

DOE Stormwater Management Manual for Western Washington (2012)

City of Oak Harbor Review Comment

By: Brad Gluth

10/06/14

RE: *Volume V – Runoff Treatment BMPs – August 2012, Page 7-20, Under-drain pipe:*

This section requires under-drain pipes be slotted, thick-walled plastic pipe and states “Perforated PVC or flexible slotted HDPE pipe cannot be cleaned with pressurized water or root cutting equipment, are less durable and are not recommended.” It is confusing as to whether slotted pipe is required as the word “shall” is used, yet later in this section, the term “not recommended” is used for perforated PVC and flexible slotted HPDE. The language should be made clear as to whether underdrain pipe other than slotted is prohibited or not recommended. Please clarify.

Also, it is not understood where the DOE is getting their information regarding maintenance of perforated PVC. There are miles of this pipe in use in foundation/footing drains, french drains, retaining wall drains, infiltration trenches, leach fields, etc. To our knowledge it can be cleaned with root cutting equipment and cleaned with pressurized water.

The slotted pipe is not readily available, is generally more expensive, is not necessary, and is difficult to make if contract quantities are underestimated. Perforated pipe is generally available, less expensive, and can be quickly made with a drill. The DOE should not require slotted under-drain pipe. It is excessive. The allowance of solid wall non-flexible perforated pipe will allow the continuance of work instead of shutting down crews because underdrain pipe quantities were wrong and the contractor has to order slotted pipe.

In addition, in situations where the subsoil is not very permeable, a product such as “Infiltrator chambers” could be placed under the bioretention soil as an underdrain and increase the flow control storage allowing more infiltration to occur. This concept would not meet the specific specification of slotted pipe, but would serve the same function and allow more water to go back into the soil. Your spec prohibits such a design and are too prescriptive. Please allow the engineer some design flexibility and remove the mandatory requirement for slotted pipe.