



Singing in the Rain

Wisconsin Rain Gardens

Brent Hanson of Hanson's Garden Village
Rhineland, Wisconsin







Rhineland, WI

- Average Annual Precipitation
 - 31.4 Inches
- 2016 Annual Total
 - 44.9 Inches
- 13.5 inches more than normal

HOW MUCH RAIN FROM A 2000 FT² ROOF?

2000 ft² x 31.5" annual precipitation x 0.623 =

39,249 gallons

(1246 gallons in just a 1 inch rain event)

SURFACE FLOW CAN ERODE SOIL AND MOVE SEDIMENTS AND POLLUTANTS







1504





SO WHAT IS A RAIN GARDEN?

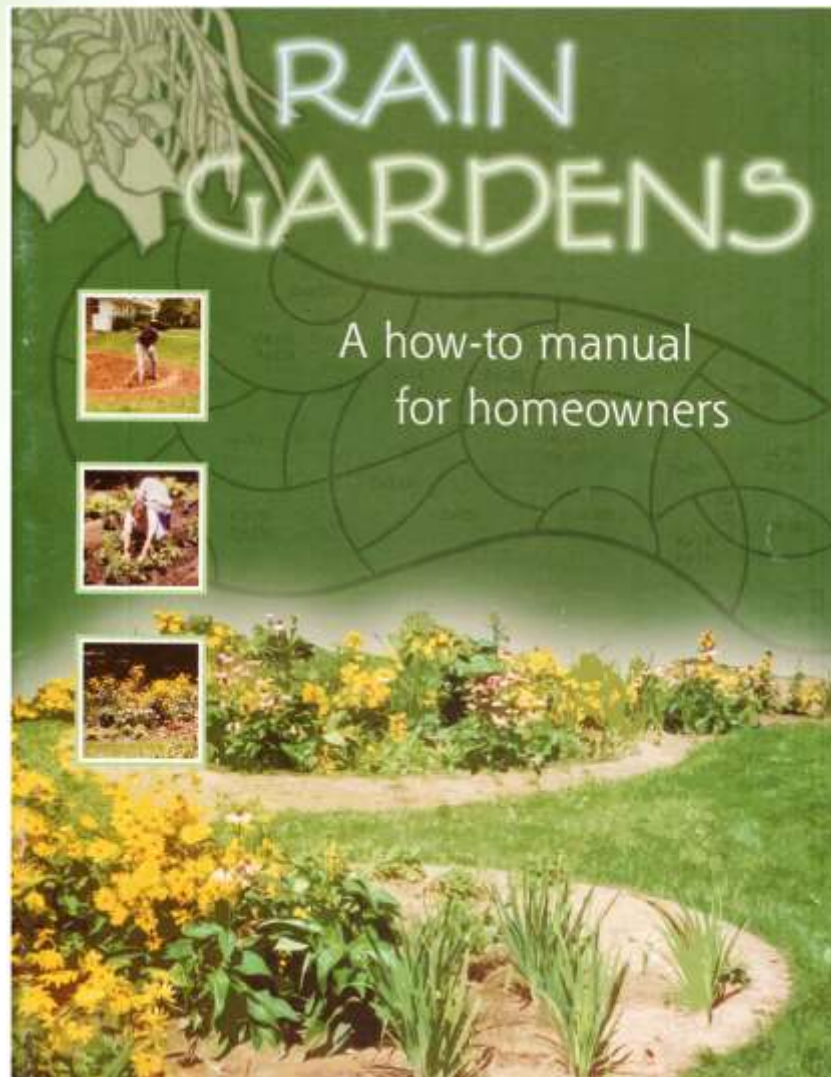


SUCCESS



FAILURE





**THANK YOU WISCONSIN LAKES
PARTNERSHIP – UW EXTENSION**

A RAIN GARDEN IS NOT A POND



THEY CAN INCLUDE WETLANDS



Mosquitoes hatch in
10-14 days.



HOW EXPENSIVE IS A RAIN GARDEN?

- According to Wisconsin Healthy Lakes Initiative, typical single-family rain gardens ranging from 150-600 ft² can run from \$500 to \$9,500
- A 600 ft² rain garden may cost \$3000







CATTAILS MOVING IN





WE WANT PEOPLE TO HAVE ACCESS











OUR RAIN GARDEN



WHERE TO PLACE THE RAIN GARDEN?



SOME SLOPES ARE TOO STEEP



HERBICIDE OPTIONS

GLYPHOSATE



ORGANIC



CALL DIGGER'S HOTLINE

- Allow three business days
- 1-800-242-8511
- www.diggershotline.com

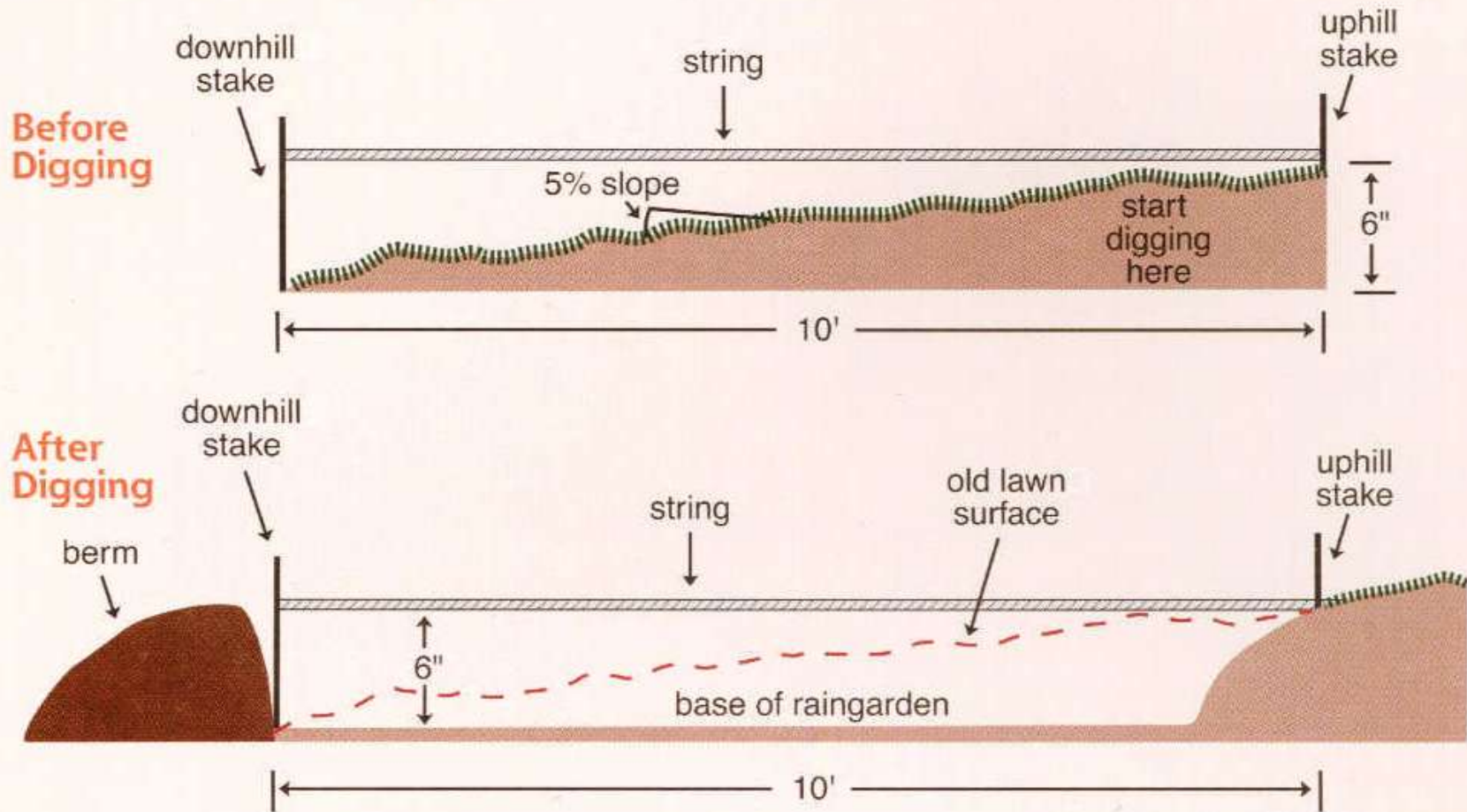


WORK IN COMPOST OR AGED MANURE



Figure 4 Where to dig and where to put the soil you've dug.

a. Between 3% and 8% slope lawn



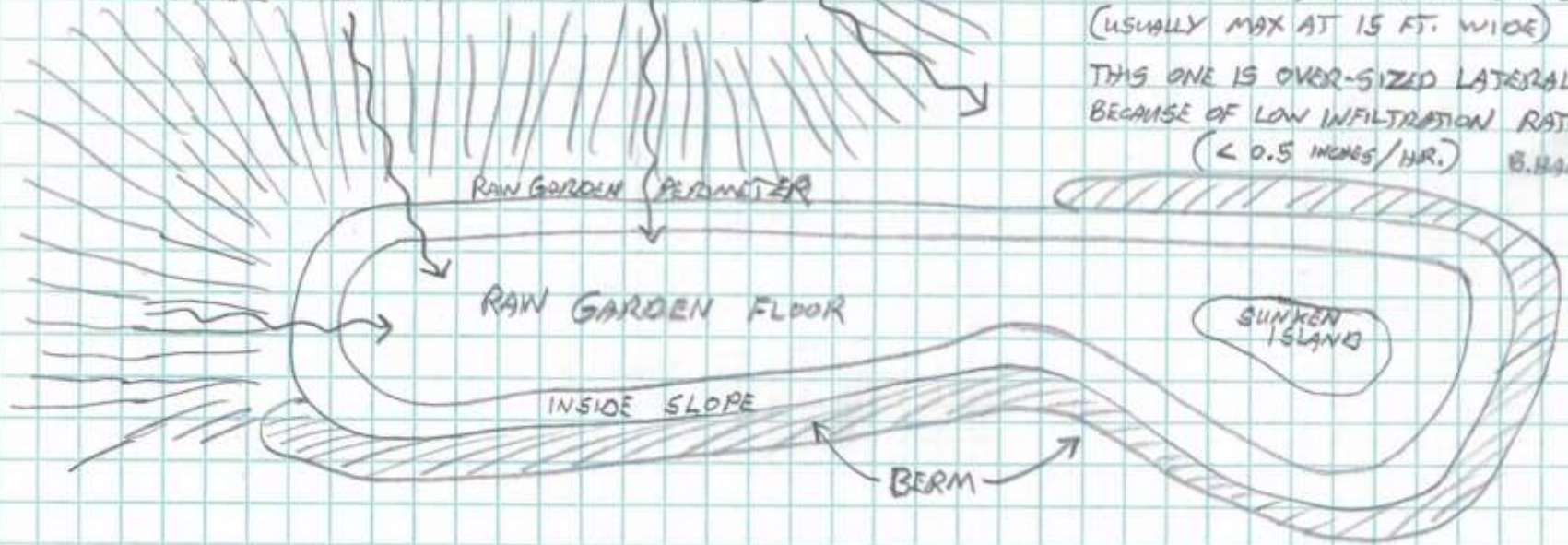
$$\text{RISE} / \text{RUN} \times 100 = \% \text{ SLOPE}$$

4% TO 8% IS IDEAL

8% TO 12% WILL WORK WITH THOUGHTFUL INSTALLATION
(ESPECIALLY WITH GOOD INFILTRATION RATES)
OVER 12% - SEEK PROFESSIONAL ASSISTANCE

EXAMPLE RAIN GARDEN OF 600 SF (10'x60')
(3,000 SF DRAINAGE AREA - MORE ONCE
THE RIGHT PLANTS ARE ESTABLISHED)

EXAMPLE WITH 12% CLAY SOIL SLOPES



RAIN GARDEN GENERALLY OVER 20% OF
DRAINAGE AREA IN HEAVY SOILS
(USUALLY MAX AT 15 FT. WIDE)
THIS ONE IS OVER-SIZED LATERALLY
BECAUSE OF LOW INFILTRATION RATES
(< 0.5 INCHES/HR.) B. HANSON



ILLUSTRATION CREDIT: WILD ONES



NOW THE FUN BEGINS



CURLEX NET FREE™ AND PLANTS AT 1 FT SPACING



CURLEX NET FREE™ ON RAIN GARDEN FLOOR SHREDDED CEDAR MULCH ON BERM



DO YOU NEED DEER FENCING?



NORTH LAKELAND DISCOVERY CENTER





A Natural Destination for Discovery

1900: Native Plants and
Sustainable Restoration Garden
A Natural Destination for Discovery





SPLASH WAY



VIEW DOWN TO RAIN GARDEN



TERMINATION OF DRAIN TILE



VIEW OF DRAINAGEWAY



INSTALLED IN 2009



NLDC – AUGUST 2012







CUP PLANT AND NEW JERSEY TEA



BUSH HONEYSUCKLE



RED-STEM DOGWOOD

Cornus sericea baileyii





NOTE THAT THERE IS NO BERM



MEGIS PATIO AND VIEW TO LAKE



NLDC – ENTRY BEDS 2015



EFFECTIVELY CAPTURING ROOF WATER



CUP PLANT IN 2015



THE RAIN GARDEN AT 6 YEARS





ASHLAND PROJECT 2012





OVERFLOW TO THE STREET

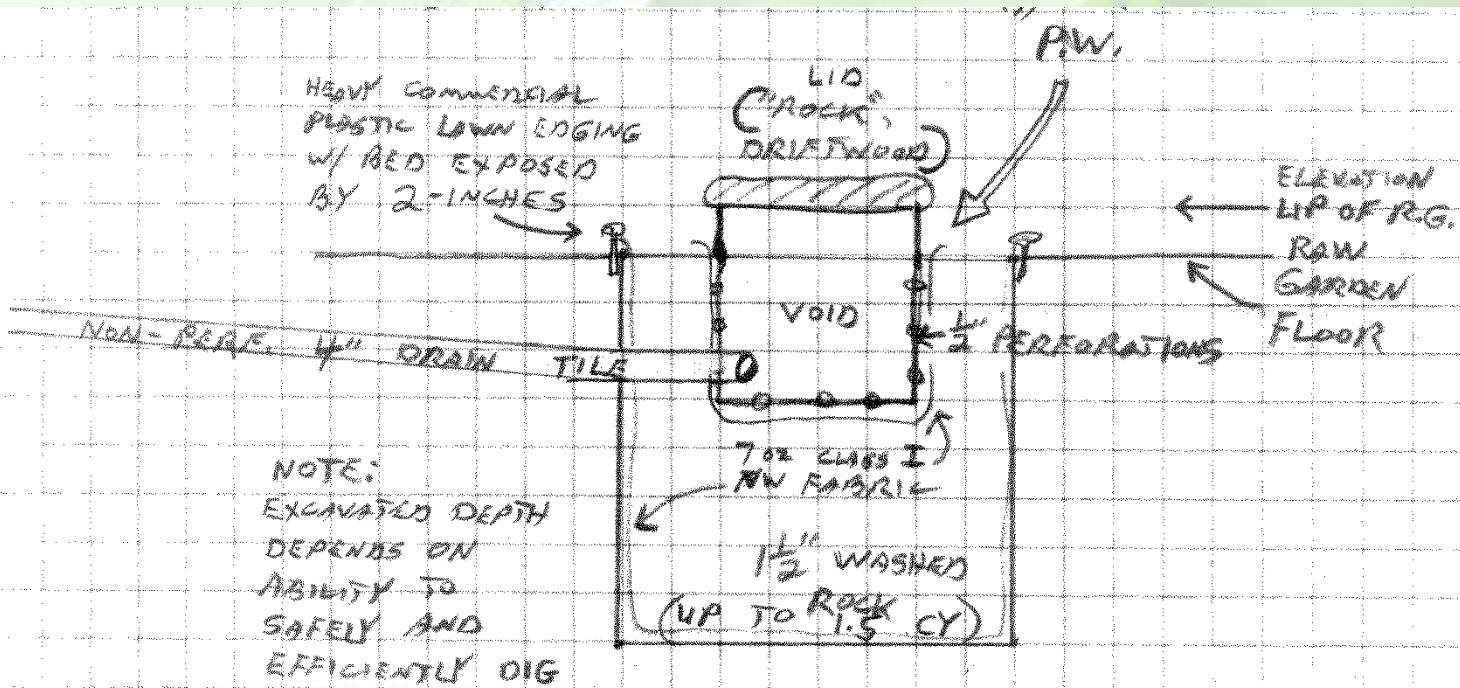




SNOW ON THE MOUNTAIN



PUMP AND INSPECTION WELL



RAIN GARDEN

SCALE 1" = 2'

ASHLAND, WI NOV. 2012
DESIGN: BRENT HANSON
HANSON'S GARDEN VILLAGE, LLC

ASHLAND RAIN GARDEN 2 YEARS AFTER INSTALLATION



DOWNSPOUT WAS TURNED TO GARDEN AND PUMP WELL



TUSSOCK SEDGE



SEDGES, SWAMP ASTER AND SPIKENARD



AMERICAN SPIKENARD *ARALIA RACEMOSA*



SICKLE SEDGE *CAREX CRINITA*



STEPPERS AND PUMP WELL



BOG GOLDENROD *SOLIDAGO ULIGINOSA*



BOTTLE GENTAIN

GENTIANA ANDREWSII



2015 RAIN GARDEN







SPREADING THE COMPOST





CONTROLLING DRIVEWAY RUN OFF



MOON BEACH CAMP







BEAUTIFUL NATIVES FOR DRY BERMS

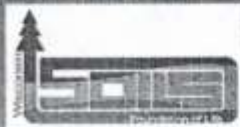


Hydrologic Budgets and Biomass Production of Experimental Rain Gardens Comparing Vegetation Treatments

Sara E. Rouse
Nick J. Balster

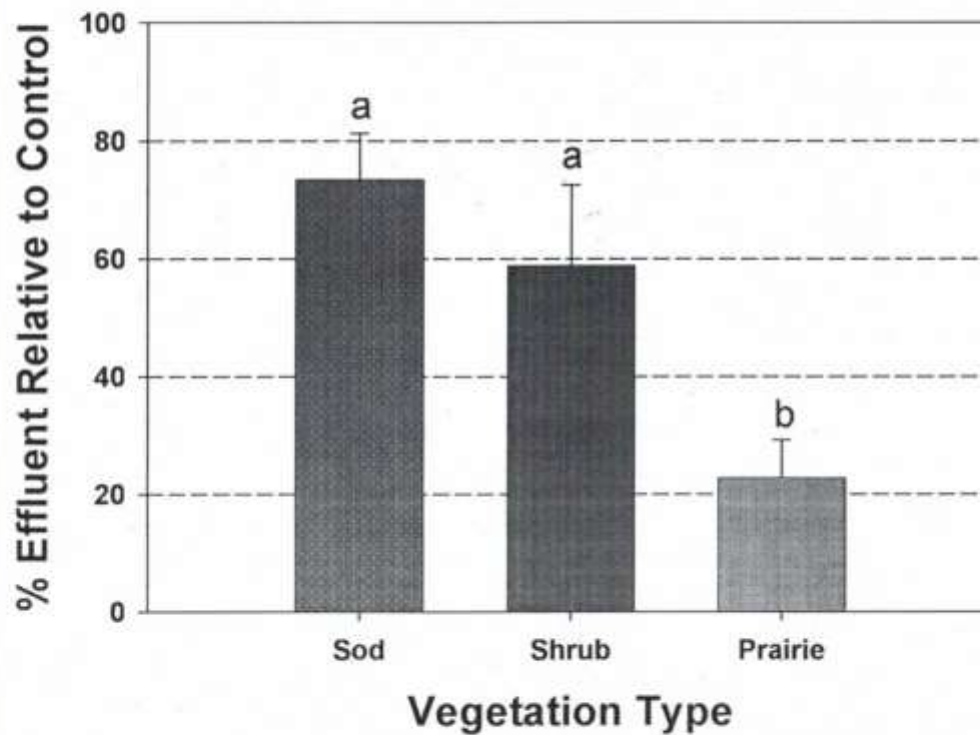
Department of Soil Science
University of Wisconsin – Madison

November 2006



Results

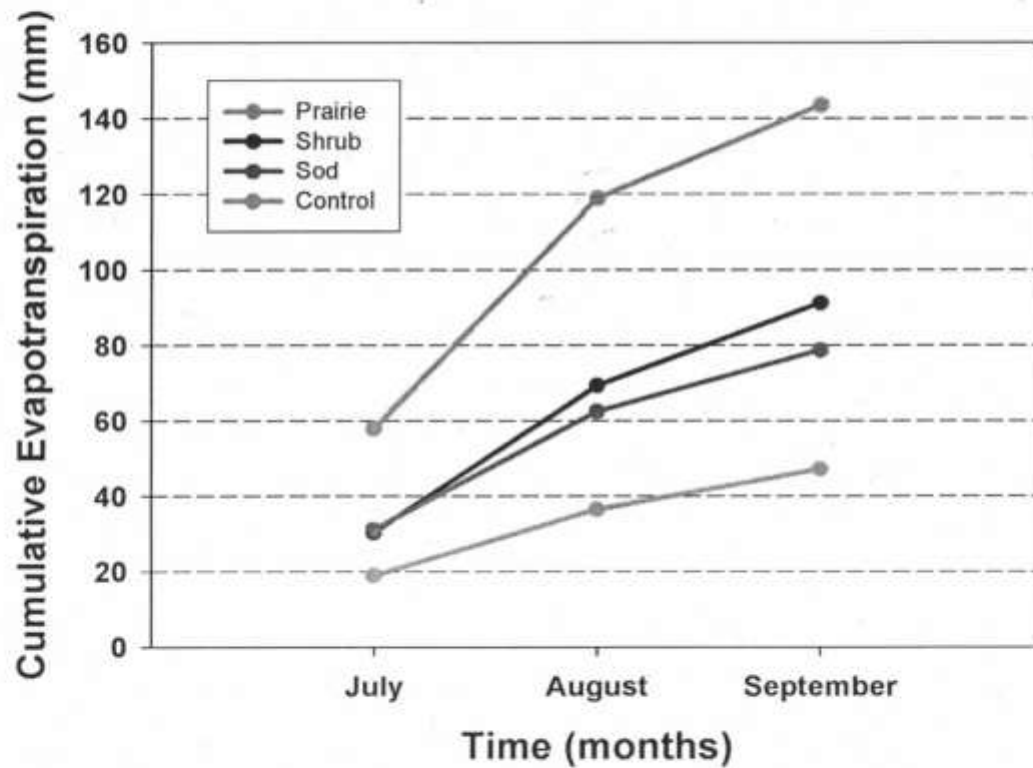
Effluent



Significance at $p < 0.001$

Results

Evapotranspiration



LET'S TRY TO AVOID THIS...



**TO GET
THIS**















WHO DO YOU “CALL” FOR HELP?



SOURCES FOR INFORMATION

- Search Wisconsin Healthy Lakes Initiative
 - Fact sheets on:
 - Rain garden
 - Diversion practices
 - Run off guide
 - Grant funding
- Rain Garden Network
 - www.raingardennetwork.com

Hanson's Garden Village
2660 County Hwy G
Rhineland, WI 54501
www.hansonsgardenvillage.com



715-365-2929
info@hansonsgardenvillage.com