

25 PAGES TOTAL

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

PO Box 7921
or Madison WI 53707-7921

**Targeted Runoff Management (TRM) Grant Program
Small-Scale Agricultural Application**
Form 8700-300 (R 1/13)

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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 2014

Project Name

Jerome, Hwy EE

Governmental Unit Applying (name and type) (example: Dane County Land and Water Resources Department)

Columbia County Land & Water Conservation Department

Governmental Unit Web Site Address

<http://www.co.columbia.wi.us/ColumbiaCounty/>

Name of Responsible Governmental Representative (First Last)

Kurt Calkins

Title

Director

Area Code + Phone Number

(608) 742-9670

Area Code + Fax Number

(608) 742-9840

E-Mail Address

Kurt.Calkins@co.columbia.wi.us

Mailing Address - Street or Route

P.O. Box 485

Name of Governmental Contact Person (First Last) (if different)

Title

Area Code + Phone Number

Area Code + Fax Number

E-Mail Address

Mailing Address - Street or Route

City

State

ZIP Code

Portage

WI

53901

City

State

WI

ZIP Code

Part I. Project Information

A. Project Category: Total Maximum Daily Load (TMDL) or Non-TMDL (EPA's s. 319 or NR151) Priorities.

Check all that apply.

TMDL ☐ Check this box if the proposed project implements the pollutant-specific goals of an EPA-approved TMDL or an equivalent to a TMDL as approved by the DNR.

319 ☐ Check this box if the project reduces pollutants for which a waterbody is listed as impaired (303(d) list) **and** the area is covered by a plan that meets EPA's Nine Key Elements for watershed plans to control nonpoint source pollution. (Priority Watershed (PWS) plans qualify; see Attachment C.)

NR151 ☒ Check this box if the project is designed to achieve attainment of agricultural performance standards and prohibitions established in NR 151, Subchapter II.

If this is a TMDL project, or a 303(d)+ PWS project, provide the **title** of the TMDL or PWS report this project implements, the **significant pollution sources** the project will control, and the **page numbers** in the report where the water body and its water quality issue and management recommendations are located.

H. 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. See instructions **Part I. H.** for the table of code numbers for standards and prohibitions and the effective dates.

(See Attachment D for additional BMP information)

Non-TMDL projects must be designed to achieve attainment of one or more agricultural performance standards and prohibitions.

Note: Applicants addressing a TMDL are not required to address performance standards and prohibitions to be eligible for a grant.

| 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 |
|--|--|--|--|
| <input checked="" type="checkbox"/> Manure Storage Systems (NR 154.04(3)) | Code(s) 7,3,4,9,12,11 | <input type="checkbox"/> Riparian Buffers (NR 154.04(25)) | Code(s) |
| <input type="checkbox"/> Manure Storage System Closure (NR 154.04(4)) | Code(s) | <input type="checkbox"/> Roofs (NR 154.04(26)) | Code(s) |
| <input checked="" type="checkbox"/> Barnyard Runoff Control Systems (NR 154.04(5)) | Code(s) 12 | <input checked="" type="checkbox"/> Roof Runoff Systems (NR 154.04(27)) | Code(s) 12 |
| <input checked="" type="checkbox"/> Access Roads & Cattle Crossings (NR 154.04(6)) | Code(s) 13,12,1 | <input type="checkbox"/> Sediment Basins (NR 154.04(28)) | Code(s) |
| <input checked="" type="checkbox"/> Animal Trails and Walkways (NR 154.04(7)) | Code(s) 12,13,1 | <input type="checkbox"/> Sinkhole Treatment (NR 154.04(30)) | Code(s) |
| <input checked="" type="checkbox"/> Critical Area Stabilization (NR 154.04(10)) | Code(s) 13,12,1 | <input type="checkbox"/> Subsurface Drains (NR 154.04(33)) | Code(s) |
| <input checked="" type="checkbox"/> Diversions (NR 154.04(11)) | Code(s) 12,1 | <input type="checkbox"/> Terrace Systems (NR 154.04(34)) | Code(s) |
| <input type="checkbox"/> Field Windbreaks (NR 154.04(12)) | Code(s) | <input checked="" type="checkbox"/> Underground Outlets (NR 154.04(35)) | Code(s) 12 |
| <input type="checkbox"/> Filter Strips (NR 154.04(13)) | Code(s) | <input checked="" type="checkbox"/> Waste Transfer Systems (NR 154.04(36)) | Code(s) 9,3,4,12,11 |
| <input type="checkbox"/> Grade Stabilization (NR 154.04(14)) | Code(s) | <input checked="" type="checkbox"/> Wastewater Treatment Strips (NR 154.04(37)) | Code(s) 12 |
| <input checked="" type="checkbox"/> Heavy Use Area Protection (NR 154.04(15)) | Code(s) 12 | <input type="checkbox"/> Water and Sediment Control Basins (NR 154.04(38)) | Code(s) |
| <input type="checkbox"/> Lake Sediment Treatment (NR 154.04(16)) | Code(s) | <input type="checkbox"/> Waterway Systems (NR 154.04(39)) | Code(s) |
| <input type="checkbox"/> Livestock Fencing (NR 154.04(17)) | Code(s) | <input type="checkbox"/> Well Decommissioning (NR 154.04(40)) | Code(s) |
| <input type="checkbox"/> Livestock Watering Facilities (NR 154.04(18)) | Code(s) | <input type="checkbox"/> Wetland Development or Restoration | Code(s) |
| <input type="checkbox"/> Prescribed Grazing (NR 154.04(22)) | Code(s) | Streambank and Shoreline Protection (NR 154.03(31)) (includes associated fencing) | |
| <input type="checkbox"/> Relocate or Abandon Animal Feeding Ops. (NR 154.04(23)) | Code(s) | <input type="checkbox"/> Stream Crossing | Code(s) |
| Process Wastewater Handling (NR 154.04(19) & NRCS 629) | | <input type="checkbox"/> Rip-rapping | Code(s) |
| <input checked="" type="checkbox"/> Milking Center Waste Control Systems | Code(s) 7 | <input type="checkbox"/> Shaping & Seeding | Code(s) |
| <input checked="" type="checkbox"/> Feed Storage Leachate | Code(s) 7 | <input type="checkbox"/> Fencing | Code(s) |
| <input type="checkbox"/> Other Wastewater - specify in "Other" below | Code(s) | <input type="checkbox"/> Other Protection - e.g. bio- engineering - specify in "Other" below | Code(s) |
| Cropping Practices (TMDL only) | | Cropping Practices (TMDL only) | |
| <input type="checkbox"/> Contour Farming (NR 154.04(8)) | Code(s) | <input type="checkbox"/> Pesticide Management (NR 154.04(21)) | Code(s) |
| <input type="checkbox"/> Cover & Green Manure Crop (NR 154.04(9)) | Code(s) | <input type="checkbox"/> Residue Management (NR 154.04(24)) | Code(s) |
| <input type="checkbox"/> Nutrient Management (NR 154.04(20)) | Code(s) | <input type="checkbox"/> Strip-Cropping (NR 154.04(32)) | Code(s) |
| <input type="checkbox"/> Other (specify) | | | |

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

Part II: Competitive Elements

A. Project - Describe the water quality problem (or threat if ORW/ERW), the solution (BMP(s)) being proposed, how the project will improve (or protect) water quality and bring a facility into compliance with Performance Standards and Prohibitions. Applicants may include quantitative and qualitative information. Photo documentation is encouraged. If this is a TMDL project, express severity in relation to the sources identified in the TMDL report. If this is a project to achieve compliance with one or more performance standards or prohibitions, express severity in relation to the standards.

1. Pollutant, Pollution Source, Water Quality Problem & Severity

This project is located in the Lower Grand River (UF11) is part of the Upper Fox River Basin. This watershed is ranked High relative to NPS. The Fox River Upper is impacted by Phosphorous. This entire farmstead sits at the base of an intermittent drainage. As you can see on photos, cattle paddocks exist throughout this drainage area. There is constant flushing of waste and sediment from the earthen/concrete lots down stream. There is a make shift old sediment basin that is suppose to collect animal lot runoff and milkhouse waste. This basin is connected to the drainage ditch system that allows discharge to groundwater, based on soils investigations and during rain events the basin discharges across an animal lot and travels about 400 feet into a drainage ditch that outlets into the creek. Soils directly adjacent to the animal lot have seasonal high water table 1-3 feet of surface. Manure runoff, process wastewater and silo leachate runoff are all delivering excess nutrients into groundwater and surface waters. This site has tremendous P loading ranges. Our BARNY model tells us the P discharge from this 40 acre drainage area could be as high as 400lbs. Conservatively we are estimating over 200 lbs of P. We have had numerous winter stacking issues on this farm. They struggle to find suitable locations to meet 590 standard, the farm also has a high number of winter restriction fields. The construction of manure storage will allow the control of multiple sources of discharge including manure, milkhouse waste and feed storage leachate.

2. Solution to Improve Water Quality (BMP project)

This project will use the basic conservation BMP's typically used to address these types of issues. Clean water diversions need to be installed along with the proper animal crossings. Then animal lane improvements need to be completed to address erosion from cattle travel areas. Roof gutters & underground outlets may need to be installed if animal lots are not relocated. Lot runoff needs to be addressed by installing a proper sediment basin, heavy use areas and vegetative treatment strips. Also a proper manure storage structure needs to be installed to collect manure, processed wastewater and silage leachate. Critical area seeding will be completed to reduce soil erosion from the steep slopes of the abandoned pastures in drainage way.

Note: The storage volume for this project hits a target of 12 months. Upon contact and negotiations will landowner about need to bring site into compliance with NR 151, they applied for additional cost sharing thru NRCS to cover additional storage volume above 6 month period. This breakout is shown in budget table. We are asking for cost sharing via TRM to cover 6 months storage. Additional storage volume will be received via NRCS cost share. The storage volumes do not include Feed storage leachate volumes at this time, so that will eat up a portion of storage duration.

3. Extent of Pollution Control and Expected Environmental Benefits

As stated above this site will control phosphorous discharges from feedlot runoff that are loading Belle Fountain Creek via concentrated flow thru a ditch. Seasonal anaerobic soil conditions are likely adding to the soluble P loss from that site. Sediment delivery from bare soil feedlots in drainage are also adding sediment. High groundwater is a direct concern based on the 1 to 3 foot depth to groundwater in many soils. This site was very hard to predict P delivery from based on the BARNY model because it sites directly in the flow bath of a 40 Acre intermittent drainage, as you can see from photo. The tool is not designed to access this type of pre and post comparison. We saw ranges of 400lbs of P down to 200lbs annual. The implementation of these practices, will result in a tremendous reduction in P delivery by containing manure runoff, getting cattle out of drainage area and seeding down the bare soil.

The manure storage structure as stated earlier will allow the farmer to utilize the NMP he currently has and restrict manure application to locations and times of the year that are identified in the 590 standard. This will result in the control off nutrient loss and P loading that is currently happening because of winter spreading. The storage structure will also allow him to more precisely account for and manage the NPK value of this manure, a benefit not only to surface water

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| | | |
|---|----|------------|
| 12. Requested State-Share Amount (Requested Grant Amount) | \$ | 150,000.00 |
| 13. Local-Share Amount: [row 6, column B less row 12] | \$ | 257,726.00 |

D. Method Used to Calculate Cost Estimates: Select the appropriate option.

- ☐ 1. Project costs are based on completed design and competitive bid on the project. Construction components and costs above should be detailed. Provide 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 above should be detailed. Provide 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 above as possible. Provide documentation for this method 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 above as possible. Provide documentation for this method in this application.
- ☐ 5. Project and costs are less specific than choices above. Provide explanation of cost estimates attached to this application.

E. Cost-Effectiveness

1. a. Explain how this project uses cost-effective and appropriate best management practices to achieve water quality goals. Provide supporting information and documentation for your statements (in attachments, if needed).

As with all sites we evaluate all the BMP's options looking for the lowest cost/benefit we can engineer to protect water quality. This application represents the most cost effective long term plan that will provide for lasting management of the BMP's. We will use a combination of low cost BMP's to address a number of the areas on this farm relative to poor location of bare earth lots. These lots will be abandoned and seeded down, removing the further deposition of manure in this area, which has not collection options.

Manure storage in combination with the feed storage leachate and milk house waste control is necessary to provide containment of waste from site. Landowner will be able to manage and contain manure and it will not run leave site, and producer will be able to meet needs and expectations of 590 NMP standard.

There really are no other options to deal with this site, other than the practices listed. Manure storage is a valuable tool, and really the only tool that will allow landowners to property manage manure during critical times of year and meet obligations of 590 NMP standard. This structure will be sized for 6 months storage.

- b. If this project includes a manure storage facility, the state-share should be based on manure storage capacity to meet current (and insignificant growth) AU needs. In the space below, explain the facility size and the duration of storage that is proposed in this project to achieve water quality goals. Reference the NMP, AUs, manure generation, availability of spreadable acres, months of storage, etc.

This is a 155 cow dairy cow operation that may grow to a < 20% increase of up to 200 cows. Manure storage has been designed for 180 days (6 months). See attached spreadsheet documentation. The volume of manure storage exceeding 6 months and up to one year in total volume has been included in design and will be covered by additional cost sharing funding thru NRCS. The landowner went looking for additional cost share funds after LWCD approach them about needing to address runoff issues. The budget sheet shows a division of cost sharing and total cost of manure storage by 1/2. As you can see from the 590 NMP restriction maps, a good portion of the farm is included in the winter restriction area. Supporting documentation is including with the application, that shows this structure is needed based on size/duration and limited winter spreading areas. The location of this farmstead

Current mixed animal unit #s = 347 AU, Future growth 410.2 AU.

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

No other options have been identified at this time.

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 of support from the project partner(s) are attached.

H. Water Quality Needs (check one) - The project must be consistent with at least one of the following seven watershed priorities. Check the one water quality category which best identifies the water quality goals which the project **directly deals** with:

Note: For border waters where a DNR approved Basin/Watershed Plan does not exist, another governmental document acceptable to the District Nonpoint Source Coordinator may be used to identify the water quality need.

Surface Water Considerations

- ☐ 1. **Clean Water Act section 303(d) List of Impaired Waters**
A water body (lake or stream) on the latest Clean Water Act (CWA) section 303(d) List of Impaired Waters, where the cause of the water quality impairment is nonpoint source pollution **and this project** will reduce the type of nonpoint source pollutants for which the water is listed. (See **Attachment A**)
Name of Applicable Impaired Water: _____
Name of Pollutant Causing Impairment: _____
- ☐ 2. **Outstanding or Exceptional Resource Waters or Other Areas of Special Natural Resource Interest**
Prevention of degradation due to nonpoint sources of outstanding resource waters (ORW) (per s. NR 102.10) or exceptional resource waters (ERW) (per s. NR 102.11) or other areas of special natural resource interest (ASNRI). To locate ASNRI using DNR's Surface Water Data Viewer go to <http://dnrmapping.wi.gov/imf/imf.jsp?site=SurfaceWaterViewer.deswaters>. For more information about ASNRI go to http://dnr.wi.gov/topic/surfacewater/datasets/designated_waters/asnri.html
Name of Applicable ORW/ERW or ASNRI: _____
- ☒ 3. **Not Fully Supporting Uses or NPS Ranking of High or Medium**
A water body (lake or stream) identified in a DNR-approved Basin/Watershed Plan as not supporting designated uses due to nonpoint sources, but is not on the section 303(d) List. In newer plans, these waters are categorized as "supporting" (as opposed to "fully supporting") designated uses; in plans prior to 2010 they were labeled as "partially meeting" designated uses. Or, the project is located in watershed, lake watershed, or other area ranked high or medium on the NPS Rankings List, where the goals of the project are directly associated with the reason for the ranking on the NPS Rankings List.
- ☐ 4. **Surface Water Quality**
Prevention of surface water quality degradation due to nonpoint sources.

Groundwater Considerations For assistance with this section, please consult the DNR District Drinking Water and Groundwater Specialist at <http://dnr.wi.gov/topic/drinkingwater/contact.html> or the County Extension office.

- ☐ 5. **Exceeds Groundwater Enforcement Standard**
Groundwater within the project area where representative information indicates there are levels for NPS contaminants that exceed groundwater enforcement standards.
- ☐ 6. **Exceeds Groundwater Preventive Action Limit**
Groundwater within the project area where representative information indicates there are levels for NPS contaminants that exceed groundwater preventive action limits.
- ☐ 7. **Groundwater Quality**
The project area is within a geological area defined in s. NR 151.015(18) as susceptible to groundwater contamination. (See **Attachment F**)

I. Drinking Water Bonus Points:

- Yes No 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 J. (You will need assistance from your DNR District Grant Coordinator or Water Supply Specialist 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 above, then place a check mark next to the drainage area where the project is located (see below).

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- ☒ Found at this website (provide most direct web page URL).
<http://www.co.columbia.wi.us/columbiacounty/portals/2/ordinance/title15.pdf>
- ☐ Attached to this application.
- ☐ Already submitted with 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

The manure storage structure cost and duration with end product will be somewhere between 6 and 12 months. Upon contact with the landowner by LWCD a discussion about what needed to be done, relative to controlling NPS on site, landowner was interested in looking for additional cost sharing thru EQIP to perhaps increase the length of storage time, because of additional need to store milk house waste and feed storage leachate. Our TRM application is estimated on total cost of 1/2 of the manure storage equal to 6 months.

Landowner has completed and submitted cost share for up to 90% economic hardship with cap of \$150,000. Budget spreadsheet has that reflected, really makes no direct impact on total cost of TRM grant application.

Applicant Certification

A Responsible Governmental Representative must sign and date the application form prior to submittal to the DNR. I certify that, to the best of my knowledge, the information contained in this application and attachments is correct and true.

Signature of Authorized Representative

Date Signed

Name (Please Print)

Title

Kurt Calkins

Director

- ☒ 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 1/13)] with **original signature in blue ink**
- Three additional copies of the completed, signed application form;
- One electronic copy of the completed application form in **PDF format 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: 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



COLUMBIA COUNTY

Land & Water Conservation

Jerome 12

608-742-9670
FAX: 608-742-9840
E-MAIL: land.conservaion@co.columbia.wi.us
WEBSITE: www.co.columbia.wi.us

120 West Conant Street
P.O. Box 485
Portage, WI 53901

TRM Grant Enabling Responsibility Resolution

WHEREAS, the Columbia County Land and Water Conservation Department is interested in applying for and obtaining a TRM grant from the Wisconsin Department of Natural Resources for the purpose of implementing measures to control agricultural nonpoint source water pollution (as described in the application and pursuant to ss.281.65 or 281.66, Wis Stats., and chs. NR 151,153 and 155, Wis. Adm. Code) and

WHEREAS, a grant award that includes a request for access to cost share funds is being requested to carry out the project and or projects and

WHEREAS, the Columbia County Land and Water Conservation Department has staff resources in place to carry out project deliverables and to secure required local match to cost share grant funds per program guidelines, and

THEREFORE BE IT RESOLVED, that the Columbia County Land and Water Conservation Committee, authorizes Kurt R. Calkins, Director of the Columbia County Land and Water Conservation Department to act on behalf of Columbia County to submit and application to the Wisconsin Department of Natural Resources for TRM grant funding consideration and complete necessary grant related activities such as:

- Signing and Submitting required contract documentation
- Submitting reimbursement claims upon completion
- Take necessary action to undertake, direct and complete the approved project

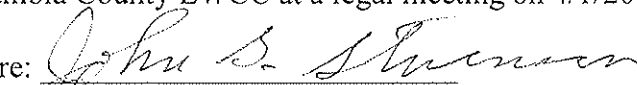
BE IT FURTHER RESOLVED that the applicant will comply with all state and federal rules and regulations relating to this project, the cost-share agreements and nonpoint source water pollution.

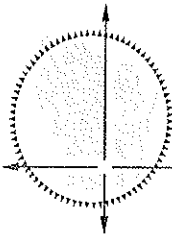
Adopted by Columbia County Land and Water Conservation Committee

Adopted on 1st day of April, 2013

I hereby certify that the foregoing resolution was duly adopted by, and entered into the official minutes of the Columbia County LWCC at a legal meeting on 4/1/2013.

Authorized Signature:


John Stevenson, Chair LWCC



COLUMBIA COUNTY

Land & Water Conservation

Jerome 13

608-742-9670
FAX: 608-742-9840
E-MAIL: land.conservation@co.columbia.wi.us
WEBSITE: www.co.columbia.wi.us

120 West Conant Street
P.O. Box 485
Portage, WI 53901

4/15/2013

Shawn & Jennifer Jerome
N9451 County Road EE
Dalton, WI 53926

Subject: Notice TRM Grant Application & NR 151 Compliance

Dear Shawn & Jennifer

I am corresponding with you regarding the application the Columbia Land and Water Conservation Department is submitting thru the 2013/2014 DNR Targeted Runoff Management Grant Program. This is a statewide competitive program that is targeted and helping landowners come into compliance with the Ag Performance Standards as outlined in NR 151. These conditions are also found in the Columbia County Code of Ordinances Title 15 Animal Waste Management. As a condition of these grant applications, and a way to maximize scoring for County project applications we are required to send you a notice that if we are successful with this grant application, we will use those funds to bring you into compliance with standards that apply to your project area. This letter will serve as that notice.

This grant application seeks funds to help you gain compliance with the following provision of NR 151:

- 1) Manure Storage Facilities (New NR 151.05(2))
- 2) Clean Water Diversions (NR 151.06)
- 3) Nutrient Management (NR 151.07)
- 4) Direct Discharge From Feedlot (NR 151.08(4))
- 5) Process Wastewater Handling (NR 154.04(23))

Todd Rietmann, our technician that you have been working with, will keep you updated and let you know if we are successful securing the funds.

If you have any questions please feel free to give us a call.

Kurt R. Calkins
Director of LWCD
Columbia County

Shawn & Jenny Jerome TRM Project

Jerome 14



SWQMA 1,000 ft

Lakes, Ponds, Rivers

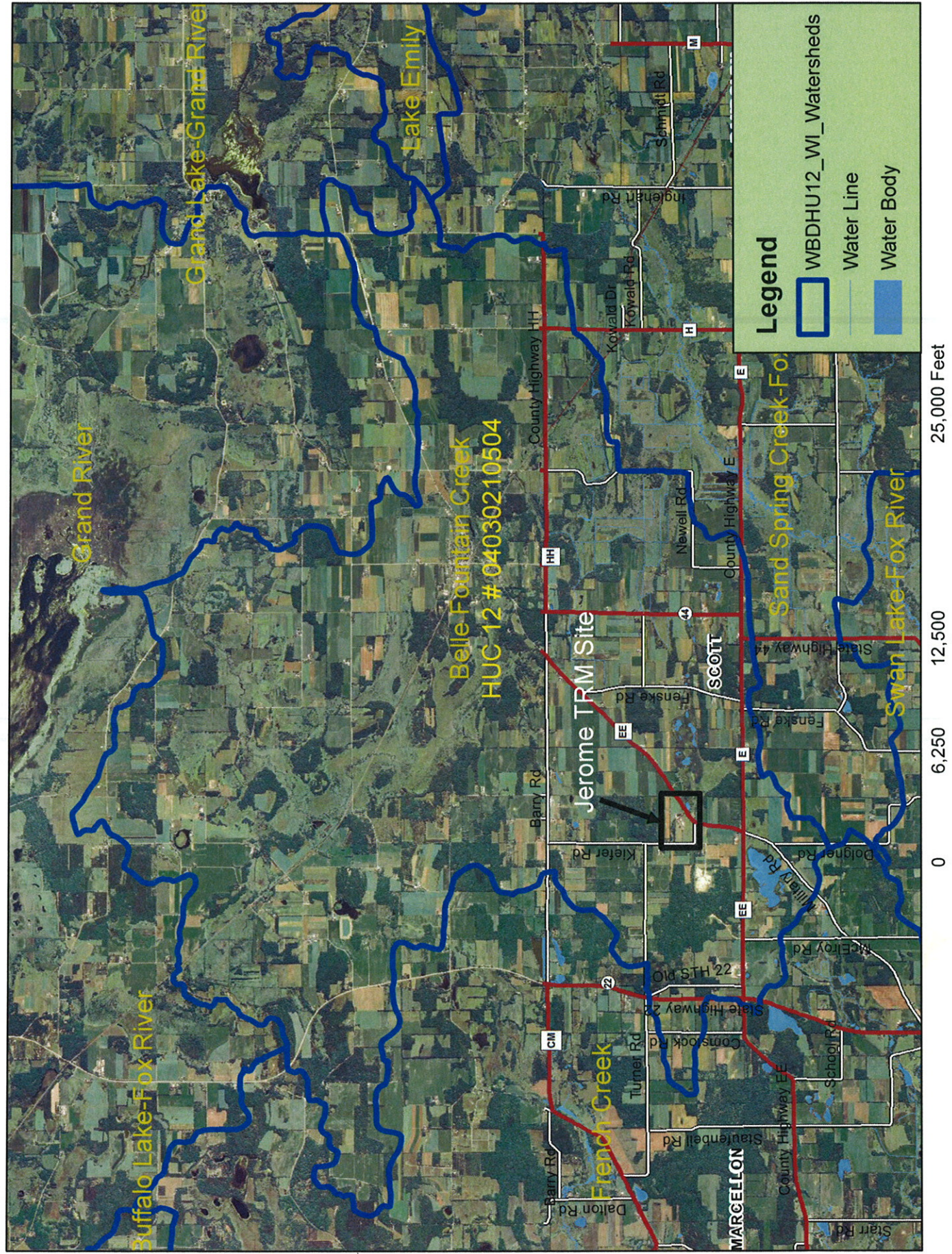
Intermittent Streams

ContourLines_4ft

Wetlands (WDNR)

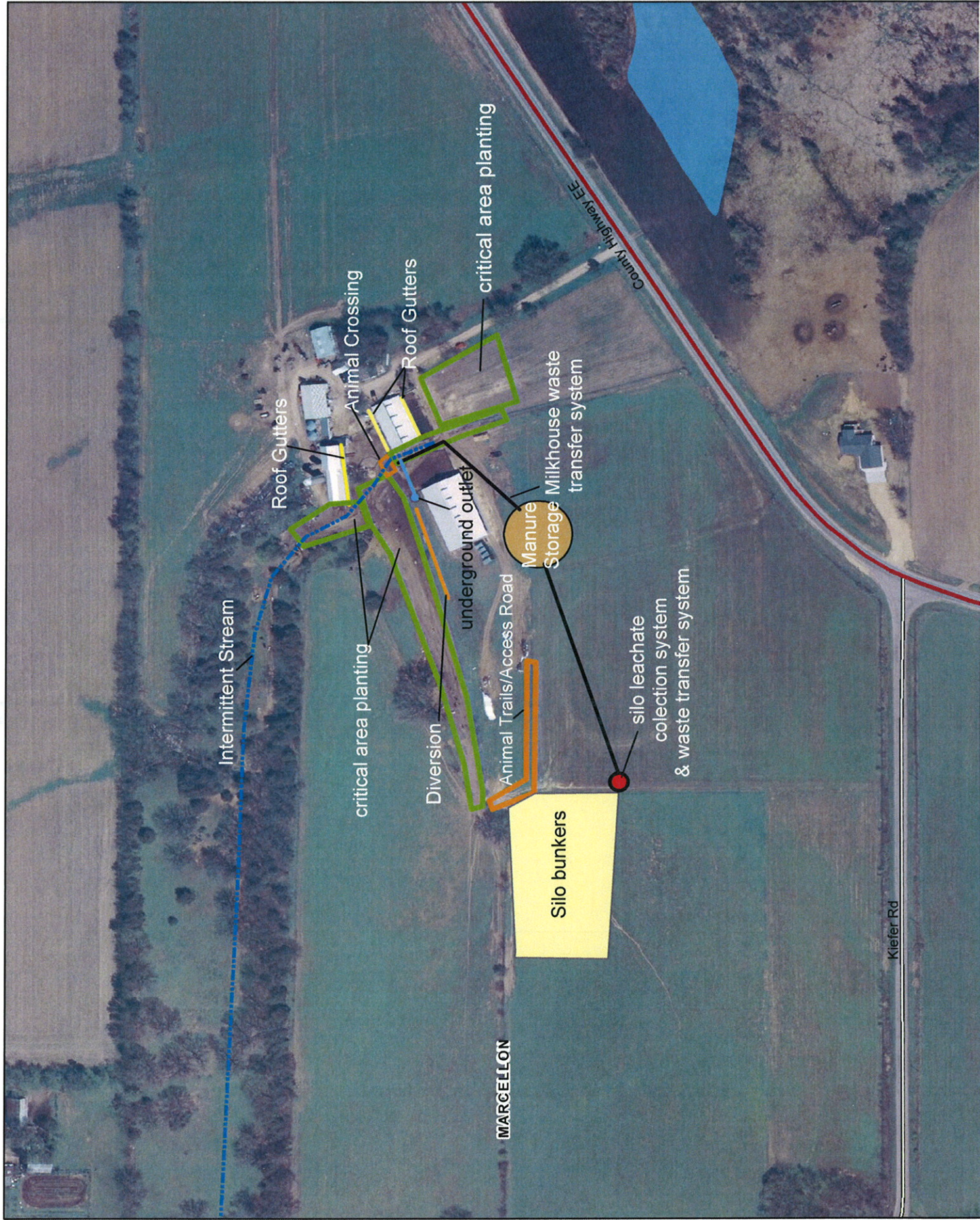
Legend

Shawn & Jenny Jerome TRM Project



Shawn & Jennifer Jerome

Jerome 16



Shawn & Jenny Jerome

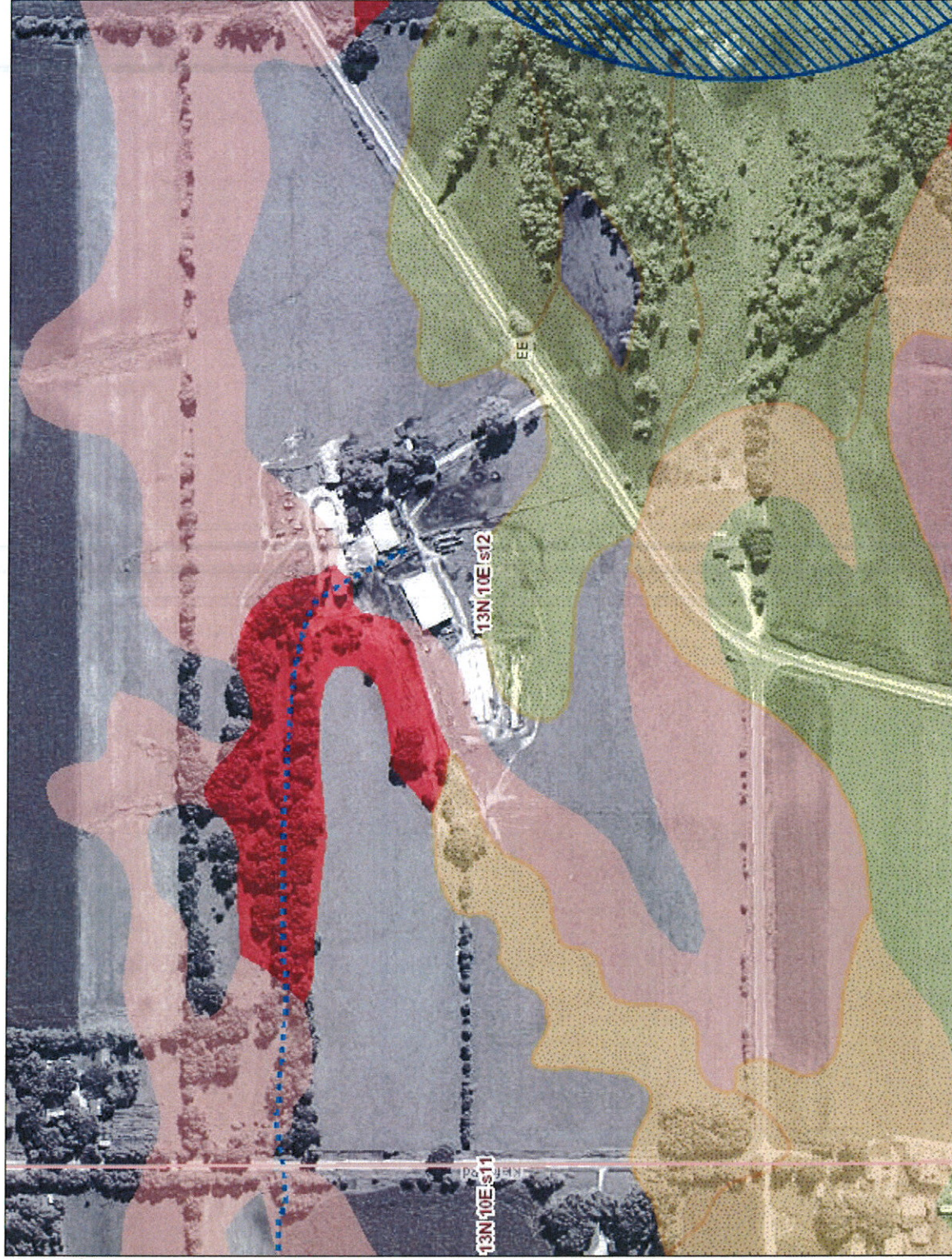
Jerome 17

Wisconsin 590 Nutrient Management Application Restrictions



Map Generated On: 4/12/2013

County: Columbia



- Legend***
- Section
 - Intermittent Streams
 - Perennial Streams
 - SWQMA 300 Feet
 - SWQMA 1,000 Feet
 - Fall N Restriction
 - No Winter App. Slope > 12%
 - Winter Restriction if Slope > 9%
 - Township-Range

*Markup is not included in the Legend

Sources:

- Soil Map Units, Fall Restrictions, Winter Restrictions - Based on USDA NRCS SSURGO (updated 7/1/2012)
- Surface Water - WI DNR 24K Hydro (acquired 1/9/2012)
- SWQMAs - buffers around WI DNR 24K Hydro (based on 1/9/2012 Hydro)
- 2010 NAIP Imagery - USDA FS
- Transportation - WI DOT (acquired 5/22/2012)

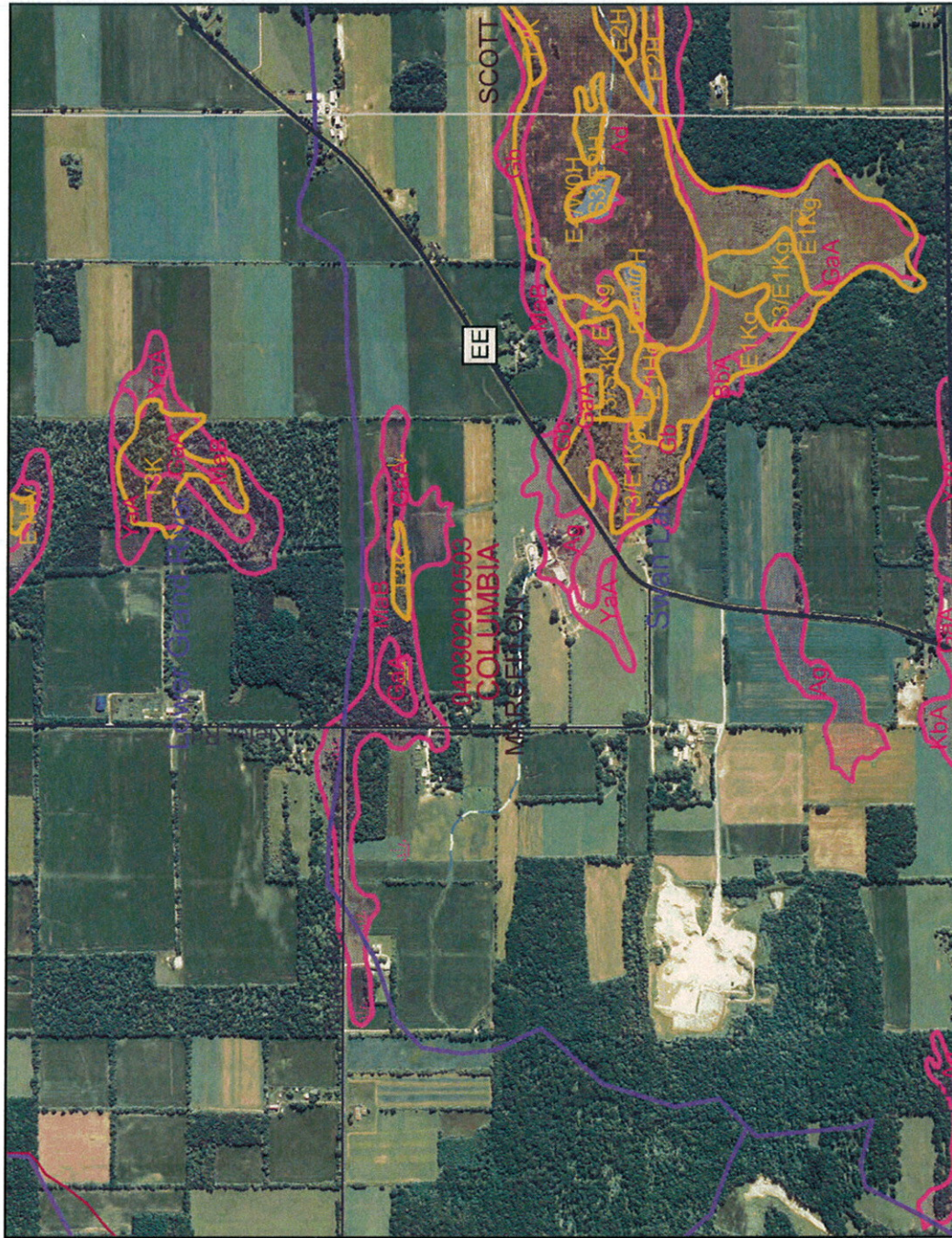
Notes

Section Number(s):

This map has been developed utilizing the nutrient application restrictions from the September 2005 Wisconsin NRCS 590 Nutrient Management Practice Standard. This map is an initial inventory of nutrient spreading risks which must be field verified to identify other risk areas such as concentrated flow channels, wetlands, and conduits to groundwater. See the "Considerations" section of the 590 practice standard for additional planning suggestions. <http://efotg.nrcs.usda.gov/references/public/WI/590.pdf>

0 0.1 Miles
Scale 1: 4,257

Map Created on Mar 26, 2013



| | | |
|---|------|----------|
| 0 | 1750 | 5250 ft. |
| 0 | 3500 | |

Map created on Mar 26, 2013

[illegible]

Legend

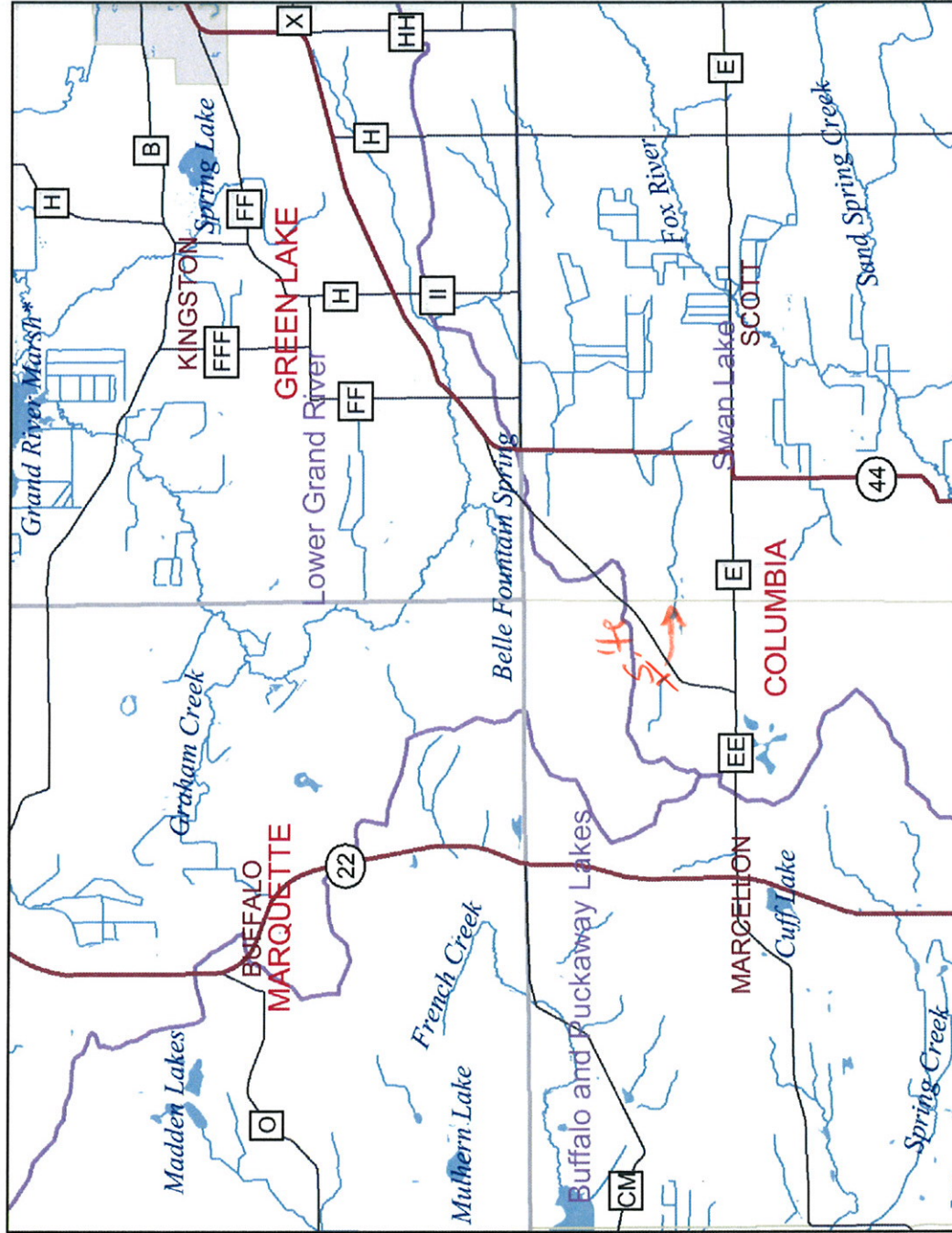
- Major Highways**
- Interstate
 - State Highway
 - U.S. Highways
 - County Roads
 - Local Roads
- 24K County Boundaries**
- 24K Watersheds
 - 12-digit HUC
 - Civil Towns
- Civil Town**
- USDA Wetspots**
- DNR Wetland Points**
- Excavated Pond
 - Dammed Pond
 - Wetland Too Small to Delineate
 - Filled Excavated Pond
 - Filled Dammed Pond
 - Filled Wetland Too Small to Delineate
 - Filled or Drained Wetland
- DNR Wetland Areas**
- Upland
 - Wetland
 - Filled or Drained Wetland
 - Wetland Indicator Soils
 - 24K Open Water
 - 24K Rivers and Shorelines
- Intermittent**
- Fluctuating
 - Perennial
- Cities and Villages**
- Village**



Scale: 1:17,583

June 19

Map Created on Mar 26, 2013



Map created on Mar 26, 2013

Scale: 1:101,595



Legend

- Major Highways**
- Interstate
 - State Highway
 - U.S. Highways
 - County Roads
 - 24K County Boundaries
 - 24K Watersheds
 - Civil Towns
 - Civil Town
 - 24K Open Water
 - 24K Rivers and Shorelines
 - Cities and Villages
 - Village
 - City



Shawn & Jennifer Jerome (TRM Waste Management system)

Jerome 20

| NR 154 practice # | ITEM | UNIT | QUANTITY | UNIT COST | TOTAL COST | Hardship | |
|--|---------------------------------------|-----------|----------|--------------|--------------|----------------|----------------|
| | | | | | | Cost Share 70% | Cost Share 90% |
| R16 Manure Storage System | SITE PREPERATION Striping | JOB | 1 | \$3,000.00 | \$3,000.00 | \$2,100.00 | \$2,700.00 |
| R16 Manure Storage System | Manure transfer pipe | LIN. FT | 100 | \$50.00 | \$5,000.00 | \$3,500.00 | \$4,500.00 |
| R16 Manure Storage System | 12' deep concrete manure tank | Structure | 1 | \$300,000.00 | \$300,000.00 | \$210,000.00 | \$270,000.00 |
| R33 Waste Transfer System | Manure transfer pipe | Num | 1 | \$18,000.00 | \$18,000.00 | \$12,600.00 | \$16,200.00 |
| R16 Manure Storage System | FILL SAND/GRAVEL | YD^3 | 600 | \$12.00 | \$7,200.00 | \$5,040.00 | \$6,480.00 |
| R17 Milking Center waste control systems | Leachate Tank | Num | 1 | \$2,500.00 | \$2,500.00 | \$1,750.00 | \$2,250.00 |
| R17 Milking Center waste control systems | Leachate pump | Num | 1 | \$5,000.00 | \$5,000.00 | \$3,500.00 | \$4,500.00 |
| R17 Milking Center waste control systems | Leachate pipe | LIN. FT | 500 | \$4.50 | \$2,250.00 | \$1,575.00 | \$2,025.00 |
| R17 Milking Center waste control systems | settling area & floor for leachate | SQFT | 9000 | \$4.50 | \$40,500.00 | \$28,350.00 | \$36,450.00 |
| R17 Milking Center waste control systems | Milkhouse Waste Manhole | Num | 1700 | \$3.00 | \$5,100.00 | \$3,570.00 | \$4,590.00 |
| R16 Manure Storage System | FILL ON SITE for ramp | YD^3 | 500 | \$2.00 | \$1,000.00 | \$700.00 | \$900.00 |
| R16 Manure Storage System | TOPSOIL STRIP AND RESPREAD | YD^3 | 500 | \$2.00 | \$1,000.00 | \$700.00 | \$900.00 |
| R6 Critical Area Stabilization | Seeding (Critical Area Stabilization) | Acre | 3 | \$1,000.00 | \$3,000.00 | \$2,100.00 | \$2,700.00 |
| R13 Livestock fencing systems | Fence | LIN. FT | 500 | \$2.00 | \$1,000.00 | \$700.00 | \$900.00 |
| R17 Milking Center waste control systems | Milkhouse Waste Manhole pump | Num | 1 | \$2,500.00 | \$2,500.00 | \$1,750.00 | \$2,250.00 |
| R32 Underground Outlet | Underground outlet | LIN. FT | 100 | \$20.00 | \$2,000.00 | \$1,400.00 | \$1,800.00 |
| R24 Roof Runoff System | Roof gutters | LIN. FT | 84 | \$14.00 | \$1,176.00 | \$823.20 | \$1,058.40 |
| R1 Access Road and Cattle Crossing | Access Road | LIN. FT | 100 | \$55.00 | \$5,500.00 | \$3,850.00 | \$4,950.00 |
| R33 Waste Transfer System | Milkhouse Waste Manhole transfer pipe | LIN. FT | 200 | \$10.00 | \$2,000.00 | \$1,400.00 | \$1,800.00 |
| total | | | | | | \$407,726.00 | 366,953.40 |
| R18 Nutrient Management | Nutrient management Plan | Acres | 200 | \$18.00 | \$3,600.00 | Flat rate | Flat Rate |
| TOTAL COST ESTIMATE BONDING DOLLARS | | | | | | State 70% | State 90% |
| TOTAL COST ESTIMATE NON-BONDING DOLLARS | | | | | | \$285,408.20 | \$366,953.40 |
| | | | | | | \$3,600.00 | \$3,600.00 |
| | | | | | | \$570,816.40 | \$733,906.80 |

Estimated NRCS cost share 213,000
 Estimated TRM cost share \$150,000.00
 Estimated total cost share \$363,000.00

Jerome 21

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

Animal Unit Calculation Worksheet
Form 3400-025A (R 3/2012)

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

| Current Animal Unit Calculation Numbers | | | | | | |
|---|---|--|-------------------|---------------|--|-------------------|
| Name of Site: <u>Jerome HWK EE</u> | | I. Mixed Animal Units | | | II. Non-mixed Animal Units | |
| Animal Type | | b. Equiv. factor | c. Current Number | d. No. of AUs | e. Equiv. factor | f. Current Number |
| Example - Broilers (non-liquid manure): | | 0.005 x | 150,000 | = 750 | 0.008 x | 150,000 |
| Dairy/Beef Calves (under 400 lbs) | | 0.20 x | | = | Fed numbers in this column comply with 40 CFR s. 122.23 | |
| Dairy Cattle | Milking & Dry Cows | 1.40 x | 155 | = 217 | 1.43 x | 155 = 222 |
| | Heifers (800 lbs to 1200 lbs) | 1.10 x | 60 | = 66 | 1.00 x | 157 = 157 |
| | Heifers (400 lbs to 800 lbs) | 0.60 x | 97 | = 58.2 | | |
| Beef | Steers or Cows (400 lbs to market) | 1.00 x | | = | 1.00 x | |
| | Bulls (each) | 1.40 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 | | = | 0.40 x | |
| | Sows (each) | 0.40 x | | = | | |
| | Boars (each) | 0.50 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 | 3 | = 6 | 2 x | 3 = 6 |
| Total Animal Units: | | Total Mixed Animal Units = (add all rows above) <u>347</u> | | | Total Non-Mixed Animal Units = <u>222</u> (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.

Jerome 22

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: Jerome Hwy EE

| 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 | | = | Fed numbers in this column comply with 40 CFR s. 122.23 | | |
| Dairy Cattle | Milking & Dry Cows | 1.40 x | 200 | = 280 | 1.43 x | 200 | = 286 |
| | Heifers (800 lbs to 1200 lbs) | 1.10 x | 60 | = 66 | | 157 | 157 |
| | Heifers (400 lbs to 800 lbs) | 0.60 x | 97 | = 58.2 | 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 | 3 | = 6 | 2 x | | = |
| Total Animal Units: | | Total Mixed Animal Units = (add all rows above) 410.2 | | | Total Non-Mixed Animal Units = (Enter the single highest number from any row above; DO NOT add the totals) 286 | | |

Date of Proposed Expansion (MM/YY): 10/2013

< 20%

Jerome

Jerome 23

WASTE STORAGE FACILITY DESIGN - 313 STANDARDS

| | | | | | |
|---|---------------|---------------------|----------------------------|------------------------------------|------------------------|
| CLIENT: Jerome | | COUNTY: COLUMBIA | | DATE: 4/12/13 | |
| DSN BY: TM | | CHK BY: _____ | | DATE: _____ | |
| COMMENTS: | | | | | |
| ANIMAL TYPE > 1 (1 = DAIRY, 2 = BEEF, 3 = VEAL, 4 = SWINE(finishing), 5 = SWINE(farrowing), 6 = POULTRY, 0 = OTHER) | | | | | |
| For Dairy: Rolling Herd Average | | 19,500 | lbs/cow/yr | Is it a stanchion barn? N (Y or N) | |
| MANURE AND WASTEWATER | | | | | |
| LIVESTOCK | | AVG. WT. | DAILY OUTPUT, CU FT | | DAYS OF STORAGE |
| KIND | NUMBER | PER HEAD | MANURE | BEDDING | VOLUME REQUIRED |
| Cows | 200 | 1,400 | 2.22 | 0.3 | 504.4 |
| Heifers | | 1,000 | | 0.3 | |
| Heifers | | 750 | | 0.3 | |
| Calves | | 325 | | 0.3 | |
| | | | | | |
| WASTEWATER: | | 2000 | GAL/DAY | 267.4 | CU FT/DAY |
| | | TOTAL DAILY VOLUME: | | | 771.8 CU FT / DAY |
| | | | | | 280 TOT. A.U. |
| | | | | | 2,107,113 GALLONS |
| Total Manure and Wastewater | | | | | 281,700 CU FT |
| Expected % solids in waste (Includes runoff and precip.) | | | | | 7.7 % |

| | | | | | |
|--|----|------|-----|---------|---|
| RUNOFF VOLUME | | | | | |
| MONTHLY RUNOFF | | | | | |
| RCN | 95 | 21.8 | IN. | X 4,000 | Ft ² Drainage Area = 7,267 CU FT |
| | | | | 12 | (Do not include storage area) |
| 25-Year, 24-HOUR RUNOFF | | | | | |
| RCN | 95 | 4.12 | IN. | X 4,000 | Ft ² Drainage Area = 1,374 CU FT |
| | | | | 12 | (Do not include storage area) |
| | | | | | 2,171,746 GALLONS |
| Total for Manure, Milking Center, Runoff Volume, and 25 Yr Runoff | | | | | 290,340 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 | | 31.1 INCH | | 2.6 FT | |
| Average Evaporation from Storage Surface | | 27.4 INCH | | 2.3 FT | |
| Net Precipitation on Storage Surface | | 3.7 INCH | | 0.3 FT | |
| 25-Yr, 24-Hr Precip on Storage Surface | | 4.7 INCH | | 0.4 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) | | 0.0 | FT |
| M.O.L. DEPTH | | (Depth to hold Manure, Wastewater, Runoff, and Precip.) | | 9.56 | FT |
| Total Depth of the Storage Facility | | | | | 12.0 FT |

PAE

Jerome

Jerome 24

BUFFER DESIGN USING BARNY

OWNER: Shawn & Jenny Jerome

DESIGNER: TAR

DATE: 4/12/2013

CHK BY: _____

DATE: _____

Input

Output

1 Madison

2 Appleton

3 Wausau

4 Eau Claire

Closest City of similar climate: 1

Paved lot area: 8,000

sq ft

Earth lot area: 30,000

sq ft

Animal Lot size:

38,000 sq ft

Is there a DESIGNED settling basin 2

Yes= 1; No= 2

Animals on lot: 60 number

25 number

Type of animal: 1

1

(Dairy = 1; Beef=2)

Ave. Animal Weight: 1,200 lbs

600 lbs

Lot Use: 1

1= Heavy; 2= Medium; 3= Light)

TRIBUTARY AREAS

Tributary area: 217,800 sq ft

Runoff Curve Number: 75

Roof area: 6,000 sq ft

*USED Acres due to Area is in
large Intermittent Stream H₂O shed
sq ft*

204.5 lbs P per year
at D.S. Lot edge:

Maximum permissible P Output 15 lbs
that can be released

Your choice based on impacted
resources- Max is 15

BUFFERS - Size by trial and error

First Buffer Length: ft (See Note Below)
Slope:
"c" : →

Second Buffer Length: ft
Slope:
"c" :

P (lbs) after the buffers: 204.5 lbs P per year

NO GOOD - Too much P released

| "c" Value Table | |
|------------------------|------|
| Permanent Meadow | 0.59 |
| Woods, Heavy Litter | 0.59 |
| Woods, Lt Ltr | 0.29 |
| Well managed grazing | 0.44 |
| Fair managed grazing | 0.29 |
| Good Pasture | 0.22 |
| Fair Pasture | 0.15 |
| Small Grain | 0.29 |
| Legume | 0.29 |
| Contoured Row Crop | 0.29 |
| Non-contoured row crop | 0.05 |

BUFFER SIZING

42,000 sq ft

Min. Acceptable Buffer Area

Chosen Buffer Width feet

0 feet

Min. Bfr. Len. Based on BARNY

#DIV/0! feet

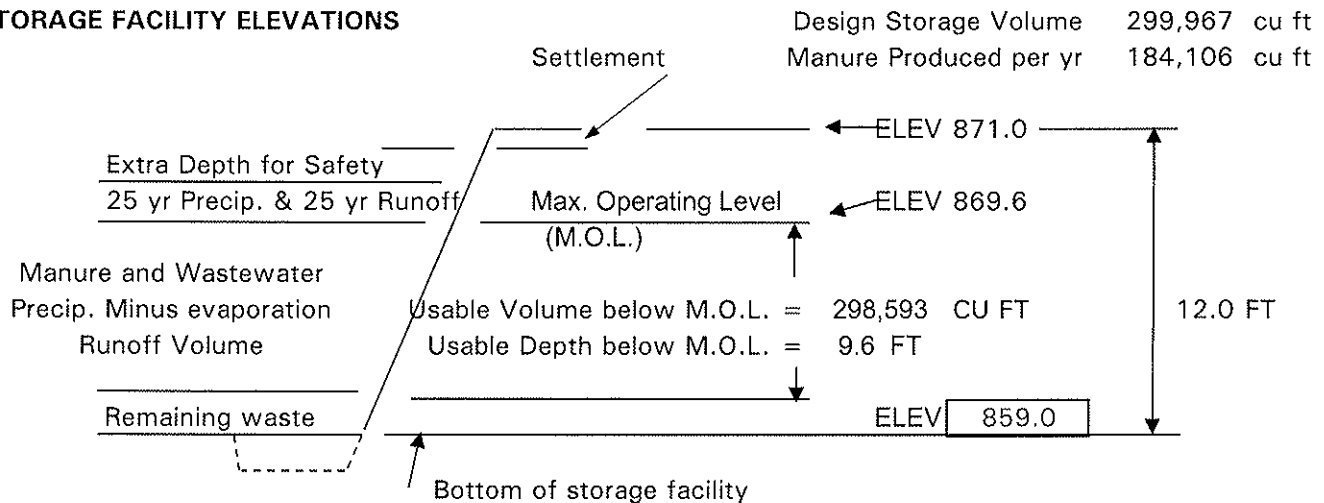
Min. Bfr. Len. Based on Area

Chosen Buffer Length feet

#DIV/0!

| | | | |
|--|---|-----------------------------------|----|
| REMAINING WASTE | (If no sump, use these minimums: ponds -2', tanks-1') | <input type="text" value="1.0"/> | FT |
| EXTRA DEPTH FOR SAFETY | (1-ft. Minimum) | <input type="text" value="1.0"/> | FT |
| SETTLEMENT | (5% of Embankment Height) | <input type="text" value="0.0"/> | FT |
| M.O.L. DEPTH | (Depth to hold Manure, Wastewater, Runoff, and Precip.) | <input type="text" value="9.56"/> | FT |
| Total Depth of the Storage Facility | | <input type="text" value="12.0"/> | FT |

STORAGE FACILITY ELEVATIONS



| | | | |
|-----------------------|--|-----------------------------------|------------------------------|
| STORAGE SIZING | IS STORAGE RECTANGULAR OR ROUND ? | <input type="text" value="2"/> | (1 = Rectangular; 2 = Round) |
| | SIDE SLOPES OF STORAGE | <input type="text" value="0.0"/> | :1 (Use "0" for walls) |
| | CHOOSE A BOTTOM WIDTH | <input type="text" value="200"/> | FT |
| | BOTTOM LENGTH REQUIRED | <input type="text" value="N.A."/> | FT |
| | ROUND STORAGE BOTTOM DIAMETER REQUIRED | <input type="text" value="199"/> | FT |

STORAGE SIZING SUMMARY

| | | | | |
|--|--|---------|---------|-------------------|
| RECTANGULAR | BOTTOM SIDE 1: | 200 | FT | |
| | BOTTOM SIDE 2: | N.A. | FT | |
| | M.O.L. VOLUME PROVIDED: | 0 | CU FT | 0 GALLONS |
| | DAYS STORAGE PROVIDED: | 0 | DAYS | |
| TOTAL VOLUME FROM BOTTOM TO SETTLED TOP: | | 0 | CU FT | 0 GALLONS |
| ROUND | CHOOSE BOTTOM: | 199 | FT DIAM | |
| | M.O.L. VOLUME PROVIDED: | 298,593 | CU FT | 2,233,475 GALLONS |
| | DAYS STORAGE PROVIDED: | 365 | DAYS | |
| | TOTAL VOLUME FROM BOTTOM TO SETTLED TOP: | 374,634 | CU FT | 2,802,260 GALLONS |