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

or PO Box 7921
Madison WI 53707-7921

Targeted Runoff Management (TRM) Grant Program
Small-Scale Agricultural Application
Form 8700-300 (R 1/15)

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 instructions 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: Langenhahn Manure Storage Project

Governmental Unit Applying (name and type) (e. g. Dane County Land and Water Resources Department): Marathon County Conservation Planning & Zoning Department

Governmental Unit Web Site Address: http://www.co.marathon.wi.us/

Name of Responsible Government Official - Authorized Signatory (First Last)	Name of Government Official - Grant Contact Person (First Last)(if different)
Paul Daigle	Ken Pozorski
Title: Senior CPZ Manager	Title: Conservation Analyst
Area Code + Phone Number: (715) 261-6000	Area Code + Phone Number: (715) 261-6004
E-Mail Address: paul.daigle@co.marathon.wi.us	E-Mail Address: ken.pozorski@co.marathon.wi.us
Mailing Address - Street or PO Box: 210 River Drive	Mailing Address - Street or PO Box: 210 River Drive
City: Wausau; State: WI; ZIP Code: 54403	City: Wausau; State: WI; ZIP Code: 54403

Part I. Project Information

A. Project Category: Total Maximum Daily Load (TMDL) or Non-TMDL

○ **1. TMDL Project:** The project must meet all of the following criteria:
- The project is in a geographical area covered by an EPA-approved TMDL.
- The project addresses the most critical nonpoint pollution sources of the agricultural nonpoint pollutants identified in the TMDL document.

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

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.

TRM Grant Project Name:
Langenhahn Manure Storage Project

B. Location of Project

See Attachment A and Surface Water Data Viewer (SWDV) at http://dnrmaps.wi.gov/SL/?Viewer=SWDV for assistance in completing this question.

County	State Senate District number:	State Assembly District number:
Marathon	29	86

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)
Town of Marathon	28 N	6	E	7	SE	NW	44.9212	-89.8386
	N							
	N							
	N							

Method for Determining Latitude & Longitude (check one)

○ GPS ◉ DNR Surface Water Data Viewer

○ Other (specify): _____

C. Watershed and Waterbody

See Attachment A and SWDV at http://dnrmaps.wi.gov/SL/?Viewer=SWDV for assistance in completing this question.

Watershed Name	DNR Watershed Code	Primary Waterbody Name	Nearest Waterbody Name
Lower Rib River	CW23	Big Rib River	Unnamed Stream

12-digit Hydrologic Unit Code (HUC): 070700021003

D. Endangered and Threatened Resources, Historic Properties, and Wetlands

Check the appropriate box for each question based on what the ***governmental unit knows*** to occur where the project disturbs land.

☐ 1. There are endangered or threatened resources, as identified in s. 29.604, Wis. Stats., and NR 27 in the project area. (Refer to: http://dnr.wi.gov/topic/erreview/publicportal.html?utm_source=featureimage&utm_medium=homepage&utm_campaign=20140929_nhiportal for assistance.)

☐ 2. There are archaeological sites, historical structures, burial sites, or other historic places identified in s. 44.45, Wis. Stats., in the project area.

☐ 3. There are wetlands in the project area that are governed by water quality standard provisions of NR 103. (Answer with the SWDV map layer **Wetland Indicators** at http://dnrmaps.wi.gov/SL/Viewer.html?Viewer=SWDV&runWorkflow=Wetland

E. Maps and Photographs

Yes

☒ An 8.5" x 11" map from USGS or the DNR data/map viewers, 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

☒ 1. The project will control agricultural runoff.

☒ 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.)

TRM Grant Project Name:
Langenhahn Manure Storage Project

☒ 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: Marathon County Land and Water Resource Management Plan	Date 02/01/2011

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.

The Marathon County Land and Resource Management Plan identifies the need to reduce the discharge of non-point runoff and nutrients entering surface waters and groundwater as its first goal. It also identifies the need to improve nutrient management activities of livestock farms. Objectives include promotion of nutrient management education and implementation efforts. Other goals identified to reduce agricultural non-point runoff include: education of landowners about compliance with State Agricultural Performance Standards and best management practices including enforcement strategies, provide adequate program and financial incentives to implement best management practices, and promote and educate landowners about new manure management technologies.

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.

http://www.co.marathon.wi.us/Portals/0/Departments/CPZ/Documents/lwrm2010_final_PostedVersion.pdf
Pages 38-41, 47, and 59-61 contains language that demonstrates NR 151 implementation strategies.

☒ 6. The project will be completed within 24 months of the start of the grant period.

☒ 7. Staff and contractors designated to work on this project have adequate training, knowledge and experience to implement the proposed project.

☒ 8. Staff or contractual services, in addition to those funded by this grant, will be provided if needed.

☒ 9. The local DNR Nonpoint Source Coordinator (see http://dnr.wi.gov/topic/nonpoint/NPScontacts.html) has been contacted and the project was discussed.

Name of the Local/DNR Nonpoint Source Coordinator Contacted	Date Contacted	Subject of Contact
Terry Kafka	02/23/2015	Inform Terry of the potential project and concurrence of APS&P remedies needed on this site. He is aware of the runoff issues on the farm, and being in the Lower Rib River expressed that this would be a good project.

TRM Grant Project Name:
Langenhahn Manure Storage Project

☒ 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: http://dnr.wi.gov/topic/AgBusiness/documents/3400025A_WT.doc).

☐ 11. If this is a joint application among local units of government, a draft of the Inter-Governmental Agreement is attached. (See Attachment H)

G. Best Management Practices (BMPs) for which DNR TRM Funding is Requested.
Check all BMPs for which DNR funding is requested and insert the Performance Standard and Prohibition codes the BMP addresses, if applicable. See instructions Part I. G. for table of standards and prohibition codes and effective dates. (Also see Attachment D for additional BMP information.) Assure a budget for each BMP is included 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) 1,2,3,4,7,9,10,11	☐ Riparian Buffers (NR 154.04(25)) R23	Code(s)
☐ Manure Storage System Closure (NR 154.04(4)) R15	Code(s)	☐ Roofs (NR 154.04(26)) R25	Code(s)
☒ Barnyard Runoff Control Systems (NR 154.04(5)) R3	Code(s) 8,12	☒ Roof Runoff Systems (NR 154.04(27)) R24	Code(s) 8,12
☐ 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) 12	☐ 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) 8,12
☐ Filter Strips (NR 154.04(13)) R9	Code(s)	☒ Waste Transfer Systems (NR 154.04(36)) R33	Code(s) 4,7,12
☐ 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) 12	☐ Water and Sediment Control Basins (NR 154.04(38)) R35	Code(s)
☐ Lake Sediment Treatment (NR 154.04(16)) R12	Code(s)	☐ Waterway Systems (NR 154.04(39)) R36	Code(s)

TRM Grant Project Name:
Langenhahn Manure Storage Project

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 Protection (NR 154.03(31)) (includes associated fencing)	
☐ 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) 7	☐ 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)			

Part II. Competitive Elements

A. FINANCIAL BUDGET TABLE

A.1. Detailed Budget for every BMP checked in Part I. G. above. The grant amount is capped at $150,000.

A **Detailed List of Project Activities and Sub-activities Eligible for DNR Cost Sharing**	B Amount Eligible for DNR Cost Sharing ($)
Construction Components:	
MANURE STORAGE FACILITY	
Earthwork excavation - site prep and final grading	16,500
Steel slurry-store type of storage	240,000
Transfer pump	12,000
Transfer pipe and installation	4,500
MILKING CENTER CONTROL SYSTEMS	
Leachate pump	2,000
Piping	1,400
Manhole and grate	1,600
BARNYARD RUNOFF CONTROL SYSTEMS	
Roof gutters	1,300
Underground outlet pipe	1,800
Concrete wall or curbs	3,500
Spreader pad	1,000
Vegetative treatment area (grading)	500
Seeding	200
Private Engineering Activities	

TRM Grant Project Name:
Langenhahn Manure Storage Project

A **Detailed List of Project Activities and Sub-activities Eligible for DNR Cost Sharing**	B Amount Eligible for DNR Cost Sharing ($)
1. Construction Subtotal	286,300
2. Local Force Account Activities (Entry is limited to $10,715 or .05263 of Row 1, whichever is less.)	

Cost-Sharing:

A	B **Eligible Project Totals**	C **Cost-Share %**	D **Eligible Cost-Share**
3. Construction-related Subtotal: [add Rows 1 and 2]	$ 286,300	70 %	$ 200,410
4. Property Acquisition: Fee Title & Easement	$ 0	70 %	$
5. Project Grand Totals: [add Rows 3 and 4]	$ 286,300		$ 200,410

Cap Test:

6. Maximum State Share: [row 5, column D or $150,000, whichever is less]	$ 150,000

State and Local Share:

7. Requested State-Share Amount (Enter Requested Grant Amount)	$ 150,000
8. Local-Share Amount: [row 5, column B less row 7]	$ 136,300

A.2. Use of Additional Funding

☐ Check 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.
- The requested state-share amount in row 7 is below the maximum state-share in row 6. (The resulting cost-share rate is less than 70%.)

B. Method Used to Calculate Cost Estimates: Select the appropriate option. Attach design, bid, estimate documentation, as applicable.

○ **1.** 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.

○ **2.** Project costs are based on completed design with materials and labor costs based on similar, recently bid projects. Construction components in C. above should be detailed. Provide the supportive documentation in this application.

◉ **3.** Project design is not complete; however, the proposed project and costs are based on similar and recent projects and costs. Provide as much construction detail in C. above as possible. Provide the supportive documentation in this application

○ **4.** Project design is not complete and the cost estimate is based on an average or a range of projects and costs. Provide as much construction detail in C. above as possible. Provide the supportive documentation in this application.

○ **5.** Project and costs are less specific than choices above.
Provide explanation of cost estimates below or attached to this application.

C. Timeline and Source of Staff
For each applicable milestone listed below, fill in the appropriate data.

Milestone	Target Completion Date (month/year)	Source of Staff
Completion of design	04/2016	County Conservation Staff and Private Engineer
Obtaining required permits	06/2016	County Conservation Staff
Landowner contacts	02/2016	County Conservation Staff
CSA signing	03/2016	County Conservation Staff
Bidding	06/2016	County Conservation Staff
DNR approvals	06/2016	County Conservation Staff
Contract signing	06/2016	County Conservation Staff and Contractor
BMP construction	08/2016	County Conservation Staff, Private Engineer & Contractor
Site inspection and certification	10/2016	County Conservation Staff and Private Engineer

TRM Grant Project Name:
Langenhahn Manure Storage Project

Project evaluation	11/2016	County Conservation Staff
Other (specify) Final Report	02/2017	County Conservation Staff

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 instructions for category definitions and scoring information.

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

◉ 1. Clean Water Act section 303(d) List of Impaired Waters
Name of Applicable Impaired Water:
Lower Rib River
Pollutant Causing Impairment:
Non-point Source Pollution

○ 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 http://apwmad0d1600/SL/Viewer.html?Viewer=SWDV&runWorkflow=DesignatedWaters.
Name of Applicable ORW/ERW or ASNRI:

○ 3. Not Fully Supporting Uses or NPS Ranking of High or Medium.

○ 4. Surface Water Quality

Bonus Points: Federal NPS Program Watershed Project Funding Eligibility

☒ Check this box if the project meets all of the following criteria:

- The project addresses a nonpoint source impaired waterbody listed on the most current EPA-approved Section 303(d) list of impaired waters or a nonpoint source threatened unimpaired/high quality water.
- The project is located upstream of and in the same 12-digit hydrologic unit (sub-watershed) as the 303(d) listed water or the unimpaired/high quality water.
(Refer to Attachment A and http://dnrmaps.wi.gov/SL/?Viewer=SWDV for assistance.)
- The project implements the goals and recommendations of an EPA-approved watershed-based "9 key element" plan.
- The project controls the same NPS pollutants which are impairing the 303(d) listed waterbody or threatening the unimpaired/ high quality water.

The project may be eligible for Federal NPS Program (Clean Water Act Section 319) Watershed Project Funding. (Refer to Attachment C of the application instructions for a list of eligible plans or link to map and plans at: http://dnr.wi.gov/water/9kemp/.)

Provide the title of the EPA-approved nine key element plan this project implements.
Lower Big Rib River Priority Watershed Plan (expires 2019)

Groundwater Considerations For assistance with this section, consult the local DNR Drinking Water and Groundwater Specialist (http://dnr.wi.gov/topic/drinkingwater/documents/countycontacts.pdf) or the County Extension Office.
Attach supporting documentation.

○ 5. Exceeds Groundwater Enforcement Standard
Pollutant Causing Impairment:

○ 6. Exceeds Groundwater Preventive Action Limit
Pollutant Causing Impairment:

○ 7. Groundwater Susceptible to Contamination by Agricultural Nonpoint Source Pollutants

TRM Grant Project Name:
Langenhahn Manure Storage Project

E. Drinking Water Bonus Points:

Yes

☐ Check this box if the project water quality goals identified above relate to the reduction of nonpoint source contaminants in community or non-community public drinking water supplies. This includes any of the following: Municipal water supplies governed by chs. NR 809 and 811; Other-Than-Municipal (OTM) water supplies governed by chs. 809 and 811; Non-Transient water 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 (http://dnr.wi.gov/topic/nonpoint/NPScontacts.html) or Water Supply Specialist (http://dnr.wi.gov/topic/drinkingwater/documents/countycontacts.pdf) to answer.)

○ 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

○ b. Check this box if the project is located within 200 feet of Transient water supply well.

○ c. Check this box if you did not select a or b.

2. If "Yes" ***and*** you checked box 1, 2, 3, or 4 for surface water considerations above, then place a check mark next to the drainage area where the project is located (see below).

☐ Pike River and Creek
☐ Root River
☐ Oak Creek
☐ Milwaukee River
☐ Sauk Creek
☐ Sheboygan and Onion Rivers
☐ Manitowoc River
☐ Twin Rivers
☐ Kewaunee and Ahnapee Rivers
☐ Menominee River
☐ Fish Creek
☐ St. Louis and Nemadji Rivers
☐ Lake Winnebago

F. Nature of the Water Quality Impact. Check the box if the statement applies to receiving waters that are being affected by the project site.

◉ **1. General water quality impacts.** The receiving waters experience general resource degradation from nonpoint pollution sources. Cause and effect relationships between the impairments and the specific site to be funded are difficult or impossible to establish. *(Note: This may be chosen if 1, 3, 4, 5 or 6 is checked in D. Water Quality Needs.)*

○ **2. Site-specific degradation.** Site-specific impacts on receiving waters from the site to be funded are observable or measurable such that a cause and effect relationship is clearly evident. *(Note: This may be chosen if 1, 3, 4, 5 or 6 is checked in D. Water Quality Needs.)*

☐ Supporting information, such as data summaries or photos, is attached. (Required to earn credit for statement 2.)

○ **3. Threats.** There are no nonpoint source impacts observed or measured in receiving waters but the existence of the pollution source is perceived to be a threat. *(Note: This may be chosen if 2. or 7. is checked in D. Water Quality Needs.)*

G. Project - Describe the water quality problem, the solution being proposed and the expected environmental improvements.

1. Describe the pollution problem(s) at the site and its effect on water quality (on site and off site).

What are the critical pollutants and the pollutant sources on the project site? What are all of the Performance Standards & Prohibitions (PS&Ps) and/or TMDL goals that need to be addressed on the site? How does the site impact water quality? Describe how pollutants are conveyed to waters of the state, the distance(s) between source(s) and discharge points or areas to surface or ground water, frequency, magnitude and/or duration of discharge(s), etc. What is the current, estimated pollutant load? (Recommendation: attach photos of pollution source areas, pollution conveyance to waters of the state and the affected receiving water and mention photos here.)

Keith Langenhahn operates a 125 animal unit dairy livestock facility. The farm consist of milking cows, freshening animals, heifers, and calves. The farm is immediately adjacent to an unnamed stream, which feeds into the Lower Rib River downstream approximately 1.5 miles

The critical pollutants discharging from this farm is manure runoff from the outside animal activity area and the

manure loading area. This runoff contributes to phosphorus loading and increases the biological oxygen demand to the nearby creek. Another pollution source is the discharge of milking center waste to an adjacent gully that flows to the unnamed stream. Soil investigations on the farm indicate bedrock within 28 inches of the surface. Because of the relatively shallow separation to bedrock, there is concern for contamination of ground water. The farm does not have manure storage. Therefore manure is often spread on frozen and snow covered fields. This practice results in runoff and subsequent phosphorus loading to nearby stream, creeks, and other surface water bodies that are adjacent to where this practice occurs. The majority of the field slopes on this farm range from 5% to 10%. The animals on the farm had historically been allowed access to the unnamed stream. Currently the animals are not pasturing along the stream.

Currently the farm operation is failing to follow Performance Standards and Prohibitions: NR151.08(4); Direct runoff from feedlot or stored manure into waters of the state, and NR151.055(2); significant discharge of process wastewater to waters of the state.

The distance from the manure concentration areas on the farm to the unnamed stream is about 1100 feet. Runoff is conveyed to the unnamed stream by overland concentrated flow through a cattle lane and then enters a gully in the pasture area that flows into the unnamed stream. The milking center waste in piped underground from the milkhouse through a foundation wall and outlets on the cattle land. The distance from the milkhouse discharge to waters of the state is 1200 feet. The discharges are most significant in the spring and in the fall during heavy rain falls when the soils are saturated and vegetation is dormant. The photos that are included in this application where taken during the month of August, 2011 (BING MAP), and in March of 2015. Maps are included that show the discharge points flow path.

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?

This project will consist of installing a steel slurry-store type of manure storage facility to collect manure produced by the livestock and to capture the milking center waste. Manure and milking center waste will need to be transfered to an existing low volume tank and then pumped underground into the storage facility. Marathon county Conservation staff has prepared final design to address the majority of the runoff from the barnyard area. The design includes roof gutters, underground outlets, a spreader pad , and a vegetative treatment area. The siting designs have not been finalized, but estimates of a similar project completed last year are included. Staff will work with the landowner to incorporate with the design a collection tank to catch the first flush of manure and transfer this waste to the steel slurry-store facility. In addition to collecting the waste that has the ability to runoff to waters of the state, the landowner will be able to land spread the waste during times when fields are not snow covered and frozen. The incorporation of manure into the soil for plant uptake will allow better utilization of the fertilizer value in the manure, and will prevent runoff during the spring thaw. Based on research data and the Manure Storage Rating model, the phosphorus saved from non-applications to fields during critical periods predicts that 175 pounds of phosphorus will be saved. The manure storage facility is expected to be designed to collect approximately 600,000 gallons and will have the capacity to store the manure waste generated by the livestock and the milking center waste, and runoff from the barnyard system for 200 days. The farm currently produces approximately 2,380 gallons of manure and milking center waste and per day. The milking center waste accounts for nearly a quarter of this volume.

The Performance Standards and Prohibition that will be addressed in this project include: NR 151.02, NR 151.03, NR 151.04, NR 151.05(2), NR 151.055, NR 151.06, NR 151.07, NR 151.08(2), NR 151.08(3), NR 151.08(4), and NR 151.08(5). Although the landowner currently prevents cattle access to the unnamed stream that may cause a violation of NR 151.08(5), the landowner will agree to maintain vegetation along the banks of the creek and further limit cattle use along the pastured stream area. The only PS&P not covered by this project is NR 151.06. This is because the

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 will be very effective in solving the current nutrient and phosphorus runoff that occurs at the farm and on the cropland operated by the landowner. The Storage facility will capture the manure from the 125 animal unit dairy operation on the farm and all the milking center waste associated with the parlor. Based on information obtain in the Milking Center Wastewater Guideline (A companion document to the Wisconsin NRCS Standard 629), 628 lbs of BOD, 54 lbs of N, and 44 lbs of P will be captured in the storage facility. Another 175 lbs of P will be saved from non-application of manure to fields during critical periods (snow covered and frozen fields). Based on the BARNY Model, manure runoff from the cattle concentration and manure loading area contributes approximately 40 lbs of P to waters of the state.

All but one NR 151 PS&P will be achieved. There will be a very direct potential for water quality improvement to the Lower Rib River, based on the values cited above.

H. Cost-Effectiveness

1. 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.

This project will reduce manure and nutrient discharges to waters of the state. In addition, the project will allow the landowner to utilize and apply nutrient rich manure to agricultural fields during favorable growing conditions when nutrients can be incorporated and utilized by plants. The project will prevent or eliminate manure applications on fields during winter conditions, that are very steep. In addition, the landowner will not need to rely on manure distributions during winter conditions. Properly sizing the project will prevent the storage structure from the risk of overflowing, especially during late spring time when fields may not be accessible. Conservation staff has discussed the future needs of possible growth of the dairy operation, and the responsibility of satisfying APS&P's and the need to maintain them with any future growth without addition future cost share. The landowner is fully aware of the compliance needs and is not anticipating any additional growth. The project does not represent any additional growth beyond what is existing today. Conformance to the County's animal waste storage ordinance and the State's Agricultural Performance and Prohibitions Standards will be attained.

The site conditions prevents the construction of an in-place earthen manure standard that will meet NRCS 313 Standard. The bedrock, site slopes, and lack of borrow material limits the storage options available to a steel fabricated type of storage facility. (See question #2, of Cost Effectiveness)

The existing barnyard area is surfaced with concrete. Clean water diversion measures such as roof gutters and underground outlets will be minimal cost for the over project. Some additional curb or walls will be necessary to help control water flow, along with installing a spreader pad. Installation of a vegetated treatment area will reduce phosphorus loads down to less than 15 pound per year (per BARNY). However, staff will need to work with the landowner to try to capture first flush manure solids and liquids during rain events to convey into the long-term manure structure. This will help vegetation in the treatment area from being overloaded from excessive nutrients that can cause damage to the vegetation.

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.

The Marathon County Conservation staff, the landowner discussed the idea of designing the storage facility for 180 days. However, due the past 3 years weather conditions (late cold spring and early, long and severe winters) and the heavier soils that stay saturated for a longer time in the spring, it was strongly suggested that another 20 days of storage needed to added to this design. In recent years there were many examples of farmers unable to empty their storage facilities in the fall, and with late spring conditions and road limits enforced, there were many reports of storage facilities nearly topping over, that had the real potential of major manure spills. The additional 20 days of

storage would not lower the grant application under $150,000, therefore the State of Wisconsin is not cost sharing the added 20 days of storage. The added storage provides the landowner with sense of security if weather conditions prevents him from emptying and land applying the manure.

2. If other alternative management measures were evaluated, list them here and describe why the alternative(s) is not being recommended.

ROOFED BARNYARD AREA: Not recommended due to substantial costs. Performance standards to address runoff can be done utilizing inexpensive BMP's such as roof gutters, underground outlets, spreader, curbs or walls, and treatment areas.

ALTERNATIVE LONG-TERM MANURE STORAGE SYSTEMS: No alternatives other than some form of a fabricated structure. All prefabricated structures including a steel slurry-store, other concrete structures or concrete structure poured on-site were projected to far exceed the $150,000 cap. Therefore, alternatives are not a factor in keeping below the grant cap. Out-of-pocket cost by the landowner is his discretion.

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.

Marathon County staff utilizes a model referred to as the Manure Storage Rating Guide. The results are also compared to University studies on phosphorous discharges that have been measured on winter applied fields. The model takes into account cropping rotations, field slope, type of manure, field acreage and soil type. Pre and post reports will be run and incorporated into the final report. The staff also utilizes the BARNY model to evaluate improvements made around the farmstead and feedlots when BMP's are installed as components to the project which results in phosphorous reductions. The staff will also report the number of acres that are accounted for within the landowner nutrient management plan, and the number of agronomic acres that meet the tolerable soil loss. Because there is not presently a tool to measure pre and post conditions for resolving milking center waste discharges, the staff will work with the local DNR Water Resource Management Specialist to obtain nutrient or BOD loading reductions associated with this project. Within the final report, staff will provide the quantity of units for all BMP's installed. The performance standards and prohibitions that need to be addressed on the farm and those referenced above within the application in Part 1 (H) will be reported in the final report. A letter of compliance will include the parcel numbers and location of where and which performance standard or prohibition is met.

2. 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.

- ☐ a. A one-page summary of the project-specific BMP and/or water resource monitoring strategy is attached.
- ☐ b. The project will evaluate BMP pollution reduction effectiveness (*e.g.,* inlet/outlet monitoring).
- ☐ c. The project will evaluate the in-stream physical habitat, fisheries, biological, or chemical conditions.
- ☒ d. The applicant is willing to participate with the Department to do monitoring in the project area should funding become available

J. Evidence of Local Support that currently 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. II 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;
- ☒ c. Signed and dated copy of letter from the authorized county representative that the local regulation will be enforced at the project site.

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:

- ○ 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**

TRM Grant Project Name:
Langenhahn Manure Storage Project

○ 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**

○ c. Contacted the landowner(s)/land operator(s) about the proposed BMP installations; however, landowner(s)/land operator(s) participation is undetermined.

☐ 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.

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).

☐ 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. Consistency 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.)

The Marathon County Comprehensive Plan-2006 identifies water resources within the county as a high priority for protection. The plan recommends maintaining excellent water quality as a fundamental component to the high quality of life in Marathon County.

The 1988 Marathon County Groundwater Plan serves as a resource of information about groundwater and other natural resources and recommends strategies to address issues to groundwater and surface water contamination. The plan also identifies livestock waste, along with manure storage and land spreading activities as threats to groundwater and surface water resource of Marathon County.

In addition, Keith Langenhahn is provided tax incentive credits through the Marathon County Farmland Preservation Program. In order to continue to take these credits, he must be in compliance of all the Performance Standards and Prohibitions.

Part III. Eligibility for Local Enforcement Multiplier

Completion of Part III is optional. However, an applicant can increase the final project score by qualifying for a project multiplier. Check the **one** enforcement authority situation which **best** applies to the governmental unit applying for a TRM grant combined with the proposed project.

○ The applicant certifies that it has local authority to enforce all state agricultural performance standards and prohibitions at all sites within the local jurisdiction where such state agricultural performance standards and prohibitions apply. *Multiply the initial project score by a factor of 1.15.*

◉ The applicant certifies that it has local regulations that give local authority to enforce most, but not all, of the state agricultural performance standards and prohibitions at all sites within the local jurisdiction where such state agricultural performance standards apply; **and** this project addresses an enforceable performance standard or prohibition. *Multiply the initial project score by a factor of 1.10.*

TRM Grant Project Name:
Langenhahn Manure Storage Project

○ The applicant certifies that it has local regulations that give local authority to partially enforce some of the state agricultural performance standards and prohibitions at some, but not all, of the sites within the local jurisdiction; **and,** this project addresses an enforceable performance standard or prohibition on a site under local jurisdiction. *Multiply the initial project score by a factor of 1.05.*

○ Applicant has no local authority to enforce state agricultural performance standards and prohibitions within the local jurisdiction **for this proposed project**. *No multiplier is earned.*

Copies of ordinances for which credit is taken in this section are: (choose at least one)

☒ Found at this website (provide most direct web page URL).
http://www.co.marathon.wi.us/Departments/ConservationPlanningZoning/ConservationServices.aspx

☐ Attached to this application.

☐ Already attached to another application for funding.

Optional Additional Information

Carefully review the answers to all of the questions above. Is there additional information that will add to the understanding of this project? If so, describe here.

Applicant Certification

A Responsible Government Official (authorized signatory) must sign and date the application form prior to submittal to the DNR. The governmental official with signatory authority must be the person authorized by the Governmental Responsibility Resolution. I certify that, to the best of my knowledge, the information contained in this application and attachments is correct and true.

Signature of Authorized Government Official.	Date Signed
Paul Daigle	4/13/15
Name (*Please Print*)	**Title**
Paul Daigle	Senior CPZ Manager

☐ The required, completed Governmental Responsibility Resolution (signed in blue ink) (see Attachment I) is attached.

Submittal Directions

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.

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

or

PO Box 7921
Madison WI 53707-7921

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:

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	12	= 2.4	*Fed numbers in this column comply with 40 CFR s. 122.23*		
Dairy Cattle	Milking & Dry Cows	1.40 x	75	= 105	1.43 x		=
	Heifers (800 lbs to 1200 lbs)	1.10 x	12	= 13.2			
	Heifers (400 lbs to 800 lbs)	0.60 x	6	= 3.6	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 =** (add all rows above) 124.2			**Total Non-Mixed Animal Units =** (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.

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:

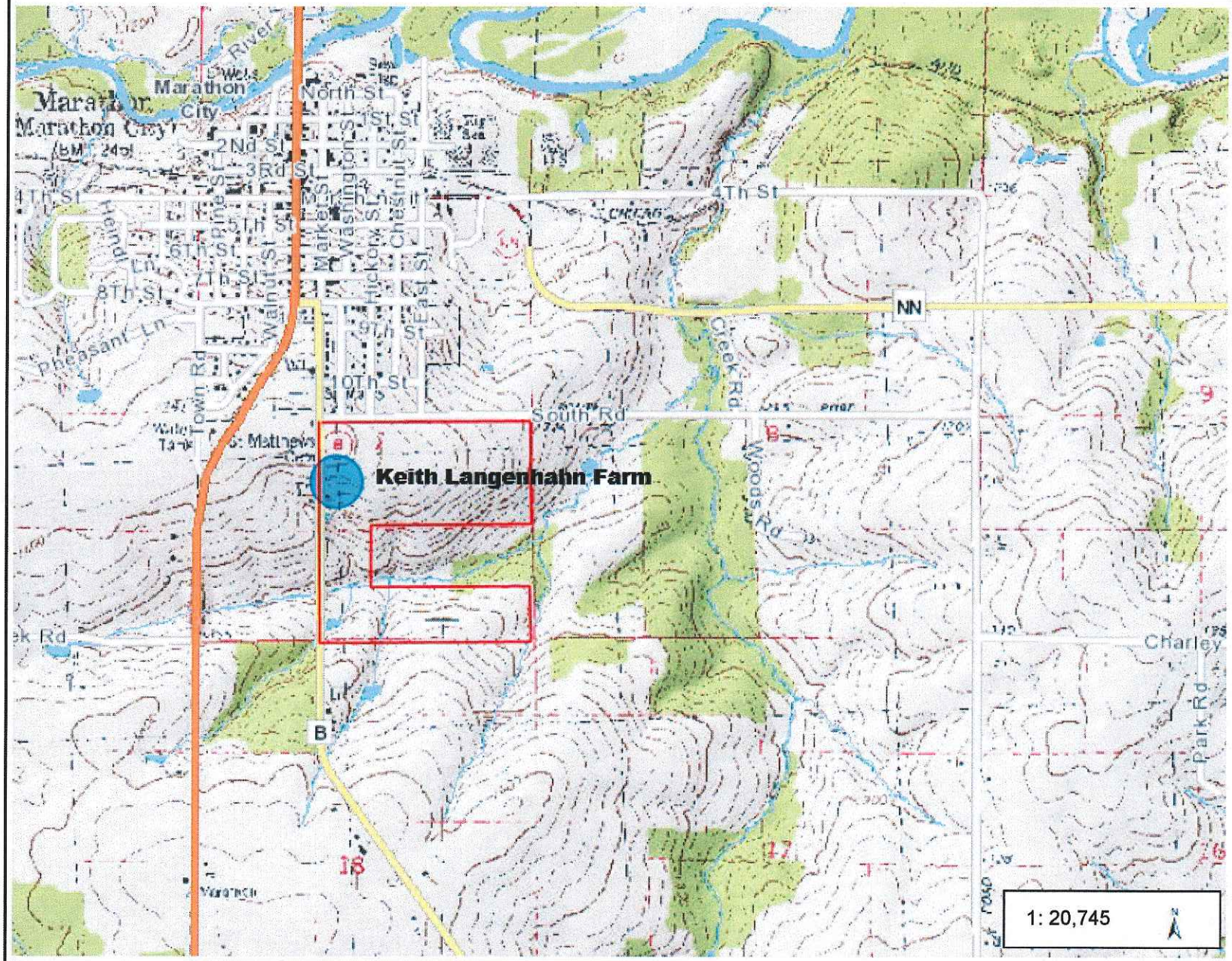
Animal Type		I. Mixed Animal Units			II. Non-mixed Animal Units		
		b. Equiv. factor	c. Projected Number	d. No. of AUs	e. Equiv. factor	f. Projected Number	g. No. of Aus
Example - Broilers (non-liquid manure):		*0.005 x*	*150,000*	*= 750*	*0.008 x*	*150,000*	*= 1200*
Dairy/Beef Calves (under 400 lbs)		0.20 x	12	= 2.4	*Fed numbers in this column comply with 40 CFR s. 122.23*		
Dairy Cattle	Milking & Dry Cows	1.40 x	75	= 105	1.43 x		=
	Heifers (800 lbs to 1200 lbs)	1.10 x	12	= 13.2			
	Heifers (400 lbs to 800 lbs)	0.60 x	6	= 3.6	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 = (add all rows above)	Total Non-Mixed Animal Units = (Enter the single highest number from any row above; DO NOT add the totals)
124.2	

Date of Proposed Expansion (MM/YY):

Surface Water Data Viewer Map



Legend

- Rivers and Streams
- Open Water

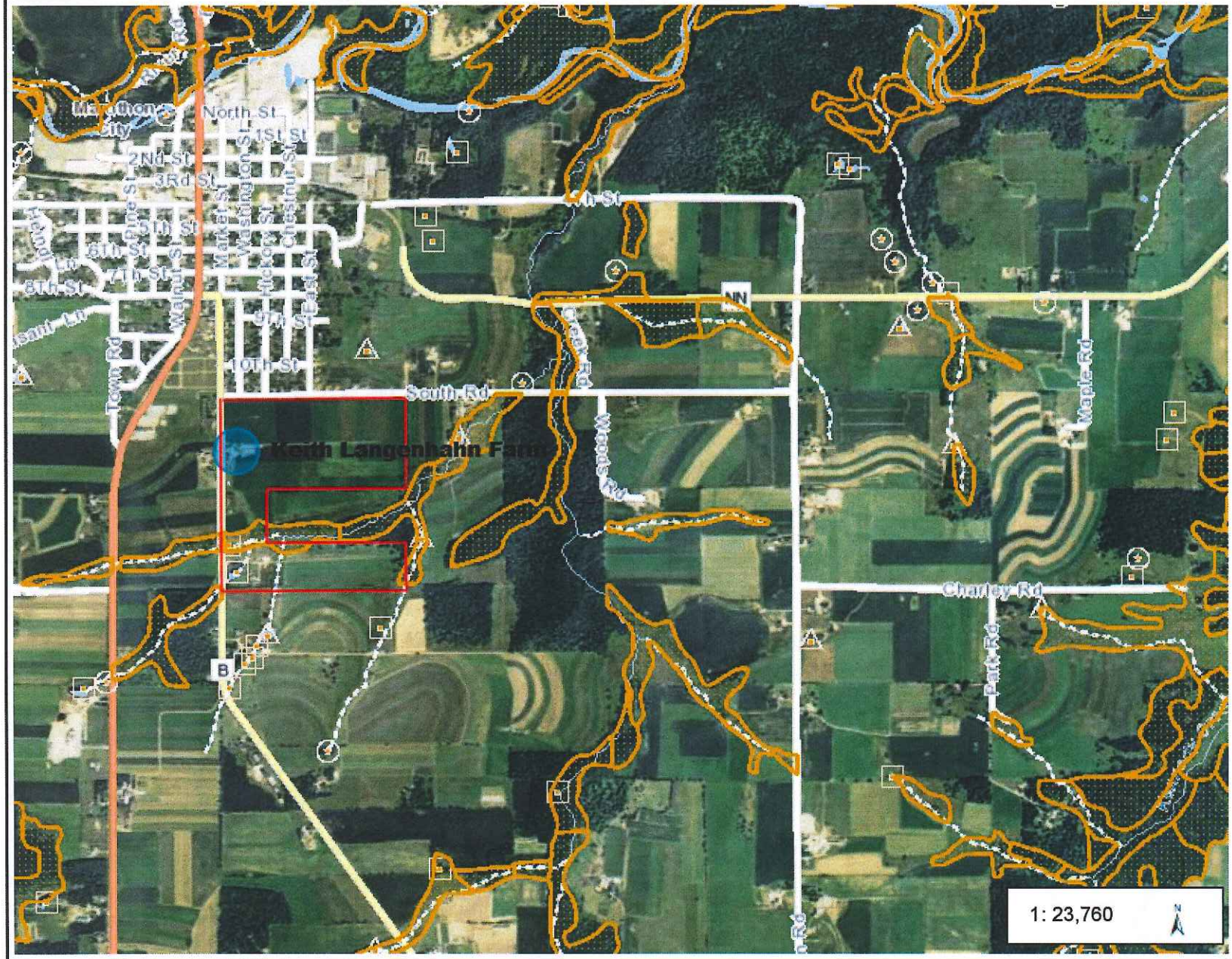
Notes

Langenhahn Manur Storage Project

0.7 0 0.33 0.7 Miles

NAD_1983_HARN_Wisconsin_TM

Surface Water Data Viewer Map



Legend

- Wetland Class Points
  - Dammed pond
  - Excavated pond
  - Filled excavated pond
  - Filled/drained wetland
  - Wetland too small to delineate
- Filled Points
- Wetland Class Areas
  - Wetland
  - Upland
- Filled Areas
- Intermittent Streams
- Rivers and Streams
- Open Water
- Air Photo Index (2008 NAIP)

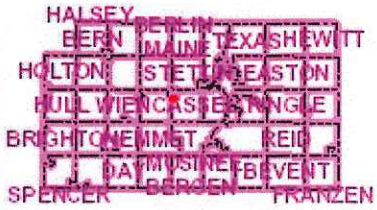
Notes

Langenhahn Manure Storage Project

0.8 0 0.38 0.8 Miles

NAD_1983_HARN_Wisconsin_TM

Land Information Mapping System



Legend

- Parcels
- Land Hooks
- Section Lines/Numbers
- Right Of Ways
- Municipalities
- Streams-Rivers
- 2010 Orthos
  - Red: Band_1
  - Green: Band_2
  - Blue: Band_3

139.69 0 139.69 Feet

User_Defined_Lambert_Conformal_Conic

Notes

Langenhahns

2016 Bing Map

Watershed - Lower Rib River (CW23)

Return to Search

Overview | Natural Features | Water Condition | Documents & Grants | Monitoring & Projects | Priorities & Goals | Recommendations | Learn More

River and Stream Quality

All Waters in Watershed

The Big Rib River and other streams are not reaching their highest potential use due to low baseflow conditions and the resulting low levels of dissolved oxygen, and pollution from nonpoint sources. Eroding croplands, streambanks and improperly managed livestock operations are the major sources of nonpoint pollution in the watershed. The primary causes of streambank erosion are due to a combination of livestock grazing of streambanks, historic in-stream sand and gravel mining and high flows during spring run-off events. It is common to observe scarring on trees five feet above base flow water levels in some of the streams. Severe streambank erosion leads to deposition in pools, the filling of spawning substrate within riffle areas, and the elimination of streambank cover.

Date 2002

Watershed Trout Streams
Watershed Outstanding & Exceptional Resources

Lakes and Impoundments

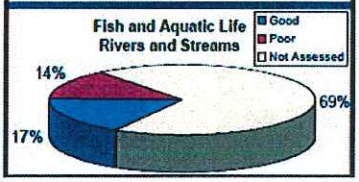
Search for Lakes by County

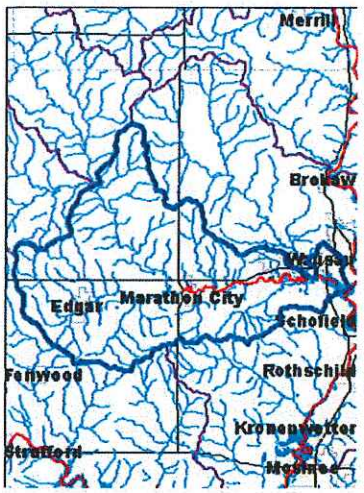
Impaired Waters

List of Impaired Waters

Lower Rib River - Watershed At-a-Glance

Watershed Size:	130 mi²
Stream Miles:	N/A
Lake Acres:	N/A
Wetland Acres:	4,628 ac
Outstanding/Exceptional Miles:	0 mi
Trout Waters:	5 mi
Impaired Streams:	13.5 mi
Impaired Lakes:	0 ac





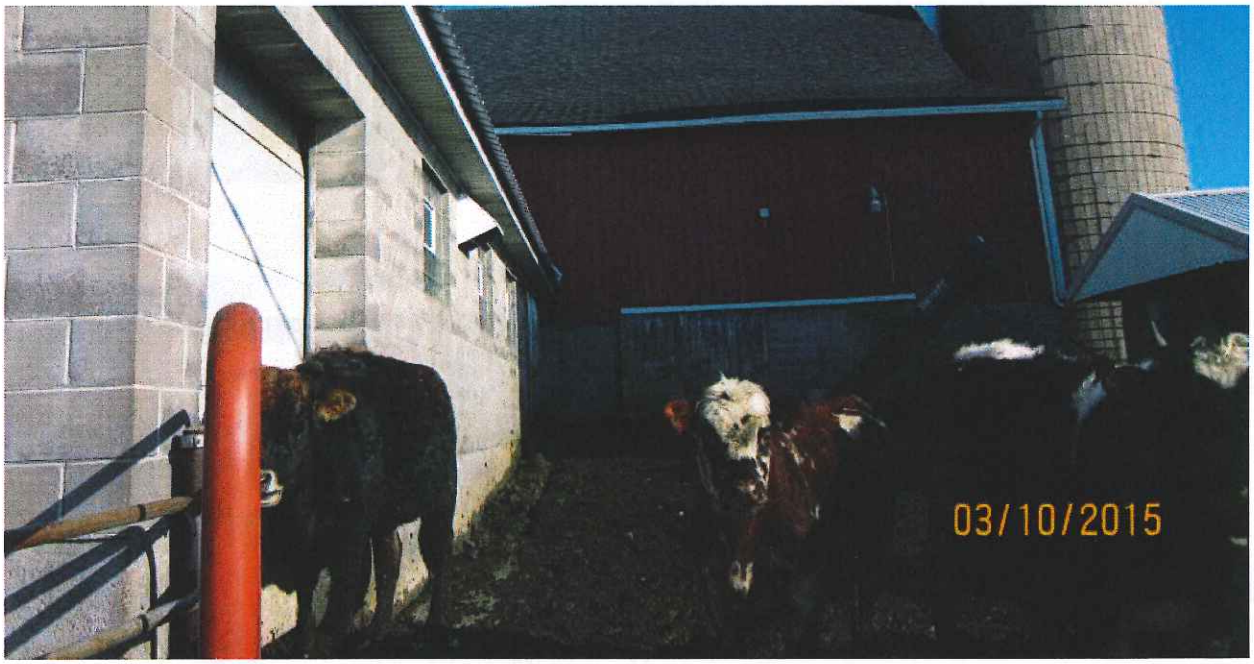
Impaired Waters in Watershed (CW23)

Official Name (Click for Details)	Local Name (Click for Map)	Start Mile	End Mile	WBIC	Water Type	County	Pollutant	Impairment	303 Status	Priority
Big Rib River	Big Rib River	0.00	13.52	1451800	River	Marathon	Mercury	Contaminated Fish Tissue	303d Listed	Medium
Scotch Creek	Scotch Creek	0.00	3.80	1455600	River	Marathon	Total Phosphorus	Impairment Unknown	Proposed for List	High
Scotch Creek	Scotch Creek	3.80	10.00	1455600	River	Marathon	Total Phosphorus	Impairment Unknown	Proposed for List	High
Scotch Creek	Scotch Creek	10.00	18.00	1455600	River	Marathon	Total Phosphorus	Impairment Unknown	Proposed for List	High


03/10/201


03/10/2015


03/10/2015


03/10/2015


03/10/2015


03/10/2015


03/10/2015


03/10/


03/1

Langenhahn Manure Storage Project

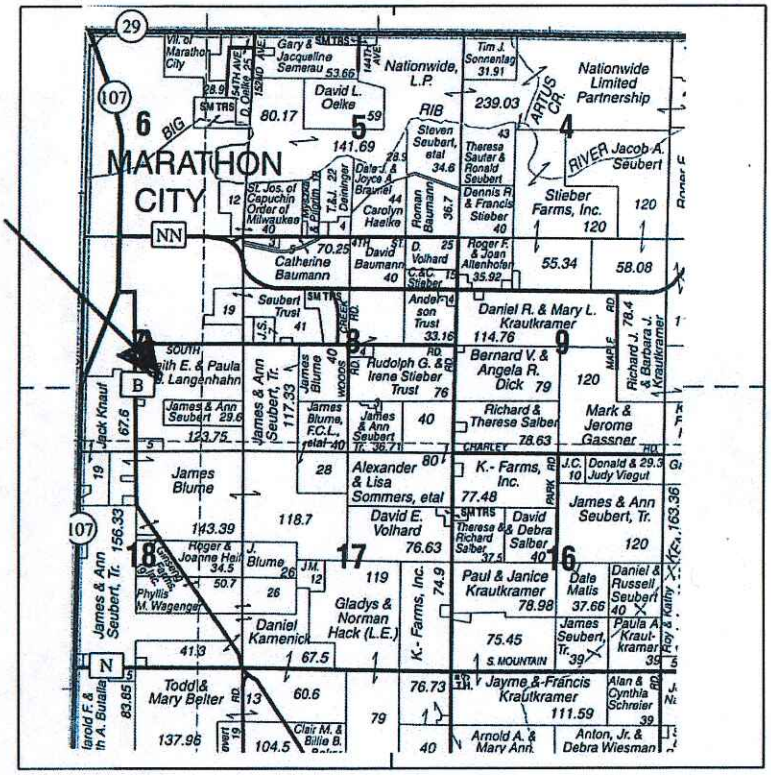
NRCS United States Department of Agriculture
Natural Resources Conservation Service

WISCONSIN STANDARD
DRAWING NO. WI-001A 5/12

CONSTRUCTION PLAN

PRACTICE Roof Runoff Structure (558), Vegetated Treatment Area (635)
LANDOWNER Chris Langenhahn (operator) Keith Langenhahn (owner)
ADDRESS Farm - 4126 County Road B, Marathon WI 54448
LANDOWNER PHONE NO. C 715-581-6709 K 715-443-3554 COUNTY
TOWNSHIP Marathon T 28 N, R 6 ☒E/W☐Sec. 7
FIELD OFFICE Wausau TELEPHONE NO. 715-261-6006

Sheet	Contents
1	Cover Page
2	Quantity Sheet
3	Plan View
4	One foot wall
5	8" Spreader Curb
6	5" Concrete S/G
7	Gutter, Downspout, Outlet
8	Roof Gutter Design
9	Animal guard for Outlet
10	
11	
12	



LOCATION MAP

DIGGERS HOTLINE
Call 3 Work Days Before You Dig!
Nationwide 811
Toll Free 1-800-242-8511
TDD 1-800-542-2289
Website
www.diggershotline.com

N
Not to Scale

NOTICE TO LANDOWNERS AND EXCAVATORS

Any representation made by the USDA, Natural Resources Conservation Service, or the Marathon County LCD, as to the approximate location or nonexistence of above or under ground hazards does not relieve the owner of the property or the excavator that is hired to complete construction, from notifying Diggers Hotline of the pending construction. You will be liable for damages resulting from construction activities. (Call Diggers Hotline) Ticket # _____

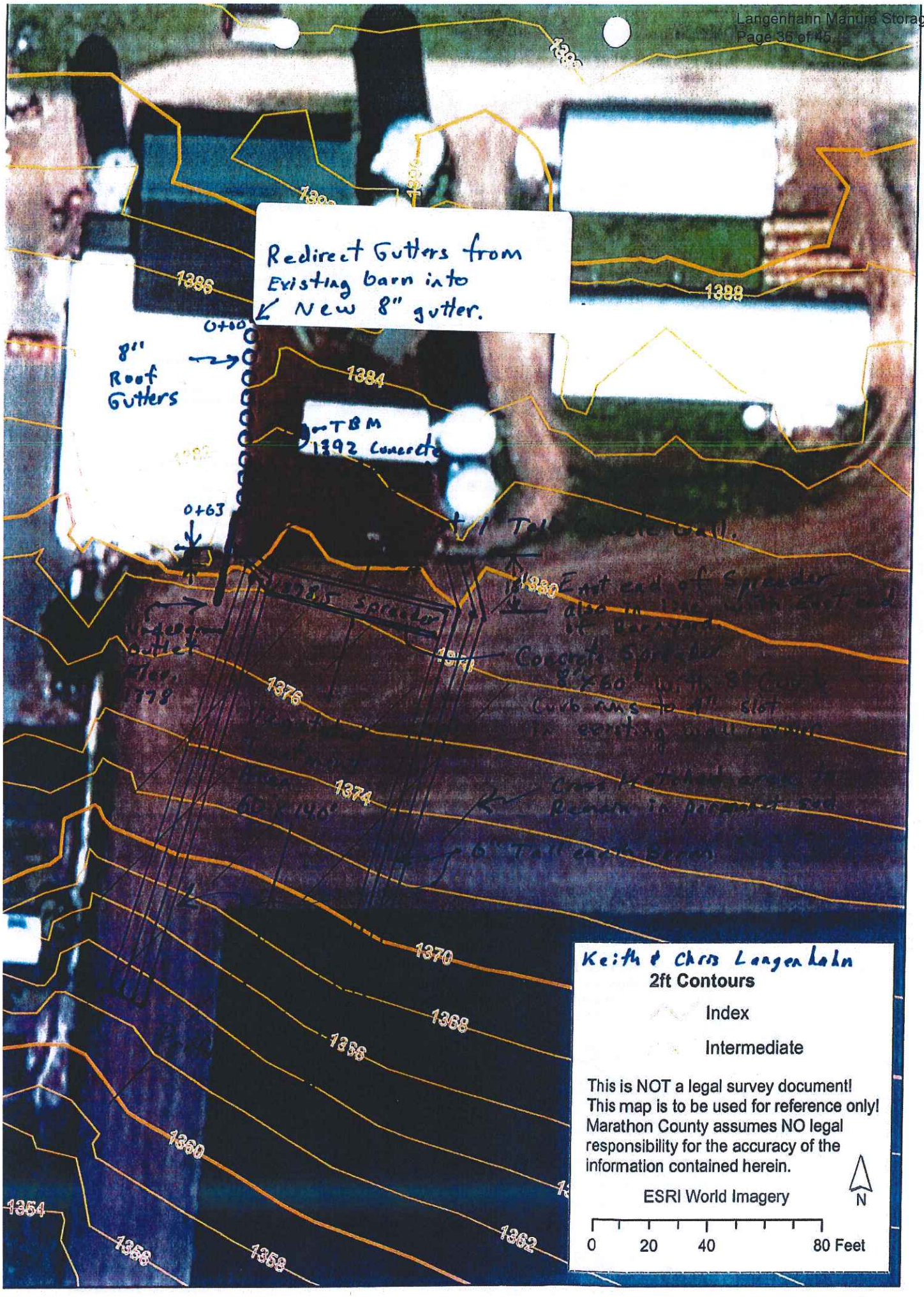
Designed by: Paul Doyle Date: 6/27/14
Checked by: Ken Pyplacki Date: 7/8/14
Approved by: _____ Date: _____

The installed practices comply with applicable NRCS technical standards and specifications. The "redlined" construction plans (as-built drawings) reflect changes made during construction.

Construction Approved by: _____ Date: _____

Job Approval Class II - 635

3 of 9


Redirect Gutters from Existing barn into New 8" gutter.
8" Roof Gutters
0+00
0+63
1398
1396
1388
1384
1380
1376
1374
1370
1368
1366
1360
1362
1358
1356
1354
Keith & Chris Langenhahn
2ft Contours
Index
Intermediate
This is NOT a legal survey document! This map is to be used for reference only! Marathon County assumes NO legal responsibility for the accuracy of the information contained herein.
ESRI World Imagery
N
0 20 40 80 Feet

ROOF GUTTER DESIGN

Ver 6/13

CLIENT:	Keith and Chris Langenhahn	COUNTY:	MARATHON	DATE:	6/17/14
DSN BY:		CHK BY:		DATE:	
BLDG:	PAD	LOCATION:	East side of Dairy barn		

GUTTERS

8 of 10

Design Storm:	25	yr. =	0.158	cfs per 1000 SF of roof
Gutter Size:	8	inch		
Roof Slope:	4	X:1		
Roof Overhang Into Gutter:	2	inches (1"-2" is best) **(Enter what you use onto 408A/408B drawings)**		

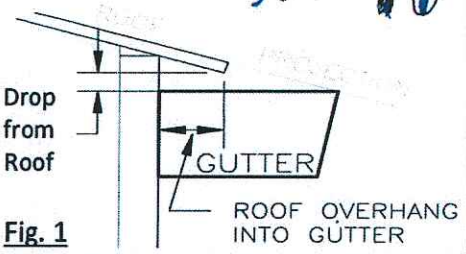


Fig. 1

DOWNSPOUTS

TYPICAL SIZES:	6 sq. in. (2x3) =	0.166 cfs	20 sq. in. (4x5) =	0.553 cfs	
	12 sq. in. (3x4) =	0.332 cfs	4" PVC (12" sq. in.)=	0.332 cfs	
SELECTED SIZE:	40.0	sq.in.	has a capacity of :	1.107	cfs

From 70'x42' Dairy Barn

	Inches below roof edge	
Min. Drop:	1.3	1-1/4
Max Drop:	6.0	6-

DESIGN TABLE

STATION (ft.)	UPRIGHT ROD (ft.)	Horiz. Roof Width (ft.)	Q in Extra Water (cfs)	Q out (downspouts) (cfs)	Added Drop, if needed (ft.)	Total Drop From Roof Line (in.)	Distance From Level Line (in.)	Min. Width of Fascia Board (in.)
0+00	10.00	41	0.460		--	1-1/4	0	6.5
0+63	10.00	41		1.107	0.00	5-1/4	-3-3/4	10.4

	Total Q out =	1.107	-0.238	*cfs left in gutter!*

If Gutter has multiple outlets going into a single pipe/downspout, click here

UNDERGROUND OUTLET COMPUTATIONS

Inlet STA	Outlet STA	Q (cfs)	Inlet Elev. Of Pipe	Outlet Elev.	Head Elev., if any	Slope (ft/ft)	Pipe Material	Min. Pipe Diam. (inches)
0+63	0+93	0.869	1380.0	1379.0	10.0	0.033	Plastic Pressure Pipe	8

NRCS/DATCP/County

ESTIMATED QUANTITIES
(Barnyard Runoff Control)

ITEMS	QUANT.	UNITS	SHEET NUMBER	WI. CONST. SPEC. OR JOB SHEET NO.
Rain gutters with downspou	63	lin ft	7	Spec 23
Underground outlet pipe ASTM D1785or D2241 W/guard	40	lin ft	9a, 9b	Spec 15
8 inch Slotted Spreader Wa Inc. footing and 5 inch sl	68	lin ft	5,6	Spec. 4
One foot Concrete wall	4	lin. Ft.	4	Spec 4
Critical Area Planting	0.1	acre	3	Planted in hay and will remain in hay
Site Preparation (grading, concrete remova and bury underground outle	1	Job	3-9	Spec 1,2,3

Owner: Langenhahn

Designed by: PD

Checked by:

Sheet 2 of 9

Proposal

KNUDSON SHEET METAL INC.

7 of 1?

724 Ross Avenue
P.O. Box 27
Schofield, Wisconsin 54476-0027
(715) 359-8845

PROPOSAL SUBMITTED TO	PHONE	DATE
CHRIS LANGBNHAHN	PAUL 715-261-6006	6-16-14
STREET	**JOB NAME**	
4126 CTY RD B		
CITY, STATE & ZIP	**JOB LOCATION**	
MARATHON WI 54448		
ARCHITECT / **DATE OF PLANS**		**JOB PHONE**

We hereby submit specifications and estimates for:

Gutter Color: _X_ Wh___ Br___ Other _____

D-Spout Color: _X_ Wh___ Br___ Other _____

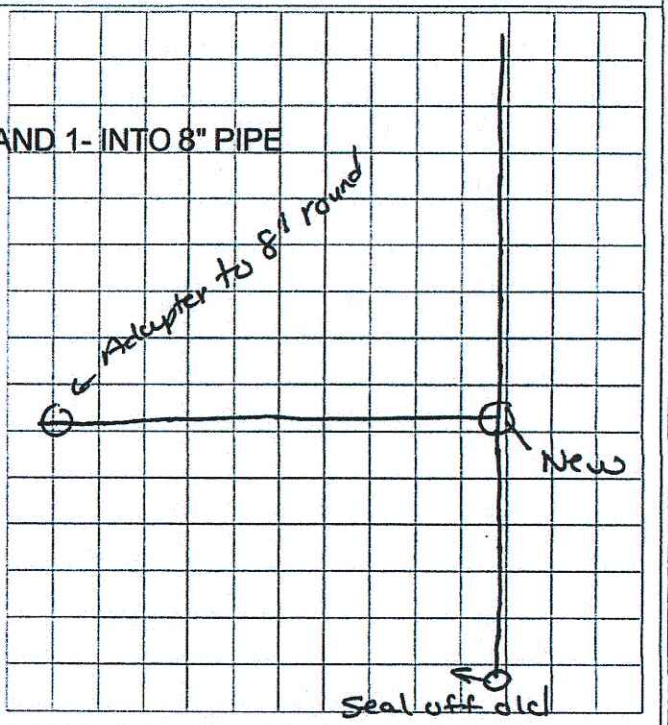
Length of D-Spout Extension: 1- INTO LOWER GUTTER AND 1- INTO 8" PIPE

Gutter Screen: ____ yes _X_ no

Gutter Apron: ____ yes _X_ no

SPECIFIC INSTRUCTIONS

FURNISH AND INSTALL GUTTERS AND DOWNSPOUTS AS DRAWN.
GUTTERS- 8" CUSTOM MADE 24 GA PREFINISHED GALV-WHITE KYNAR 500.
DOWNSPOUT ADAPTOR TO 8" ROUND, 24 GA PREFINISHED GALV DOWNSPOUT.



Notice of cancellation. This proposal may be cancelled within 3 working days after date of proposal by written notice to Knudson Sheet Metal Inc., 724 Ross Avenue, Schofield, WI.

We Propose hereby to furnish material and labor - complete in accordance with above specifications, for the sum of:

ONE THOISAND TWO HUNDRED AND SEVENTY SEVEN AND 00/100---------- DOLLARS ($) 1,277.00

Payment to be made as follows: NET 30 DAYS — DOWN PAYMENT _____

QUOTE INCLUDES ALL MATERIAL, LABOR AND TAXES

All material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from abobe specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tornado and other necessary insurance. Our workers are fully covered by Workmen's Compensation Insurance.

Authorized Signature DAVID GLEASON

Note: This proposal may be withdrawn by us if not accepted within 45 days.

Acceptance of Proposal - The above prices, specifications and conditions are satisfactory and are hereby accepted. Your are autorized to do the work as specified. Payment will be made as outlined above.

Signature _____

Signature _____

Date of Acceptance: _____

FILE COPY

Invoice

Foxland Harvestore

1400 Rosehill Road P.O. Box 245 200 S. Wisconsin Avenue
Little Chute, WI 54140 Stratford, WI 54484
920-766-3783 Marshfield 715-387-8991
Wausau 715-845-3526

PAGE 1
INVOICE NO 3198C
INVOICE DATE 8/19/2014

TOTAL DUE 190,798.47

SOLD TO Facility Similar in size compared to K. Langenhahn

SLS1	SLS2	DUE DATE	DISC DUE DATE	ORDER NO	ORDER DATE	SHIP DATE	SHIP NO
1KB		8/19/2014	8/19/2014	00003185	8/19/2014	8/19/2014	

TERMS DESCRIPTION	CUSTOMER PO NUMBER	SHIP VIA
DUE ON RECEIPT		

Project: 3198 101x19 slurry store

	Description	Amount	TX
	101 X 19 EXPANDABLE SLURRYSTORE CONCRETE, TANK, LABOR MODEL 1400 DUAL AGITATION HOULE SAFETY VALVES	238,497.47	0

paid in full
Kim Pelan 2/19/15

238,497.47
payments received
9/2013 down pymt < 47,699.00 >
11/21/14 < 15,572.97 >
11/21/14 < 175,225.50 >
-0-

Any unsatisfactory work must be reported to the Foxland Harvestore / Valley Building office within 15 days or the job will be considered satisfactory. All invoices are due within 30 days unless otherwise noted. A finance charge of 1 ½% per month (18% per annum) will be charged on accounts after 30 days. VISA, MASTERCARD, DISCOVER, AMERICAN EXPRESS, and FARM PLAN (John Deere Financial) are also accepted.

Taxable	Nontaxable	Freight	Sales Tax	Misc	Total
0.00	238,497.47	0.00	0.00	0.00	238,497.47
	Prepayment	47,699.00		TOTAL DUE	190,798.47

MARATHON COUNTY

May 5, 2014

RE: Results of your Farmland Preservation Status Review

Dear Keith & Paula Langenhahn
4126 COUNTY ROAD B
Marathon WI 54448

The Marathon County Conservation, Planning and Zoning Department would like to thank you for your participation in Wisconsin's Farmland Preservation Program.

On the reverse side of this mailing is your most recent status review from Marathon County. **You currently do not meet eligibility requirements for one or more of the conservation performance practices needed to participate in the program.** The status review indicates which practices you have installed properly and which practices need to be installed or upgraded in order to stay eligible for your state tax credits. Parcels included in this report are listed at the bottom of the page, red indicates that at the time of the farm review the parcel(s) did not meet one or more performance practices. The review also indicates the staff person from our department who performed your status review.

You have until December 31, 2015 to have your incentive practices installed and properly functioning to maintain your eligibility for your tax credits. This letter serves as notification of the status review of your farm and also as your *Schedule of Compliance.* Review the **What Landowners Need to Know About Conservation Performance Practices** brochure enclosed for important information about maintaining eligibility.

It is our intent to be helpful and to provide you with answers so you remain eligible for the program. When you install new practices or upgrade practices that currently do not meet standards, please notify our department so we can schedule a follow-up visit, so you remain eligible.

If you have questions or comments please contact our department and request the person who performed the review, as they will know your farm best and can provide you with help. These conservation performance standards seek to protect our ground and surface water, both in the interest of public health and the environment. In order to protect Marathon County's most valuable natural resources, the support of rural landowners is critical. Thank you for your efforts in maintaining a productive farm and healthy environment.

Sincerely:

Paul Daigle

Paul Daigle, Conservation Program Manager

Staff Contacts:

Kirk Langfoss Conservation Specialist II 715-261-6008

Ken Pozorkski Conservation Specialist II 715-261-6010

Bill Kolodziej Conservation Specialist I 715-261-6038

Shawn Esser Conservation Specialist II 715-261-6010

Farmland Preservation Status Review Results

Red=Does not meet performance practices
Green=Meets performance practices

Parcel Owner: Keith & Paula Langenhahn
Review Date: 10/12/2012
Name of Reviewer: Shawn Esser

	Performance Practices	Performance Practice Explanations
	1.Soil Erosion Control	All land where crops or feed are grown shall be cropped to achieve a soil erosion rate equal to, or less than, the "tolerable"(T) rate established for that soil.
	2. Nutrient Management Plan on Cropland	All applications of manure, commercial fertilizer or other nutrients shall follow a Nutrient Management Plan meeting the nutrient management standard.
	Gully Erosion	All gullies shall be stabilized and protected against chronic soil loss.
	3. No Manure Piles in WQMA	No unconfined manure pile in a Water Quality Management Area which is 1000' from a lake, pond or flowage or 300' from a river or stream, site susceptible to groundwater contamination or direct conduit to groundwater.
	4. Pastured Stream, Pond, Lake Bank Cover	No unlimited livestock access to rivers, streams, or wetlands where high concentrations of animals prevent the maintenance of adequate sod or self-sustaining vegetative cover.
	5. Barnyard, Feedlot, Storage Facility: Water Diversions	Runoff shall be diverted away from contacting feedlot, manure storage and barnyard areas within a Water Quality Management Area which is 1000' from a lake, pond or flowage or 300' from a river or stream, site susceptible to groundwater contamination or direct conduit to groundwater.
	6. Barnyard, Feedlot, Storage Facility: Direct Runoff	No direct runoff from a feedlot, stored manure or barnyard into surface and ground waters, or wetlands.
	7. New or Altered Storage Facility meets standards	A manure storage facility constructed or substantially altered after October 1, 2002 shall be designed and constructed in conformance with NRCS technical standards and specifications.
	8. Storage Facility: Closed	Proper closure of a manure storage facility is required if the livestock operation ceases operation or manure has not been added or removed from the facility for a period of 24 months, except if a proper extension has been granted.
	9. Storage Facility: Failing	A manure storage facility in existence as of October 1, 2002 that poses an imminent threat to public health or fish and aquatic life, or is causing a violation of groundwater standards shall be upgraded, replaced, or properly closed
	10. Storage Facility: Overflowing	No overflow of a manure storage facility

PARCELS IN THIS REPORT: 05428060740994, 05428062040993, 05428061130999, 05428060740999, 05428060740997, 05428060740996, 05428060740995, 05428060740992, 05428060740998

March 6, 2015

Keith Langenhahn
4126 County Road B
Marathon, WI 54448

Mr. Langenhahn,

Based on a visit to your farm made in October of 2012, the Marathon County Conservation, Planning and Zoning (CPZ) Department recognizes the potential environmental hazards and management consequences that results from the direct runoff from a barnyard feedlot area and the process wastewater discharge on your farm. In addition, the Department identified that the barnyard feedlot area and process wastewater contributes direct runoff and significant discharge into waters of the state.

Because the barnyard and the milking center area pose a threat to environmental resource and a possible threat to public health, Marathon County has deem the following activities to be in violation of the State's Agricultural Performance Standards and Prohibitions found within Administrative Code NR 151:

1. A livestock operation shall have no direct runoff from a feedlot or stored manure into the waters of the state. NR 151.08(4).
2. There may be no significant discharge of process wastewater to waters of the state. NR 151.055(2).

Based upon these activities, the County believes that it is necessary for you to take corrective steps in resolving the feedlot runoff problem and construct a long-term waste storage facility to properly manage the waste production and process wastewater on the farm. The installation of this Best Management Practice (BMP) would provide you the flexibility to manage manure distribution according to a nutrient management plan with minimal runoff.

Therefore, the CPZ has agreed to apply for a Targeted Resource Management Grant to the Department of Natural Resource (DNR) to provide financial and technical assistance for the installation of a long-term waste storage facility on your farm. Based upon the potential environmental issues, local ordinance requirements, and Administrative Code NR 151, the CPZ Department has prioritized the workload to pursue the installation of the BMP's on your farm. Grant selection by the DNR will be announced by December of 2015.

If the CPZ Department is successful in obtaining a Targeted Resource Management Grant, I will contact you with an offer of cost-share assistance to install a long-term waste storage facility on your farm. If cost sharing is made available to you and you fail to implement the approved corrective measure, Marathon County may refer this matter to the Wisconsin Department of Natural Resource as a violation of State's Agricultural Performance Standards and Prohibitions.

Your cooperation is greatly appreciated. Feel free to contact me if you have any questions.

Sincerely,

Ken Pozorski
Conservation Specialist II

cc: Terry Kafka, DNR Region Nonpoint Source Coordinator

Conservation, Planning and Zoning Department
210 River Drive • Wausau, Wisconsin 54403-5449
Phone 715-261-6000 • Marathon County 800-236-0153 • Fax 715-261-6016

Letter of Commitment:

Keith and Paula Langenhahn

Over the past year, we have been involved in discussions with the Marathon County Conservation, Planning and Zoning Department and the Department of Natural Resource (DNR) staff to develop a conservation plan to address our concerns with manure management and farmstead runoff. Our dairy understands that current management and lack of adequate manure handling facilities create discharges into surface water.

This serves as a commitment to address the discharge concerns from our dairy, and cooperatively work with the Conservation Staff to secure a grant through the Targeted Resource Management Grant Program. In requesting this conservation grant from the State, we are committing to following activities and resources as a sign of local support:

1) The farm will cooperate with the Marathon County Conservation, Planning and Zoning Department and Wisconsin DNR in the development of construction and design plans that minimize runoff from the farmstead.
2) The farm will enter into a contract with Marathon County to implement the Best Management Practices (BMP's) required to correct our natural resource concerns and reach the goals established within the Marathon County Land and Water Resource Management Plan.
3) The farm agrees to contain cost by bidding or utilizing average cost procedures to execute the implementation of BMP's.
4) The farm will agree to follow a mutually developed Operation and Maintenance Plan that outlines management and service requirements of the BMP's.

Signature of Landowner: Paula Langenhahn Keith Langenhahn

Date: March 2, 2015

MARATHON COUNTY

MARATHON COUNTY
RESOLUTION FOR RUNOFF MANAGEMENT GRANTS

WHEREAS, Marathon County is interested in acquiring a grant from the Wisconsin Department of Natural Resources for the purpose of implementing measures to control agricultural or urban stormwater runoff pollution sources (as described in the application and pursuant to ss. 281.65 or 281.66, Wis. Stats., and chs. NR 151, 153 and 155); and

WHEREAS, a cost-sharing grant is required to carry out the project:

THEREFORE, BE IT RESOLVED, that Marathon County hereby authorizes the Land and Water Program Director of the Marathon County Conservation, Planning and Zoning Department to act on behalf of Marathon County to:

- Submit and sign an application to the State of Wisconsin Department of Natural Resources for any financial aid that may be available;
- Sign a grant agreement between the local government (applicant) and the Department of Natural Resources;
- Submit reimbursement claims along with necessary supporting documentation;
- Submit signed documents; and
- Take necessary action to undertake, direct and complete the approved project.

BE IT FURTHER RESOLVED that Marathon County shall comply with all state and federal laws, regulations and permit requirements pertaining to implementation of this project and to fulfillment of the grant document provisions.

Adopted this 3rd day of March 2015

I hereby certify that the foregoing resolution was duly adopted by Land Conservation and Zoning Committee at a legal meeting on 3rd day of March 2015.

Authorized Signature: Paul Daigle Paul Daigle **Title: Land and Water Program Director**

IMPORTANT NOTE: *The DNR expects the individual authorized by this resolution to become familiar with the applicable grant program's procedures for the purpose of taking the necessary actions to undertake, direct, and complete the approved project. This includes acting as the primary contact for the project, submitting required materials for a complete grant application, carrying out the acquisition or development project (e.g., obtaining required permits, noticing, bidding, following acquisition guidelines, etc.), and closing the grant project (e.g., submitting grant reimbursement forms and documentation, and organization of project files for future monitoring of compliance with grant program.*

O:\LAND\TRM_&_NOD_Projects\2015\TRM-Resolution2015.docx

Conservation, Planning and Zoning Department
210 River Drive • Wausau, Wisconsin 54403-5449
Phone 715-261-6000 • Marathon County 800-236-0153 • Fax 715-261-6016
cpz@co.marathon.wi.us