

Wisconsin Department of Natural Resources  
Bureau of Watershed Management (WT/3)  
101 S. Webster Street  
PO Box 7921  
Madison, WI 53707-7921  
dnr.wi.gov

## Final Report

Agricultural Targeted Runoff Management &  
Notice of Discharge Grant Programs

Form 3400-189A (R 05/16)

Page 1 of 2

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

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

### Grant Type

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

### Project Name & Location

Project Name

Neu-View Farms Manure Storage Facility

Grant Number

TMD-TMD49000Y18

Governmental Unit Name

Polk County Land and Water Resources Department

County

Polk

Watershed Name

Trout Brook

12-Digit HUC

070300050808

Project Contact Name

Eric Wojchik

Phone Number

(715) 485-8644

E-mail Address

ericw@co.polk.wi.us

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

### Site Location - 1

Name of Cost-Share Recipient

Neu-View Farms C/O Bjorn Neumann

Animal Units

345

Nearest Receiving Waterbody

Squaw Lake

Township

32

Range

18

E / W

W

Section

32

Quarter

NW

Quarter/Quarter

SE

Latitude

45.21815

Longitude

-92.62009

### Compliance Requirements - 1

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

Notice letter  
attached

☐

Compliance achieved? If no,  
explain in site information

☐ Yes ☒ No

Compliance determination  
letter attached

☐

Other

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

### Summary of Results - 1

| Best Management Practice Installed | Quantity | Unit of Measure | Performance Standard/Prohibition Addressed | Total Installation Cost | Load Reduction    |                 |                  |
|------------------------------------|----------|-----------------|--------------------------------------------|-------------------------|-------------------|-----------------|------------------|
|                                    |          |                 |                                            |                         | Phosphorus lbs/yr | Nitrogen lbs/yr | Sediment Tons/yr |
| Access Road                        | 30       | Feet            | Code(s)<br>8                               | \$2,414.00              | 0                 | 0               | 0                |
| Livestock Fencing                  | 620      | Feet            | Code(s)<br>4                               | \$10,330.00             | 0                 | 0               | 0                |
| Manure Storage Systems             | 1        | No.             | Code(s)<br>11,12,10,9,4,3                  | \$148,602.00            | 372.5             | 554.2           | 0                |
| Waste Transfer Systems             | 1        | No.             | Code(s)<br>4,3,7,9,10,11,12                | \$11,084.00             | 0                 | 0               | 0                |

### Site Location Attachment - 1

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

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

☒ Load reduction modeling documents

☒ Aerial photo map of site with BMPs labeled

☐ Water quality monitoring results/summary, if applicable

### Site Information - 1

## Final Report

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*Narrative space will expand to fit*

The Neu-View manure storage facility project was not a result of compliance requirements associated with an NOI or NOD. The project was intended to achieve compliance with the NR 151 compliance concerns at the time of the TRM application which were; untimely manure applications (nutrient management), sheet and rill erosion, and inadequate manure storage facilities. With more time on the farm during the course of project planning and construction we have identified potential risk with feed storage bags under certain feed moisture conditions. This level of potential risk has not been evaluated at the time of this report. For this reason the Polk County LWRD is unable to provide a letter determining full compliance with NR 151 performance standards and prohibitions at the time of this final report. The project as implemented has brought this operation much closer to compliance with local manure and water quality ordinances and NR 151 performance standards and prohibitions and known resource concerns at the time of the TRM application have been addressed. This operation is located within the watershed of a 303d listed impaired water and that water body is heavily influenced by overland flow. Much of the watershed includes row crop acres that are frequently spread with manure from this operation. The completion of the manure storage facility has eliminated manure spreading on frozen or snow covered ground. In addition, upon the completion of this project 100% of the dairy operations within the watershed of Squaw Lake now have manure storage.

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

### Additional Project Information and/or Comments

*Narrative space will expand to fit*

The nitrogen and phosphorus reductions were first calculated using a county wide average reduction produced from multiple STEPL modeling processes for the practice of Nutrient Management. Realizing the reductions were likely larger a specific STEPL model was run for Neu-Views NMP acres. The reductions listed above are specific to the Neu-View Acres NMP within the Squaw Lake watershed. STEPL does not have reduction information for manure storage specifically, so we used nutrient management.

### Grantee Certification

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

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

Name of Authorized Government Official

Title of Authorized Government Official

Date

Director

11/30/2018

### For DNR Use Only

☐ Received complete reports with all attachments

☒ Practices implemented were consistent with the grant agreement

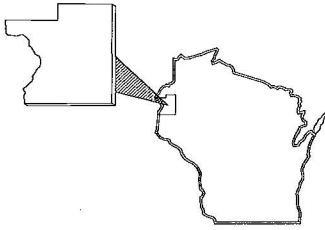
Comments about this project:

*I thought that the County's letter could be considered a partial compliance letter, but I'm wasn't comfortable with calling it that because of the possible manure storage leakage.*

Name of Region Nonpoint Source Coordinator

Date

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



POLK COUNTY LAND & WATER RESOURCES DEPARTMENT

100 POLK COUNTY PLAZA SUITE 120, BALSAM LAKE, WISCONSIN 54810

PHONE: 715-485-8699

FAX: 715-485-8601

TIM RITTEN, DIRECTOR 715-485-8631

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November 6, 2018

Neu-View Farms  
C/O Bjorn Neumann  
2183 Polk St. Croix Road  
New Richmond, WI 54017

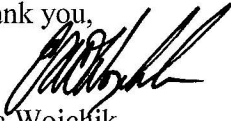
Dear Mr. Neumann,

Upon the completion of your manure storage facility we hope you are finding it a welcomed addition to your operation. At this time the Polk County Land and Water Resources Department would like to reiterate some of the facility operation, maintenance and compliance requirements associated with the project and the cost sharing you received. Please take time to review the operation and maintenance plan in your copy of the project construction plan and operate the facility within those requirements.

As a requirement of the project funding and local manure and water quality ordinance you will also need to be aware of continuing compliance requirements associated with the best management practices installed. The NR 151 performance standards and prohibitions related to nutrient management and manure storage are the requirements applicable to your project funding. Attached you will find pertinent information within the NR 151 rule regarding items you will need to maintain in compliance the most. Compliance is not limited to the attached list. To reference the other performance standards and prohibitions applicable to all farming operations please refer to the WI DNR's NR 151 rule. Compliance with the performance standards and prohibitions associated with the practices listed on your cost share agreement must be maintained regardless of future cost sharing. By performing annual updates on your nutrient management plan and following the 4 manure management prohibitions you will cover most of the compliance requirements associated with your installed practices. Please review the enclosed information at your earliest convenience.

If you have further questions regarding your continuing compliance requirements please do not hesitate to contact Polk County LWRD staff.

Thank you,



Eric Wojcik  
Polk County LWRD

Encl.

## NR 151 Compliance Items

### NR 151.05 Manure storage facilities performance standards.

(1) **APPLICABILITY.** All livestock producers building new manure storage facilities, substantially altering manure storage facilities, or choosing to abandon their manure storage facilities shall comply with this section.

(2) **NEW CONSTRUCTION AND ALTERATIONS.**

(a) New or substantially altered manure storage facilities shall be designed, constructed and maintained to minimize the risk of structural failure of the facility and minimize leakage of the facility in order to comply with groundwater standards. The levels of materials in the storage facility may not exceed the margin of safety level.

(am) Storage facilities that are constructed or significantly altered on or after January 1, 2011, shall be designed and operated to contain the additional volume of runoff and direct precipitation entering the facility as a result of a 25-year, 24-hour storm.

(b) A new manure storage facility means a facility constructed after October 1, 2002.

(c) A substantially altered manure storage facility is a manure storage facility that is substantially altered after October 1, 2002.

(3) **CLOSURE.**

(a) Closure of a manure storage facility shall occur when an operation where the facility is located ceases operations, or manure has not been added or removed from the facility for a period of 24 months. Manure facilities shall be closed in a manner that will prevent future contamination of groundwater and surface waters.

(b) The owner or operator may retain the facility for a longer period of time by demonstrating to the department that all of the following conditions are met:

1. The facility is designed, constructed and maintained in accordance with sub. (2).
2. The facility is designed to store manure for a period of time longer than 24 months.
3. Retention of the facility is warranted based on anticipated future use.

(4) **EXISTING FACILITIES.**

(a) Manure storage facilities in existence as of October 1, 2002, that pose an imminent threat to public health, fish and aquatic life, or groundwater shall be upgraded, replaced, or abandoned in accordance with this section.

(b) Levels of materials in storage facilities may not exceed the margin of safety level.

**Note:** Manure storage facilities are sometimes used to store non-agricultural wastes, such as septage or organic food wastes. These facilities may be subject to additional regulatory and cost-sharing requirements.

**History:** CR 00-027: cr. Register September 2002 No. 561, eff. 10-1-02; CR 09-112: am. (title), (2) (a), (4), cr. (2) (am) Register December 2010 No. 660, eff. 1-1-11.

### NR 151.07 Nutrient management.

(1) All crop producers and livestock producers that apply manure or other nutrients directly or through contract to agricultural fields shall comply with this section.

**Note:** Manure management requirements for concentrated animal feeding operations covered under a WPDES permit are contained in ch. NR 243.

**(2)** This performance standard does not apply to the application of industrial waste and byproducts regulated under ch. [NR 214](#), municipal sludge regulated under ch. [NR 204](#), and septage regulated under ch. [NR 113](#), provided the material is not commingled with manure prior to application.

**Note:** In accordance with ss. [ATCP 50.04](#), [50.48](#) and [50.50](#), nutrient management planners, Wisconsin certified soil testing laboratories and dealers of commercial fertilizer are advised to make nutrient management recommendations based on the performance standard for nutrient management, s. [NR 151.07](#), to ensure that their customers comply with this performance standard.

**Note:** If an application of material to cropland is regulated under ch. [NR 113](#), [204](#), or [214](#), the management practices, loading limitations, and other restrictions specified in the applicable regulation apply to that application. However, nutrient management plans developed in accordance with this performance standard must account for all nutrient sources, including industrial waste and byproducts, municipal sludge, and septage. This means that the future application of manure and commercial fertilizer may be restricted by this performance standard due to other applications of industrial waste and byproducts, municipal sludge, and septage. In addition, it means that if industrial waste and byproducts, municipal sludge, or septage are placed in a manure storage structure and mixed with manure, the commingled material is also covered by this standard and must be accounted for by the producer when preparing and implementing a nutrient management plan.

**(3)** Manure, commercial fertilizer and other nutrients shall be applied in conformance with a nutrient management plan.

**(a)** The nutrient management plan shall be designed to limit or reduce the discharge of nutrients to waters of the state for the purpose of complying with state water quality standards and groundwater standards.

**(b)** Nutrient management plans for croplands in watersheds that contain impaired surface waters or in watersheds that contain outstanding or exceptional resource waters shall meet the following criteria:

1. Unless otherwise provided in this paragraph, the plan shall be designed to manage soil nutrient concentrations so as to maintain or reduce delivery of nutrients contributing to the impairment of impaired surface waters and to outstanding or exceptional resource waters.

2. The plan may allow for an increase in soil nutrient concentrations at a site if necessary to meet crop demands.

3. For lands in watersheds containing exceptional or outstanding resource waters, the plan may allow an increase in soil nutrient concentrations if the plan documents that any potential nutrient delivery to the exceptional or outstanding resource waters will not alter the background water quality of the exceptional or outstanding resource waters. For lands in watersheds containing impaired waters, the plan may allow an increase in soil nutrient concentrations if a low risk of delivery of nutrients from the land to the impaired water can be demonstrated.

**(c)** In this standard, impaired surface waters are waters identified as impaired pursuant to [33 USC 1313](#) (d) (1) (A) and [40 CFR 130.7](#). Outstanding or exceptional resource waters are identified in ch. [NR 102](#).

**(4)** This section is in effect on January 1, 2005 for existing croplands under s. [NR 151.09](#) (4) that are located within any of the following:

**(a)** Watersheds containing outstanding or exceptional resource waters.

**(b)** Watersheds containing impaired waters.

**(c)** Source water protection areas defined in s. [NR 243.03](#) (61).

**(5)** This section is in effect on January 1, 2008 for all other existing croplands under s. [NR 151.09](#) (4).

**(6)** This section is in effect for all new croplands under s. [NR 151.09 \(4\)](#) on October 1, 2003.

**Note:** The purpose of the phased implementation of this standard is to allow the department sufficient time to work with the Department of Agriculture, Trade and Consumer Protection and local governmental units to develop and implement an information, education and training program on nutrient management for affected stakeholders.

**History:** CR 00-027: cr. [Register September 2002 No. 561](#), eff. 10-1-02; CR 09-112: am. (2) [Register December 2010 No. 660](#), eff. 1-1-11; correction to (4) (c) made under s. 13.92 (4) (b) 7., Stats., [Register December 2010 No. 660](#).

#### **NR 151.08 Manure management prohibitions.**

**(1)** All livestock producers shall comply with this section.

**(2)** A livestock operation shall have no overflow of manure storage facilities.

**(3)** A livestock operation shall have no unconfined manure pile in a water quality management area.

**(4)** A livestock operation shall have no direct runoff from a feedlot or stored manure into the waters of the state.

**(5)**

**(a)** A livestock operation may not allow unlimited access by livestock to waters of the state in a location where high concentrations of animals prevent the maintenance of adequate sod or self-sustaining vegetative cover.

**(b)** This prohibition does not apply to properly designed, installed and maintained livestock or farm equipment crossings.

**History:** CR 00-027: cr. [Register September 2002 No. 561](#), eff. 10-1-02.

# NEU-VIEW ACRES BMP LOCATION MAP



Neu-View Farms TRM application photo journal 3.27.2017



Future manure storage location in field near feed bags.





Current manure transfer pipe.



Current transfer pump and reception tank. Will be used in new storage facility proposal.

**Current winter spreading areas during spring snowmelt**



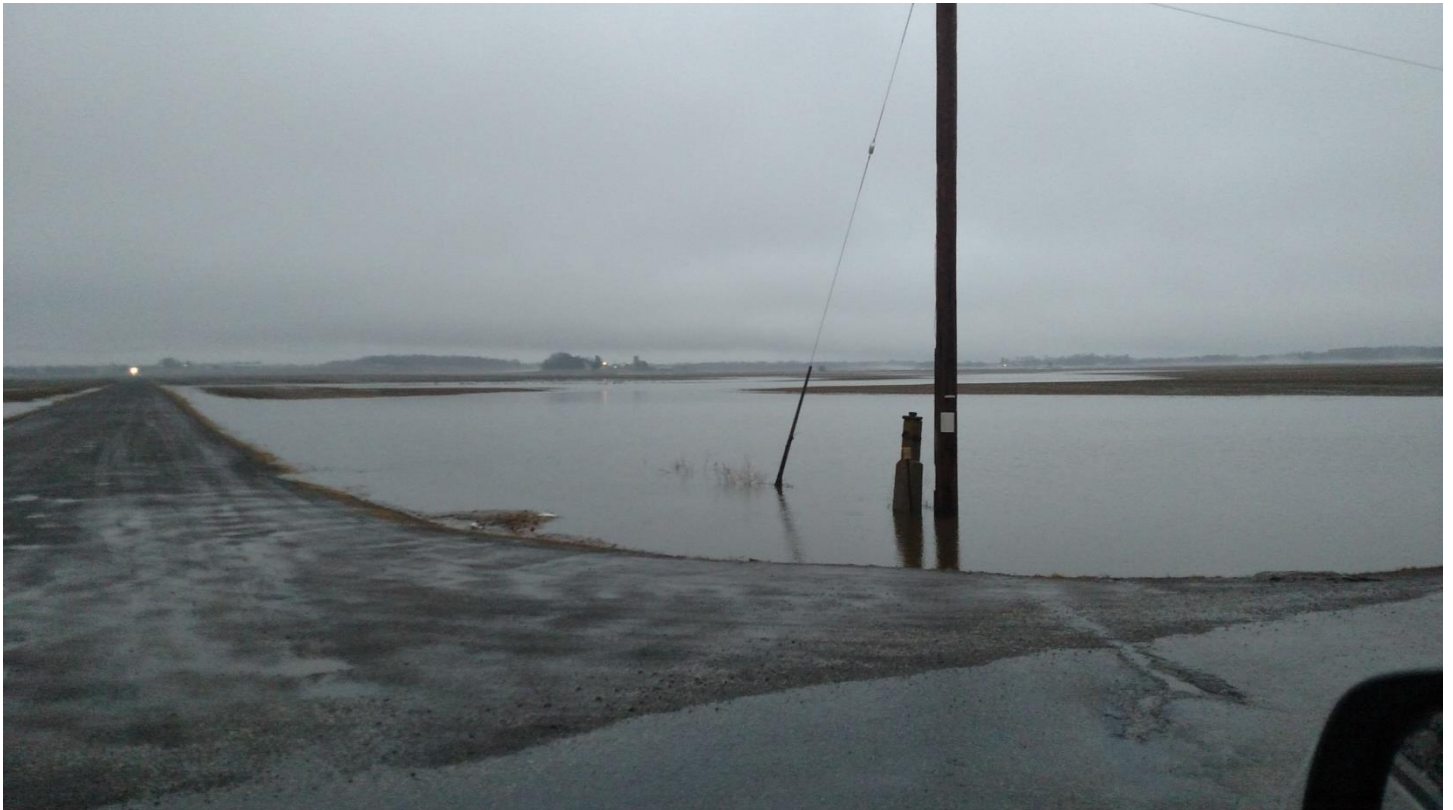
Squaw lake drainage runoff under farm driveway on spreadable acres of Neu-View Farms



Flowpath of drainage to Squaw Lake

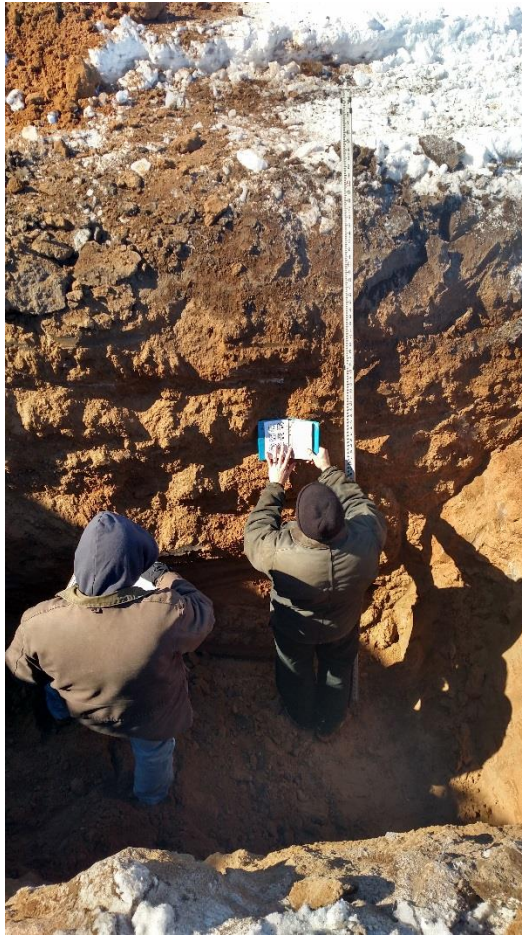


Neu-View Farm field of current winter spreading (tributary drainage area in background)



Drainage area accumulation from field above. Winter spread with manure in 2016-2017.

Neu-View Farms TRM report photo journal 10.31.18



The project started with soil suitability investigations on date





Manure transfer line excavation.



Manure transfer line installation.



Concrete form construction in preparation for concrete work.



Concrete rebar reinforcement and transfer line location.



Concrete manure pit liner installation.



Concrete pumper truck completing one quarter section of the structure.



Final manure storage pit in use.



Manure transfer line junction to pit and contingency line.



Final pit and transfer line location.



The calves approve!

**Total Load** This is the summary of annual nutrient and sediment load for each subwatershed. This sheet is initially protected.

| 1. Total load by subwatershed(s) |                 |                 |                   |                        |                       |             |             |               |                    |                   |                   |                   |                |                          |                         |              |              |                |                |                    |
|----------------------------------|-----------------|-----------------|-------------------|------------------------|-----------------------|-------------|-------------|---------------|--------------------|-------------------|-------------------|-------------------|----------------|--------------------------|-------------------------|--------------|--------------|----------------|----------------|--------------------|
| Watershed                        | N Load (no BMP) | P Load (no BMP) | BOD Load (no BMP) | Sediment Load (no BMP) | E. coli Load (no BMP) | N Reduction | P Reduction | BOD Reduction | Sediment Reduction | E. coli Reduction | N Load (with BMP) | P Load (with BMP) | BOD (with BMP) | Sediment Load (with BMP) | E. coli Load (with BMP) | %N Reduction | %P Reduction | %BOD Reduction | %Sed Reduction | %E. coli Reduction |
|                                  | lb/year         | lb/year         | lb/year           | t/year                 | Billion MPN/yr        | lb/year     | lb/year     | lb/year       | t/year             | Billion MPN/yr    | lb/year           | lb/year           | lb/year        | t/year                   | Billion MPN/yr          | %            | %            | %              | %              | %                  |
| W1                               | 49711.6         | 10197.1         | 73286.7           | 3008.6                 | 0.0                   | 554.2       | 372.5       | 0.0           | 0.0                | 0.0               | 49157.4           | 9824.7            | 73286.7        | 3008.6                   | 0.0                     | 1.1          | 3.7          | 0.0            | 0.0            | 0.0                |
| W2                               | 0.0             | 0.0             | 0.0               | 0.0                    | 0.0                   | 0.0         | 0.0         | 0.0           | 0.0                | 0.0               | 0.0               | 0.0               | 0.0            | 0.0                      | 0.0                     | 0.0          | 0.0          | 0.0            | 0.0            | 0.0                |
| Total                            | 49711.6         | 10197.1         | 73286.7           | 3008.6                 | 0.0                   | 554.2       | 372.5       | 0.0           | 0.0                | 0.0               | 49157.4           | 9824.7            | 73286.7        | 3008.6                   | 0.0                     | 1.1          | 3.7          | 0.0            | 0.0            | 0.0                |

| 2. Total load by land uses (with BMP) |                |                |                  |                      |                               |
|---------------------------------------|----------------|----------------|------------------|----------------------|-------------------------------|
| Sources                               | N Load (lb/yr) | P Load (lb/yr) | BOD Load (lb/yr) | Sediment Load (t/yr) | E. coli Load (Billion MPN/yr) |
| Urban                                 | 0.00           | 0.00           | 0.00             | 0.00                 | 0.00                          |
| Cropland                              | 24113.64       | 6699.37        | 43546.34         | 2819.02              | 0.00                          |
| Pastureland                           | 1274.53        | 173.55         | 3827.88          | 78.59                | 0.00                          |
| Forest                                | 227.64         | 104.84         | 530.05           | 24.40                | 0.00                          |
| Feedlots                              | 23264.45       | 2740.21        | 24828.17         | 0.00                 | 0.00                          |
| User Defined                          | 277.12         | 106.69         | 554.24           | 86.60                | 0.00                          |
| Septic                                | 0.00           | 0.00           | 0.00             | 0.00                 | 0.00                          |
| Gully                                 | 0.00           | 0.00           | 0.00             | 0.00                 | 0.00                          |
| Streambank                            | 0.00           | 0.00           | 0.00             | 0.00                 | 0.00                          |
| Groundwater                           | 0.00           | 0.00           | 0.00             | 0.00                 | 0.00                          |
| Total                                 | 49157.38       | 9824.65        | 73286.68         | 3008.61              | 0.00                          |

Neu-View Acres NMP nutrient reductions within the Squaw Lake Watershed

Total NMP acres = 590

STEPL Model Assumptions

- 1. That all NMP acres fall within the Squaw Lake Watershed
- 2. 4,238 total acres in watershed (2,496 ac cropland, 1242 acres forest, 300 ac pasture, 25 ac feedlots, 175 ac water)
- 3. Used C factor of .176 for cropland assuming the majority of cropland is cash grain
- 4. BMP code "NMP 1 (determined rate) was used

Load reduction averages

NMP acres within this watershed can be assumed to reduce phosphorus loading by .63 lbs/acre  
NMP acres within this watershed can be assumed to reduce nitrogen loading by .94 lbs/acre

Before this model was performed Polk Co LWRD staff used a county wide average reduction for NMPs of .20 lbs/acre for phosphorus and .40 lbs/acre nitrogen. Due to variables specific to the Squaw Lake watershed the reductions associated with NMPs seem to be higher than the countywide average reduction we have estimated.

11/30/18  
EW