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:	
Monona Stormwater Projects, 2015	**USC-LR08-13258-15**	
2.3. Governmental Unit Name:	2.4. Primary Watershed Name:	2.5. Watershed Code:
City of Monona	**Yahara River/Lake Monona**	**LR08**

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	**City of Monona**	**City of Monona**	**City of Monona**	**City of Monona**	
Cost-Share Agreement Number (Agricultural only)					
12-Digit Hydrologic Unit Code(s) (HUC) Where Work Was Completed	070900020702	070900020702	070900020702	070900020702	
Nearest Surface Receiving Water Affected					
Name:	Lake Monona	Lake Monona	Yahara River	Yahara River	
Waterbody Identification Code(s) (WBIC):	804600	804600	798300	798300	
Nearest Impaired Water Affected					
Name:	**Lake Monona**	**Lake Monona**	**Yahara River**	**Yahara River**	
Waterbody Identification Code(s) (WBIC):	804600	804600	798300	798300	
Pollutants Reduced	**TSS & TP**	**TSS & TP**	**TSS & TP**	**TSS & TP**	
Impairments/Impacts Addressed	**Phosphorus and TSS/Phosphorus and TSS**	**Phosphorus and TSS/Phosphorus and TSS**	**Phosphorus and TSS/Phosphorus and TSS**	**Phosphorus and TSS/Phosphorus and TSS**	

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)**

Project Location(s) (cont.) →	A	B	C	D	E
Project Coordinates:					
Town	07N	07N	07N	07N	
Range	10E	10E	10E	10E	
Section	20	17	20	20	
Quarter	SW	NW	SW	SE	
Quarter-Quarter	SW	NW	NE	SW	
Latitude (degrees, minutes, seconds North of Equator; use the DNR's Surface Water Data Viewer (SWDV))	43.066639	43.064412	43.05253	43.048618	
Longitude (degrees, minutes, seconds W of Prime Meridian, use the SWDV)	-89.345558	-89.342396	-89.338035	-89.331924	

3. SUMMARY OF RESULTS

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

A1. 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**	

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)

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	4721 lbs.	SLAMM (Total over 4 sites)
	TSS reduction	59 %	SLAMM (Total over 4 Sites = average of 10.14 % per site)
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	55 feet	Estimated minimum of 55 length feet of Streambank or Shoreline protected at 1 outfall and 2 culvert locations, 97 sq. yds of riprap added at minimum.
Other: Reduction TP (% and lbs.)	Pollutant load reduction (if method available)	12	Pounds of TP reduced over 4 sites
	Units (use feet, acres or number as applicable)	41	Total Percent of TP reduced over 4 sites = average of 10.11% per site

Table C. Urban Planning Projects.

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)**

C.1. Governmental unit(s) involved (list by name):

C.2. Estimate total acres covered by the planning product:	Existing Developed Urban Areas	New Development	Total Acres
	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
NR 151, 153, 154, 155, and 243	**1/31/2015**	**Mary Rose Teves**	**Janine Glaeser**	☒	☐	**2/6/2015**
				☐	☐	

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

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

				☐	☐	
				☐	☐	

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

In addition to the reduction in TSS pounds and TP pounds, the units slow the flow of runoff and allow for infiltration of solids that reduces the concentration of suspended solids at the outfall. This in turn allows for more dissolved oxygen in the waterway. Additional bank erosion control in the form of top dress riprap was placed at the end of the project to add bank integrity and close gaps where weeds could grow. Culverts were upsized at the Nichols Rd. and Winnequah Rd. sites to allow the Winnequah Lagoon to sit at normal lake levels, where as before the culverts were filled with packed sediment and did not allow for full flow of water. In addition to this, the Winnequah Rd. culvert had a sanitary main running through it creating blockage of flow and allowing for potential environmental degradation. The new culvert was upsized and relocated below the sanitary pipe, and a buffer was placed between them. Dredging was done at both culvert locations and at the Graham Park outfall location, removing a total of 120 sq. yds. of material. Riprap bedding was placed to prevent streambed erosion from hydraulic processes which occur during large storm events. Outfalls were equipped with new steel aprons to funnel storm water and protect from further corrosion. The overall aesthetic quality at each site was improved from what was there prior to construction.

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

Taking on simultaneous construction projects at 4 separate sites made this was an aggressive attempt to improve stormwater runoff quality and quantity affecting impaired local waterways. Sediment sampling results at the Nichols culvert replacement location led to further sampling which had to be coordinated and assessed prior to construction at the site. The City's Public Works Project Coordinator position was cycled through twice in the span of the planning, construction, and finalization phases for this project. The tight space for the location of the Bartels/Pirate Island Suntree Device created several fitting issues that needed to be remedied prior to installation. An easement was bought due to the tight space because the stormwater manhole located North of the Suntree Device had to be placed just outside of the right of way, which was not assessed in preliminary engineering plans. Permitting is a cumbersome process at its present state. For example, certain permits that seem related in matter and are needed for the same site are passed through separate departments within the DNR and require separate permits. Instead could permits cover on a more comprehensive basis, where the permit itself is applied for and covers ie. Trenching/Dewatering, Bridge/Culvert construction, and Ch. 30 all in one permit. Still reviewed in the same manner, but only one application would be necessary? This would save municipalities costs associated with Consultants time allotted and would save in time associated with project coordinators tracking said permits.

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) ↓
Dan Stephany	Director of Public Works

Signature of Authorized Representative	Date
Daniel J. Stephany	12/21/2015

8. For Departmental Use Only

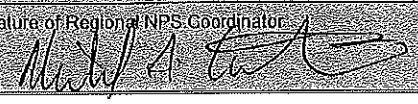
Regional NPS Coordinator – Please complete the following.

8-A. Check here ☐ if you have received the following from the project sponsor:
- one (1) printed, signed original Final Report + attachments

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 166)**

• 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 → Mike Gilhousen
8.D. Signature of Regional NPS Coordinator:  8.E. Date: 1/21/2016

Urban Water Quality Grant
Attachment No. 9
Photos

Date: March 31, 2014

Time: 4:30 A.M./P.M.

Description: Pirate Island Location

Standing on the east end of Pirate Island looking east at storm sewer outfall.

Date: March 31, 2014

Time: 4:30 A.M./P.M.

Description: Pirate Island Location

Standing on Bartels Street looking east at first catch basin upstream of the Pirate Island outfall.

MONONA CONSTRUCTION GRANT APPLICATION
CITY OF MONONA
MONONA, WISCONSIN
SITE PHOTOGRAPHS

STRAND ASSOCIATES®

Date: March 31, 2014

Time: 4:30 A.M./P.M.

Description: Graham Park Location

Standing on Graham Drive looking west at Graham Park and Monona Lake.

Date: March 31, 2014

Time: 4:30 A.M./P.M.

Description: Graham Park Location

Standing on Winnequah Road west sidewalk looking at storm sewer manholes upstream of the Graham Park outfalls.

MONONA CONSTRUCTION GRANT APPLICATION
CITY OF MONONA
MONONA, WISCONSIN
SITE PHOTOGRAPHS

STRAND ASSOCIATES®

Date: March 31, 2014

Time: 4:30 A.M./P.M.

Description: Winnequah Road Location

Standing on Winnequah Road looking southeast at the storm inlets to the Winnequah Park stream.

Date: March 31, 2014

Time: 4:30 A.M./P.M.

Description: Winnequah Road Location

Standing northeast of Winnequah Road looking southwest at the south Winnequah Park culvert inlet.

MONONA CONSTRUCTION GRANT APPLICATION
CITY OF MONONA
MONONA, WISCONSIN
SITE PHOTOGRAPHS

STRAND ASSOCIATES®

Date: August 18, 2015

Description: Vortech 4000 unit at Winnequah Road and Winnequah Trail

Date: August 18, 2015

Description: Vortech 5000 Unit, Winnequah Road and Healy Lane

MONONA CONSTRUCTION GRANT APPLICATION
CITY OF MONONA
MONONA, WISCONSIN
CONSTRUCTION
PHOTOS

MONONA

Date: August 27, 2015

Description:
SunTreeNSBB-6-12 at Graham Park

Date: **October 8, 2015**

Description: SunTree NSBB-10-16 at Bartels Street

MONONA CONSTRUCTION GRANT APPLICATION
CITY OF MONONA
MONONA, WISCONSIN
SITE PHOTOGRAPHS

MONONA