

Plastics (synthetic fibers) in Erosion Prevention & Sediment Control Practices

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October 3, 2019



The Concerns

Definitions

Degradable: Break apart into microscopic pieces (microplastics).

Biodegradable: Break down into natural elements (i.e., carbon, hydrogen, and oxygen) by organisms like bacteria and fungi.

- Wildlife entanglement
- Equipment entanglement
- **Aesthetics**
- **Microplastics**



Minnesota stream. Photo courtesy of Ben Lowe.



Microplastics.

MnDOT

- Many plastic erosion control products are meant to be temporary.
- MnDOT has taken the lead on addressing these issues w/ respect to erosion control products.
- MnDOT is working with industry to address environmental concerns and construction needs.
- Recently phased out the use of temporary plastic erosion-control blanket on MnDOT projects.
- Rough estimate ('16 '18 average) shows
 MnDOT applying 31 tons of plastics per year to the environment.



Plastic erosion control blanket.



Natural fiber erosion control blanket.

Plastics and Construction

Silt Fence







Sediment logs











Thank you.

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