

Final Report

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

Form 3400-189 (R 6/08)

Page 1

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 (3) complete originals to your regional Nonpoint Coordinator.

1. Grant Type -- Please check one.

- ☒ 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

2. Grantee & Project Information

Project Name Manure Storage Abandonment's -- BEP Watershed	Grant Number TRC-CW18-37000-07A
Governmental Unit Name Marathon, County of	Primary Watershed Name and Watershed Code Upper Big Eau Pleine Watershed -- CW18
Nearest Water Body Name Big Eau Pleine Reservoir	Nearest Water Body Identification Code (WBIC) (if applicable) unknown
DNR Water Management Unit (River System) Name Central Wisconsin	s. 303 (d) Listed Waterbody? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No.

What pollutant(s) were addressed by the project (e.g., nitrogen, phosphorus, sediment, thermal control, etc.)?

Nutrient discharges to surface water and groundwater associated with animal manure (primarily nitrogen and phosphorus).

For **each** project site location provide the following: (attach additional sheets if necessary) **See attachment for additional project locations**

Location:		A	B	C	D	E
Minor Civil Division Name (City, Township, Village, etc.)		Frankfort Township	Cleveland Township	Wien Township	Hull Township	Cleveland Township
PLSS	Town	T28N	T27N	T28N	T29N	T27N
	Range	R3E	R4E	R4E	R2E	R4E
	Section	19	31	31	15	4
	Quarter	NW	SE	SW	SW	SE
	Quarter-Quarter	NW	SE	SW	SE	SW
Latitude (degrees, minutes, seconds North of Equator; use the DNR's Surface Water Data Viewer, SWDV)		44 54' 4.500"	44 46' 21.900"	44 51' 42.500"	44 54' 11.800"	44 50' 41.700"
Longitude (degrees, minutes, seconds W of Prime Meridian, use the SWDV)		90 11' 44.900"	90 4' 3.900"	90 4' 38.700"	90 14' 59.500"	90 1' 58.300"
Property Owner(s)	Name	Sandra Asplund	Arlyn Bastman	Kenneth Bohman	Carl Dommer	Melvin Gingerich
	Mailing address	F2491 County Rd N Colby, WI 54421	C3797 River Rd Stratford, WI 54484	W3751 State Rd 97 Stratford, WI 54484	H3113 County Rd N Colby, WI 54421	C1834 Big Rapids Rd Stratford, WI 54484

Additional location of project sites

Minor civil Division Name	Holton Township	Holton Township	Wien Township	Holton Township	Wien Township	Holton Township	Hull Township
PLSS Town	T29N	T29N	T28N	T29N	T28N	T29N	T28N
Range	R2E	R2E	R4E	R2E	R4E	R2E	R2E
Section	3	2	22	5	30	35	15
Quarter	NE	SW	SE	NE	SE	SE	NE
Quarter-Quarter	NE	NW	NE	NW	NE	SW	NE
Latitude(DMS)	45 1' 43.900"	45 1' 18.000"	44 53' 36.500"	45 1' 56.900"	44 52' 35.900"	44 56' 33.000"	44 54' 55.200"
Longitude(DMS)	90 14' 24.500"	90 14' 6.300"	90 0' 20.200"	90 17' 5.500"	90 3' 57.200"	90 13' 49.000"	90 14' 30.100"
Property Owner Name	Dan Graff	Ed Graff	Jamie & Lisa Meador	Kayo Pope	Robert Schurman	Verlyn Wittlinger	Allen Duvall
Mailing Address	6059 Bruckerville Rd Stetsonville, WI 54480	5957 Bruckerville Rd Stetsonville, WI 54480	W4170 Hilldale Rd Edgar, WI 54426	3371 County Line Rd Stetsonville, WI 54480	3968 Pioneer Dr Edgar, WI 54426	2770 State Rd 29 Abbotsford, WI 54405	H2927 Huckleberry Rd Colby, WI 54421
Site Address	6060 Bruckerville Rd Stetsonville, WI 54480	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above

Site address (Not mailing address)	Same as above	C1486 Eau Pleine Rd Stratford, WI 54484	Same as above	H3012 County Rd N Colby, WI 54421	Same as above
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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	270	RUSLE
Manure Storage Facilities: New Construction/Alterations	Number of facilities		
	Number of animal units		
Manure Storage Facilities: Closure	Number of facilities	11	Count
Manure Storage Facilities: Failing/Leaking Facilities	Number of facilities	12	Count
	Number of animal units	175	Count (Graff, Duvall, Pope)
Clean Water Diversions in WQMA	Pollutant load reduction		
	Number of farms with diversions		
	Number animal units		
Nutrient Management on Agricultural Land	Acres planned	270	Count
Prohibition: Manure Storage Overflow	Number of facilities	11	Count
	Number of animal units	175	Count
Prohibition: Unconfined Manure Pile in WQMA	Number of farms	10	Count
Prohibition: Direct Runoff From Feedlot/Stored Manure	Pollutant load reduction	unknown	
	Number of facilities	10	Count
	Number of animal units	175	Count
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 decreased storm water impacts on state waters (i.e., storm water plan, I & E plan, etc.)	Municipalities planned for		
	Acres planned for		
Document/track progress made in implementing the planning product (i.e., ordinance, utility district evaluation/formation, storm water management plan information & education, etc.)	Municipalities planned for		
	Acres planned for		

Other (specify)			
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B. Project Results Narrative

Idle manure storage facilities pose a potential groundwater and surface water resource concern. In addition they pose as a safety concern for humans and livestock. Many idle manure storage facilities were constructed many years before regulations and standards were developed. Past construction of these facilities often resulted in poor workmanship, placement in bedrock or groundwater controlled sites, or constructed in soils that are porous and result in leakage. In addition, storage facilities left idle may become completely full and overflow as a result of added precipitation. From a safety standpoint, idle storage facilities eventually develop a heavy mass of vegetation that grows on the surface of manure. The liquid portion of the manure remains below this vegetative mat. Walking across this vegetative mat could result in someone falling through the mat and possibly drowning. For these reasons, Marathon County has placed a priority in working with individuals to properly abandon their facilities that are no longer being used.

As a result of this project, eleven manure storage facilities were properly abandoned according to state standards. All manure storage facilities targeted for this project consisted of in-place earthen manure lagoons that were constructed below the ground surface. Inspections and evaluations of these existing storage facilities prior to abandoning them revealed that three of the facilities were completely full and runoff out of these facilities were contributing to surface water resources. Based on site location and soil types associated with there location, six manure storage facilities were suspect to contaminating groundwater due to expected bedrock below the surface soils, or sited in porous soils with inadequate clay lining material. All but one of the storages targeted had a heavy vegetative mat growing on the surface of the manure.

During the abandonment of these facilities, the County inspected the progress of each these abandonment's. Inspections of the soils at or below the floor of these facilities revealed that two of these facilities were constructed in fractured bedrock, and seven were placed in soils that would not meet today's standards in regards to soil criteria (too porous), or because of inadequate separation criteria to high groundwater. Unfortunately, the County is unaware of any modeling tools to measure the potential of groundwater pollution reduced through the abandonment of these facilities. Therefore, the number of storage facilities abandoned is our only tool to summarize measurable accomplishments. To date, Marathon County has abandoned nearly 60 facilities. Based on a countywide survey, there still exist nearly 50 facilities that remain idle. As the number of dairy farms decline and become inactive, the number of manure storages that become idle will increase.

During this project, most of the sites were converted into productive cropland after the facilities were abandoned. One facility was cleaned out and restored into a recreation pond for future family fishing and swimming. Listed below in the next section are twelve landowners, and the original grant application listed eleven. This is because one of the original landowners (Allen Duvall) who wished to abandoned his storage facility after a fire destroyed his farm, decided to re-build his building and re-stock animals on the site. His son now has control of the farming operation. Although Allen Duvall was issued a NOI, the NOI was satisfied by allowing him to use the facility by evaluating the manure storage, determining that it does meet today's standards, and verifying his nutrient management plan current. The nutrient management plan is also a requirement through our animal waste ordinance. The funding for this anticipated abandonment was used by another individual (Verlyn Wittlinger) in the same watershed, who was also interested in abandoning his idle facility after we received the grant. Verlyn was not issued an NOI letter by the DNR, but the County did issue an enforcement letter as it relates to an animal waste ordinance.

Additional Agricultural Performance Standards and Prohibitions were observed and noted and included in the letters of satisfaction only on farms that could positively be identified as meeting these standards.

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	
NR 243 NOI	3/23/2006	Micah Oriedo	Sandra Asplund	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1/14/2008
NR 243 NOI	3/23/2006	Micah Oriedo	Arlyn Bastman	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11/18/2008
NR 243 NOI	3/23/2006	Micah Oriedo	Kenneth Bohman	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8/11/2008
NR 243 NOI	3/23/2006	Micah Oriedo	Carl Dommer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1/15/2008
NR 243 NOI	3/23/2006	Micah Oriedo	Allen Duvall	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1/23/2008
NR 243 NOI	3/23/2006	Micah Oriedo	Melvin Gingerich	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1/14/2008
NR 243 NOI	3/23/2006	Micah Oriedo	Dan Graff	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12/21/2006
NR 243 NOI	3/23/2006	Micah Oriedo	Ed Graff	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1/15/2008
NR 243 NOI	3/23/2006	Micah Oriedo	Jamie & Lisa Meador	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1/15/2008
NR 243 NOI	3/23/2006	Micah Oriedo	Kayo Pope	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1/14/2008

NR 243 NOI	3/23/2006	Micah Oriedo	Robert Schurman	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1/23/2008
Local Regulation	2/2/2007	Marathon County	Verlyn Wittlinger	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1/23/2008

5. Summary of Project Challenges

Overall the project was a success. The entire group of landowners completed the abandonment's of their manure storage facility, and satisfied the Notice of Intent. There were only two issues that were encountered that provide a challenge to the project. One challenge we encountered was because most of the manure storage facilities were constructed prior to county ordinance regulation's, there was no documentation on file as to how deep these facilities were. Although many of the facilities depths could be estimated and surveyed, several facilities posed construction problems during the abandonment because they were much deeper than expected, thus requiring additional cost. In addition, estimates for the abandonment's and the grant request were developed several years before the actual abandonment's occurred; therefore many of these estimates were somewhat under estimated due to annual cost increases. Therefore during the grant period the County needed to request additional funding through the DNR. Another challenge we encountered was that although all the landowners were originally willing to abandon their storage facilities, there was one landowner who at one point who wanted to keep his facility open. The reason he wanted to keep the facility open was he was trying to sell the property, and an interested prospect wanted the storage to be left open for future use. Fortunately, the sale of the property did not happen, the landowner proceeded with the abandonment, and during the abandonment it was discovered that the floor of the facility was placed on fractured bedrock.

A recommendation for future grants of this nature, where a group of individuals are involved would be, make certain that all parties are very willing to proceed with their project. Even if they can leverage to complete their practice through an ordinance or such, it could result in leveraging an individual beyond the time frame of the grant period.

6. Additional Information about the Project (optional)

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.
- ☒ A.2. Checking here indicates that photo-documentation of the project's construction is attached.

B. Planning Projects

- ☒ B.1. Checking here indicates that a printed copy of the planning product (e.g., plans, ordinances, analyses) was sent to your DNR Regional Nonpoint Source Coordinator.
- ☒ B.2. Checking here indicates that the Regional Nonpoint Source Coordinator has approved the final Planning Product(s).
- ☒ B.3. Checking here indicates that your governmental unit has adopted the final Planning Product(s).

Name of Planning Document(s)	Date(s) effective	Date Submitted to NPS Coordinator
Marathon Co Land & Water Resource Management Plan	2005 - 2010	August 2005

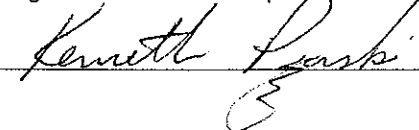
8. Grantee Certification:

- ☒ Checking here certifies 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.

Kenneth Pozorski

Signature of Authorized Representative



Date

1/9/2009

9. FOR DEPARTMENTAL USE ONLY

REGIONAL NONPOINT COORDINATOR -- Please complete the following:

- ☐ Checking here indicates that you received either planning or construction plans and specifications from the project sponsor, as appropriate. Attach a copy of the approval.
- ☐ Checking here indicates that you approved the final construction. Attach a copy of the final construction approval.

☐ Checking here indicates that you have approved the final Planning Product(s).

☒ Check here if two (2) signed, original copies of the Final Report and attachments have been sent to Runoff Management Section Grants Coordinator. Note: Regional Nonpoint Source Coordinator may retain one (1) copy of the signed, original Final Report.

Type or print Name of Regional Nonpoint Coordinator

Scott Watson Watershed Supervisor

Signature of Regional Nonpoint Coordinator

Scott Watson

Date

1/22/09