

Wildlife-friendly Erosion Control

Wildlife entanglement in, and death from, plastic netting and other man-made plastic materials has been documented in birds (Johnson, 1990; Fuller-Perrine and Tobin, 1993), fish (Johnson, 1990), mammals (Derraik, 2002), and reptiles (Barton and Kinkead, 2005; Kapfer and Paloski, 2011). Unfortunately, the use of these materials for erosion control continues in many cases, often without consideration for wildlife impact. This plastic netting is frequently used for erosion control during construction and landscape projects and can negatively impact terrestrial and aquatic wildlife populations as well as snag in maintenance machinery, resulting in costly repairs and delays. However, erosion-control materials that are wildlife friendly do exist and are sold by several large companies. Below are a few key considerations before starting a project.

Know Your Options

- Remember to consult with local natural resource agencies (DNR, USFWS, etc.) before starting a project. They can help you identify sensitive areas and rare species.
- When erosion control is necessary, select products with biodegradable netting (natural fiber, biodegradable polyesters, etc.).
- DO NOT use products that require UV-light to biodegrade (also called “photodegradable”) as they do not biodegrade properly when shaded by vegetation.
- Use netting with rectangular-shaped mesh (not square mesh).
- Use netting with flexible (non-welded) mesh.



Woven 100% natural fiber erosion-control materials being utilized along a central Minnesota stream. ©MN DNR, Nick Proulx

Know the Landscape

- It is especially important to use wildlife-friendly erosion control around:
 - Areas with threatened or endangered species.
 - Wetlands, rivers, lakes, and other watercourses.
 - Habitat-transition zones (prairie – woodland edges, rocky outcrop – woodland edges, steep rocky slopes, etc.).
- Use erosion mesh wisely; not all areas with disturbed ground necessitate its use. Do not use plastic mesh unless it is specifically required. Other erosion-control options exist (open weave textile (OWT), rolled erosion control products (RECPs) with woven, natural fiber netting).



Fish trapped and killed by welded-plastic square erosion-control mesh improperly placed along a small central Minnesota stream. Photo courtesy of Ben Lowe.

Protect Wildlife

- Avoid photodegradable erosion-control materials where possible.
- Use only biodegradable materials (typically made from natural fibers), preferably those that will biodegrade under a variety of conditions.
- The cost of erosion-control material that is wildlife friendly is often comparable to conventional plastic netting.



Plains Gartersnake trapped and killed by welded-plastic square erosion-control mesh placed along a newly installed cement culvert in southern Minnesota. ©MN DNR, Carol Hall

Literature Referenced

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A small vole that was strangled and killed by plastic erosion-control material with welded and square mesh. Photo taken in southern Minnesota and provided courtesy of Tom Jessen.

