

Notice: This final report is authorized by ss. 281.65 and 281.66, Wis. Stats., and chs. NR 153 and NR 155, Wis. Adm. Code. Personally identifiable information collected will be used for program administration and may be made available to requesters as required under Wisconsin's Open Records Law [ss. 19.31-19.39, Wis. Stats.].

Instructions: The grant agreement requires grantees to submit a Final Report 60 days after the end date listed in the grant agreement. 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.

1. Grant Type

- Agricultural - Targeted Runoff Management Grant
- Urban - Targeted Runoff Management Grant
- Construction - Urban Nonpoint Source & Storm Water Management Grant
- Planning - Urban Nonpoint Source & Storm Water Management Grant

2. Grantee & Project Information

Project Name Stormwater Planning - City of Two Rivers	Grant Number USP-TK01-36286-08
Governmental Unit Name Two Rivers	Governmental Unit Type (city, village, town, etc.) City
Watershed Name West Twin River, East Twin River, Lower Manitowoc River	Watershed Code TK01-080, TK02-080, MA02-070
DNR Water Management Unit (River System) Name Twin - Door - Kewaunee and Manitowoc	Water Body Identification Code (WBIC) (if applicable) TK01, TK02, and MA02

s. 303(d) Waterbody? Yes No

What pollutant(s) were addressed by the project?

Total Suspended Solids (TSS) and Phosphorus

For each project site location provide the following: (attach additional sheets if necessary)

Location:		A	B	C	D	E
Minor Civil Division Name		Two Rivers				
PLSS	Town	20 N	20 N	19 N	19 N	
	Range	24 E	25 E	25 E	24 E	
	Section	23, 25-26, 33-36	30-31	6	1-4, 10-11, 15	
	Quarter					
	Quarter-Quarter					
Latitude		44 deg. 9' 18" N				
Longitude		87 deg. 34' 18" W				
Property Owner(s)	Name	City of Two Rivers				
	Mailing address	1717 E. Park St.	PO Box 87	Two Rivers, WI	54241-0087	
Site address <i>(if different than mailing address)</i>						

3. Summary of Results

A. Performance Standards and Prohibitions and Other Water Resources Management Priorities

For grants issued in calendar year 2006 or later, complete Tables A and B (following) consistent with the entries on your grant application. For grants issued prior to calendar year 2006, complete Tables A and B, *to the best of your knowledge*, consistent with the entries on your grant application.

Table A. Performance Standards and Prohibitions (per ch. NR 151, Wis. Adm. Code, effective October 1, 2002)

Performance Standard or Prohibition	Units of Measure	Quantity	Measurement Method Used
Sheet, rill and wind erosion	Acres meeting T		
Manure Storage Facilities: New Construction/Alterations	Number of facilities		
	Number of animal units		
Manure Storage Facilities: Closure	Number of facilities		
Manure Storage Facilities: Failing/Leaking Facilities	Number of facilities		
	Number of animal units		
Clean Water Diversions in WQMA	Pollutant load reduction		
	Number of farms with diversions		
	Number animal units		
Nutrient Management on Agricultural Land	Acres planned		
Prohibition: Manure Storage Overflow	Number of facilities		
	Number of animal units		
Prohibition: Unconfined Manure Pile in WQMA	Number of farms		
Prohibition: Direct Runoff From Feedlot/Stored Manure	Pollutant load reduction		
	Number of facilities		
	Number of animal units		
Prohibition: Unlimited Livestock Access	Feet of bank protected		
	Number of farms		
Urban: 20-40% Reduction in Total Suspended Solids (TSS)	Pounds TSS reduced		
	% TSS reduction		

Table B. Other Water Resources Management Priorities

I. Agricultural Areas	Units of Measure	Quantity	Measurement Method Used
Buffers	Feet of bank protected		
	Number of farms		
Streambank	Tons of bank erosion reduced		
	Feet of bank protected		
Other (specify)			
II. Developed Urban Areas	Units of Measure	Quantity	Measurement Method Used
Urban: 20-40% Reduction in TSS	Pounds TSS reduced	226271	WinSLAMM v.9.2.1
	% TSS reduction	40	WinSLAMM v.9.2.1
Infiltration	% Pre-development stay-on volume		
	Cubic feet stay-on volume		
Peak flow discharge	Change in cubic feet per second		
Protective areas	Feet of bank protected		
Fueling & maintenance areas	Oily sheen presence		
Streambank	Tons of bank erosion reduced		
	Feet of bank protected		
Other (specify)			
III. Planning	Units of Measure	Quantity	Measurement Method Used
Quantify how implementation of the planning project decreased storm water impacts on state waters (<i>i.e.</i> , storm water plan, I & E plan, <i>etc.</i>)	Municipalities planned for	1	Count
	Acres planned for	2320	Count
Document/track progress made in implementing the planning product (<i>i.e.</i> , ordinance, utility district evaluation/formation, storm water management plan information & education, <i>etc.</i>)	Municipalities planned for	1	Count
	Acres planned for	2320	Count
Other (specify)			

B. Project Results Narrative

The City of Two Rivers obtained an Urban Nonpoint Source and Stormwater Planning (UNPS&SW) Grant from the WDNR to assist with the preparation of a Storm Water Management Plan. The purpose of the SWMP is to provide the City with the long-term guidance necessary to comply with NR 216 stormwater regulations, and improve water quality to receiving waterbodies. Additionally, the City is responsible for developing a SWMP and implementing six minimum control measures. The six minimum control measures are: Public Education and Outreach, Public Involvement and Participation, Illicit Discharge Detection & Elimination, Construction Site Pollutant Control, Post-Construction Site Storm Water Management, and Municipal Pollution Prevention.

In accordance with the City of Two Rivers' Municipal Permit, the Village is required to achieve a 20% TSS reduction (113,135 lbs) by December 15, 2008 and a 40% TSS reduction (226,271 lbs) by March 10, 2013 within its developed urban area. The storm water quality analysis was prepared using the Source Loading and Management Model for Windows (WinSLAMM). The SLAMM analysis predicts runoff volumes and non-point source pollution loads based on information inputted into the program such as land use and soil type. Win SLAMM also calculates the amount of pollutant removal provided by Best Management Practices (BMPs). Best Management Practices include street sweeping, grass swales, wet ponds, biofiltration, and other BMPs.

Based on the modeling described, the City of Two Rivers is currently achieving a 12.1% TSS reduction, or 68,317 lbs of TSS being removed on an annual basis. In order for the City of Two Rivers to comply with their Municipal permit, the Village needs to remove an additional 44,818 lbs by December 15, 2008 and 157,953 lbs by March 10, 2013. In accordance with WDNR, three alternatives were outlined for the City to achieve 20% reductions and four alternatives were outlined for the City to achieve 40% reductions. These alternatives were outlined within the SWMP. Public involvement, Capital Cost, Operation & Maintenance Cost, Land Acquisition, and obtaining WDNR permits are a few factors that play a role in determining the City's ultimate plan.

The City of Two Rivers completed the following items under the UNPS&SW Grant:

The City's storm water drainage system is mapped. The drainage system maps were included with the Storm Water Management Plan which was submitted to the Wisconsin Department of Natural Resources regional office in Green Bay.

A Stormwater Task Force (STF) / Citizen Advisory Board (CAB) was convened and met on several occasions to involve itself in matters relating to public involvement and education. The CAB did rank topics that are included in a public information and education campaign.

The City developed dedicated funding sources as part of the UNPS & SW grant.

Work on all phases of the Storm Water Planning Grant was completed on November 3, 2008, with the approval of the City of Two Rivers of the following components of the plan:

- Public Education and Outreach
- Illicit Discharge Detection & Elimination
- Post Construction Storm Water Management
- Storm Water Quality Management
- Public Involvement & Participation
- Construction Site Pollution Control
- Municipal Pollution Prevention

Wetland Delineations were completed in two locations, where proposed BMPs are favorable, the Carron and Wentker Pond locations.

4. Satisfaction of Notice Requirements (if applicable)

If cost sharing for this project was offered under a formal notice to achieve compliance with performance standards or prohibitions, provide information for each notice in the table below.

Notice Information				Notice Satisfaction Information		
Notice Type	Issue Date	From (Name)	To (Name)	Satisfied?		Date Letter Sent
				Yes	No	
				<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	

5. Summary of Project Challenges

The City of Two Rivers created a Storm Water Task Force / Citizen Advisory Board (CAB) to assist with the stormwater planning activities and dedicated revenue sources. The Two Rivers CAB was comprised of City, business, church, school, and citizen members. Many of the CAB members were also involved with the City of Manitowoc's CAB. The City of Two Rivers and City of Manitowoc are neighbors and compete for economic growth and jobs. As such, each municipality is sensitive to the type of services, government fees, tax rates, and policies of its neighbor. Last year the City of Manitowoc tried to create a Storm Water Utility, but it failed. The Two Rivers CAB was very sensitive to the failed Utility creation in Manitowoc and associated bad publicity for Manitowoc. The Two Rivers CAB did not want to make the same mistakes as Manitowoc. As such, the Two Rivers CAB was very involved with development of the stormwater planning activities and dedicated funding sources. The CAB engaged the process and provided significant and valuable input. At this time, the Two Rivers CAB recommended the City pursue UNPS&SW Construction Grant funds rather than establish a Stormwater Utility. The Stormwater Utility idea can always be revisited by the City at a later date.

6. Additional Information about the Project (optional)

7. Planning Product (UNPS&SW - Planning Projects only)

Check here if a printed copy of the planning product (e.g., plans, ordinances, analyses) was sent to your DNR Regional Nonpoint Source Coordinator.

Name of Document	Date(s) effective	Date Submitted to NPS Coordinator
Stormwater Management Plan for the City of Two Rivers	November 3, 2008	October 10, 2008
Wetland Delineation Report for the Carron Pond	December 4, 2008	December 4, 2008
Wetland Delineation Report for the Wentker Pond	December 4, 2008	December 4, 2008

8. Grantee Certification:

Check here to certify that, to the best of your knowledge, the information contained in this report is correct and true.

Type or print Name and Title of Authorized Representative certifying here.

Gregory E. Buckley, City Manager

Signature of Authorized Representative	Date
<i>Gregory E. Buckley</i>	04.02.2009