State of Wisconsin Runoff Management Section-WT/3 Department of Natural Resources 101 South Webster Street Madison, WI 53703

PO Box 7921 or Madison WI 53707-7921

# Targeted Runoff Management (TRM) Grant Program Small-Scale Agricultural Application

Form 8700-300 (R 1/15)

Page 1 of 14

Notice: This application form template was created by the Wisconsin Department of Natural Resources. Application is hereby made to the Wisconsin Department of Natural Resources, Bureau of Watershed Management, for grant assistance consistent with s. 281.65, Wis. Stats., and Chapters NR 153 and NR 154, Wis. Adm. Code. Collection of this information is authorized under the authority of s. 281.65, Wis. Stats. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law [ss. 19.31 - 19.39, Wis. Stats.]. Unless otherwise noted, all citations refer to Wisconsin Administrative Code.

Please read the <u>instructions</u> prior to completion of this form. Complete all sections as applicable. Refer to the instructions for attachments.

		Applicant	Information		
Calendar Year of Grant Start 2016					
Project Name		iti			Company of the second s
Manke Farm Manure Storage Improvements					
Governmental Unit Applying (name and type) (e. g. Dane County Land and Water Resources Department)					
La Crosse County Land Conservation Department					
Governmental Unit Web Site Address				was deen a	
www.co.la-crosse.wi.us/index.asp					
Name of Responsible Government Official (First Last)	- Authori	zed Signatory	Name of Government Official - different)	Grant Contact Pers	son (First Last)(if
Gregg Stangl			same		
Title			Title		
Director, Department of Land Conserv	ation				
Area Code + Phone Number			Area Code + Phone Number	The second	
(608) 785-9867			11 11 21 1		
E-Mail Address			E-Mail Address		
gstangl@lacrossecounty.org					
Mailing Address - Street or PO Box			Mailing Address - Street or PO	Box	
400 4th St N, Room 3270					
City	State	ZIP Code	City	State	ZIP Code
La Crosse	WI	56401		WI	
THE THE STATE OF THE STATE OF THE STATE OF		Part I. Proje	ct Information		
A. Project Category: Total Maximum Da	ily Load	(TMDL) or Nor	n-TMDL		
1. TMDL Project: The project mus	al area co	vered by an EF	g criteria: PA-approved TMDL. on sources of the agricultural no	npoint pollutants id	entified in the

Provide the title of the TMDL report that this project implements. (TMDL link: <a href="http://dnr.wi.gov/topic/tmdls/tmdlreports.html">http://dnr.wi.gov/topic/tmdls/tmdlreports.html</a>).

Provide a link to the report, if available.

Provide the document page number(s) that identify the pollutants and sources being addressed by this project.

**2. Non-TMDL Project:** The project must be designed to achieve attainment of the NR 151 agricultural performance standards and prohibitions.

Form 8700-300 (R 1/15)

Page 2 of 14

TRM Grant Project Name:

Manke Farm Manure Storage Improvements

B. Location of Project		and a "V"		1110				
See Attachment A and Surfathis question.	ace Water Da	ata Viewe	er (SWDV	) at <u>http://</u>	dnrmaps.wi.	.gov/SL/?Vie	wer=SWDV for assis	tance in completing
County La Crosse			Sta	ate Senate	District nur	mber:		y <u>District</u> number:
Minor Civil Division Name (city, village, town, etc ex. Holland, Town of)	Township (N)	Range	E or W	Section	Quarter	Quarter- Quarter	Latitude (North, 4 to 7 decimal places)	Longitude (West, 4 to 7 decimal places)
Bangor, Town of	16 N	5	W	. 31	SE	NW	43.8194	-91.0192
	N							90
	N							
	N							
Method for Determining Lati	tude & Longi	tude (che	ck one)			301	100	
O GPS O DNR Surfa	~	70,70	327					
Other (specify):								
C. Watershed and Waterbo	ody	* ,						
See Attachment A and SWI	OV at http://d	nrmaps.v	vi.gov/SL	/?Viewer=	SWDV for a	assistance in	completing this que	stion.
Watershed Name	A CHESTON		shed Coo		- III and a later of	rbody Name		Vaterbody Name
Lower La Crosse River	Later A		a Crosse	- A	ick Creek		I comment to the comment of the comm	eek to the West"
12-digit Hydrologic Unit Cod	le (HUC): 0	70400060	1401				•	
D. Endangered and Threat		The same of the same of						
Check the appropriate bo	x for each qu	estion ba	ased on w	hat the g	overnmenta	al unit know	s to occur where the	project disturbs land.
1. There are endang	ered or threa	itened res	sources, a	as identifie	ed in s. 29.6	04, Wis. Stat	ts., and NR 27 in the	project
area. (Refer to:	nic/erreview/ni	blicportal I	html?utm	source=fea	tureimage&u	ıtm medium=l	nomenage&utm_campa	aign=20140929 nhiporta
for assistance.)	10/0/10/10/10	Diioportain		000100 100	turon nago a			
2. There are archaed Stats., in the proje	logical sites, ct area.	historical	structure	es, burial s	ites, or othe	er historic pla	ices identified in s. 44	1.45, Wis.
3. There are wetlands (Answer with the S	WDV map lay	er Wetla	nd Indica	itors at			visions of NR 103.	
msp.//diffinago.wi	33110211011							
E. Maps and Photographs			0.5 13 5					In a later to the
Yes								
An 8.5" x 11" map from	m USGS or t	he DNR o	lata/map	viewers, s	showing the	project area	, is attached.	

- Aerial photo maps and project area photos are also included.
- **F. Filters** Note: The applicant **must** be able to check "Yes" to questions 1 through 9 and, if applicable "Yes" to questions 10 and 11 below to be eligible for a grant.

Yes

- 2. The applicant certifies that funding from this grant will only be used for BMPs to bring existing cropland, existing livestock facilities and non-significant expansions of livestock operations into compliance with NR 151 performance standards or prohibitions. (See definitions for existing (existing prior to effective dates of standards and prohibitions) and significant expansion in the instructions at Part I. F & G and Part II. H, respectively).
- 3. The applicant certifies that funding from this grant will not be used for best management practices to bring a livestock facility or cropland back into compliance with a performance standard or prohibition in NR 151 when such compliance had previously been achieved after the effective date of the standard or prohibition. (See effective dates at instructions Part I. G.)

Form 8700-300 (R 1/15)

Page 3 of 14

TRM Grant Project Name:

Manke Farm Manure Storage Improvements

- 4. The applicant certifies that funding from this grant will not be used for best management practices for which the DNR or local unit of government included a previous offer of cost sharing as part of a NR 151 notice or county notice that meets requirements of NR 151.09 or NR 151.095.
- 5. The project is consistent with the county Land & Water Resources Management Plan (LWRMP), plan amendment, or work plan prepared under s. ATCP 50.12, Wis. Adm. Code, and the approved LWRMP plan amendment, work plan or Inter-Governmental Agreement with DNR includes a qualifying strategy to implement state agricultural performance standards and prohibitions contained in subch. II of NR 151.

Identify the document name and date approved by the Land & Water Board.

Name: La Crosse County Land and Water Resource Management Plan

Date 12/06/2011

- a. To demonstrate consistency with the LWRMP, identify the goals, objectives or activities from the LWRMP, plan amendment or work plan related to the resource(s) of concern being addressed by the project. Water Quality Assessment/Goals and Standards, Chapter 3-page 13, The Department has established surface water quality goals compatible with existing Federal, State and County goals for total phosphorus, fecal coliform bacteria and dissolved oxygen. Total Phosphorus; 0.05 mg/L or less, Fecal Coliform Bacteria; Less than 1,000 colonies per 100 ml., Dissolved Oxygen; No less than 5 mg/L at any time; no less than 6 mg/L for trout waters; and no less than 7 mg/L during spawning season. Targeted Watersheds, Chapter 5 page 4, Landowners in targeted watersheds will be contacted regarding the requirements to comply with NR 151 and Chapter 23, Animal Manure Management Ordinance. Objectives and activities for agricultural performance standard implementation can be found in Chapter 5 page 11. Link to the La Crosse County LWRMP; http://www.co.la-crosse.wi.us/departments/land%20con/docs/LWRMP%202012-2016.pdf.
- b. To demonstrate a qualifying NR 151 implementation strategy, identify the implementation strategy outlined in the approved LWRMP document. Provide page numbers and a web link or attach hard copy of the pages.

  Agricultural Performance Standards Implementation Schedule, Chapter 5-page 11, Work towards full compliance of agricultural performance standards based on general priorities as indicated within the LWRM work plan. Priority Farms, Farmland Preservation Program, Chapter 5-page 3, Priority farms are those farms where landowners receive annual tax credits through the Farmland Preservation Program. Each Farmland Preservation Program participant is required to meet the new Soil Conservation Standards approved by the Wisconsin Land and Water Conservation Board in June 2005. Manke Farms are Farmland Preservation Program participants. Link to La Crosse County LWRMP; http://www.co.la-crosse.wi.us/departments/land% 20con/docs/LWRMP%202012-2016.pdf.
- ∑ 6. The project will be completed within 24 months of the start of the grant period.
- Staff and contractors designated to work on this project have adequate training, knowledge and experience to implement the proposed project.
- 9. The local DNR Nonpoint Source Coordinator (see <a href="http://dnr.wi.gov/topic/nonpoint/NPScontacts.html">http://dnr.wi.gov/topic/nonpoint/NPScontacts.html</a>) has been contacted and the project was discussed.

Name of the Local/DNR Nonpoint Source Coordinator Contacted	Date Contacted	Subject of Contact
Cindy Koperski	03/30/2015	Manke Farms discussion on NR 151 Compliance and TRM grant
Cindy Koperski	04/09/2015	Site visit on Manke Farms

Form 8700-300 (R 1/15)

Page 4 of 14

TRM Grant Project Name:

Manke Farm Manure Storage Improvements

<b>⊠</b> 10.	If this application is for a livestock facility, an Animal Units Calculation Worksheet (Form 3400-25a) for existing and future livestock numbers is attached. (Form available at: <a href="http://dnr.wi.gov/topic/AgBusiness/documents/3400025A_WT.doc">http://dnr.wi.gov/topic/AgBusiness/documents/3400025A_WT.doc</a> ).
<u> </u>	If this is a joint application among local units of government, a draft of the Inter-Governmental Agreement is attached. (See <u>Attachment H</u> )

Check all BMPs for which DN addresses, if applicable. See (Also see Attachment D for a	IR funding is requested and insert instructions Part I. G. for table of stadictional BMP information.) Assur	the Performance Standard and Pistandards and prohibition codes a se a budget for each BMP is include	nd effective dates. led in Part II. A.
Structural Practice (Wis. Adm. Code)	Enter Code #s: Performance Std.(s) or Prohibition(s) the BMP Addresses	Structural Practice (Wis. Adm. Code)	Enter Code #s: Performance Std.(s) or Prohibition(s) the BMP Addresses
Manure Storage Systems (NR 154.04(3)) R16	Code(s)	Riparian Buffers (NR 154.04(25)) R23	Code(s)
Manure Storage System Closure (NR 154.04(4)) R15	Code(s) 5,8	Roofs (NR 154.04(26)) R25	Code(s)
Barnyard Runoff Control Systems (NR 154.04(5)) R3	Code(s)	Roof Runoff Systems (NR 154.04(27)) R24	Code(s)
Access Roads & Cattle Crossings (NR 154.04(6)) R1	Code(s)	Sediment Basins (NR 154.04(28)) R26	Code(s)
Animal Trails and Walkways (NR 154.04(7)) R2	Code(s)	Sinkhole Treatment (NR 154.04(30) R28	Code(s)
Critical Area Stabilization (NR 154.04(10)) R6	Code(s)	Subsurface Drains (NR 154.04(33)) R30	Code(s)
Diversions (NR 154.04(11)) R7	Code(s)	Terrace Systems (NR 154.04(34)) R31	Code(s)
Field Windbreaks (NR 154.04(12)) R8	Code(s)	Underground Outlets (NR 154.04(35)) R32	Code(s)
Filter Strips (NR 154.04(13)) R9	Code(s)	Waste Transfer Systems (NR 154.04(36)) R33	Code(s) code = 4
Grade Stabilization (NR 154.04(14)) R10	Code(s)	Wastewater Treatment Strips (NR 154.04(37)) R34	Code(s)
Heavy Use Area Protection (NR 154.04(15)) R11	Code(s)	Water and Sediment Control Basins (NR 154.04(38)) R35	Code(s)
Lake Sediment Treatment (NR 154.04(16)) R12	Code(s)	Waterway Systems	Code(s)

Form 8700-300 (R 1/15)

Page 5 of 14

# TRM Grant Project Name:

Manke Farm Manure Storage Improvements

Structural Practice (Wis. Adm. Code)	Enter Code #s: Performance Std.(s) or Prohibition(s) the BMP Addresses	Structural Practice (Wis. Adm. Code)	Enter Code #s: Performance Std.(s) or Prohibition(s) the BMP Addresses
Livestock Fencing (NR 154.04(17)) R13	Code(s)	Well Decommissioning (NR 154.04(40)) R37	Code(s)
Livestock Watering Facilities (NR 154.04(18)) R14	Code(s)	Wetland Development or Restoration (NR 154.04(41)) R38	Code(s)
Prescribed Grazing (NR 154.04(22)) R20	Code(s)	Streambank and Shoreline Protecti (NR 154.03(31)) (includes associat	
Relocate or Abandon Animal Feeding Ops. (NR 154.04(23)) R21	Code(s)	Stream Crossing R39C	Code(s)
Process Wastewater Handling (NR	154.04(19) & NRCS 629)	Rip-rapping R39R	Code(s)
Milking Center Waste Control Systems R17	Code(s)	Shaping & Seeding R39S	Code(s)
Feed Storage Leachate R52	Code(s)	Fencing R39F	Code(s)
Other Wastewater - specify in "Other" below	Code(s)	Other Protection - e.g. bio- engineering - specify in "Other" below R39O	Code(s)
Other (specify)			

A.1. Detailed Budget for every BMP checked in Part I.					
A					B Amount Eligible for
Detailed List of Project Activities and Sub-activities Eli		DNR Cost Sharing (\$)			
Construction Components:		Water with the same of the sam	Marie Control of the		
Manure Storage System Closure; 795 cubic yards fil		15,00			
Manure Storage System; 12' deep x 210' diameter, c	oncrete, sub-base, steel, exc	avation			437,854
Waster Transfer System; 674 lin. ft. of 12" pipe					16,058
Feed Storage Leachate; catch basin w/grassed buffer					14,300
					70.000
Private Engineering Activities					70,000
Private Engineering Activities  1. Construction Subtotal					
	15 or .05263 of Row 1, whichev	ver is less	s.)		70,000 553,212
Construction Subtotal	15 or .05263 of Row 1, whichev	er is less	5.)		
Construction Subtotal     Local Force Account Activities (Entry is limited to \$10,71)	15 or .05263 of Row 1, whichev B Eligible Project Totals		s.) C Share %		
Construction Subtotal     Local Force Account Activities (Entry is limited to \$10,71     Cost-Sharing:	В	Cost-S	6	\$	553,212 D
Construction Subtotal     Local Force Account Activities (Entry is limited to \$10,71     Cost-Sharing:     A	B Eligible Project Totals	Cost-S	C Share %	\$ \$	553,212  D Eligible Cost-Share
Construction Subtotal     Local Force Account Activities (Entry is limited to \$10,71      Cost-Sharing:      A      Construction-related Subtotal: [add Rows 1 and 2]	B Eligible Project Totals \$ 553,212	Cost-S	C Share %	22	553,212  D Eligible Cost-Share

Form 8700-300 (R 1/15)

Page 6 of 14

TRM Grant Project Name:

Manke Farm Manure Storage Improvements

State	e an	d Local Share:			
7. Red	ques	ted State-Share Amount (Enter Requested Grant Amount)	\$	150,00	
8. Loc	al-S	hare Amount: [row 5, column B less row 7]	\$	403,212	
A.2. L	Jse c	of Additional Funding			
	] CI	heck this box if both of the following conditions are met.			
	•	The requested state-share amount in row 7 is less than the \$150,000 grant cap.	Es		
	•	The requested state-share amount in row 7 is below the maximum state-share i less than 70%.)	n row 6. (The resulting co	st-share rate is	
		Used to Calculate Cost Estimates: Select the appropriate option. Attach desiglicable.	n, bid, estimate documen	tation,	
0	<ol> <li>Project costs are based on completed design and competitive bid on the project. Construction components and costs above should be detailed. Provide the supportive documentation attached to this application.</li> </ol>				
0	2.	Project costs are based on completed design with materials and labor costs base Construction components in C. above should be detailed. Provide the supportive	ed on similar, recently bid documentation in this ap	projects. plication.	
•	3.	Project design is not complete; however, the proposed project and costs are based costs. Provide as much construction detail in C. above as possible. Provide the su	d on similar and recent proportive documentation in	ojects and this application	
0	4.	Project design is not complete and the cost estimate is based on an average or a smuch construction detail in C. above as possible. Provide the supportive docu	a range of projects and co imentation in this applicat	osts. Provide tion.	
0	5.	Project and costs are less specific than choices above. Provide explanation of cost estimates below or attached to this application. Cost estimates were provided by the designing engineer from MSA Prof	essional Services. See	attached.	

Target Completion Date (month/year)	Source of Staff
4/2015	MSA Professional Services
7/2015	Manke Farms
8/2015	MSA Professional Services
9/2015	La Crosse County DLC
10/2015	La Crosse County DLC
10/2015	MSA, Manke Farms
1/2016	MSA, Manke Farms
5/2016	MSA, La Crosse County DLC
7/2016	MSA
8/2016	MSA, La CRosse County DLC
	And the second s
	4/2015 7/2015 8/2015 9/2015 10/2015 10/2015 1/2016 5/2016 7/2016

D. Water Quality Need Category – The project must be consistent with at least one of the following seven watershed priorities. Check the one category (surface or groundwater) which best identifies the water quality priority which the project directly addresses. See the <a href="instructions">instructions</a> for category definitions and scoring information.

<u>Surface Water Considerations</u> For assistance with this section, consult the DNR's web pages provided below, see the <u>instructions</u> and see <u>Attachment A</u> of the instructions.

0	1.	Clean Water Act section 303(d) List of Impaired Waters
		Name of Applicable Impaired Water:

Form 8700-300 (R 1/15)

Page 7 of 14

TRM Grant Project Name:
Manke Farm Manure Storage Improvements

		Pollutant Causing Impairment:
•	2.	Outstanding or Exceptional Resource Waters (ORW/ERW), Area of Special Natural Resource Interest (ASNRI) - To locate ASNRI using DNR's Surface Water Data Viewer go to <a href="http://apwmad0d1600/SL/Viewer.html?Viewer=SWDV&amp;runWorkflow=DesignatedWaters">http://apwmad0d1600/SL/Viewer.html?Viewer=SWDV&amp;runWorkflow=DesignatedWaters</a> .
		Name of Applicable ORW/ERW or ASNRI: Bostwick Creek
0	3.	Not Fully Supporting Uses or NPS Ranking of High or Medium.
0		Surface Water Quality
Bo	nus	Points: Federal NPS Program Watershed Project Funding Eligibility
		eck this box if the project meets all of the following criteria:
\ <u></u>	• T	he project addresses a nonpoint source impaired waterbody listed on the most current EPA-approved Section 303(d) list
	C	of impaired waters or a nonpoint source threatened unimpaired/high quality water.
	t	he project is located upstream of and in the same 12-digit hydrologic unit (sub-watershed) as the 303(d) listed water or he unimpaired/high quality water.  Refer to Attachment A and http://dnrmaps.wi.gov/SL/?Viewer=SWDV for assistance.)
	1.00	he project implements the goals and recommendations of an EPA-approved watershed-based "9 key element" plan.
	• T hi	he project controls the same NPS pollutants which are impairing the 303(d) listed waterbody or threatening the unimpaired/gh quality water.
	The Att	e project may be eligible for Federal NPS Program (Clean Water Act Section 319) Watershed Project Funding. (Refer to <a href="mailto:achment C">achment C</a> of the application instructions for a list of eligible plans or link to map and plans at: <a href="http://dnr.wi.gov/water/9kemp/">http://dnr.wi.gov/water/9kemp/</a> .)
	Pro	ovide the title of the EPA-approved nine key element plan this project implements.
S	pecia	dwater Considerations For assistance with this section, consult the local DNR Drinking Water and Groundwater alist ( <a href="http://dnr.wi.gov/topic/drinkingwater/documents/countycontacts.pdf">http://dnr.wi.gov/topic/drinkingwater/documents/countycontacts.pdf</a> ) or the County Extension Office. https://documentation.
0	5.	Exceeds Groundwater Enforcement Standard Pollutant Causing Impairment:
0	6.	Exceeds Groundwater Preventive Action Limit Pollutant Causing Impairment:
0	7.	Groundwater Susceptible to Contamination by Agricultural Nonpoint Source Pollutants
E. Di	inki	ng Water Bonus Points:
Yes		
	cor gov	eck this box if the project water quality goals identified above relate to the reduction of nonpoint source contaminants in numerity or non-community public drinking water supplies. This includes any of the following: Municipal water supplies verned by chs. NR 809 and 811; Other-Than-Municipal (OTM) water supplies governed by chs. 809 and 811; Non-Transient ter supplies governed by chs. NR 809 and 812; Transient water supplies governed by chs. NR 809 and 812.
	1.	If "Yes" and you checked box 5, 6, or 7 above, then mark a, b or c below and move on to question F. (You will need assistance from your local DNR Nonpoint Source Coordinator ( <a href="http://dnr.wi.gov/topic/nonpoint/NPScontacts.html">http://dnr.wi.gov/topic/nonpoint/NPScontacts.html</a> ) or Water Supply Specialist ( <a href="http://dnr.wi.gov/topic/drinkingwater/documents/countycontacts.pdf">http://dnr.wi.gov/topic/drinkingwater/documents/countycontacts.pdf</a> ) to answer.)
	0	a. Check this box if the project is located: within the wellhead protection area of a municipal well, or within 1,200 feet of a municipal well for which a wellhead protection area is not delineated, or within 1,200 feet of an "Other-Than-Municipal (OTM)" water supply well, or within 1,200 feet of a non-transient water supply well
	0	b. Check this box if the project is located within 200 feet of Transient water supply well.
	$\bigcirc$	c. Check this box if you did not select a or b.

manure on Manke Farms cropland.

Form 8700-300 (R 1/15)

Page 8 of 14

TRM Grant Project Name:

Manke Farm Manure Storage Improvements

	<ol><li>If "Yes" and you checked box 1, 2, 3, or 4 for drainage area where the project is located (se</li></ol>	surface water considerations above, then place a check mark next to the below).
	Pike River and Creek	☐ Twin Rivers
	Root River	Kewaunee and Ahnapee Rivers
	Oak Creek	Menominee River
	Milwaukee River	Fish Creek
	Sauk Creek	St. Louis and Nemadji Rivers
	Sheboygan and Onion Rivers	Lake Winnebago
	Manitowoc River	Lake williebage
. N	ature of the Water Quality Impact. Check the box ne project site.	if the statement applies to receiving waters that are being affected by
С	pollution sources. Cause and effect relationship	waters experience general resource degradation from nonpoint as between the impairments and the specific site to be funded are difficult schosen if 1, 3, 4, 5 or 6 is checked in D. Water Quality Needs.)
•	<ol> <li>Site-specific degradation. Site-specific impacts such that a cause and effect relationship is clear Quality Needs.)</li> </ol>	ts on receiving waters from the site to be funded are observable or measurable or larly evident. (Note: This may be chosen if 1, 3, 4, 5 or 6 is checked in D. Water
	Supporting information, such as data summ	aries or photos, is attached. (Required to earn credit for statement 2.)
C		observed or measured in receiving waters but the existence of the pollution may be chosen if 2. or 7. is checked in D. Water Quality Needs.)
3. P	roject - Describe the water quality problem, the so	lution being proposed and the expected environmental improvements.
. D	Describe the pollution problem(s) at the site and	its effect on water quality (on site and off site).
	Prohibitions (PS&Ps) and/or TMDL goals that need Describe how pollutants are conveyed to waters of surface or ground water, frequency, magnitude and (Recommendation: attach photos of pollution source water and mention photos here.)	urces on the project site? What are all of the Performance Standards & to be addressed on the site? How does the site impact water quality? the state, the distance(s) between source(s) and discharge points or areas to d/or duration of discharge(s), etc. What is the current, estimated pollutant load? The areas, pollution conveyance to waters of the state and the affected receiving a milking and dry cows with a total mixed animal units number of 389.
	* · · ·	operation bringing their total mixed animal units number up to 494.
		with some young stock and dry cows scattered about the operation on
		facility on site that was installed prior to La Crosse County's Animal
	The same of the sa	995. Soils investigations from last October indicate that the manure
	storage facility most likely does not have the	required separation between the bottom of the facility and bedrock and/
	100 L	to groundwater. The manure storage facility holds less than six months
		land spreading manure during periods of frozen and/or snow-covered
	ground. Much of the cropland that Manke's v	vinter-spread with manure is adjacent to Bostwick Creek which is a
	Class I trout fishery and also classified as an I	Exceptional Waterbody. Most of the manure runoff from the farmstead,
	including feed storage leachate, is connected	to Bostwick Creek through a series of concentrated flow areas, small
	streams and road ditches. Manke's primary far	rm operation is up-slope and less than 1/4 mile away from Bostwick
	Creek. There are small streams less than 200	yards to the East and West of the primary operation that are tributaries
	and the same and t	an NOD in 2007 for a winter related manure runoff event that entered
		Farms also had a manure pumping failure that resulted in a minor
		13. Manure runoff to Bostwick Creek from Manke Farms is persistent
		acity causing manure applications to cropland at times of frozen and/or
		at describe the farmstead pollutant sources and winter applications of

Form 8700-300 (R 1/15)

Page 9 of 14

TRM Grant Project Name:

Manke Farm Manure Storage Improvements

### 2. Describe the project.

What is this project? What pollution problem(s) described above will be addressed with this project and how? How much of the pollution problem(s) associated with this site/operation will this project address? Which of the NR 151 PS&Ps or TMDL goals identified above will this project address? Which, if any, will remain to be addressed (and why)? Will the remaining PS&Ps be addressed with other funding sources in the same timeframe as this project or will they need to be addressed in subsequent years/grants?

The proposed project is to properly abandon the existing manure storage facility and place a 3 million gallon concrete circular storage tank that is in compliance with current standards and specifications on the east side of the farmstead. The new concrete storage tank will be liquid-tight and hold 180 days worth of manure. The existing manure storage facility will be cleaned and backfilled to grade with clean fill material and new bunker silos will be constructed. The abandonment of the existing manure storage facility should eliminate the threat to groundwater due to structural failure. The new structure will be built to current NRCS Field Office Technical Guide standards and specifications and have the required separation from the bottom of the manure storage facility and bedrock/zone of saturation. By having more capacity to store manure, the new storage structure will stop land spreading of manure during frozen and/or snow-covered ground or other times that are unfavorable due to weather conditions. In conjunction with a nutrient management plan, animal waste runoff into Bostwick Creek from Manke Farms should be greatly reduced. Currently, the feed storage area consists of silage stored in plastic bags placed on bare ground. There is no leachate collection system for the area and no buffering of "first flush" leachate. The proposed bunker silos will have a concrete base and pre-cast walls and will be liquid-tight. Leachate from the feed storage area will be collected from the feed pads and diverted to a vegetated treatment area (VTA) located in the northwest corner of the property. The Department of Land Conservation will also require that the Manke farm operation attain compliance with all the State's soil and water conservation standards (NR 151).

### 3. Describe the expected environmental improvements.

How effective will this project be in solving the pollution problem(s) and water quality impacts described above? What is the expected percent reduction in pollutant loading or pollution potential after this project is completed? What is the compliance level with NR 151 PS&Ps that will be achieved with completion of this project and what will remain to be addressed? What is the potential for water quality improvement of the receiving water?

This project is estimated to reduce the amount of phosphorus, nitrogen and bacteria entering Bostwick Creek from agricultural sources from the Manke Farms operation by approximately 70%. Manke Farms have been winter spreading manure on their flat fields which are close to the farmstead and happens to be adjacent to Bostwick Creek, having a direct impact on its water quality. Creating adequate manure storage will eliminate the need to winter spread manure and reduce runoff events to Bostwick Creek. Runoff from feed storage leachate has been undetermined as to its impact on Bostwick Creek however, there is an existing network of road ditches and concentrated flow areas that strongly indicates that leachate runoff is entering Bostwick Creek. A feed storage runoff collection system will help to reduce "first flush" pollutants from leaving the storage area and impacting Bostwick Creek. Manke Farms have submitted a nutrient management plan for their farm in 2010, 2011 and 2012. Our Department has no record of a nutrient management plan submitted in 2014 or 2015. As a condition of receiving NRCS funds under the EQIP program and to comply with La Crosse County's Manure Management Ordinance, Manke Farms will be required to develop a comprehensive nutrient management plan. Manke Farms installed a barnyard runoff control system on their heifer raising facility in 2013, which eliminated a significant source of manure runoff to Bostwick Creek. The only concern regarding NR 151 standards that needs to be addressed are areas where cattle have access to streams. Cattle crossings may need to be installed to protect stream banks from erosion. This will be addressed at a later date after the Department of Land Conservation completes a stream bank inventory in preparation of a large-scale TRM grant application for Bostwick Creek in 2016.

### H. Cost-Effectiveness

 a. Explain how the proposed best management practices are a reasonable means to achieve NR 151 Performance Standards and Prohibitions (PS&Ps) or TMDL water quality goals. Include factors such as cost-effectiveness, site feasibility, available technical standards, and practicality. If applicable, include information to demonstrate that BMP(s) are sized to meet current and allowable insignificant growth needs of the operation (e.g. concrete pads for barnyards, feed storage, etc.) to achieve PS&Ps and water quality goals.

A new manure storage facility, correctly sized and constructed, and a new feed storage leachate runoff control system is the best available option for Manke Farms if they wish to continue dairy farming and substantially comply with the State's soil and water conservation standards. In order to protect groundwater resources and reduce surface water contamination from agricultural runoff, Manke Farms will need to reconstruct their feed storage area and manure storage facility to meet current NRCS and DNR standards and specifications. This will be a major

Form 8700-300 (R 1/15)

Page 10 of 14

TRM Grant Project Name:

Manke Farm Manure Storage Improvements

investment for Manke Farms but one they appear committed to achieving. Due to the presence of shallow soils over bedrock and groundwater, a concrete, liquid tight manure storage facility and feed storage pad will need to be built to meet current standards. The manure storage facility will have to be built with vertical walls and has limited below-ground construction due to bedrock elevations. It is the best option considering geology and topography in the farmstead location. The manure storage facility will have adequate free-board to accommodate some additional growth in cow numbers. La Crosse County regulates farms with 500 or more animal units to meet ATCP 51 requirements. Manke Farms plan to expand to 494 animal units and remain there.

b. DNR requires that new or substantially altered manure storage facilities be designed to meet the applicable NR 151 PS&Ps. Typically, a manure storage facility that is designed and maintained to provide 180 days of storage is sufficient to meet NR 151 PS&Ps. The state share should be based only on the cost to construct a facility to meet NR 151 PS&Ps. Submit the WASTE STORAGE FACILITY DESIGN - 313 STANDARD worksheet or equivalent information to support the facility size and cost information submitted in this application.

Manke's have decided to use a Pipping Concrete Inc. structure for their new waste storage facility. Pipping Concrete Inc. has NRCS pre-approval for structural design and MSA will site the structure to comply with NRCS standards. The Waste Storage Facility Design worksheet is attached to show 180 days of storage.

If other alternative management measures were evaluated, list them here and describe why the alternative(s) is not being recommended.
 Due to the geology and topography of the farmstead, alternative locations for the manure storage facility and feed

Due to the geology and topography of the farmstead, alternative locations for the manure storage facility and feed storage leachate runoff control system was severely limited. Depth to bedrock and zones of saturation limited locations for both BMP's. The proposed locations are the best alternatives to the current arrangement of milking parlor, freestall barn, feed storage area and other existing out-buildings. Alternative fields for winter spreading of manure were considered but much of the cropland not adjacent to Bostwick Creek have winter spreading restrictions due to steepness.

### I. Project Evaluation Strategy

1. Project Modeling and Measures of Change

Describe the strategy that will be implemented to evaluate the pre- and post-project pollution potential and pollutant loading data that is required for the Final Project Report. Describe the pre- and post-project evaluation modeling methods and measures that the applicant will use to measure success in achieving the NR 151 PS&Ps or TMDL project goals. See the instructions for lists of BMPs, PS&Ps, modeling and measurement methods and units of measure.

The Department of Land Conservation has maintained a water quality monitoring program for all watersheds in La Crosse County since 1998. The water quality monitoring protocol involves pulling grab samples from all watersheds within a 2 1/2 hour period and then taken to the La Crosse County Environmental Health Lab (State Certified) for analysis of total phosphorus and fecal coliform bacteria. Samples are collected at least 72 hours without rainfall and 2-4 times per year. Bostwick Creek has been part of the sampling scheme since 1998. The Department of Land Conservation also plans to increase its sampling protocol for Bostwick Creek to include dissolved oxygen and temperature measurements starting in 2015 in anticipation of applying for a DNR TRM grant in 2016 for Bostwick Creek. The Department has deployed two YSI D.O. and Temperature Sondes in Bostwick Creek. We believe that there is sufficient water quality data from our monitoring program to assess any water quality improvements that may result from the implementation of the BMP's listed in this application.

	T
)	Water Quality Monitoring (not eligible for cost sharing at this time)  If, in addition to the above, the project evaluation strategy includes evaluating BMP effectiveness and/or pre- and post-project water resource monitoring, and the information will be provided to DNR, check all that apply below.
	<ul> <li>a. A one-page summary of the project-specific BMP and/or water resource monitoring strategy is attached.</li> <li>b. The project will evaluate BMP pollution reduction effectiveness (e.g., inlet/outlet monitoring).</li> <li>c. The project will evaluate the in-stream physical habitat, fisheries, biological, or chemical conditions.</li> <li>d. The applicant is willing to participate with the Department to do monitoring in the project area should funding become available.</li> </ul>

Page 11 of 14

TRM Grant Project Name:

Manke Farm Manure Storage Improvements

-	
J. E	vidence of Local Support that <u>currently</u> exists for the proposed project - check the applicable situation below.
1.	Regulatory Situations - The total project cost is attributed to the resolution of a Notice of Discharge (NOD) or a Notice of Intent to Issue an NOD (NOI) under NR 243 or non-compliance with agricultural performance standards and prohibitions under subch. Il of NR 151 or a local regulation and at least one of the following is attached to this application form: (check all that apply).
	a. Signed and dated copy of the NOI or NOD issued under NR 243;
	b. Signed and dated copy of letter signed by the authorized DNR representative stating that DNR will issue a notice under NR 151 or NR 243;
	<ul> <li>Signed and dated copy of letter from the authorized county representative that the local regulation will be enforced at the project site.</li> </ul>
	If you checked J.1., then go on to Question K. If this project is not regulatory, continue to number 2. of this question.
2.	Non-Regulatory Situations - Check the applicable situation below. The governmental unit has:
	<ul> <li>a. Developed a detailed pollution control plan with the landowner(s)/land operator(s) that identifies specific BMPs and the affected landowner(s)/land operator(s) indicated that they will sign a cost-share agreement to install the practices requested in this grant application; or</li> </ul>
	<ul> <li>b. Conducted general assessments of the pollution sources within the project area and affected landowner(s)/land operator(s) indicated a general interest to participate in the project; or</li> </ul>
	<ul> <li>Contacted the landowner(s)/land operator(s) about the proposed BMP installations; however, landowner(s)/land operator(s) participation is undetermined.</li> </ul>
	d. If a. or b. is checked, letters of support for the project from affected landowner)/land operator are attached.
	If a., b. or c. is checked above, provide details here.  Landowners have agreed to properly abandon the existing manure storage facility and build a new facility and transfer system that complies with NRCS Field Office Technical Guide Standards and Specifications and in a location that meets those standards. They have also agreed to treat leachate from a proposed feed storage facility in accordance with standards and specifications. Manke Farms has also applied for Federal funding (EQIP) from NRCS to help with financial assistance to install the manure storage facility. This requires that Manke Farms develop and implement a comprehensive nutrient management plan as a condition of receiving funding for the
	manure storage facility. See attached letter.
3. ⊠	Involvement of Partners - check box if applicable.  Partners, in addition to the unit of government (applicant) and landowner, have committed resources (materials, equipment, staff or financial resources) towards the BMP installation, maintenance or evaluation of the project.
	If checked, list the project partner(s).
	La Crosse County - Staff, monitoring equipment and financial resources
	USDA NRCS La Crosse Field Office - Financial resources and staff
	Letters from the project partner(s) indicating the resources they committed to support the project are attached. (Letters of resource support must be attached for a score here.)
K. C	onsistency with Other Resource Management Plans
	Check this box if the proposed project implements a water quality recommendation from a locally approved resource management plan. Examples include Smart Growth plans, Legacy Community plans, Water Star plans, local Storm Water Management plans, wellhead protection, lake management, regional water quality plans, Remedial Action plans and other watershed-based nonpoint source control plans.
	(This question does not include a TMDL report or implementation plan, or a County Land and Water Resource Management Plan.)
	Cite the name and date(s) of publication of the document. Attach pertinent page(s) or provide URL and page numbers. Summarize the water quality recommendation(s) and describe how it relates to the goals of this proposed project. (Required to earn credit for K.)
	La Crosse County Farmland Preservation Plan - July 2012
	http://www.co.la-crosse.wi.us/Minutes and Agendas/CertResolutionsOrdinances/2012/Sep/Ord 106.pdf
	Page 32, Maintain Natural Resources
	Page 35, Conservation Compliance
	The La Crosse County Farmland Preservation Plan supports the preservation of farms and the protection of natural
	resources through soil and water conservation efforts. All farms in La Crosse County in the FPP program are
	required to obtain compliance with the State's soil and water conservation standards. All new enrollees must be in

Form 8700-300 (R 1/15)

Page 12 of 14

TRM Grant Project Name:

Manke Farm Manure Storage Improvements

full compliance with those standards before being accepting into the program. Manke Farms have been in the Farmland Preservation Program for more than 15 years.

# Part III. Eligibility for Local Enforcement Multiplier

the or	oletion of Part III is optional. However, an applicant can increasine enforcement authority situation which <b>best</b> applies to the gosed project.	se the final project overnmental unit a	score by qualifying for a project multiplier. Check pplying for a TRM grant combined with the
•	The applicant certifies that it has local authority to enforce all sites within the local jurisdiction where such state agricultural project score by a factor of 1.15.	state agricultural p performance stand	performance standards and prohibitions at all dards and prohibitions apply. <i>Multiply the initial</i>
0	The applicant certifies that it has local regulations that give loperformance standards and prohibitions at all sites within the standards apply; and this project addresses an enforceable play a factor of 1.10.	local jurisdiction w	here such state agricultural performance
0	The applicant certifies that it has local regulations that give loperformance standards and prohibitions at some, but not all, an enforceable performance standard or prohibition on a site of 1.05.	of the sites within t	he local jurisdiction; and, this project addresses
0	Applicant has no local authority to enforce state agricultural proposed project. No multiplier is earned.	erformance standa	ards and prohibitions within the local jurisdiction
Co	opies of ordinances for which credit is taken in this section are	: (choose at least o	one)
$\times$	Found at this website (provide most direct web page URL).		
	http://www.co.la-crosse.wi.us/code/pdf/Chapter%2023%20A	Animal%20Waste%	620Management.pdf
	Attached to this application.		
	Already attached to another application for funding.		
		onal Information	
	ully review the answers to all of the questions above. Is there at? If so, describe here.	additional informati	on that will add to the understanding of this
The union Imforest Farms Bostw	vick Creek is a valued water resource in La Crosse County. It pper portions of Bostwick Creek is classified as an Exception paired Water and is being submitted to the EPA for the draft ed hills watershed. There are only a few farm operations in B are one of the few dairy operations left in the watershed and vick Creek's water quality. We believe that the proposed many anke Farms will help maintain the fisheries and keep the class	al Resource Water 2014 303(d) list. B ostwick Watershed being located in the ure storage facility	(NR 102) while the lower section is considered ostwick Creek is mainly an agricultural and I that has animal units left on them. Manke he headwaters, has the biggest impact on and feed storage leachate runoff control system
	Applicant C	Certification	
The g	sponsible Government Official (authorized signatory) must signovernmental official with signatory authority must be the persory that, to the best of my knowledge, the information contained	on authorized by the	e Governmental Responsibility Resolution.
Signa	ture of Authorized Government Official.		Date Signed
Vame	(Please Print)	Title	1
	g Stangl	Director, Depart	ment of Land Conservation
	The required, completed Governmental Responsibility Resolu	ution (signed in <mark>blu</mark>	e ink) (see <u>Attachment I</u> ) is attached.

**Submittal Directions** 

Form 8700-300 (R 1/15)

Page 13 of 14

TRM Grant Project Name:

Manke Farm Manure Storage Improvements

To be considered for funding, provide the following for each application submitted:

- One copy of the completed application form [DNR Form 8700-300 (R 1/15)] with original signature in blue ink, and all attachments.
- Three additional copies of the completed, signed application form and all attachments.
- One electronic copy of the completed application form in PDFormat only plus all attachments and maps on CD.

or

All application materials must be postmarked by midnight April 15 of the same calendar year.

Send to: Department of Natural Resources Runoff Management Section-WT/3 101 South Webster Street Madison, WI 53703

PO Box 7921

Madison WI 53707-7921

Form 8700-300 (R 1/15)

Page 14 of 14

TRM Grant Project Name:

Manke Farm Manure Storage Improvements

Please use this page to write any constructive comment(s) you might have to improve this application.

Thank you.

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).

1	Current / lame of Site: Manke Farms	Animal U	nit Calculo	ation Num	bers		0
		I.	Mixed Animal	Units	II. Non-	-mixed Animal U	nits
	Animal Type	b. Equiv.   c. Current   d. No. of   factor   Number   AUs		e. Equiv. factor	f. Current Number	g. No. of Aus	
E	rample - 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	16	=3.2	Fed.numbers in this	column comply with 40	) CFR s, 122,23
te te	Milking & Dry Cows	1.40 x	183	=256.2	1.43 x	183	=261.69
Dairy Cattle	Heifers (800 lbs to 1200 lbs)	1.10 ×	75	<sup>≖</sup> 82.5		150	150
Dain	Heifers (400 lbs to 800 lbs)	0.60 ×	75	<sub>=</sub> 45	1.00 ×		= 14
Beef	Steers or Cows (400 lbs to market)	1,00 ×		=		2	2
Be	Bulls (each)	1.40 ×	2	<b>=</b> 2.8	1.00 ×	-	=
	Veal Calves	0.50 ×		= 1	1,00 ×		=
Г	Pigs (up to 55 lbs)	0.10 ×		<b>.</b>	0.10 ×		=
ine	Pigs (55 lbs to market)	0.40 ×		=			
Swine	Sows (each)	0.40 ×		=			
	Boars (each)	0.50 ×		=	0.40 x		=
sus	Layers (each) -non-liquid manure system Broilers/Pullets (each) -non-liquid manure	0.01 x		=	0.0123 ×		=
Chickens	system	0.005 ×		=	0.008 x		=
O	Per Bird -liquid manure system	0.033 x		=	0.0333 x		æ
sks	Ducks (each) -liquid manure system	0.2 x		=	0.2 x		=
Ducks	Ducks (each) -non-liquid manure system	0.01 ×		<b> </b>	0.0333 x		F
T.	Turkeys (each)	0.018 ×		=	0.018 ×		=
	Sheep (each)	0.1 ×		=	0.1 ×		=
	Horses (each)	2 x		Ξ	2 x		=
Total Animal Units:		Total Mixed Animal Units = Cadd all rows above (Enter the single highest nur any row above; DO NOT add 261.69			highest number	from	

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

# 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 Projected 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).

# Projected Animal Unit Calculation Numbers

Name of Site: Manke Farms

	4.5.17	I.	Mixed Animal L	Jnits	II. Non-mixed Animal Units			
	Animal Type	b. Equiv. factor	c. Projected Number	d. No. of AUs	e. Equiv. factor	f. Projected Number	g. No. of Au	
Exa	mple - 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	20	<sup>=</sup> 4	Fed.numbers in this	column comply with 40	O CFR s. 122.23	
le	Milking & Dry Cows	1.40 x	238	<sup>=</sup> 333.2	1.43 x	238	<sup>=</sup> 340.34	
Dairy Cattle	Heifers (800 lbs to 1200 lbs)	1.10 ×	91	<sup>=</sup> 100.1		182	182	
Dain	Heifers (400 lbs to 800 lbs)	0.60 x	91	=54.6	1,00 x		= 1	
Beef	Steers or Cows (400 lbs to market)	1,00 ×		=		2	2	
Be	Bulls (each)	1,40 ×	2	=2.8	1.00 ×		=	
	Veal Calves	0.50 x		=	1.00 x	12	=	
	Pigs (up to 55 lbs)	0.10 ×		=	0.10 x		=	
ine	Pigs (55 lbs to market)	0.40 x		=	<u>.</u>			
Swine	Sows (each)	0.40 x		=	1			
	Boars (each)	0.50 x		=	0.40 x		=	
S	Layers (each) -non-liquid manure system	0.01 ×		Ξ	0.0123 x		=	
Chickens	Broilers/Pullets (each) -non-liquid manure system	0.005 x		=	0.008 x		=	
0	Per Bird -liquid manure system	0.033 x		=	0.0333 x		=	
Ducks	Ducks (each) -liquid manure system	0.2 x		=	0.2 x		=	
D	Ducks (each) -non-liquid manure system	0.01 ×		Ξ	0.0333 x		<b>E</b>	
	Turkeys (each)	0.018 x		=	0.018 x		E	
	Sheep (each)	0.1 ×		=	0.1 x		=	
	Horses (each)	2 x		=	2 x		=	
Total Animal Units:		Total Mixed Animal Units =  (add all rows above)  494.7			Total Non-Mixed Animal Units =  (Enter the single highest number from any row above; DO NOT add the totals)  340.34			

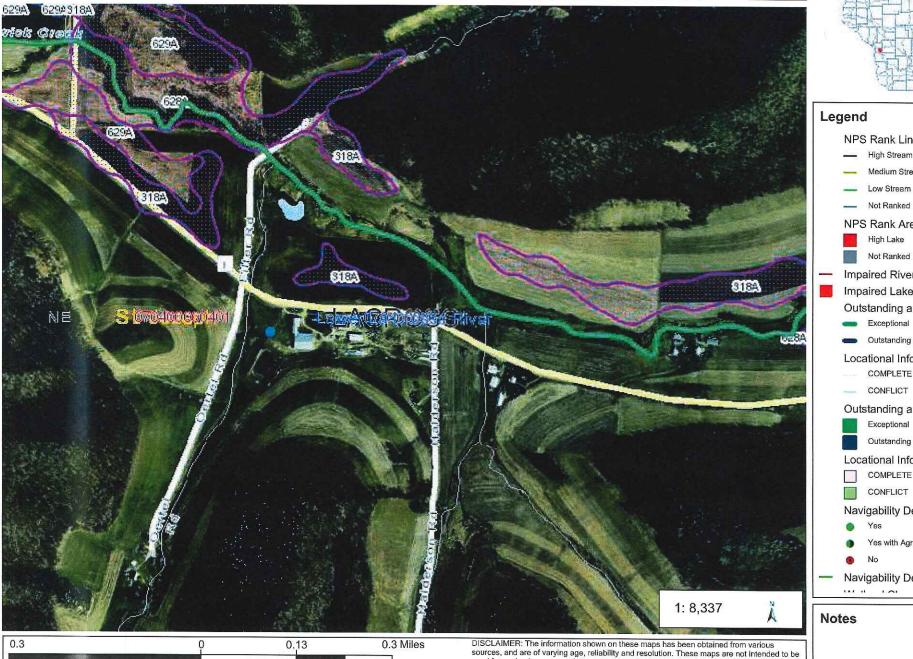






NAD\_1983\_HARN Wisconsin TM © Latitude Geographics Group Ltd.

# **Surface Water Data Viewer Map**



used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made aregarding accuracy, applicability for a particular use, completemenss, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: http://dnr.wi.gov/org/legal/

#### NPS Rank Lines

- High Stream
- Medium Stream
- Low Stream
  - Not Ranked

#### NPS Rank Areas

- High Lake
- Not Ranked
- Impaired Rivers and Streams
- Impaired Lakes

Outstanding and Exceptional S

- Exceptional
- Outstanding

Locational Information (line)

- COMPLETE
- CONFLICT

Outstanding and Exceptional L

- Exceptional

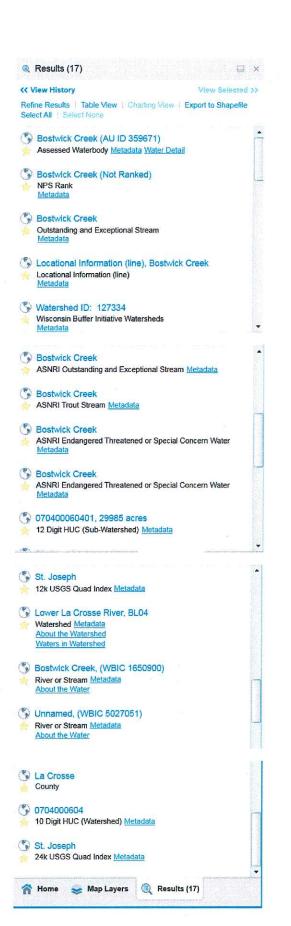
Locational Information (area)

- COMPLETE
- CONFLICT

Navigability Determinations

Yes with Agricultural Exemption

Navigability Determinations (O





TRANSPORTATION • MUNICIPAL
DEVELOPMENT • ENVIRONMENTAL
1230 South Boulevard Baraboo, WI 53913
608-356-2771 1-800-362-4505 Fax: 608-356-2770
Web Address: www.msa.ps.com

PROJECT NAME CLIENT NAME LOCATION PROJECT NO

### WASTE STORAGE FACILITY DESIGN - 313 STANDARD

	Manke Farm	is			LA CROSS	E		DATE:	
DSN BY:				CHK BY:	-			DATE:	Y
	TYPE>	1					ng), 5=SWIN	E(farrowing),	
For Dairy:	Polling L	lerd Average		=POULTRY  lbs/cow/yr	0=OTHER)		nobion born?	N	(Y or N)
	ND WASTE		25,000	libs/cow/yr		is it a sta	nchion barn?	IN	I(1 or 14)
LIVESTO		AVG. WT.	DAILY OUT			DAYS OF	VOLUME	ANIMAL	
KIND	NUMBER 205	PER HEAD	MANURE 2.53	BEDDING 0.5	TOTAL 619.1	STORAGE 180	REQUIRED 111,438	UNITS 287	
Dry Cows	33	1,200	1.92	0.0			11,405	40	
Heifers	182	900	1.44	0.0	262.1	180	47,174		
Calves	20	200	0.32	0.0		180	1,152	4	
Bulls	2 WAST	2200 EWATER:	3.52 1497	GAL/DAY		CU FT/DAY	1,267		TOT. A.U.
			TOTAL DAIL			CU FT / DA			101111101
					Total N		Ma atawatan	1,559,194 208,448	GALLONS
Section 1			Expe	cted % solid		lanure and V	f and precip.)	8.8	& CUFI
						,2001/2020/2020/2020			
RUNOFF V	<b>OLUME</b> MONTHLY F	NOCE							
	RCN	A DESCRIPTION OF THE PROPERTY	16.4	IN. X	21,600	Ft2 Drainag	e Area=	29,520	CU FT
			12				ude storage a		
25 Voor 24	HOUD BUILD	IOEE							
25- Year, 24	-HOUR RUN RCN	98	4.66	IN. X	21,600	Ft2 Drainag	e Area=	8 394	CU FT
			12		-1,000		ide storage a	rea)	
		T-4-16	M N	Illian Cont	D		)		GALLONS
		Total id	or Manure, N	lliking Centi	er, Runon ve	olume, and 2	5 Yr Hunon	246,362	CUFI
PRECIPITA	TION	D	oes the facilit	y collect pre	cipitation? (N	lo roof or lid)	1	(1 for yes, 2 fo	or no)
Des ain ital			F	Beginning Mo	onth for Preci	p. Collection	11	(1=Jan, 2=Fel	b, etc.)
Precipitat	ion minus ev	aporation erage Precipit	ation on Stor	age Surface		9.7	INCH	0.8	FT
		age Evaporat					INCH -	0.4	A STATE OF THE PARTY OF THE PAR
		Net Precipit	ation on Stor	age Surface		4.9	INCH	0.4	FT
		15 V- 04 U- D					IN COLU		
	2	25-Yr, 24-Hr P	recip on Stori	age Surface		4.9	INCH	0.4	
REMAINING	WASTE	(If r	no sump, use	these minim	ums: ponds	-2', tanks-1')	0.5	FT	
EVTDA DEI	TH FOR CA	CETY			/4	ا \محد رحما المالية الم	1.0		
EXTRADE	PTH FOR SA	<u>VEII</u>			\ -	ft. Minimum)	1.0	F!	
SETTLEME	<u>NT</u>			(5%	of Embankr	ment Height)[	0.0	FT	
M.O.L. DEP									
		(Donth	to hold Mani	uro Mactou	ator Dunoff	and Propin )	· ·	0.761	
	Ш	(Depth	to hold Man	ure, Wastew	ater, Runoff,	and Precip.)		9.76	FT
	<u></u>	(Depth	to hold Manı			and Precip.)  age Facility	12.0		FT
	<u>IH</u>	(Depth	to hold Man			(dec ( <b></b> -	12.0		FT
	TH  FACILITY EL		to hold Man			age Facility	12.0		
						age Facility		FT	cu ft
				Total Depti		age Facility  Design Stor	age Volume duced per yr	FT 267,141	cu ft
STORAGE I		EVATIONS		Total Depti		Design Stor	age Volume duced per yr 826.0 ———	FT 267,141	cu ft
STORAGE I	FACILITY EL	EVATIONS		Total Depti	of the Stor	age Facility  Design Stor	age Volume duced per yr 826.0 ———	FT 267,141	cu ft
STORAGE I	FACILITY EL Extra Depth f 25 yr Precip.	EVATIONS for Safety & 25 yr Runol		Total Depti	of the Stor	Design Stor	age Volume duced per yr 826.0 ———	FT 267,141	cu ft
STORAGE I	Extra Depth f 25 yr Precip.	er Safety & 25 yr Runol	; <del> </del>	Settlement  Max. Operati (M.O.L.)	n of the Stor	Design Stor Manure Production ELEV	age Volume duced per yr 826.0 ———— 824.3	FT 267,141 349,663	cu ft cu ft
STORAGE I	FACILITY EL Extra Depth f 25 yr Precip.	or Safety & 25 yr Runol water	ff Usable	Settlement  Max. Operati (M.O.L.)	of the Stor	Design Stor Manure Production ELEV	age Volume duced per yr 826.0 ———— 824.3	FT 267,141	cu ft cu ft
STORAGE I	Extra Depth f 25 yr Precip. e and Waster Minus evapo unoff Volume	Tor Safety & 25 yr Runol water pration	ff Usable	Settlement  Max. Operati (M.O.L.)	ng Level	Design Stor Manure Prod ELEV 248,358 9.8 FT	age Volume duced per yr 826.0 ————————————————————————————————————	FT 267,141 349,663	cu ft cu ft
STORAGE I	Extra Depth f 25 yr Precip. e and Waste Minus evapo	Tor Safety & 25 yr Runol water pration	ff Usable	Settlement  Max. Operati (M.O.L.)	ng Level	Design Stor Manure Prov	age Volume duced per yr 826.0 ———— 824.3	FT 267,141 349,663	cu ft cu ft
STORAGE I	Extra Depth f 25 yr Precip. e and Waster Minus evapo unoff Volume	Tor Safety & 25 yr Runol water pration	Usable Usat	Settlement  Max. Operati (M.O.L.)	ng Level  ow M.O.L. =	Design Stor Manure Prod ELEV 248,358 9.8 FT	age Volume duced per yr 826.0 ————————————————————————————————————	FT 267,141 349,663	cu ft cu ft
STORAGE I	Extra Depth f 25 yr Precip. e and Waste Minus evapo unoff Volume Remaining w	or Safety & 25 yr Runoi water oration aste	Usable Usab	Settlement  Max. Operati (M.O.L.)  e Volume be ble Depth be	ng Level  ow M.O.L. = ow M.O.L. =	Design Stor Manure Prod ELEV 248,358 9.8 FT ELEV	age Volume duced per yr 826.0 ————————————————————————————————————	267,141 349,663	cu ft cu ft
STORAGE I	Extra Depth f 25 yr Precip. e and Waste Minus evapo unoff Volume Remaining w	or Safety & 25 yr Runoi water oration aste	Usable Usat	Settlement  Max. Operati (M.O.L.)  e Volume be ble Depth be	ng Level  ow M.O.L. = ow M.O.L. =	Design Stor Manure Prod ELEV 248,358 9.8 FT	age Volume duced per yr 826.0 ————————————————————————————————————	FT 267,141 349,663	cu ft cu ft
STORAGE I	Extra Depth f 25 yr Precip. e and Waste Minus evapo unoff Volume Remaining w	or Safety & 25 yr Runoi water oration aste	Usable Usab	Settlement  Max. Operati (M.O.L.)  e Volume be ble Depth be	ng Level  ow M.O.L. = ow M.O.L. =	Design Stor Manure Prod ELEV 248,358 9.8 FT ELEV	824.3 CU FT 814.0 (1= Recta	267,141 349,663	cu ft cu ft
STORAGE I	Extra Depth f 25 yr Precip. e and Waste Minus evapo unoff Volume Remaining w	or Safety & 25 yr Runoi water oration aste	Usable Us	Max. Operati (M.O.L.) e Volume be ole Depth be	ow M.O.L. = ow M.O.L. = syy	Design Stor Manure Production ELEV 248,358 9.8 FT ELEV 2	age Volume duced per yr 826.0  824.3  CU FT  814.0  (1= Recta	267,141 349,663	cu ft cu ft
STORAGE I	Extra Depth f 25 yr Precip. e and Waste Minus evapo unoff Volume Remaining w	or Safety & 25 yr Runoi water oration aste	Usable Us	Max. Operati (M.O.L.) e Volume be ole Depth be	ng Level  ow M.O.L. = ow M.O.L. =	Design Stor Manure Prod ELEV 248,358 9.8 FT ELEV	age Volume duced per yr 826.0  824.3  CU FT  814.0  (1= Recta	267,141 349,663	cu ft cu ft
STORAGE I	Extra Depth f 25 yr Precip. e and Waste Minus evapo unoff Volume Remaining w	or Safety & 25 yr Runoi water oration aste	Usable Us	Settlement  Max. Operati (M.O.L.)  e Volume be oble Depth be  storage facili  NGULAR O  SLOPES OF	ow M.O.L. = ow M.O.L. = syy	Design Stor Manure Production ELEV ELEV 248,358 9.8 FT ELEV 2 0.0	age Volume duced per yr 826.0  824.3  CU FT  814.0  (1= Recta	267,141 349,663	cu ft cu ft
STORAGE I	Extra Depth f 25 yr Precip. e and Waste Minus evapo unoff Volume Remaining w	LEVATIONS  For Safety  & 25 yr Runoi  water pration  aste  IS STOR	Usable Us	Settlement  Max. Operati (M.O.L.)  e Volume be ble Depth be  storage facili  NGULAR O  SLOPES OF  DOSE A BOTTO	ow M.O.L. = ow M.O.L. = ow M.O.L. = cow M.O.	Design Stor Manure Prov ELEV 248,358 9.8 FT ELEV 20.0 10 REQUIRED	age Volume duced per yr 826.0  824.3  CU FT  814.0  (1= Recta	267,141 349,663 12.0 ingular; 2= Ro for walls)	cu ft cu ft
STORAGE I	Extra Depth f 25 yr Precip. e and Waste Minus evapo unoff Volume Remaining w	LEVATIONS  For Safety  & 25 yr Runoi  water pration  aste  IS STOR	Usable Us	Settlement  Max. Operati (M.O.L.)  e Volume be ble Depth be  storage facili  NGULAR O  SLOPES OF  DOSE A BOTTO	ow M.O.L. = ow M.O.L. = ow M.O.L. = cow M.O.	Design Stor Manure Prov ELEV 248,358 9.8 FT ELEV 20.0 10 REQUIRED	age Volume duced per yr 826.0  824.3  CU FT  814.0  (1= Recta	267,141 349,663 12.0 ingular; 2= Ro for walls)	cu ft cu ft FT
STORAGE I	Extra Depth f 25 yr Precip. e and Waste Minus evapo unoff Volume Remaining w	er Safety & 25 yr Runol water oration aste  IS STOR	Usable Us	Settlement  Max. Operati (M.O.L.)  e Volume be ble Depth be  storage facili  NGULAR O  SLOPES OF  DOSE A BOTTO	ow M.O.L. = ow M.O.L. = ow M.O.L. = cow M.O.	Design Stor Manure Prov ELEV 248,358 9.8 FT ELEV 20.0 10 REQUIRED	age Volume duced per yr 826.0  824.3  CU FT  814.0  (1= Recta	267,141 349,663 12.0 ingular; 2= Ro for walls)	cu ft cu ft FT
STORAGE I  Manure Precip. R  STORAGE S  STORAGE S	Extra Depth f 25 yr Precip. e and Waster Minus evapounoff Volume Remaining w	er Safety & 25 yr Runol water oration aste  IS STOR	Usable Usat Bottom of STORAG	Settlement  Max. Operati (M.O.L.)  e Volume be ble Depth be  storage facili  NGULAR O  SLOPES OF  DOSE A BOTTO  BOTTO	ow M.O.L. = ow M.O.L. = ow M.O.L. = cow M.O.	Design Stor Manure Prov ELEV 248,358 9.8 FT ELEV  0.0 10 REQUIRED	age Volume duced per yr 826.0  824.3  CU FT  814.0  (1= Recta	267,141 349,663 12.0 ingular; 2= Ro for walls)	cu ft cu ft FT
STORAGE I  Manure Precip. R  STORAGE S  STORAGE S	Extra Depth f 25 yr Precip. e and Waster Minus evapounoff Volume Remaining w	er Safety & 25 yr Runol water oration aste  IS STOR	Usable Us	Settlement  Max. Operati (M.O.L.)  Polyological Settlement  Storage facili  NIGULAR O  SLOPES OF  DOSE A BOTTO  BOTTO  SE BOTTOM	ow M.O.L. = ow M.O.L. = ow M.O.L. = cow M.O.	Design Stor Manure Production	age Volume duced per yr 826.0  824.3  CU FT  814.0  (1= Recta :1 (Use "0"  FT	267,141 349,663 12.0 ingular; 2= Ro for walls)	cu ft cu ft FT
STORAGE I  Manure Precip. R  STORAGE S  STORAGE S	Extra Depth f 25 yr Precip. e and Waster Minus evapounoff Volume Remaining w	LEVATIONS  For Safety  & 25 yr Runoi  water oration  B  aste  IS STOR	BOTTORAGE	Settlement  Max. Operati (M.O.L.)  e Volume be ble Depth be  storage facili  NGULAR O  SLOPES OF  DSE A BOTT  BOTTO  SE BOTTOM  OM SIDE 1:  DM SIDE 2:	ow M.O.L. = ow M.O.L. = ow M.O.L. = cow M.O.	Design Stor Manure Production State	age Volume duced per yr 826.0  824.3  CU FT  814.0  (1= Recta :1 (Use "0"  FT	267,141 349,663 12.0 ingular; 2= Ro for walls)	cu ft cu ft  FT  FT  FT
STORAGE I  Manure Precip. R  STORAGE S  STORAGE S	Extra Depth f 25 yr Precip. e and Waster Minus evapounoff Volume Remaining w	JEVATIONS  or Safety & 25 yr Runol water oration aste  IS STOR	Usable Us	Total Depti  Settlement  Max. Operati  (M.O.L.)  Pe Volume be ble Depth be  storage facili  NGULAR O  SLOPES OF  DSE A BOTT  BOTTOM  OM SIDE 1:  DM SIDE 2:  PROVIDED:	ow M.O.L. = ow M.O.L. = ow M.O.L. = cow M.O.	Design Stor Manure Proventing Stor Manure Pro	age Volume duced per yr 826.0  824.3  CU FT  814.0  (1= Recta :1 (Use "0"  FT	267,141 349,663 12.0 ingular; 2= Ro for walls)	cu ft cu ft FT
STORAGE I  Manure Precip. R  STORAGE S  STORAGE S  RECTANGU	Extra Depth f 25 yr Precip. e and Waster Minus evapounoff Volume Remaining was SIZING	JEVATIONS  or Safety & 25 yr Runol water oration aste  IS STOR	BOTTC VOLUME F	Settlement  Max. Operati (M.O.L.)  e Volume be ble Depth be  storage facili  NGULAR O  SLOPES OF  DOSE A BOTT  BOTTO  SE BOTTOM  OM SIDE 1:  PROVIDED:  PROVIDED:	ow M.O.L. = ow M.O.L. = ow M.O.L. = cow M.O.	Design Stor Manure Proventing Stor Manure Pro	Rage Volume duced per yr 826.0 ————————————————————————————————————	267,141 349,663 12.0 12.0 Ingular; 2= Ro for walls)	cu ft cu ft  FT  FT  FT
STORAGE S  Manurr Precip. R  STORAGE S  STORAGE S  RECTANGU	Extra Depth f 25 yr Precip. e and Waster Minus evapounoff Volume Remaining was SIZING	LEVATIONS  OF Safety  & 25 yr Runol  water oration  aste  IS STOR  ROU  MARY  M.O.I.	BOTTO BOTTO STORAGE FOM TO SET	Max. Operati (M.O.L.)  Polyloge Volume be ble Depth be storage facili aNGULAR O SLOPES OF DSE A BOTTO BOTTO OM SIDE 1: DM SIDE 2: PROVIDED: TRED TOP:	ow M.O.L. = ow M.O.L. = ow M.O.L. = cow M.O.	Design Stor Manure Production State	eage Volume duced per yr 826.0 ————————————————————————————————————	267,141 349,663 12.0 12.0 Ingular; 2= Ro for walls)	cu ft cu ft  FT  GALLONS
STORAGE S  Manurr Precip. R  STORAGE S  STORAGE S  RECTANGU	Extra Depth f 25 yr Precip. e and Waster Minus evapounoff Volume Remaining was SIZING	JEVATIONS  OF Safety  & 25 yr Runor  water pration  aste  IS STOR  ROU  MARY  M.O.I. DAYS FROM BOTT	BOTTO BOTTO STORAGE FOM TO SET	Settlement  Max. Operati (M.O.L.)  Polyonate be ble Depth be  storage facili  NGULAR O  SLOPES OF  DSE A BOTT  BOTTO  BOTTO  CE BOTTOM  COM SIDE 1:  COM SIDE 2:  PROVIDED:  PROVIDED:  TLED TOP:  E BOTTOM:	ow M.O.L. = ow M.O.L. = ow M.O.L. = cow M.O.	Design Stor Manure Production State	FT FT CU FT DAYS CU FT FT DIAM	267,141 349,663 12.0 12.0 Ingular; 2= Ro for walls)	cu ft cu ft  FT  GALLONS GALLONS
STORAGE I  Manur Precip. R  STORAGE S  STORAGE S  RECTANGU  TOT	Extra Depth f 25 yr Precip. e and Waster Minus evapounoff Volume Remaining w	JEVATIONS  Or Safety  & 25 yr Runol  water oration  aste  IS STOR  ROU  MARY  M.O.I.  DAYS FROM BOTT  M.O.I.	BOTTO SET CHOOSE VOLUME F STORAGE F	Settlement  Max. Operati (M.O.L.)  Provide Depth be  Storage facili  Storage f	ow M.O.L. = ow M.O.L. = ow M.O.L. = cow M.O.	Design Stor Manure Provestor ELEV  248,358 9.8 FT  ELEV  20.0  10  REQUIRED  10  N.A. 0 0 0 180 248,358	FT DIAM CU FT DAYS	267,141 349,663 12.0 ingular; 2= Refor walls)	cu ft cu ft  FT  GALLONS GALLONS GALLONS

Title:

Leachate Calculations

Farm Name:

Manke Farms

Project No.

16603000

Date:

3/16/2015

**Feed Bunk Information** 

Bunk Width:	120	ft.
Bunk Length:	150	ft.
Area:	18000	sq. ft.
Wall Height:	8.5	ft.
Storage Capacity:	153000	cu. ft.
Additional Impervious	2600	ca ft

Surface:

3600

Total Area:

21600

sq. ft. sq. ft.

Leachate Collection

Volume:

2295

cu. ft.

17167

gallons (annual)

## **Runoff Information**

1st Flush Collection Volume per E		ne per Event Annual Collection Volume		180 Day Collection Volume (Annual Volume / 2)		Actual 180 Day Collection Volume		VTA Size		
inches	cu. ft.	gallons	cu. ft.	gallons	cu. ft.	gallons	cu. ft.	gallons	2.5 ft seperation	5 ft seperation
0.10	150	1122	15246	114040	7623	57020	7128	53317	18000	15300
0.15	225	1683	20196	151066	10098	75533	9270	69340	15300	12600
0.20	300	2244	24156	180687	12078	90343	10764	80515	12600	9900
0.25	375	2805	27324	204384	13662	102192	11808	88324	9900	7200
Collect Everything			63360	473933	31680	236966	19332	144603	N/A	N/A

Notes:

VTA size can be reduced by half if designed for less than 1 inch of flow for 25% of the peak flowrate

Local Climatolo	ogical Repo	ort	180 Day Storage Collection November thru April						
Madiso	n, WI								
Collect Everything	35.2	inches	Collect Everything	10.74	inches				
Collect .25"	15.18	inches	Collect .25"	6.56	inches				
Collect .20"	13.42	inches	Collect .20"	5.98	inches				
Collect .15"	11.22	inches	Collect .15"	5.15	inches				
Collect .10"	8.47	inches	Collect .10"	3.96	inches				
Collect .5"	5.02	inches	Collect .05"	2.44	inches				

### **Manke Farms**

Price Estimate

BUNKER SILOS (ASSUMING 3 BUILT)	UNIT	QUANTITIES	UNIT COST	TOTAL COST	
8.5' T WALL	L.F.	720	\$75.00	\$54,000.00	
SUBBASE FOR CONCRETE	C.Y.	400	\$33.00	\$13,200.00	
4000 PSI CONCRETE PLACEMENT (6-INCH THICK) STEEL INC.	S.F.	21600	\$6.00	\$129,600.00	
HYDROPHILIC CAULK	L.F.	1020	\$1.47	\$1,499.40	(ASSUME 30FT PER TUBE)
MANHOLE CATCH BASIN	raner:	1	\$1,000.00	\$1,000.00	
6" GRAVITY TO RECEPTION	L.F.	150	\$27.34	\$4,101.00	
10" GRAVITY TO VTA	L.F.	285	\$31.59	\$9,003.15	
MANHOLE BOOTS		2	\$100.00	\$200.00	
PIPPING CONCRETE MANURE TANK					
12' DEEP X 210' DIA.		1	\$318,000.00	\$318,000.00	
SUBBASE FOR CONCRETE	C.Y.	642	\$33.00	\$21,186.00	
PIPING TO MANURE PIT					
12" DR11	L.F.	675	\$23.79	\$16,058.25	(MANURE &/OR SAND TRANSFER)
6" SCH. 40 PVC	L.F.	675	\$3.75	\$2,531.25	(RETURN WATER)
3" SCH. 40 PVC	L.F.	675	\$2.00	\$1,350.00	(SEPARATED WASH WATER)
FITTINGS				\$500.00	,,-
INSTALLATION COSTS	L.F.	675	\$40.00	\$27,000.00	
RECEPTION PIT/ TRANSFER					
PUMP SYSTEM (JAMESWAY OR KOMRO)		1	\$40,000.00	\$40,000.00	
ABONDONMENT OF EXISTING RECEPTION		1	\$15,000.00	\$15,000.00	
RECEPTION PIT		1	\$11,000.00	\$11,000.00	
CTORNA MATER MARROWENACHTC					
STORM WATER IMPROVEMENTS GRADING			\$3,000.00	\$3,000.00	
		1 1	\$2,000.00	200	
POND STRUCTURE AND PIPING		1	\$1,500.00	\$2,000.00	
EROSION CONTROL				\$1,500.00	
ABANDONMENT OF EXISTING STORMWATER PIPE MISC.		1	\$500.00	\$500.00	
MISC.		1	\$2,000.00	\$2,000.00	
EXCAVATION COSTS					
MANURE PIT EXCAVATION, COMMON (CUT)	C.Y.	6,262	\$14.00	\$87,668.00	
FILL MATERIAL PLACEMENT, MANURE PIT	C.Y.	795			(FOR INFO ONLY)
FILL MATERIAL PLACEMENT, BUNKER SILOS	C.Y.	4400			(FOR INFO ONLY)
EXISTING MANURE LAGOON, WASTE REMOVAL	C.Y.	889	\$6.00	\$5,334.00	(120'X200'X1') EXC. FOR ABANDMENT TO BE APPLIED PER NMP.
NORTH LAGOON BERM	C.Y.	1511	\$12.00	\$18,132.00	(240FT <sup>2</sup> X 170')
TOTAL				\$745,363.05	
CONTINGENCIES (10%)				\$74,536.31	
GRAND TOTAL				\$819,899.36	
				+313,033.00	

This Document was submitted by MSA Professional Services of Baraboo, Wi. Some of the listed items are not cost-shareable by Administrative Rule.



Sheet/	of /
Project Manke Farms	Comp. by JPS
Date_ 4/15/15	Ckd. by
Proj. No. #/66 03000	

180 Day Manure Storage Calculation

See Attachment For Animal Numbers

(Total Facility)

Manure / Wastewater => 1,559,194 Gallons (NRCS 313 WKST)

25yr /24 hr Storm => 105,790 Gallons (4.9 inches NRCS 313 WKST)

Precip - Evap => 105,790 Gallons (4.9 inches NACS 313 WKST)

Leachate Collection => 90,343 Gallons (MSA Leachate Galectian WKST)

Total 1,861,117 Gallons for M.O.L. Volume

Pipping Concrete 210 & W/ramp holds 2.62 million gallons

Storage Capacity = 2.62 million gallons > Storage Needs = 1.86 million gallons

# Water Quality Assessment for Bostwick Creek

<u>Basins:</u> La Crosse County contains two primary watershed basins; the Black River Basin and the La Crosse-Bad Axe River Basin. Both of these basins drain to the Upper Mississippi River Watershed Basin.

<u>Watersheds</u>: La Crosse County has many diverse sub-watersheds. Many of them are considered to be high value resources that support cold- water sport fisheries. Other watersheds often support warmwater sport fisheries and receive high levels of recreation from fishing to canoeing and kayaking as well as swimming and recreational boating.

<u>Water Quality Goals and Standards:</u> The PR&D Committee has established goals for the County's water resources that are in line with other County Departments, State and Federal Agencies and based on scientific research. The committee has established the following water quality parameters; total phosphorus- 0.05 mg/L or less, fecal coliform bacteria-1000 colonies/100 ml and dissolved oxygen-not less than 5 mg/L of water at any time of the year, not less than 6 mg/L of water for streams supporting a cold water sport fishery and no less than 7 mg/L of water during trout spawning seasons.

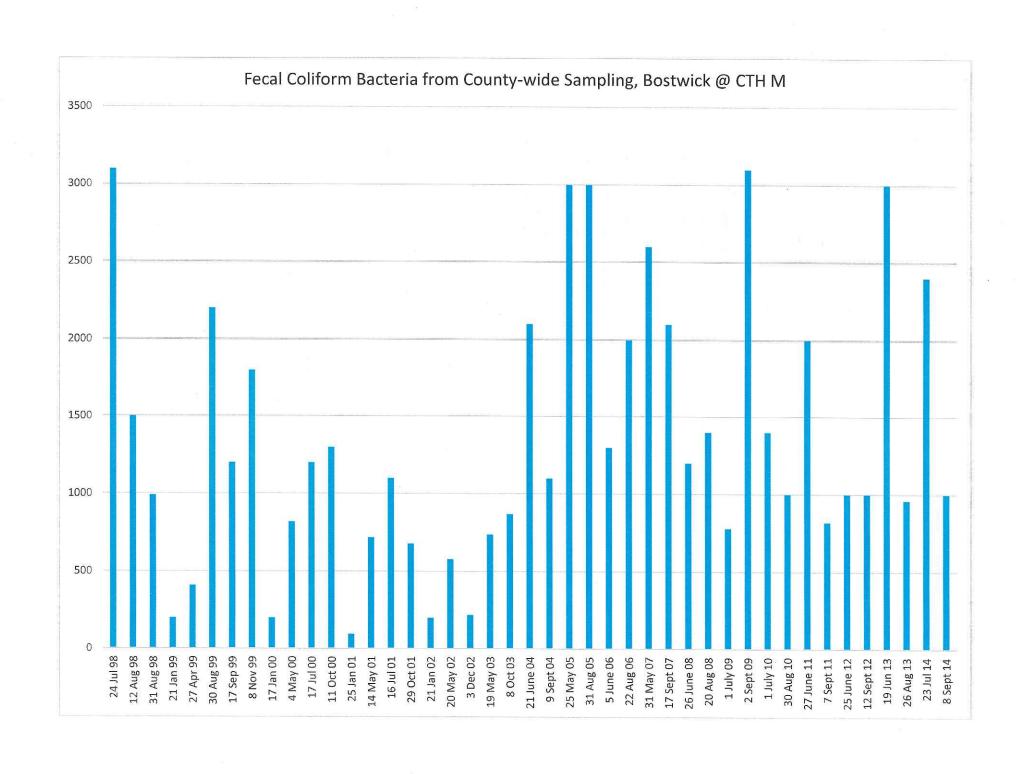
<u>Water Quality Monitoring-Performance Standards:</u> La Crosse County has operated an extensive stream water quality monitoring station since 1995. The DLC staff also regularly monitors 27 of the County's largest sub-watersheds to watch for possible pollution from agricultural sources and get a general idea of the overall health of the County's streams.

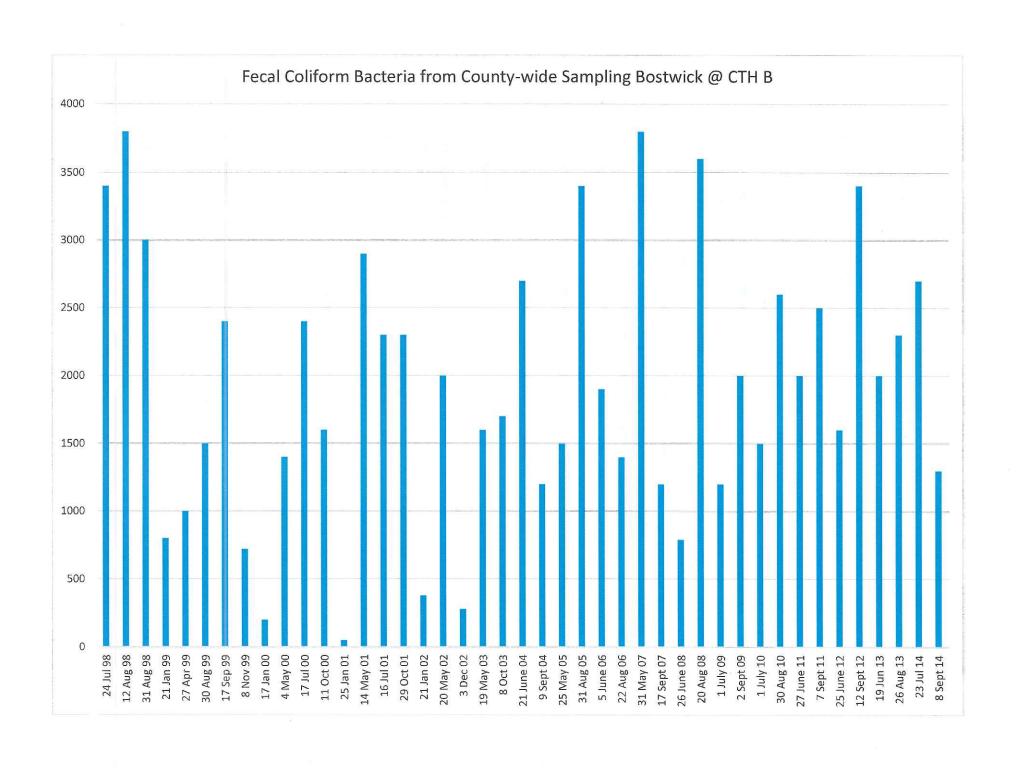
<u>Topography, Land Use, Soil Erosion Conditions:</u> La Crosse County is located in the heart of Wisconsin's drift-less region. It consists of steep bluffs and deep coulees covered by rich and fertile, wind-blown silt loam. There are 170,000 acres of farmland in the county, most of which is cropped for feeding dairy cattle or for cash grain. Much of the farmed acres are steep slopes that are susceptible to soil erosion and animal waste runoff. It is estimated that the County's average erosion rate is 4.2 tons/ac/yr compared to the County's average "tolerable" soil loss rate of 4.5 tons/ac/yr.

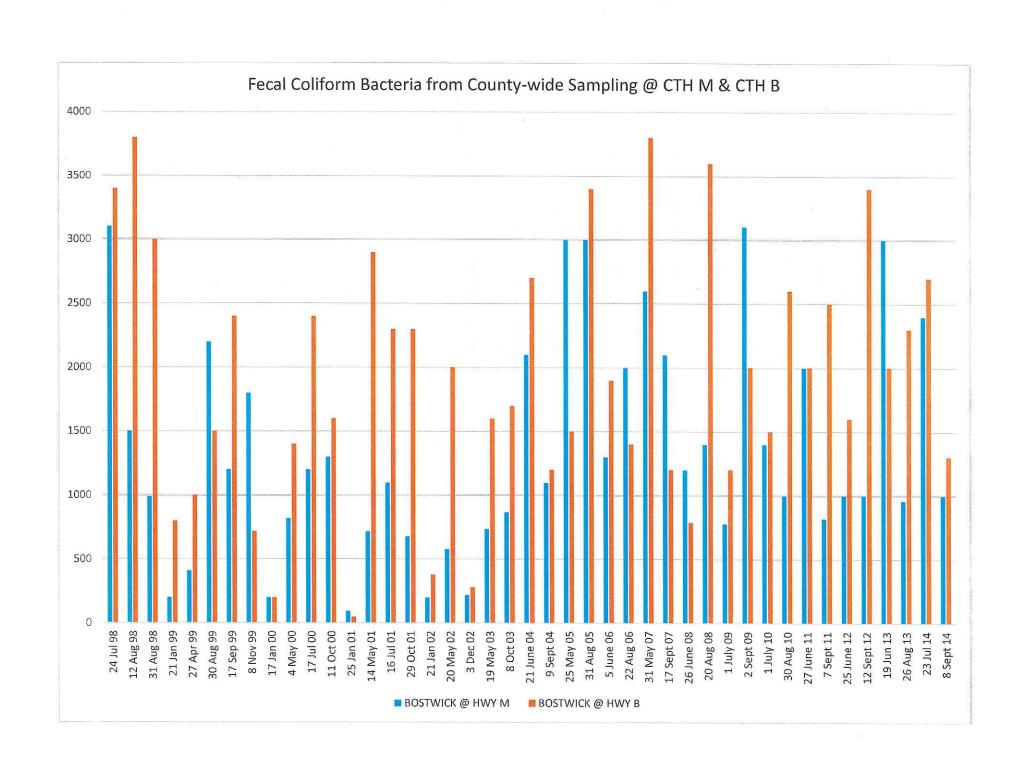
<u>Water Quality Assessment Schedule:</u> The DLC has established a schedule for monitoring the County's water resources over the next five years and have estimated the associated costs at \$57,411.00.

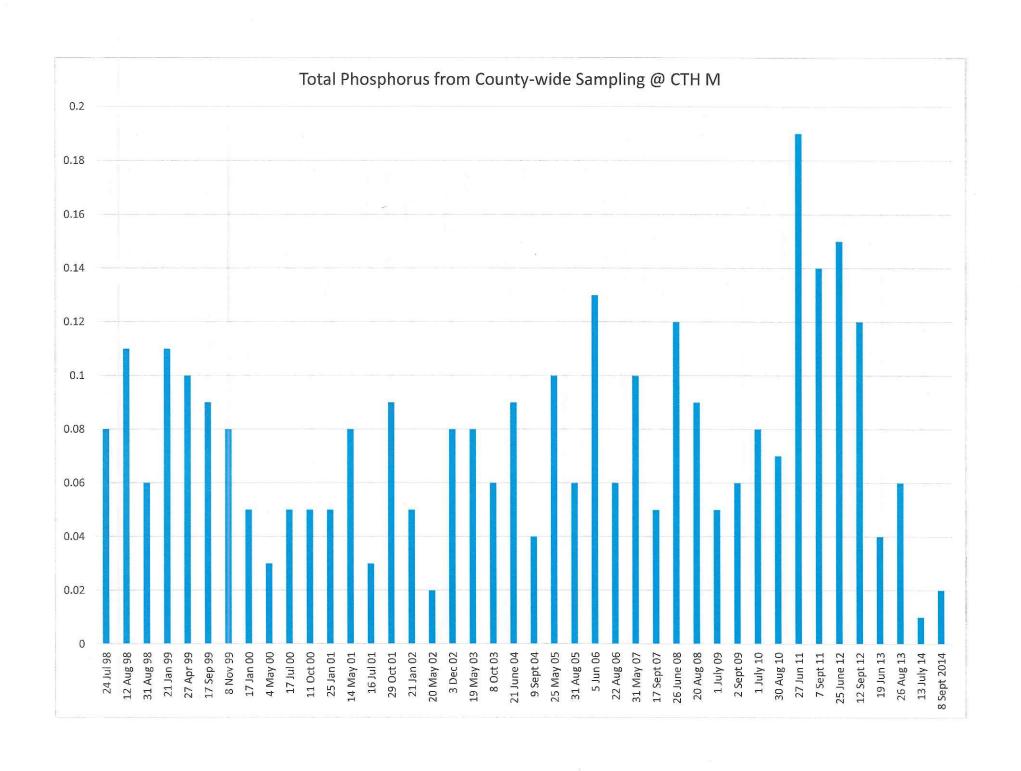
<u>Bostwick Creek Protocol</u>: The DLC will begin weekly grab samples in Bostwick Creek beginning April 13<sup>th</sup>, 2015 from Old County Highway M, County Highway YY and County Highway M. Grab samples will be sent to the La Crosse County Environmental Health Lab for analysis of total phosphorus, total suspended solids and fecal coliform bacteria. Two YSI D.O. Sondes will be placed in Bostwick Creek at Swamp Road and County Highway M. The sondes will continuously monitor dissolved oxygen and water temperature.

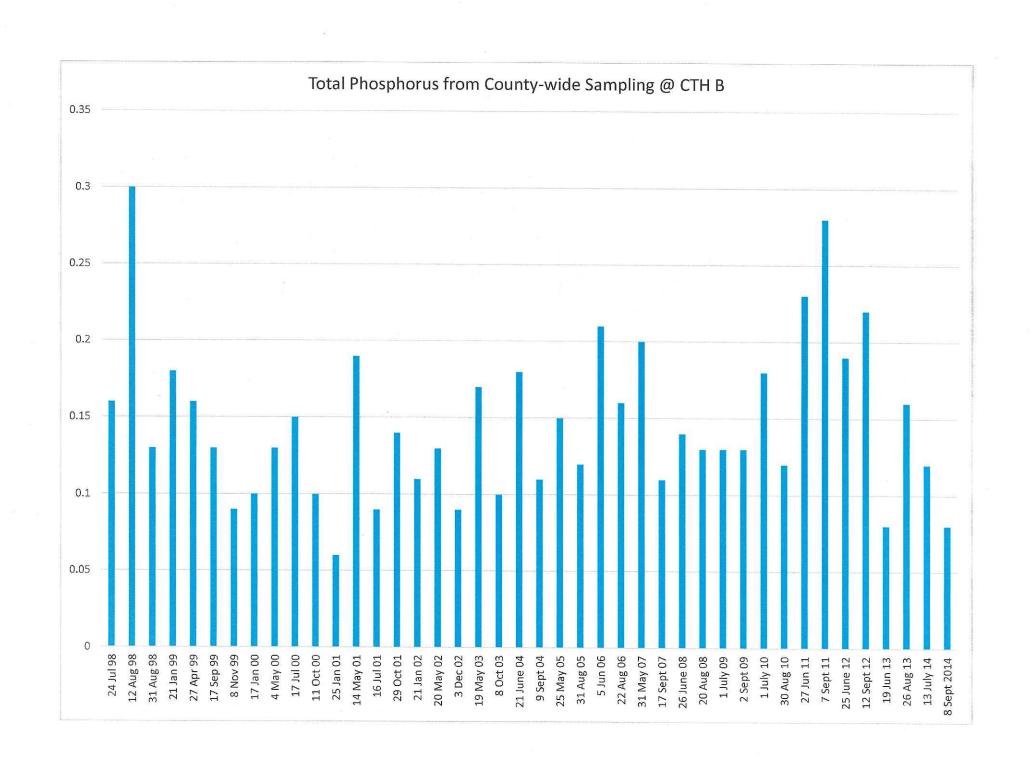
Both sampling schemes will continue through a period of time till a large-scale TRM grant project can be implemented with several years of post-construction monitoring.

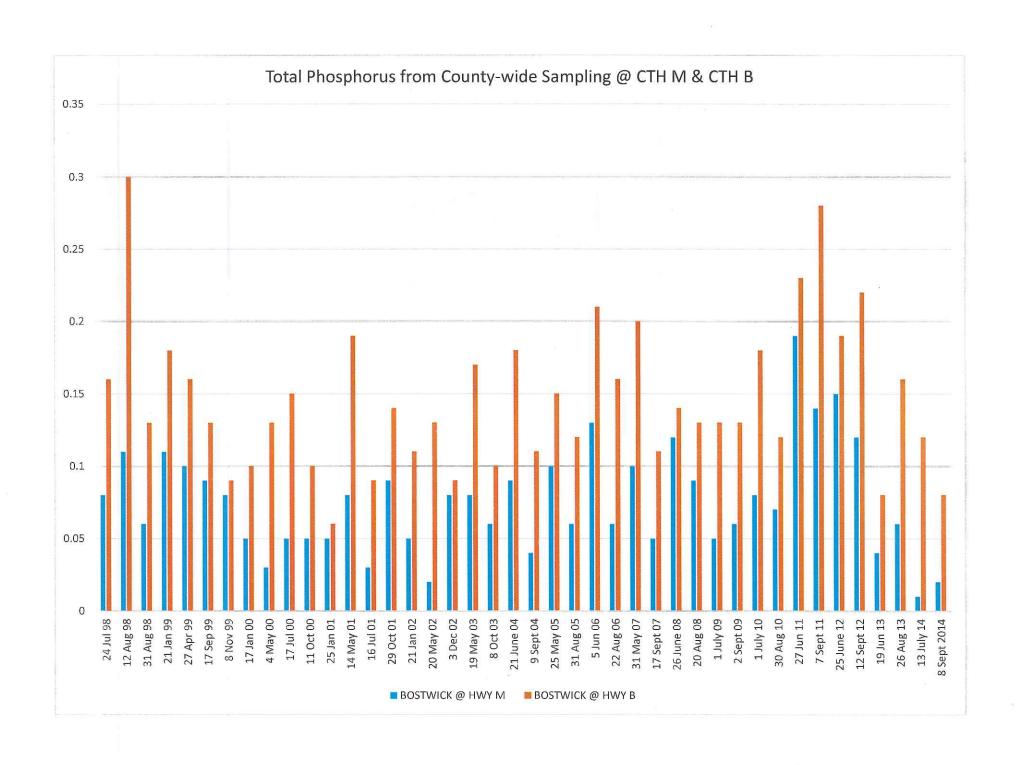












# **Fecal Coliform bacteria**

24 Jul 98 12 Aug 98 31 Aug 98 21 Jan 99 27 Apr 99 30 Aug 99 17 Sep 99 8 Nov 99 17 Jan 00 4 May 00 17 Jul 00 BOSTWICK @ HWY M 24 Jul 98 12 Aug 98 31 Aug 98 21 Jan 99 27 Apr 99 30 Aug 99 17 Sep 99 8 Nov 99 17 Jan 00 4 May 00 17 Jul 00 **BOSTWICK @ HWY B** 

# **Total Phosphorus**

	24 Jul 98	12 Aug 98	31 Aug 98	21 Jan 99	27 Apr 99	17 Sep 99	8 Nov 99	17 Jan 00	4 May 00	17 Jul 00	11 Oct 00
BOSTWICK @ HWY M	0.08	0.11	0.06	0.11	0.1	0.09	0.080	0.050	0.030	0.050	0.050
	24 Jul 98	12 Aug 98	31 Aug 98	21 Jan 99	27 Apr 99	17 Sep 99	8 Nov 99	17 Jan 00	4 May 00	17 Jul 00	11 Oct 00
BOSTWICK @ HWY B	0.16	0.3	0.13	0.18	0.16	0.13	0.090	0.100	0.130	0.150	0.100

11 Oct 00 25 Jan 01 14 May 01 16 Jul 01 29 Oct 01 21 Jan 02 20 May 02 3 Dec 02 19 May 03 8 Oct 03 21 June 04 9 Sept 04 25 May 05 95 720 1100 680 580 740 870 2100 1300 200 220 1100 3000 11 Oct 00 25 Jan 01 14 May 01 16 Jul 01 29 Oct 01 21 Jan 02 20 May 02 3 Dec 02 19 May 03 8 Oct 03 21 June 04 9 Sept 04 25 May 05 2300 380 2000 280 1600 50 2900 2300 1600 1700 2700 1200 1500

25 Jan 01 14 May 01 16 Jul 01 29 Oct 01 21 Jan 02 20 May 02 3 Dec 02 19 May 03 8 Oct 03 21 June 04 9 Sept 04 25 May 05 31 Aug 05 0.050 0.080 0.030 0.090 0.050 0.020 0.080 0.080 0.060 0.090 0.040 0.100 0.060 25 Jan 01 14 May 01 16 Jul 01 29 Oct 01 21 Jan 02 20 May 02 3 Dec 02 19 May 03 8 Oct 03 21 June 04 9 Sept 04 25 May 05 31 Aug 05 0.060 0.190 0.090 0.140 0.110 0.130 0.090 0.170 0.100 0.180 0.110 0.150 0.120 31 Aug 05 5 June 06 22 Aug 06 31 May 07 17 Sept 07 26 June 08 20 Aug 08 1 July 09 2 Sept 09 1 July 10 30 Aug 10 27 June 11 7 Sept 11 3000 1300 2100 1200 2000 2600 1400 780 3100 1000 2000 1400 820 31 Aug 05 5 June 06 22 Aug 06 31 May 07 17 Sept 07 26 June 08 20 Aug 08 1 July 09 2 Sept 09 1 July 10 30 Aug 10 27 June 11 7 Sept 11 3400 1900 1400 3800 790 1200 3600 1200 2000 1500 2600 2000 2500

5 Jun 06 22 Aug 06 31 May 07 17 Sept 07 26 June 08 20 Aug 08 1 July 09 2 Sept 09 1 July 10 30 Aug 10 27 Jun 11 7 Sept 11 25 June 12 0.100 0.130 0.060 0.050 0.120 0.090 0.050 0.060 0.080 0.070 0.190 0.140 0.150 5 Jun 06 22 Aug 06 31 May 07 17 Sept 07 26 June 08 20 Aug 08 1 July 09 2 Sept 09 1 July 10 30 Aug 10 27 Jun 11 7 Sept 11 25 June 12 0.210 0.160 0.200 0.130 0.110 0.140 0.130 0.130 0.180 0.230 0.120 0.280 0.190

# Fecal Coliform bacteria

BOSTWICK @ HWY M

**BOSTWICK @ HWY B** 

24 Jul 98 12 Aug 98

1500

3800

3100

3400

<b>25</b> June <b>12</b>	12 Sept 12	19 Jun 13	26 Aug 13	23 Jul 14	8 Sept 14
1000	1000	3000	960	2400	1000
25 June 12	12 Sept 12	19 Jun 13	26 Aug 13	23 Jul 14	8 Sept 14
1600	3400	2000	2300	2700	1300

# **Total Phosphorus**

12 Sept 12 19 Jun 13 26 Aug 13 13 July 14 8 Sept 2014		24 Jul 98 12 Aug 98
0.120 0.040 0.060 0.010 0.020	BOSTWICK @ HWY M	0.08 0.11
12 Sept 12 19 Jun 13 26 Aug 13 13 July 14 8 Sept 2014	<b>BOSTWICK @ HWY B</b>	0.16 0.3
0.220 0.080 0.160 0.120 0.080		

31 Aug 98 21 Jan 99 27 Apr 99 30 Aug 99 17 Sep 99 8 Nov 99 17 Jan 00 4 May 00 17 Jul 00 11 Oct 00 25 Jan 01 14 May 01 16 Jul 01 990 200 410 2200 1800 1200 200 820 1200 1300 95 720 1100 3000 800 1000 1500 2400 720 200 1400 2400 1600 50 2900 2300

31 Aug 98 21 Jan 99 27 Apr 99 17 Sep 99 8 Nov 99 17 Jan 00 4 May 00 17 Jul 00 11 Oct 00 25 Jan 01 14 May 01 16 Jul 01 29 Oct 01 0.06 0.1 0.11 0.09 0.080 0.050 0.030 0.050 0.050 0.050 0.080 0.030 0.090 0.13 0.18 0.16 0.13 0.090 0.100 0.130 0.150 0.100 0.060 0.190 0.090 0.140 29 Oct 01 21 Jan 02 20 May 02 3 Dec 02 19 May 03 8 Oct 03 21 June 04 9 Sept 04 25 May 05 31 Aug 05 5 June 06 22 Aug 06 31 May 07 

21 Jan 02	20 May 02	3 Dec 02	19 May 03	8 Oct 03	21 June 04 9	9 Sept 04	25 May 05	31 Aug 05	5 Jun 06	22 Aug 06	31 May 07	17 Sept 07
0.050	0.020	0.080	0.080	0.060	0.090	0.040	0.100	0.060	0.130	0.060	0.100	0.050
0.110	0.130	0.090	0.170	0.100	0.180	0.110	0.150	0.120	0.210	0.160	0.200	0.110

17 Sept 07 26 June 08 20 Aug 08 1 July 09 2 Sept 09 1 July 10 30 Aug 10 27 June 11 7 Sept 11 25 June 12 12 Sept 12 19 Jun 13 26 Aug 13 

26 June 08 20	08 Aug	1 July 09	2 Sept 09	1 July 10	30 Aug 10	27 Jun 11	7 Sept 11	25 June 12	12 Sept 12	19 Jun 13	26 Aug 13	13 July 14
0.120	0.090	0.050	0.060	0.080	0.070	0.190	0.140	0.150	0.120	0.040	0.060	0.010
0.140	0.130	0.130	0.130	0.180	0.120	0.230	0.280	0.190	0.220	0.080	0.160	0.120

23 Jul 14 8 Sept 14

2400 1000 2700 1300

8 Sept 2014

0.020

0.080

4/9/15

La Crosse County Department of Land Conservation 400 4<sup>th</sup> St N, Room 3270 La Crosse, Wi. 54601

To Whom It Concerns;

I agree to install and maintain the proposed manure storage facility, manure transfer system and feed storage leachate treatment system if the applied for DNR Targeted Resource Management Grant funds are made available to me as outlined in an approved cost share agreement between Manke Farms and the La Crosse County Department of Land Conservation.

I also agree to maintain compliance with the NR 151 Agriculture Performance Standards upon receipt of the grant funds.

Sincerely,

Ken Manke

Manke Farms

Hem Enouler

### **United States Department of Agriculture**



Natural Resources Conservation Service Onalaska Service Center 1107 Riders Club Road Onalaska, WI 53650-2079 Phone: (608) 782-0180

April 9, 2015

To: Gregg Stangl, La Crosse County Land Conservation Department County Conservationist

From: Greg Yakle, District Conservationist, USDA-NRCS, La Crosse County

Re: Manke Farms WI DNR Targeted Resource Management Grant

We would be in 100% support of a TRM grant for Manke Farms to develop and apply a Livestock Waste Management System for their farming operation in La Crosse County. As we have been partners in several watershed and TRM grant projects in the past that have worked well to provide benefits to water and soil quality, I have no doubt we can continue this relationship for the Manke Farms system.

Manke Farms plan on applying for technical and financial assistance through USDA-NRCS Environmental Quality Incentive Program. Our programs will work well together to correct a resource situation which is currently reducing the quality of local surface waters.

Let me know how we can be of further assistance with this project in the future.

608/782 0180 out 1

608/782-0180 ext. 111



# RESOLUTION # <u>62-11/08</u>

**BOARD ACTION** 

Adopted: <u>11-10-68</u>

COMMITTEE ACTION Adopted: 10 27 08

DEVELOPMENT

**PLANNING** RESOURCES &

TO: HONORABLE MEMBERS OF THE LA CROSSE COUNTY BOARD OF SUPERVISORS

For: Against: Abs/Excd: Vote Req: Other Action:

For:\_ Against: Abs/Excd:

APPROVAL TO REQUEST FUNDING THROUGH THE TARGETED RUNOFF RE: MANAGEMENT OR URBAN NON-POINT SOURCE (POLLUTION) & STORM WATER GRANT PROGRAMS

WHEREAS, La Crosse County Land Conservation hereby requests financial assistance under s. 281.65 or 281.66, Wis. Stats., and chs. NR 151, 153, and 155, Wis. Admin. Code, for the purpose of implementing measures to meet non-point source water pollution abatement needs in area-wide water quality management plans or with one or more components specified in s. 281.65 or 281.66, Wis. Stats.

NOW THEREFORE BE IT RESOLVED, that the La Crosse County Board hereby authorizes the following officials or employees to act on its behalf to:

Activity	Name of Official or Employees
1. sign and submit a grant application	Gregg Stangl
sign grant agreement between the local government and the DNR	Steve Doyle
3. submit quarterly and final reports	Gregg Stangl
4. request grant reimbursement	Steve Doyle
5. sign and submit an Environment Hazard Assessment form	Bruce Olson

FISCAL NOTE: No financial impact to La Crosse County. Date: 10-27-08 PLANNING RESOURCES & DEVELOPMENT COMMITTEE CHAIR (Vice) Not Reviewed Recommended Recommended Only Co. Admin. Requested By: Gregg Stangl Fin. Director Date Requested: October 2, 2008 Corp. Counsel Drafted By: Corporation Counsel Adopted by the La Crosse County Board this

Created by La Crosse County Last printed 10/15/2008 10:26:00 AM

STATE OF WISCONSIN COUNTY OF LA CROSSE

I, Marion I. Naegle, County Clerk of La Crosse County do hereby certify that this document is a true and correct copy of the original resolution required by law to be in my custody and which the County Board of Supervisors of La Crosse County adopted at a meeting held on the 10<sup>th</sup> day of November 2008.

Marion I. Naegle, La Crosse County Clerk

aun & Ylaca