

SEP 16 2009

Rhinelander Service Center
Northern Region

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.

- | | |
|--|---|
| <input checked="" type="checkbox"/> Targeted Runoff Management Grant – Agricultural | <input type="checkbox"/> Targeted Runoff Management Grant – Urban |
| <input type="checkbox"/> Urban Nonpoint Source & Storm Water Management Grant – Construction | <input type="checkbox"/> Urban Nonpoint Source & Storm Water Management Grant -- Planning |

2. Grantee & Project Information

Project Name Roth Farm Animal Waste Storage System	Grant Number UW28-35000-08-A
Governmental Unit Name Lincoln County	Primary Watershed Name and Watershed Code Devil Creek Watershed UW 28
Nearest Water Body Name Devil Creek	Nearest Water Body Identification Code (WBIC) (if applicable)
DNR Water Management Unit (River System) Name Upper Wisconsin	s. 303 (d) Listed Waterbody? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No.

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

Animal Waste, phosphorus

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

Location:		A	B	C	D	E
Minor Civil Division Name (City, Township, Village, etc.)		Town of Scott				
PLSS	Town	T31N				
	Range	R6E				
	Section	20				
	Quarter	NE1/4				
	Quarter-Quarter	NW1/4				
Latitude (degrees, minutes, seconds North of Equator; use the DNR's Surface Water Data Viewer, SWDV)		45-09-42.62672				
Longitude (degrees, minutes, seconds W of Prime Meridian, use the SWDV)		89-46-03.27234				
Property Owner(s)	Name	Heinz & Erich Roth				
	Mailing address	2701 W. Main Street, Merrill, WI 54452				

RECEIVED

SEP 21 2009

BUREAU OF WATERSHED MGMT

Site address (Not mailing address)	W6751 Joe Snow Road, Merrill, WI 54452			
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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		
Manure Storage Facilities: New Construction/Alterations	Number of facilities	1	Number
	Number of animal units	490	
Manure Storage Facilities: Closure	Number of facilities		
Manure Storage Facilities: Failing/Leaking Facilities	Number of facilities	1	Number
	Number of animal units	490	
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	1	Number
	Number of animal units	490	
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		
	% 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

The previous non compliant animal waste storage facility was built under capacity and on bedrock. In addition, the liner was failing. This project resulted in an installation of an animal waste storage facility that meets current standards and specifications which will ensure groundwater and surface water protection.

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	
Non Compliance	1-15-2007	Lincoln County	Heinz and Erich Roth	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9-1-09
				<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	

5. Summary of Project Challenges

This project had several challenges. Since the project was installed in the exact location as the old, non compliant animal waste storage structure and we were unsure as the depth of bedrock. Upon clean up of the old storage structure, bedrock was located closer to the surface than anticipated. A waiver was received from NRCS State Engineer, John Ramsden to dynamite a portion of the bedrock that was impacting the storage significantly. In addition, the installation and design of the storage structure were limited by the property boundary. The landowner was not able to purchase additional property from the neighbor to give him additional room for the manure storage. Ultimately, the manure storage was installed with modifications based on the elevation of the bedrock and within the property boundary.

6. Additional Information about the Project (optional)

Per discussion with Tom Blake, DNR Nonpoint Coordinator - Rhinelander, copies of the project plans are available for DNR review at the Land Information and Conservation Department, 801 N. Sales Street, Suite 105, Merrill, WI 54452. Photos of the project (before, during and after construction) have been provided to Tom.

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).

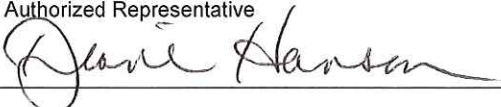
Name of Planning Document(s)	Date(s) effective	Date Submitted to NPS Coordinator
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8. Grantee Certification:

- 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.

Diane Hanson, Conservationist

Signature of Authorized Representative 	Date <i>8-7-09</i>
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9. FOR DEPARTMENTAL USE ONLY

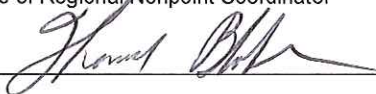
REGIONAL NONPOINT COORDINATOR -- Please complete the following:

- 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. *See Section #6*
- 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

THOMAS BLAKE

Signature of Regional Nonpoint Coordinator



Date

9-16-09

ROTH 2009 MANURE STORAGE FACILITY CONSTRUCTION PICTURES



Original torn HDPE lined manure storage facility



Liquid manure agitated and removed and spread per nutrient management plan



Manure solids removed and spread per nutrient management plan



Contaminated soil removed and spread per nutrient management plan



Bedrock being removed with hammer drill



Bedrock was blasted and removed per NRCS state engineer

ROTH 2009 MANURE STORAGE FACILITY CONSTRUCTION PICTURES



Water seepage after bedrock was hammer drilled and removed



Water seepage after bedrock was blasted and removed



Top soil was removed for new manure storage facility foot print



Water seepage areas were filled with $\frac{3}{4}$ " stone



Subgrade material delivered, spread with bulldozer, and compacted with sheep's foot roller

ROTH 2009 MANURE STORAGE FACILITY CONSTRUCTION PICTURES



Final subgrade elevations



Rebar overlap 16"



Completed subgrade and berms



Plastic chairs set at every third rebar



#4 grade 60 rebar spaced at 18" on center



Flush flume transfer pipe protrusion with hydrophilic sealant

ROTH 2009 MANURE STORAGE FACILITY CONSTRUCTION PICTURES



Waterstop butt weld



Waterstop joints bull floated and vibrated



Keyway method used in forming waterstops to provide liquid joints in concrete



Side slopes poured with lava flow method and consolidated with roller buggy



Installing concrete in waterstop form



Subgrade was damped before concrete was installed

ROTH 2009 MANURE STORAGE FACILITY CONSTRUCTION PICTURES



Concrete supplied by Morgan Sand & Gravel



Level control structure installed in separation wall



Floor concrete was installed with a pump truck, consolidated with a roller buggy and bull float. Curing compound was applied right away



Concrete work completed



Separation wall formed with level control structure



Top soil reapplied to berms and disturbed areas

ROTH 2009 MANURE STORAGE FACILITY CONSTRUCTION PICTURES



Fencing installed around manure storage facility



Second stage of manure storage facility with flush flume transfer collection system to transfer liquids to barn



First stage of manure storage facility with flush flume transfer pipe from barn



Outside berms and disturbed areas were seeded and mulch was applied to help the grow of vegetation and control erosion