



Lower Grand River Watershed Project

Meeting Minutes

PROJECT:	Lower Grand River Watershed	MEETING DATE:	August 7, 2003
SUBJECT:	Technical Subcommittee	MEETING START:	10:30 a.m.
MEETING SITE:	Fishbeck, Thompson, Carr & Huber, Inc.	MEETING ADJOURN:	Noon
PREPARED BY:	Ms. E. Wendy Ogilvie	PROJECT No.:	G02408
ATTENDING:	Mr. Jim McAllister - Kent County Road Commission Mr. John Koches - GVSU, Annis Water Resources Institute (AWRI) Ms. Laurie Beth Nederveld - GVSU, AWRI Mr. Scott Conners - City of Walker Mr. Robert Zbiciak - Michigan Department of Environmental Quality (MDEQ) Mr. James E. Smalligan, P.E. - Fishbeck, Thompson, Carr & Huber, Inc. (FTC&H) Ms. E. Wendy Ogilvie - FTC&H		

1. Introduction

Mr. James E. Smalligan, P.E. made introductions and provided an overview of the agenda.

2. Cost Effectiveness of Urban Best Management Practices (BMPs)

Mr. Smalligan presented a table that matched pollutant reduction to the appropriate BMP. The BMPs listed were compiled for the City of Grand Rapids, but matched closely to the list generated by the Urban Subcommittee. The table addresses the applicability of the BMPs during construction as well as post-construction.

Fact Sheets explaining each BMP have been developed for the City of Grand Rapids CSO study. Mr. Smalligan presented the Fact Sheets for Catch Basin Cleaning, Hydrodynamic Separators, and Vegetative Swales. Mr. Scott Conners commented that knowing the basis of the assumptions and the science behind the calculations was valuable information to evaluate BMPs and to identify limits and constraints of their application.

Mr. Smalligan presented spreadsheets that evaluated structural BMP cost effectiveness using calculations based on capital costs and maintenance requirements. The land use scenarios used as examples were a vacant, grassed, residential lot (56 percent impervious) and a vacant industrial lot (100 percent impervious). The spreadsheets indicated that, for the residential lot, vegetated swales, constructed wetlands, and wet ponds were the most cost effective BMPs in reducing total suspended solids and phosphorus. Mr. Robert Zbiciak noted that the vegetative BMPs were overall more cost effective than other types of constructed BMPs. The most cost effective BMPs for the industrial lot vegetated swales, rain gardens, and combination curb with water spreaders.



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3. BMPs for Rural Areas

Ms. Laurie Beth Nederveld reported that the inventory of Sand Creek is almost completed. Mr. John Koches expressed interest in developing Fact Sheets for the rural BMPs generated from the Rural Subcommittee similar to those presented for urban BMPs. Mr. Zbiciak commented that the funding source available for the BMPs would be an important selection criteria.

Ms. Nederveld distributed a table listing the designated uses, pollutants, impacts of pollutants, and sources of pollutants found in Sand Creek. The next step is to create a table that links the appropriate BMPs to the sources of pollutants.

Ms. E. Wendy Ogilvie distributed a table from the Sturgeon Creek Watershed Management Plan that listed the recommendations for structural and vegetative BMPs, policy and management BMPs, and Information and Education BMPs to the pollutants to be addressed and the objectives to be met in the watershed. Ms. Nederveld indicated that a similar table would be created for the Sand Creek Watershed.

4. Innovative and Alternative Practices

The members discussed possible alternative techniques to manage storm water. Mr. Conners remarked that, although detention basins are not innovative, the many different designs available for constructing a basin allows flexibility and innovation. Systems that filter runoff could be considered, such as sand and bio-composite. Millennium Park could benefit from a wider use of vegetated swales. Incentives are needed to instigate change. Creating possible tax incentives or other ways to achieve a win-win situation should be investigated. Instead of having a storm water management plan based on volume of water (cfs) for the basis of design, perhaps a pollutant load reduction, such as x lbs of phosphorus, could be a basis for design.

Mr. Koches suggested using the watershed information matrix to prioritize the use of BMPs in certain subwatersheds as a function of the subwatershed's sensitivity ranking. The sensitivity ranking would be determined through the Geographic Information System mapping of the critical areas for the decision support system.

Additional research is required to investigate the potential of using the cost effectiveness information presented for the urban BMPs to assist land use managers in selecting the appropriate BMP for a site. Acquiring funding for this additional research could be a recommendation in the Lower Grand River Watershed Management Plan.

Mr. Koches recommended that a notebook be compiled of the BMP information. The notebook would be a dynamic document to be updated and revised as more information is acquired. The notebook would be used by governmental officials, planners, and developers.

5. Watershed Tour

The Urban Subcommittee is organizing an Urban BMP Tour for members of the Urban and Technical Subcommittees. A tentative date of September 3, 2003, has been set. Mr. Conners will investigate the possibility of using one of the vans from the City of Walker.



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6. Next Meeting

The next Technical Subcommittee meeting has been scheduled for Thursday, October 2, 2003, at FTC&H offices.

7. Adjourn

The meeting was adjourned at Noon.

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By e-mail

DISTRIBUTION:

Attendees

Mr. Doug Kadzban - City of East Grand Rapids
Mr. Eric E. Swanson - RMT, Inc.
Mr. Geoffrey Habron - Michigan State University
Mr. Rich Bowman - Trout Unlimited
Mr. Steve VanHoeven - Ottawa County Road Commission
Mr. Russ Henckel - City of Wyoming
Mr. Brad Boomstra - Kent County Drain Commissioner's Office
Ms. Melissa Eldridge - Ionia Conservation District
Mr. Bryan Jennings - Premarc Corporation
Mr. John Hardy - Maple Row Dairy
Ms. Abigail Matzke - GVSU - AWRI
Mr. Andy Bowman - Grand Valley Metro Council (GVMC)
Mr. Don Stypula - GVMC
Ms. Janice Tompkins - MDEQ
Mr. Jason E. Buck - FTC&H