Item 5A.
BCWMC 1-15-15

MASTER WATER STEWARD

Community Leadership for Clean Water

The Master Water Stewards program will train, certify and support community leaders to install pollution prevention projects on residential and commercial properties that educate community members, reduce pollutants from urban runoff, and allow more water to soak into the ground before running into storm sewer systems. Modeled after successful Master Gardener programs, volunteer community leaders will participate in a 50-hour program of courses and projects. Certified Master Water Stewards will volunteer 50 hours of community service in the initial year of certification, up to 25 hours each subsequent year and ongoing continuing education in order to maintain their certification. An interactive web site will consolidate resources to support Stewards, connect Stewards to technical expertise, continuing education opportunities, and other community members.

Non-point source pollution is the single greatest threat to the health of Minnesota's waters. Everything found on city streets flows to our water-bacteria, salt, litter, sediment, nitrogen, and phosphorus. Increasingly large volumes of polluted runoff reach our lakes and rivers faster, causing flooding downstream. Pollutants are not being filtered or broken down by passing through the soil, making water dirtier. The widespread nature of the problem requires local leadership, and localized solutions.

Photo credit: The Freshwater Society

Stewards in the three-year pilot phase (2013-2015) will focus on Minnehaha Creek watershed. As the program expands statewide, the Freshwater Society invites cities, watershed districts and counties to contact us about a partnership.

The Master Water Stewards program creates a new model of community engagement and leadership, and develops a new community-based resource team that natural resource agencies, watershed districts and municipalities can deploy to meet water quality, education and outreach goals.

For more information, contact:
Peggy Knapp
Director of Programs
Freshwater Society
763-219-1252
pknapp@freshwater.org

MINNEHAHA CREEK
WATERSHED DISTRICT

CLEAN WATER LAND & LEGACY AMENDMENT

Master Water Stewards Scope and Sequence

Course title	Concepts

Introduction to MWS	• Introductions
	• Hennepin County Green Partners survey/discussion
	• Partners
	• Program Overview
	• The Stormwater Problem
	• Capstone
	  ○ Project
	  ○ Campaign
	  ○ Choosing a Partner
	• Ongoing commitment to volunteer hours

Basic Hydrology	• Understand how rainfall, runoff, and the movement of water are described, calculated, and measured. • Understand the factors that influence how water moves. • Understand how water shapes the land and our water resources. • Understand how precipitation patterns are changing and how that may impact our water resources.
Stormwater 101	• **The big picture**: what are the issues facing our finite fresh water resources. • **The problem**: How stormwater relates to clean water: volume (quantity), rate, and quality (pollutions). Mimicking natural hydrology, green hydrology, through low Impact development. • **Solutions**: What is in our Stormwater Toolbox to help home owners to minimize runoff associated problems. • **There are no silver bullets.** Always solutions, rarely just a solution: the concept of Stormwater Treatment Train, using a series of tools rather than just using one tool.

	• **Our home site**: a system within the system (watershed). Stormwater runoff is a watershed scale problem that can be managed at small scale where the rain falls such as our home sites.
Water Policy	• Understand the broader policy context in order to be able to explain it to a citizen (exercise listed below) • Describe water governance in relation to being a Master Water Steward. • Demonstrate knowledge of the storm water permitting system and how citizens are a critical part of meeting the permit. • Understand civic engagement and how the water steward can engage and encourage others to engage in civic action, related to Master Water Steward work.
Environmental Behavior and Decision-Making	• To identify challenges to environmental decision-making and behavior change that arise from the nature of environmental problems/solutions and our responses to them; • To practice framing environmental messages based on the above challenges; • To learn about results of yard care choices research in the Twin Cities; • To apply models of behavior change to create a behavior change campaign around a specific yard care behavior.
Community Engagement Strategies	• Become familiar with why community engagement is a valid approach to making change in your community • Learn what motivates individuals to join a community change effort and how to design your projects to better engage community-members • Learn how to strategically target your community engagement efforts to engage people who are most likely to participate • Learn how to make successful invitations to community-members to join your efforts and grow your group of volunteers/supporters
Watershed Tour	Observe important sites in the MCWD, to learn more about the watershed
Basic Rainscaping Part 1	• Understanding Site Assessment –The class will visit residential sites to make

	observations of existing stormwater management features. • Group will discuss effective methods for site assessment • Knowing what should be in the Project Toolbox – Class participants will look at tool options, create a list of tools that can be used on-site and discuss the advantages and disadvantages of each.
Basic Rainscaping Part 2	• Understanding Considerations for Designing Effective Rainscaping – the class will participate in exercises to solve water quality issues on residential sites. • Effective Problem Solving – The class will discuss common problems and discuss possible solutions. • Understanding Raingarden Siting – Participants will work through handouts as individuals and in groups to determine where a raingarden will work on three sites.
Creating a Residential Stormwater Plan	• Onsite consultation at two properties to identify stormwater runoff patterns and opportunities to intercept runoff from the property • Review of stormwater plan and raingarden design examples • Complete a stormwater plans for properties visited
Capstone/Design Charrete	• Capstone proposal • Deadlines/Logistics • Design review with designers • Cost Share review with MCWD
Evaluating Existing BMPs	• The class will learn two approaches for evaluating BMPs: Recognition-Based Evaluation (raingardens) & Regulatory-Based Inspection. • Maintaining BMPs -- Recognition and functional understanding of common BMP's and maintenance plans for each type. Students will learn to develop a seasonal maintenance plan for their chosen BMP.
Aquatic Invasive Species	MWS will be able to • Define invasive species and describe the most common processes by which they are introduced into an ecosystem. • Identify several key invasive species that pose current threats to MN

	ecosystems • Know common management techniques available to slow and prevent the spread of invasive species in Minnesota • Describe ways in which citizens can get involved in invasive species prevention projects and which organizations to contact for possible support and involvement.
Capstone Presentations	Stewards will present a summary of their Capstone projects to peers and other partners