



# ROBINSON RANCH SWALE CHANNEL PROTECTION

## LOCATION

Parker, CO

## OWNER

Town of Parker

## ENGINEER

Town of Parker

## CONTRACTOR

Town of Parker

## SIZE/PRODUCT

2,760 sq ft

HydroTurf® Z

Turf Type 1- 50% Green & 50% Tan

## DATE COMPLETED

2016

## PROJECT DESCRIPTION

Faced with conditions such as steep slopes, soft sandy soils, a heavy sediment load and very shallow utilities, HydroTurf® was placed head to head with rock riprap and won.

The Town of Parker faced a number of challenges with the Robinson Ranch swale. The channel, originally designed with a layer of rock riprap protection, began experiencing overtopping as a result of having to add more rock layers. Maintenance crews struggled to constantly clean out sediment which had been collecting and eventually started adding more riprap because it was sinking into the soft soils. This building up approach both blocked and slowed down water flow, and began changing the volume and slopes of the channel itself.



Sediment collection around the original riprap design.



Drainage culverts are free of debris and sediment for maximum storm water flow capacity.



## ROBINSON RANCH SWALE

By redesigning the channel with HydroTurf, the town was able to reduce the protection layer thickness, thus allowing room for water to flow properly. Channel integrity was no longer compromised and long-term maintenance was greatly reduced.

In addition to performance benefits, HydroTurf's ease of installation allowed the town maintenance staff to complete the project in two days even with inclement weather conditions.



The town crew was able to install HydroTurf® in two days.



A side by side comparison on the south end of the channel shows cleaner water runoff with HydroTurf.



Retaining wall added after HydroTurf install.

Coming back in after installation was complete, the owner was easily able to cut into the HydroTurf system to add a retaining wall that was needed.