Wisconsin Department of Natural Resources
Bureau of Watershed Management (WT/3)
101 S. Webster St.
Madison, WI 53703
PO Box 7921
Madison, WI 53707-7921

Final Report Form 3400-189 (rev. 7/30/09)

- **Targeted Runoff Management Grant Program (ch. NR 153)**
- **Notice of Discharge Program (ch. NR 153)**
- **Urban Nonpoint Source & Storm Water Management Grant Program (ch. NR 155)**

NOTICE: This Final Report is authorized under ss. 281.65 and 281.66., Wis. Stats., and chs. NR 153 and NR 155, Wis. Admin. Code. Personally identified information collected will be used for program administration and may be made available to requesters as required under Wisconsin Open Records Law [ss. 19.31-19.39, Wis. Stats.].

INSTRUCTIONS: Your grant agreement requires you to submit a Final Report with your final reimbursement request. This Final Report form must be used in conjunction with the "FINAL REPORT INSTRUCTIONS." The instructions detail how to complete and submit the report to DNR as described in the instructions.

1. GRANT TYPE. Check the one that applies.

- ☐ Targeted Runoff Management Grant – Agricultural
- ☐ Targeted Runoff Management Grant – Urban
- ☒ Urban Nonpoint Source & Storm Water Management Grant – Construction
- ☐ Urban Nonpoint Source & Storm Water Management Grant – Planning
- ☐ Notice of Discharge Grant

2. PROJECT NAME & LOCATION.

2.1. Project Name:	2.2. Grant Number:	
DeBroux Park Water Quality Project	**USC-LF01-05106-11C**	
2.3. Governmental Unit Name:	2.4. Primary Watershed Name:	2.5. Watershed Code:
Bellevue, Village	**East River**	**LF01**

NOTE FOR SECTION 2.6 (which follows):

Section 2.6. includes five (5) columns (A. through E.) for recording data about five (5) discrete site locations. If your grant has more than five (5) discrete project locations, attach additional columns for Section 2.6 as described in the instructions. If your project occurs in more than one 12-digit Hydrologic Unit Code (HUC), use the space in adjacent columns to record other HUC numbers.

2.6 Site Location(s) →	A.	B.	C.	D.	E.
Name of Cost-Share Recipient or Governmental Unit	Bellevue, Village				
Cost-Share Agreement Number (Agricultural only)					
12-Digit Hydrologic Unit Code(s) (HUC) Where Work Was Completed	040302040302				
Nearest Surface Receiving Water Affected					
Name:	Spring Creek				
Waterbody Identification Code(s) (WBIC):	5018176				
Nearest Impaired Water Affected					
Name:	East River				
Waterbody Identification Code(s) (WBIC):	118000				
Pollutants Reduced	TSS				
Impairments/Impacts Addressed	TSS				

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Project Location(s) (cont.) →	A.	B.	C.	D.	E.
Project Coordinates:					
Town	**23**				
Range	**21**				
Section	**15**				
Quarter	**NE**				
Quarter-Quarter	**SW**				
Latitude (degrees, minutes, seconds North of Equator; use the DNR's Surface Water Data Viewer (SWDV))	**44-27-47N**				
Longitude (degrees, minutes, seconds W of Prime Meridian, use the SWDV)	**87-56-7W**				

3. SUMMARY OF RESULTS.

Table A. Agricultural Projects. – Ch. NR 151 Performance Standards and Prohibitions and Other Water Resources Management Priorities

A.1. Management Measures	Units of Measure	Quantity	Measurement Method Used
Sheet, rill and wind erosion	Acres meeting "T"	**acres**	
Manure Storage Facilities: New Construction/Alterations	Number of facilities	**facilities**	
	Number of animal units	**animal units**	
Manure Storage Facilities: Closure	Number of facilities	**facilities**	
Manure Storage Facilities: Failing/Leaking Facilities	Number of facilities	**facilities**	
	Number of animal units	**animal units**	
Clean Water Diversions in WQMA	Pollutant load reduction	**lbs.**	
	Number of farms with diversions	**farms**	
	Number animal units	**animal units**	
Nutrient Management on Agricultural Land	Acres planned	**acres**	
Prohibition: Manure Storage Overflow	Number of farms	**farms**	
	Number of animal units	**animal units**	
Prohibition: Unconfined Manure Pile in WQMA	Number of farms	**farms**	
Prohibition: Direct Runoff From Feedlot/Stored Manure	Pollutant load reduction	**lbs.**	
	Number of facilities	**facilities**	
	Number of animal units	**animal units**	
Prohibition: Unlimited Livestock Access	Feet of bank protected	**feet**	
	Number of farms	**farms**	

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Table A. Agricultural Projects. (continued) A.2. Other Management Measures	Units of Measure	Quantity	Measurement Method Used
Streambank & Shoreline Protection	Units (use feet, acres or number as applicable)		
	Pollutant load reduction (if method available)		
Other:	Units (use feet, acres or number as applicable)		
	Pollutant load reduction (if method available)		
Other:	Units (use feet, acres or number as applicable)		
	Pollutant load reduction (if method available)		
Other:	Units (use feet, acres or number as applicable)		
	Pollutant load reduction (if method available)		

Table B. Urban Construction Projects Serving Developed Areas.			
B.1. Required Management Measures	Units of Measure	Quantity	Measurement Method Used
20-40% Total Suspended Solids (TSS) Reduction for NR 216 communities	TSS reduced	**8738 lbs.**	**SLAMM**
	TSS reduction	**63 %**	**SLAMM**
B.2. Other Management Measures			
20-40% Reduction in TSS for non-NR 216 communities	TSS reduced	**lbs.**	
	TSS reduction	**%**	
Infiltration	Pre-development stay-on volume	**%**	
	Stay-on volume	**ft^3/year**	
Peak flow discharge for 2 year/24 hour design storm	Change in cubic feet per second for design year	**ft^3/sec**	
Protective areas	Bank protected	**feet**	
Fueling & maintenance areas	Oily sheen presence reduced	☐Yes ☐ No	
Streambank & Shoreline Protection	Bank erosion reduced	**tons**	
	Bank protected	**feet**	
Other:	Pollutant load reduction (if method available)		
	Units (use feet, acres or number as applicable)		

Table C. Urban Planning Projects.			
C.1. Governmental unit(s) involved (list by name):			
C.2. Estimate total acres covered by the	Existing Developed Urban Areas	New Development	Total Acres

Find Instructions at http://dnr.wi.gov/runoff/financial.htm

planning product:	acres	acres	acres

C.3. Products developed (check all below that apply)	Identify Documents by Name (if applicable)
☐ Storm Water Plan	
☐ Construction or Erosion Ordinances	
☐ Post-construction Storm Water Ordinances	
☐ Other Types of Storm Water Quality Ordinances	
☐ Financing Methods: identified and evaluated	
☐ Financing Methods: developed or implemented	
☐ I & E Plan	
☐ I & E Implementation Activities	
☐ Other:	

C.4. Identify the Storm Water goals addressed (check all that apply)	
☐ Reduce TSS	**Comments:**
☐ Maintain infiltration	
☐ Control Peak Flow	
☐ Protective Areas	
☐ Control of Fueling & Maintenance Areas	
☐ Remove Illicit Discharges	
☐ Other:	

4. Satisfaction of Notice Requirements. If cost sharing for this project was offered under a formal notice pursuant to chs. NR 151 or 243, provide information for each notice in the table below.

Notice Information				Notice Satisfaction Information		
Chs. NR 151 or 243 Notice Type	Issue Date	From (Name)	To (Name)	Satisfied? Yes	Satisfied? No	Date Letter Sent
				☐	☐	
				☐	☐	
				☐	☐	
				☐	☐	

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5. Additional Information. (Space will expand to fit your text.)

See attached SLAMM Summary and Design Parameters for the % Removal TSS

6. Summary of Project Challenges. (Space will expand to fit your text.)

The vegetation and plantings are a special installation and the typical landscapers that provide these services are not at the level needed to provide an excellent project without the services of an ecological professional. These BMP's also require a 3 year maintenance program in order fully establish the vegetation required. The funding program could look at taking that into account when providing funding for the construction with a higher % reimbursement during construciton and allow the municipality to complete the remaining 2 years outside the grant period.

7. Grantee Certification.

Checking here ☒ certifies that, to the best of your knowledge, the information contained in this report is correct.

Name of Authorized Representative (type or print) ↓	Title of Authorized Representative (type or print) ↓
Aaron Oppenheimer	**Administrator**

Signature of Authorized Representative	Date
Aaron Oppenheimer	10/30/12

8. For Departmental Use Only.

Regional NPS Coordinator – Please complete the following:

8.A. Check here ☐ if you have received the following from the project sponsor:

- one (1) printed, signed, original Final Report + attachments
- one (1) electronic version of Final Report.

Send the printed, signed original Final Report with attachments + electronic version to the Community Financial Assistance Grants Manager. Community Financial Assistance will forward to Runoff Management Section Grants Coordinator.

8.B. Comments about this project:

8.C. Type or print Name of Regional NPS Coordinator →	
8.D. Signature of Regional NPS Coordinator	8.E. Date

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Foth

Photographic Log

Client's Name:	Site Location:	Project No.
Village of Bellevue	Bellevue	10B020

Photo No.	Date:
1	6-22-10

Direction Photo Taken:
Looking SW.

Photo Taken By:
Foth

Description:

DeBroux Park

Photo No.	Date:
2	6-22-10

Direction Photo Taken:
South

Photo Taken By:
Foth

Description:

DeBroux Park – swale location

Foth

Photographic Log

Client's Name:	Site Location:	Project No.
Village of Bellevue	Bellevue	10B020

Photo No.	Date:
3	6-22-10

Direction Photo Taken:
North

Photo Taken By:
Foth

Description:

DeBroux Park – swale location

Photo No.	Date:
4	6-22-10

Direction Photo Taken:
west

Photo Taken By:
Foth

Description:

DeBroux Park – Biofiltration location

Foth

Photographic Log

Client's Name:	Site Location:	Project No.
Village of Bellevue	Bellevue	10B020

Photo No.	Date:
5	6-22-10

Direction Photo Taken:
West

Photo Taken By:
Foth

Description:

DeBroux Park – Biofiltration Area

Cedar corporation

Photographic Log

Client's Name: Village of Bellevue	Project Name: DeBroux Park Stormwater Pond	Project No. USC-LF01-05106-11C

Photo No. 1	Date: 10/25/12

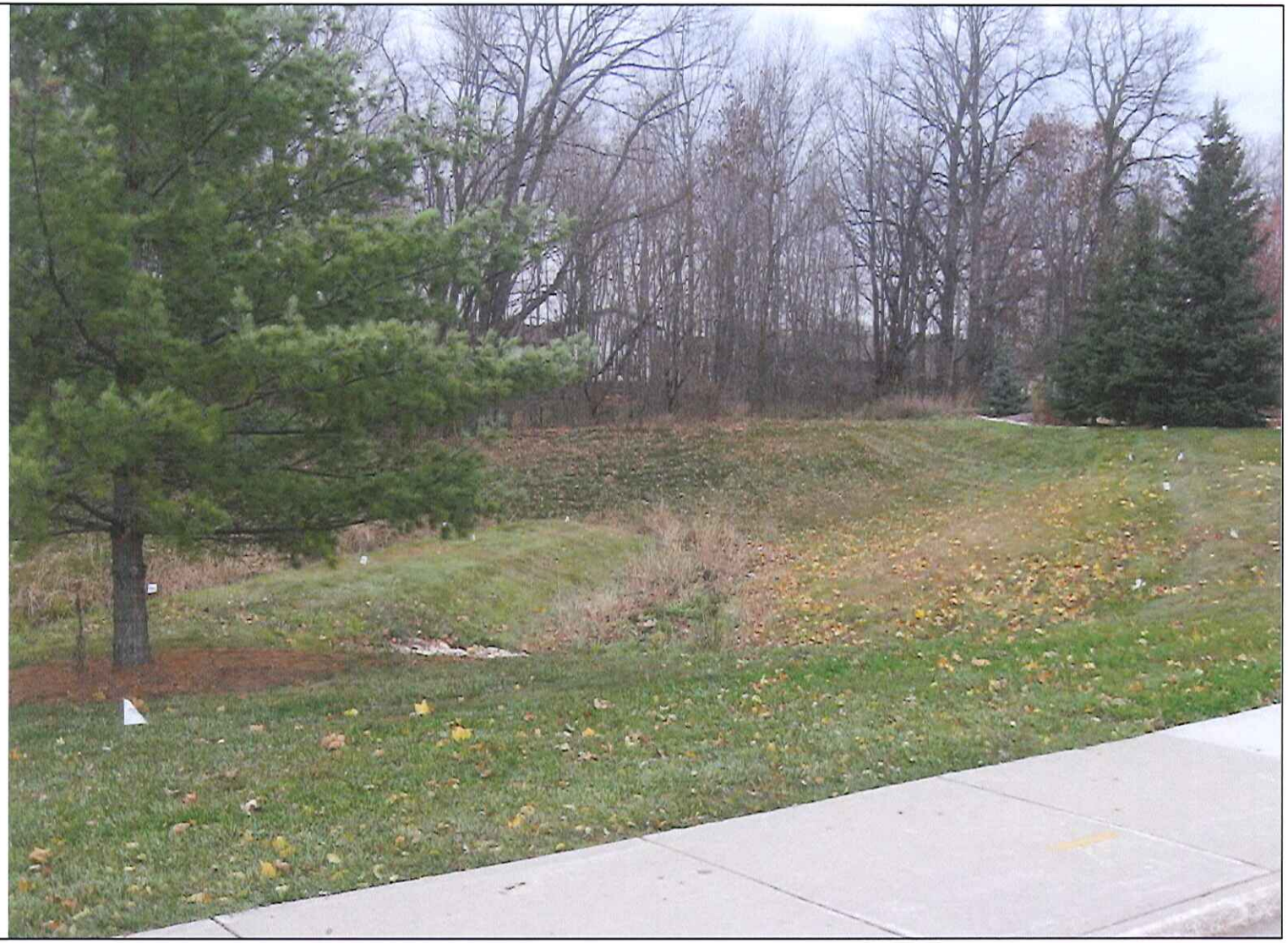
Direction Photo Taken
Looking Northeast

Photo Taken By:

Thad M

Description:

Grass Swale at DeBroux Park



Cedar corporation

Photographic Log

Client's Name: Village of Bellevue	Project Name: DeBroux Park Stormwater Pond	Project No. USC-LF01-05106-11C

Photo No. 2	Date: 10/25/12

Direction Photo Taken
Looking Northeast

Photo Taken By:

Thad M

Description:

Grass Swale at DeBroux Park

Cedar corporation

Photographic Log

Client's Name: Village of Bellevue	Project Name: DeBroux Park Stormwater Pond	Project No. USC-LF01-05106-11C

Photo No. 3	Date: 10/25/12

Direction Photo Taken
Looking North

Photo Taken By:

Thad M

Description:

Biofiltration at DeBroux Park

Foth

Client: Village of Bellevue | Project #: 10B020
Project: Debroux - Biofiltration Design | Page: 1 of 1
Prepared by: MJA | Date: 07/23/2001
Checked by: | Date:

Debroux

Rainfall Data for 24 hour design storm:
1 year = 2.2 in
2 year = 2.3 in
10 year = 3.4 in
100 year = 5.1 in

Total Contributing Area = 38.4 Acres
Residential = 18.5 Acres
Institutional = 19.9 Acres
CN = 82

Design Assumptions:

1. Rainfall data used is from Village of Bellevue Stormwater Ordinance.
2. Pre development curve number = 78. Based on Wet Pond Standards – 1001.
3. Minimum time of concentration = 6 minutes
4. Biofiltration Criteria from DNR Bioretention for Infiltration - 1004.
5. Trench bottom width = 6'
6. Side slopes = 3:1
7. Depth = 3'
8. Filter Sand – 2' deep. Gradation requirements in V.B.6.d.(2)
9. Gravel Storage Layer – 1' deep. Gradation requirements in V.B.7.c
10. Underdrain – (1) 6" Perforated PVC pipe to run length of trench.
11. Emergency Overflow – 10' wide at. 0.5' below top of swale.

Appendix A
Predevelopment Runoff for 1-yr, 2-yr, 10-yr and 100-yr, 24 hour storm events.
Computed with Hydraflow software.
File path: X:\GB\IE\2010\10B020-00\12000 Design Data and Calcs\Pond Volumes.gpw

Appendix B
Post development Runoff for 1-yr, 2-yr, 10-yr and 100-yr, 24 hour storm events.
Computed with Hydraflow software.
File path: X:\GB\IE\2010\10B020-00\12000 Design Data and Calcs\Pond Volumes.gpw

Appendix C

SLAMM Output – 63.9% TSS Removal

De Broux

Bellevue E2.22-bioretention-inlet bypass-REV - Output Summary.txt

SLAMM for Windows Version 9.3.4

Data file name: X:\GB\IE\2010\10B020-00\12000 Design Data and Calcs\SLAMM\Bellevue E2.22-bioretention-inlet bypass-REV.dat
Data file description: Bellevue MS4 Stormwater Modeling - Basin E2.22
Rain file name: C:\Program Files\WinSLAMM\RainFiles\WisReg - Green Bay Five Year Rainfall.ran
Particulate Solids Concentration file name: C:\Program Files\WinSLAMM\WI_AVG01.psc
Runoff Coefficient file name: C:\Program Files\WinSLAMM\WI_SL06 Dec06.rsv
Particulate Residue Delivery file name: C:\Program Files\WinSLAMM\WI_DLV01.prr
Residential Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: C:\Program Files\WinSLAMM\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name: C:\Program Files\WinSLAMM\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name: C:\Program Files\WinSLAMM\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: C:\Program Files\WinSLAMM\Freeway Dec06.std
Pollutant Relative Concentration file name: C:\Program Files\WinSLAMM\WI_GEO01.ppd
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Model Run Start Date: 01/01/68 Model Run End Date: 12/30/72
Date of run: 11-10-2010 Time of run: 13:51:40
Total Area Modeled (acres): 38.4
Years in Model Run: 5.00

	Runoff Volume (cu ft)	Percent Runoff Volume Reduction	Particulate Solids Conc. (mg/L)	Particulate Solids Yield (lbs)	Percent Particulate Solids Reduction
Source Area Total without Controls:	2.136E+06	0 %	181.7	24227	0 %
Total Before Drainage System:	2.136E+06	0.00%	178.2	23740	2.01%
Total After Drainage System:	1.931E+06	9.60%	153.3	18489	23.68%
Total After Outfall Controls:	1.507E+06	29.45%	92.87	8738	63.93%
Annualized Total After Outfall Controls:	301580			1748	