

Due by March 31, 2012

Notice: Pursuant to s. NR 216.07(8), Wis. Adm. Code, an owner or operator of a Municipal Separate Storm Sewer System (MS4) is required to submit an annual report to the Department of Natural Resources (DNR) by March 31 of each year to report on activities for the previous calendar year. This form is being provided by the DNR for the user's convenience. Personal information collected will be used for administrative purposes and may be provided to the extent required by Wisconsin's Open Records Law [ss. 19.31-19.39, Wis. Stats.].

This form is for reporting on activities undertaken in calendar year 2011.

Instructions: Complete each section of the form that follows. If additional space is needed to respond to a question, attach additional pages. Provide descriptions that explain the program actions taken to comply with the general permit. Complete and submit the annual report by March 31, 2012, to the appropriate address indicated on the last page of this form.

SECTION I. Municipal Information

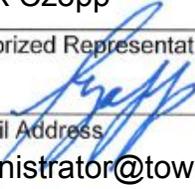
Name of Municipality TOWN OF BROOKFIELD		Facility ID No. (FIN) 30730	
Mailing Address 645 N JANACECK RD	City BROOKFIELD	State WI	Postal Code 53045
County(s) in which Municipality is located WAUKESHA	Type of Municipality: (check one) <input type="checkbox"/> County <input type="checkbox"/> City <input type="checkbox"/> Village <input checked="" type="checkbox"/> Town <input type="checkbox"/> Other (specify)		

SECTION II. Municipal Contact Information

Name of Municipal Contact Person RICK CZOPP		Title ADMINISTRATOR	
Mailing Address 645 NORTH JANACEK ROAD	City BROOKFIELD	State WI	Postal Code 53045
E-mail Address administrator@townofbrookfield.com	Telephone No. (include area code) 262-796-3788	Fax No. (include area code) 262-796-0339	

SECTION III. Certification

I hereby certify that I am an authorized representative of the municipality covered under MS4 General Permit No. WI-S050075-1 for which this annual report is being submitted and that the information contained in this document and all attachments were gathered and prepared under my direction or supervision. Based on my inquiry of the person or persons under my direction or supervision involved in the preparation of this document, to the best of my knowledge, the information is true, accurate, and complete. I further certify that the municipality's governing body or delegated representatives have reviewed or been apprised of the contents of this annual report. I understand that Wisconsin law provides severe penalties for submitting false information.

Authorized Representative Printed Name Rick Czopp		Authorized Representative Title Administrator	
Authorized Representative Signature 		Date Signed 3/23/2012	
E-mail Address administrator@townofbrookfield.com	Telephone No. (include area code) 262-796-3788	Fax No. (include area code) 262-796-0339	

SECTION IV. General Information

a. Describe what efforts the municipality has undertaken to invite the municipal governing body, interest groups, and the general public to review and comment on the annual report.

The web-link to the stormwater portion of the Town's website has been put on display on the public counter in the Town Clerk's office. A hard copy of the Annual Report is kept at the front counter of the town hall.

b. Describe how elected and municipal officials and appropriate staff have been kept apprised of the municipal storm water discharge permit and its requirements.

These groups are presented the municipal storm water permit and it's requirements through scheduled briefings. Regular updates are also provided to outline any changes in the permit requirements and to show how the current requirements are being met.

c. Has the municipality prepared its own municipal-wide storm water management plan? Yes No

If yes, title and date of storm water management plan:

- Stormwater Management Plan for the Town of Brookfield, September 1998

- Stormwater Quality Management Plan (Draft), December 2009

d. Has the municipality entered into a written agreement with another municipality or a contract with another entity to perform one or more of the conditions of the general permit as provided under Section 2.10 of the general permit? Yes No

If yes, describe these cooperative efforts:
SEE SECTION 3c OF THE ATTACHMENT.

e. Does the municipality have an internet website? Yes No

If yes, provide web address:

<http://www.townofbrookfield.com/>

If the municipality has an internet website, is there current information about or links provided to the MS4 general permit and/or the municipality's storm water management program? Yes No

If yes, provide web address:

<http://www.townofbrookfield.com/stormwater.html>

SECTION V. Permit Conditions

a. Minimum Control Measures: For each of the permit conditions listed below, provide a description of the status of implementation of program elements, the status of meeting measurable goals, and compliance with permit schedule in section 3 of the MS4 general permit. Provide an evaluation of program compliance with the general permit, the appropriateness of identified best management practices, and progress towards achieving identified measurable goals. Be specific in describing the actions that have been taken during the reporting year to implement each permit condition and whether measurable goals have been met, including any data collected to document a measurable goal. Also, explain the reasons for any variations from the compliance schedule in the MS4 general permit.

- Public Education and Outreach
SEE ITEM 3b OF THE ATTACHMENT.
- Public Involvement and Participation
SEE ITEM 3b OF THE ATTACHMENT.
- Illicit Discharge Detection and Elimination
SEE ITEM 3k OF THE ATTACHMENT.
- Construction Site Pollutant Control
SEE ITEM 3I OF THE ATTACHMENT.
- Post-Construction Storm Water Management
SEE ITEM 3m OF THE ATTACHMENT.
- Pollution Prevention
SEE ITEM 3n OF THE ATTACHMENT.

b. Storm Water Quality Management: Has the municipality completed a pollutant-loading analysis to assess compliance with the 20% TSS reduction developed urban area performance standard? Yes No

If yes, provide the following: Model used WinSLAMM/P8 Version 9.3.2/3.4 Reduction (%) 28.08

If no, include a description of any actions the municipality has undertaken during 2011 to help achieve the 20% standard.

Has the municipality completed an evaluation of all municipal owned or operated structural flood control facilities to determine the feasibility of retrofitting to increase TSS removal? Yes No If yes, describe:

PREVIOUSLY SUBMITTED. NO ADDITIONAL EVALUATIONS HAVE BEEN MADE.

c. Best Management Practices Maintenance: Does the municipality have a maintenance program for installed storm water best management practices? Yes No

If yes, describe the maintenance program. If available, attach any additional information on the maintenance program.

d. Storm Sewer System Map: Describe any changes or updates to the storm sewer system map made in the reporting year. Provide an updated map if any changes occurred during the reporting year.

SEE ITEM 2 OF THE ATTACHMENT.

SECTION VI. Fiscal Analysis

- a. Provide a fiscal analysis that includes the annual expenditures for 2011, and the budget for 2011 and 2012. A table to document fiscal information is provided on page 6.
- b. What financing/fiscal strategy has the municipality implemented to finance the requirements of the general permit?
 Storm water utility General fund Other _____
- c. Are adequate revenues being generated to implement your storm water management program to meet the permit requirements? Yes No

Please provide a brief summary of your financing/fiscal strategy and any additional information that will assist the Department in understanding how storm water management funds are being generated to implement and administer your storm water management program.

SEE ITEM 7 OF THE ATTACHMENT.

SECTION VII. Inspections and Enforcement Actions

Note: If an ordinance listed below has previously been submitted and has not been amended since that time, a copy does not need to be submitted again. If the ordinance was previously submitted, indicate such in the space provided.

- a. As of the date of this annual report, has the municipality adopted a construction site pollutant control ordinance in accordance with subsection 2.4.1 of the general permit? Yes No If yes, attach copy or provide web link to ordinance:

PREVIOUSLY SUBMITTED. NO AMENDMENTS HAVE BEEN MADE.

- b. As of the date of this annual report, has the municipality adopted a post-construction storm water management ordinance in accordance with subsection 2.5.1 of the general permit? Yes No If yes, attach copy or provide web link to ordinance:

PREVIOUSLY SUBMITTED. NO AMENDMENTS HAVE BEEN MADE.

- c. As of the date of this annual report, has the municipality adopted an illicit discharge detection and elimination ordinance in accordance with subsection 2.3.1 of the general permit? Yes No If yes, attach copy or provide web link to ordinance:

PREVIOUSLY SUBMITTED. NO AMENDMENTS HAVE BEEN MADE.

- d. As of the date of this annual report, has the municipality adopted any other ordinances it has deemed necessary to implement a program under the general permit (e.g., pet waste ordinance, leaf management/yard waste ordinance, parking restrictions for street cleaning, etc.)? Yes No If yes, attach copy or provide web link to ordinance:

- e. Provide a summary of available information on the number and nature of inspections and enforcement actions conducted during the reporting period to ensure compliance with the ordinances described in a. to d. above.

SEE ITEM 3a OF THE ATTACHMENT.

SECTION VIII. Water Quality Concerns

a. Does any part of the MS4 discharge to an outstanding resource water (ORW) or exceptional resource water (ERW) listed under s. NR 102.10 or 102.11, Wis. Adm. Code? (A list of ORWs and ERWs may be found on the Department's Internet site at: <http://dnr.wi.gov/org/water/wm/wqs/orwerw/>) Yes No If yes, list:

b. Does any part of the MS4 discharge to an impaired waterbody listed in accordance with section 303(d)(1) of the federal Clean Water Act, 33 USC § 1313(d)(1)(C)? (A list of the most current Wisconsin impaired waterbodies may be found on the Department's Internet site at: <http://dnr.wi.gov/org/water/wm/wqs/303d/303d.html>) Yes No If yes, complete the following:

- Impaired waterbody to which the MS4 discharges:

FOX RIVER, POPLAR CREEK, DEER CREEK, FRAME PARK CREEK, UNDERWOOD CREEK

- Description of actions municipality has taken to comply with section 1.5.2 of the MS4 general permit for discharges of pollutant(s) of concern to an impaired waterbody:

SEE ITEM 6 OF THE ATTACHMENT.

c. Identify any known water quality improvements in the receiving water to which the MS4 discharges during the reporting period.

SEE ITEM 8 OF THE ATTACHMENT.

d. Identify any known water quality degradation in the receiving water to which the MS4 discharges during the reporting period and what actions are being taken to improve the water quality in the receiving water.

SEE ITEM 8 OF THE ATTACHMENT.

SECTION IX. Proposed Program Changes

a. Describe any proposed changes to the storm water management program being contemplated by the municipality for 2012 and the schedule for implementing those changes. Proposed program changes must be consistent with the requirements of the general permit.

SEE ITEM 5 OF THE ATTACHMENT.

Fiscal Analysis Table. Complete the fiscal analysis table provided below.

Program Element	Annual Expenditure		Budget		Source of Funds
	2011	2011	2012		
Public Education and Outreach	SEE ITEM 7 OF THE ATTACHMENT.				
Public Involvement and Participation	SEE ITEM 7 OF THE ATTACHMENT.				
Illicit Discharge Detection and Elimination	SEE ITEM 7 OF THE ATTACHMENT.				
Construction Site Pollutant Control	SEE ITEM 7 OF THE ATTACHMENT.				
Post-Construction Storm Water Management	SEE ITEM 7 OF THE ATTACHMENT.				
Pollution Prevention	SEE ITEM 7 OF THE ATTACHMENT.				
Storm Water Quality Management (including pollutant-loading analysis)	SEE ITEM 7 OF THE ATTACHMENT.				
Storm Sewer System Map	SEE ITEM 7 OF THE ATTACHMENT.				
Other	SEE ITEM 7 OF THE ATTACHMENT.				

**Annual Report under MS4
General Permit No. WI-S050075-1**

Form 3400-195 (R 01/12)

Page 7 of 7

NORTHERN REGION COUNTIES			WEST CENTRAL REGION COUNTIES		
Ashland	Langlade	DNR Service Center	Adams	Marathon	DNR Service Center
Barron	Lincoln	1701 N. 4th Street	Buffalo	Monroe	5301 Rib Mountain Rd.
Bayfield	Oneida	Superior, WI 54880	Clark	Portage	Wausau, WI 54401
Burnett	Polk	Phone: (715) 392-7988	Crawford	Trempealeau	Phone: (715) 359-4522
Douglas	Price		Jackson	Vernon	
Florence	Rusk		Juneau	Wood	
Forest	Sawyer		La Crosse		
Iron	Taylor				
	Vilas				
	Washburn		Chippewa	Pepin	DNR Service Center
			Dunn	Pierce	890 Spruce St.
			Eau Claire	St. Croix	Baldwin, WI 54002
					Phone: (715) 684-2914

NORTHEAST REGION COUNTIES			SOUTH CENTRAL REGION COUNTIES		
Brown	Marquette	DNR Northeast Region	Columbia	Jefferson	DNR South Central Region
Calumet	Menominee	2984 Shawano Ave.	Dane	LaFayette	3911 Fish Hatchery Rd.
Door	Oconto	Green Bay, WI 54313	Dodge	Richland	Fitchburg, WI 53711
Fond du Lac	Outagamie	Phone: (920) 662-5100	Grant	Rock	Phone: (608) 275-3266
Green Lake	Shawano		Green	Sauk	
Kewaunee	Waupaca		Iowa		
Manitowoc	Waushara				
Marinette	Winnebago				

SOUTHEAST REGION COUNTIES		
Kenosha	Sheboygan	DNR Service Center
Milwaukee	Walworth	141 NW Barstow Street,
Ozaukee	Washington	Room 180
Racine	Waukesha	Waukesha, WI 53188
		(262) 574-2100

**NR 216 ANNUAL REPORT
FOR
REPORTING YEAR 2011**

For the:

**Town of Brookfield
645 North Janacek Road
Brookfield, WI 53045**

**WPDES Permit No. WI-S050105-2
Upper Fox River Watershed Communities Group**

Prepared by:

**Strand Associates, Inc.
910 West Wingra Drive
Madison, WI 53175**

March 31, 2012

Town of Brookfield
WPDES Permit No. WI-S050105-2
Upper Fox River Watershed Communities Group

NR 216 Annual Report for Reporting Year 2011

I certify that the material contained in the report is, to the best of my knowledge, true, accurate and complete, and in accordance with Part II.I of the Upper Fox River Watershed Communities Group WPDES Permit.

This report will be made available for inspection and comment by the elected officials of the Town of Brookfield and its citizens.



Richard Czopp, Town Administrator
(262) 796-3788

3/23/2012
Date

Purpose

The purpose of this Annual Report is to provide the status of the Town of Brookfield’s (Town’s) storm water management program. This report is prepared in compliance with the conditions of the NR 216 permit pursuant to Part II, Section I, of Wisconsin Pollutant Discharge Elimination System (WPDES) Permit Issuance No. WI-S050105-2. The contents of the report for calendar year 2011 include information as requested in Part II.I of the permit.

The Town of Brookfield, as a member of the Upper Fox River Watershed Communities Group, received WPDES Permit No. WI-S050105-2 with an effective date of October 30, 2009, and expiration date of October 29, 2014.

1. The status of implementing the storm water management program, and compliance with any schedules contained in the permit.

Action to be taken	Reference	Due Date	Status	Comments
Impaired Water Bodies	Part I.F	03/31/11	Completed	Submitted 3/31/11
Public Education and Outreach	Part II.A	Ongoing	Ongoing	See Item 3.b
Illicit Discharge Detection and Elimination				
1) Dry weather field screening of priority outfalls	Part II.C	Min. once per year	Ongoing	See Item 3.k
2) Dry weather field screening of major outfalls	Part II.C	At least once every 3 years	Ongoing	
3) Enforce the Illicit Discharge and Connection Storm Water Ordinance	Part II.C	Ongoing	Ongoing	See Item 3.d
Construction Site Pollutant Control				
1) Enforce the Construction Site Pollutant Control Ordinance	Part II.D	Ongoing	Ongoing	See Item 3.a
2) Construction site inspection, documentation, and enforcement	Part II.D	Ongoing	Ongoing	
Postconstruction Storm Water Management				
1) Enforce the Postconstruction Storm Water Management Ordinance	Part II.E	Ongoing	Ongoing	See Item 3.a and 3.m
2) Continue procedures for long-term maintenance	Part II.E	Ongoing	Ongoing	
Pollution Prevention				
1) Inspection and maintenance of structural storm water management facilities	Part II.F	Ongoing	Ongoing	See Item 3.f and 3.n(i)
2) Inventory of storm water facilities	Part II.F	3/31/11	Completed	Submitted 3/31/11, See Item 3.n(i).b
3) Catch basin cleaning	Part II.F	Ongoing	Ongoing	See Item 3.f
4) Street sweeping	Part II.F	Ongoing	Ongoing	See Item 3.e
5) Winter Road Management Plan Revisions	Part II.F	3/31/11	Completed	Submitted 3/31/11
6) Proper collection and disposal of leaves and grass clippings	Part II.F	Ongoing	Ongoing	See Item 3.n(iii)
7) Storm Water Pollution Plan for public works yard, garages, or other municipally owned properties	Part II.F	3/31/11	Completed	Submitted 3/31/11

Action to be taken	Reference	Due Date	Status	Comments
8) Inspections of all departments of all public works yards, garages, or other municipally owned properties				
a. Full Inspection	Part II.F	Annually, beginning 3/31/11	Ongoing	See Item 3.g
b. Visual Inspection	Part II.F	Semi-annually beginning 3/31/11	Ongoing	
9) Application of lawn and garden fertilizer on municipally controlled properties	Part II.F	Ongoing	Ongoing	See Item 3.n(vi)
Storm Water Quality Management				
1) Future 40% goal assessment	Part II.G	6/30/11	Ongoing	See Item 3.i and Item 4
2) 40% reduction in total suspended solids in runoff that enters water of the state	Part II.G	3/10/13	Ongoing	See Item 6
Storm Sewer System Map				
1) Verify currently submitted map accurate or submit updated map	Part II.H	3/31/10	Completed	Submitted 3/31/10
2) Maintain a current storm sewer system map	Part II.H	Ongoing	Ongoing	See Item 2
Annual Report				
1) Submit annual report	Part II.I	3/31/10	Completed	Submitted 3/31/10
		3/31/11	Completed	Submitted 4/11
		3/31/12	Completed	Submitted 3/31/12
		3/31/13		
		3/31/14		
2) Submit new application	Part II.I	3/31/14		

2. Updated storm sewer systems maps, where necessary, to identify any new outfalls, structural controls, or other note worthy changes.

The Town is currently in the process of updating its storm sewer system map. The storm sewer system is being digitized using the global positioning system (GPS), aeriels, and record drawings and will eventually be integrated into the Town’s GIS system. The updated map will be submitted once it has been completed.

No new outfalls, structural controls, or any other changes have been made to the storm sewer system.

3. A summary of the measurable activities from the past calendar year.

- a. *The number and nature of inspections, and enforcement actions conducted to ensure compliance with the required ordinances.*

The Town approved eight Grading and Erosion Control permits in 2011. The Town also inspected 28 construction sites including single-family addition/alteration construction sites. The Town reported that 112 site visits were logged for construction site inspections for a total of 56 hours. Field reports of the inspections are on file.

Two stop work order regarding construction site runoff or illicit discharges or connections was issued in 2011. Also, 20 written orders to correct and/or verbal contacts were made directing corrections to erosion controls as a result of site inspections.

Nature of Inspection	Year				
	2010	2011	2012	2013	2014
Approved Postconstruction Storm Water Management Plans	1	0			
Grading and Erosion Control Permits	8	3			
Plan Reviews	8	3			
Construction Site Inspections	158	112			
Erosion Control Inspections	63	74			
Logged Inspection Hours	79	56			
Stop Work Orders/Citations	1	2			
Written Orders/Verbal Contacts	25	20			

- b. *Public education programs within the community, including items that may not be included in the Waukesha County Storm Water program annual summary.*

The Upper Fox River Watershed Communities Group participates in the Waukesha County Public Information and Education Program to comply with Part II.A of the permit.

The Town also maintains a Web site that provides general information to the community including the purpose of the storm water utility, public assistance information, the annual report, and other information for the United States Environmental Protection Agency (USEPA), Wisconsin Department of Natural Resources (WDNR), and the UW-Extension. The Web site has the following address:

<http://www.townofbrookfield.com/stormwater.html>

In addition to the Web site, the Town publishes and mails quarterly newsletters titled *Town Tidings* to all Town residents. The newsletter articles are posted on the Town’s Web site and can be found at the following web address:

<http://www.townofbrookfield.com/townnews.html>

Over the past year, the newsletter has included articles on yard waste collection, recycling/refuse collection, snow plow reminders, burning tips, and recycling of electronics. Posters can be found on display in the Town Hall for visitors to view.

- c. *Internal education efforts, including what topics were discussed, who the target audiences were, how the information was received and what follow-up information or activities are/were recommended.*

Two of the Town’s Department of Public Works (DPW) staff participated in 17 hours of training in 2011. Specific activities and events promoted throughout the Town and throughout the entire County included:

Activity	Description	Target Audience	Recommended Follow-Up
Erosion control	Diggers Hotline Seminar	Utility District No. 1 work crews	No follow-up
Erosion Control and Storm Water Management Training	NASECA Conference	Engineers/Municipal Staff	No follow-up

- d. *Number and nature of reported spills and responses.*

	2010	2011	2012	2013	2014
Number of Reported Spills	0	0			

- e. *Street sweeping frequency and the amount collected and the disposal location(s) for the material.*

The Town currently owns one Tymco Regenerative Air Vacuum Sweeper to perform all street sweeping duties.

The Town has approximately 9 miles of urban road section with curb and gutter. These areas are swept once a month from April through September, unless conditions warrant additional cleaning. The Tymco Regenerative Air Street Sweeper was utilized 32 days with 168 man-hours and 528 miles during the fiscal year. Street sweeping material is hauled to Veolia Environmental Services (ES) Emerald Park Landfill LLC, located in Muskego. Quantities of materials collected are shown below.

Activity	Year				
	2010	2011	2012	2013	2014
Solids Captured (Tons)	242	140			
Man-Hours	182	168			
Lane Miles	580	528			

- f. *Catch Basin Cleaning frequency and the amount collected, and the disposal location(s) for the material.*

All catch basins are cleaned a minimum of twice a year unless rainfall conditions and/or inspections require additional cleaning. The quantity of material collected is shown in the following table.

Removal Activity	Year				
	2010	2011	2012	2013	2014
Catch Basins (Tons)	3.8	1.4			
Leaf Collection (Tons)	16.8	24.1			
Roadside Ditches (Tons)	359.8	56			
Structural Controls (Tons)	4	2.1			

The Town cleans and inspects all manholes, inlets, and sumps within the storm system twice a year. There are approximately 162 manholes, 472 inlets, and 45 inlets with sumps in the storm system. There were 28 inlet structures repaired in various locations throughout the Town in 2011. The Town also maintains ten cleanout structures. Catch basins have been logged into quadrant cleaning and inspection reports, which indicate structure number, location, and condition during last inspection. Field inspection sheets are on file at the Department of Public Works.

Material collected from catch basin and structural cleaning is hauled to Veolia ES Emerald Park Landfill, LLC, located in Muskego. Material removed from road side construction and ditches is hauled to Certified Products in New Berlin.

- g. *Municipal yard evaluations, including any retrofits or operation changes.*

Materials from street sweeping, catch basin cleaning, and leaf collection operations are stored in holding areas within the DPW yard. The materials are then loaded and hauled to the appropriate disposal site. The DPW yard is cleaned and monitored on a daily basis.

In May of 2011, the Town installed a filter basket in three of the public works yard catch basins. The filters were checked and cleaned after rain events of 1-inch or more or once a month. Fine silt and sand material was cleaned from each filter routinely through October. A total of 10 gallons of silt like material was collected in 2011.

The Town also added a drop sight to the yard for residents to drop off yard waste. The material collected was loaded into dumpsters and removed from the yard. Approximately 520 compacted yards of yard waste was collected by the DPW in 2011.

- h. *Road salt/de-icing summary, including the amount of salt used, methods, and costs compared to previous years.*

The Town maintains approximately 35 miles of roads under the roadway maintenance program. The Town utilized a 70/30 salt/sand mix for road deicing through the spring of 2012.

The Town monitors road conditions by coordinating with the Police and Sheriff’s Department for current road condition reports and by utilizing the National Weather Service Web site to obtain weather data such as temperature and precipitation. Monthly weather data collected are included in Appendix B.

The Town has five single-axle trucks equipped with plows and tailgate manually controlled flow valve spreaders. Quantities of salt/sand applied are shown in the following table.

Application	Year				
	2010	2011	2012	2013	2014
Salt (Tons)	445	541			
<i>January 1–June 30</i>	207	510			
<i>July 1–December 31</i>	238	31			
Sand (Tons)	163	270			
<i>January 1–June 30</i>	90	252			
<i>July 1–December 31</i>	73	18			
Total Cost	\$21,359	\$31,000			
<i>Percent Cost Increase/(Decrease)</i>	<i>(21.4%)</i>	<i>45%</i>			

Monthly material usage records are included in Appendix A.

- i. Any changes to the Pollutant Loading removal rates and status of meeting performance standards.*

The Town has prepared an updated WinSLAMM model that evaluates the removal of total suspended solids (TSS). The WinSLAMM model results show the Town achieves 28.80 percent TSS reduction utilizing current practices including several wet ponds, street sweeping, and grass-lined swales/ditches. See Part 4 of this report for updates to the Town’s storm water management plan.

- j. Any other activities that may reduce the amount of pollutants reaching the local wetlands and waterways via the municipal storm sewer system that have measurable results. (This information should be used to assess the success of the programs and to determine if any details should be adjusted to complete a successful implementation.)*

The DPW annually inspects Deer Creek and Poplar Creek in early spring. The amount of material removed from these waterways as a result of the inspection is not quantified. However, the materials removed included trees from windfall, trees cut by beavers, floating garbage, and branches.

The DPW routinely performs maintenance on the nearly 45 miles of grass-lined swales within the Town. Records provide by the DPW indicate 252 hours were spent on ditch maintenance in 2011. The amount of material collected through ditch maintenance can be found under item 3f.

k. Number and type of illicit connection found and eliminated.

Field screening for the detection of Illicit Discharges at all major outfalls in accordance with Part II.C was performed on November 11, 2011, during dry weather flow conditions. Field screening documentation is kept on file at the DPW. No illicit discharges were found during the screening.

The Town will continue to inspect all major outfalls once a year. If the Town modifies this inspection schedule, the plan will be submitted for review by the WDNR in accordance with Part II.C prior to implementing. A summary of the inspections can be found in the following table.

Illicit Discharge Inspection	Year				
	2010	2011	2012	2013	2014
Number of Outfalls Inspected	19	19			
Number of Illicit Discharges Detected	0	0			

l. Construction Site Pollutant Control

The Town’s erosion control ordinance was adopted in April 2005 and can be found on the Town’s Web site. An updated ordinance is anticipated to be adopted by the Town in 2012.

m. Post-Construction Storm Water Management

The postconstruction storm water ordinance was updated in April 2005 and can be found on the Town’s Web site. An updated ordinance is anticipated to be adopted by the Town in 2012.

n. Pollution Prevention

(i) Inspection, maintenance and inventory of post-construction storm water management facilities.

- a. The Town inspects ditches, outfalls, and sediment basins after rainfall events of 1 inch or more and removes material via a Vac/All MultiPurpose vacuum truck as needed. No inspections were performed on Town-owned detention ponds in 2011.
- b. An inventory of the postconstruction storm water management facilities in the Town was compiled in accordance with Part II.F.1.b of the permit. No revision were made to the storm water management facilities inventory in 2011.

(ii) Winter road management plan.

The road management plan has been updated according to Part II.F.5 of the permit. No revisions were made to the winter road management plan in 2011.

(iii) Proper management of leaves

The Town contracts with a private waste hauler to pick up the residents' leaves and/or brush between April and November. The amount of leaves collected by the private hauler is not tracked. Recycling bag tags are sold at the Town Hall for residents to place on special bags that will be picked up by the contract waste hauler. The Town has 14 drop-off times and four curbside pickups for yard waste scheduled annually to better serve residents.

In 2011, the DPW collected 24.1 tons of leaves from riprap-lined ditches, road sweeping, and other storm water drainage facilities.

(iv) Volume of used oil collected.

The Town does not have a used oil collection program in place; therefore, no used oil was collected from Town residents. Town residents are directed to take used oil to the Waukesha County Recycling Facility.

The Town's DPW performs regular maintenance on vehicles. Used oil is collected, stored in an outdoor 500-gallon aboveground storage tank, and removed by a private contractor as needed throughout the year. In 2011, 350 gallons of oil were collected.

(v) Quantity of hazardous household wastes collected, and if possible, the quantity reused, recycled or disposed of.

The Town does not have a used hazardous waste collection program in place; therefore, no hazardous waste was collected. Town residents are directed to take these items to the Waukesha County Recycling Facility.

(vi) Application of lawn and garden fertilizers on municipally controlled properties with pervious surfaces over 5 acres each.

There are no Town-owned properties with over five acres of pervious surfaces that receive an application of fertilizer.

4. A summary of revisions made to the storm water management plan.

In the spring 2011, a double-ring infiltrometer test was performed for grass swales at 12 locations within the Town in accordance with WDNR-provided guidance. The test procedures used, field results collected, and infiltration rate determined were sent to and approved by the WDNR.

Field results indicated infiltration rates ranging from 2.11 to 59.75 inches per hour. As part of the approval, the WDNR requested the 59.75 inches per hour rate be removed from the results before determining the overall rate to be used in the model. To determine the overall rate, the field results were graphed to show the infiltration rate over the time elapsed. A "best fit curve" was then applied to the graph and, using the best fit curve equation, the infiltration rate was calculated for the end of a

2-hour test. A geometric mean of the results from all 12 test locations was then calculated to determine the overall static infiltration rate.

Based on the data collected, the static infiltration rate for the Town of Brookfield is 6.38 inches per hour. Therefore, the dynamic infiltration rate to be used in the model would be one-half of the static rate or 3.19 inches per hour. A copy of the WDNR e-mail correspondence and the double-ring infiltrometer testing results are included in Appendix C.

Inputting the new dynamic infiltration rate into the WinSLAMM model increased the townwide TSS reduction from 28.08% to 60.79%.

5. Proposed revisions to the storm water management program, based on a comparison to previous year's efforts, budget, etc..

There are no proposed revisions to the storm water management program except where required by the permit. These revisions are summarized in other sections of this report and appendices. See Item 7 for budget comparisons between actual budget from 2011 and the proposed budget for 2012.

6. A strategy to reduce the pollutants of concern entering local impaired (303(d)) waterways that the committee's MS4 system may be the source of. (Beginning March 31, 2011, to be reevaluated and reported annually.)

The Town drains to five of the 303(d) listed local waterways shown in the table in Part II.G of the permit, Deer Creek, Fox River, Frame Park Creek, Poplar Creek, and Spring Creek. Also, a portion of the Town drains to Underwood Creek, a 303(d) listed water via the Dousman Ditch, and flows into the Menomonee River.

To address the impaired waters within the Town limits, the Town will comply with all total maximum daily loads (TMDLs) established for the Upper Fox River and the Menomonee River. Along with TMDL compliance, if future BMPs are necessary, the Town will investigate installation these structures or practices in areas that will improve the water quality draining to the impaired waterways. The Town may also use public education and events to work with the public to improve water quality draining from private property to impaired waterways. Possible events may include streambank cleanup days along Poplar Creek and Deer Creek, installing rain gardens in impaired waterway watersheds, or educating residents on fertilizer use in areas draining to impaired waterways.

7. A fiscal analysis including annual expenditures and budget for the reporting year and proposed next year, along with the amount spent on the individual programs and efforts compared to previous years.

1. The annual expenditures for the previous year with a breakdown of expenses for the major elements of the storm water program.

2011 Expenditures

	Item	2011 Actual
Administrative Costs		
	Salary/Benefits/Misc.–Administration	\$44,416
	Salary/Benefits/Misc.–Building Inspection	\$11,312
	Salary/Benefits/Misc.–SWU Director	\$44,022
	Salary/Benefits/Misc.–SWU	\$196,396
	Legal Services	\$1,800
	Engineering Services	\$6,294
	Contracted Professional Services	\$14,650
	NR 216–Building Inspection	\$8,900
	Subtotal	\$327,790
Operations/Maintenance Costs		
	Machinery and Equipment	\$64,764
	SWU Garage–Utility Costs	\$12,626
	SWU–Materials/Maintenance	\$48,433
	Subtotal	\$125,823
Capital Improvements/Debt Service		
	Engineering (Poplar Creek)	\$0
	Debt Service/Expense Costs	\$3,702
	Construction	\$0
	Subtotal	\$3,702
	Total–2011	\$457,315

2. *The budget for the current year with an estimated breakdown of the expenses for the major elements of the storm water program.*

2012 Budget

	Item	2012 Budget
Administrative Costs		
	Salary/Benefits/Misc.–Administration	\$46,268
	Salary/Benefits/Misc.–Building Inspection	\$11,071
	Salary/Benefits/Misc.–SWU Director	\$45,871
	Salary/Benefits/Misc.–SWU	\$231,636
	Legal Services	\$1,500
	Engineering Services	\$50,000
	Contracted Professional Services	\$15,000
	NR 216–Building Inspection	\$10,000
	Subtotal	\$411,346
Operations/Maintenance Costs		
	Machinery and Equipment	\$78,231
	SWU Garage–Utility Costs	\$17,470
	SWU–Materials/Maintenance	\$69,000
	Subtotal	\$164,701
Capital Improvements/Debt Service		
	Engineering	\$0
	Debt Service/Expense Costs	\$1,789
	Construction	\$0
	Subtotal	\$1,789
	Total–2012	\$577,836

	2010	2011	2012	2013	2014
Annual Storm Water Management Cost	\$833,890	\$457,315			
Percent Increase/(Decrease)	45%	(46%)			

- 8. Identification of water quality improvements or degradation as perceived by the copermittees. Where degradation is identified, identify why and what actions are being taken to improve the water quality of the receiving water.**

In 2011, no areas of degradation or discernible changes in water quality were identified.

- 9. A duly authorized representative of each community shall sign and certify the annual report and include a statement or resolution that the municipal governing body or delegated representatives have reviewed or been appraised of the content of the annual report. A signed copy of the annual report and other required reports shall be submitted to the WDNR Waukesha Service Center, 141 NW Barstow Street, Room 180, Waukesha, WI 53188.**

This annual report was signed by an authorized representative from the Town of Brookfield; a signed statement is included at the beginning of this report.

- 10. A statement of reapplication for continued coverage under the WPDES permit to retain authorization to discharge storm water through the municipal separate storm sewer system at least 180 days prior to the expiration of this permit**

A reapplication for continued coverage under the WPDES permit will be submitted at least 180 days prior to the expiration of this permit. The reapplication form will be included with the submittal of the 2014 Annual Report.

APPENDIX A
MONTHLY MATERIAL USAGE RECORDS

ROAD SALE SUBSITE INVENTORY RECORD

DT 1874 2002 Trans 277 Wisconsin Administrative Code 277.05(2)(b)

Wisconsin Department of Transportation

1. Site Identification Number 301		2. Site Label 2-67-301-12	3. Report Period January 1st Thru December 31st 2011	
1. Site Address (use house number or emergency response number including zip) 655 N. Janacek Rd. Brookfield, WI 53045-6052		5. County Waukesha		6. Site Owner's Name (please print)
7. Name Of Compliance Contact (please print) Jeff Golner		8. Contact's Telephone Number 262-796-3795		9. Contact's Fax Number 262-796-0339
10. Compliance Contact's US Postal Address 655 N. Janacek Rd. Brookfield, WI 53045-6052		11. Wisconsin Address Where Site Records Are Kept 655 N. Janacek Rd. Brookfield, WI 53045-6052		
12. Contact's Internet Email Address dpw@townofbrookfield.com		13. Subsite's Functional Capacity 450 TON		14. Material Stored On This Subsite 30/70 MIX SAND-SALT

15. MONTH	Quantity on hand at start of month	Quantity received at this subsite	Quantity removed from this subsite	Quantity on hand at end of month	This month's data entered by: (Please print full name)
January	458.14 TON	291.81 TON	310.93 TON	439.02 TON	JEFFERY G. GOLNER
February	439.02 TON	301.97 TON	359.30 TON	381.69 TON	JEFFERY G. GOLNER
March	381.69 TON	0 TON	91.50 TON	290.19 TON	JEFFERY G. GOLNER
April	290.19 TON	132.11 TON	0 TON	422.30 TON	JEFFERY G. GOLNER
May	422.30 TON	0 TON	0 TON	422.30 TON	JEFFERY G. GOLNER
June	422.30 TON	0 TON	0 TON	422.30 TON	JEFFERY G. GOLNER
July	422.30 TON	0 TON	0 TON	422.30 TON	JEFFERY G. GOLNER
August	422.30 TON	0 TON	0 TON	422.30 TON	JEFFERY G. GOLNER
September	422.30 TON	0 TON	0 TON	422.30 TON	JEFFERY G. GOLNER
October	422.30 TON	0 TON	0 TON	422.30 TON	JEFFERY G. GOLNER
November	422.30 TON	0 TON	0 TON	422.30 TON	JEFFERY G. GOLNER
December	422.30 TON	0 TON	49.8 TON	372.50 TON	JEFFERY G. GOLNER

This form or an **equivalent** record of information and monthly quantities stored at each subsite must be kept on file at this address shown in box 11 for a minimum of six years.

APPENDIX B
WINTER SNOW EVENTS LOG AND MONTHLY WEATHER DATA

APPENDIX C
DOUBLE RING INFILTROMETER TESTING RESULTS

Double Ring Infiltrometer Test Results Town of Brookfield

Infiltration Summary

All Locations		
Location	2hr Infiltration Rate (in/hr)	Gallons Used (12-Inch Ring)
1	16.20	15.42
2	2.44	3.06
3	2.11	2.32
4	3.43	3.43
5	20.09	19.09
6	6.83	7.10
7	13.67	13.70
8	6.30	8.07
9	4.77	5.38
10	9.75	11.01
11	4.54	4.65
12	59.75	35.97
Static Geometric Mean		
7.69		
Dynamic Geometric Mean		
3.84		

Removed Highest Rate based on 6/21 email from WDNR	
Location	2hr Infiltration rate (in/hr)
1	16.20
2	2.44
3	2.11
4	3.43
5	20.09
6	6.83
7	13.67
8	6.30
9	4.77
10	9.75
11	4.54
12	59.75
Static Geometric Mean	
6.38	
Dynamic Geometric Mean	
3.19	

Removed per WDNR

**WinSLAMM
Infiltration Rate**

Hagie, Tom

From: McBroom, Maureen A - DNR <Maureen.McBroom@Wisconsin.gov>
Sent: Thursday, April 07, 2011 11:22 AM
To: Hagie, Tom
Subject: RE: Town of Brookfield - Grass Swale Infiltration Testing

Hi Tom-

This looks good. Please let me know when you've done the testing, and what the results are. We're trying to review the summaries and send something back agreeing with the methodology (taking the average? taking the minimum results out of a particular range?) so you & the Town will have something in writing from us.

Thank you!

-McB

From: Hagie, Tom [mailto:Tom.Hagie@strand.com]
Sent: Thursday, March 24, 2011 11:53 AM
To: McBroom, Maureen A - DNR
Subject: Town of Brookfield - Grass Swale Infiltration Testing

Hello Maureen,

Currently, the Town of Brookfield is below the 40% Total Suspended Solids (TSS) reduction goal to comply with the Phase "II" National Pollutant Discharge Elimination System (NPDES). In an effort to get closer to or possibly close the current gap from 28.08% reduction to 40%, the Town of Brookfield is intending to conduct in-field infiltration tests on various grass swales throughout the Town.

Current guidance from the WDNR indicates that in-field testing of the native infiltration rates may have a positive effect on modeling results. The Town proposes that infiltration testing be completed on various swales throughout the Town in accordance with the guidance provided by the WDNR:

- Errata for Process to Assess and Model Existing Grass Swales (TSS Reduction) Modifications to Double-Ring Infiltrometer Test Procedures in Technical Standard 1002 (Dated 8/08)
- Errata to Guidance on Process to Assess and Model Grass Swales for ss. NR 151.13(2) and NR 216.07(6), Wis. Adm. Code - Total Suspended Solids Reduction (Dated 1/8/2010)

The Town of Brookfield consists of 54 different soil types with the majority of them being in the Hydrological Soil Group "B" with the dominant soil type Hochheim Loam. We are proposing tests in 8 of the 54 soil types. The other soil types either did not fall on an approved MS4 swale or the total percent area of the soil type was under 2% when compared to the entire Town.

Attached is a map showing the current SLAMM soil types and the general location of the 12 proposed locations to perform in-field double-ring infiltrometer tests. The locations are intended to achieve a representative sample while having at least one test in each major SLAMM soil type. The locations shown are approximate and will be verified during field testing.

We would like to conduct the testing by mid-April and would appreciate your review, comments, and approval on our approach and locations of each test by the end of the day Wednesday March 30. Upon completion of the field testing, we will provide to the WDNR the testing results and our proposed infiltration rate that will be used to update the current Town model.

Thank you,

Tom

Tom Hagie

Strand Associates, Inc.

tom.hagie@strand.com

Phone 608.251.2129 Ext 1111

Fax 608.251.8655

Hagie, Tom

From: Hagie, Tom
Sent: Friday, May 13, 2011 12:02 PM
To: McBroom, Maureen A
Cc: Gary Lake (buildinginspection@townofbrookfield.com)
Subject: Town of Brookfield - Double Ring Infiltrometer Test Results
Attachments: WDNR Approval Email.pdf; Town of Brookfield - Double Ring Test Locations.pdf; Photo Log.pdf; Brookfield Double Ring Infiltrometer_Results.pdf

Maureen,

Currently, the Town of Brookfield does not meet the goal of 40% Total Suspended Solids (TSS) reduction to comply with the Phase "I" National Pollutant Discharge Elimination System (NPDES) requirement. To assist in closing or eliminating the current gap from 28.08% reduction to 40%, the Town of Brookfield conducted in-field infiltration tests of various grass swales throughout the Town.

A email identifying the locations and testing procedures was sent to you on March 24, 2011 for review and approval. We received an email back from you on April 7, 2011 indicating that the WDNR approved of our approach and locations. See the attached email correspondence.

The information below documents the procedures and results of the Town of Brookfield infiltration testing that took place between April 13, 2011 and April 22, 2011.

The infiltration testing was conducted in accordance with the following guidance provided by the WDNR:

- Errata for Process to Assess and Model Existing Grass Swales (TSS Reduction) Modifications to Double-Ring Infiltrometer Test Procedures in Technical Standard 1002 (Dated 8/08)
- Errata to Guidance on Process to Assess and Model Grass Swales for ss. NR 151.13(2) and NR 216.07(6), Wis. Adm. Code - Total Suspended Solids Reduction (Dated 1/8/2010)

Results of Testing

The field infiltration test results were graphed to show the infiltration rate, measured in inches per hour, over the time elapsed. The tables and graphs for each test location are attached for you use and review. A "best fit curve" was then applied to the graphed data. Using the "best fit curve" equation, the infiltration rate was calculated for the end of a two hour test.

Once the infiltration rate was determined for all twelve test locations, the geometric mean for all the tests was calculated to determine the overall static infiltration rate. This rate was then divided by two to achieve the dynamic infiltration rate needed for input into WinSLAMM. The table below summarizes the results for each test and shows the overall dynamic infiltration rate to be used in the revised WinSLAMM modeling.

As shown in Table 1, the static infiltration rate at each test location varied from 2.11 inches per hour to 59.75 inches per hour. This is relatively high when compared to the book value dynamic infiltration rate (ranging from 0.001 to 0.25) used in the modeling for the Draft Town of Brookfield Stormwater Quality Management Plan, dated December 2009. However, given the soil types present within the Town and reported infiltration rates from similar testing, this does not seem unreasonable.

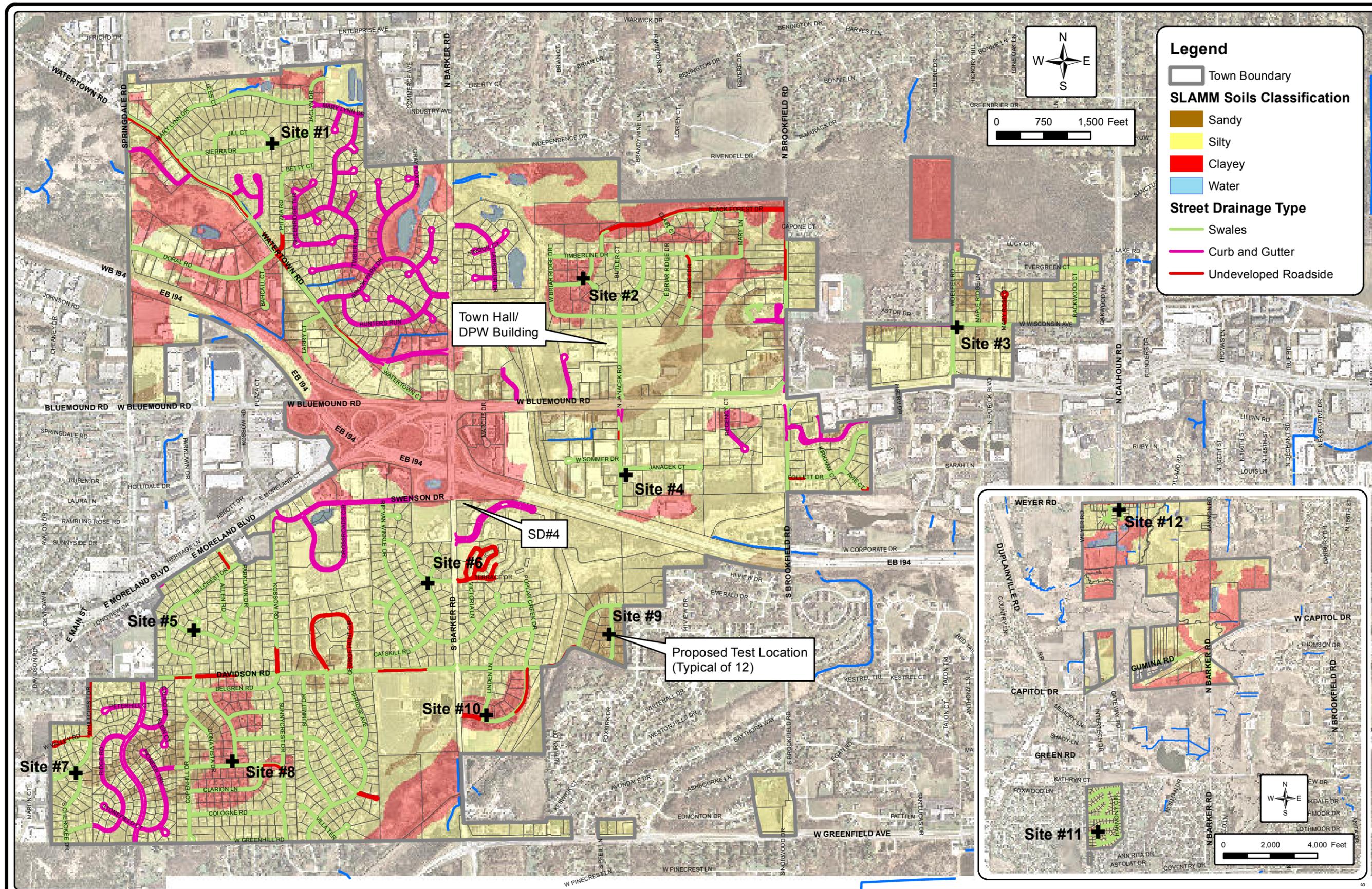
Table 1: Infiltration Rate Summary		
Location	Static Infiltration Rate at 2 Hours	Gallons Used During Test

	(in/hr)	(12-Inch Ring)
1	16.20	15.42
2	2.44	3.06
3	2.11	2.32
4	3.43	3.43
5	20.09	19.09
6	6.83	7.10
7	13.67	13.70
8	6.30	8.07
9	4.77	5.38
10	9.75	11.01
11	4.54	4.65
12	59.75	35.97
Static Geometric Mean (in/hr)		
7.69		
Dynamic Geometric Mean (in/hr)		
3.84		

Following approval by the WDNR, the calculated dynamic infiltration rate of 3.84 inches per hour will be used in future WinSLAMM analyses.

Thank you,
Tom

Tom Hagie
Strand Associates, Inc.
tom.hagie@strand.com
Phone 608.251.2129 Ext 1111
Fax 608.251.8655



Double-Ring Infiltrometer Test Locations

TOWN OF BROOKFIELD
WAUKESHA COUNTY, WI



FIGURE 2.03-1
1127.011

Photo No. : N/A

Date : N/A

Time : N/A

Taken By : N/A

NO PHOTO AVAILABLE

Site #1

Photo Narrative: Intersection of Jill Court and Sierra Drive. No photographs were taken.

Photo No. : 2

Date : April 13, 2011

Time : 4:19 P.M.

Taken By : SSS



Site #2

Photo Narrative: South side of Brenner Drive and Brenner Court intersection looking east.

APPENDIX A

DOUBLE-RING INFILTRMETER TESTS

**TOWN OF BROOKFIELD
BROOKFIELD, WISCONSIN
PHOTOGRAPHS**



Photo No. : 3
Date : April 21, 2011
Time : 3:39 P.M.
Taken By : SSS



Site #3

Photo Narrative: 200 feet north of Wisconsin Ave and Woefel Road intersection looking south.

Photo No. : 4
Date : April 22, 2011
Time : 8:57 A.M.
Taken By : SSS



Site #4

Photo Narrative: Southwest corner of Janacek Road and Janacek Court looking southwest.

APPENDIX A

DOUBLE-RING INFILTROMETER TESTS

**TOWN OF BROOKFIELD
BROOKFIELD, WISCONSIN
PHOTOGRAPHS**



Photo No. : 5
Date : April 22, 2011
Time : 12:37 P.M.
Taken By : SSS



Site #5

Photo Narrative: Northeast corner of Greendale Drive and Claremont Court looking north

Photo No. : 6
Date : April 21, 2011
Time : 1:34 P.M.
Taken By : SSS



Site #6

Photo Narrative: Southeast corner of Bowling Green Drive and Catskill Road looking north.

APPENDIX A

DOUBLE-RING INFILTROMETER TESTS

**TOWN OF BROOKFIELD
BROOKFIELD, WISCONSIN
PHOTOGRAPHS**



Photo No. : 7
Date : April 14, 2011
Time : 4:07 P.M.
Taken By : SSS



Site #7

Photo Narrative: Southwest corner of Cherokee Drive and Hillcrest Drive looking south.

Photo No. : 8
Date : April 14, 2011
Time : 1:46 P.M.
Taken By : SSS



Site #8

Photo Narrative: Northeast corner of Plateau Road and Doneswood Drive looking north.

APPENDIX A

DOUBLE-RING INFILTROMETER TESTS

**TOWN OF BROOKFIELD
BROOKFIELD, WISCONSIN
PHOTOGRAPHS**



Photo No. : 9
Date : April 22, 2011
Time : 4:08 P.M.
Taken By : SSS



Site #9

Photo Narrative: West side of East Ravenswood Hills Circle looking south (433 E Ravenswood)

Photo No. : 10
Date : April 21, 2011
Time : 6:34 P.M.
Taken By : SSS



Site #10

Photo Narrative: Northwest corner of Poplar Creek Drive and Linden Lane looking east.

APPENDIX A

DOUBLE-RING INFILTROMETER TESTS

**TOWN OF BROOKFIELD
BROOKFIELD, WISCONSIN
PHOTOGRAPHS**



Photo No. : 11
Date : April 21, 2011
Time : 9:38 A.M.
Taken By : SSS



Site #11

Photo Narrative: Southwest corner of Mayrose Boulevard and DeCarlin Drive looking north.

Photo No. : 12
Date : April 21, 2011
Time : 1:39 P.M.
Taken By : SSS



Site #12

Photo Narrative: East side of Martha Lane looking east. (4720 Martha Lane)

APPENDIX A

DOUBLE-RING INFILTRMETER TESTS

TOWN OF BROOKFIELD
BROOKFIELD, WISCONSIN
PHOTOGRAPHS



Field Data Sheet: Double-Ring Infiltrometer Testing

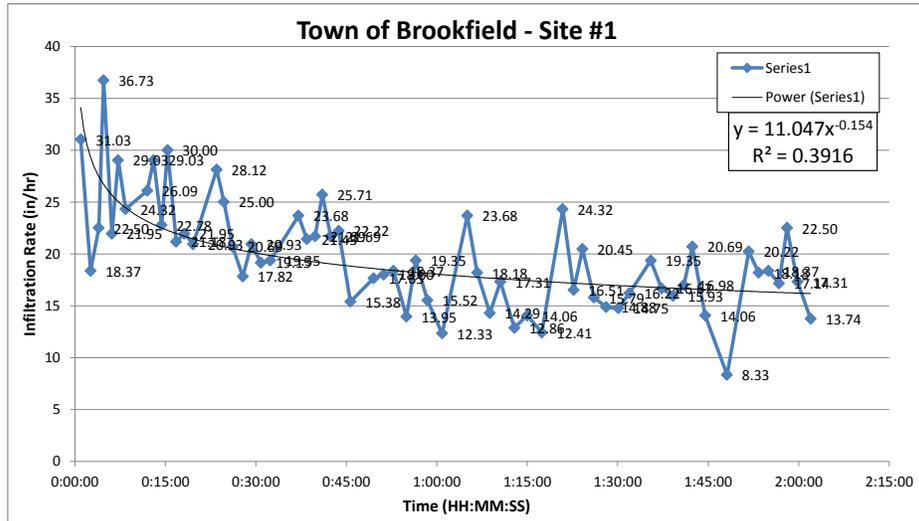
Location	Site # 1: Jill Ct and Sierra Dr, Town of Brookfield
Date:	4/14/2011
Time:	8:41 AM to 10:43 AM
Conditions (Temp., etc.):	Cold, Cloudy, Sprinkles
Field Staff:	SSS
Most Recent Rainfall Event (Date/Amount):	4/14/11 - Trace
Equipment Used:	Double Ring Infiltrometer
Gallons Used During Test (12-Inch Ring):	15.42

Fill In				= Formula			INFORMATION ONLY			
<i>Note: measured from ground to wsel of the inside ring.</i>				Change In	Change in	Water Level	Time Interval	Cumulative		
Water Level	Time			Time	Time	Change	Midpoint	Time To	Infiltration	
(Inches)	Hours	Minutes	Seconds	(hh:mm:ss)	(min:ss)	(hours)	(inches)	(mm:ss)	(hh:mm:ss)	(in/hr)
9	0	0	0	0:00:00	00:00	0.0000		00:00	0:00:00	0.00
8.5	0	0	58	0:00:58	00:58	0.0161	0.5	00:29	0:00:29	31.03
8	0	2	36	0:02:36	01:38	0.0272	0.5	00:49	0:01:47	18.37
7.5	0	3	56	0:03:56	01:20	0.0222	0.5	00:40	0:03:16	22.50
7	0	4	45	0:04:45	00:49	0.0136	0.5	00:24	0:04:21	36.73
6.5	0	6	7	0:06:07	01:22	0.0228	0.5	00:41	0:05:26	21.95
6	0	7	9	0:07:09	01:02	0.0172	0.5	00:31	0:06:38	29.03
5.5	0	8	23	0:08:23	01:14	0.0206	0.5	00:37	0:07:46	24.32
9	0	10	51	0:10:51	02:28	0.0411		01:14	0:09:37	0.00
8.5	0	12	0	0:12:00	01:09	0.0192	0.5	00:35	0:11:25	26.09
8	0	13	2	0:13:02	01:02	0.0172	0.5	00:31	0:12:31	29.03
7.5	0	14	21	0:14:21	01:19	0.0219	0.5	00:40	0:13:41	22.78
7	0	15	21	0:15:21	01:00	0.0167	0.5	00:30	0:14:51	30.00
6.5	0	16	46	0:16:46	01:25	0.0236	0.5	00:42	0:16:03	21.18
6	0	18	8	0:18:08	01:22	0.0228	0.5	00:41	0:17:27	21.95
5.5	0	19	34	0:19:34	01:26	0.0239	0.5	00:43	0:18:51	20.93
9	0	22	25	0:22:25	02:51	0.0475		01:25	0:20:59	0.00
8.5	0	23	29	0:23:29	01:04	0.0178	0.5	00:32	0:22:57	28.12
8	0	24	41	0:24:41	01:12	0.0200	0.5	00:36	0:24:05	25.00
7.5	0	26	8	0:26:08	01:27	0.0242	0.5	00:44	0:25:24	20.69
7	0	27	49	0:27:49	01:41	0.0281	0.5	00:51	0:26:59	17.82
6.5	0	29	15	0:29:15	01:26	0.0239	0.5	00:43	0:28:32	20.93
6	0	30	49	0:30:49	01:34	0.0261	0.5	00:47	0:30:02	19.15
5.5	0	32	22	0:32:22	01:33	0.0258	0.5	00:46	0:31:35	19.35
9	0	35	47	0:35:47	03:25	0.0569		01:43	0:34:04	0.00
8.5	0	37	3	0:37:03	01:16	0.0211	0.5	00:38	0:36:25	23.68
8	0	38	27	0:38:27	01:24	0.0233	0.5	00:42	0:37:45	21.43
7.5	0	39	50	0:39:50	01:23	0.0231	0.5	00:42	0:39:08	21.69
7	0	41	0	0:41:00	01:10	0.0194	0.5	00:35	0:40:25	25.71
6.5	0	42	23	0:42:23	01:23	0.0231	0.5	00:42	0:41:41	21.69
6	0	43	44	0:43:44	01:21	0.0225	0.5	00:41	0:43:03	22.22
5.5	0	45	41	0:45:41	01:57	0.0325	0.5	00:59	0:44:42	15.38
9	0	47	49	0:47:49	02:08	0.0356		01:04	0:46:45	0.00
8.5	0	49	31	0:49:31	01:42	0.0283	0.5	00:51	0:48:40	17.65
8	0	51	11	0:51:11	01:40	0.0278	0.5	00:50	0:50:21	18.00
7.5	0	52	49	0:52:49	01:38	0.0272	0.5	00:49	0:52:00	18.37
7	0	54	58	0:54:58	02:09	0.0358	0.5	01:04	0:53:54	13.95
6.5	0	56	31	0:56:31	01:33	0.0258	0.5	00:47	0:55:45	19.35
6	0	58	27	0:58:27	01:56	0.0322	0.5	00:58	0:57:29	15.52
5.5	1	0	53	1:00:53	02:26	0.0406	0.5	01:13	0:59:40	12.33
9	1	3	47	1:03:47	02:54	0.0483		01:27	1:02:20	0.00
8.5	1	5	3	1:05:03	01:16	0.0211	0.5	00:38	1:04:25	23.68
8	1	6	42	1:06:42	01:39	0.0275	0.5	00:50	1:05:53	18.18
7.5	1	8	48	1:08:48	02:06	0.0350	0.5	01:03	1:07:45	14.29
7	1	10	32	1:10:32	01:44	0.0289	0.5	00:52	1:09:40	17.31
6.5	1	12	52	1:12:52	02:20	0.0389	0.5	01:10	1:11:42	12.86
6	1	15	0	1:15:00	02:08	0.0356	0.5	01:04	1:13:56	14.06
5.5	1	17	25	1:17:25	02:25	0.0403	0.5	01:12	1:16:13	12.41
9	1	19	38	1:19:38	02:13	0.0369		01:07	1:18:31	0.00
8.5	1	20	52	1:20:52	01:14	0.0206	0.5	00:37	1:20:15	24.32
8	1	22	41	1:22:41	01:49	0.0303	0.5	00:55	1:21:46	16.51
7.5	1	24	9	1:24:09	01:28	0.0244	0.5	00:44	1:23:25	20.45
7	1	26	3	1:26:03	01:54	0.0317	0.5	00:57	1:25:06	15.79
6.5	1	28	4	1:28:04	02:01	0.0336	0.5	01:01	1:27:03	14.88
6	1	30	6	1:30:06	02:02	0.0339	0.5	01:01	1:29:05	14.75
5.5	1	31	57	1:31:57	01:51	0.0308	0.5	00:56	1:31:02	16.22

Field Data Sheet: Double-Ring Infiltrometer Testing

Location	Site # 1: Jill Ct and Sierra Dr, Town of Brookfield
Date:	4/14/2011
Time:	8:41 AM to 10:43 AM
Conditions (Temp., etc.):	Cold, Cloudy, Sprinkles
Field Staff:	SSS
Most Recent Rainfall Event (Date/Amount):	4/14/11 - Trace
Equipment Used:	Double Ring Infiltrometer
Gallons Used During Test (12-Inch Ring):	15.42

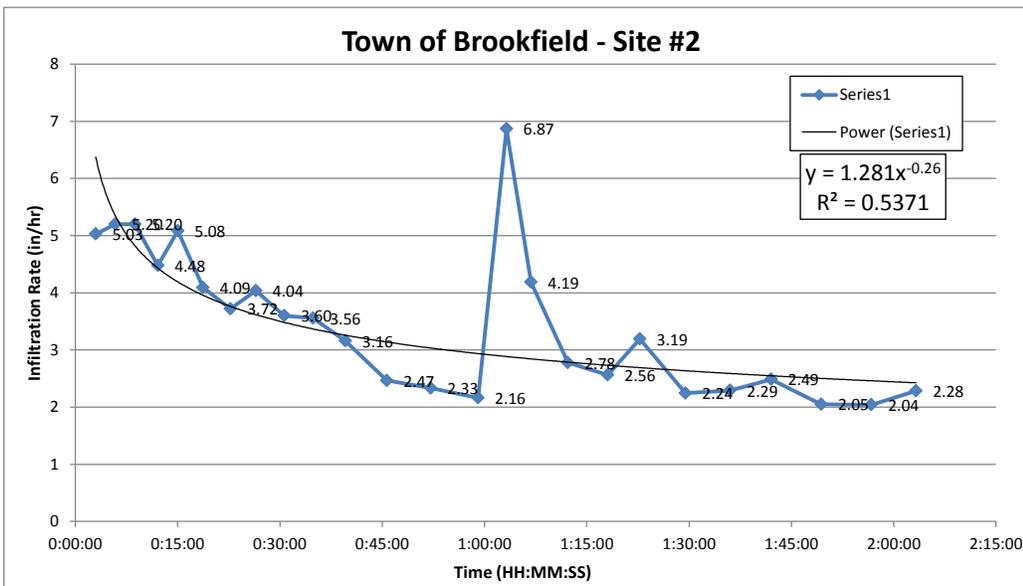
Fill In				= Formula			INFORMATION ONLY			
Note: measured from ground to wsl of the inside ring.										
Water Level (Inches)		Time		Time	Change In	Change in	Water Level	Time Interval	Time To	Infiltration
Hours	Minutes	Seconds	(hh:mm:ss)	(min:ss)	(hours)	(inches)	Midpoint (mm:ss)	Midpoint (hh:mm:ss)	Rate (in/hr)	
9	1	33	56	1:33:56	01:59	0.0331		01:00	1:32:57	0.00
8.5	1	35	29	1:35:29	01:33	0.0258	0.5	00:47	1:34:43	19.35
8	1	37	17	1:37:17	01:48	0.0300	0.5	00:54	1:36:23	16.67
7.5	1	39	10	1:39:10	01:53	0.0314	0.5	00:56	1:38:14	15.93
7	1	40	56	1:40:56	01:46	0.0294	0.5	00:53	1:40:03	16.98
6.5	1	42	23	1:42:23	01:27	0.0242	0.5	00:44	1:41:39	20.69
6	1	44	31	1:44:31	02:08	0.0356	0.5	01:04	1:43:27	14.06
5.5	1	48	7	1:48:07	03:36	0.0600	0.5	01:48	1:46:19	8.33
9	1	50	14	1:50:14	02:07	0.0353		01:03	1:49:10	0.00
8.5	1	51	43	1:51:43	01:29	0.0247	0.5	00:45	1:50:59	20.22
8	1	53	22	1:53:22	01:39	0.0275	0.5	00:49	1:52:32	18.18
7.5	1	55	0	1:55:00	01:38	0.0272	0.5	00:49	1:54:11	18.37
7	1	56	45	1:56:45	01:45	0.0292	0.5	00:53	1:55:52	17.14
6.5	1	58	5	1:58:05	01:20	0.0222	0.5	00:40	1:57:25	22.50
6	1	59	49	1:59:49	01:44	0.0289	0.5	00:52	1:58:57	17.31
5.5	2	2	0	2:02:00	02:11	0.0364	0.5	01:05	2:00:54	13.74



Field Data Sheet: Double-Ring Infiltrometer Testing

Location	Site #2: Brenner Ct and Brenner Dr, Town of Brookfield
Date:	4/13/2011
Time:	3:55 PM to 5:58 PM
Conditions (Temp., etc.):	Clear, 60 degrees
Field Staff:	Small
Most Recent Rainfall Event (Date/Amount):	4/10/2011
Equipment Used:	Double Ring Infiltrometer
Gallons Used During Test (12-Inch Ring):	3.06

Fill In				= Formula				INFORMATION ONLY			
Note: measured from ground to wsel of the inside ring.					Change In	Change in	Water Level	Time Interval	Cumulative		
Water Level	Time			Time	Time	Time	Change	Midpoint	Time To	Infiltration	
(Inches)	Hours	Minutes	Seconds	(hh:mm:ss)	(min:ss)	(hours)	(inches)	(mm:ss)	(hh:mm:ss)	(in/hr)	
9	0	0	0	0:00:00	00:00	0.0000		00:00	0:00:00	0.00	
8.75	0	2	59	0:02:59	02:59	0.0497	0.25	01:30	0:01:30	5.03	
8.5	0	5	52	0:05:52	02:53	0.0481	0.25	01:26	0:04:26	5.20	
8.25	0	8	45	0:08:45	02:53	0.0481	0.25	01:27	0:07:18	5.20	
8	0	12	6	0:12:06	03:21	0.0558	0.25	01:41	0:10:26	4.48	
7.75	0	15	3	0:15:03	02:57	0.0492	0.25	01:29	0:13:35	5.08	
7.5	0	18	43	0:18:43	03:40	0.0611	0.25	01:50	0:16:53	4.09	
7.25	0	22	45	0:22:45	04:02	0.0672	0.25	02:01	0:20:44	3.72	
7	0	26	28	0:26:28	03:43	0.0619	0.25	01:52	0:24:37	4.04	
6.75	0	30	38	0:30:38	04:10	0.0694	0.25	02:05	0:28:33	3.60	
6.5	0	34	51	0:34:51	04:13	0.0703	0.25	02:06	0:32:45	3.56	
6.25	0	39	36	0:39:36	04:45	0.0792	0.25	02:23	0:37:14	3.16	
6	0	45	41	0:45:41	06:05	0.1014	0.25	03:03	0:42:38	2.47	
5.75	0	52	7	0:52:07	06:26	0.1072	0.25	03:13	0:48:54	2.33	
5.5	0	59	3	0:59:03	06:56	0.1156	0.25	03:28	0:55:35	2.16	
9	1	1	3	1:01:03	02:00	0.0333		01:00	1:00:03	0.00	
8.75	1	3	14	1:03:14	02:11	0.0364	0.25	01:06	1:02:08	6.87	
8.5	1	6	49	1:06:49	03:35	0.0597	0.25	01:48	1:05:02	4.19	
8.25	1	12	13	1:12:13	05:24	0.0900	0.25	02:42	1:09:31	2.78	
8	1	18	4	1:18:04	05:51	0.0975	0.25	02:56	1:15:09	2.56	
7.75	1	22	46	1:22:46	04:42	0.0783	0.25	02:21	1:20:25	3.19	
7.5	1	29	27	1:29:27	06:41	0.1114	0.25	03:21	1:26:07	2.24	
7.25	1	36	0	1:36:00	06:33	0.1092	0.25	03:16	1:32:44	2.29	
7	1	42	2	1:42:02	06:02	0.1006	0.25	03:01	1:39:01	2.49	
6.75	1	49	21	1:49:21	07:19	0.1219	0.25	03:40	1:45:42	2.05	
6.5	1	56	42	1:56:42	07:21	0.1225	0.25	03:40	1:53:02	2.04	
6.25	2	3	16	2:03:16	06:34	0.1094	0.25	03:17	1:59:59	2.28	

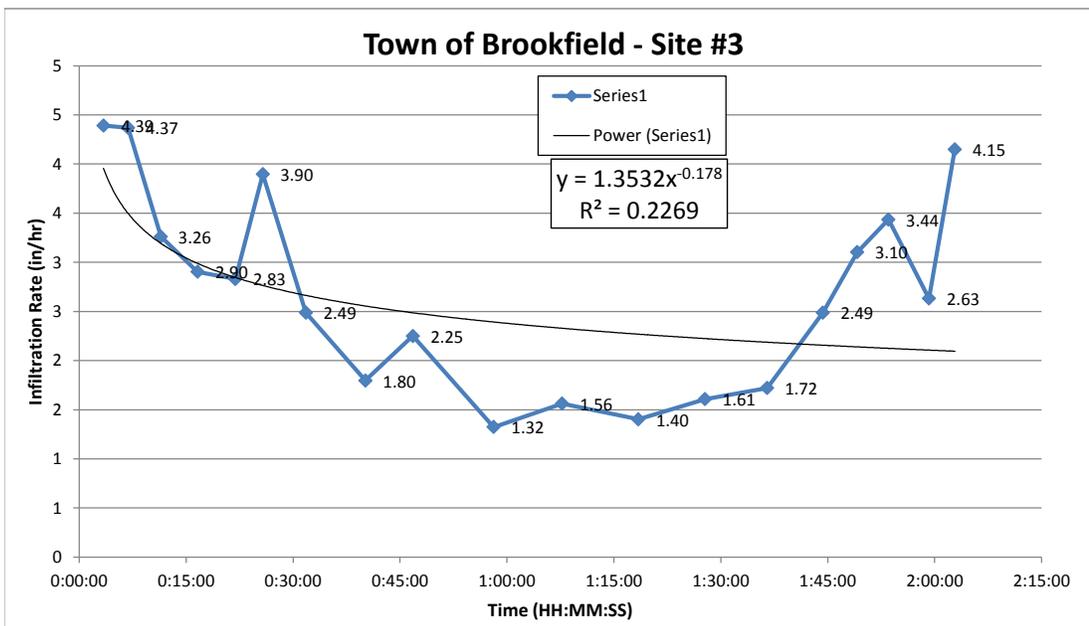


Static Infiltration Rate
After 2 Hours
2.44 in/hr

Field Data Sheet: Double-Ring Infiltrometer Testing

Location	Site #3: Woefel Rd and West Wisconsin Ave, Town of Brookfield
Date:	4/20/2011
Time:	3:00 PM to 5:02 PM
Conditions (Temp., etc.):	Cloudy, Cold
Field Staff:	Small
Most Recent Rainfall Event (Date/Amount):	4/19/2011
Equipment Used:	Double Ring Infiltrometer
Gallons Used During Test (12-Inch Ring):	2.32

Fill In				= Formula			INFORMATION ONLY			
Note: measured from ground to wsel of the inside ring.				Change In	Change in	Water Level	Time Interval	Cumulative	Infiltration	
				Time	Time	Time	Change	Midpoint	Midpoint	Rate
Water Level (Inches)	Hours	Minutes	Seconds	(hh:mm:ss)	(min:ss)	(hours)	(inches)	(mm:ss)	(hh:mm:ss)	(in/hr)
9	0	0	0	0:00:00	00:00	0.0000		00:00	0:00:00	0.00
8.75	0	3	25	0:03:25	03:25	0.0569	0.25	01:43	0:01:43	4.39
8.5	0	6	51	0:06:51	03:26	0.0572	0.25	01:43	0:05:08	4.37
8.25	0	11	27	0:11:27	04:36	0.0767	0.25	02:18	0:09:09	3.26
8	0	16	37	0:16:37	05:10	0.0861	0.25	02:35	0:14:02	2.90
7.75	0	21	55	0:21:55	05:18	0.0883	0.25	02:39	0:19:16	2.83
7.5	0	25	46	0:25:46	03:51	0.0642	0.25	01:56	0:23:51	3.90
7.25	0	31	48	0:31:48	06:02	0.1006	0.25	03:01	0:28:47	2.49
7	0	40	9	0:40:09	08:21	0.1392	0.25	04:10	0:35:58	1.80
6.75	0	46	49	0:46:49	06:40	0.1111	0.25	03:20	0:43:29	2.25
6.5	0	58	9	0:58:09	11:20	0.1889	0.25	05:40	0:52:29	1.32
6.25	1	7	45	1:07:45	09:36	0.1600	0.25	04:48	1:02:57	1.56
6	1	18	27	1:18:27	10:42	0.1783	0.25	05:21	1:13:06	1.40
5.75	1	27	47	1:27:47	09:20	0.1556	0.25	04:40	1:23:07	1.61
5.5	1	36	30	1:36:30	08:43	0.1453	0.25	04:22	1:32:08	1.72
9	1	38	17	1:38:17	01:47	0.0297		00:54	1:37:23	0.00
8.75	1	44	19	1:44:19	06:02	0.1006	0.25	03:01	1:41:18	2.49
8.5	1	49	9	1:49:09	04:50	0.0806	0.25	02:25	1:46:44	3.10
8.25	1	53	31	1:53:31	04:22	0.0728	0.25	02:11	1:51:20	3.44
8	1	59	13	1:59:13	05:42	0.0950	0.25	02:51	1:56:22	2.63
7.75	2	2	50	2:02:50	03:37	0.0603	0.25	01:48	2:01:02	4.15

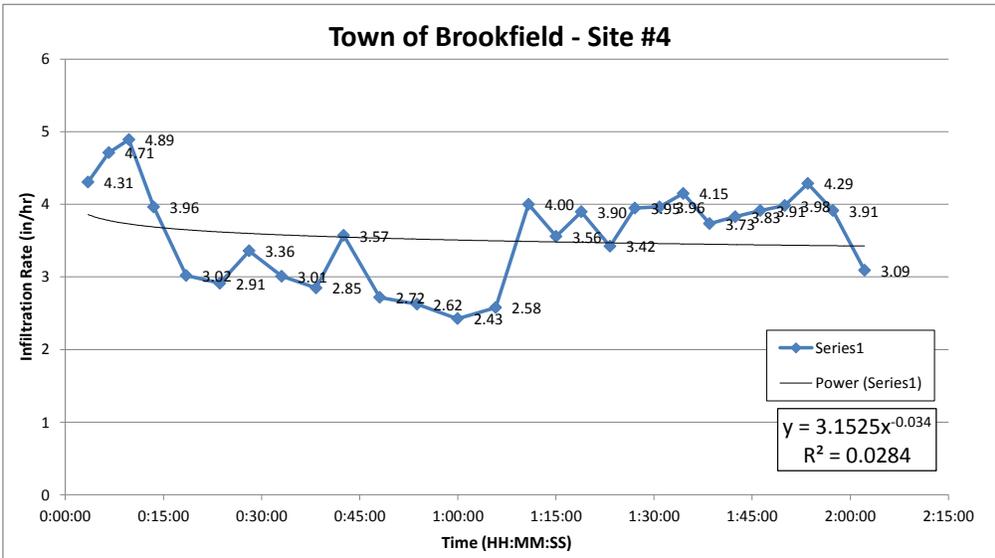


Static Infiltration Rate
After 2 Hours
2.11 in/hr

Field Data Sheet: Double-Ring Infiltrometer Testing

Location	Site #4: Janacek Rd and Janacek Ct, Town of Brookfield
Date:	4/21/2011
Time:	7:43 AM to 9:45 AM
Conditions (Temp., etc.):	Sunny, Cool
Field Staff:	Small
Most Recent Rainfall Event (Date/Amount):	Trace 4/20/11 and more on 4/19/11
Equipment Used:	Double Ring Infiltrometer
Gallons Used During Test (12-Inch Ring):	3.43

Fill In				= Formula			INFORMATION ONLY			
Note: measured from ground to wsel of the inside ring.				Change In		Change in	Water Level	Time Interval	Time To	Infiltration
				Time	Time	Time	Change	Midpoint	Midpoint	Rate
Water Level (Inches)	Hours	Minutes	Seconds	Time (hh:mm:ss)	Time (min:ss)	Time (hours)	Change (inches)	Midpoint (mm:ss)	Midpoint (hh:mm:ss)	Rate (in/hr)
9	0	0	0	0:00:00	00:00	0.0000		00:00	0:00:00	0.00
8.75	0	3	29	0:03:29	03:29	0.0581	0.25	01:45	0:01:45	4.31
8.5	0	6	40	0:06:40	03:11	0.0531	0.25	01:36	0:05:05	4.71
8.25	0	9	44	0:09:44	03:04	0.0511	0.25	01:32	0:08:12	4.89
8	0	13	31	0:13:31	03:47	0.0631	0.25	01:54	0:11:37	3.96
7.75	0	18	29	0:18:29	04:58	0.0828	0.25	02:29	0:16:00	3.02
7.5	0	23	38	0:23:38	05:09	0.0858	0.25	02:35	0:21:03	2.91
7.25	0	28	6	0:28:06	04:28	0.0744	0.25	02:14	0:25:52	3.36
7	0	33	5	0:33:05	04:59	0.0831	0.25	02:30	0:30:36	3.01
6.75	0	38	21	0:38:21	05:16	0.0878	0.25	02:38	0:35:43	2.85
6.5	0	42	33	0:42:33	04:12	0.0700	0.25	02:06	0:40:27	3.57
6.25	0	48	4	0:48:04	05:31	0.0919	0.25	02:46	0:45:19	2.72
6	0	53	47	0:53:47	05:43	0.0953	0.25	02:52	0:50:56	2.62
5.75	0	59	58	0:59:58	06:11	0.1031	0.25	03:06	0:56:53	2.43
5.5	1	5	47	1:05:47	05:49	0.0969	0.25	02:54	1:02:52	2.58
9	1	7	4	1:07:04	01:17	0.0214		00:39	1:06:25	0.00
8.75	1	10	49	1:10:49	03:45	0.0625	0.25	01:52	1:08:56	4.00
8.5	1	15	2	1:15:02	04:13	0.0703	0.25	02:07	1:12:55	3.56
8.25	1	18	53	1:18:53	03:51	0.0642	0.25	01:56	1:16:58	3.90
8	1	23	16	1:23:16	04:23	0.0731	0.25	02:11	1:21:05	3.42
7.75	1	27	4	1:27:04	03:48	0.0633	0.25	01:54	1:25:10	3.95
7.5	1	30	51	1:30:51	03:47	0.0631	0.25	01:53	1:28:57	3.96
7.25	1	34	28	1:34:28	03:37	0.0603	0.25	01:49	1:32:39	4.15
7	1	38	29	1:38:29	04:01	0.0669	0.25	02:00	1:36:29	3.73
6.75	1	42	24	1:42:24	03:55	0.0653	0.25	01:57	1:40:26	3.83
6.5	1	46	14	1:46:14	03:50	0.0639	0.25	01:55	1:44:19	3.91
6.25	1	50	0	1:50:00	03:46	0.0628	0.25	01:53	1:48:07	3.98
6	1	53	30	1:53:30	03:30	0.0583	0.25	01:45	1:51:45	4.29
5.75	1	57	20	1:57:20	03:50	0.0639	0.25	01:55	1:55:25	3.91
5.5	2	2	11	2:02:11	04:51	0.0808	0.25	02:25	1:59:45	3.09



Static Infiltration Rate After 2 Hours
3.43 in/hr

Field Data Sheet: Double-Ring Infiltrometer Testing

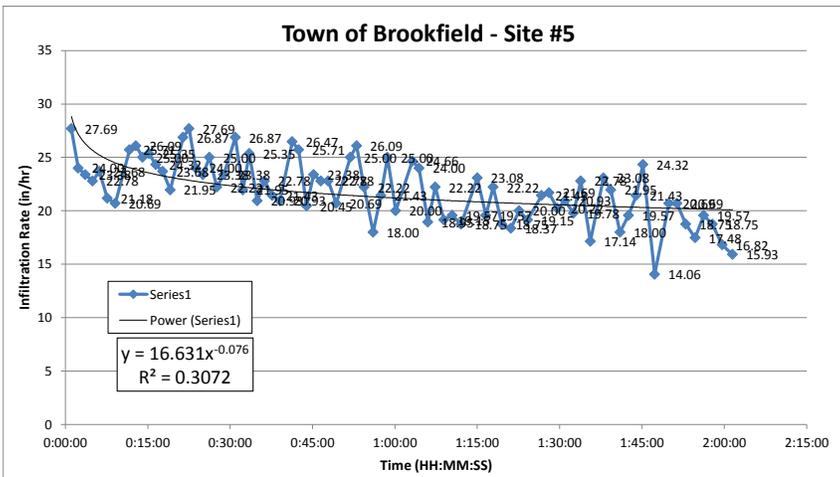
Location	Site #5: Greendale Dr and Claremont Ct, Town of Brookfield
Date:	4/21/2011
Time:	10:32 AM to 12:33 PM
Conditions (Temp., etc.):	Clear, Mild
Field Staff:	Small
Most Recent Rainfall Event (Date/Amount):	Trace 4/20/11, more on 4/19/11
Equipment Used:	Double Ring Infiltrometer
Gallons Used During Test (12-Inch Ring):	19.09

Fill In				= Formula			INFORMATION ONLY			
<i>Note: measured from ground to wsel of the inside ring.</i>										
Water Level	Time			Time	Change In	Change in	Water Level	Time Interval	Time To	Infiltration
(Inches)	Hours	Minutes	Seconds	(hh:mm:ss)	(min:ss)	(hours)	(inches)	(mm:ss)	(hh:mm:ss)	(in/hr)
9	0	0	0	0:00:00	00:00	0.0000		00:00	0:00:00	0.00
8.5	0	1	5	0:01:05	01:05	0.0181	0.5	00:33	0:00:33	27.69
8	0	2	20	0:02:20	01:15	0.0208	0.5	00:38	0:01:42	24.00
7.5	0	3	37	0:03:37	01:17	0.0214	0.5	00:39	0:02:59	23.38
7	0	4	56	0:04:56	01:19	0.0219	0.5	00:40	0:04:16	22.78
6.5	0	6	12	0:06:12	01:16	0.0211	0.5	00:38	0:05:34	23.68
6	0	7	37	0:07:37	01:25	0.0236	0.5	00:42	0:06:54	21.18
5.5	0	9	4	0:09:04	01:27	0.0242	0.5	00:44	0:08:20	20.69
9	0	10	31	0:10:31	01:27	0.0242		00:43	0:09:47	0.00
8.5	0	11	41	0:11:41	01:10	0.0194	0.5	00:35	0:11:06	25.71
8	0	12	50	0:12:50	01:09	0.0192	0.5	00:35	0:12:16	26.09
7.5	0	14	2	0:14:02	01:12	0.0200	0.5	00:36	0:13:26	25.00
7	0	15	13	0:15:13	01:11	0.0197	0.5	00:35	0:14:37	25.35
6.5	0	16	27	0:16:27	01:14	0.0206	0.5	00:37	0:15:50	24.32
6	0	17	43	0:17:43	01:16	0.0211	0.5	00:38	0:17:05	23.68
5.5	0	19	5	0:19:05	01:22	0.0228	0.5	00:41	0:18:24	21.95
9	0	20	18	0:20:18	01:13	0.0203		00:36	0:19:41	0.00
8.5	0	21	25	0:21:25	01:07	0.0186	0.5	00:33	0:20:51	26.87
8	0	22	30	0:22:30	01:05	0.0181	0.5	00:33	0:21:57	27.69
7.5	0	23	45	0:23:45	01:15	0.0208	0.5	00:38	0:23:07	24.00
7	0	25	2	0:25:02	01:17	0.0214	0.5	00:38	0:24:24	23.38
6.5	0	26	14	0:26:14	01:12	0.0200	0.5	00:36	0:25:38	25.00
6	0	27	35	0:27:35	01:21	0.0225	0.5	00:41	0:26:55	22.22
5.5	0	28	52	0:28:52	01:17	0.0214	0.5	00:38	0:28:14	23.38
9	0	29	50	0:29:50	00:58	0.0161		00:29	0:29:21	0.00
8.5	0	30	57	0:30:57	01:07	0.0186	0.5	00:34	0:30:24	26.87
8	0	32	19	0:32:19	01:22	0.0228	0.5	00:41	0:31:38	21.95
7.5	0	33	30	0:33:30	01:11	0.0197	0.5	00:35	0:32:55	25.35
7	0	34	56	0:34:56	01:26	0.0239	0.5	00:43	0:34:13	20.93
6.5	0	36	15	0:36:15	01:19	0.0219	0.5	00:39	0:35:35	22.78
6	0	37	39	0:37:39	01:24	0.0233	0.5	00:42	0:36:57	21.43
5.5	0	39	5	0:39:05	01:26	0.0239	0.5	00:43	0:38:22	20.93
9	0	40	10	0:40:10	01:05	0.0181		00:32	0:39:37	0.00
8.5	0	41	18	0:41:18	01:08	0.0189	0.5	00:34	0:40:44	26.47
8	0	42	28	0:42:28	01:10	0.0194	0.5	00:35	0:41:53	25.71
7.5	0	43	56	0:43:56	01:28	0.0244	0.5	00:44	0:43:12	20.45
7	0	45	13	0:45:13	01:17	0.0214	0.5	00:38	0:44:35	23.38
6.5	0	46	32	0:46:32	01:19	0.0219	0.5	00:40	0:45:53	22.78
6	0	47	51	0:47:51	01:19	0.0219	0.5	00:39	0:47:12	22.78
5.5	0	49	18	0:49:18	01:27	0.0242	0.5	00:44	0:48:35	20.69
9	0	50	41	0:50:41	01:23	0.0231		00:42	0:50:00	0.00
8.5	0	51	53	0:51:53	01:12	0.0200	0.5	00:36	0:51:17	25.00
8	0	53	2	0:53:02	01:09	0.0192	0.5	00:35	0:52:28	26.09
7.5	0	54	23	0:54:23	01:21	0.0225	0.5	00:41	0:53:43	22.22
7	0	56	3	0:56:03	01:40	0.0278	0.5	00:50	0:55:13	18.00
6.5	0	57	27	0:57:27	01:24	0.0233	0.5	00:42	0:56:45	21.43
6	0	58	39	0:58:39	01:12	0.0200	0.5	00:36	0:58:03	25.00
5.5	1	0	9	1:00:09	01:30	0.0250	0.5	00:45	0:59:24	20.00
9	1	1	57	1:01:57	01:48	0.0300		00:54	1:01:03	0.00
8.5	1	3	10	1:03:10	01:13	0.0203	0.5	00:36	1:02:34	24.66
8	1	4	25	1:04:25	01:15	0.0208	0.5	00:37	1:03:48	24.00
7.5	1	6	0	1:06:00	01:35	0.0264	0.5	00:48	1:05:13	18.95
7	1	7	21	1:07:21	01:21	0.0225	0.5	00:41	1:06:41	22.22
6.5	1	8	55	1:08:55	01:34	0.0261	0.5	00:47	1:08:08	19.15
6	1	10	27	1:10:27	01:32	0.0256	0.5	00:46	1:09:41	19.57
5.5	1	12	3	1:12:03	01:36	0.0267	0.5	00:48	1:11:15	18.75
9	1	13	43	1:13:43	01:40	0.0278		00:50	1:12:53	0.00
8.5	1	15	1	1:15:01	01:18	0.0217	0.5	00:39	1:14:22	23.08
8	1	16	33	1:16:33	01:32	0.0256	0.5	00:46	1:15:47	19.57
7.5	1	17	54	1:17:54	01:21	0.0225	0.5	00:40	1:17:14	22.22
7	1	19	30	1:19:30	01:36	0.0267	0.5	00:48	1:18:42	18.75
6.5	1	21	8	1:21:08	01:38	0.0272	0.5	00:49	1:20:19	18.37
6	1	22	38	1:22:38	01:30	0.0250	0.5	00:45	1:21:53	20.00

Field Data Sheet: Double-Ring Infiltrometer Testing

Location	Site #5: Greendale Dr and Claremont Ct, Town of Brookfield
Date:	4/21/2011
Time:	10:32 AM to 12:33 PM
Conditions (Temp., etc.):	Clear, Mild
Field Staff:	Small
Most Recent Rainfall Event (Date/Amount):	Trace 4/20/11, more on 4/19/11
Equipment Used:	Double Ring Infiltrometer
Gallons Used During Test (12-Inch Ring):	19.09

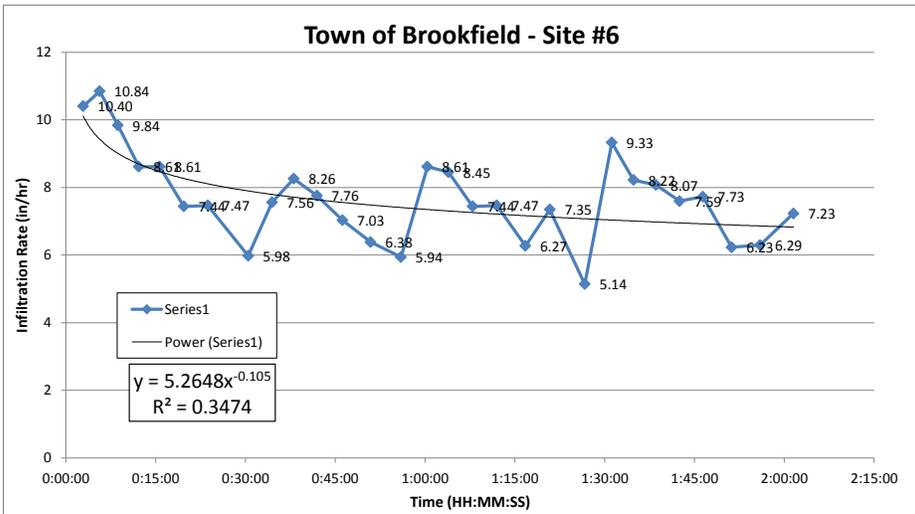
Fill In				= Formula			INFORMATION ONLY			
Note: measured from ground to wsel of the inside ring.				Change In	Change in	Water Level	Time Interval	Time To	Infiltration	
Water Level	Time			Time	Time	Change	Midpoint	Midpoint	Rate	
(Inches)	Hours	Minutes	Seconds	(hh:mm:ss)	(min:ss)	(hours)	(mm:ss)	(hh:mm:ss)	(in/hr)	
5.5	1	24	12	1:24:12	01:34	0.0261	00:47	1:23:25	19.15	
9	1	25	18	1:25:18	01:06	0.0183	00:33	1:24:45	0.00	
8.5	1	26	42	1:26:42	01:24	0.0233	00:42	1:26:00	21.43	
8	1	28	5	1:28:05	01:23	0.0231	00:42	1:27:24	21.69	
7.5	1	29	34	1:29:34	01:29	0.0247	00:44	1:28:50	20.22	
7	1	31	0	1:31:00	01:26	0.0239	00:43	1:30:17	20.93	
6.5	1	32	31	1:32:31	01:31	0.0253	00:46	1:31:46	19.78	
6	1	33	50	1:33:50	01:19	0.0219	00:39	1:33:10	22.78	
5.5	1	35	35	1:35:35	01:45	0.0292	00:53	1:34:42	17.14	
9	1	36	40	1:36:40	01:05	0.0181	00:33	1:36:07	0.00	
8.5	1	37	58	1:37:58	01:18	0.0217	00:39	1:37:19	23.08	
8	1	39	20	1:39:20	01:22	0.0228	00:41	1:38:39	21.95	
7.5	1	41	0	1:41:00	01:40	0.0278	00:50	1:40:10	18.00	
7	1	42	32	1:42:32	01:32	0.0256	00:46	1:41:46	19.57	
6.5	1	43	56	1:43:56	01:24	0.0233	00:42	1:43:14	21.43	
6	1	45	10	1:45:10	01:14	0.0206	00:37	1:44:33	24.32	
5.5	1	47	18	1:47:18	02:08	0.0356	01:04	1:46:14	14.06	
9	1	48	28	1:48:28	01:10	0.0194	00:35	1:47:53	0.00	
8.5	1	49	55	1:49:55	01:27	0.0242	00:43	1:49:12	20.69	
8	1	51	22	1:51:22	01:27	0.0242	00:44	1:50:39	20.69	
7.5	1	52	58	1:52:58	01:36	0.0267	00:48	1:52:10	18.75	
7	1	54	41	1:54:41	01:43	0.0286	00:51	1:53:49	17.48	
6.5	1	56	13	1:56:13	01:32	0.0256	00:46	1:55:27	19.57	
6	1	57	49	1:57:49	01:36	0.0267	00:48	1:57:01	18.75	
5.5	1	59	36	1:59:36	01:47	0.0297	00:54	1:58:43	16.82	
5	2	1	29	2:01:29	01:53	0.0314	00:56	2:00:33	15.93	



Field Data Sheet: Double-Ring Infiltrometer Testing

Location	Site #6: Bowling Green Rd and Catskill Rd, Town of Brookfield
Date:	4/21/2011
Time:	1:36 PM to 3:37
Conditions (Temp., etc.):	Partly Cloudy
Field Staff:	Small
Most Recent Rainfall Event (Date/Amount):	4/20/11 (trace), more on 4/19/11
Equipment Used:	Double Ring Infiltrometer
Gallons Used During Test (12-Inch Ring):	7.10

Fill In				= Formula			INFORMATION ONLY		
<i>Note: measured from ground to wsel of the inside ring.</i>				Change In	Change in	Water Level	Time Interval	Cumulative	
Water Level	Time			Time	Time	Change	Midpoint	Midpoint	Infiltration
(Inches)	Hours	Minutes	Seconds	(hh:mm:ss)	(min:ss)	(hours)	(mm:ss)	(hh:mm:ss)	(in/hr)
9	0	0	0	0:00:00	00:00	0.0000	00:00	0:00:00	0.00
8.5	0	2	53	0:02:53	02:53	0.0481	01:26	0:01:26	10.40
8	0	5	39	0:05:39	02:46	0.0461	01:23	0:04:16	10.84
7.5	0	8	42	0:08:42	03:03	0.0508	01:31	0:07:10	9.84
7	0	12	11	0:12:11	03:29	0.0581	01:45	0:10:26	8.61
6.5	0	15	40	0:15:40	03:29	0.0581	01:44	0:13:56	8.61
6	0	19	42	0:19:42	04:02	0.0672	02:01	0:17:41	7.44
5.5	0	23	43	0:23:43	04:01	0.0669	02:01	0:21:42	7.47
9	0	25	27	0:25:27	01:44	0.0289	00:52	0:24:35	0.00
8.5	0	30	28	0:30:28	05:01	0.0836	02:30	0:27:57	5.98
8	0	34	26	0:34:26	03:58	0.0661	01:59	0:32:27	7.56
7.5	0	38	4	0:38:04	03:38	0.0606	01:49	0:36:15	8.26
7	0	41	56	0:41:56	03:52	0.0644	01:56	0:40:00	7.76
6.5	0	46	12	0:46:12	04:16	0.0711	02:08	0:44:04	7.03
6	0	50	54	0:50:54	04:42	0.0783	02:21	0:48:33	6.38
5.5	0	55	57	0:55:57	05:03	0.0842	02:31	0:53:25	5.94
9	0	56	53	0:56:53	00:56	0.0156	00:28	0:56:25	0.00
8.5	1	0	22	1:00:22	03:29	0.0581	01:44	0:58:38	8.61
8	1	3	55	1:03:55	03:33	0.0592	01:46	1:02:09	8.45
7.5	1	7	57	1:07:57	04:02	0.0672	02:01	1:05:56	7.44
7	1	11	58	1:11:58	04:01	0.0669	02:01	1:09:57	7.47
6.5	1	16	45	1:16:45	04:47	0.0797	02:23	1:14:22	6.27
6	1	20	50	1:20:50	04:05	0.0681	02:02	1:18:47	7.35
5.5	1	26	40	1:26:40	05:50	0.0972	02:55	1:23:45	5.14
9	1	27	57	1:27:57	01:17	0.0214	00:39	1:27:18	0.00
8.5	1	31	10	1:31:10	03:13	0.0536	01:36	1:29:33	9.33
8	1	34	49	1:34:49	03:39	0.0608	01:50	1:32:59	8.22
7.5	1	38	32	1:38:32	03:43	0.0619	01:52	1:36:41	8.07
7	1	42	29	1:42:29	03:57	0.0658	01:58	1:40:30	7.59
6.5	1	46	22	1:46:22	03:53	0.0647	01:57	1:44:25	7.73
6	1	51	11	1:51:11	04:49	0.0803	02:25	1:48:47	6.23
5.5	1	55	57	1:55:57	04:46	0.0794	02:23	1:53:34	6.29
9	1	57	22	1:57:22	01:25	0.0236	00:43	1:56:39	0.00
8.5	2	1	31	2:01:31	04:09	0.0692	02:04	1:59:26	7.23



Static Infiltration Rate
After 2 Hours
6.83 in/hr

Field Data Sheet: Double-Ring Infiltrometer Testing

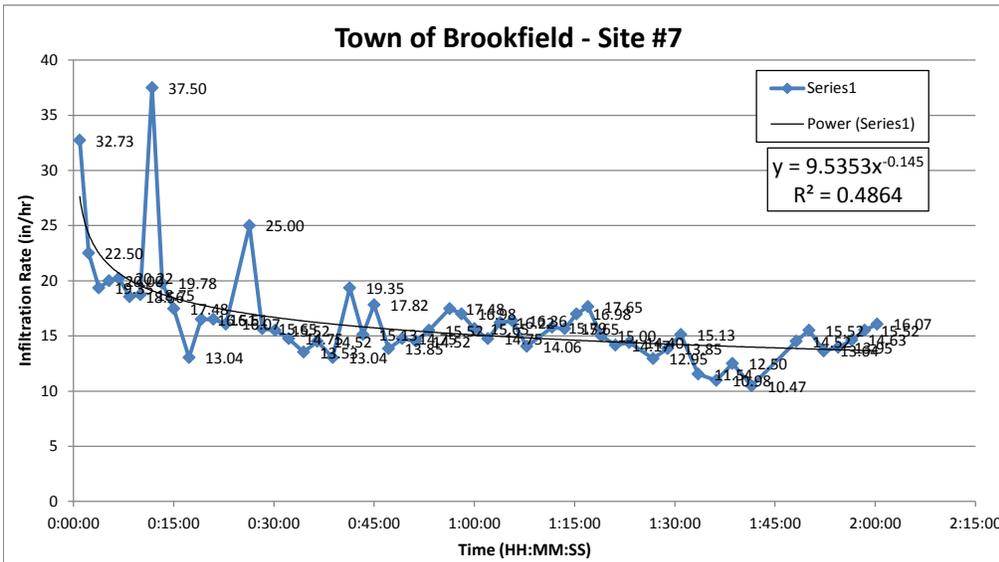
Location	Site #7: S. Cherokee Dr and W Hillcrest Dr, Town of Brookfield
Date:	4/14/2011
Time:	2:48 to
Conditions (Temp., etc.):	Cold, Cloudy
Field Staff:	Small
Most Recent Rainfall Event (Date/Amount):	4/10/2011
Equipment Used:	Double Ring Infiltrometer
Gallons Used During Test (12-Inch Ring):	13.70

Fill In				= Formula			INFORMATION ONLY			
Note: measured from ground to wsel of the inside ring.					Change In	Change in	Water Level	Time Interval	Cumulative	
				Time	Time	Time	Change	Midpoint	Midpoint	Infiltration
Water Level	Time			Time	Time	Time	Change	Midpoint	Midpoint	Rate
(Inches)	Hours	Minutes	Seconds	(hh:mm:ss)	(min:ss)	(hours)	(inches)	(mm:ss)	(hh:mm:ss)	(in/hr)
9	0	0	0	0:00:00	00:00	0.0000		00:00	0:00:00	0.00
8.5	0	0	55	0:00:55	00:55	0.0153	0.5	00:28	0:00:28	32.73
8	0	2	15	0:02:15	01:20	0.0222	0.5	00:40	0:01:35	22.50
7.5	0	3	48	0:03:48	01:33	0.0258	0.5	00:47	0:03:02	19.35
7	0	5	18	0:05:18	01:30	0.0250	0.5	00:45	0:04:33	20.00
6.5	0	6	47	0:06:47	01:29	0.0247	0.5	00:45	0:06:02	20.22
6	0	8	24	0:08:24	01:37	0.0269	0.5	00:48	0:07:35	18.56
5.5	0	10	0	0:10:00	01:36	0.0267	0.5	00:48	0:09:12	18.75
9	0	10	58	0:10:58	00:58	0.0161		00:29	0:10:29	0.00
8.5	0	11	46	0:11:46	00:48	0.0133	0.5	00:24	0:11:22	37.50
8	0	13	17	0:13:17	01:31	0.0253	0.5	00:45	0:12:31	19.78
7.5	0	15	0	0:15:00	01:43	0.0286	0.5	00:52	0:14:08	17.48
7	0	17	18	0:17:18	02:18	0.0383	0.5	01:09	0:16:09	13.04
6.5	0	19	7	0:19:07	01:49	0.0303	0.5	00:55	0:18:12	16.51
6	0	20	56	0:20:56	01:49	0.0303	0.5	00:54	0:20:01	16.51
5.5	0	22	48	0:22:48	01:52	0.0311	0.5	00:56	0:21:52	16.07
9	0	25	8	0:25:08	02:20	0.0389		01:10	0:23:58	0.00
8.5	0	26	20	0:26:20	01:12	0.0200	0.5	00:36	0:25:44	25.00
8	0	28	15	0:28:15	01:55	0.0319	0.5	00:58	0:27:17	15.65
7.5	0	30	11	0:30:11	01:56	0.0322	0.5	00:58	0:29:13	15.52
7	0	32	13	0:32:13	02:02	0.0339	0.5	01:01	0:31:12	14.75
6.5	0	34	26	0:34:26	02:13	0.0369	0.5	01:06	0:33:20	13.53
6	0	36	30	0:36:30	02:04	0.0344	0.5	01:02	0:35:28	14.52
5.5	0	38	48	0:38:48	02:18	0.0383	0.5	01:09	0:37:39	13.04
9	0	39	47	0:39:47	00:59	0.0164		00:30	0:39:18	0.00
8.5	0	41	20	0:41:20	01:33	0.0258	0.5	00:46	0:40:33	19.35
8	0	43	19	0:43:19	01:59	0.0331	0.5	01:00	0:42:20	15.13
7.5	0	45	0	0:45:00	01:41	0.0281	0.5	00:50	0:44:10	17.82
7	0	47	10	0:47:10	02:10	0.0361	0.5	01:05	0:46:05	13.85
6.5	0	49	12	0:49:12	02:02	0.0339	0.5	01:01	0:48:11	14.75
6	0	51	16	0:51:16	02:04	0.0344	0.5	01:02	0:50:14	14.52
5.5	0	53	12	0:53:12	01:56	0.0322	0.5	00:58	0:52:14	15.52
9	0	54	36	0:54:36	01:24	0.0233		00:42	0:53:54	0.00
8.5	0	56	19	0:56:19	01:43	0.0286	0.5	00:52	0:55:28	17.48
8	0	58	5	0:58:05	01:46	0.0294	0.5	00:53	0:57:12	16.98
7.5	1	0	0	1:00:00	01:55	0.0319	0.5	00:57	0:59:03	15.65
7	1	2	2	1:02:02	02:02	0.0339	0.5	01:01	1:01:01	14.75
6.5	1	3	53	1:03:53	01:51	0.0308	0.5	00:55	1:02:58	16.22
6	1	5	43	1:05:43	01:50	0.0306	0.5	00:55	1:04:48	16.36
5.5	1	7	51	1:07:51	02:08	0.0356	0.5	01:04	1:06:47	14.06
9	1	9	43	1:09:43	01:52	0.0311		00:56	1:08:47	0.00
8.5	1	11	37	1:11:37	01:54	0.0317	0.5	00:57	1:10:40	15.79
8	1	13	32	1:13:32	01:55	0.0319	0.5	00:58	1:12:35	15.65
7.5	1	15	18	1:15:18	01:46	0.0294	0.5	00:53	1:14:25	16.98
7	1	17	0	1:17:00	01:42	0.0283	0.5	00:51	1:16:09	17.65
6.5	1	19	0	1:19:00	02:00	0.0333	0.5	01:00	1:18:00	15.00
6	1	21	7	1:21:07	02:07	0.0353	0.5	01:04	1:20:04	14.17
5.5	1	23	12	1:23:12	02:05	0.0347	0.5	01:02	1:22:10	14.40
9	1	24	26	1:24:26	01:14	0.0206		00:37	1:23:49	0.00
8.5	1	26	45	1:26:45	02:19	0.0386	0.5	01:10	1:25:36	12.95
8	1	28	55	1:28:55	02:10	0.0361	0.5	01:05	1:27:50	13.85

Field Data Sheet: Double-Ring Infiltrometer Testing

Location	Site #7: S. Cherokee Dr and W Hillcrest Dr, Town of Brookfield
Date:	4/14/2011
Time:	2:48 to
Conditions (Temp., etc.):	Cold, Cloudy
Field Staff:	Small
Most Recent Rainfall Event (Date/Amount):	4/10/2011
Equipment Used:	Double Ring Infiltrometer
Gallons Used During Test (12-Inch Ring):	13.70

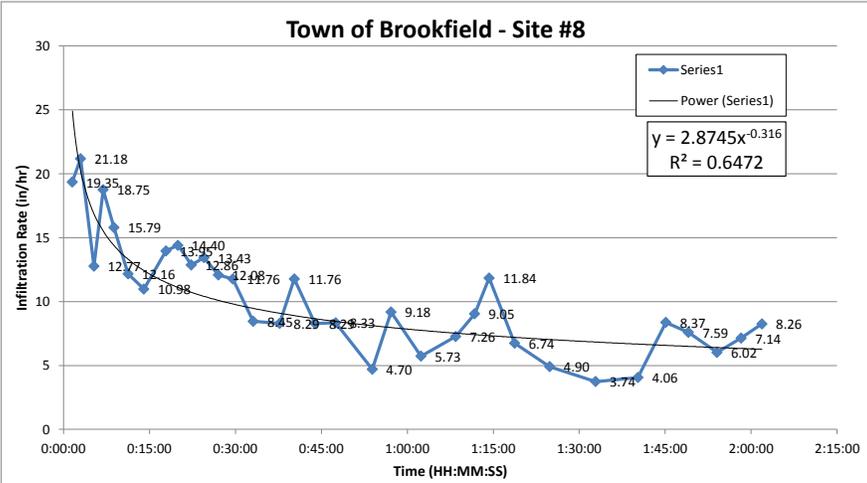
Fill In				= Formula			INFORMATION ONLY		
Note: measured from ground to wsel of the inside ring.				Change In	Change in	Water Level	Time Interval	Cumulative	Infiltration
Water Level	Time			Time	Time	Change	Midpoint	Midpoint	Rate
(Inches)	Hours	Minutes	Seconds	(hh:mm:ss)	(min:ss)	(hours)	(mm:ss)	(hh:mm:ss)	(in/hr)
7.5	1	30	54	1:30:54	01:59	0.0331	00:59	1:29:55	15.13
7	1	33	30	1:33:30	02:36	0.0433	01:18	1:32:12	11.54
6.5	1	36	14	1:36:14	02:44	0.0456	01:22	1:34:52	10.98
6	1	38	38	1:38:38	02:24	0.0400	01:12	1:37:26	12.50
5.5	1	41	30	1:41:30	02:52	0.0478	01:26	1:40:04	10.47
9	1	46	6	1:46:06	04:36	0.0767	02:18	1:43:48	0.00
8.5	1	48	10	1:48:10	02:04	0.0344	01:02	1:47:08	14.52
8	1	50	6	1:50:06	01:56	0.0322	00:58	1:49:08	15.52
7.5	1	52	18	1:52:18	02:12	0.0367	01:06	1:51:12	13.64
7	1	54	27	1:54:27	02:09	0.0358	01:05	1:53:22	13.95
6.5	1	56	30	1:56:30	02:03	0.0342	01:02	1:55:29	14.63
6	1	58	26	1:58:26	01:56	0.0322	00:58	1:57:28	15.52
5.5	2	0	18	2:00:18	01:52	0.0311	00:56	1:59:22	16.07



Field Data Sheet: Double-Ring Infiltrometer Testing

Location	Site #8: Plateau Rd and Doneswood Dr, Town of Brookfield
Date:	4/14/2011
Time:	12:16 PM TO 4:17 PM
Conditions (Temp., etc.):	Cold, Sprinkles
Field Staff:	Small
Most Recent Rainfall Event (Date/Amount):	4/10/2011
Equipment Used:	Double Ring Infiltrometer
Gallons Used During Test (12-Inch Ring):	8.07

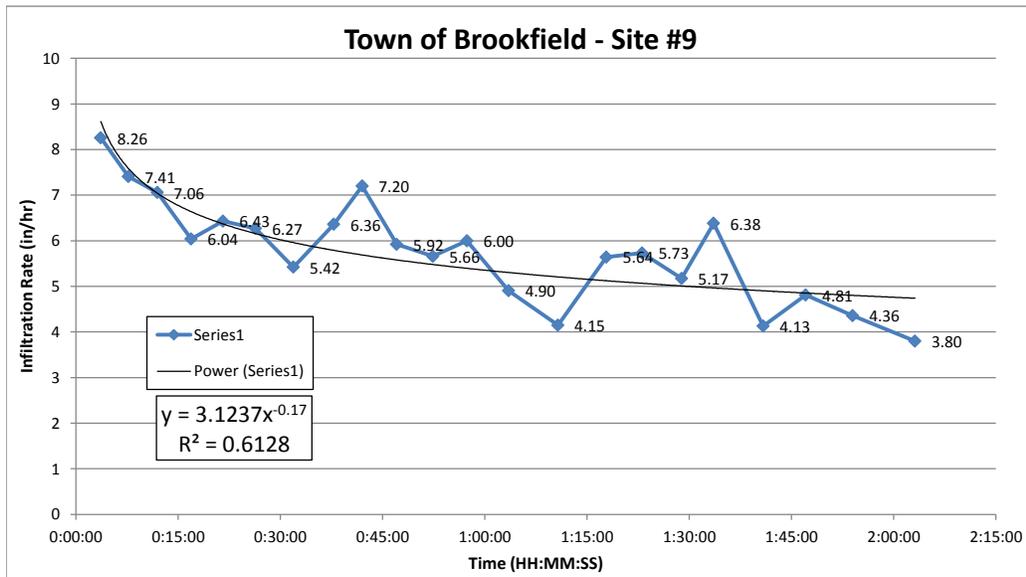
Fill In				= Formula			INFORMATION ONLY		
Note: measured from ground to wsel of the inside ring.				Change In	Change in	Water Level	Time Interval	Time To	Infiltration
Water Level	Time			Time	Time	Change	Midpoint	Midpoint	Rate
(Inches)	Hours	Minutes	Seconds	(hh:mm:ss)	(min:ss)	(hours)	(mm:ss)	(hh:mm:ss)	(in/hr)
9	0	0	0	0:00:00	00:00	0.0000	00:00	0:00:00	0.00
8.5	0	1	33	0:01:33	01:33	0.0258	00:47	0:00:47	19.35
8	0	2	58	0:02:58	01:25	0.0236	00:43	0:02:15	21.18
7.5	0	5	19	0:05:19	02:21	0.0392	01:11	0:04:09	12.77
7	0	6	55	0:06:55	01:36	0.0267	00:48	0:06:07	18.75
6.5	0	8	49	0:08:49	01:54	0.0317	00:57	0:07:52	15.79
6	0	11	17	0:11:17	02:28	0.0411	01:14	0:10:03	12.16
5.5	0	14	1	0:14:01	02:44	0.0456	01:22	0:12:39	10.98
9	0	15	44	0:15:44	01:43	0.0286	00:52	0:14:53	0.00
8.5	0	17	53	0:17:53	02:09	0.0358	01:04	0:16:49	13.95
8	0	19	58	0:19:58	02:05	0.0347	01:02	0:18:56	14.40
7.5	0	22	18	0:22:18	02:20	0.0389	01:10	0:21:08	12.86
7	0	24	32	0:24:32	02:14	0.0372	01:07	0:23:25	13.43
6.5	0	27	1	0:27:01	02:29	0.0414	01:14	0:25:47	12.08
6	0	29	34	0:29:34	02:33	0.0425	01:16	0:28:17	11.76
5.5	0	33	7	0:33:07	03:33	0.0592	01:47	0:31:20	8.45
9	0	34	7	0:34:07	01:00	0.0167	00:30	0:33:37	0.00
8.5	0	37	44	0:37:44	03:37	0.0603	01:49	0:35:56	8.29
8	0	40	17	0:40:17	02:33	0.0425	01:16	0:39:00	11.76
7.5	0	43	54	0:43:54	03:37	0.0603	01:49	0:42:06	8.29
7	0	47	30	0:47:30	03:36	0.0600	01:48	0:45:42	8.33
6.5	0	53	53	0:53:53	06:23	0.1064	03:11	0:50:41	4.70
6	0	57	9	0:57:09	03:16	0.0544	01:38	0:55:31	9.18
5.5	1	2	23	1:02:23	05:14	0.0872	02:37	0:59:46	5.73
9	1	4	18	1:04:18	01:55	0.0319	00:57	1:03:21	0.00
8.5	1	8	26	1:08:26	04:08	0.0689	02:04	1:06:22	7.26
8	1	11	45	1:11:45	03:19	0.0553	01:39	1:10:05	9.05
7.5	1	14	17	1:14:17	02:32	0.0422	01:16	1:13:01	11.84
7	1	18	44	1:18:44	04:27	0.0742	02:13	1:16:31	6.74
6.5	1	24	51	1:24:51	06:07	0.1019	03:03	1:21:48	4.90
6	1	32	52	1:32:52	08:01	0.1336	04:01	1:28:51	3.74
5.5	1	40	15	1:40:15	07:23	0.1231	03:41	1:36:33	4.06
9	1	41	32	1:41:32	01:17	0.0214	00:39	1:40:53	0.00
8.5	1	45	7	1:45:07	03:35	0.0597	01:48	1:43:20	8.37
8	1	49	4	1:49:04	03:57	0.0658	01:58	1:47:05	7.59
7.5	1	54	3	1:54:03	04:59	0.0831	02:29	1:51:33	6.02
7	1	58	15	1:58:15	04:12	0.0700	02:06	1:56:09	7.14
6.5	2	1	53	2:01:53	03:38	0.0606	01:49	2:00:04	8.26



Field Data Sheet: Double-Ring Infiltrometer Testing

Location	Site #9: E Ravenswood Dr (Midway), Town of Brookfield
Date	4/21/2011
Time	3:57:00 PM to 6:00 PM
Conditions (Temp., etc.):	Cloudy
Field Staff:	Small
Most Recent Rainfall Event (Date/Amount):	4/20/2011
Equipment Used:	Double Ring Infiltrometer
Gallons Used During Test (12-Inch Ring):	5.38

Fill In				= Formula				INFORMATION ONLY		
<i>Note: measured from ground to wsel of the inside ring.</i>				Change In	Change in	Water Level	Time Interval	Cumulative		
Water Level	Time			Time	Time	Change	Midpoint	Time To	Infiltration	
(Inches)	Hours	Minutes	Seconds	(hh:mm:ss)	(min:ss)	(hours)	(inches)	(mm:ss)	(hh:mm:ss)	(in/hr)
9	0	0	0	0:00:00	00:00	0.0000		00:00	0:00:00	0.00
8.5	0	3	38	0:03:38	03:38	0.0606	0.5	01:49	0:01:49	8.26
8	0	7	41	0:07:41	04:03	0.0675	0.5	02:02	0:05:39	7.41
7.5	0	11	56	0:11:56	04:15	0.0708	0.5	02:07	0:09:48	7.06
7	0	16	54	0:16:54	04:58	0.0828	0.5	02:29	0:14:25	6.04
6.5	0	21	34	0:21:34	04:40	0.0778	0.5	02:20	0:19:14	6.43
6	0	26	21	0:26:21	04:47	0.0797	0.5	02:24	0:23:58	6.27
5.5	0	31	53	0:31:53	05:32	0.0922	0.5	02:46	0:29:07	5.42
9	0	33	7	0:33:07	01:14	0.0206		00:37	0:32:30	0.00
8.5	0	37	50	0:37:50	04:43	0.0786	0.5	02:21	0:35:29	6.36
8	0	42	0	0:42:00	04:10	0.0694	0.5	02:05	0:39:55	7.20
7.5	0	47	4	0:47:04	05:04	0.0844	0.5	02:32	0:44:32	5.92
7	0	52	22	0:52:22	05:18	0.0883	0.5	02:39	0:49:43	5.66
6.5	0	57	22	0:57:22	05:00	0.0833	0.5	02:30	0:54:52	6.00
6	1	3	29	1:03:29	06:07	0.1019	0.5	03:04	1:00:26	4.90
5.5	1	10	43	1:10:43	07:14	0.1206	0.5	03:37	1:07:06	4.15
9	1	12	31	1:12:31	01:48	0.0300		00:54	1:11:37	0.00
8.5	1	17	50	1:17:50	05:19	0.0886	0.5	02:39	1:15:11	5.64
8	1	23	4	1:23:04	05:14	0.0872	0.5	02:37	1:20:27	5.73
7.5	1	28	52	1:28:52	05:48	0.0967	0.5	02:54	1:25:58	5.17
7	1	33	34	1:33:34	04:42	0.0783	0.5	02:21	1:31:13	6.38
6.5	1	40	50	1:40:50	07:16	0.1211	0.5	03:38	1:37:12	4.13
6	1	47	4	1:47:04	06:14	0.1039	0.5	03:07	1:43:57	4.81
5.5	1	53	57	1:53:57	06:53	0.1147	0.5	03:27	1:50:30	4.36
9	1	55	12	1:55:12	01:15	0.0208		00:37	1:54:35	0.00
8.5	2	3	6	2:03:06	07:54	0.1317	0.5	03:57	1:59:09	3.80



Static Infiltration Rate
After 2 Hours
4.77 in/hr

Field Data Sheet: Double-Ring Infiltrometer Testing

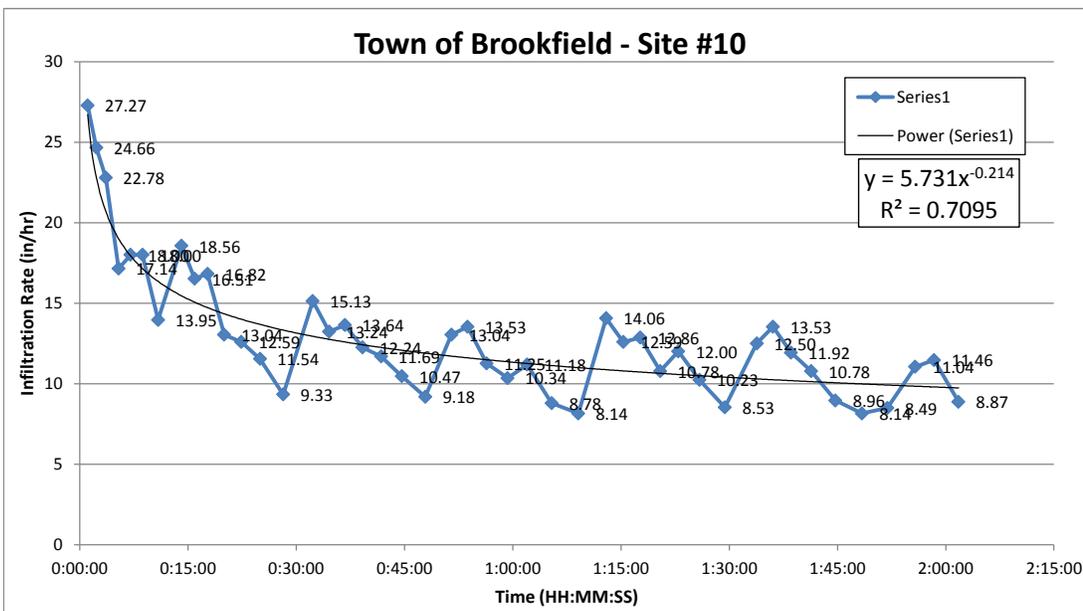
Location	Site #10: Poplar Creek Dr and Linden Ln, Town of Brookfield
Date:	4/21/2011
Time:	6:09 PM to 8:10 PM
Conditions (Temp., etc.):	Cloudy, Cool
Field Staff:	Small
Most Recent Rainfall Event (Date/Amount):	Trace 4/20/11 more on 4/19/11
Equipment Used:	Double Ring Infiltrometer
Gallons Used During Test (12-Inch Ring):	11.01

Fill In				= Formula			INFORMATION ONLY			
Note: measured from ground to wsel of the inside ring.									Cumulative	
				Change In	Change in	Water Level	Time Interval	Time To	Infiltration	
Water Level	Time			Time	Time	Time	Change	Midpoint	Midpoint	Rate
(Inches)	Hours	Minutes	Seconds	(hh:mm:ss)	(min:ss)	(hours)	(inches)	(mm:ss)	(hh:mm:ss)	(in/hr)
9	0	0	0	0:00:00	00:00	0.0000		00:00	0:00:00	0.00
8.5	0	1	6	0:01:06	01:06	0.0183	0.5	00:33	0:00:33	27.27
8	0	2	19	0:02:19	01:13	0.0203	0.5	00:37	0:01:42	24.66
7.5	0	3	38	0:03:38	01:19	0.0219	0.5	00:40	0:02:59	22.78
7	0	5	23	0:05:23	01:45	0.0292	0.5	00:53	0:04:30	17.14
6.5	0	7	3	0:07:03	01:40	0.0278	0.5	00:50	0:06:13	18.00
6	0	8	43	0:08:43	01:40	0.0278	0.5	00:50	0:07:53	18.00
5.5	0	10	52	0:10:52	02:09	0.0358	0.5	01:04	0:09:48	13.95
9	0	12	30	0:12:30	01:38	0.0272		00:49	0:11:41	0.00
8.5	0	14	7	0:14:07	01:37	0.0269	0.5	00:48	0:13:18	18.56
8	0	15	56	0:15:56	01:49	0.0303	0.5	00:54	0:15:01	16.51
7.5	0	17	43	0:17:43	01:47	0.0297	0.5	00:53	0:16:49	16.82
7	0	20	1	0:20:01	02:18	0.0383	0.5	01:09	0:18:52	13.04
6.5	0	22	24	0:22:24	02:23	0.0397	0.5	01:11	0:21:12	12.59
6	0	25	0	0:25:00	02:36	0.0433	0.5	01:18	0:23:42	11.54
5.5	0	28	13	0:28:13	03:13	0.0536	0.5	01:37	0:26:37	9.33
9	0	30	18	0:30:18	02:05	0.0347		01:02	0:29:15	0.00
8.5	0	32	17	0:32:17	01:59	0.0331	0.5	00:59	0:31:18	15.13
8	0	34	33	0:34:33	02:16	0.0378	0.5	01:08	0:33:25	13.24
7.5	0	36	45	0:36:45	02:12	0.0367	0.5	01:06	0:35:39	13.64
7	0	39	12	0:39:12	02:27	0.0408	0.5	01:14	0:37:58	12.24
6.5	0	41	46	0:41:46	02:34	0.0428	0.5	01:17	0:40:29	11.69
6	0	44	38	0:44:38	02:52	0.0478	0.5	01:26	0:43:12	10.47
5.5	0	47	54	0:47:54	03:16	0.0544	0.5	01:38	0:46:16	9.18
9	0	49	13	0:49:13	01:19	0.0219		00:39	0:48:34	0.00
8.5	0	51	31	0:51:31	02:18	0.0383	0.5	01:09	0:50:22	13.04
8	0	53	44	0:53:44	02:13	0.0369	0.5	01:07	0:52:37	13.53
7.5	0	56	24	0:56:24	02:40	0.0444	0.5	01:20	0:55:04	11.25
7	0	59	18	0:59:18	02:54	0.0483	0.5	01:27	0:57:51	10.34
6.5	1	1	59	1:01:59	02:41	0.0447	0.5	01:20	1:00:38	11.18
6	1	5	24	1:05:24	03:25	0.0569	0.5	01:43	1:03:41	8.78
5.5	1	9	5	1:09:05	03:41	0.0614	0.5	01:50	1:07:14	8.14
9	1	10	49	1:10:49	01:44	0.0289		00:52	1:09:57	0.00
8.5	1	12	57	1:12:57	02:08	0.0356	0.5	01:04	1:11:53	14.06
8	1	15	20	1:15:20	02:23	0.0397	0.5	01:11	1:14:09	12.59
7.5	1	17	40	1:17:40	02:20	0.0389	0.5	01:10	1:16:30	12.86
7	1	20	27	1:20:27	02:47	0.0464	0.5	01:24	1:19:03	10.78
6.5	1	22	57	1:22:57	02:30	0.0417	0.5	01:15	1:21:42	12.00
6	1	25	53	1:25:53	02:56	0.0489	0.5	01:28	1:24:25	10.23
5.5	1	29	24	1:29:24	03:31	0.0586	0.5	01:45	1:27:39	8.53
9	1	31	26	1:31:26	02:02	0.0339		01:01	1:30:25	0.00
8.5	1	33	50	1:33:50	02:24	0.0400	0.5	01:12	1:32:38	12.50
8	1	36	3	1:36:03	02:13	0.0369	0.5	01:07	1:34:57	13.53
7.5	1	38	34	1:38:34	02:31	0.0419	0.5	01:15	1:37:18	11.92
7	1	41	21	1:41:21	02:47	0.0464	0.5	01:24	1:39:57	10.78
6.5	1	44	42	1:44:42	03:21	0.0558	0.5	01:41	1:43:01	8.96

Field Data Sheet: Double-Ring Infiltrometer Testing

Location	Site #10: Poplar Creek Dr and Linden Ln, Town of Brookfield
Date	4/21/2011
Time	6:09 PM to 8:10 PM
Conditions (Temp., etc.)	Cloudy, Cool
Field Staff	Small
Most Recent Rainfall Event (Date/Amount)	Trace 4/20/11 more on 4/19/11
Equipment Used	Double Ring Infiltrometer
Gallons Used During Test (12-Inch Ring)	11.01

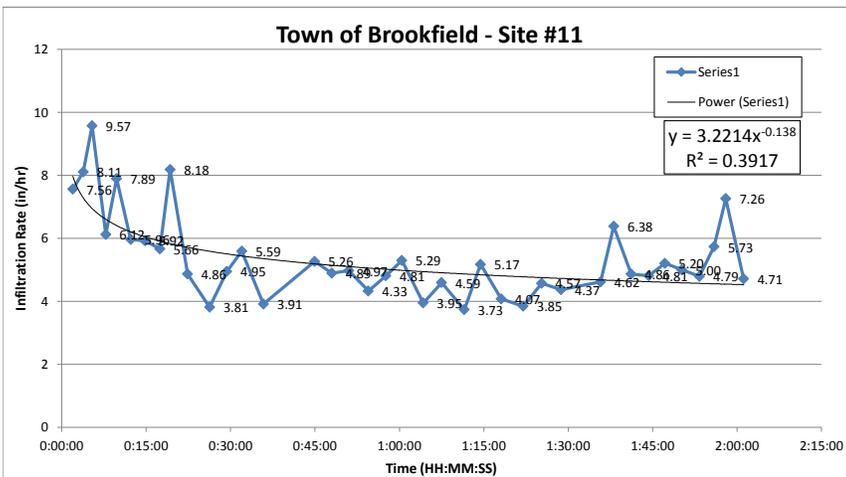
Fill In				= Formula			INFORMATION ONLY		
Note: measured from ground to wsel of the inside ring.				Change In	Change in	Water Level	Time Interval	Time To	Infiltration
Water Level	Time			Time	Time	Change	Midpoint	Midpoint	Rate
(Inches)	Hours	Minutes	Seconds	(hh:mm:ss)	(min:ss)	(hours)	(mm:ss)	(hh:mm:ss)	(in/hr)
6	1	48	23	1:48:23	03:41	0.0614	01:51	1:46:33	8.14
5.5	1	51	55	1:51:55	03:32	0.0589	01:46	1:50:09	8.49
9	1	53	3	1:53:03	01:08	0.0189	00:34	1:52:29	0.00
8.5	1	55	46	1:55:46	02:43	0.0453	01:22	1:54:24	11.04
8	1	58	23	1:58:23	02:37	0.0436	01:19	1:57:04	11.46
7.5	2	1	46	2:01:46	03:23	0.0564	01:42	2:00:05	8.87



Field Data Sheet: Double-Ring Infiltrometer Testing

Location	Site #11: Mayrose Blvd and De Carlin Dr, Town of Brookfield
Date	4/20/2011
Time	8:53 AM to 10:54 AM
Conditions (Temp., etc.)	Cloudy, Mist
Field Staff	Small
Most Recent Rainfall Event (Date/Amount)	4/19/2011
Equipment Used	Double Ring Infiltrometer
Gallons Used During Test (12-Inch Ring)	4.65

Fill In				= Formula			INFORMATION ONLY		
Note: measured from ground to wsel of the inside ring.				Change In	Change in	Water Level	Time Interval	Time To	Infiltration
Water Level	Time			Time	Time	Change	Midpoint	Midpoint	Rate
(Inches)	Hours	Minutes	Seconds	(hh:mm:ss)	(min:ss)	(hours)	(mm:ss)	(hh:mm:ss)	(in/hr)
9.00	0	0	0	0:00:00	00:00	0.0000	00:00	0:00:00	0.00
8.75	0	1	59	0:01:59	01:59	0.0331	01:00	0:01:00	7.56
8.50	0	3	50	0:03:50	01:51	0.0308	00:55	0:02:55	8.11
8.25	0	5	24	0:05:24	01:34	0.0261	00:47	0:04:37	9.57
8.00	0	7	51	0:07:51	02:27	0.0408	01:13	0:06:37	6.12
7.75	0	9	45	0:09:45	01:54	0.0317	00:57	0:08:48	7.89
7.50	0	12	16	0:12:16	02:31	0.0419	01:16	0:11:01	5.96
7.25	0	14	48	0:14:48	02:32	0.0422	01:16	0:13:32	5.92
7.00	0	17	27	0:17:27	02:39	0.0442	01:19	0:16:07	5.66
6.75	0	19	17	0:19:17	01:50	0.0306	00:55	0:18:22	8.18
6.50	0	22	22	0:22:22	03:05	0.0514	01:32	0:20:49	4.86
6.25	0	26	18	0:26:18	03:56	0.0656	01:58	0:24:20	3.81
6.00	0	29	20	0:29:20	03:02	0.0506	01:31	0:27:49	4.95
5.75	0	32	1	0:32:01	02:41	0.0447	01:21	0:30:41	5.59
5.50	0	35	51	0:35:51	03:50	0.0639	01:55	0:33:56	3.91
9.00	0	42	5	0:42:05	06:14	0.1039	03:07	0:03:07	0.00
8.75	0	44	56	0:44:56	02:51	0.0475	01:26	0:43:30	5.26
8.50	0	48	0	0:48:00	03:04	0.0511	01:32	0:46:28	4.89
8.25	0	51	1	0:51:01	03:01	0.0503	01:30	0:49:30	4.97
8.00	0	54	29	0:54:29	03:28	0.0578	01:44	0:52:45	4.33
7.75	0	57	36	0:57:36	03:07	0.0519	01:33	0:56:03	4.81
7.50	1	0	26	1:00:26	02:50	0.0472	01:25	0:59:01	5.29
7.25	1	4	14	1:04:14	03:48	0.0633	01:54	1:02:20	3.95
7.00	1	7	30	1:07:30	03:16	0.0544	01:38	1:05:52	4.59
6.75	1	11	31	1:11:31	04:01	0.0669	02:01	1:09:31	3.73
6.50	1	14	25	1:14:25	02:54	0.0483	01:27	1:12:58	5.17
6.25	1	18	6	1:18:06	03:41	0.0614	01:51	1:16:16	4.07
6.00	1	22	0	1:22:00	03:54	0.0650	01:57	1:20:03	3.85
5.75	1	25	17	1:25:17	03:17	0.0547	01:39	1:23:39	4.57
5.50	1	28	43	1:28:43	03:26	0.0572	01:43	1:27:00	4.37
9.00	1	32	30	1:32:30	03:47	0.0631	01:53	0:01:53	0.00
8.75	1	35	45	1:35:45	03:15	0.0542	01:38	1:34:08	4.62
8.50	1	38	6	1:38:06	02:21	0.0392	01:11	1:36:55	6.38
8.25	1	41	11	1:41:11	03:05	0.0514	01:32	1:39:39	4.86
8.00	1	44	18	1:44:18	03:07	0.0519	01:33	1:42:44	4.81
7.75	1	47	11	1:47:11	02:53	0.0481	01:27	1:45:45	5.20
7.50	1	50	11	1:50:11	03:00	0.0500	01:30	1:48:41	5.00
7.25	1	53	19	1:53:19	03:08	0.0522	01:34	1:51:45	4.79
7.00	1	55	56	1:55:56	02:37	0.0436	01:18	1:54:37	5.73
6.75	1	58	0	1:58:00	02:04	0.0344	01:02	1:56:58	7.26
6.50	2	1	11	2:01:11	03:11	0.0531	01:35	1:59:35	4.71



Static Infiltration Rate After 2 Hours
4.54 in/hr

Field Data Sheet: Double-Ring Infiltrometer Testing

Location	Site #12: Martha Ln (Midway), Town of Brookfield
Date:	4/14/2011
Time:	8:41 AM to 10:42 AM
Conditions (Temp., etc.):	old, Cloudy, Sprinkles
Field Staff:	Small
Most Recent Rainfall Event (Date/Amount):	4/14/11 Trace
Equipment Used:	Double Ring Infiltrometer
Gallons Used During Test (12-Inch Ring):	35.97

Fill In				= Formula			INFORMATION ONLY			
Note: measured from ground to wsel of the inside ring.				Change In	Change in	Water Level	Time Interval	Cumulative	Time To	Infiltration
				Time	Time	Change	Midpoint	Midpoint	Rate	
Water Level (Inches)	Hours	Minutes	Seconds	Time (hh:mm:ss)	Time (min:ss)	Time (hours)	Change (inches)	Midpoint (mm:ss)	Midpoint (hh:mm:ss)	Rate (in/hr)
9	0	0	0	0:00:00	00:00	0.0000		00:00	0:00:00	0.00
8.5	0	0	56	0:00:56	00:56	0.0156	0.5	00:28	0:00:28	32.14
8	0	1	52	0:01:52	00:56	0.0156	0.5	00:28	0:01:24	32.14
7.5	0	2	41	0:02:41	00:49	0.0136	0.5	00:24	0:02:16	36.73
7	0	3	22	0:03:22	00:41	0.0114	0.5	00:21	0:03:02	43.90
6.5	0	4	10	0:04:10	00:48	0.0133	0.5	00:24	0:03:46	37.50
6	0	5	0	0:05:00	00:50	0.0139	0.5	00:25	0:04:35	36.00
5.5	0	5	52	0:05:52	00:52	0.0144	0.5	00:26	0:05:26	34.62
9	0	7	32	0:07:32	01:40	0.0278		00:50	0:06:42	0.00
8.5	0	8	15	0:08:15	00:43	0.0119	0.5	00:22	0:07:54	41.86
8	0	8	54	0:08:54	00:39	0.0108	0.5	00:19	0:08:34	46.15
7.5	0	9	32	0:09:32	00:38	0.0106	0.5	00:19	0:09:13	47.37
7	0	10	24	0:10:24	00:52	0.0144	0.5	00:26	0:09:58	34.62
6.5	0	11	0	0:11:00	00:36	0.0100	0.5	00:18	0:10:42	50.00
6	0	11	43	0:11:43	00:43	0.0119	0.5	00:22	0:11:22	41.86
5.5	0	12	25	0:12:25	00:42	0.0117	0.5	00:21	0:12:04	42.86
9	0	13	10	0:13:10	00:45	0.0125		00:22	0:12:47	0.00
8.5	0	13	52	0:13:52	00:42	0.0117	0.5	00:21	0:13:31	42.86
8	0	14	35	0:14:35	00:43	0.0119	0.5	00:21	0:14:14	41.86
7.5	0	15	22	0:15:22	00:47	0.0131	0.5	00:24	0:14:59	38.30
7	0	16	10	0:16:10	00:48	0.0133	0.5	00:24	0:15:46	37.50
6.5	0	16	59	0:16:59	00:49	0.0136	0.5	00:25	0:16:34	36.73
6	0	17	45	0:17:45	00:46	0.0128	0.5	00:23	0:17:22	39.13
5.5	0	18	53	0:18:53	01:08	0.0189	0.5	00:34	0:18:19	26.47
9	0	19	44	0:19:44	00:51	0.0142		00:26	0:19:18	0.00
8.5	0	20	25	0:20:25	00:41	0.0114	0.5	00:20	0:20:05	43.90
8	0	21	10	0:21:10	00:45	0.0125	0.5	00:23	0:20:48	40.00
7.5	0	21	49	0:21:49	00:39	0.0108	0.5	00:20	0:21:29	46.15
7	0	22	52	0:22:52	01:03	0.0175	0.5	00:31	0:22:21	28.57
6.5	0	23	34	0:23:34	00:42	0.0117	0.5	00:21	0:23:13	42.86
6	0	24	15	0:24:15	00:41	0.0114	0.5	00:21	0:23:54	43.90
5.5	0	25	0	0:25:00	00:45	0.0125	0.5	00:23	0:24:37	40.00
9	0	29	18	0:29:18	04:18	0.0717		02:09	0:27:09	0.00
8.5	0	30	0	0:30:00	00:42	0.0117	0.5	00:21	0:29:39	42.86
8	0	30	45	0:30:45	00:45	0.0125	0.5	00:22	0:30:22	40.00
7.5	0	31	20	0:31:20	00:35	0.0097	0.5	00:18	0:31:02	51.43
7	0	31	55	0:31:55	00:35	0.0097	0.5	00:17	0:31:37	51.43
6.5	0	32	31	0:32:31	00:36	0.0100	0.5	00:18	0:32:13	50.00
6	0	33	3	0:33:03	00:32	0.0089	0.5	00:16	0:32:47	56.25
5.5	0	33	40	0:33:40	00:37	0.0103	0.5	00:18	0:33:22	48.65
9	0	35	35	0:35:35	01:55	0.0319		00:58	0:34:37	0.00
8.5	0	36	5	0:36:05	00:30	0.0083	0.5	00:15	0:35:50	60.00
8	0	36	27	0:36:27	00:22	0.0061	0.5	00:11	0:36:16	81.82
7.5	0	37	0	0:37:00	00:33	0.0092	0.5	00:17	0:36:44	54.55
7	0	37	27	0:37:27	00:27	0.0075	0.5	00:13	0:37:14	66.67
6.5	0	37	54	0:37:54	00:27	0.0075	0.5	00:14	0:37:41	66.67
6	0	38	24	0:38:24	00:30	0.0083	0.5	00:15	0:38:09	60.00
5.5	0	38	59	0:38:59	00:35	0.0097	0.5	00:17	0:38:42	51.43
9	0	41	18	0:41:18	02:19	0.0386		01:10	0:40:08	0.00
8.5	0	41	51	0:41:51	00:33	0.0092	0.5	00:17	0:41:35	54.55
8	0	42	17	0:42:17	00:26	0.0072	0.5	00:13	0:42:04	69.23
7.5	0	42	50	0:42:50	00:33	0.0092	0.5	00:17	0:42:33	54.55
7	0	43	20	0:43:20	00:30	0.0083	0.5	00:15	0:43:05	60.00

Field Data Sheet: Double-Ring Infiltrometer Testing

Location	Site #12: Martha Ln (Midway), Town of Brookfield
Date:	4/14/2011
Time:	8:41 AM to 10:42 AM
Conditions (Temp., etc.):	old, Cloudy, Sprinkles
Field Staff:	Small
Most Recent Rainfall Event (Date/Amount):	4/14/11 Trace
Equipment Used:	Double Ring Infiltrometer
Gallons Used During Test (12-Inch Ring):	35.97

Fill In				= Formula			INFORMATION ONLY				
Note: measured from ground to wsel of the inside ring.				Change In		Change in	Water Level	Time Interval	Cumulative	Time To	Infiltration
				Time	Time	Time	Change	Midpoint	Midpoint	Rate	
Water Level (Inches)	Hours	Minutes	Seconds	Time (hh:mm:ss)	Time (min:ss)	Time (hours)	(inches)	Midpoint (mm:ss)	Midpoint (hh:mm:ss)	Rate (in/hr)	
6.5	0	43	45	0:43:45	00:25	0.0069	0.5	00:13	0:43:32	72.00	
6	0	44	15	0:44:15	00:30	0.0083	0.5	00:15	0:44:00	60.00	
5.5	0	44	48	0:44:48	00:33	0.0092	0.5	00:16	0:44:31	54.55	
9	0	46	23	0:46:23	01:35	0.0264		00:48	0:45:36	0.00	
8.5	0	47	0	0:47:00	00:37	0.0103	0.5	00:19	0:46:42	48.65	
8	0	47	27	0:47:27	00:27	0.0075	0.5	00:13	0:47:14	66.67	
7.5	0	47	56	0:47:56	00:29	0.0081	0.5	00:15	0:47:42	62.07	
7	0	48	23	0:48:23	00:27	0.0075	0.5	00:14	0:48:10	66.67	
6.5	0	48	52	0:48:52	00:29	0.0081	0.5	00:14	0:48:38	62.07	
6	0	49	24	0:49:24	00:32	0.0089	0.5	00:16	0:49:08	56.25	
5.5	0	49	53	0:49:53	00:29	0.0081	0.5	00:14	0:49:38	62.07	
9	0	53	4	0:53:04	03:11	0.0531		01:36	0:51:29	0.00	
8.5	0	53	35	0:53:35	00:31	0.0086	0.5	00:15	0:53:20	58.06	
8	0	54	0	0:54:00	00:25	0.0069	0.5	00:13	0:53:48	72.00	
7.5	0	54	31	0:54:31	00:31	0.0086	0.5	00:16	0:54:16	58.06	
7	0	55	5	0:55:05	00:34	0.0094	0.5	00:17	0:54:48	52.94	
6.5	0	55	35	0:55:35	00:30	0.0083	0.5	00:15	0:55:20	60.00	
6	0	56	8	0:56:08	00:33	0.0092	0.5	00:17	0:55:52	54.55	
5.5	0	56	42	0:56:42	00:34	0.0094	0.5	00:17	0:56:25	52.94	
9	0	58	29	0:58:29	01:47	0.0297		00:54	0:57:35	0.00	
8.5	0	58	54	0:58:54	00:25	0.0069	0.5	00:13	0:58:42	72.00	
8	0	59	21	0:59:21	00:27	0.0075	0.5	00:13	0:59:08	66.67	
7.5	1	0	0	1:00:00	00:39	0.0108	0.5	00:20	0:59:41	46.15	
7	1	0	26	1:00:26	00:26	0.0072	0.5	00:13	1:00:13	69.23	
6.5	1	1	0	1:01:00	00:34	0.0094	0.5	00:17	1:00:43	52.94	
6	1	1	29	1:01:29	00:29	0.0081	0.5	00:14	1:01:14	62.07	
5.5	1	2	10	1:02:10	00:41	0.0114	0.5	00:21	1:01:49	43.90	
9	1	4	3	1:04:03	01:53	0.0314		00:56	1:03:07	0.00	
8.5	1	4	33	1:04:33	00:30	0.0083	0.5	00:15	1:04:18	60.00	
8	1	5	2	1:05:02	00:29	0.0081	0.5	00:14	1:04:48	62.07	
7.5	1	5	33	1:05:33	00:31	0.0086	0.5	00:16	1:05:18	58.06	
7	1	6	12	1:06:12	00:39	0.0108	0.5	00:20	1:05:53	46.15	
6.5	1	6	43	1:06:43	00:31	0.0086	0.5	00:16	1:06:28	58.06	
6	1	7	6	1:07:06	00:23	0.0064	0.5	00:11	1:06:55	78.26	
5.5	1	7	40	1:07:40	00:34	0.0094	0.5	00:17	1:07:23	52.94	
9	1	8	44	1:08:44	01:04	0.0178		00:32	1:08:12	0.00	
8.5	1	9	11	1:09:11	00:27	0.0075	0.5	00:14	1:08:58	66.67	
8	1	9	42	1:09:42	00:31	0.0086	0.5	00:15	1:09:26	58.06	
7.5	1	10	12	1:10:12	00:30	0.0083	0.5	00:15	1:09:57	60.00	
7	1	10	42	1:10:42	00:30	0.0083	0.5	00:15	1:10:27	60.00	
6.5	1	11	10	1:11:10	00:28	0.0078	0.5	00:14	1:10:56	64.29	
6	1	11	41	1:11:41	00:31	0.0086	0.5	00:15	1:11:26	58.06	
5.5	1	12	12	1:12:12	00:31	0.0086	0.5	00:16	1:11:57	58.06	
9	1	13	38	1:13:38	01:26	0.0239		00:43	1:12:55	0.00	
8.5	1	14	0	1:14:00	00:22	0.0061	0.5	00:11	1:13:49	81.82	
8	1	14	40	1:14:40	00:40	0.0111	0.5	00:20	1:14:20	45.00	
7.5	1	15	8	1:15:08	00:28	0.0078	0.5	00:14	1:14:54	64.29	
7	1	15	42	1:15:42	00:34	0.0094	0.5	00:17	1:15:25	52.94	
6.5	1	16	7	1:16:07	00:25	0.0069	0.5	00:13	1:15:55	72.00	
6	1	16	35	1:16:35	00:28	0.0078	0.5	00:14	1:16:21	64.29	
5.5	1	17	9	1:17:09	00:34	0.0094	0.5	00:17	1:16:52	52.94	
9	1	18	35	1:18:35	01:26	0.0239		00:43	1:17:52	0.00	

Field Data Sheet: Double-Ring Infiltrometer Testing

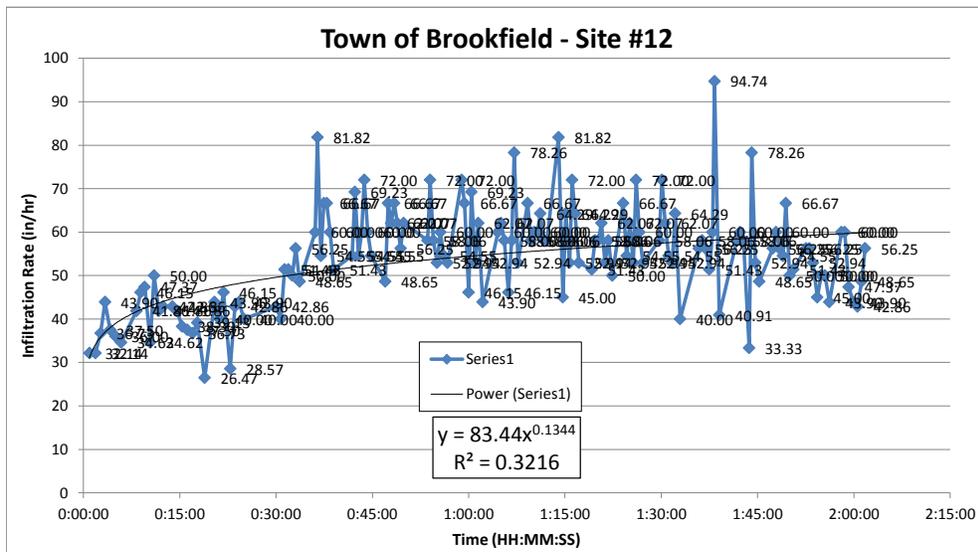
Location	Site #12: Martha Ln (Midway), Town of Brookfield
Date:	4/14/2011
Time:	8:41 AM to 10:42 AM
Conditions (Temp., etc.):	old, Cloudy, Sprinkles
Field Staff:	Small
Most Recent Rainfall Event (Date/Amount):	4/14/11 Trace
Equipment Used:	Double Ring Infiltrometer
Gallons Used During Test (12-Inch Ring):	35.97

Fill In				= Formula			INFORMATION ONLY			
Note: measured from ground to wsel of the inside ring.				Change In	Change in	Water Level	Time Interval	Time To	Infiltration	
				Time	Time	Change	Midpoint	Midpoint	Rate	
Water Level (Inches)	Hours	Minutes	Seconds	Time (hh:mm:ss)	Time (min:ss)	Time (hours)	Change (inches)	Midpoint (mm:ss)	Midpoint (hh:mm:ss)	Rate (in/hr)
8.5	1	19	10	1:19:10	00:35	0.0097	0.5	00:18	1:18:53	51.43
8	1	19	41	1:19:41	00:31	0.0086	0.5	00:15	1:19:26	58.06
7.5	1	20	12	1:20:12	00:31	0.0086	0.5	00:15	1:19:57	58.06
7	1	20	41	1:20:41	00:29	0.0081	0.5	00:14	1:20:26	62.07
6.5	1	21	15	1:21:15	00:34	0.0094	0.5	00:17	1:20:58	52.94
6	1	21	46	1:21:46	00:31	0.0086	0.5	00:16	1:21:31	58.06
5.5	1	22	22	1:22:22	00:36	0.0100	0.5	00:18	1:22:04	50.00
9	1	23	37	1:23:37	01:15	0.0208		00:37	1:23:00	0.00
8.5	1	24	4	1:24:04	00:27	0.0075	0.5	00:13	1:23:50	66.67
8	1	24	37	1:24:37	00:33	0.0092	0.5	00:17	1:24:20	54.55
7.5	1	25	6	1:25:06	00:29	0.0081	0.5	00:15	1:24:51	62.07
7	1	25	40	1:25:40	00:34	0.0094	0.5	00:17	1:25:23	52.94
6.5	1	26	5	1:26:05	00:25	0.0069	0.5	00:13	1:25:52	72.00
6	1	26	35	1:26:35	00:30	0.0083	0.5	00:15	1:26:20	60.00
5.5	1	27	9	1:27:09	00:34	0.0094	0.5	00:17	1:26:52	52.94
9	1	29	10	1:29:10	02:01	0.0336		01:01	1:28:10	0.00
8.5	1	29	41	1:29:41	00:31	0.0086	0.5	00:15	1:29:26	58.06
8	1	30	6	1:30:06	00:25	0.0069	0.5	00:12	1:29:54	72.00
7.5	1	30	35	1:30:35	00:29	0.0081	0.5	00:15	1:30:21	62.07
7	1	31	8	1:31:08	00:33	0.0092	0.5	00:16	1:30:51	54.55
6.5	1	31	42	1:31:42	00:34	0.0094	0.5	00:17	1:31:25	52.94
6	1	32	10	1:32:10	00:28	0.0078	0.5	00:14	1:31:56	64.29
5.5	1	32	55	1:32:55	00:45	0.0125	0.5	00:22	1:32:32	40.00
9	1	35	19	1:35:19	02:24	0.0400		01:12	1:34:07	0.00
8.5	1	35	51	1:35:51	00:32	0.0089	0.5	00:16	1:35:35	56.25
8	1	36	22	1:36:22	00:31	0.0086	0.5	00:15	1:36:06	58.06
7.5	1	36	54	1:36:54	00:32	0.0089	0.5	00:16	1:36:38	56.25
7	1	37	29	1:37:29	00:35	0.0097	0.5	00:18	1:37:11	51.43
6.5	1	37	59	1:37:59	00:30	0.0083	0.5	00:15	1:37:44	60.00
6	1	38	18	1:38:18	00:19	0.0053	0.5	00:09	1:38:08	94.74
5.5	1	39	2	1:39:02	00:44	0.0122	0.5	00:22	1:38:40	40.91
9	1	41	16	1:41:16	02:14	0.0372		01:07	1:40:09	0.00
8.5	1	41	47	1:41:47	00:31	0.0086	0.5	00:15	1:41:31	58.06
8	1	42	17	1:42:17	00:30	0.0083	0.5	00:15	1:42:02	60.00
7.5	1	42	48	1:42:48	00:31	0.0086	0.5	00:16	1:42:32	58.06
7	1	43	42	1:43:42	00:54	0.0150	0.5	00:27	1:43:15	33.33
6.5	1	44	5	1:44:05	00:23	0.0064	0.5	00:11	1:43:53	78.26
6	1	44	39	1:44:39	00:34	0.0094	0.5	00:17	1:44:22	52.94
5.5	1	45	16	1:45:16	00:37	0.0103	0.5	00:19	1:44:57	48.65
9	1	46	50	1:46:50	01:34	0.0261		00:47	1:46:03	0.00
8.5	1	47	22	1:47:22	00:32	0.0089	0.5	00:16	1:47:06	56.25
8	1	47	52	1:47:52	00:30	0.0083	0.5	00:15	1:47:37	60.00
7.5	1	48	24	1:48:24	00:32	0.0089	0.5	00:16	1:48:08	56.25
7	1	48	57	1:48:57	00:33	0.0092	0.5	00:17	1:48:40	54.55
6.5	1	49	24	1:49:24	00:27	0.0075	0.5	00:13	1:49:10	66.67
6	1	50	0	1:50:00	00:36	0.0100	0.5	00:18	1:49:42	50.00
5.5	1	50	35	1:50:35	00:35	0.0097	0.5	00:18	1:50:18	51.43
9	1	52	0	1:52:00	01:25	0.0236		00:42	1:51:17	0.00
8.5	1	52	32	1:52:32	00:32	0.0089	0.5	00:16	1:52:16	56.25
8	1	53	4	1:53:04	00:32	0.0089	0.5	00:16	1:52:48	56.25
7.5	1	53	38	1:53:38	00:34	0.0094	0.5	00:17	1:53:21	52.94
7	1	54	18	1:54:18	00:40	0.0111	0.5	00:20	1:53:58	45.00
6.5	1	54	54	1:54:54	00:36	0.0100	0.5	00:18	1:54:36	50.00

Field Data Sheet: Double-Ring Infiltrometer Testing

Location	Site #12: Martha Ln (Midway), Town of Brookfield
Date:	4/14/2011
Time:	8:41 AM to 10:42 AM
Conditions (Temp., etc.):	old, Cloudy, Sprinkles
Field Staff:	Small
Most Recent Rainfall Event (Date/Amount):	4/14/11 Trace
Equipment Used:	Double Ring Infiltrometer
Gallons Used During Test (12-Inch Ring):	35.97

Fill In				= Formula			INFORMATION ONLY		
Note: measured from ground to wsel of the inside ring.				Change In	Change in	Water Level	Time Interval	Time To	Infiltration
Water Level	Time			Time	Time	Change	Midpoint	Midpoint	Rate
(Inches)	Hours	Minutes	Seconds	(hh:mm:ss)	(min:ss)	(hours)	(mm:ss)	(hh:mm:ss)	(in/hr)
6	1	55	30	1:55:30	00:36	0.0100	00:18	1:55:12	50.00
5.5	1	56	11	1:56:11	00:41	0.0114	00:21	1:55:50	43.90
9	1	57	34	1:57:34	01:23	0.0231	00:41	1:56:52	0.00
8.5	1	58	4	1:58:04	00:30	0.0083	00:15	1:57:49	60.00
8	1	58	34	1:58:34	00:30	0.0083	00:15	1:58:19	60.00
7.5	1	59	12	1:59:12	00:38	0.0106	00:19	1:58:53	47.37
7	1	59	53	1:59:53	00:41	0.0114	00:21	1:59:33	43.90
6.5	2	0	35	2:00:35	00:42	0.0117	00:21	2:00:14	42.86
6	2	1	12	2:01:12	00:37	0.0103	00:18	2:00:54	48.65
5.5	2	1	44	2:01:44	00:32	0.0089	00:16	2:01:28	56.25



Static Infiltration Rate
After 2 Hours
59.75 in/hr