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: Kaufman Manure Management Project

Governmental Unit Applying (name and type) (e. g. Dane County Land and Water Resources Department): Marinette County Land Information Department - Land and Water Conservation Division

Governmental Unit Web Site Address: marinettecounty.com

Name of Responsible Government Official - Authorized Signatory (First Last)	Name of Government Official - Grant Contact Person (First Last)(if different)
Gregory G. Cleereman	
Title: Marinette County Conservationist	Title:
Area Code + Phone Number: (715) 732-7783	Area Code + Phone Number:
E-Mail Address: gcleereman@marinettecounty.com	E-Mail Address:
Mailing Address - Street or PO Box: Courthouse, 1926 Hall Avenue	Mailing Address - Street or PO Box:
City: Marinette; State: WI; ZIP Code: 54143-1717	City: ; State: WI; ZIP Code:

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).

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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.

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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:
Marinette	12	36

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)
Lake, Town of	31 N	21	E	5	NE	SE	45.1877	-87.9062
	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
Middle Inlet Lake Noquebay	GB09	Lake Noquebay	Peterman Brook

12-digit Hydrologic Unit Code (HUC): 040301050507 Peshtigo River or UN trib to P.B.

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.)

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☒ 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: Marinette County 2011-2020 Land & Water Resource Management Plan	Date 12/07/2010

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.
Goal #3: Control runoff pollution from agricultural lands and increase natural habitat.
Objectives: A. Provide technical assistance and cost sharing for constructed or somewhat permanent agricultural BMP's.

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.
Page 39; http://www.marinettecounty.com/i_marinette/d/2011-2020_lwrm_plan_8.5_x_11.pdf

☒ 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
Erin Hanson	04/02/2015	Provided project scopes and asked for comments

☒ 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)

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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) 4	☐ 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)	☐ 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)
☐ 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 (NR 154.04(39)) R36	Code(s)
☐ 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) 7	☐ 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)			

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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:	
Strip 3330 cu yds topsoil for the manure storage and leachate collection	10,090
Fill 3159 cu yds	15,795
Crushed Limestone 108 cu yds	1,944
Breaker run 108 cu yds	1,944
Saw cut and remove concrete	300
Shaping and finishing 2 ac site	3,500
6" concrete slab (25,960 sq ft storage and 1200 sq ft leachate)	101,850
2 foot wall 90 lin ft for storage	2,250
Manure storage fence 700 lin ft	7,000
12 - 10 foot gates and 12 gate posts for storage	4,200
Seeding 2 acre site	1,000
Excavation 3159 cu yds manure storage and 237 cu yds for leachate	24,372
Clear stone 20 cu yds for leachate	400
Trenching 1000 lin ft for leachate	5,000
Clean sand 578 cu yds (pipe bedding)	2,890
Crushed limestone 174 cu yds	3,132
8 foot wall 60 lin ft	5,400
8" concrete slab 200 sq ft	1,200
9.5" concrete lid 264 sq ft	2,904
2" X 4' X 8' polystyrene sheets 8	360
Leachate pump	12,000
Leachate pump wiring	5,000
"6 PVC pipe 1000 lin ft, 4 clean outs, and 4 elbows	18,200
5" concrete slab 13,464 sq ft for storage	43,578
Private Engineering Activities	
1. Construction Subtotal	274,309
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]	$ 274,309	70 %	$ 192,016
4. Property Acquisition: Fee Title & Easement	$	70 %	$
5. Project Grand Totals: [add Rows 3 and 4]	$ 274,309		$ 192,016

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]	$ 124,309

A.2. Use of Additional Funding

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☐ 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	04/2015	Marinette County
Obtaining required permits	6/2016	Landowner
Landowner contacts	06/2016	Marinette County
CSA signing	06/2016	Landowner & Marinette County
Bidding	08/2016	Landowner
DNR approvals	08/2016	Marinette County
Contract signing	08/2016	Landowner & Contractor(s)
BMP construction	09/2016	Contractor(s) & Landowner
Site inspection and certification	10/2016	Marinette County
Project evaluation	10/2016	Marinette County
Other (specify) Operation & Maintenance Checks	11/2026	Marinette County

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:

Pollutant Causing Impairment:

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◉ 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:
Lake Noquebay, Peterman Brook

Peshtigo R.

○ 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.

Nonpoint Source Control Plan for the Lake Noquebay Priority Watershed Project

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

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).

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- ☐ 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.)

The CRITICAL POLLUTANTS on this site are phosphorus, nitrogen, organic matter, and Biochemical Oxygen Demand (BOD). Agriculture waste has a high B.O.D. compared to untreated domestic sewage:

Material	BOD mg O2/L of Pollutant
Raw Domestic Sewage	300-400
Cattle Slurry	10,000-20,000
Silage Effluent	30,000-80,000
Milk	140,000

The POLLUTANT SOURCES are food leachate, manure, milk house and urine from approximately 300 dairy cows, 210 heifers and 50 calves totaling 606 animal units.

This project will address the following Performance Standards and Prohibitions (PS&P): NR 151.05 MANURE STORAGE FACILITIES PERFORMANCE STANDARDS (2); NR151.055 PROCESS WATERHANDLING PERFORMANCE STANDARD (1); NR151.08 MANURE MANAGEMENT PROHIBITIONS (4); and NR151.07 NUTRIENT MANAGEMENT (1).

Cattle are maintained in a free stall barn, loose housing and a calf barn. THE SITE AFFECTS WATER QUALITY BECAUSE THE EXISTING MANURE STORAGE IS TOO SMALL, and only has capacity for four months of manure generation, resulting in winter manure spreading on fields which drain to the wetlands which recharge both the Lower Peshtigo River and Lake Noquebay, a former Priority Watershed Project. Almost 930,000 gallons of runoff from the feed storage pad are not collected and allow to flow overland to wetlands on both sides of the farm stead. The Waste Storage Facility Design Spreadsheet estimates cattle on this site will generate an additional

2,463,042 gallons of manure and waste water annually that will need to be properly incorporated. The owned land base for waste utilization totals 330 acres. The ratio of cropland acres to animal units is 1.4:1. A ratio of 3:1 is considered optimum to avoid build up of excess soil phosphorus . Please see the attached Manure Spreading Restriction aerial photos which show owned cropland in both watersheds.

The EFFECT on WATER QUALITY is POTENTIAL FISH KILLS in the streams adjacent to the farms crop lands due to winter spread manure and leachate runoff. The project will also minimize the amount of phosphorus reaching Lake Noquebay. The Lake Noquebay Rehabilitation District already implements an extensive harvesting operation to remove aquatic plants which impede navigation. This farm also rents significant acreage in the watershed. The parcels receiving manure vary each year. The producer may not have thorough knowledge of how melting snow drains off the parcel and may not know which areas to avoid. If we entirely end winter manure spreading, the threat goes away.

The POLLUTANT LOAD is the estimated 1,000,000 gallons of manure and waste water being deposited on frozen and/or snow covered ground annually and overland flow of 930,000 of feed leachate .

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 POLLUTION PROBLEMS are winter spreading of manure and feed leachate leaving the farm site via overland flow to wetlands the west. The wetlands west of the feed storage are the headwaters of Peterman Brook. As shown in the topographic map, the farm and adjacent croplands are on a hill which drains to wetlands that nearly surround the farm. Much of the cropland shown on MRS map 1 of 2 are restricted from receiving winter spread manure.

Where practical, the clean water on the site will be diverted to avoid contact with animal waste. PROCESS WATER HANDLING practices for FEED STORAGE LEACHATE will be installed. A WASTE TRANSFER SYSTEM will collect and convey feed leachate to the newly expanded MANURE STORAGE FACILITY. The manure storage is sized to hold the additional contaminants. The existing undersized manure storage pit was installed and inspected under the guidance of Marinette County and therefore meets the counties ordinance requirements. The new manure storage will be sized (203,236 Ft.3) to hold the manure, milk house waste and feed leachate for seven months. A NRCS 590 Standard compliant NUTRIENT MANAGEMENT plan will be implemented.

All of the PS&Ps identified in Question II G.1. will be addressed by this project and bring the farm into compliance with NR151 standards and prohibitions within the grant time frame. Instead of totally unconfined manure, the manure storage/feed leachate will be a zero runoff system. All of the manure, waste water, and uneaten food will be be spread following a NRCS 590 Standard compliant NUTRIENT MANAGEMENT PLAN. No animal waste will leave the manure storage and be spread on frozen or snow covered ground.

With the conclusion of the project, NO ADDITIONAL PS&Ps will need to be addressed.

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?

Primary Water Quality benefits include 100 % ELIMINATION OF CONTAMINATED RUNOFF FROM THE FARM SITE and ENTIRELY ENDING WINTER SPREADING OF MANURE PRODUCED BY THIS OPERATION. Manure management will meet requirements established in NR151.07 and ATCP 50.04 (3).

This farm will be in FULL COMPLIANCE with NR151 PS&Ps. Zero runoff from the farm site, no unconfined manure or feed stacking, no winter spreading of manure, and full implementation of their nutrient management plan. Marinette County adds an addendum to Targeted Runoff Management cost share agreements stating, "That any and

all manure stored in the storage facility designed to be emptied annually or semi-annually may not be applied on frozen or saturated ground and shall be incorporated within 3 days after application.

From the WDNR website: A stretch of Peterman Brook is currently listed as a class II trout stream from the middle of section 32 to the west side of section 32 T32N R21E, which is about 1.1 stream miles of the total. The remainder of the stream is non-trout water, and the stream flows into the Peshtigo River. A fish survey report in 1994 described poor land practices and livestock pasturing along with beaver problems as the causes for sedimentation and deteriorated the stream ecosystem in Peterman Brook. The trout stream section contained brook trout, but its habitat was being threatened. The Index of Biological Integrity (IBI) calculated from the fish survey was 70 in 1994 and the Integrity Rating was good in the section of the stream classified as trout water.

A portion of Peterman Brook is a Class II trout water. If not for the impacts of nonpoint pollution, more of the brook would be trout water. This project will reduce the risk of fish kills in Peterman Brook and the amount of phosphorus reaching Lake Noquebay, arguably Marinette County's most important recreation water body. The Lake Noquebay Rehabilitation District already implements an extensive harvesting operation to remove aquatic plants which impede navigation.

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.

The main WATER QUALITY GOALS for this project are to eliminate contaminated runoff from field spread manure, end winter spreading of manure and fully implement a 590 compliant nutrient management plan. Implementation of a nutrient management plan is very difficult without a storage facility. A storage facility, properly sized using the WASTE STORAGE FACILITY DESIGN - 313 STANDARD FORM, minimizes the impact of weather, facilitates testing of manure for nutrient content, and lessens management constraints on the producer.

In this situation, the existing manure storage facility is sound, but under sized. A new system will be built immediately adjacent to it. Together, the two storages will hold the all waste generated, including feed leachate. Although gravity flow is the preferred method of conveyance for leachate, the topography of the site requires the leachate to be collected and pumped to the existing manure storage.

LWCD staff match the site and preferred management style to the locations and layout of BMP's. Before visiting the farm site, aerial photos, topographic maps and soil survey maps were viewed to aid in setting preliminary design parameters. To further investigate local geological conditions, soil investigation logs from neighboring farms (when available) were reviewed. We also have soil logs from a previous project.

At the initial site visit LWCD staff met with the landowner to assess and record current management style and future management objectives. SITE FEASIBILITY was checked for obvious physical limitations affecting the location, type, size or depth of structures that can be built. Animal types, numbers and weights, bedding type and volume, manure consistency, housing type, rolling herd average, and desired storage duration were all obtained and recorded. Using DATCP and NRCS parameters, applicable pollutant delivery computer models were run and structures designed to address water quality needs for the site and based on the winter spreading restrictions of the cropland receiving manure.

The preliminary design and knowledge of the site are used to estimate quantities needed to construct the best management practices needed to address the water quality needs for the site. Marinette County has created a spreadsheet that calculates the average cost of BMP components for the last three years. The spreadsheet is then "proofed" by randomly calling local contractors and soliciting their prices for commonly used materials. Finally, the estimated cost is calculated by integrating competitive bids and the average costs for materials from past projects. Each year costs are reviewed and updated to ensure accurate estimates.

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.

Marinette County designs and builds manure storages with a minimum of 7 months (210 days) capacity. The case for this practice has been thoroughly made the last two years. In 2013, a very late spring resulted in a very late start to a manure spreading season that did not end until mid June. Many manure storages were full past the MOL before manure spreading could start. Fortunately, with the additional capacity, they did not overflow.

This past cold, wet fall, many fields froze solid before they dried out enough to spread manure on. Corn still remains unharvested on some fields. Many county farms went into this winter with significant amounts of manure still in storage. The extra capacity we design into manure storage facilities may be critical to avoid over flow or manure spreading issues.

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

There is no alternative to a manure storage facility for full implementation of a NRCS Technical Standard 590 compliant nutrient management plan. Based on the soil test hole investigations in the area, the native soil at the site will not meet NRCS specifications for earthen manure storage structure construction. When managing for dairy manure, the preferred options include in-ground concrete lined facilities or above ground slurry stores. We install an in ground concrete lined manure storage facility because it offers the least cost and has the lowest risk of failure. The alternative slurry store has higher maintenance needs and depends more heavily on active management for success. Due to our extreme weather conditions, above ground pumps and valves have a higher failure rate and must be more intensely managed, leading to a greater likelihood of manure spills. For years we have compared the costs and found the in-ground concrete facility averaged about 1/3 less cost than the above ground slurry store.

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.

LWCD staff will count the new storage facilities, number of animal units and acres of cropland implementing nutrient management planning (includes cessation of winter manure spreading) for the Final Report.

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.

TRM Grant Project Name:
Kaufman Manure Management Project

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**
- ○ 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.
LWCD staff have met with the landowner on site and discussed a preliminary project design, the TRM grant process, the CSA process, and necessary permits, The landowner has provided a letter (attached) explaining his commitment to installing the prescribed BMP's.

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).
Our Marinette County UW-Extension agent works with our project landowners, especially relating to nutrient managment.
NRCS assists with site surveying, BMP design and certification, and possibly cost sharing.

☒ 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 Marinette County 20-Year Comprehensive Plan Volume I: County Plan page 4-9 contains the Natural Resources GOAL: To protect, enhance, and promote a healthy and thriving natural environment in which to live, work, and recreate.
Objective: Preserve, enhance, and promote the quality of the lakes, rivers, and streams of Marinette County.

Policies: Support efforts and programs that assist property owners with the installation of BMP's to protect against animal waste runoff.

Continue to support the review, updating, and implementation of the Marinette County Animal Waste Ordinance. Support efforts that promote the use of sound agricultural and soil conservation methods that minimize erosion impacting surface waters. See Appendix XXX.

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.*

TRM Grant Project Name:
Kaufman Manure Management Project

◉ 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.*

○ 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.marinettecounty.com/i_marinette/d/chapter_18.pdf

☐ 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
Gregory G. Cleereman	4/14/15

Name *(Please Print)*	Title
Gregory G. Cleereman	Marinette County Conservationist

☒ 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.

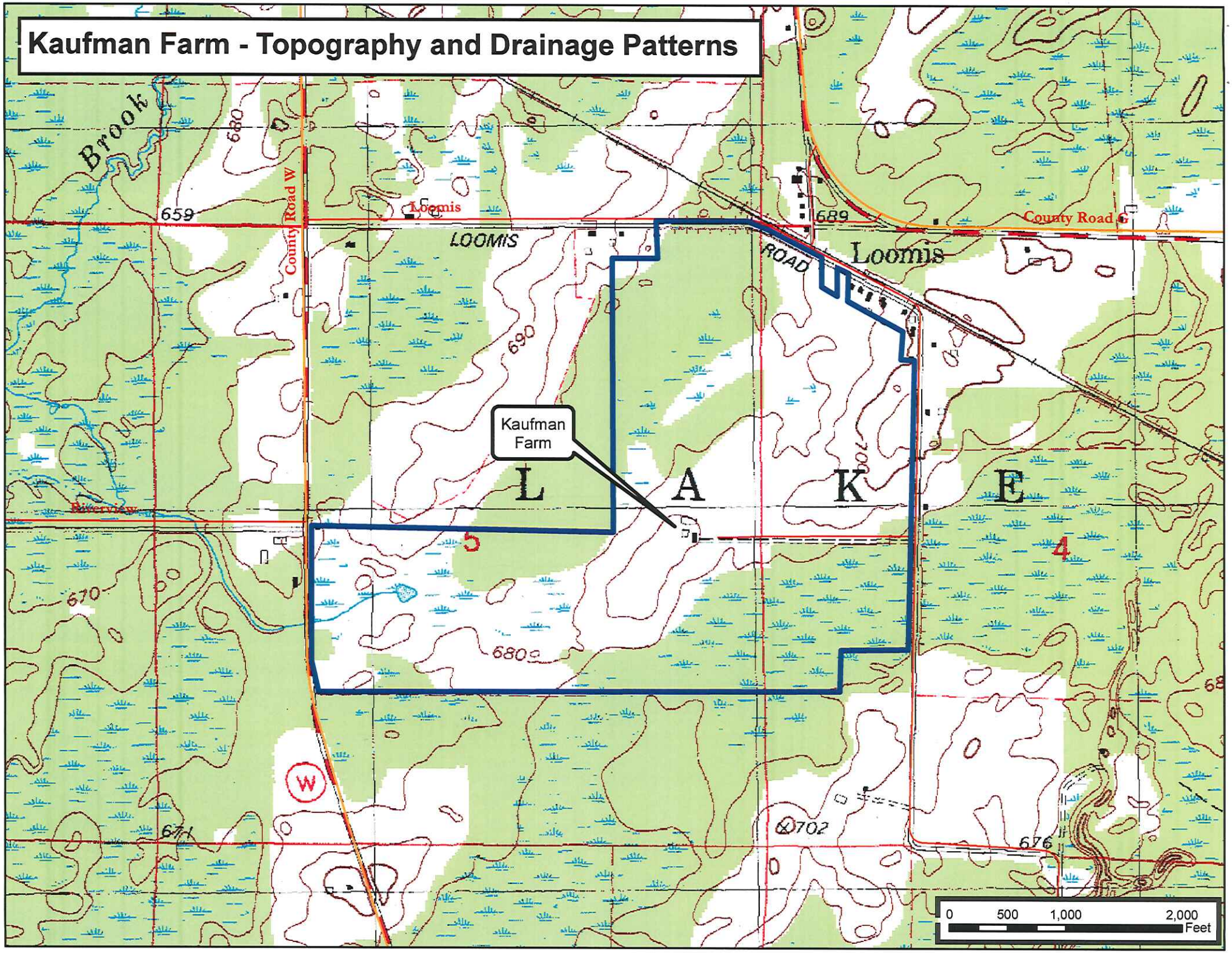
All application materials must be postmarked by midnight **April 15 of the same calendar year**.

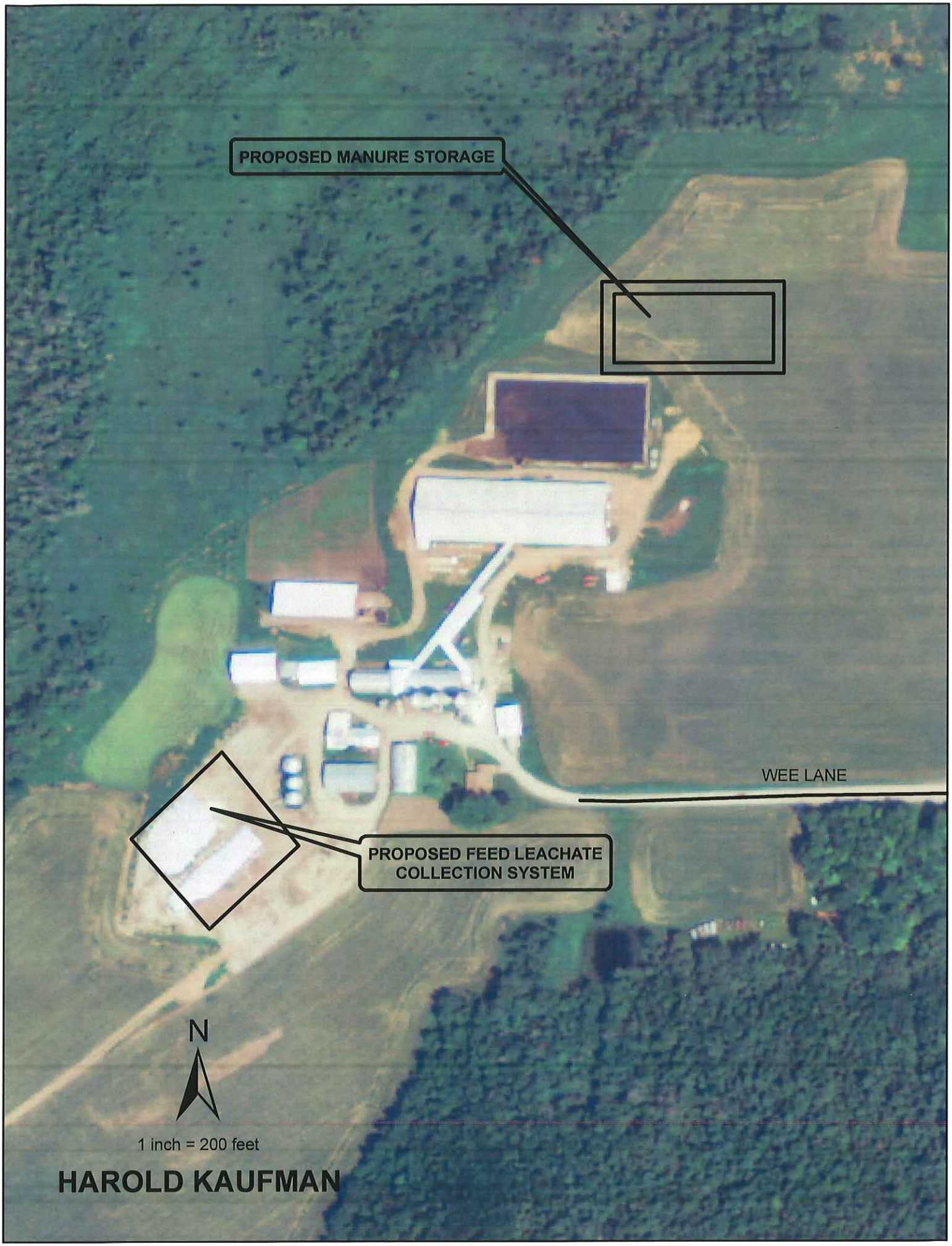
TRM Grant Project Name:
Kaufman Manure Management Project

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

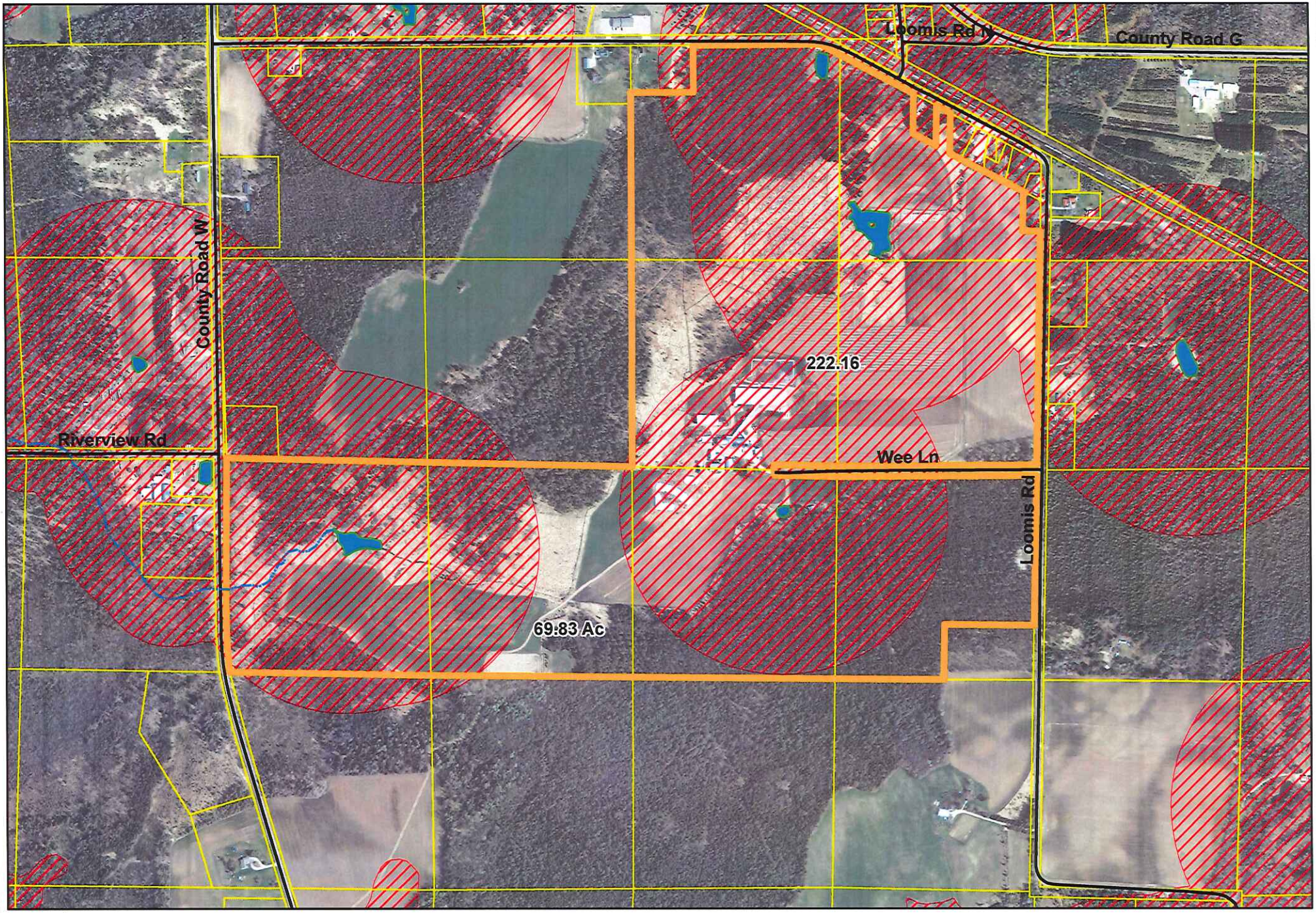
or

PO Box 7921
Madison WI 53707-7921


Kaufman Farm - Topography and Drainage Patterns
Brook
680
659
County Road W
Loomis
LOOMIS
689
County Road G
ROAD
Loomis
690
700
Kaufman Farm
L A K E
Riverview
5
4
670
680
W
671
702
676
0 500 1,000 2,000 Feet


PROPOSED MANURE STORAGE
WEE LANE
PROPOSED FEED LEACHATE COLLECTION SYSTEM
N
1 inch = 200 feet
HAROLD KAUFMAN

Manure Spreading Restrictions Kaufman Farm



Soil Type Restriction (fall application)

Slope Restriction (winter application)

Water Features

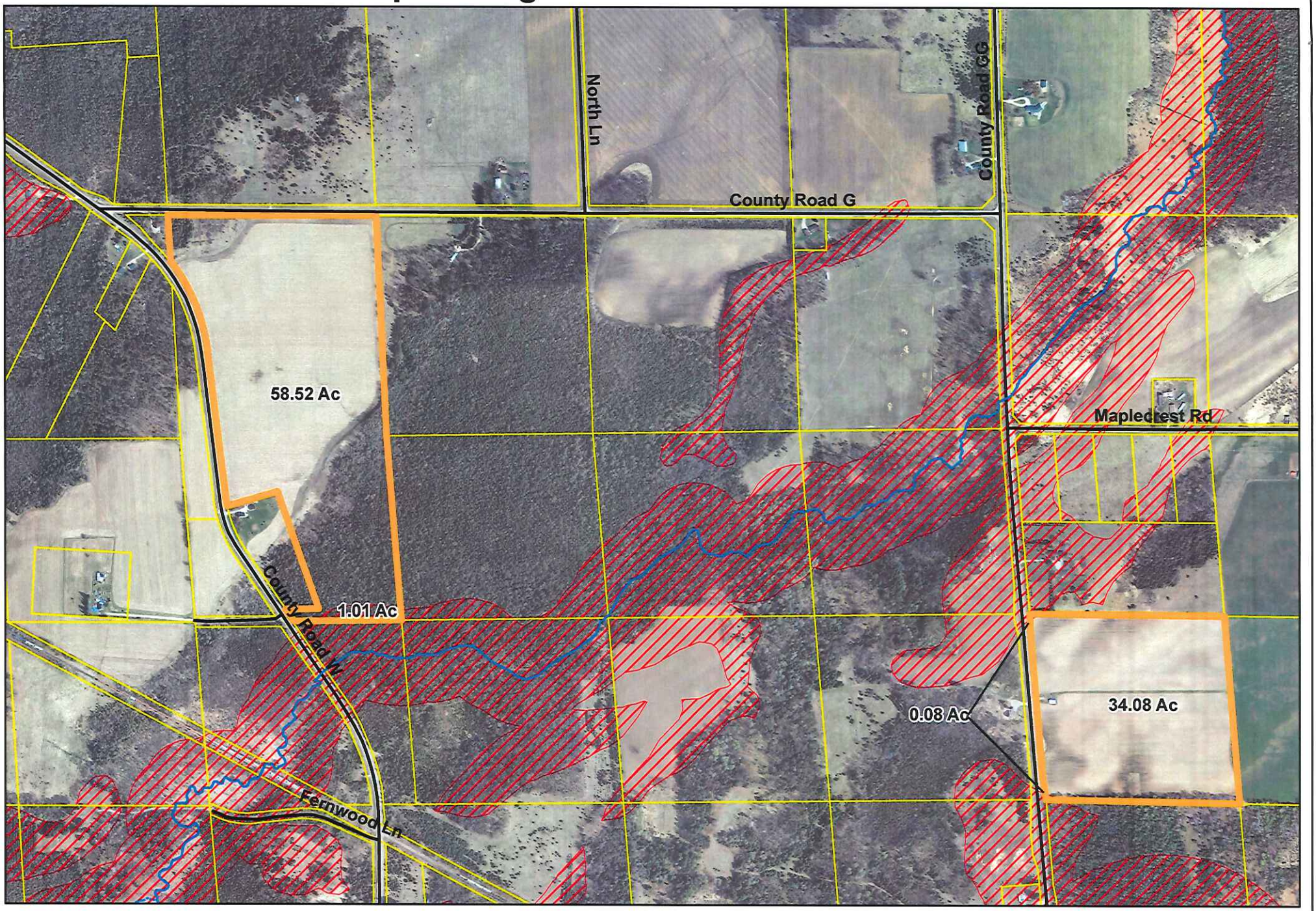
April 7, 2015
Marinette County
Land Information Dept

NORTH

0 400 800 1,600 2,400 Feet

1:9,600

Manure Spreading Restrictions Kaufman Farm



Soil Type Restriction (fall application)

Slope Restriction (winter application)

Water Features

April 7, 2015
Marinette County
Land Information Dept

NORTH

0 400 800 1,600 2,400 Feet

1:9,600

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: Kaufman Farm

	Animal Type	I. Mixed Animal Units b. Equiv. factor	c. Current Number	d. No. of AUs	II. Non-mixed Animal Units 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	50	= 10	*Fed numbers in this column comply with 40 CFR s. 122.23*		
Dairy Cattle	Milking & Dry Cows	1.40 x	300	= 420	1.43 x	300	= 429
Dairy Cattle	Heifers (800 lbs to 1200 lbs)	1.10 x	210	= 231			
Dairy Cattle	Heifers (400 lbs to 800 lbs)	0.60 x		=	1.00 x	210	= 210
Beef	Steers or Cows (400 lbs to market)	1.00 x	100	= 100			
Beef	Bulls (each)	1.40 x		=	1.00 x	100	= 100
	Veal Calves	0.50 x		=	1.00 x		=
Swine	Pigs (up to 55 lbs)	0.10 x		=	0.10 x		=
Swine	Pigs (55 lbs to market)	0.40 x		=			
Swine	Sows (each)	0.40 x		=			
Swine	Boars (each)	0.50 x		=	0.40 x		=
Chickens	Layers (each) -non-liquid manure system	0.01 x		=	0.0123 x		=
Chickens	Broilers/Pullets (each) -non-liquid manure system	0.005 x		=	0.008 x		=
Chickens	Per Bird -liquid manure system	0.033 x		=	0.0333 x		=
Ducks	Ducks (each) -liquid manure system	0.2 x		=	0.2 x		=
Ducks	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 = 761** (add all rows above)			**Total Non-Mixed Animal Units = 429** (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: Kaufman Farm

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	50	= 10	*Fed.numbers in this column comply with 40 CFR s. 122.23*		
Dairy Cattle	Milking & Dry Cows	1.40 x	300	= 420	1.43 x	300	= 429
	Heifers (800 lbs to 1200 lbs)	1.10 x	210	= 231			
	Heifers (400 lbs to 800 lbs)	0.60 x		=	1.00 x	210	= 210
Beef	Steers or Cows (400 lbs to market)	1.00 x	100	= 100			
	Bulls (each)	1.40 x		=	1.00 x	100	= 100
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 = 761
(add all rows above)

Total Non-Mixed Animal Units = 429
(Enter the single highest number from any row above; DO NOT add the totals)

Date of Proposed Expansion (MM/YY): **NA**

WASTE STORAGE FACILITY DESIGN - 313 STANDARD

CLIENT: Kaufman, Harold | COUNTY: Marinette | DATE: 4/14/15
DSN BY: | CHK BY: | DATE:
COMMENTS: Existing Storage

ANIMAL TYPE> 1 (1=DAIRY, 2=BEEF, 3=VEAL, 4=SWINE(finishing), 5=SWINE(farrowing), 6=POULTRY, 0=OTHER)

For Dairy: Rolling Herd Average 22,000 lbs/cow/yr | Is it a stanchion barn? n (Y or N)

MANURE AND WASTEWATER

LIVESTOCK KIND	NUMBER	AVG. WT. PER HEAD	DAILY OUTPUT, CU FT MANURE	BEDDING	TOTAL	DAYS OF STORAGE	VOLUME REQUIRED	ANIMAL UNITS
Cows	300	1,400	2.36	0.4	828.6	210	174,006	420
Heifers	210	800	1.28	0.4	352.8	210	74,088	168
Calves	50	350	0.56	0.4	48.0	210	10,080	18

WASTEWATER: 2533 GAL/DAY 338.6 CU FT/DAY 606 TOT. A.U.
TOTAL DAILY VOLUME: 1568.0 CU FT / DAY

2,463,042 GALLONS
Total Manure and Wastewater 329,284 **CU FT**
Expected % solids in waste (Includes runoff and precip.) 8.9 %

DOCUMENTATION FOR B.2.

RUNOFF VOLUME

MONTHLY RUNOFF
RCN 95 — 14.8 / 12 IN. X [ ] Ft2 Drainage Area= (Do not include storage area) 0 CU FT

25-Year, 24-HOUR RUNOFF
RCN 95 — 3.53 / 12 IN. X 0 Ft2 Drainage Area= (Do not include storage area) 0 CU FT

2,463,042 GALLONS
Total for Manure, Milking Center, Runoff Volume, and 25 Yr Runoff 329,284 **CU FT**

PRECIPITATION

Does the facility collect precipitation? (No roof or lid) 1 (1 for yes, 2 for no)
Beginning Month for Precip. Collection 11 (1=Jan, 2=Feb, etc.)

Precipitation minus evaporation

Average Precipitation on Storage Surface	13.5 INCH	1.1 FT
Average Evaporation from Storage Surface	- 7.1 INCH	- 0.6 FT
Net Precipitation on Storage Surface	6.4 INCH	0.5 FT
25-Yr, 24-Hr Precip on Storage Surface	4.1 INCH	0.3 FT

REMAINING WASTE (If no sump, use these minimums: ponds -2', tanks-1') 1.0 FT

EXTRA DEPTH FOR SAFETY (1-ft. Minimum) 1.0 FT

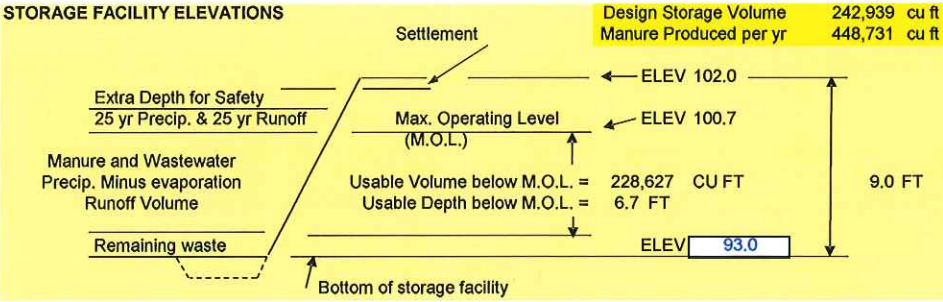
SETTLEMENT (5% of Embankment Height) [ ] FT

M.O.L. DEPTH (Depth to hold Manure, Wastewater, Runoff, and Precip.) 6.66 FT

Total Depth of the Storage Facility 9.0 FT

STORAGE FACILITY ELEVATIONS

Design Storage Volume 242,939 cu ft
Manure Produced per yr 448,731 cu ft



STORAGE SIZING

IS STORAGE RECTANGULAR OR ROUND ? 1 (1= Rectangular; 2= Round)
SIDE SLOPES OF STORAGE 2.0 :1 (Use "0" for walls)
CHOOSE A BOTTOM WIDTH 118 FT
BOTTOM LENGTH REQUIRED 386 FT
ROUND STORAGE BOTTOM DIAMETER REQUIRED N.A. FT

SECTION FOR FIGURING VOLUME OF A CHOSEN OR EXISTING STORAGE FACILITY

RECTANGULAR	BOTTOM SIDE 1:	118	FT	
	BOTTOM SIDE 2:	236	FT	
	M.O.L. VOLUME PROVIDED:	228,627	CU FT	1,710,132 GALLONS
	DAYS STORAGE PROVIDED:	132	DAYS	
	TOTAL VOLUME FROM BOTTOM TO SETTLED TOP:	311,868	CU FT	2,332,773 GALLONS
ROUND	CHOOSE BOTTOM:	[ ]	FT DIAM	
	M.O.L. VOLUME PROVIDED:	1,877	CU FT	14,040 GALLONS
	DAYS STORAGE PROVIDED:	1	DAYS	
	TOTAL VOLUME FROM BOTTOM TO SETTLED TOP:	3,054	CU FT	22,841 GALLONS

COST ESTIMATE

DOCUMENTATION FOR B.2.

FOR: Harold Kaufman
BY: pk
DATE: 4/6/2015
PROJECT: Feed Leachate Collection
COMMENTS: trm estimate

ITEM	QUANT.	UNITS	U.COST	COST	C/S%
Strip top soil	89	cu.yds.	$3.00	$267	70
Excavation	237	cu.yds.	$4.00	$948	70
Clear stone	20	cu.yds.	$20.00	$400	70
Trenching	1000	lin.ft.	$5.00	$5,000	70
Clean sand	578	cu.yds.	$5.00	$2,890	70
Crushed Limestone	174	cu.yds.	$18.00	$3,132	70
Shape & finish site	1	job	$1,000.00	$1,000	70
8' high wall	60	lin.ft.	$90.00	$5,400	70
8" thick slab	200	sq.ft.	$6.00	$1,200	70
9.5" thick lid	264	sq.ft.	$11.00	$2,904	70
6" thick apron	1200	sq.ft.	$3.75	$4,500	70
2" polystyrene ins.	8	sheets	$45.00	$360	70
Pump	1	each	########	$12,000	70
Wiring	1	job	$5,000.00	$5,000	70
6" PVC pipe	1000	lin.ft.	$15.00	$15,000	70
PVC cleanouts	4	each	$750.00	$3,000	70
PVC elbows	4	each	$50.00	$200	70

TOTAL COST: $63,201
MAX. C/S: $44,241
OWNER COST: $18,960
C/S % : 70

274,389

COST ESTIMATE

FOR: Harold Kaufman
BY: pk
DATE: 4/6/2015
PROJECT: Manure Storage
COMMENTS: trm estimate

ITEM	QUANT.	UNITS	U.COST	COST	C/S%
Strip top soil	3241	cu.yds.	$3.00	$9,723	70
Excavation	5856	cu.yds.	$4.00	$23,424	70
Fill	3159	cu.yds.	$5.00	$15,795	70
Crushed Limestone	108	cu.yds.	$18.00	$1,944	70
Breaker run	108	cu.yds.	$18.00	$1,944	70
Saw cut/remove conc	1	job	$300.00	$300	70
Shape & Finish Site	1	job	$2,500.00	$2,500	70
6" thick concrete	25960	sq.ft.	$3.75	$97,350	70
5" thick concrete	13464	sq.ft.	$3.25	$43,758	70
2' wall	90	lin.ft.	$25.00	$2,250	70
Fence	700	lin.ft.	$10.00	$7,000	70
10' gate	12	each	$250.00	$3,000	70
Galvanized gate post	12	each	$100.00	$1,200	70
Seeding	2	acre	$500.00	$1,000	70

TOTAL COST: $211,188
MAX. C/S: $147,832
OWNER COST: $63,356
C/S % : 70

3-18-, 2015

To whom it may concern,

I have met with Marinette County Land & Water Conservation Division (LWCD) staff regarding the proposed Targeted Runoff Management grant application. My responsibilities under the program, as well as the roles and responsibilities of the LWCD and WDNR, have been explained to me.

I commit, to the best of my ability, to installing and properly implementing the best management practices described in the grant application. In addition, I have the financial resources to pay my share of the project costs.

Sincerely, Harold J Kaufman

Harold Kaufman

USDA

United States Department of Agriculture

March 25, 2015

To: TRM Grant Review Team

Subject: Harold Kaufman - Marinette County LWCD TRM Grant Application

The TRM Grant Program has been extremely beneficial to the water quality goals and initiatives of Marinette County residents. The Marinette County LWCD and the USDA-NRCS office use the TRM Grant Program and the Environmental Quality Incentives Program (EQIP) to help agricultural producers manage animal wastes. Mr. Kaufman has a need and has shown interest in addressing his manure management resource concern. Collecting and spreading manure according to an approved 590 plan will greatly improve water resource in Marinette County.

Producers who receive funding through the TRM Grant Program are then offered to participate in EQIP funding for nutrient management planning. This helps educate the farmers on how their manure storage can be used as an asset in the nutrient budgeting. This partnership between TRM and EQIP also helps farmers get manure spreading restriction maps developed so they know where the environmentally sensitive areas are located.

We at NRCS are grateful for the Marinette County Land and Water Conservation Department. They are doing an excellent job of helping farmers deal with the waste management issues that plague Wisconsin. Paul Klose from LWCD (along with NRCS) currently work on waste management systems together. A team effort is being developed to help out agricultural producers in Marinette County better manage a valuable asset while protecting the waters of the state.

The applications are customers who need assistance in their conservation efforts. Marinette County LWCD and USDA NRCS are working with these farmers to help them reach their goals.

Thank you,

Jeff Maroszek
Oconto-Marinette NRCS District Conservationist

Natural Resources Conservation Service 111 Arbutus Ave., Oconto, WI 54153
www.wi.nrcs.usda.gov (920) 834-5688 ext. 3

Your county extension office

UW Extension
Cooperative Extension
Marinette County

Marinette County UW Extension
1926 Hall Avenue
Marinette WI 54143-1717
715-732-7510 • Toll-free 877-884-4408
Fax: 715-732-7513
Website: http://marinette.uwex.edu/

April 13, 2015

To: Whom it may concern

Re: Marinette County LWCD TRM Grant Applications

This letter is to directly support the work of the Marinette County Land & Water Conservation Department related to their application for Targeted Runoff Management funds. These funds are necessary to allow the affected Marinette County farms to eliminate nutrient loading into the surface and ground waters of Marinette County. Due to the inherent nature of Marinette County soils and surface water presence, the completion of all five of these projects will definitely have a positive environmental effect through reduction of phosphorus runoff and/or nitrate leaching.

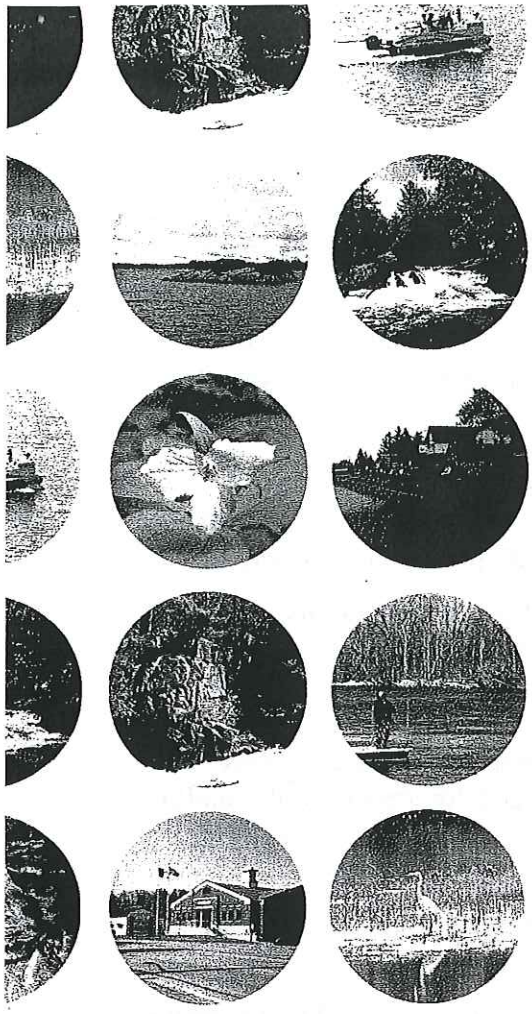
Due to the substantial benefits to the environment of these projects, UW-Extension pledges our support to assist the producers in understanding how and why to most effectively utilize the nutrients in the captured manure/runoff. We will invite all the producers to take part in the multi-day Nutrient Management Farmer Education Training. Past training participants from Marinette County have consistently reported that they understand nutrient management much better because of these training sessions, as well as actually implementing their nutrient management plans more completely.

I will also be available to work with producers individually as they change their management practices to account for new systems they are putting into place. In some cases, these changes necessitate cropping rotation switches, soil tillage changes, and other similar practice changes.

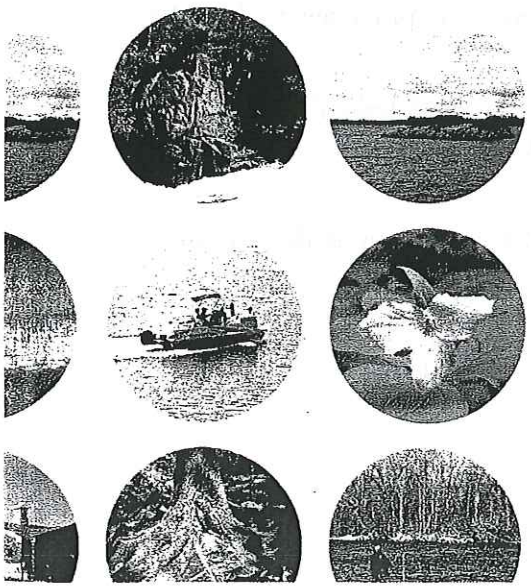
Sincerely,

Scott A. Reuss

Scott A. Reuss
Marinette County UW-Extension Agriculture Agent



Marinette County
20-Year Comprehensive Plan
Volume I: County Plan
December 2009



NATURAL RESOURCES

Goal: To protect, enhance, and promote a healthy and thriving natural environment in which to live, work, and recreate.

Objective: Promote preservation and enhancement of the county's environmentally sensitive areas; such as wetlands, floodplains, shorelands, river/creeks, open spaces, woodlands, steep slopes, and floodplains.

Policies:

- Promote cooperative efforts with local communities as well as state and federal agencies to enhance understanding of natural resource location, type, and importance.
- Maintain a current environmental corridor map as well as other resource maps as reference tools in implementing the county's Future Land Use.
- Promote access to natural resources.
- Direct growth away from environmentally sensitive areas in order to protect the benefits and functions they provide while limiting the need for future public and/or private dollars spent on flood control, stormwater management, habitat restoration, erosion control, and water quality improvements.
- Maintain familiarity with local, county, state, and federal regulations that regulate the county's natural resources.
- Work cooperatively with WDNR, US Army Corps of Engineers, and USDA to ensure continued and consistent protection and enhancement of environmentally sensitive areas.
- Continue to review, update, and implement the recommendations of the Marinette County Land and Water Resource Management Plan.

Objective: Preserve, enhance, and promote the quality of the lakes, rivers and streams of Marinette County.

Policies:

- Work cooperatively with local communities, local associations, state and federal agencies to ensure protection and improvement of surface water resources.
- Support educational efforts that promote sustainable land use practices within the watersheds.
- Work cooperatively with local communities as well as state and federal agencies to address known and potential contamination problems and to pursue additional protection and remediation measures.
- Support and promote the development of plans and land use regulations that promote surface water quality.
- Support cooperative efforts with state agencies to properly inspect, maintain, repair, and plan for the future of Marinette County owned and operated dams.

- Work with UW-Extension to provide information and education regarding Best Management Practices (BMPs) and other measures local communities and property owners can implement to improve water quality.
- Support efforts and programs that assist property owners with the installation of BMPs to protect against animal waste runoff.
- Support efforts and programs that require periodic evaluations and maintenance for all POWTS systems.
- Continue to support the review, updating, and implementation the Marinette County Animal Waste Ordinance.
- Support efforts that promote the use of sound agricultural and soil conservation methods that minimize erosion impacting surface waters.
- Support communities in the maintenance of existing sanitary districts and in the establishment of sanitary districts in more densely developing areas.
- Cooperatively work with federal, state, county agencies and other non-governmental organizations for control of non-native invasive species.

Objective: Preserve, enhance, and promote the quantity and improve the quality of Marinette County groundwater resources.

Policies:

- Support studies that monitor the number of wells being constructed, closed, and measure the level of general water quality within Marinette County.
- Promote and support the development of wellhead protection plans and ordinances that prohibit uses with the potential to contaminate municipal wells.
- Work cooperatively with local communities as well as state and federal agencies to address known, existing, and potential contamination problems and to pursue additional protection and remediation measures.
- Support efforts to identify what and where certain agricultural practices are occurring in the county (i.e. pesticide application, manure spreading, etc.)
- Support cooperative efforts to provide educational opportunities and incentives for groundwater friendly types of agriculture.
- Promote and support the development of land use regulations that promote groundwater quality.
- Promote and support identification existing and maintenance of all Private Onsite Wastewater Treatment System (POWTS) within the county.
- Work with UW-Extension to provide information and education regarding Best Management Practices, water testing, and other measures local communities and property owners can implement to improve water quality.
- Support cooperative efforts to identify and close abandoned wells.

RESOLUTION No. 433-15

SUPPORTING TARGETED RUNOFF MANAGEMENT GRANTS

WHEREAS, Marinette County is interested in acquiring multiple grants from the Wisconsin Department of Natural Resources (WDNR) for the purposes of implementing measures to control agricultural pollution sources as described in the applications and pursuant to §281.65 or 281.66, Wis. Stats., and Administrative Code NR151, 153, and 155; and,

WHEREAS, the projects are located in Marinette County at:

Dunbar T37N R19E Section 27	Parcel Number 010-01950.000
Grover T30N R21E Section 25	Parcel Number 014-00528.000
Lake T31N R21E Section 5	Parcel Number 016.00147.000
Middle Inlet T33N R21E Section 30	Parcel Number 018-00710.000
Pound T30N R20E Section 1	Parcel Number 028-00015.003
Pound T30N R21E Section 33	Parcel Number 028-00793.000
Stephenson T32N R19E Section 28	Parcel Number 032-01682.001

WHEREAS, each grant application is in the amount of $150,000.00; for each project Marinette County receives five percent (5%) to a maximum of $5,000.00 for technical services and charges a $500.00 permit fee.

NOW, THEREFORE, BE IT RESOLVED the Marinette County Board of Supervisors authorizes the County Conservationist to apply for, accept if awarded and administer the above referenced grants; and

BE IT FURTHER RESOLVED in the event it becomes necessary to change projects, the County Conservationist is authorized to find new program participants meeting Wisconsin Department of Natural Resources guidelines for substitution. The Marinette County Land Information Committee shall approve the new project prior to submittal; and

BE IT FURTHER RESOLVED Marinette County hereby authorizes the County Conservationist or designee to sign and submit *Environmental Hazard Assessment* forms.

BE IT FURTHER RESOLVED Marinette County will comply with all state and federal laws, regulations and permit requirements pertaining to the projects and to fulfillment of the grant document provisions.

Adopted this 31st day of March 2015 by a majority vote of a quorum of the Marinette County Board.

Vilas Schroeder, Chairperson

Kathy Brandt

Kathy Brandt, Clerk

Submitted by: Marinette County Land Information Committee – 3/9/2015