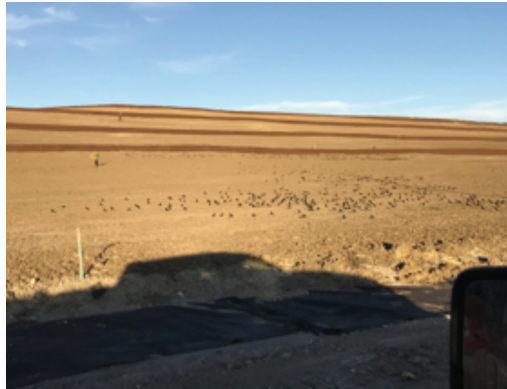


Case Study

TRM Project Profile: Sunset Farms Landfill - Manor, TX

Issues

- Poor vegetation results with fully synthetic TRM.
- Extremely long slopes.
- Extreme heat during installation and seeding.
- Green TRM required.
- 16' width ideal for site.



Sunset Farms landfill before germination. Coconut blankets can be seen on the downslope side of berms. Installation Summer and Fall of 2016.

Problem

Previous attempts to revegetate using a fully synthetic TRM (Turf Reinforcement Mat) on other areas of the Sunset Farms Landfill in Manor, TX (just outside of Austin) had not reached satisfactory density vegetation for Republic Services.



PS42 Installed on upslope of berms showing the straw included in the matrix- vital for heat mitigation and moisture retention.



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Case Study

TRM Project Profile: Sunset Farms Landfill - Manor, TX

Solution

A solution of using PS42 manufactured by ECBVerdyol, a permanent TRM that has a biodegradable matrix added to the permanent fibers, was suggested by Justin Hitchcock of JTEX Contracting and Larry Hans and Joel Denofrio of Innovative Soil Solutions for the current 105 acre portion of the project. All vegetated shear stress values are determined by testing only on the permanent fibers in the product - so long term design strength is not of concern with a product such as this with a biodegradable component. The addition of the biodegradable straw fibers to a synthetic TRM is vital in such hot dry climates. They significantly moderate the evapotranspiration rates, prevent the mat from heating up to a point where it could impede seed germination and expression, and holds moisture in the seed bed better than their fully synthetic counterparts.



Sunset Farms Landfill - successfully vegetated in the summer of 2017.

Results

Vegetation results far exceeded those achieved on the other portion of the site that had utilized a fully synthetic TRM. Especially in the areas installed and seeded during the hottest part of the Central Texas summer. The reduction in heat and the increase in the moisture retention was of significant benefit to re-vegetating the site.



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