

M E M O R A N D U M

DATE: June 26, 2014
TO: Steve Lee, Development Engineering Manager
FROM:  Ron Straka, Surface Water Utility Engineering Manager, x7248
STAFF CONTACT: Hebe C. Bernardo, Surface Water Utility Engineer, x7264
SUBJECT: **Blanket Adjustment – Americast Filterra®**

The City of Renton Surface Water Utility has issued a blanket adjustment allowing private developments to use Filterra Systems on private property to mitigate for water quality treatment and/or oil control requirements, in accordance with City adopted 2009 King County Surface Water Design Manual and associated City Amendments. The Washington State Department of Ecology has approved the Filterra® Bioretention Systems for General Use Level Designation for Total Suspended Solids, oil and grease, and enhanced dissolved metals treatment.

The Americast Filterra® Bioretention Systems for Basic Treatment, Enhanced Basic Water Quality and/or Oil Treatment will be approved if the following conditions are met:

1. Filterra® is to be used only on commercial and/or industrial site developments where the system will be located in private property. The property owner is responsible for the maintenance and operation of the Filterra® Systems. There must be a single property owner responsible for maintenance of the Filterra Systems.
2. The Filterra® treatment facility shall not be located within City right-of-way or any easements dedicated to the City.
3. Each Filterra® unit shall be sized for Oil Treatment using a filter hydraulic conductivity of 35.46 inches/hour (assuming a hydraulic gradient of 1.41 inch/inch as listed in the Washington State Department of Ecology General Use Level Designation for Americast's Filterra®) using the sand filter module in the latest version of the Western Washington Hydrology Model (WWHM) or other Ecology-approved continuous runoff model. The model must indicate the unit is capable of processing 91 percent of the influent runoff file.

4. Each Filterra® unit shall be sized for Enhanced Treatment using a filter hydraulic conductivity of 24.82 inches/hour (assuming a hydraulic gradient of 1.41 inch/inch as listed in the Ecology General Use Level Designation) using the sand filter module in the latest version of the WWHM or other Ecology-approved continuous runoff model. The model must indicate the unit is capable of processing 91 percent of the influent runoff file.
5. Each Filterra® unit shall be sized for Basic Treatment using a filter hydraulic conductivity of 35.46 inches/hour (assuming a hydraulic gradient of 1.41 inch/inch as listed in the Technical Information Report (TIR)) using the sand filter module in the latest version of the Western Washington Hydrology Model or other Ecology-approved continuous runoff model. The model must indicate the unit is capable of processing 91 percent of the influent runoff file.
6. The use of the Filterra® Bioretention Systems to comply with the Oil Control (Special Requirement #5) requirement for a High Use Site, in addition to Enhanced Basic Water Quality Treatment, is also approved. The same Filterra® unit can be used for both Enhanced Treatment and Oil Control, provided it is sized as specified above.
7. Each site plan must undergo Filterra® review before the unit can be approved for site installation. This will ensure that site grading and slope are appropriate for use of a Filterra® unit.
8. Filterra® media shall conform to the specifications submitted to and approved by Ecology.
9. Facility inspection, maintenance, and reporting are required by the City of Renton Surface Water Utility per the Ecology National Pollutant Discharge Elimination System Phase II Municipal Stormwater Permit (Section S5.C.4.c.iii). Facility owners are responsible for ensuring that stormwater facilities are properly maintained and functioning as designed and permitted. The Filterra® facility shall be inspected every six months by the supplier during the first year of operation as offered with the purchase of the Filterra® systems. Inspections will be used to determine the site-specific maintenance schedules and requirements. Maintenance of the facility shall include removing trash, degraded mulch, and accumulated debris from the filter surface and replacing the mulch layer. Maintenance procedures should follow those given in the most recent version of the Filterra® Bioretention Systems Operation and Maintenance Manual. During the first year of operation of the facility, written records of the inspections and maintenance shall be submitted to the City of Renton Surface Water Utility, to the attention of Edward Mulhern, Surface Water Utility Engineer.

10. Following the first year of operation, the property owner or owner of the facility shall annually have the Filterra® Bioretention Systems inspected and maintained per the procedures in the most recent version of the Filterra® Bioretention Systems Operation and Maintenance Manual. Written records of the inspection and maintenance shall be submitted to the City of Renton Surface Water Utility, to the attention of Edward Mulhern, Surface Water Utility Engineer. If more frequent inspection and maintenance of the Filterra® Bioretention Systems is required by the manufacturer or is needed to ensure performance of the facility, then the additional inspection and maintenance reports completed within the year shall be provided with the annual report.
11. The plans and TIR for the project must be revised to include the use of the Filterra® Bioretention Systems and this adjustment approval. This adjustment is a conceptual approval for using the Filterra® Bioretention Systems for Enhanced Basic Water Quality and Oil Control (Oil Treatment). Further analysis and design calculations shall be included in the TIR for final approval.
12. The applicant will need to submit a Drainage Facility Covenant for inspection and maintenance of the Filterra® treatment facility. The Drainage Facility Covenant can be found in Reference J of the City of Renton Amendments to the 2009 King County Surface Water Design Manual. A site plan showing the location of the treatment facility must be included as Exhibit A with the declaration of covenant.
13. The approval of this adjustment does not relieve the applicant from other city, state, or federal requirements.

Please notify the applicant of our approval of the adjustment request and associated conditions related to the approval listed above. If you have any questions about this adjustment, please contact me or Hebé Bernardo.

cc: Lys Hornsby, P.E., Utility Systems Director