

# ERTEC Environmental Systems

Protecting the Integrity of Global Lands and Waterways™

## Case Study Drop Guard™



- > Lower Project Costs
- > Better Performance
- > ZERO Waste
  - ✓ Recycled
  - ✓ Reusable
  - ✓ Recyclable



**Application:** Drain Inlet Protection: DOT Project  
**Product:** Drop Guard™ for ditch and field drain inlets on paving  
**Location:** HWY 4 Bypass  
**Customer:** Contra Costa Transportation Authority —Caltrans specifications

Drop Guard™ is a patented, high performing, low cost and environmentally sustainable approach to reduce sedimentation into unpaved or soft-scape field drop inlets. Drop Guard allows water flow through but reduces velocity while filtering particles. Manufactured in 7 foot panels, it is trenched to a depth of 4 inches, wrapped around drain inlets and secured with wood stakes. Two heights are available (15" & 12"). The filter is designed for concentrated flows. It is self cleaning after post-storm sediment build-up is removed. Drop Guard is an important part of a comprehensive best management practice system for site sediment control. Highly sustainable zero waste solution, the system is made from recycled, reusable and recyclable HDPE.



**The Challenge:** Around this project there were many drain inlets in field and ditch situations. If it was decided to use traditional method (install silt fence or drainage insert bags) for these drains, a crew of 2 or 3 laborers would be required over several days to visit all the inlet, remove grates and install bags. There would be constant and heavy maintenance.

**Alternatives:** Current best practices include silt fence systems, or filter bags that envelop the grate, or various other non-technical methods (wattles, sandbags, etc). Insert filters and filter bags that envelop the grate require the removal of the grate which is often difficult, requires more than one person, and can lead to the possibility of back injury. Insert systems can present difficulties when they need to be cleaned—it is often a difficult or impossible undertaking. Silt fence systems require constant repair and don't let water flow through. The non-technical approaches can lead to back-ups at the drain inlet, extra debris inside the storm drain, and are usually often not reusable.

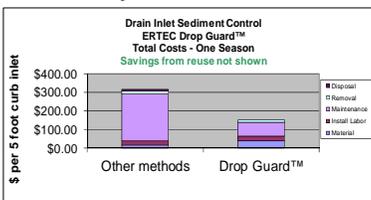
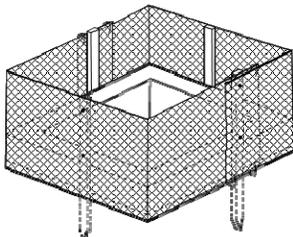
**Solution:** Drop Guards were trenched and wrapped around each Drop Inlet and held in place with wood stakes and screws.

### Summary and results:

"Drop Guards worked great for us on this project. They were so easy to install, maintain and we never had to lift heavy grates. Over the course of a 2 year project, we had to clean the units several times, but cleaning was quick. And unlike with silt fence or bags, repair maintenance was insignificant. The owner like the high visibility." - Fred Velasco—CC Myers

**Economics:** Drop Guards typically have a lower first cost than other systems. And reduced installation costs, reduced maintenance costs and reusability dramatically add to the savings.

Minimization of off-site sediment loss is achieved with a combination of BMPs. Here an erosion control blanket is used in combination with Drop Guard.



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