ERTEC Environmental Systems

Protecting Global Lands and Waterways™

Case Study
E-Fence™
Wildlife Exclusion for Small Vertebrates

ERTEC

- **> Highly Reliable**
- **> Lower Project Costs**
- **> ZERO WASTE**
  - **✓Recycled**
  - **✓Reusable**
  - **✓Recyclable**

Application:	**Exclusion of Special-Status Species from Job Sites**
Product:	E-Fence™ (EFB40L) 40" Black with Climber Barrier
Customer:	Suncor Energy Products
Project:	**On-Site Construction Project**
Species:	Butler's garter snake (*Thamnophis butleri*)

ERTEC E-Fence™ is a highly reliable and low cost species exclusion and control barrier designed for projects in habitat where threatened small vertebrates are present. The fence is designed to exclude small vertebrate species from active construction areas, control movement within fragmented habitat and for survey perimeter control. As an option to designers, E-Fence™ has the capability to serve three functions at the same time eliminating the need for additional fence lines: 1) Wildlife exclusion, 2) High Visibility Orange Personnel and Equipment Control for Safety and 3) Sediment Control using ERTEC's revolutionary sediment control systems.

E-Fence 40" with climber barrier

E-Fence™ during installation

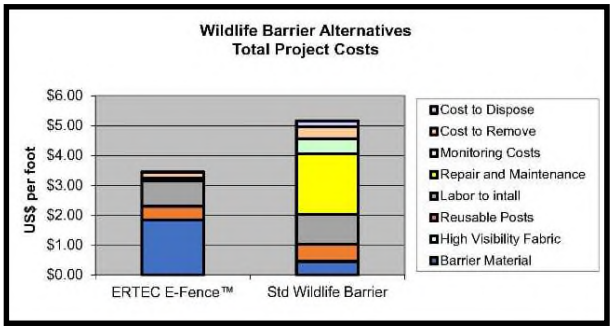
ERTEC offers triple function E-Fence™

- Typically cuts first project costs significantly. If reused on subsequent projects, the savings are dramatic.
- Highly configurable for different species and habitat
- Allows wind and water flow-through and significantly reduces knock-downs, and washouts.

Determinant Species on this project: Butler's garter snake (*Thamnophis butleri*)

Configuration: E-Fence Black, 40" width with climber barrier lip. Trenched 5".

The Challenge: This project originally had a solid type plastic exclusion fence specified. The issue with solid type fences is that stormwater runoff will cause routine failulres in two modes: 1) if a solid type barrier is installed along contours, head-pressure from ponding against the barrier can create havoc via toppling or loss of integrity at the trench. Storm water undermining will concentrate flows and cause unwanted and sometimes severe land erosion. 2) if solid barriers are installed up and down contours, runoff will collect and concentrate along the barrier as it flows downhill. Runoff will scour out the base of the barrier, creating loss of integrity. In the past it was common to see silt fence (black fabric typically used to control sediment flow from construction sites) to exclude small vertebrates from construction sites and also to provide sediment control. Unfortunately, it is common to see silt fence topple in wind, or decay from UV exposure. Silt fence is also highly susceptible to ponding from stormwater runoff and often allows undercutting. Construction projects often last 12 months or more and it is typical for a silt fence installation to require maintenance or replacement. To control damage and significantly reduce maintenance costs, it is important to design with a barrier which has at least 50% Open Area (Open Type) or with a flow rate greater than 600 gallons/ft2/min. Open Type barriers (polymer matrix or metal mesh) allow stormwater and wind to flow-through.



Results: "We installed E-Fence™ nearly two years ago and it still looks like the day it was installed. We're very happy with the installation. A different, solid plastic type barrier was specified for this project, but we chose to go with ERTEC E-Fence™ for better economics and for its expected high performance. After two years, I can see why this flow thru barrier is a much better solution. We have not had to perform any maintenance. Suncor is happy with E-Fence™. -Tomas Burget, Suncor Construction Coordinator April 2017

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