

Product Evaluation

RE: Review of “EnviroBerm II”

PRODUCT

EnviroBerm II is a synthetic permeable ditch barrier with 25% porosity. This product is manufactured by Cascade Geotechnical Inc. Edmonton.

VENDER CLAIM AND INFORMATION

CLAIMS:

EnviroBerm II is a permeable ditch barrier designed for runoff control and to replace straw bales and rock ditch checks. It slows channel water flow, changes runoff from turbulent flow to laminar flow, and enhances sediment drop. Eliminating the waterfall effect, it maximizes sediment control while it minimizes ponding for vegetation growth. It can shape to the contour of the channel bottom and side slopes to ensure firm contact between the entire bottoms of the barrier structures and the soil. It is able to endure freeze thaw cycle and the design flow rates. Product web link:

http://www.cascade.ab.ca/index_files/Page891.htm

DESCRIPTION:

EnviroBerm II structure shall be constructed of a panel of perforated extruded UV resistant HDPE pinned down with “J” pins in a single row complete with erosion control matting on the underside.

POTENTIAL USES:

It can be used in road ditches, channels, slopes and construction sites.

STANDARDS:

Hydraulic Tests conducted at the T. Blench Hydraulics Laboratory at University of Alberta

ALBERTA TRANSPORTATION COMMENTS

EXPERIENCE:

Alberta Transportation has used synthetic barriers from different vendors including Cascade Geotechnical Inc. In general, some synthetic barriers have failed after major rainfall events. Regular maintenance such as removal of silt built-up is also required for their success.

APPLICATION STANDARDS:

Alberta Transportation has standard specifications for Synthetic Permeable Barriers - Erosion and Sediment Control Manual 2011, BMP # 10. The manual recommends double panel, whereas vendor claims single panel to be sufficient. Erosion control matting is required under the EnviroBerm II.

RECOMMENDATIONS:

EnviroBerm II be listed as a Potential Product under Alberta Transportation Products List, Erosion Control – Ditch Blocks/Barriers – Synthetic Permeable Barriers – Proprietary, based on the information provided. Final acceptance as a proven product will be based on field performance. Should this product advance beyond trial, BMP #10 of the Erosion and Sediment Control Manual 2011, will have to be modified to accommodate Single Panel Synthetic Permeable Barriers.

TRIAL PROJECTS

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