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## Los Angeles Regional Water Quality Control Board

July 20, 2018

Mr. Julio Gonzalez  
Senior Engineering Technician  
City of Carson  
701 E. Carson Street  
Carson, CA 900749

**APPROVAL OF ALTERNATIVE BIOFILTRATION SPECIFICATION (FILTERRA BIORETENTION SYSTEM) PURSUANT TO PART VI.D.7.c.iii(1)(b)(i) OF THE LOS ANGELES COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT (NPDES PERMIT NO. CAS004001; ORDER NO. R4-2012-0175)**

Dear Mr. Gonzalez:

On May 10, 2018 the Los Angeles Regional Water Quality Control Board (Los Angeles Water Board) received a letter from the City of Carson (City) requesting approval for the use of Filterra Bioretention Systems (Filterra) manufactured by Contech Engineered Solutions LLC as an alternative biofiltration design specification.

The City's request includes an attachment, entitled "Filterra Equivalency Analysis and Design Criteria", that details a proposed design approach and equivalency criteria for Filterra to achieve equivalent performance to the biofiltration design specifications defined in the Los Angeles County MS4 Permit.

Pursuant to Part VI.D.7.c.iii(1)(b)(i) of the Los Angeles County MS4 Permit, projects using biofiltration as an alternative compliance measure may use alternative design specifications for on-site biofiltration systems if approved by the Los Angeles Water Board Executive Officer.

### Background

Part VI.D.7 of the Los Angeles County MS4 Permit requires Permittees to implement a Planning and Land Development Program. As part of this program, Permittees shall require all New Development and Redevelopment projects identified in Part VI.D.7.b (hereinafter "new projects") to control pollutants, pollutant loads, and runoff volume emanating from the project site. Except as provided in Part VI.D.7.c.ii (Technical Infeasibility or Opportunity for Regional Ground Water Replenishment), Part VI.D.7.d.i (Local Ordinance Equivalence), or Part VI.D.7.c.v (Hydromodification), each Permittee shall require new projects to retain on-site the Stormwater Quality Design Volume (SWQDV).

Pursuant to Part VI.D.7.c.iii.(1) of the Los Angeles County MS4 Permit, Permittees may allow new projects to use on-site biofiltration when the project applicant has demonstrated that it is technically infeasible to retain 100 percent of the Stormwater Quality Design Volume (SWQDv) on-site. If a Permittee conditions a project using biofiltration due to demonstrated technical infeasibility, then the new project must biofiltrate 1.5 times the portion of the SWQDv that is not reliably retained on-site, as calculated by the following equation:

$$Bv = 1.5 [SWQDv - Rv]$$

Where: *Bv* = biofiltration volume  
*SWQDv* = the stormwater runoff from a 0.75 inch, 24-hour storm or the 85<sup>th</sup> percentile storm, whichever is greater  
*Rv* = volume reliably retained on-site.

As a condition for on-site biofiltration, bioretention/biofiltration systems shall meet the design specifications provided in Attachment H of the Los Angeles County MS4 Permit unless otherwise approved by the Los Angeles Board Executive Officer.

### Public Review

On June 15, 2018, the Los Angeles Water Board provided public notice and a 30-day period to allow for public review and written comment on the proposed use of the Filterra alternative biofiltration design specification. The Los Angeles Water Board received one comment from Los Angeles Waterkeeper, which generally supported the use of the specification as an equivalent alternative if units are sized correctly to capture enough water to offset the loss in volume reduction.

### Alternative Biofiltration Specification Approval

I hereby approve the City's proposal for the use of Filterra as an alternative on-site biofiltration design specification pursuant to Part VI.D.7.c.iii(1)(b)(i) of the Los Angeles County MS4 Permit, provided the following conditions are met:

1. **Sizing:** The City shall verify the appropriateness of the recommended loading rates used in the "Filterra Equivalency Analysis and Design Criteria".

If the City finds no issues with the loading rate, Filterra systems must be designed and sized following the methodology in Section 4 of the August 2015 report entitled "Filterra Equivalency Analysis and Design Criteria".

If the City finds that the recommended loading rate is too high, Filterra systems must be designed and sized to account for an appropriate lower loading rate.

2. **O&M:** Operation and maintenance of Filterra systems must be conducted consistent with the recommendations in the Filterra maintenance manual provided by the manufacturer and any revisions thereto.
3. **Media:** Filterra systems use an engineered biofiltration media. Filterra systems, including the engineered biofiltration media, must be provided by the manufacturer. No substitution of materials/media is allowed.
4. **Hydromodification:** There is no presumption by this approval that a Permittee's implementation of the abovementioned design parameters and use specifications of the

Filtterra system meet the separate hydromodification requirements of Section VI.D.7.c.iv of the Los Angeles County MS4 Permit. Hydromodification requirements apply regardless of the type of biofiltration system used.

This approval only applies to the use of Filtterra as an alternative on-site biofiltration design in situations where a project applicant has demonstrated that it is technically infeasible to retain 100 percent of the SWQDv on-site.

The City shall comply with Maintenance Agreement and Transfer requirements outlined in Part VI.D.7.d.iii of the Los Angeles County MS4 Permit. These requirements include:

1. Part VI.D.7.d.iii – prior to issuing approval for final occupancy, the City shall require new development and redevelopment projects subject to post-construction BMP requirements to provide an operation and maintenance plan; monitoring plan, where required; and verification of ongoing maintenance provisions for LID practices, treatment control BMPs, and hydromodification control BMPs.
2. Part VI.D.7.d.iii.(a) – verification of post-construction BMP maintenance agreement shall include all the documents included in this provision.
3. Part VI.D.7.iii.(b) – the City shall ensure a plan is developed for the operation and maintenance of all structural and treatment controls. The City shall examine the plan for relevance to keeping the BMPs in proper working order. Furthermore, operation and maintenance plans for private BMPs shall be kept on-site for periodic review by City inspectors.
4. Part VI.D.7.iv.(c) – the City shall verify proper maintenance and operation of post-construction BMPs operated by the City.
5. Part VI.D.7.iv.(d) – for post-construction BMPs operated and maintained by parties other than the City, the City shall require the other parties to document proper maintenance and operations.
6. Part VI.D.7.d.iv.(e) – the City shall undertake any enforcement as appropriate per the established progressive enforcement policy.

If you have any questions, please contact Mr. Chris Lopez of the Storm Water Permitting Unit at [Chris.Lopez@waterboards.ca.gov](mailto:Chris.Lopez@waterboards.ca.gov) or by phone at (213) 576-6674. Alternatively, you may also contact Ivar Ridgeway, Chief of the Storm Water Permitting Unit, at [Ivar.Ridgeway@waterboards.ca.gov](mailto:Ivar.Ridgeway@waterboards.ca.gov) or by phone at (213) 620-2150.

Sincerely,



*for*  
Deborah J. Smith  
Executive Officer

cc: Maria Slaughter, City of Carson