



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

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Molly Joseph Ward  
Secretary of Natural Resources

David K. Paylor  
Director

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September 4, 2014

Ms. Lisa Lemont, CPSWQ  
Hydro International  
94 Hutchins Drive  
Portland, Maine 04102

Re: Assignment of Removal Efficiencies for Total Phosphorus-Downstream Defender<sup>®</sup> and First Defense<sup>®</sup>

Dear Ms Lemont,

Thank you for your submittals of the Manufactured Treatment Devices (MTD) Registration Forms and supporting documentation for the Downstream Defender<sup>®</sup> and First Defense<sup>®</sup> treatment devices. The MTD information provided was reviewed for the purpose of assigning pollutant removal efficiencies for total phosphorus (TP) for each treatment device. This review was performed in accordance with the Guidance Memo Number 14-2009 titled "Interim Use of Stormwater Manufactured Treatment Devices (MTDs) to meet the new Virginia Stormwater Management Program (VSMP) Technical Criteria, Part IIB Water Quality Design Requirements". The review process included the analysis of the documents submitted and any other publically available reports.

In addition to the registration forms, performance studies were also submitted for review. These studies are in support of the approval letters from the State of New Jersey that certifies Downstream Defender<sup>®</sup> and First Defense<sup>®</sup> has a removal rate of 50% total suspended solids. Consistent with Guidance Memo Number 14-2009, Downstream Defender<sup>®</sup> and First Defense<sup>®</sup> are receiving an event mean concentration percent TP removal efficiency of 20%. As stated in the guidance memo, this information will be posted on the Virginia Stormwater Clearinghouse website. This MTD and the assigned removal efficiency can be manually added into Virginia Runoff Reduction spreadsheet to demonstrate compliance with Runoff Reduction Method.

If you have any questions regarding this information, please contact Robert E. Cooper, P.E. at (804) 698-4033 or e-mail at [Robert.Cooper@deq.virginia.gov](mailto:Robert.Cooper@deq.virginia.gov).

Sincerely;

A handwritten signature in cursive script that reads "Fred K. Cunningham".

Fred K. Cunningham  
Director  
Office of Water Permits