

# Filterra® Bioretention

## Approved Alternate to LA Regional Stormwater Permit Attachment H

The Los Angeles Regional Stormwater Permit requires biofiltration to conform to the specifications in Attachment H of the permit unless an alternative specification is approved by the Los Angeles Regional Water Quality Control Board. In response, Contech commissioned a study by Geosyntec Consultants which evaluated the performance of conventional biofiltration BMPs meeting the **Attachment H standard and then developed a Filterra® sizing and design framework** resulting in Filterra systems that provide equivalent pollutant load reduction. As a result, permittees who make a successful application for use of Filterra systems as an alternative biofiltration specification can approve Filterra systems on land development projects where conventional biofiltration would be applicable.



Successful applications have been made by Los Angeles County and the Cities of Industry, Compton and Vernon with subsequent projects benefiting from reduced biofiltration footprints (up to 95% reduction), decreased construction costs, and reduced long-term costs for the site owner

### DESIGNING YOUR PRIVATE SITE WITH A FILTERRA SYSTEM IS AS SIMPLE AS IT GETS!

- Step 1.** Determine if infiltration is feasible on site.
- Step 2.** Where infiltration is infeasible, or for infiltration rates < 0.3 in/hr Filterra can be used as an equivalent to the tradition biofiltration BMP.
- Step 3.** Determine Filterra sizing by running Contech's Equivalency Sizing tool shown to the right by utilizing link beneath. Information required: drainage area, runoff coefficient, time of concentration, 85th percentile 24-hr depth, long-term reliable infiltration rate.
- Step 4.** Determine the appropriate Filterra configuration.
- Step 5.** Contact your local Stormwater Consultant or Design Engineer for details and estimates.




**Filterra Sizing Tool**  
Applicable in the Area Governed by the Los Angeles County MS4 Permit (NPDES PERMIT NO. CAS004001; ORDER NO. R4-2012-0175)

For final design please contact:  
 Tamara Mamon - Stormwater Consultant  
 tmamon@conteches.com  
 Phone: 818-519-1781

Contact Information		Project Information	
Engineer of Record Name	Joe Engineer	Project Name	Example Project
Engineer of Record Company Name	ABC Engineering	Project Location	Vernon, CA
Engineer of Record Office Zip Code	90058	Catchment Name	1

Drainage Area Inputs		
Drainage Area	43560	ft <sup>2</sup>
Runoff coefficient	0.95	-
Time of concentration	15	min
Long term reliable infiltration rate	0.01	in/hr
85th percentile, 24-hour depth (see hyperlink below) <small>LA County Rainfall Depth Analysis</small>	0.98	in

Filterra Configuration (Select from Drop-Down)		
	Offline	

Refer to "Filterra Configurations" tab for descriptions and standard details for download.

Constants		
LAX Airport 85th Percentile, 24-hour depth (for reference only)	1.02	in
Filterra hydraulic loading capacity	1.45	gpm/ft <sup>2</sup>

Outputs		
Stormwater Quality Design Volume	3.380	ft <sup>3</sup>
Design Rainfall Intensity for Equivalent Long Term Capture	0.259	in/hr
Site Scaling Factor	0.96	-
Stormwater Quality Design Flow Rate	0.33	cts
Design Alternatives Available	Stand Alone Filterra Permitted	

Design Recommendations		
<b>Primary Recommendation - Stand Alone Filterra</b>		
Adjusted Filterra Design Intensity	0.410	in/hr
Stormwater Quality Design Flow Rate	0.38	cts
Required Filterra Area	117	ft <sup>2</sup>
Filterra Model ID	FT 16x8	

[www.conteches.com/filterra-la](http://www.conteches.com/filterra-la)

**Qualified Design Teams Are Available to Assist With Your Entire Stormwater Project.**  
**For additional information, please visit [www.ContechES.com/filterra](http://www.ContechES.com/filterra)**