
Soil Quality Restoration (SQR) Design Review Checklist
New Lawn Establishment 6/11/15

Applicant: _____ Date: _____

Submitted By: _____ Project Location: _____

- 1) What method from the Chapter 2E-6 of the Iowa Stormwater Management Manual (ISWMM) will be used to treat the area (Method 1 – 7)? _____
- 2) WQv _____ Gallons / _____ CF (show calculations below)
L x W / 43,560 = _____ ac.
_____ ac x 27,152 gals/ac/in = _____ gallons/in
_____ gallons/in x 1.25 in = _____ gallons/WQv
_____ gallons/WQv x 0.1337 CF/gal = _____ CF/WQv
- 3) **Yes or No.** Does the area being treated with SQR only manage rain that falls directly on it? (If yes, proceed to question 7. If No and the area treated with SQR will manage runoff from impervious surfaces, please proceed with question #4.)
- 4) If area being treated will manage runoff from impervious surfaces, show calculations for determining that storage capacity exceeds the 1.25 inch WQv rainfall or provide documentation of the organic matter (OM) content and depth of decompacted soil profile and the capacity of the soil to absorb more the 1.25 inches from Table 6 in Chapter 2E-6 of the ISWMM.

Example:

Assume Method 7 will be used: 8 inches of tillage with a 2 inch compost blanket with seeding

Assume Compost will have an OM content of 40%

2" of compost / 10" of profile = 20% of the profile is compost @ 40% OM = 8% OM content.

Go to Table 6 pg 15 of SQR Chapter ISWMM – see the % SOM column use 8%– go to the far right column (8" depth) and see that there is 3.1 inches of available water storage.

Subtract the WQv from the available water storage 3.1-1.25 = 1.85 inches of available storage above the WQv. *Continued next page.*

Go to Table 8 on pg 17 and see that the excess water storage will allow 1.26 – 1.68 times the available green space that can shed the WQv onto the SQR treatment area or for every 100 square feet (SF) of SQR treatment you can handle the WQv from 126-168 SF from adjacent impervious surfaces and have it absorbed.

- 5) From Table 8 of Chapter 2E-6 show the excess water storage volume _____ inches and the factor to determine the maximum impervious surface that can be treated_____.
- 6) How many square feet of impervious surface will be managed by the soil quality management/restoration area? _____.
- 7) Provide the quantities of materials applied as amendments
 - a. sand _____ tons;
 - b. soil _____ tons or CY;
 - c. compost _____ tons or CY
- 8) Provide a copy of the planting plan with quantity of seed or plants used and a listing of species and rates applied.
- 9) Please describe the Erosion and Sediment Control measures until vegetation is established. _____

- 10) Please attach a map of the soil management / restoration area.



FOR REVIEWERS USE ONLY

Design appears to comply with the standards in the Iowa Stormwater Management Manual and City requirements.

Design does not appear to comply with the standards in the Iowa Stormwater Management Manual and City requirements.

Comments: _____

Name of Reviewer: _____ Date: _____

Signature: _____