



ISD 192 Farmington Area Schools Boeckman Stormwater Retrofit



Before

Project: 1,820 square feet of amended soil turf infiltration area provides water quality treatment for the stormwater runoff from approximately 6.1 acres of existing roof and parking lot area.



After

Practice:
Amended Soil Turf Infiltration Areas (Bioretention)

Benefits:
Runoff volume reduction
Reduction in TSS and Phosphorus

Partners:
Minnesota Board of Water and Soil Resources

Vermillion River Watershed JPO

City of Farmington

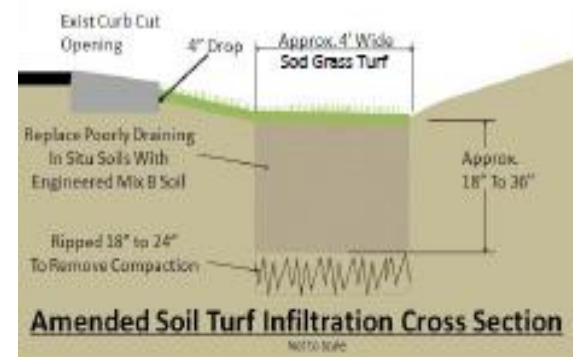
Watershed:
Vermillion River



Approx. 330 lf Amended Soil Turf Infiltration Area (1,320 sf)

Remove Rip Rap Install Approx. 250 sf Amended Soil Turf Infiltration Area

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Funding:

| | |
|------------------------|----------|
| Total project cost | \$13,075 |
| State Clean Water Fund | \$ 8,360 |
| Landowner | \$ 4,715 |

Location:

Farmington
Minnesota



Construction 2010



*Clean Water Fund:
Protecting and restoring
Minnesota's waters
for generations to come.*



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An existing 1,320 foot long drainage swale with poorly draining soils provided little water quality treatment .



Hand excavated borings indicated there was more permeable granular soil two to three feet below the topsoil.



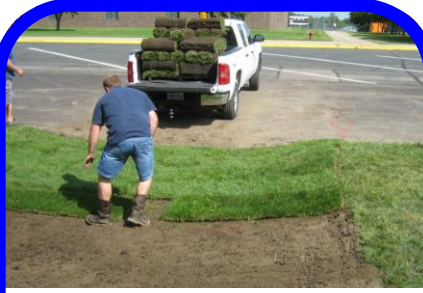
1,820 square feet of infiltration area was created by replacing 150 cubic yards of poorly drained soil with a 70% sand and 30% compost soil mixture.



At three existing curb openings, poorly drained soils were replaced to create 250 square foot infiltration areas.



Soils were replaced in a 330 feet long trench to create 1,320 square feet of infiltration on the one side of the swale.



Turf sod installation was completed within backfill areas to avoid having exposed soils in the swale.



Amended soil turf Infiltration area during a rain event. Surface ponding completely infiltrated within six hours following the rain event.



Mowed infiltration areas are integral to the surrounding landscaping. No special maintenance is required.