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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 11/05)

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 Zoo-Elk & Pony Yard Renovation	Grant Number USC-MI03-41000-04F
Governmental Unit Name Milwaukee County	Governmental Unit Type (city, village, town, etc.) County
Watershed Name Menomonee River	Watershed Code MI03
DNR Water Management Unit (River System) Name Milwaukee River	Water Body Identification Code (WBIC) (if applicable)

s. 303(d) Waterbody? Yes No

What pollutant(s) were addressed by the project?

sediment (TSS), nutrients

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

Location:		A	B	C	D	E
Minor Civil Division Name		Milwaukee				
PLSS	Town	7				
	Range	21				
	Section	32				
	Quarter	NW				
	Quarter-Quarter	NW				
Latitude		43°1'50"N				
Longitude		88°2'36"W				
Property Owner(s)	Name	Milwaukee County				
	Mailing address	2711 W. Wells St #213 Milwaukee, WI 53208				
Site address <i>(if different than mailing address)</i>		10001 W. Bluemound Rd. Milwaukee, WI 53226				

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		
	% 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)	Erosion/TSS reduced		visual monitoring
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		
	Acres planned for		
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		
	Acres planned for		
Other (specify)			

B. Project Results Narrative

The Elk Exhibit was regraded (1/2 acre) to reduce the slope of the site from 15% to 10%, thereby reducing stormwater run-off velocity and soil erosion. The site was sodded to re-establish a vegetative ground cover and protect th site from soil erosion. An irrigation system was installed to ensure the establishment and maintenance of turf. Paved impervious surfacing at the low point of the exhibit was replaced with grass to enhance the removal of TSS and nutrients (from animal waste) before the stormwater entered the drainage structure. Adjacent animal holding areas were also regraded (with the help of a retaining wall) to reduce the slope and direct the run-off to turfed area drains.

To evaluate the success of the project the site is/will be visually monitored and inspected as was stated in the project application. Inspections to date indicate that the project is successfully reducing soil erosion. Prior to the project, the Elk Exhibit had some bare ground patches, concrete, and steeper slopes. Turf establishment was difficult because of the elk.

Milwaukee County does not have an erosion control ordinance. Because Milwaukee County is completely incorporated, Milwaukee County follows Stormwater and Erosion Control Ordinances of the applicable municipality. This is stated in Milwaukee County's Stormwater Permit effective December 15, 2006

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	
NA				<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

In general, the project suffered no major challenges. We would not have done anything differently.

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
Draft Plans and Specifications	8/25/04	8/25/04
Draft Plans and Specifications	1/19/05	1/19/05
Bidding Plans and Specifications	1/25/2005	1/28/2005

8. Grantee Certification:

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

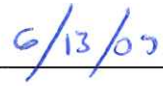
Type or print Name and Title of Authorized Representative certifying here.

Greg High, P.E., Director, DTPW-A&E&ES

Signature of Authorized Representative



Date



Zoo-Elk & Pony Yard Renovation USC-MI03-41000-04F



Pre-construction-note bare ground and impervious surface at catch basin



Preconstruction



Construction-regrading



Post-construction



Post-construction



Area drain with installed turf