State of Wisconsin Department of Natural Resources-WT/3 101 S. Webster St. Madison, WI 53707

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# **Final Report**

Targeted Runoff Management Grant Program and Urban Nonpoint Source and Storm Water Management Grant Program

Form 3400-189 (R 6/08)

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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: Your grant agreement requires you 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. The DNR prefers that Final Reports be submitted in electronic format. If, however, printed copies of Final Reports are

submitted, please submit three (	submitted, please submit three (3) complete originals to your regional Nonpoint Coordinator.							
1. Grant Type Please check on	e.							
Targeted Runoff Managemer	nt Grant – Agricultural		Targeted Runoff Manag	ement Grant – Urban				
Urban Nonpoint Source & Sto Construction	orm Water Managemen	Grant –	Urban Nonpoint Source & Storm Water Management Grant Planning					
2. Grantee & Project Information								
Project Name			Grant Number					
David Ruesch Farm NOI			TRC-CW18-37000-07C					
Governmental Unit Name			Primary Watershed Name and Watershed Code					
Marathon County			Upper Big Eau Pleine River, CW18					
Nearest Water Body Name			Nearest Water Body Identification Code (WBIC) (if applicable)					
Big Eau Pleine Reservoir			Unknown					
DNR Water Management Unit (R	iver System) Name		s. 303 (d) Listed Waterbody?   Yes   No.					
Central Wisconsin								
What pollutant(s) were addressed by the project (e.g., nitrogen, phosphorus, sediment, thermal control, etc.)?								
Non-point manure runoff and associated nutrients (primarily phosphorus, and nitrogen)								
For <u>each</u> project site location provide the following: (attach additional sheets if necessary)								
Location:	۸	D		D	Е			

Location:		А	В	С	D	Е
Minor Civil Division Name (City, Township, Village, etc.)		Holton - Township				
PLSS Town		T29N				
	Range	R2E				
	Section	19				
	Quarter	SE				
	Quarter-Quarter	SE				
seconds N	egrees, minutes, orth of Equator; use Surface Water Data VDV)	44 58' 38.00004"				
Longitude (degrees, minutes, seconds W of Prime Meridian, use the SWDV)		-90 18' 2.000224"				
Property Owner(s)	Name	David Ruesch				
	Mailing address	5338 Pickard Ave Abbotsford, WI 54405				

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Site address (Not mailing address)	Same as above		

### 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.

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	2	Count
	Number of animal units	204	Count based on NR243 animal unit worksheet
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	322.4	Count
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	41	BARNY Model
	Number of facilities	1	Count
	Number of animal units	168	Count based on animal unit worksheet
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		
	% TSS reduction		
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	Municipalities planned for		
decreased storm water impacts on state waters ( <i>i.e.</i> , storm water plan, I & E plan, <i>etc.</i> )	Acres planned for		
Document/track progress made in implementing the	Municipalities planned for		

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planning product ( <i>i.e.</i> , ordinance, utility district evaluation/formation, storm water management plan information & education, <i>etc.</i> )	Acres planned for	
Other (specify)		

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#### B. Project Results Narrative

As a result of the TRM grant, David Ruesch was able to install BMP's to correct several Agricultural Performance Standard and Prohibition violations that were deemed necessary to address on his farm operation. These issues included direct runoff from a feedlot into waters of the state, and an inability to follow a nutrient management plan during the winter periods because of insufficient storage. Runoff from his feedlot and from his winter spreading practices enter into waters that are listed as impaired on the 303(d) list. The BMP's installed to correct these issues included the installation of a verticle walled concrete storage facility for waste generated by dairy heifers, enlargement of an existing earthen manure storage facility for liquid waste produced from dairy cows housed in a freestall facility, and a barnyard runoff controll system to reduce runoff from a feedlot. Other components incorporated in the barnyard runoff control system included a clean water diversion, underground outlets, heavy use area protection, and a filter strip. David Ruesch now has manure storage capacity to prevent winter time spreading, and is able to follow a nutrient management plan that meets the 590 Standard. In addition, the corrections made to the barnyard system as evaluated by BARNY indicates the runoff is below the 15 lbs of measurable phosphorus as required in the Agricultural Performance Standard limits. Pre-contruction evaluation of the feedlot indicated a discharge level of 48 lbs of phosphorus, utilizing the BARNY model. Post construction evaluation of the feedlot indicates a runoff potential of 7 lbs of phosphorus.

The required implementation and enforcement activities that were implemented by Marathon County during the grant period included the revision to a nutrient management plan as required through the local animal waste ordinance. Due to the construction of the new and modified manure storage facilities in 2008, David Ruesch will be required to submit a revised nutrient management plan by April 1, 2009. Also, through the local animal wates storage ordinance, the County enforced and inspected the construction and significant alterations to the manure storage facilities on site. Final verification that the facilities were constructed according to the NRCS 313-Standard was made on 11/14/2008. Therefore, David Ruesch has complied with NR 151.05(2) for the storage facilities installed on site. On 12/11/2008, Micah Oriedo (DNR Nonpoint Coordinator) issued a letter to David Ruesch that he satisfied the Notice of Intent issued for violations related to NR 151.08(4) and NR 151.07(2).

#### 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		
			Satisf	ied?	
Issue Date	From (Name)	To (Name)	Yes	No	Date Letter Sent
2/27/2006	Micah Oriedo	David Ruesch			12/11/2008
2		2/27/2006 Micah Oriedo	2/27/2006 Micah Oriedo David Ruesch	Ssue Date From (Name) To (Name) Yes  2/27/2006 Micah Oriedo David Ruesch	Ssue Date From (Name) To (Name) Yes No  2/27/2006 Micah Oriedo David Ruesch

#### 5. Summary of Project Challenges

This project encountered very few challanges or problems. The only site condition that presented an obstacle was maintaning a well seperation distance from the manure storage facilities. This was over-come by layout changes to the facilities as preliminary planned. Due to the dry weather conditions in 2008, construction was not hampered. Cold weather concrete protection was necessary for the final placement of an agitation ramp in the earthen storage facility that was installed late in the fall of 2008.

Micah Oriedo was very instrumental in helping to secue this TRM Grant, and worked with the County staff in a positive manner in providing guidance to ensure this project was successful.

## 6. Additional Information about the Project (optional)

The landowner was very appreciative of the service the County and DNR staff provided him. This included the understanding of the Agricultural Performance Standards and Prohibitions, the commitment of applying for the grant, the engineering assistance, construction management and oversight, and the timely reibursement for the expenses incurred. In addition, the landowner is very pleased with the functionallity of all the practices installed.

7. Fi	7. Final Product(s) All Projects						
	A.	Construction Projects					
	A.1.	Checking here indicates that a printed copy of project plans and specifications was sent to your DNR Regional Nonpoint Source Coordinator.					
$\boxtimes$	A.2.	Checking here indicates that photo-documentation of the project's construction is attached.					
	B. Planning Projects						
$\boxtimes$		Checking here indicates that a printed copy of the planning product (e.g., plans, ordinances, analyses) was sent to your DNR Regional point Source Coordinator.					

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$\boxtimes$	P.2. Checking here indicates that the Pegianal Nappoint Source Co.	ordinator has approved the	final Plant	oing Product(s)				
	B.3. Checking here indicates that your governmental unit has adopted the final Planning Product(s).							
	Name of Planning Document(s)  Marathon Co. Land & Water Resource Management Plan  Date(s) effective  2005 - 2010  Date Submitted to NPS Coordinator  August 2005							
	ntee Certification:							
	Checking here certifies that, to the best of your knowledge, the inform	nation contained in this rep	ort is corre	ect and true.				
• •	or print Name and Title of Authorized Representative certifying here.							
Signati	ure of Authorized Representative							
	11 0 1			Date				
K	len Pzorski			1/06/2009				
	FOR DEPARTMENTAL LICE ONLY							
	FOR DEPARTMENTAL USE ONLY	outing:						
П	REGIONAL NONPOINT COORDINATOR Please complete the foll Checking here indicates that you received either planning or construct Attach a copy of the approval.		ns from the	e project sponsor, as appropriate.				
	Checking here indicates that you approved the final construction. At	ach a copy of the final cons	struction a	pproval.				
	Checking here indicates that you have approved the final Planning P			.,				
	Check here if two (2) signed, original copies of the Final Report and a Coordinator. Note: Regional Nonpoint Source Coordinator may reta	attachments have been sen						
Type or print Name of Regional Nonpoint Coordinator								
Signature of Regional Nonpoint Coordinator  Date								