
Los Angeles Regional Water Quality Control Board

September 24, 2018

Mr. Mark Stowell
Public Works Director / City Engineer
City of La Mirada
13700 La Mirada Boulevard
La Mirada, CA 90638

VIA EMAIL ONLY

APPROVAL OF ALTERNATIVE BIOFILTRATION SPECIFICATION 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 AS AMENDED BY STATE WATER BOARD ORDER WQ 2015-0075 AND LOS ANGELES WATER BOARD ORDER R4-2012-0175-A01)

Dear Mr. Stowell:

On July 24, 2018 the Los Angeles Regional Water Quality Control Board (Los Angeles Water Board) received a letter from the City of La Mirada (City) requesting approval for the use of Bio-Clean Modular Wetlands (MWS Linear) manufactured by Bio Clean as an alternative biofiltration design specification.

The City's request includes an attachment, entitled "Equivalency Analysis and Design Criteria for Modular Wetlands Systems" (Equivalency Analysis), that details a proposed design approach and equivalency criteria for MWS Linear installations 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 85th 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 August 10, 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 Bio-Clean Modular Wetlands alternative biofiltration design specification.

The Los Angeles Water Board received one comment letter from Contech Engineered Solutions LLC, which raised concerns regarding BMP performance studies cited in the Equivalency Analysis and the overall designation of the MWS Linear as a biofiltration system. Staff reviewed the above comments and have included conditions in this review that address the raised concerns.

Additionally, prior to the public comment period, the County of Los Angeles (County) provided initial findings that expressed that it was not clear whether the system had sufficient capacity to capture the flow rate of the storm event producing 150% of the SWQDv. Staff finds that the Equivalency Analysis' approach in comparing Attachment H Biofiltration and the MWS Linear is adequate; and that the proposed design criteria is acceptable provided that the system selected using the criteria is sized to appropriately account for the 1.5 times the SWQDv requirement.

Alternative Biofiltration Specification Approval

I hereby approve the City's proposal for the use of the MWS Linear 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. **Vegetative Treatment:** Systems must include vegetation and must be designed such that there is effective treatment due to vegetation (e.g. uptake, chemical transformation, transpiration, treatment from associated microbial activity, etc.).
2. **Review:** The City shall ensure that the data relied upon and the conclusions presented in the Equivalency Analysis are appropriate.
3. **Sizing:** Systems must be designed and sized following the methodology in Section 4 of the July 2018 Equivalency Analysis document.
4. **O&M:** Operation and maintenance of the MWS Linear must be conducted consistent with the recommendations in the maintenance manual provided by the manufacturer and any revisions thereto.
5. **Media:** MWS Linear proprietary media must be provided by the manufacturer. No substitution of these materials/media is allowed.
6. **Hydromodification:** There is no presumption by this approval that a Permittee's implementation of the abovementioned design parameters and use specifications of the MWS Linear 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 MWS Linear 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. Furthermore, this approval does not constitute certification or verification of the performance of the MWS Linear since the Los Angeles Water Board does not have a testing and certification program for treatment control BMPs. This approval is given based on the supporting documentation provided in the request and relies on the City's review of the system.

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 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 or by phone at (213) 620-2150.

Sincerely,


Deborah J. Smith
Executive Officer

cc: Yoshiya Morisaku, County of Los Angeles, Department of Public Works