

## Product Evaluation

### RE: Review of GeoRidge Bio

#### **PRODUCT**

The GeoRidge Bio is the bio-degradable version of the proven GeoRidge. Identical to GeoRidge, it is an A-shaped permeable plastic berm designed for erosion and sediment control. GeoRidge and GeoRidge Bio are developed, manufactured and distributed by Nillex Inc.

#### **VENDOR CLAIMS AND INFORMATION**

##### **CLAIMS:**

GeoRidge and GeoRidge Bio are constructed of a durable UV stabilized HDPE plastic and manufactured using a fully automated diecast process to ensure high quality and consistency. With the incorporation of technologically advanced additives, GeoRidge Bio check dams will degrade over an 18 to 24 month period. The interaction with environmental conditions and naturally occurring micro-organisms causes degradation of the material. GeoRidge Bio has the same energy dissipation and sediment control attributes as the GeoRidge.

##### **DESCRIPTION:**

By acting as an energy dissipater, GeoRidge reduces flow velocities causing silt and sediment to settle upstream. The reduced water velocity also results in minimized downstream erosion. Compared to straw bales, rock check dams, wattles, and other synthetic devices, they deliver superior results. To maximize performance, it is recommended that erosion control blankets be used in conjunction with these check dams. Erosion control blankets prevent undermining of the check dams and encourage early vegetation growth.

##### **POTENTIAL USAGE:**

Used in road ditches, channels, slopes and construction sites.

##### **STANDARDS:**

Nillex Inc. has developed installation instructions for the installation of GeoRidge and GeoRidge Bio check dams.

#### **ALBERTA TRANSPORTATION COMMENTS**

##### **EXPERIENCE:**

Alberta Transportation has been using GeoRidge check dams (and other synthetic barriers) as an alternative to straw bales. Regular maintenance such as removal of silt build-up is required for their success.

##### **APPLICATION STANDARDS:**

Standards for the spacing and length of the synthetic barrier generally follow the same design criteria for straw bales and can be found in Alberta Transportation Erosion and Sediment Control Manual (2003), BMP#10.

##### **RECOMMENDATIONS:**

GeoRidge Bio check dam be listed as a Proven Product under Alberta Transportation Product List, Erosion Control Systems, Ditch Blocks/Barriers – Synthetic Permeable Barriers – Proprietary, based on the information provided.

#### **TRIAL PROJECTS**

Kearl site in Fort McMurray; Brazeau Co. near Drayton Valley; Brown Creek Forestree project by Camrose



Transportation

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cc New Product Evaluation Standing Committee – Roger Skirrow

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