiltration -			Landscape Project	4,000	0	60	0	
Infiltration -			New Building	8,900	281.25	300	4,500	
Infiltration -			Floor Addition	7,500	250	300	4,000	
Infiltration -			New Building	6,400	187.5	200	3,000	
~~Use - Rain~~			~~New Building~~	~~7,500~~	~~236.25~~	~~250~~	~~3,780~~	Excluded; seems like a duplicate of above info
Infiltration -			New Building	10,200	250	260	4,000	
Infiltration -			New Building	7,500	268.75	280	4,300	
~~Infiltration -~~			~~Landscape Project~~	~~4,000~~	~~0~~	~~60~~	~~0~~	Excluded; seems like a duplicate of above info
~~Infiltration -~~			~~Interior Residential~~	~~8,940~~	~~187.5~~	~~200~~	~~3,000~~	Excluded; seems like a duplicate of above info
~~Use - Rain~~			~~New Building~~	~~7,500~~	~~236.25~~	~~250~~	~~3,780~~	Excluded; seems like a duplicate of above info
				317,475	9,541	10,250	152,650	
				931,850	35,416	35,605	558,670	

MS4-2012

BMP Stats by Land Use and Facility

City of Santa Monica From 01/01/2012 To 12/31/2012

PROPOSED MS4 POLICY VOLUMES

BMP	BusinessType	Address	Project Type 1	Parcel Area (sq. ft.)	Rainfall Zone (in.)	Proposed MS4 Mitigation Volume(cu. ft.)	Impermeable Area (sq. ft.)	Comments
Commercial								
Infiltration - Pit (Rock)	pharmecutical		New Building	176,700	1.1	13,805	150,600	* - See note at bottom
Infiltration - Depression Basin	Retail Market		Interior T.I.	22,500	1.0	1,533	18,400	* - See note at bottom
				199,200		**15,338**	**169,000**	
Education								
~~Filtering - Non-Vortex~~	~~School~~		~~Interior T.I.~~	~~37,370~~			~~29,600~~	Exclude Filtering
~~Filtering - Non-Vortex~~	~~School~~		~~Interior T.I.~~	~~37,370~~			~~29,600~~	Exclude Filtering
				0		**0**	**0**	
Government								
Infiltration - Concrete Vault	Park		Landscape Project	273,700	1.0	10,250	123,000	* - See note at bottom
				273,700		**10,250**	**123,000**	
Medical								
Infiltration - Pit (Plastic Box Modules)	Residential car		Interior T.I.	6,000	1.0	450	5,400	* - See note at bottom
				6,000		**450**	**5,400**	
Mixed-Use								
~~Infiltration - Pit (Rock)~~	~~Coffee House~~		~~Floor Addition~~	~~4,000~~			~~3,800~~	< 5,000 square feet of impervious area
~~Filtering - Non-Vortex~~		VD	~~New Building~~	~~15,000~~			~~15,000~~	Exclude Filtering
~~Filtering - Non-Vortex~~			~~New Building~~	~~22,500~~			~~19,230~~	Exclude Filtering
~~Filtering - Non-Vortex~~		VD	~~Interior T.I.~~	~~15,000~~			~~15,000~~	Exclude Filtering
				0		**0**	**0**	
Multi-Family								
Infiltration - Pit (Rock)			New Building	7,500	1.0	500	6,000	* - See note at bottom
~~Filtering - Non-Vortex~~			~~New Building~~	~~17,940~~			~~15,300~~	Exclude Filtering
Use - Rain Barrel-Cistern			New Building	33,275	1.1	2,440	26,620	* - See note at bottom
~~Filtering - Non-Vortex~~			~~New Building~~	~~5,000~~			~~4,000~~	Exclude Filtering
Infiltration - Pit (Plastic Box Modules)			New Building	5,000	1.0	417	5,000	* - See note at bottom
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~6,500~~			~~3,500~~	< 5,000 square feet of impervious area
Infiltration - Pit (Rock)			New Building	7,500	1.0	554	6,650	* - See note at bottom

PROPOSED MS4 POLICY VOLUMES

BMP	BusinessType	Address	Project Type 1	Parcel Area (sq. ft.)	MS4-2012 Rainfall Zone (in.)	Proposed MS4 Mitigation Volume(cu. ft.)	Impermeable Area (sq. ft.)	Comments
Infiltration - Pit (Rock)			New Building	16,000	1.0	467	5,600	* - See note at bottom
~~Infiltration - Pit (Rock)~~			~~New Building~~	~~7,500~~			~~6,000~~	Excluded; seems like a duplicate of above info
Infiltration - Pit (Plastic Box Modules)			New Building	7,500	1.1	596	6,500	* - See note at bottom
				76,775		**4,974**	**56,370**	
Religious								
Infiltration - Perforated CMP	Church		New Building	40,200	1.0	3,142	37,700	* - See note at bottom
				40,200		**3,142**	**37,700**	
Single-Family								
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~7,000~~			~~3,770~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~8,900~~			~~4,900~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~7,000~~			~~3,000~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~8,940~~			~~3,000~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~6,750~~			~~3,020~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~5,100~~			~~2,300~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~8,700~~			~~4,260~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~5,000~~			~~2,250~~	< 10,000 sq ft of impervious area
~~Infiltration - Depression Basin~~			~~Interior Residential~~	~~14,500~~			~~4,800~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Garage~~	~~7,500~~			~~3,750~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Room/Wing Addition~~	~~3,200~~			~~2,150~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~5,100~~			~~2,300~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~5,000~~			~~3,170~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Rock)~~			~~New Building~~	~~17,890~~			~~8,370~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~7,700~~			~~3,100~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~7,700~~			~~3,100~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~11,000~~			~~7,200~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~8700~~			~~5280~~	Lot area from SAMOA. Impervious area back-calculated from URM volume.

PROPOSED MS4 POLICY VOLUMES

MS4-2012

BMP	BusinessType	Address	Project Type 1	Parcel Area (sq. ft.)	Rainfall Zone (in.)	Proposed MS4 Mitigation Volume(cu. ft.)	Impermeable Area (sq. ft.)	Comments
								< 10,000 sq ft of impervious area
~~Infiltration - Pit (Rock)~~			~~Interior Residential~~	~~7,500~~			~~4,300~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~8,600~~			~~4,800~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~11,200~~			~~6,600~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~8,870~~			~~5,350~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Rock)~~			~~New Building~~	~~21,930~~	~~0.9~~	~~874~~	~~11,650~~	< 1 acre lot
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~7,525~~			~~4,000~~	< 10,000 sq ft of impervious area
~~Use - Rain Barrel-Cistern~~			~~Interior Residential~~	~~6,500~~			~~2,700~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~7,600~~			~~3,200~~	< 10,000 sq ft of impervious area
~~Use - Rain Barrel-Cistern~~			~~New Building~~	~~7,500~~			~~3,780~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Garage~~	~~5,000~~			~~2,800~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~13,000~~			~~4,000~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~2,350~~			~~1,800~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Floor Addition~~	~~7,970~~			~~3,250~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Rock)~~			~~Interior Residential~~	~~7,500~~			~~4,300~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Interior Residential~~	~~9,550~~			~~3,800~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Garage~~	~~7,500~~			~~2,200~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Rock)~~			~~Landscape Project~~	~~4,000~~			~~0~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~8,000~~			~~4,500~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~Floor Addition~~	~~7,500~~			~~4,000~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~6,400~~			~~3,000~~	< 10,000 sq ft of impervious area
~~Use - Rain Barrel-Cistern~~			~~New Building~~	~~7,500~~			~~3,780~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~10,200~~			~~4,000~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Plastic Box Modules)~~			~~New Building~~	~~7,500~~			~~4,300~~	< 10,000 sq ft of impervious area
~~Infiltration - Pit (Rock)~~			~~Landscape Project~~	~~4,000~~			~~0~~	< 10,000 sq ft of impervious area

PROPOSED MS4 POLICY VOLUMES

BMP	BusinessType	Address	Project Type 1	Parcel Area (sq. ft.)	MS4-2012 Rainfall Zone (in.)	Proposed MS4 Mitigation Volume(cu. ft.)	Impermeable Area (sq. ft.)	Comments
~~Infiltration - Pit (Plastic Box-Modules)~~		[redacted]	~~Interior Residential~~	~~8,940~~			~~3,000~~	< 10,000 sq ft of impervious area
~~Use - Rain Barrel-Cistern~~			~~New Building~~	~~7,500~~			~~3,780~~	< 10,000 sq ft of impervious area
				0		0	0	
				595,875		34,154	391,470	

* Since I have no idea if projects "created, added or replaced" more than 5,000 square feet impervious surface area by the descriptions on this spreadsheet, I have only excluded projects with less than 5,000 square feet total impervious area. (Non-SFR projects only) (conservative result)

SM-2013

Address	PARCEL AREA	ACHIEVED MITIGATION	REQUIRED MITIGATION	IMPERVIOUS
[redacted]				
	3,700	340	231.25	3,700
			0	
	13,000	800	812.5	13,000
			0	
			0	
			0	
			0	
			0	
			0	
	70,400	3,700	3568.75	57,100
			0	
			0	
			0	
			0	
			0	
			0	
			0	
	4,330	275	261.25	4,180
			0	
			0	
			0	
			0	
			0	
	15,000	750	750	12,000
			0	
	5,310	290	275	4,400
			0	
	6,200	260	250	4,000
			0	
			0	
	5,400	320	312.5	5,000
			0	
	7,000	70	118.75	1,900
			0	
			0	
	7,600	360	250	4,000
			0	
	7,900	1,030	411.25	6,580
			0	
			0	
			0	
	7,500	140	325	5,200
			0	
			0	
			0	
			0	
			0	
			0	

SM-2013

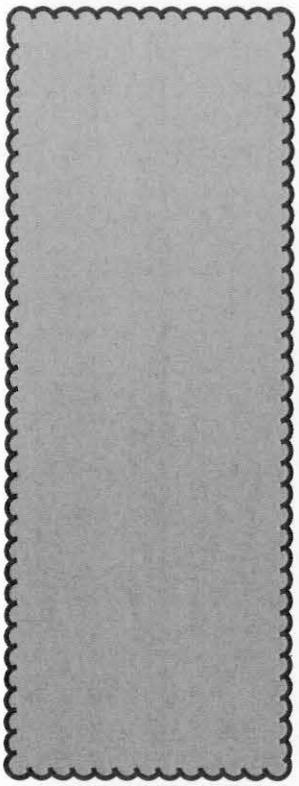
Address	PARCEL AREA	ACHIEVED MITIGATION	REQUIRED MITIGATION	IMPERVIOUS
			0	
			0	
			0	
[redacted]	9,560	280	265	4,240
			0	
	5,000	80	237.5	3,800
			0	
			0	
	9,100	260	262.5	4,200
			0	
	5,000	160	156.25	2,500
			0	
	7,500	280	266.875	4,270
			0	
	8,950	300	290.625	4,650
			0	
	11,800	200	237.5	3,800
			0	
			0	
	6,770	360	258.125	4,130
			0	
			0	
			0	
	20,200	820	825	13,200
			0	
	11,920	500	481.875	7,710
			0	
	8,200	270	260	4,160
			0	
	10,190	310	290.625	4,650
			0	
	10,200	380	387.5	6,200
			0	
	9,000	340	362.5	5,800
			0	
	9,000	300	278.125	4,450
			0	
	7,500	270	200	3,200
			0	
	4,500	220	212.5	3,400
			0	
	4,500	170	162.5	2,600
			0	
			0	
	6,600	90	87.5	1,400
			0	
	7,000	275	262.5	4,200
			0	
			0	
			0	
	8,700	230	219.375	3,510
			0	
	7,500	290	275	4,400

SM-2013

Address	PARCEL AREA	ACHIEVED MITIGATION	REQUIRED MITIGATION	IMPERVIOUS
[redacted]			0	
	7,500	360	312.5	5,000
			0	
	7,800	230	228.75	3,660
			0	
			0	
			0	
	5,400	230	218.75	3,500
			0	
			0	
			0	
	8,900	200	200	3,200
			0	
	7,000	260	262.5	4,200
			0	
			0	
	8,900	270	262.5	4,200
			0	
			0	
			0	
	8,000	78	181.25	2,900
			0	
			0	
	7,200	210	200	3,200
			0	
			0	
			0	
	6,300	240	225	3,600
			0	
	7,500	270	256.25	4,100
			0	
			0	
			0	
D	13,800	630	596.875	9,550
			0	
	5,000	185	175	2,800
			0	
			0	
			0	
			0	
			0	
	8,600	300	275	4,400
			0	
			0	
	12,500	450	450	7,200
			0	
	11,400	280	281.25	4,500
			0	
			0	
			0	
			0	
			0	
	2,500	0	43.75	700

SM-2013

Address



PARCEL AREA	ACHIEVED MITIGATION	REQUIRED MITIGATION	**IMPERVIOUS**
		0	
		0	
8,700	210	199.375	3,190
		0	
4,000	0	81.25	1,300
		0	
7,000	90	121.875	1,950
		0	
		0	
		0	
7,000	0	150	2,400
		0	
		0	
		0	
		0	
		0	
7,000	190	168.75	2,700
		0	
		0	
		0	
4,600	150	146.25	2,340

PROJECT AREA	ATTAINED	REQUIRED	IMPERVIOUS
508,630	19,553	18882.5	302,120

MS4-2013

Address	PARCEL AREA	required MITIGATION	rainfall zone	IMPERVIOUS
	13,000	1,083	1	13,000
	70,400	5,234	1.1	57,100
	15,000	1,000	1	12,000
	5,400	417	1	5,000
	7,900	603	1.1	6,580
	7,500	433	1	5,200

PROJECT AREA	required	IMPERVIOUS
119,200	8,771	98,880

City Council Meeting July 27, 2010 Santa Monica, California

ORDINANCE NUMBER 2317 (CCS)

(City Council Series)

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SANTA MONICA AMENDING SANTA MONICA MUNICIPAL CODE CHAPTER 7.10 TO UPDATE AND CLARIFY THE URBAN RUNOFF POLLUTION ORDINANCE

WHEREAS, the City has a long and abiding commitment to the protection of our beaches and ocean resources and to the protection of the health and safety of the millions of residents and visitors who enjoy the Santa Monica beaches and ocean front each year; and

WHEREAS, the City is authorized pursuant to Article XI, §5 and §7 of the State Constitution to exercise the police power of the State by adopting regulations to promote health, safety, and general welfare; and

WHEREAS, the City is authorized under the California Water Code to adopt and enforce regulations imposing conditions, restrictions, and limitations with respect to any activity which might degrade the quality of waters of the State; and

WHEREAS, the City's watershed management program consists of operation and maintenance of the City-owned stormwater system; compliance with Federal, State, and local regulations including inspections, monitoring, and enforcement; implementation of the Santa Monica Bay Restoration Plan and the Watershed

Management Plan; and capital improvement projects to reduce and treat polluted runoff; and

WHEREAS, the City operates and maintains 20 miles of storm drains, 824 catch basin and other major infrastructure; and

WHEREAS, the City is responsible for the quality of the runoff and for all water quality permitting and compliance related to stormdrain discharges into the ocean or other water channels such as Ballona Creek; and

WHEREAS, urbanization has led to increased impervious surface areas that results in increased runoff and the transport of pollutants to downstream receiving waters and less percolation to groundwater aquifers; and

WHEREAS, State and Federal agencies have implemented stringent regulatory standards for broad categories of water pollutants and continue to enhance these requirements; and

WHEREAS, these regulatory standards include mandatory City compliance with Total Maximum Daily Load (TMDLs); and

WHEREAS, the TMDL standards for which the City is responsible are those related to Santa Monica Bay and Ballona Creek; and

WHEREAS, the TMDL standards apply to both dry weather and wet weather periods and cover a number of contaminants including bacteria, trash, toxics, metals, pesticides and herbicides, and oil and grease; and

WHEREAS, these standards are in addition to the National Pollution Discharge Elimination System (NPDES) permit requirements for all municipalities with Los Angeles County which have been in place since 1995; and

WHEREAS, in a dynamic regulatory environment that continues to be developed by the Regional Board, established TMDLs are continuously revisited and updated, new TMDLs continue to be established, and the City's compliance responsibilities continue to change over time; and

WHEREAS, the City has established a multi-faceted approach to stormwater and runoff treatment and management; and

WHEREAS, in August 1992, the City adopted the Santa Monica Urban Runoff Pollution Control Ordinance to reduce detrimental water quality impacts from urban runoff on the Bay by requiring a runoff reduction of 20 percent for all new development, implementing pollution control standards for construction sites, and setting good housekeeping requirements for existing parcels; and

WHEREAS, in July 1995, the City created a Stormwater Enterprise Fund and adopted a stormwater parcel fee to cover capital and operational costs associated with the storm drainage system and the management and administration thereof; and

WHEREAS, in November 2000, in response to new Regional Board requirements, the City revised the Urban Runoff Ordinance to establish an urban runoff retention or treatment standard of the volume of runoff produced from a 0.75 inch storm event; and

WHEREAS, in July 2006, the City approved a Santa Monica Watershed Management Plan which is designed to reduce urban runoff pollution, reduce urban flooding, increase water reuse and conservation, increase recreational opportunities and open space and increase wildlife and marine habitat; and

WHEREAS, the urban runoff management and pollution prevention activities of the Plan will assist the City in complying with NPDES permit requirements and meeting the goals of the Clean Water Act and new requirements promulgated by the Regional Board relating to TMDLs.

WHEREAS, in November 2006, the Santa Monica voters approved the Clean Beaches and Ocean Parcel Tax (Measure V) to raise revenues to implement the City's Watershed Management Plan; and

WHEREAS, on January 26, 2010, the City Council adopted the Measure V FY 2010-11 through FY 2014-15 Five Year Plan which includes green streets, park retrofits where storm water is harvested and used for irrigation purposes, parkway/sidewalk biofilters, catch basin inserts, curb extensions, rebate programs for the installation of rain barrels, cisterns, and for downspout redirection, regional project contributions, and the use of permeable surface construction in the public right of way; and

WHEREAS, the City can mitigate the negative impacts of development and urbanization by implementing new development/re-development performance criteria, known as Low Impact Development which is widely recognized as an appropriate approach to watershed management; and

WHEREAS, the Measure V funds are not sufficient to meet all the water quality standards that the City is required to comply with, but are used to address urban runoff pollution generated from public and private lands, in conjunction with all funds generated by the City's Stormwater Enterprise Fund; and

WHEREAS, the proposed revisions to the City's Urban Runoff Ordinance incorporate necessary changes based on the City's extensive experience in

implementing the Ordinance, the objectives of the City's Watershed Management Plan, and on Regional Board requirements that are expected to become part of the new NPDES permit,

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SANTA MONICA DOES HEREBY ORDAIN AS FOLLOWS:

SECTION 1. Chapter 7.10 of the Santa Monica Municipal Code is hereby amended as follows:

CHAPTER 7.10 URBAN RUNOFF POLLUTION

7.10.010 Findings.

The City Council finds and declares:

(a) Urban runoff flows from individual properties onto streets and alleys, then through storm drains to the beaches. It is therefore in the public interest to ensure that both public and private drainage systems are properly maintained in order to facilitate the proper functioning of the City's storm and surface water drainage system, and to prevent pollutants from entering the Santa Monica Bay.

(b) The number of beach closures and postings in the state due to ocean pollution continue at unacceptable levels, especially in Southern California. Urban runoff is the single largest source of this ocean pollution, and consequently, is a substantial threat in the State to public health and water quality.

(c) The City is a co-permittee under the Los Angeles County National Pollutant Discharge Elimination System (NPDES) Municipal Permit and as such is obligated to implement a Standard Urban Storm Water Mitigation Plan ("SUSMP") or equivalent, post-construction Best Management Practices ("BMPs") and Total Maximum Daily Loads (TMDLs) to reduce the entry of pollutants into the City storm drain system and to reduce the overall amount of urban runoff entering Santa Monica Bay and Ballona Creek.

(d) In order to reduce runoff pollution and volume from private and publicly-owned properties planned for development, a program is required to ensure that new developments/re-developments or construction projects incorporate design elements, such as post-construction BMPs, construction BMPs, and Low Impact Development strategies, and that existing properties adopt good housekeeping practices.

(e) Southern California experiences cycles of drought, which can lead to dramatic water shortages. The current state-wide declaration of drought is a signal to local governments to promote sustainable uses of non-traditional, non-potable local water supplies, such as rain water and storm water, in place of more valuable potable water, which is often imported from distant watersheds at great environmental costs.

(f) To promote sustainable solutions for urban runoff pollution and the use of local non-potable water supplies, the City strongly encourages the use of dry weather runoff, rain water and storm water harvested by post-construction BMPs which collect and store runoff for non-potable onsite uses.

(g) It is in the best interest of the City to establish guidelines for control of the quality and quantity of urban runoff within the City.

7.10.020 Purpose.

The purpose of this Chapter is to permanently modify the behavioral and structural causes of urban runoff pollution by reducing runoff volume and pollution from existing residential and non-residential properties and from future parcel developments. The goal is to ensure that project parcels maximize onsite storage and use, percolation, or evapotranspiration of runoff through a hierarchy of post-construction BMP strategies, called Low Impact Development.

7.10.030 Definitions.

The following words and phrases shall have the following meanings when used in this Chapter:

(a) **Accessory Building.** A detached building on the same parcel as the principal building, regardless of its distance from the

principal building, which is incidental and subordinate to the principal building in terms of size and use.

(b) **Area Susceptible to Runoff.** Any non-permeable surface directly exposed to precipitation or in the path of runoff which leads directly to neighboring properties or to the public right-of-way.

(c) **Best Management Practices ("BMPs").** Non-structural strategies and structural devices, whether temporary and permanent, practices that reduce the pollution contained in, and the volume of, water which runs into storm drains, treatment facilities and the Santa Monica Bay. These BMPs include but are not limited to **good housekeeping requirements (GHR)**, **post-construction BMPs**, **full capture trash BMPs**, **source control BMPs, structural BMPs,** and **treatment control BMPs**.

(d) **Environmentally Sensitive Area (ESA).** Area designated by the Regional Board requiring special protection because of its landscape, wildlife or historical value.

(e) **Full Capture Trash BMP**. A structural device or series of devices installed to remove all particles larger than 5 mm and having a design treatment capacity of not less than the peak flow rate resulting from a one-year, one-hour storm. Such a system is considered a **post-construction BMP** and **treatment control BMP**.

(f) **Good Housekeeping Requirements ("GHR"). Urban runoff pollution** control practices applicable to all properties, which have been demonstrated to significantly reduce and control **urban runoff**, such as **source and treatment control BMPs**.

(g) **Green Transportation Infrastructure**. Streets, roads and alleys that have **post-construction BMPs** to harvest runoff for storage and onsite use, including green streets and green alleys.

(h) **Hardscape**. Any impermeable surface exposed to precipitation or runoff.

(i) **Hierarchy of BMPs**. A list of acceptable **post-construction BMP** categories that identifies and ranks the most sustainable to least sustainable strategies to reduce **urban runoff pollution in compliance** with this ordinance.

(j) **Low Impact Development (LID).** LID is a comprehensive stormwater management, land planning and engineering design approach which utilizes **BMPs** with a goal of conservation and the use of onsite natural features to maintain and enhance the pre-development hydrologic regime of urban and developing watersheds, including individual parcels.

(k) **Municipal Separate Storm Sewer System (MS_4)**. An MS_4 is a municipal piping system that conveys dry weather runoff or storm

water from individual parcels and public right-of-ways to storm drains, treatment facilities and the Santa Monica Bay.

(l) **National Pollutant Discharge Elimination System (NPDES).** A system implemented and enforced by a permit issued by the U.S. Environmental Protection Agency, State Water Resources Control Board, or the California Regional Water Quality Control Board pursuant to the Clean Water Act that authorizes discharges to waters of the United States and requires the reduction of pollutants in the discharge.

(m) **New Development/Re-development.** For purposes of this Chapter, New Development/Re-development shall constitute any of the following if the construction project(s) is proposed at any time over a single 36-month period:

(1) Any construction project on a vacant parcel.

(2) Any construction project that (a) adds fifty percent or more of the square footage of a structure, (b) is a **substantial remodel,** (c) adds or replaces fifty percent or more of the exterior footprint of a structure on a parcel, or (d) creates, adds, or replaces at least twenty-five hundred square feet of impervious surfaces.

(3) Any construction project that involves a separate new structure with an exterior footprint of 400 square feet or more, including an **accessory building**, on one parcel with existing structures.

(4) Any construction project located in or directly adjacent to, or discharging directly to, an Environmentally Sensitive Area.

(n) **Post-Construction BMP**. A permanent, structural BMP that remains on a parcel after the completion of a **new development/re-development** project to comply with urban runoff mitigation requirements.

(o) **Principal Building**. The building containing the primary or predominant use of any site.

(p) **Project Mitigation Volume.** One hundred percent of the runoff produced by a storm event falling on all impermeable surfaces of a parcel unless the **new development/redevelopment** project adds or replaces less than 50% of the principal building on the parcel, if any, and the new development/redevelopment project's square footage is less than 50% of all existing structures on the parcel in which case the project mitigation volume shall be one hundred percent of the runoff produced by a storm event falling on the impermeable surfaces of the structure(s) within the scope of the **new development/redevelopment** project and its/their proportional parking areas.

(q) **Rainwater Harvesting**. The process of collecting, treating, storing and using rain water from onsite or offsite impermeable areas for non-potable uses.

(r) **Source Control BMP.** Non-structural activities, practices, and procedures that are designed to prevent urban runoff pollution.

(s) **Standard Urban Storm Water Mitigation Plan (SUSMP).** Plans developed by the Los Angeles County that designate **post-construction BMPs** that must be used in the nine specified categories of development projects to comply with the regional NPDES permit.

(t) **Storm Event.** 0.75 inches of rainfall within a 24 hour period that is separated from the previous storm event by at least seventy-two hours of dry weather, unless a more stringent standard is mandated by federal, state, or local law.

(u) **Storm Water.** Rain water that has become runoff on a property and flows off the property and enters the **MS_4**.

(v) **Structural BMP.** Any temporary or permanent structural facility designed and constructed to mitigate the adverse impacts of storm water and urban runoff pollution.

(w) **Substantial Remodel.** A structure shall be deemed to have been substantially remodeled or demolished if at least fifty percent of exterior walls have been removed or relocated for any duration of time.

In determining whether a project is a substantial remodel, a wall shall be deemed to be demolished if the structural supporting members

(columns, two-by-fours, or other such elements) of the wall have been removed or are no longer attached to the foundation. The roof structure must also be retained unless the roof line is being modified or additional floors are being added, in which case the roof structure may be removed.

(x) **Total Maximum Daily Load** (TMDL). A calculation that establishes the maximum amount of an impairing substance or stressor (e.g. pollutant) that a water body can receive and assimilate, and still safely meet Water Quality Standards, defined by the federal Clean Water Act.

(y) **Treatment Control BMP.** Any engineered system designed to remove pollutants by gravity settling of particulate pollutants, filtration, biological uptake, media adsorption or any other physical, biological or chemical process, such as **structural BMPs**.

(z) **Unit Cost**. Monetary amount established by a resolution of the City Council based on the average cost per gallon of runoff for the City to construct **post-construction BMPs** on City properties during a five (5) year period prior to the adoption of the resolution. This cost shall be an equivalent option under the **hierarchy of BMPs**.

(aa) **Urban Runoff.** Surface water flowing off of a parcel and into the **MS_4**.

(bb) **Urban Runoff Pollution.** Suspended or dissolved contaminants within **urban runoff** including but not limited to sediments, heavy metals, organic chemicals, nutrients, oil and grease, trash and bacteria flowing through the **MS_4** to a storm drain, treatment facility and the Santa Monica Bay.

(cc) **Urban Runoff Mitigation Plan.** A plan that shall be submitted and approved in connection with any project that is subject to 7.10.050.

(dd) **Urban Runoff Reduction Fee.** A fee paid to the City by the applicant pursuant to Section 7.10.050 (q) in lieu of constructing a **post-construction BMP** to comply with this Chapter.

7.10.040 Good housekeeping requirements for reduction of urban runoff applicable to all properties.

The following good housekeeping requirements shall be adhered to by all persons within the City and shall apply to all properties, public and private.

(a) **Collection, Storage and Minimization of Runoff.**

(1) Water used for irrigation purposes shall not be allowed to run off of a parcel.

(2) Washing down paved areas shall be prohibited unless necessary for health or safety purposes, not in violation of any other provision of this Code, and only performed through high pressure washing. If pressure washing is authorized pursuant to this subdivision (2), BMP measures shall first be implemented to remove solids, such as litter and debris, sediments and any visible liquid hydrocarbons and other chemicals before the washing begins. Water used for pressure washing must be collected and disposed of into the sanitary sewer only or directed to permeable landscaped areas.

(3) The uncovered outdoor storage of unsealed containers of building materials and lawn and automotive care products containing substances that may contribute pollutants to the storm water conveyance system is prohibited.

(4) Commercial tenants, multi-family building managers and industrial owners shall on a weekly basis inspect trash receptacles, refuse and recycling storage areas, and other areas that may collect debris or attract animals for loose garbage and liquid waste residue and shall not allow such garbage and residue to accumulate or enter the storm drain system. Trash receptacles shall have solid covers and shall be closed at all times other than during trash disposal to prevent the entry of rain and animals, and the exit of wind-blown litter. Trash receptacles shall be maintained without broken covers and leaks.

(5) Swimming pools, hot tubs, spas, fountains and water features shall be drained to permeable surfaces and/or to the sanitary sewer, and the water shall not be allowed to flow along the ground surface and into the public right-of-way.

(b) **Maintenance of Equipment.**

(1) Objects, such as vehicle motor parts containing grease, oil or other hazardous substances, and unsealed receptacles containing hazardous materials shall not be stored in areas susceptible to precipitation or runoff.

(2) Any machine which is to be repaired or maintained in an uncovered outdoor area shall be placed on a pad of absorbent material to contain leaks, spills or small discharges.

(3) Machinery and equipment, including motor vehicles that are leaking significant amounts of oil or fluids must be repaired immediately. Any leaks shall not be allowed to leave the property or enter the MS_4.

(c) **Removal of Debris and Residue.**

(1) All motor vehicle parking lots susceptible to precipitation or runoff shall be swept, at minimum, on a monthly basis to remove debris. Lots with more than ten parking spaces and all public parking facilities shall be vacuum swept, at minimum, on a quarterly basis. However, lots

are not required to be vacuum swept for one month following a day when precipitation of one-half inch or more occurs.

(2) Fuel and chemical residue or other types of potentially harmful material, such as animal waste, garbage or batteries, which is located in an area susceptible to precipitation or runoff, shall be removed immediately and disposed of properly. Household hazardous waste may be disposed of at the City's household hazardous waste collection facility or at any other appropriate disposal site and shall not be placed in a trash container.

(3) Intentional disposal of any trash, litter, animal waste, debris or hazardous material of any type into the public right-of-way (storm drain conveyance system) or a storm drain or catch basin is prohibited. Section 5.20.040 of this Code prohibits discharge of other types of pollutants into the storm drain.

7.10.050 Urban runoff reduction requirements for new development/re-development.

The following urban runoff reduction requirements shall apply to all persons submitting applications for New Development/Re-development within the City.

(a) At the time of submittal of an application for a new development/re-development project, an applicant shall be required to

submit an Urban Runoff Mitigation Plan to the Department of Public Works.

(b) The Urban Runoff Mitigation Plan shall demonstrate that an applicant will either store and use for non-potable purposes, infiltrate, or evapotranspire the Project Mitigation Volume through incorporation of design element specified in subsection (c) of this Section, or alternatively, pay an Urban Runoff Reduction Fee in accordance with subsection (q) of this Section unless payment of such a fee is precluded by subsection (s) of this Section. An applicant may satisfy this requirement off-site in accordance with the City's Urban Runoff Off-Site Treatment Guidelines only if the applicant demonstrates that on-site treatment is technically infeasible because the project is located:

(1) where seasonal high groundwater is within 10 feet of surface grade;

(2) within 100 feet of a groundwater well used for drinking water;

(3) at a Brownfield Development site or other location where pollutant mobilization is a documented concern;

(4) within potential geotechnical hazards; or

(5) on a site with impermeable soil type as indicated in applicable soils and geotechnical reports.

An applicant shall only be authorized to treat and release when the applicant demonstrates that the City is required by State or federal law to authorize a treat and release BMP.

(c) The design elements utilized by an applicant may, but are not required to, include the following so long as the Project Mitigation Volume is treated by an authorized BMP:

(1) Direct runoff to rainwater or stormwater harvesting systems (rain barrels and cisterns) for non-potable uses.

(2) Use permeable areas with Low Impact Development strategies to allow passive rainwater harvesting for more percolation of runoff into the ground through such means as:

(A) Bioretention;

(B) Green strips, including parkways and medians. The use of landscaped BMPs to mitigate runoff from impermeable areas must include the appropriate storage volume for the required mitigation volume, in addition to precipitation volumes falling on these surfaces.

(C) Swales;

(D) Landscapes. The use of landscapes to mitigate runoff from impermeable areas must include the appropriate storage volume for the

required mitigation volume, in addition to precipitation volumes falling on these surfaces; or

(E) Permeable paving materials, such as but not limited to pervious concrete and porous asphalt, permeable concrete and plastic modular and interlocking paving materials, and equivalent materials. The use of this BMP to mitigate runoff from impermeable areas must include the appropriate storage volume for this required mitigation volume, in addition to precipitation volumes falling on these surfaces.

(3) Direct runoff to permeable areas for infiltration through Low Impact Development strategies. The use of permeable areas to mitigate runoff from impermeable areas must include the appropriate storage volume for this required mitigation volume, in addition to precipitation volumes falling on these surfaces:

(A) Orient roof runoff and direct downspouts towards permeable surfaces, infiltration pits (drywells), french drains, or other structural BMPs rather than directly to driveways, parking lots or other non-permeable surfaces so that runoff will penetrate into the ground instead of flowing offsite to the MS_4.

(B) Grade the parcel to divert flow to permeable areas.

(C) Use retention structures or terrain (green or eco) rooftops to harvest precipitation or runoff.

(D) Remove or design curbs, and berms to allow runoff from impermeable surfaces (e.g. parking lots) to drain to permeable or landscaped areas.

(E) Direct downspouts to permeable areas instead of to the MS_4.

(F) For structures without roof gutters and downspouts, all runoff must fall onto or drain directly or indirectly to permeable areas having proper grading and storage volume for the required mitigation volume, and pose no threat to structural integrity or adjacent structures.

(G) Surface parking lots with no sub-surface structures shall have runoff directed to permeable, storage or infiltrating areas, including sunken planters and/or with non-continuous curbs. Where surface BMPs mitigate runoff from impermeable areas, they must include the appropriate storage volume for this required mitigation volume, in addition to precipitation volumes falling on these surfaces.

(d) For purposes of compliance with this Section, excluding any impermeable deck areas, the surface area of pools, hot tubs, spas, fountains and water features shall be considered 100% permeable, if these water features discharge to the sanitary sewer.

(e) The Urban Runoff Mitigation Plan must also include the applicant's plan for the maintenance of all BMPs requiring ongoing maintenance.

(f) All Urban Runoff Mitigation Plans must include the applicant's signed statement accepting responsibility for all structural and treatment control BMP maintenance. The transfer of property subject to an Urban Runoff Mitigation Plan must include as a written condition to the transfer that the transferee assumes full responsibility for maintenance of any structural, and/or source or treatment control BMPs as set forth in subsection (p) of this Section.

(g) In addition to the design standards required in subsection (c), the following design strategies established in this subsection (g) shall be required for all new development/re-development except single-family residences:

(1) Urban runoff shall not be allowed to come into contact with the following areas:

(A) Loading and unloading dock areas;

(B) Vehicle repair and maintenance bays;

(C) Vehicle and equipment wash areas; and

(D) Fueling areas.

(2) Where new development/re-development will include outdoor areas for the storage of material that may contribute pollutants to the storm water conveyance system, these materials must be:

(A) Placed in an enclosure such as, but not limited to, a cabinet, shed, or similar structure that prevents contact with runoff or spillage to the storm water conveyance system; or

(B) Protected by secondary containment structures such as berms, dikes, or curbs.

(3) The outdoor storage area for materials subject to subdivision (2) of this subsection (g) must be:

(A) Paved and sufficiently impervious to contain leaks and spills.

(B) Covered with a roof or awning to minimize collection of storm water within the secondary containment area.

(4) In addition to the requirements of section 9.04.10.02.150, the area where a trash receptacle or receptacles are located for use as a repository for solid wastes must meet the following Structural or Treatment Control BMP requirements:

(A) Drainage from adjoining roofs and pavement must be diverted away from the trash storage areas;

(B) The area must be covered with roof or awning (to prevent rain from entering the area and sewer or storm drain conveyance system), screened or walled to prevent offsite transport of trash, and must be connected to the sanitary sewer. This requirement shall also apply to projects that add or alter a refuse or recycling storage area; and

(C) Trash bins must have solid covers and be covered at all times except while being emptied.

(h) The City shall maintain a list of locations where certain types of BMPs may not be appropriate due to existing hydro-geological conditions and/or sub-surface contamination.

(i) Any municipal street, road and alley re-construction project of $500,000.00 or more of construction costs, excluding repaving projects of existing roads, shall implement post-construction BMPs for green transportation infrastructure.

(j) Any construction project adding down spouts, gutters and subsurface pipes directing storm water to the curb face shall have a french drain system of perforated pipe and gravel unless site-specific circumstances endanger public safety so as to prohibit its use as determined by the Director of the Department of Public Works. These requirements shall apply even if the project does not constitute new development/re-development as defined by this Chapter.

(k) Any additional requirements imposed by the current NPDES permit and/or TMDL.

(l) The City will evaluate each Urban Runoff Mitigation Plan to ascertain if the proposed plan meets the standards set forth in subsection (b) of this Section. Each plan will be evaluated on its own merits according to the particular characteristics of the project and the parcel to be developed.

(m) The Director of the Department of Public Works or his or her designee shall approve or disapprove the plan. Any plan disapproved by the Director of Department of Public Works or his or her designee must be revised by the developer and resubmitted for further review and approval.

(n) No building permit shall be issued until an Urban Runoff Mitigation Plan has been approved by the Department of Public Works.

(o) The property owner or designated management entity shall be responsible for annual maintenance of its BMP, which will include an inspection of appropriate BMP components.

(p) The owner or the selling agent of any real property that has a post-construction BMP(s) installed pursuant to the requirements of this Chapter shall, in any real property transaction, provide the buyer of the real property with notice informing the buyer of the post-construction BMP(s), including its location, maintenance requirements, and any other

relevant information necessary for the buyer to properly maintain the BMPs. The owner or the selling agent shall provide the notice to the buyer as soon as practicable before transfer of title. The buyer shall execute a receipt therefore as furnished by the City and said receipt shall be delivered to the City's Office of Sustainability and the Environment as evidence of compliance with the provisions of this Chapter. The buyer shall acknowledge that the buyer assumes full responsibility for maintenance of any and all post-construction BMPs. If any disclosure required to be made by this subsection (p) of this Section is delivered after the execution of an offer to purchase, the buyer shall have three days after delivery in person or five days after delivery by deposit in the mail to terminate his or her offer by delivery of a written notice of termination to the owner or selling agent. Any person who violates the provisions of this Chapter shall be subject to the penalties and remedies specified in Chapter 1.08. In addition, a buyer who does not receive the notice required by this subsection (p) may bring a civil action for damages.

(q) Except as provided in subsection (s) of this Section, an applicant may pay an Urban Runoff Reduction Fee in accordance with the following formula:

Project Mitigation Volume (cubic feet) X 7.49 (gallons/cubic foot) X Unit Cost (dollars/gallon)

(r) For purposes of this Section, the Unit Cost shall be established by resolution of the City Council based on the average

cost/gallon of water for the City to construct post-construction BMPs on City properties during a five (5) year period prior to the adoption of the resolution. Commencing on July 1, 2011 and on July 1st of each fiscal year thereafter, the Urban Runoff Reduction Fee shall be adjusted based on changes in constructions costs. The Urban Runoff Reduction Fee shall be used exclusively to construct Low Impact Development post-construction BMPs designed to achieve at least the same level of water quality protection as if all of the runoff was retained on site and to implement the strategies of the 5-Year Low Impact Development Plan in support of the City's Watershed Management Plan.

(s) An applicant shall not be authorized to pay an Urban Runoff Reduction Fee for the nine specified land use categories found in the SUSMP, but instead must install Low Impact Development post-construction BMP's unless the applicant demonstrates to the Director of the Department of Public Works or his or her designee the infeasibility of implementing these requirements. Recognized circumstances demonstrating infeasibility include: (i) extreme limitations of space for treatment; (ii) unfavorable or unstable soil conditions at a site to attempt infiltration; and (iii) risk of groundwater contamination because a known unconfined aquifer lies beneath the land surface or an existing or potential underground source of drinking water is less than ten feet from the soil surface. Any other justification for impracticability must be approved by the Regional Board.

(t) An applicant and any successor in interest shall comply with the Urban Runoff Mitigation Plan, including installation of any required BMP and its maintenance.

(u) Any structural or treatment control BMP used for runoff mitigation must include a full capture trash system.

(v) The City shall maintain a list of authorized Post-construction BMPs, a list of manufacturers and products, and resources and reference technical materials, which may be updated periodically by the Office of Sustainability and the Environment. Post-construction BMPs not found in these lists may be authorized by the City if the applicant submits treatment results demonstrating treatment effectiveness which is equal to or better than the treatment effectiveness of products on the City lists.

7.10.060 Urban runoff requirements for construction parcels.

The following Best Management Practices, which address the problem of urban runoff pollution, shall apply to all construction parcels in the City. These requirements shall apply at the commencement of demolition of an existing structure and/or commencement of construction and until issuance of a certificate of occupancy.

(a) A copy of any Storm Water Pollution Prevention Plan (SWPPP) required to be submitted to the Regional Board shall be submitted to the City at the same time.

(b) Polluted runoff (including runoff containing sediments and/or construction wastes) from a construction parcel shall not leave the parcel. No wash water from any type of cement and concrete machinery or concrete mix truck shall be allowed to leave the construction parcel. Any washing of equipment in the right-of-way must be contained and properly disposed.

(c) Any sediment or other materials that are tracked off the parcel by vehicles and equipment shall be removed the same day as they are tracked off the parcel. Where determined to be necessary by the Director of the Department of Public Works or his or her designated representative, a temporary sediment control BMP shall be installed.

(d) For any paint removal, paint preparation, or sandblasting activities that will result in particles entering the air or landing on the ground, BMP steps shall be implemented to prevent or minimize to the maximum extent practicable such particle releases into the environment.

(e) Plastic covering shall be utilized to prevent erosion of an otherwise unprotected area, e.g. exposed or open to elements, along with treatment control BMPs to intercept and safely convey the runoff to the MS_4.

(f) No washing of construction or other vehicles shall be allowed adjacent to a construction parcel. No polluted runoff from washing vehicles on a construction parcel shall be allowed to leave the parcel.

(g) Erosion drainage controls shall be utilized depending on the extent of proposed grading and topography of the parcel to prevent runoff, including but not limited to the following:

(1) Detention ponds, sediment ponds, or infiltration pits;

(2) Dikes, filter berms or ditches; or

(3) Down drains, chutes or flumes.

7.10.070 Enforcement and penalties.

(a) Criminal Penalty. Any person who is convicted of violating this Chapter shall be guilty of a misdemeanor and upon conviction shall be punished by a fine of not greater than five hundred dollars or by imprisonment in the County Jail for not more than six months, or by both such fine and imprisonment.

(b) Civil Action. Any person, including the City, may enforce the provisions of this Chapter by means of a civil action.

(c) Any person who violates any provision of this Chapter shall be subject to administrative fines and administrative penalties pursuant to Chapter 1.09 and Chapter 1.10 of this Code.

(d) Other Penalties. Any person who violates or aids or incites another person to violate the provisions of this Chapter is liable for each and every such offense for the actual damages suffered by any aggrieved party, for statutory damages in the sum of five hundred dollars per occurrence, and for such attorney's fees and costs as may be determined by the court in addition thereto. The court may also award punitive damages in a proper case as defined by Civil Code Section 3294. The burden of proof for purposes of punitive damages shall be clear and convincing evidence.

(e) Injunction. Any person who commits an act, proposes to commit an act, or engages in any pattern and practice which violates this Chapter may be enjoined there from by any court of competent jurisdiction. Such an injunction may compel an employer to reinstate an employee, furnish back pay or forward pay, furnish lost benefits, or take any other action necessary to make an aggrieved employee whole. An action for injunction under this Chapter may be brought by any aggrieved person, by the City Attorney, or by any person or entity who will fairly and adequately represent the interest of the protected class.

(f) Nonexclusive Remedies and Penalties. The remedies provided in this Chapter are not exclusive, and nothing in this Chapter shall preclude any person from seeking any other remedies, penalties or procedures provided by law.

7.10.080 Additional best management practices requirements.

If a determination is made by the Director of the Department of Public Works that the public health and safety may be compromised through the release of contaminants or pollutants from a construction parcel or an existing parcel or as a result of new development/re-development, the Director or his or her designee shall have the authority to require additional BMPs besides those already required by this Chapter and/or by an Urban Runoff Mitigation Plan.

SECTION 2. The Council finds that the adoption of these ordinances is exempt from the provisions of the California Environmental Quality Act pursuant to CEQA Guidelines Section 15061(b)(3).

SECTION 3. Any provision of the Santa Monica Municipal Code or appendices thereto inconsistent with the provisions of this Ordinance, to the extent of such inconsistencies and no further, is hereby repealed or modified to that extent necessary to effect the provisions of this Ordinance.

SECTION 4. If any section, subsection, sentence, clause, or phrase of this Ordinance is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance. The City Council hereby declares that it would have passed this Ordinance and each and every section, subsection, sentence, clause,

or phrase not declared invalid or unconstitutional without regard to whether any portion of the ordinance would be subsequently declared invalid or unconstitutional.

SECTION 5. The Mayor shall sign and the City Clerk shall attest to the passage of this Ordinance. The City Clerk shall cause the same to be published once in the official newspaper within 15 days after its adoption. This Ordinance shall become effective 30 days from its adoption.

APPROVED AS TO FORM:

MARSHA JONES MOUTRIE
City Attorney

Approved and adopted this 27th day of July, 2010.

Bobby Shriver, Mayor

State of California)
County of Los Angeles) ss.
City of Santa Monica)

I, Maria Stewart, City Clerk of the City of Santa Monica, do hereby certify that the foregoing Ordinance No. 2317 (CCS) had its introduction on July 13th, 2010, and was adopted at the Santa Monica City Council meeting held on July 27th, 2010, by the following vote:

Ayes:	Council members:	Holbrook, Davis, McKeown, O'Day Mayor Shriver
Noes:	Council members:	None
Abstain:	Council members:	None
Absent:	Council members:	Bloom Mayor Pro Tem O'Connor

A summary of Ordinance No. 2317 (CCS) was duly published pursuant to California Government Code Section 40806.

ATTEST:

Maria M. Stewart, City Clerk