

## Final Report

### Agricultural Targeted Runoff Management & Notice of Discharge Grant Programs

Form 3400-189A (R 05/16)

Page 1 of 2

**NOTICE:** This document is required under s. 281.65, Wis. Stats., and chs. NR 153 and 154, Wis. Adm. Code. A final project report must be submitted as part of the final reimbursement request. Personally identifiable information contained in this form will be used for determining reimbursement eligibility in the Targeted Runoff Management and Notice of Discharge Grant Programs and will not be used for any other purpose.

**INSTRUCTIONS:** Send the completed, electronic copy of this form and all attachments to the Department of Natural Resources (DNR) Region Nonpoint Source Coordinator. Please read all instructions prior to completion.

#### Grant Type

Select Grant Type Small Scale Non Total Maximum Daily Load (TMDL)

#### Project Name & Location

Project Name

R. Hastings Roofed Barnyard

Grant Number

TRC29000Y17

Governmental Unit Name

Juneau County

County

Juneau

Watershed Name

Seymour Creek/Upper Baraboo

12-Digit HUC

070700040206

Project Contact Name

Matthew Komiskey

Phone Number

(608) 847-7221

E-mail Address

mkomiskey@co.juneau.wi.us

☐ For a project with multiple site locations, an aerial photo map is attached with each site location labeled.

#### Site Location - 1

Name of Cost-Share Recipient

Randy Hastings

Animal Units

170

Nearest Receiving Waterbody

Gardner Creek

Township

14

Range

02

E / W

E

Section

12

Quarter

SW

Quarter/Quarter

SE

Latitude

43.701

Longitude

-90.2037

#### Compliance Requirements - 1

Chs. NR 151 or 243 Wis. Adm. Code  
Notice Type

Other

Notice letter  
attached

☐

Compliance achieved? If no,  
explain in site information

☒ Yes ☐ No

Compliance determination  
letter attached

☐

☐ Attached is a copy of the written statement the County provided to the landowner and cost-share recipient of the landowner's obligation to maintain compliance with performance standards & prohibitions on cropland and livestock facilities addressed by the cost-share agreement. Compliance at these sites must be maintained in perpetuity regardless of future cost sharing. The County has also placed a copy of this written statement in the County files.

#### Summary of Results - 1

Best Management Practice Installed	Quantity	Unit of Measure	Performance Standard/Prohibition Addressed	Total Installation Cost	Load Reduction		
					Phosphorus lbs/yr	Nitrogen lbs/yr	Sediment Tons/yr
Roofs	1	No.	Code(s) 12	\$77,238.00	60.9		
Heavy Use Area Protection	1	Acres	Code(s) 11	\$48,643.00	60.9		
Roof Runoff Systems	1	No.	Code(s) 8	\$2,009.00	60.9		
Critical Area Stabilization	1	Acres	Code(s) 1	\$2,788.00	60.9		

#### Site Location Attachment - 1

Check the box if the required information for the site is attached:

☒ Photos of pre-and post-implementation of BMP(s)

☒ Load reduction modeling documents

☒ Aerial photo map of site with BMPs labeled

☐ Water quality monitoring results/summary, if applicable

#### Site Information - 1

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Page 2 of 2

*Narrative space will expand to fit*

The pastured setting that was replaced by the new barnyard facility was a constant source of phosphorus due to unlimited cattle access and unconfined manure application. The new barnyard provided a confined location to maintain the cattle, eliminate erosion, and allowed manure to be spread in a controlled manner.

☐ DNR may use this site as a success story to meet state and federal reporting needs.

### Additional Project Information and/or Comments

*Narrative space will expand to fit*

### Grantee Certification

A responsible government official (authorized signatory) must authorize and date the final report form prior to submittal to DNR.

I certify that, to the best of my knowledge, the project is complete and the information contained in this final report and attachments are correct and true.

Name of Authorized Government Official

Title of Authorized Government Official

Date

Matthew Komiskey

County Conservationist

11/29/2017

### For DNR Use Only

☐ Received complete reports with all attachments

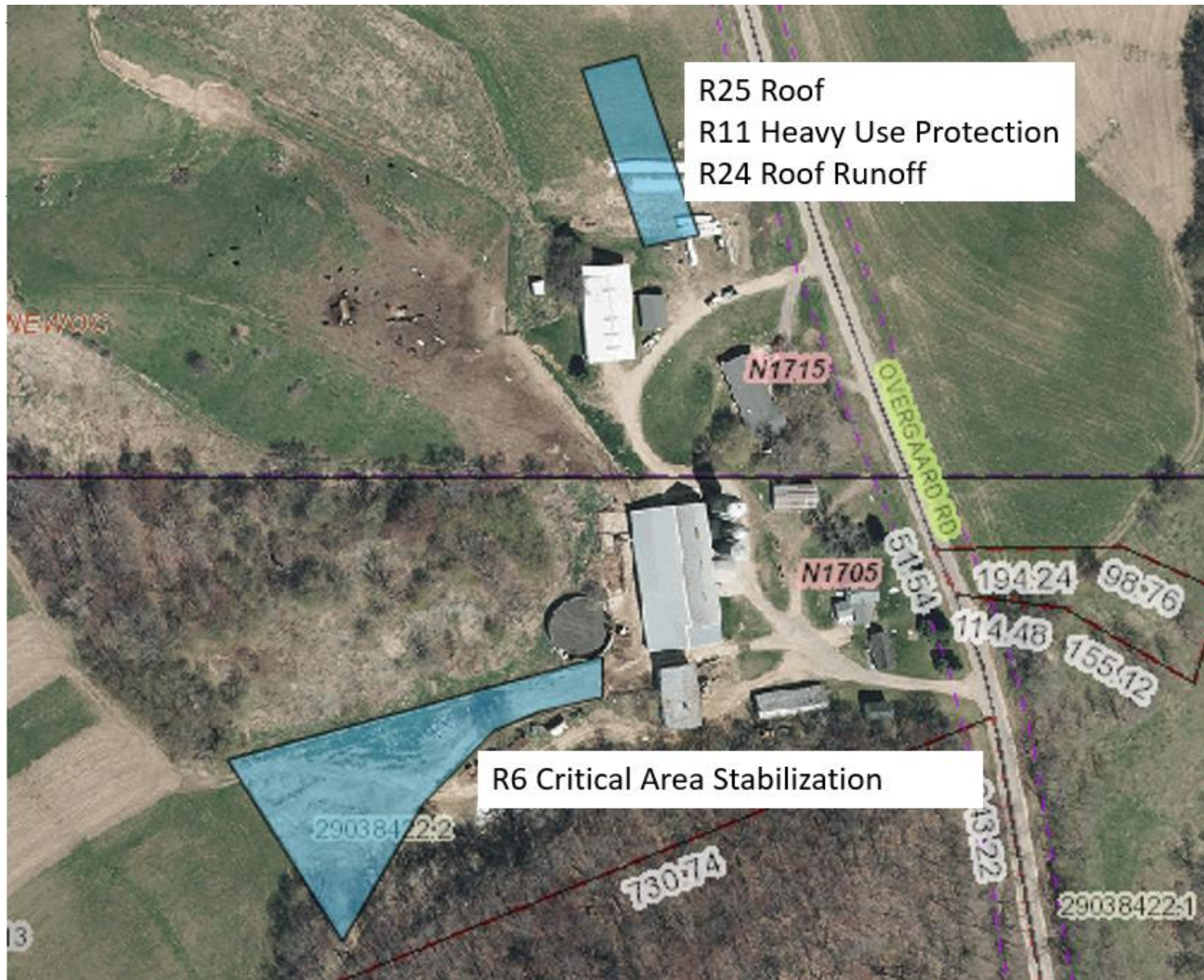
☐ Practices implemented were consistent with the grant agreement

Comments about this project:

Name of Region Nonpoint Source Coordinator

Date

Send the Final Report and attachments to the Community Financial Assistance Grants Manager and to the Runoff Management Grant Coordinator. Keep a printed copy for the Region file.





## Before Photos

Earthen behind barn looking W/NW

Draw to intermittent stream



Earthen Lot Looking West



APP C1

manure storage





## Before Photos

Earthen lot behind barn looking SW



Looking south; rill/gully erosion



APP C2

Earthen lot looking East /SE ; g rill erosion



Channelized Flow to Draw





R6 After Photo



R25, R11, R24 After Photo



R25, R11, R24 After Photo





State of Wisconsin  
 Department of Natural Resources  
 PO Box 7185, Madison, WI 53707-7185  
 dnr.wi.gov

# Animal Unit Calculation Worksheet

## Form 3400-025A (R 3/2012)

The Current Animal Unit Calculation Worksheet must be filled out separately for the "main" site and each site which are owned or operated by your farm for the purposes of housing animals associated with your operation. The site name, for which you are filling this worksheet out, must be provided below and correlate with Form 3400-025 Site Information (Section II).

Current Animal Unit Calculation Numbers						
Name of Site: <u>Hastings</u>						
Animal Type	I. Mixed Animal Units			II. Non-mixed Animal Units		
	b. Equiv. factor	c. Current Number	d. No. of AUs	e. Equiv. factor	f. Current Number	g. No. of AUs
Example - Broilers (non-liquid manure):	0.005 x	150,000	= 750	0.008 x	150,000	= 1200
Dairy/Beef Calves (under 400 lbs)	0.20 x		=	Fed numbers in this column comply with 40 CFR s. 122.23		
Dairy Cattle	Milking & Dry Cows	1.40 x	60 = 84	1.43 x	60	= 86
	Heifers (800 lbs to 1200 lbs)	1.10 x				
	Heifers (400 lbs to 800 lbs)	0.60 x		1.00 x		=
Beef	Steers or Cows (400 lbs to market)	1.00 x				
	Bulls (each)	1.40 x		1.00 x		=
Veal Calves		0.50 x		1.00 x		=
Swine	Pigs (up to 55 lbs)	0.10 x		0.10 x		=
	Pigs (55 lbs to market)	0.40 x				
	Sows (each)	0.40 x				
	Boars (each)	0.50 x		0.40 x		=
Chickens	Layers (each) -non-liquid manure system	0.01 x		0.0123 x		=
	Broilers/Pullets (each) -non-liquid manure system	0.005 x		0.008 x		=
	Per Bird -liquid manure system	0.033 x		0.0333 x		=
Ducks	Ducks (each) -liquid manure system	0.2 x		0.2 x		=
	Ducks (each) -non-liquid manure system	0.01 x		0.0333 x		=
Turkeys (each)		0.018 x		0.018 x		=
Sheep (each)		0.1 x		0.1 x		=
Horses (each)		2 x		2 x		=
Total Animal Units:			Total Mixed Animal Units = 84 (add all rows above)		Total Non-Mixed Animal Units = 86 (Enter the single highest number from any row above; DO NOT add the totals)	

☒ Check here if there are no proposed increases in animal numbers at this site within the next five years.



# Before Treatment

## DESIGN A BUFFER USING BARNY

APP F2

Farmer: Randy Hastings

Planner/Designer: B.G.

Date: 4/13/16

	Input	Output	
Closest City of similar climate:	<u>1</u>		1 Madison 2 Appleton 3 Wausau 4 Eau Claire
Paved lot area:	<u>0</u>		sq ft
Earth lot area:	<u>38,437</u>		sq ft
Animal Lot size:		<u>38,437</u>	sq ft
Is there a designed settling basin?	<u>2</u>		Yes= 1; No= 2
Animals on lot:	<u>60</u> number	<u></u> number	
Type of animal:	<u>1</u>		( Dairy = 1; Beef=2 )
Ave. Animal Weight:	<u>1,400</u> lbs	<u></u> lbs	
Lot Use:	<u>2</u>		1= Heavy; 2=Med; 3= Light)

### TRIBUTARY AREAS

Tributary area: 193,997 sq ft

Runoff Curve Number: 60

Roof Trib. area: 0 sq ft

sq ft

See RCN tab below  
for typical values

60.9 lbs P per year  
at downstream lot edge

**Goal: Zero Discharge**

Maximum P output 0 lbs  
that can be released

Your choice based on impacted  
resources. Max is 15.

### Buffer Sizing by trial and error:

Length:  ft

Width:  ft

Buffer area:

0 sq ft

**NO GOOD, too small!**  
Minimum buffer size is: **38,437**

Slope:  %

c value

For c values see table below

P Output:

60.9 lb

### BUFFER SUMMARY

Length	ft
Width	ft
Slope	%

No buffer dimensions are shown  
because the P output is too high.



# Post-treatment

## DESIGN A BUFFER USING BARNY

APP F3

Farmer: Randy Hastings

Planner/Designer: B.G.

Date: 4/13/16

	Input	Output	
Closest City of similar climate:	1		1 Madison 2 Appleton 3 Wausau 4 Eau Claire
Paved lot area:	1		sq ft
Earth lot area:	0		sq ft
Animal Lot size:			1 sq ft
Is there a designed settling basin?	1		Yes= 1; No= 2
Animals on lot:	60	number	
Type of animal:	1		( Dairy = 1; Beef=2 )
Ave. Animal Weight:	1,400	lbs	
Lot Use:	2		1= Heavy; 2=Med; 3= Light)

Roofed Barnyard

TRIBUTARY AREAS

Tributary area:	0	sq ft		0	sq ft	
Runoff Curve Number:	0					See RCN tab below for typical values
Roof Trib. area:	0	sq ft				

0.0 lbs P per year  
at downstream lot edge

Goal: Zero Discharge

Maximum P output that can be released	0		lbs	Your choice based on impacted resources. Max is 15.
--	---	--	-----	--

Buffer Sizing by trial and error:

Length:		ft			
Width:		ft			
Buffer area:				0 sq ft	NO GOOD, too small
					Minimum buffer size is: 2
Slope:		%			
c value					For c values see table below

P Output: 0 lb

### BUFFER SUMMARY

Length	ft
Width	ft
Slope	%

No buffer dimensions are shown  
because the P output is too high.