

**Attachments to Comment on Nolte Family Irrigation Project Environmental
Assessment Worksheet**

Attachments 14 - 27

Environmental Working Group

ATTACHMENT 14

ENVIRONMENTAL ASSESSMENT WORKSHEET

Note to preparers: This form and EAW Guidelines are available at the Environmental Quality Board's website at: <http://www.eqb.state.mn.us/EnvRevGuidanceDocuments.htm>. The Environmental Assessment Worksheet provides information about a project that may have the potential for significant environmental effects. The EAW is prepared by the Responsible Governmental Unit or its agents to determine whether an Environmental Impact Statement should be prepared. The project proposer must supply any reasonably accessible data for — but should not complete — the final worksheet. The complete question as well as the answer must be included if the EAW is prepared electronically.

Note to reviewers: Comments must be submitted to the RGU during the 30-day comment period following notice of the EAW in the *EQB Monitor*. Comments should address the accuracy and completeness of information, potential impacts that warrant further investigation and the need for an EIS.

1. **Project Title:** Winnemucca Farms Cass County Potato Farm
2. **Proposer:** RD Offutt Company
Contact person: Jeff Schaumann
Title: Development Manger
Address: 700 South 7th Street
City, state, ZIP: Fargo, ND 58103
Phone: 701-239-8744
Fax : 701-239-8750
E-mail: jschaumann@rdoffutt.com
3. **RGU:** Cass County Environmental Services Dept.
Contact person: John P. Ringle
Title: ESD Director
Address: PO Box 3000, Cass County Courthouse
City, state, ZIP: Walker, MN 56484
Phone : 218-547-7256
Fax : 218-547-7429
E-mail : john.ringle@co.cass.mn.us

4. **Reason for EAW preparation** (check one)
 EIS scoping Mandatory EAW Citizen petition RGU discretion Proposer volunteered

If EAW or EIS is mandatory give EQB rule category subpart number: **4410.4300** and subpart: **36B**.

5. **Project Location:**

County	<u>Cass</u>	<u>City/Twp</u>	<u>Byron</u>
SW 1/4 Section	<u>8</u>	Township <u>135</u>	Range <u>32</u>
E 1/4 NW	<u>8</u>	<u>135</u>	<u>32</u>
W 1/4 NE	<u>8</u>	<u>135</u>	<u>32</u>
E 1/4 NW	<u>17</u>	<u>135</u>	<u>32</u>
W 1/4 NE	<u>17</u>	<u>135</u>	<u>32</u>
E 1/4 SW	<u>17</u>	<u>135</u>	<u>32</u>
W 1/4 SE	<u>17</u>	<u>135</u>	<u>32</u>
NW 1/4 SW	<u>17</u>	<u>135</u>	<u>32</u>
SE	<u>18</u>	<u>135</u>	<u>32</u>
ALL Excl. SESE	<u>19</u>	<u>135</u>	<u>32</u>

GPS Coordinates: N Unknown W Unknown

Tax Parcel Number Multiple

Tables, Figures, and Appendices attached to the EAW:

- Figure 1: Project Location
- Figure 2: Land Use

p-ear1-04

TDD (for hearing and speech impaired only): 651-282-5332
 Printed on recycled paper containing 30% fibers from paper recycled by consumers

- Figure 3: Proposed Irrigation Footprints
- Figure 4: Public Land Ownership
- Figure 5: National Wetland Inventory / Public Waters Inventory
- Figure 6: Rare, Threatened and Endangered Species
- Figure 7: Existing Well Locations
- Figure 8: Cass County Zoning Map
- Figure 9: Cass County Soil Survey
- Attachment A: MnDNR RT&E Correspondence
- Attachment B: Well Logs
- Attachment C: Minnesota State Historical Society Correspondence

6. Description:

- a. **Provide a project summary of 50 words or less to be published in the EQB Monitor.**
RD Offutt Company proposes to convert approximately 1,459 acres of commercial forest in Cass County, Minnesota, to an irrigated agricultural land use through the removal of standing timber and stumps, land cultivation and the installation of ground water irrigation equipment.
- b. **Give a complete description of the proposed project and related new construction. Attach additional sheets as necessary. Emphasize construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes. Include modifications to existing equipment or industrial processes and significant demolition, removal or remodeling of existing structures. Indicate the timing and duration of construction activities.**

The proposed project will take place within a 1,459 acre parcel of land previously managed for commercial timber production and recreational hunting leases. The proposed parcel is located within Cass County, Minnesota (Figure 1). The area is depicted by a variety of land covers depending on previous silvicultural activities and current successional state (Figure 2). The lands have also been leased to private parties for recreational hunting purposes. The project area also includes shallow marsh and shrub carr wetlands, both as isolated basins and as flow-through wetland complexes.

Site preparation will take place over a 2 year period and include removal of any remaining timber, stumps and under-brush from previous timber management activities. This activity will be completed utilizing backhoes for stump removal and an industrial strength disc for root removal and to rake the ground. Woody materials will then be piled and burned as a standard land clearing practice. The cleared land will be tilled for cultivation, irrigation wells and center pivot irrigation systems will be installed as described in Question 13 and operated under the footprints as shown in Figure 3.

The irrigated lands will be cultivated for potato farming.

- c. **Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.**
The project purpose is to provide additional cropped lands to ensure an ongoing sustainable supply of potatoes using standard agronomic practices for crop rotation, soil health, and production management within a reasonable distance of our processing facility.
- d. **Are future stages of this development including development on any other property planned or likely to happen?** Yes No

If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.

e. Is this project a subsequent stage of an earlier project? Yes No

If yes, briefly describe the past development, timeline and any past environmental review.

7. Project Magnitude Data

Total Project Area (acres) 1459 Acres or Length (miles) n/a

Number of Residential Units: 0 Unattached _____ Attached _____ Maximum Units Per Building: _____

Commercial/Industrial/Institutional Building Area (gross floor space): 0 total square feet _____

Indicate area of specific uses (in square feet): 0

Office	<u>0</u>	Manufacturing	<u>0</u>
Retail	<u>0</u>	Other Industrial	<u>0</u>
Warehouse	<u>0</u>	Institutional	<u>0</u>
Light Industrial	<u>0</u>	Agricultural	<u>1459</u>
Other Commercial (specify)	<u>0</u>		
Building height	<u>n/a</u>	If over 2 stories, compare to heights of nearby buildings	<u>n/a</u>

8. Permits and approvals required. List all known local, state and federal permits, approvals and financial assistance for the project. Include modifications of any existing permits, governmental review of plans, and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing and infrastructure. All of these final decisions are prohibited until all appropriate environmental review has been completed. See Minn. R. 4410.3100.

Unit of Government	Type of Application	Status
MN Department of Natural Resources	Water Appropriation Permit	To be applied for
Cass County	MN Wetland Conservation Act	Not applied for/Will verify if needed
MN Department of Natural Resources	Burning Permit	To be applied for
NRCS/SWCD	Soil and Water Conservation Plan	Pending approval

9. Land use. Describe current and recent past land use and development on the site and on adjacent lands. Discuss project compatibility with adjacent and nearby land uses. Indicate whether any potential conflicts involve environmental matters. Identify any potential environmental hazards due to past site uses, such as soil contamination or abandoned storage tanks, or proximity to nearby hazardous liquid or gas pipelines.

The project area has historically been utilized for commercial forest products management. Lands within the project area have been managed for forest products using conventional silvicultural and harvest practices. The adjacent lands are also primarily forested with shallow marsh, shrub and open water

wetland areas observable. Small, private unpaved roadways are present between sections of cultivated forest. The following summarizes the general land uses as interpreted from 2011 aerial photography:

SW ¼, E ½ NW ¼, W ½ NE 1/4 Section 8: Within the southwest quarter, the northern quarter contains existing tree rows, the southern three quarters generally contain grassland and bare ground where tree harvesting has recently taken place. The northern piece of the project boundary within Section 8 contains pockets of tree rows mixed in with existing forest, with wetland to the northwest. A finger of open grassland exists within the middle of this section and extends to the south and east off the boundary.

Portions of Section 17: A swale exists in the middle of this section. A small section of the tree plantation still exists on the most southeastern corner. Open grassland exists on west side of the swale, and post tree harvesting bare ground exists to the west of the swale.

SW ¼ Section 18: Tree rows remain sporadically throughout; pothole wetlands exist on the south and east corners with grassland portions throughout.

Section 19: Generally, the southwest corner is cultivated tree rows, the southeastern corner is wetland, and the northern half of this section is hayed with pockets of remaining cultivated tree rows and wetland.

Adjacent land ownership includes large tracts of publicly owned and managed parcels (see Figure 4).

10. Cover Types. Estimate the acreage of the site with each of the following cover types before and after development:

Before cover type totals were estimated from 2011 aerial photography and wetland extents were estimated from National Wetland Inventory (NWI), as shown in Figure 5.

	Before	After		Before	After
Types 1-8 wetlands	117	117	Lawn/landscaping	0	0
Wooded/forest	416	92	Impervious Surfaces	0	0
Brush/grassland	926	238	Stormwater pond	0	0
Cropland (potato)	0	1012	Other	0	0
			TOTAL	1459	1459

If before and after totals are not equal, explain why.

n/a

11. Fish, Wildlife, and Ecologically Sensitive Resources.

- a. Identify fish and wildlife resources and habitats on or near the site and describe how they would be affected by the project. Describe any measures to be taken to minimize or avoid impacts.

Fish resources and habitats: No substantial fish habitats are found within the project boundaries. An open water shallow wetland community exists adjacent to the center of the property; however, no significant impacts to this open water community are expected. Project proposers are preparing conservation plans for the agriculture lands surrounding and adjacent to the open water.

Wildlife Resources and habitats: The site and the surrounding area contain wetland, grassland and cultivated and natural forest habitats. This site is likely home to deer, small mammals, song birds, reptiles and amphibians. The project will not interfere with the movement of any wildlife in the area but will alter the patterns of movement. The conversion of land will provide some additional edge structure. The site has previously been subject to silvicultural management and timber harvest activities. A significant portion of the surrounding forested lands are owned by public entities. No significant negative impacts to wildlife resources or habitats are anticipated from this project.

- b. Are any state (endangered or threatened) species, rare plant communities or other sensitive ecological resources on or near the site? Yes No

If yes, describe the resource and how it would be affected by the project. Describe any measures that will be taken to minimize or avoid adverse impacts. Provide the license agreement number (LA-602) and/or Division of Ecological Resources contact number (ERDB-20130089) from which the data were obtained and attach the response letter from the DNR Division of Ecological Resources. Indicate if any additional survey work has been conducted within the site and describe the results.

Vasey's Pondweed (*Potamogeton vaseyi*) is a special concern aquatic plant whose habitat includes soft water lakes. This plant has been observed within the project area. The DNR species profile identifies threats to the existence of Vasey's Pondweed that include water quality degradation resulting from chemical contamination and the loss of shoreline filtering capacity when vegetation is removed, leading to impaired water, and invasive species encroachment. Agricultural tillage and potato cultivation will occur around the open water wetland community in which the Vasey's Pondweed was observed. The project will utilize soil and water conservation, nutrient, and pesticide management strategies to reduce the potential for degradation at the site. These activities will include precision agricultural methods of monitoring and assessment of proper agronomic applications of nutrients and pesticides. Licensed applicators will be utilized and all applicable label requirements. The conservation plans, which are under development, will identify appropriate practices necessary to protect erosion and sedimentation to the water bodies within the project area.

Blanding's Turtle (*Emydoidea blandingii*) is a state threatened turtle species. This species is not identified within the boundaries of the project site; however it was identified in lands in the vicinity of the project site. They require deep marshes and backwater streams for overwintering habitat, and their nesting and hatching habitat is sandy uplands, which often occurs far from water; the hatchling mortality is very high. Habitat fragmentation is the primary cause of the population reductions. Additional roadways or other permanent infrastructure are not being proposed as part of the land clearing or farm operations. It is not anticipated that the proposed land use change would create obstacles to Blanding's Turtle movement. No drainage activities are anticipated as part of this project; however, some habitat loss may occur from farming activities around or through existing wetlands. A significant amount of public land is present adjacent to this project, which will help to maintain habitat continuity. No erosion netting or silt fencing material has been specified for the project at this time. If these materials are specified in the future, the information provided by the Department of Natural Resources regarding plastic mesh and netting will

be considered in product selection and implementation. No direct or indirect impacts to the Blanding's Turtle are anticipated by the implementation of this project, however if individuals are observed during land clearing activities or farm operation, they will be moved to a safer location by hand.

The Greater Prairie Chicken (*Tympanuchus cupido*) has not been identified on this site, but has been observed in large populations on the adjacent lands. Greater Prairie Chicken is a state listed special concern bird. The chicken's habitat includes large tracks of native prairie and non-native grasslands. Habitat reductions, including conversion to agriculture, grassland succession and fire suppression are the greatest threat to their populations. The project site has been managed as a commercial forest asset. Current open grassland areas have the potential to serve as habitat. These openings were being managed for commercial forest values and not for open grassland areas. Most of the surrounding land types are forest lands which are not primary habitat identified for this species. No adverse effects are anticipated as a result of the land clearing or agricultural activities of this project. See **Figure 6** for a generalized location of the above described species.

Please see the response letter from the DNR, Attachment A.

12. **Physical Impacts on Water Resources. Will the project involve the physical or hydrologic alteration (dredging, filling, stream diversion, outfall structure, diking, and impoundment) of any surface waters such as a lake, pond, wetland, stream or drainage ditch?** Yes No

No impacts to water resources are anticipated as part of the land clearing/land preparation activities. The majority of the lands that are being cleared of trees and stumps are upland. Wetland areas will not be cultivated; therefore, land clearing activities are not necessary in those areas. No tiling, ditching or other drainage of existing wetlands is anticipated.

Wetland fill will be placed to accommodate movement of the center pivot irrigation systems. Wetland fill will be placed in areas where the wheeled booms will traverse the wetland areas. Wheel paths are common practice and subject to review and approval by the NRCS. The area of these fill impacts would be limited to what is necessary to safely accommodate the width of the tires. See **Figure 5** for the National Wetland Inventory Maps.

If yes, identify water resource affected and give the DNR Public Waters Inventory (PWI) number(s) if the water resources affected are on the PWI. Public Water Wetland #11-0654W

Describe alternatives considered and proposed mitigation measures to minimize impacts.

Wheel cartways have been utilized throughout the state and have not been shown to cause considerable loss and are typically built to allow open communication of water between both sides of the fill section in order to not cut off portions of the wetland. The alternative in this case would be to not traverse the wetland areas and reverse direction. This leads to operational inefficiencies and uneven watering patterns due to the time of travel for the irrigation rig and is deemed to be undesirable.

13. **Water Use. Will the project involve installation or abandonment of any water wells, connection to or changes in any public water supply or appropriation of any ground or surface water (including dewatering)?** Yes No

If yes, as applicable, give location and purpose of any new wells; public supply affected, changes to be made, and water quantities to be used; the source, duration, quantity and purpose of any appropriations; and unique well numbers and DNR appropriation permit numbers, if known. Identify any existing and new wells on the site map. If there are no wells known on site, explain methodology used to determine.

The Minnesota Department of Health County Well Index does not show any wells within the project area and only one well within a 1.5 mile radius. Aerial photography indicates that there are between 15 and 25 structures within a 1.5 mile radius that could potentially have private wells.

Irrigation wells have already been installed as indicated in **Figure 7** (well logs can be found in Attachment B) and additional wells will be installed as land clearing is completed. All the irrigation wells will require DNR water appropriation permits and a DNR water use permit will be obtained prior to irrigation commencing. Future well locations will be determined in the field but will be within the same general field boundaries.

Agricultural irrigation within the state is seasonally limited to the period of May 1 to September 30th of each year. There is little potential for well interference due to the low proximity to development within the vicinity of the project. Additionally, the well logs indicate that the drawdown measured during well development is reasonable for this area.

14. **Water-related land use management districts. Does any part of the project involve a shoreland zoning district, a delineated 100-year flood plain, or a state or federally designated wild or scenic river land use district?** Yes No

If yes, identify the district and discuss project compatibility with district land use restrictions.

The county has designated lands around Farnham and Mud Lakes, as well as the Unnamed Public Water Basin 11-0654W within the central portion of the project boundary as shoreland residential (**Figure 8**). Shoreland Residential lands allow for agricultural land uses without a permit; however, specific performance standards identified in the ordinance must be met for agriculture practices within this zone. The proposed project meets the performance standards identified in the ordinance.

15. **Water Surface Use. Will the project change the number or type of watercraft on any water body?**
 Yes No

If yes, indicate the current and projected watercraft usage and discuss any potential overcrowding or conflicts with other uses.

16. **Erosion and Sedimentation. Give the acreage to be graded or excavated and the cubic yards of soil to be moved: 0 acres; 0 cubic yards. Describe any steep slopes or highly erodible soils and identify them on the site map. Describe any erosion and sedimentation control measures to be used during and after project construction.**

The Cass County Soil Survey did not classify any individual soils as Highly Erodible Lands (HEL) in the project area. Based on the large scale map available in the NRCS Rapid Watershed Assessment for the Crow Wing River watershed, it does not appear that there are any HEL classifications in the project area. The steepest slopes identified by the Cass County soil survey are the Menahga loam sands, 3 to 8%.

Excessively steep slopes were not identified based on the USGS topographic map. Soil and water conservation plans are being developed for the project site but are pending at this time.

17. Water Quality – Surface-water Runoff.

- a. **Compare the quantity and quality of site runoff before and after the project. Describe permanent controls to manage or treat runoff. Describe any storm-water pollution prevention plans.**

Soil and water conservation plans are being developed for the subject sites and are pending at this time. It is reasonable to assume that the land conversion will increase the runoff from the site due to the change in land cover from forested/grass cover to predominantly cultivated. Effects are more pronounced in the early part of the growing season until crops mature. Further a weighted curve number analysis for the site was performed and compared for pre- and post- development, which yielded a modest change in runoff. This appears to be driven by some of the soil types having only minor differences in curve number values for various land cover types. It is anticipated that the runoff change from this project will not be significant within the watershed context since most of the surrounding land is in public ownership and managed for permanent forest and grass complexes. Additionally, the soil and water conservation plans being developed for the project area will address any necessary BMP's or conservation practices necessary to reduce runoff effects, sedimentation, and erosion to within acceptable limits.

- b. **Identify routes and receiving water bodies for runoff from the site; include major downstream water bodies as well as the immediate receiving waters. Estimate impact runoff on the quality of receiving waters.**

Ultimately all flow from the site drains to the Crow Wing River. The majority of the site drains to wetlands area, identified on Figure 5. One unnamed public water wetland (11-0654W) is partially located on site and will also receive runoff. There are no existing or planned man-made conveyances; therefore flow will be primarily sheet or shallow concentrated flow.

18. Water Quality – Wastewater.

- a. **Describe sources, composition and quantities of all sanitary, municipal and industrial wastewater produced or treated at the site.**

No wastewater will be generated by the project.

- b. **Describe waste treatment methods or pollution prevention efforts and give estimates of composition after treatment. Identify receiving waters, including major downstream water bodies (identifying any impaired waters), and estimate the discharge impact on the quality of receiving waters. If the project involves on-site sewage systems, discuss the suitability of site conditions for such systems.**

Not Applicable

- c. **If wastes will be discharged into a publicly owned treatment facility, identify the facility, describe any pretreatment provisions and discuss the facility's ability to handle the volume and composition of wastes, identifying any improvements necessary.**

Not Applicable

19. Geologic hazards and soil conditions.

- a. Approximate depth (in feet) to Ground water: 1 minimum; 1-6 average.
 Bedrock: 100 minimum; 100-200 average.

Describe any of the following geologic site hazards to ground water and also identify them on the site map: sinkholes, shallow limestone formations or karst conditions. Describe measures to avoid or minimize environmental problems due to any of these hazards.

None of the listed geological hazards have been identified on the site.

- b. Describe the soils on the site, giving Natural Resources Conservation Service classifications, if known. Discuss soil texture and potential for ground-water contamination from wastes or chemicals spread or spilled onto the soils. Discuss any mitigation measures to prevent such contamination.

In order to manage potential risk to ground water, the proposer utilizes the following best practices for nutrient and pesticide management:

Nutrient Plan

University developed best management practices for sandy soils in central Minnesota are utilized to develop nutrient recommendations for individual fields. Furthermore, fields are divided into specific nutrient management zones derived from bare-soil aerial images, soil texture, and annual soil sample results. This information in combination with variable rate application technology is utilized to deliver appropriate quantities of nutrients to individual management zones.

Pest Management Plan

A comprehensive pest management plan for each field is developed based on University derived scouting procedures and pest thresholds. Individual fields are scouted weekly by a university degreed agronomist and a field scout to determine pest populations throughout the growing season. In addition, weather is monitored and pest specific growth models are utilized to determine when economic thresholds have been exceeded. When treatment is deemed necessary, pesticide applications are made in accordance with the federal label and are applied by properly licensed applicators.

The following is a table of soils on the site taken from the Cass County Soil Survey and also shown on Figure 9:

Map Unit Symbol	Map Unit Name	Acres in Project Area	Percent of Project Area
202	Meehan loamy sand	46.5	3.20%
458A	Menahga loamy sand, 0 to 3 percent slopes	75.8	5.20%
458B	Menahga loamy sand, 3 to 8 percent slopes	519.4	35.60%
540	Seelyeville muck	78.8	5.40%
541	Rifle mucky peat	3.4	0.20%
543	Markey muck	3.6	0.20%

564	Friendship loamy sand	688.9	47.20%
788	Cathro-Seelyeville complex	11	0.80%
1002	Fluvaquents, frequently flooded	1.2	0.10%
1943	Roscommon loamy sand	30.7	2.10%

20. Solid Wastes, Hazardous Wastes, Storage Tanks.

- a. Describe types, amounts and compositions of solid or hazardous wastes, including solid animal manure, sludge and ash, produced during construction and operation. Identify method and location of disposal. For projects generating municipal solid waste, indicate if there is a source separation plan; describe how the project will be modified for recycling. If hazardous waste is generated, indicate if there is a hazardous waste minimization plan and routine hazardous waste reduction assessments.
There will be no permanent building, petroleum tanks, or other structures within the project area. As such, there will be no generation of solid or hazardous waste, or other toxic materials.
- b. Identify any toxic or hazardous materials to be used or present at the site and identify measures to be used to prevent them from contaminating ground water. If the use of toxic or hazardous materials will lead to a regulated waste, discharge or emission, discuss any alternatives considered to minimize or eliminate the waste, discharge or emission.
None – See above.
- c. Indicate the number, location, size and use of any above or below ground tanks to store petroleum products or other materials, except water. Describe any emergency response containment plans.
None – See above

21. Traffic. Parking spaces added: 0 Existing spaces (if project involves expansion): 0
 Estimated total average daily traffic generated: 0
 Estimated maximum peak hour traffic generated and time of occurrence: 0

Indicate source of trip generation rates used in the estimates.

If the peak hour traffic generated exceeds 250 vehicles or the total daily trips exceeds 2,500, a traffic impact study must be prepared as part of the EAW. Using the format and procedures described in the Minnesota Department of Transportation's Traffic Impact Study Guidance (available at <http://www.oim.dot.state.mn.us/access/pdfs/Chapter%205.pdf>) or a similar local guidance, provide an estimate of the impact on traffic congestion on affected roads and describe any traffic improvements necessary. The analysis must discuss the project's impact on the regional transportation system.

The site traffic will be the same as any agricultural operation. Activity will primarily be accelerated during the spring and fall planting and harvesting sequence. Although traffic will increase for those short

periods of time, these do not exceed the daily peak hour vehicle limits or total daily trips. Potato farming is an existing land use in the general vicinity and this traffic is easily accommodated by the existing road network.

22. **Vehicle-related Air Emissions.** Estimate the effect of the project's traffic generation on air quality, including carbon monoxide levels. Discuss the effect of traffic improvements or other mitigation measures on air quality impacts.
Air emission calculations are not estimated for the project since the traffic generation from the project is minimal and temporary during the year.
23. **Stationary Source Air Emissions.** Describe the type, sources, quantities and compositions of any emissions from stationary sources of air emissions such as boilers, exhaust stacks or fugitive dust sources. Include any hazardous air pollutants (consult *EAW Guidelines* for a listing), any greenhouse gases (such as carbon dioxide, methane, and nitrous oxides), and ozone-depleting chemicals (chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons or sulfur hexafluoride). Also describe any proposed pollution prevention techniques and proposed air pollution control devices. Describe the impacts on air quality.
None
24. **Odors, noise and dust.** Will the project generate odors, noise or dust during construction or during operation? Yes No

If yes, describe sources, characteristics, duration, quantities or intensity and any proposed measures to mitigate adverse impacts. Also identify locations of nearby sensitive receptors and estimate impacts on them. Discuss potential impacts on human health or quality of life. (Note: fugitive dust generated by operations may be discussed at item 23 instead of here.)

Dust will be generated during the tillage of the land. Smoke will be generated periodically over the two year duration of land clearing activities, as the slash piles are burned. The effects are similar to other agricultural land clearing activity and similar to the slash burning associated with previous logging activities. Long term effects are not anticipated from these activities and given the rural setting, conflicts with neighboring properties is not expected.

25. **Nearby resources.** Are any of the following resources on or in proximity to the site?
- a. Archaeological, historical, or architectural resources? Yes No
 - b. Prime or unique farmlands or land within an agricultural preserve? Yes No
 - c. Designated parks, recreation areas, or trails? Yes No
 - d. Scenic views and vistas? Yes No
 - e. Other unique resources? Yes No

If yes, describe the resource and identify any project-related impacts on the resources. Describe any measures to minimize or avoid adverse impacts.

A request was made to the Minnesota State Historical Society to review their database of archaeological site and historic structures within the project area (see Attachment C for the correspondence). No known archaeological sites or historic structures were identified within the database.

26. **Visual impacts.** Will the project create adverse visual impacts during construction or operation? Such as

glare from intense lights, lights visible in wilderness areas and large visible plumes from cooling towers or exhaust stacks? Yes No

If yes, explain.

This is a typical agricultural operation and the visual impacts from equipment will not be adverse. The slash pile disposal will generate smoke during the clearing process; however, slash pile burning in this agricultural/forested part of the state would not be unusual or adverse to the residents. Slash burning is periodic and spread over the course of the two year land clearing phase.

27. **Compatibility with plans and land use regulations.** Is the project subject to an adopted local comprehensive plan, land use plan or regulation, or other applicable land use, water, or resource management plan of a local, regional, state or federal agency? Yes No

If yes, describe the plan, discuss its compatibility with the project and explain how any conflicts will be resolved. If no, explain.

Cass County zoning maps (see Figure 8) indicate that the project area is zoned Rural Residential - 10 (Section 19), Agricultural/Forestry (Sections 8, 17 and 18), and Shoreland Residential around Parnham and Mud Lake and the unnamed Public Water Basin that partially exists within the project boundaries (Figure 5). All three land use districts allow for agricultural uses without a permit; however, specific performance standards are established in the ordinance for agriculture practices within this zone. The proposed activities comply with the existing ordinances and performance standards.

28. **Impact on infrastructure and public services.** Will new or expanded utilities, roads, other infrastructure or public services be required to serve the project? Yes No

If yes, describe the new or additional infrastructure or services needed. (Note: any infrastructure that is a connected action with respect to the project must be assessed in the EAW; see *EAW Guidelines* for details.)

n/a

29. **Cumulative potential effects.** Minn. R. 4410.1700, subp. 7, item B requires that the RGU consider the "cumulative potential effects of related or anticipated future projects" when determining the need for an environmental impact statement. Identify any past, present or reasonably foreseeable future projects that may interact with the project described in this EAW in such a way as to cause cumulative potential effects. (Such future projects would be those that are actually planned or for which a basis of expectation has been laid.) Describe the nature of the cumulative potential effects and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to these cumulative effects (or discuss each cumulative effect under appropriate item(s) elsewhere on this form).

No future projects of this nature are anticipated within the vicinity of the project area. The vast majority of adjacent parcels of land are currently in ownership of state and federal government, and no development or change in land use is anticipated with regard to future uses.

30. **Other Potential Environmental Impacts.** If the project may cause any adverse environmental impacts not addressed by items 1 to 28, identify and discuss them here, along with any proposed mitigation. No, there are no additional potential environmental impacts.

31. Summary of issues. (Do not complete this section if the EAW is being done for EIS scoping; instead, address relevant issues in the Draft Scoping Decision Document, which must accompany the EAW.) List any impacts and issues identified above that may require further investigation before the project is begun. Discuss any alternatives or mitigative measures that have been or may be considered for these impacts and issues, including those that have been or may be ordered as permit conditions.

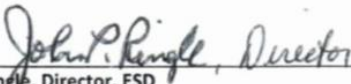
There are no outstanding issues for the project and no further studies or investigations are necessary.

RGU CERTIFICATION

I hereby certify that:

- The information contained in this document is accurate and complete to the best of my knowledge.
- The EAW describes the complete project; there are no other projects, stages, or components other than those described in this document, which are related to the project as connected actions or phased actions, as defined at Minn. R. 4410.0200, subps. 9b and 60, respectively.
- Copies of this EAW are being sent to the entire EQB distribution list.

Name and Title of Signer:



John Ringle, Director, ESD
Cass County
Minnesota

Date:

12/11/12

The format of the Environmental Assessment Worksheet was prepared by the staff of the Environmental Quality Board. For additional information, worksheets, or for EAW Guidelines, contact: Environmental Quality Board, 520 Lafayette Road, St. Paul, Minnesota, 55155-4194, 651-296-6300, or at their website <http://www.eqb.state.mn.us/review.html>.

FIGURES

Figure 1: Project Location

Figure 2: Land Use

Figure 3: Proposed Irrigation Footprints

Figure 4: Public Land Ownership

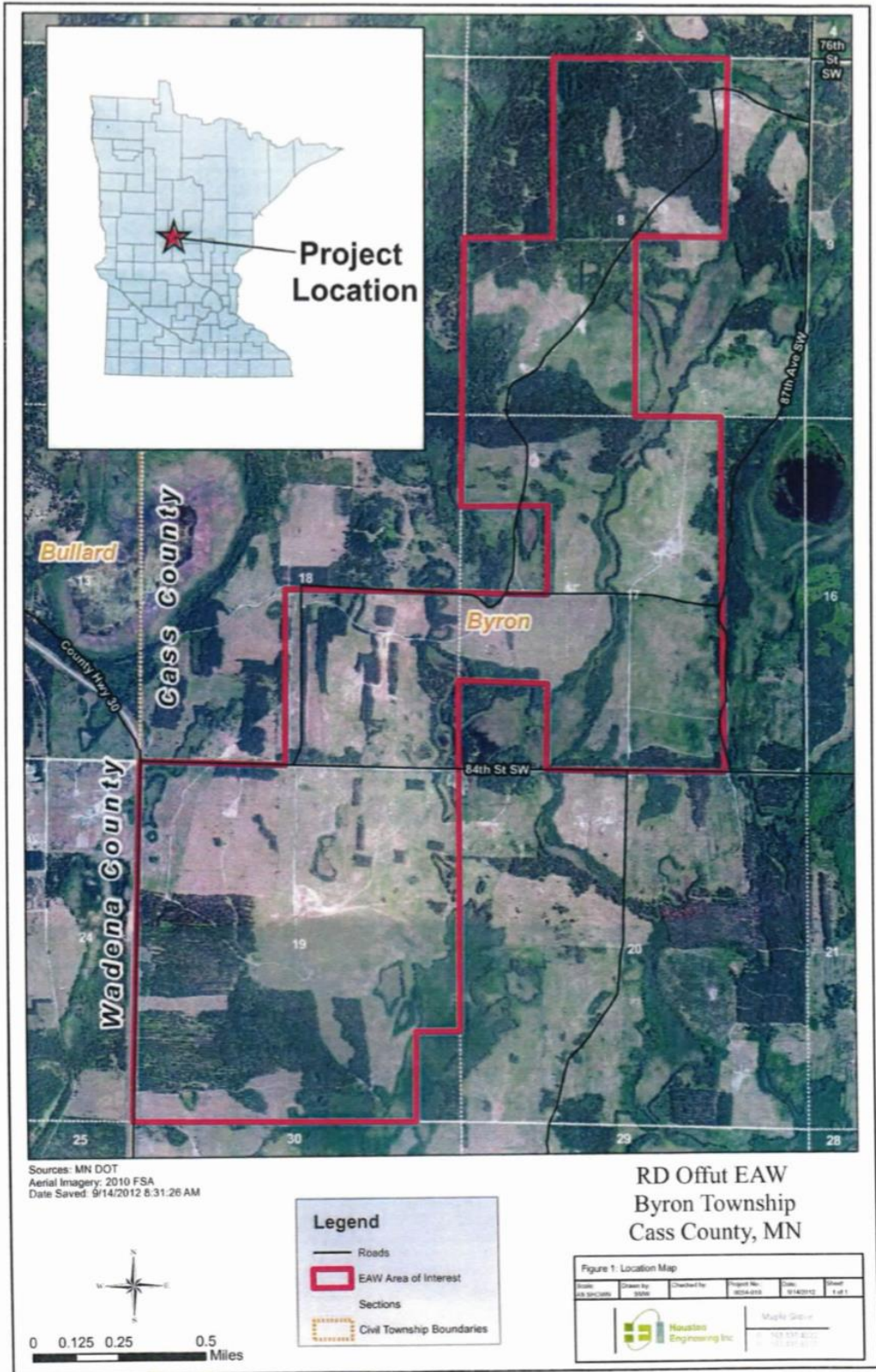
Figure 5: National Wetland Inventory / Public Waters Inventory

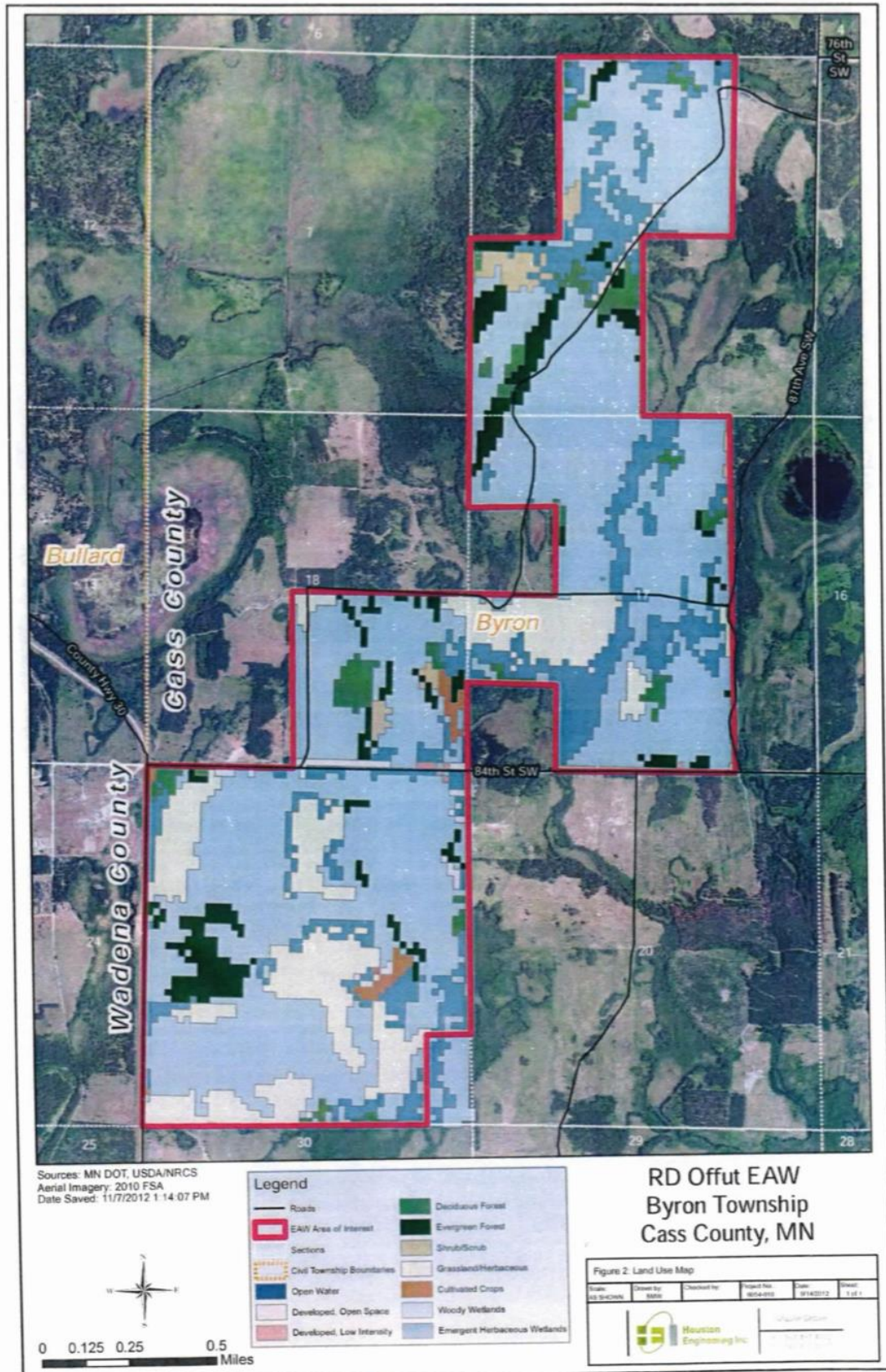
Figure 6: Rare, Threatened and Endangered Species

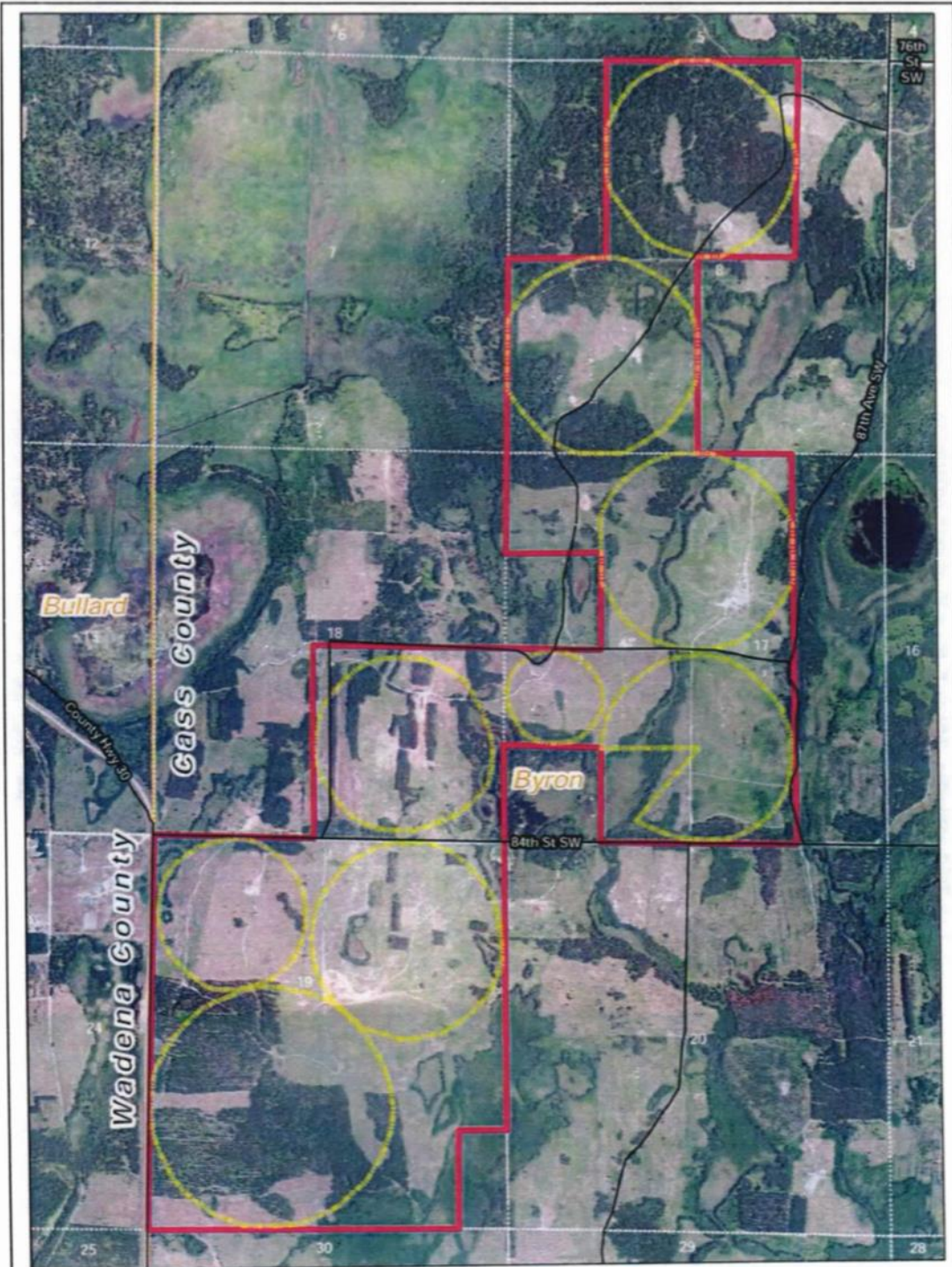
Figure 7: Existing Well Locations

Figure 8: Cass County Zoning

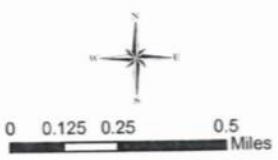
Figure 9: Cass County Soil Survey







Sources: MN DOT, USDA/NRCS
 Aerial Imagery: 2010 FSA
 Date Saved: 11/7/2012 1:27:55 PM



Legend

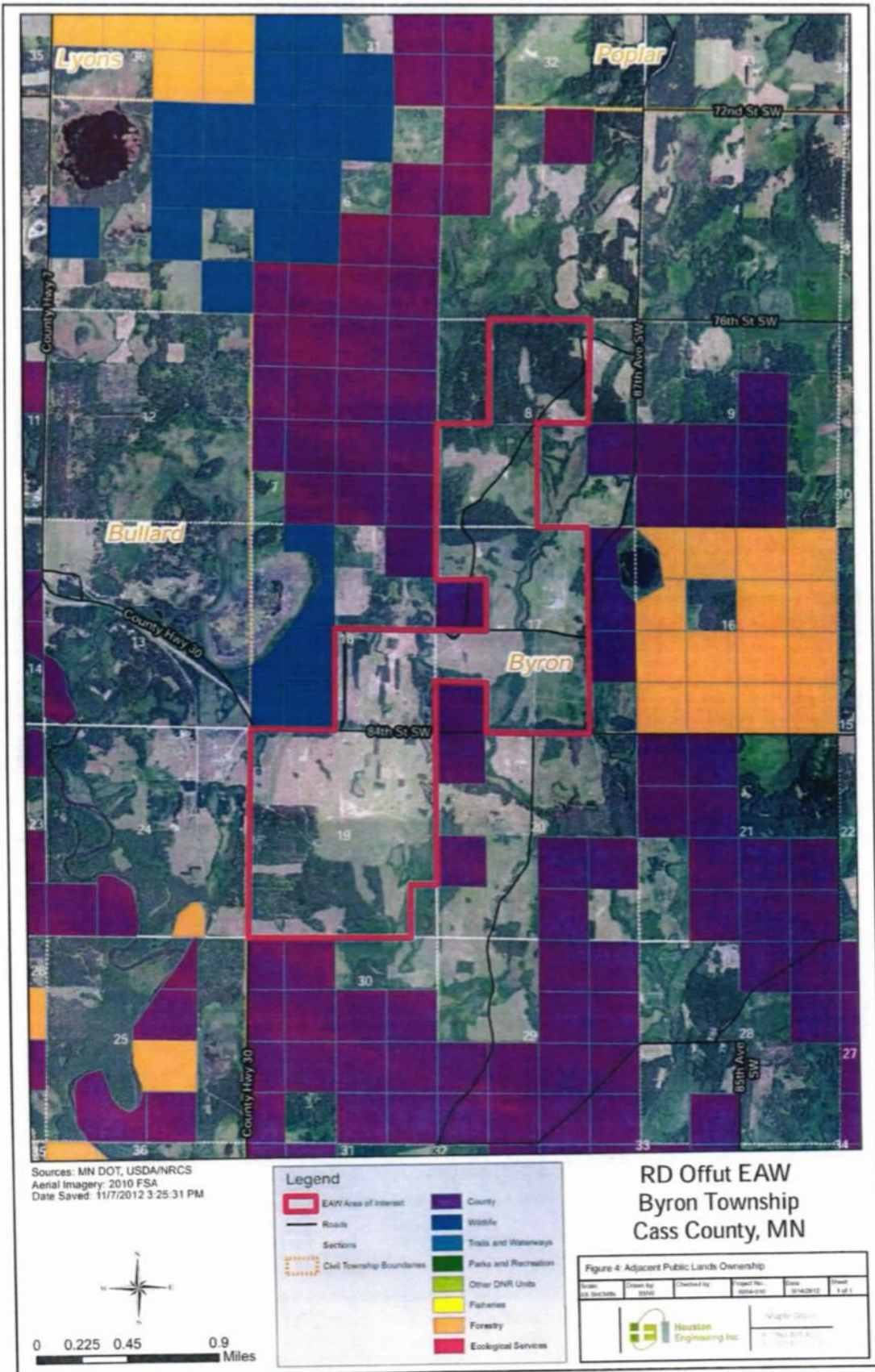
- Roads
- Proposed Irrigation Pivots
- EAW Area of Interest
- Sections
- Civil Township Boundaries

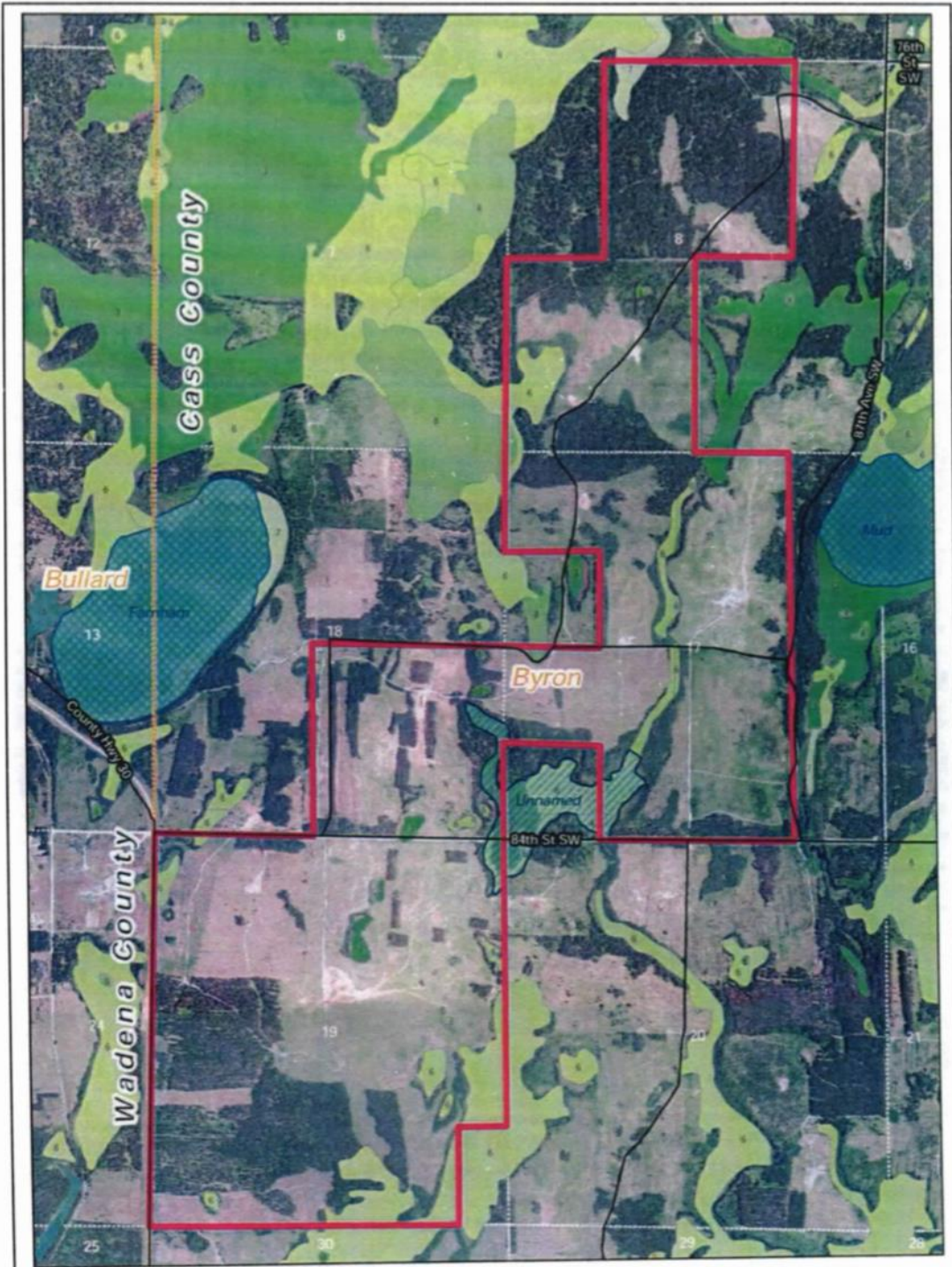
**RD Offut EAW
 Byron Township
 Cass County, MN**

Figure 3. Proposed Irrigation Footprints

Scale: 1/8" = 100'	Drawn by: MWH	Checked by:	Project No.:	Date:	Sheet:
			09-04-09	01/13/2012	1 of 1

Houston Engineering Inc. | Multi-Group





Sources: MN DOT, MN DNR, National Wetland Inventory
 Aerial Imagery: 2010 FSA
 Date Saved: 9/14/2012 9:15:42 AM



Legend

- Roads
- EAW Area of Interest
- Civil Township Boundaries
- Sections
- Public Water - Type
 - Public Water Basin
 - Public Water Wetland
- CIRCULAR 39
 - 1
 - 2
 - 3
 - 4
 - 5
 - 6
 - 7
 - 8

**RD Offut EAW
 Byron Township
 Cass County, MN**

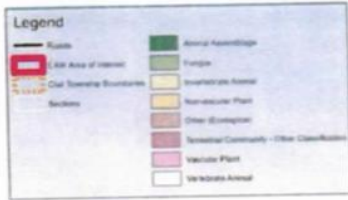
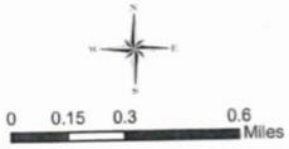
Figure 5: National Wetland Inventory, MN DNR Public Waters

Name	Drawn By	Checked By	Project No.	Date	Sheet
RD Offut EAW	ESB		868-482	05/10/12	1 of 1

Houston Engineering Inc. Multiple Copies



Sources: MN DOT, MN DNR - Natural Heritage Information
 Aerial Imagery: 2010 FSA
 Date Saved: 11/7/2012 1:48:48 PM

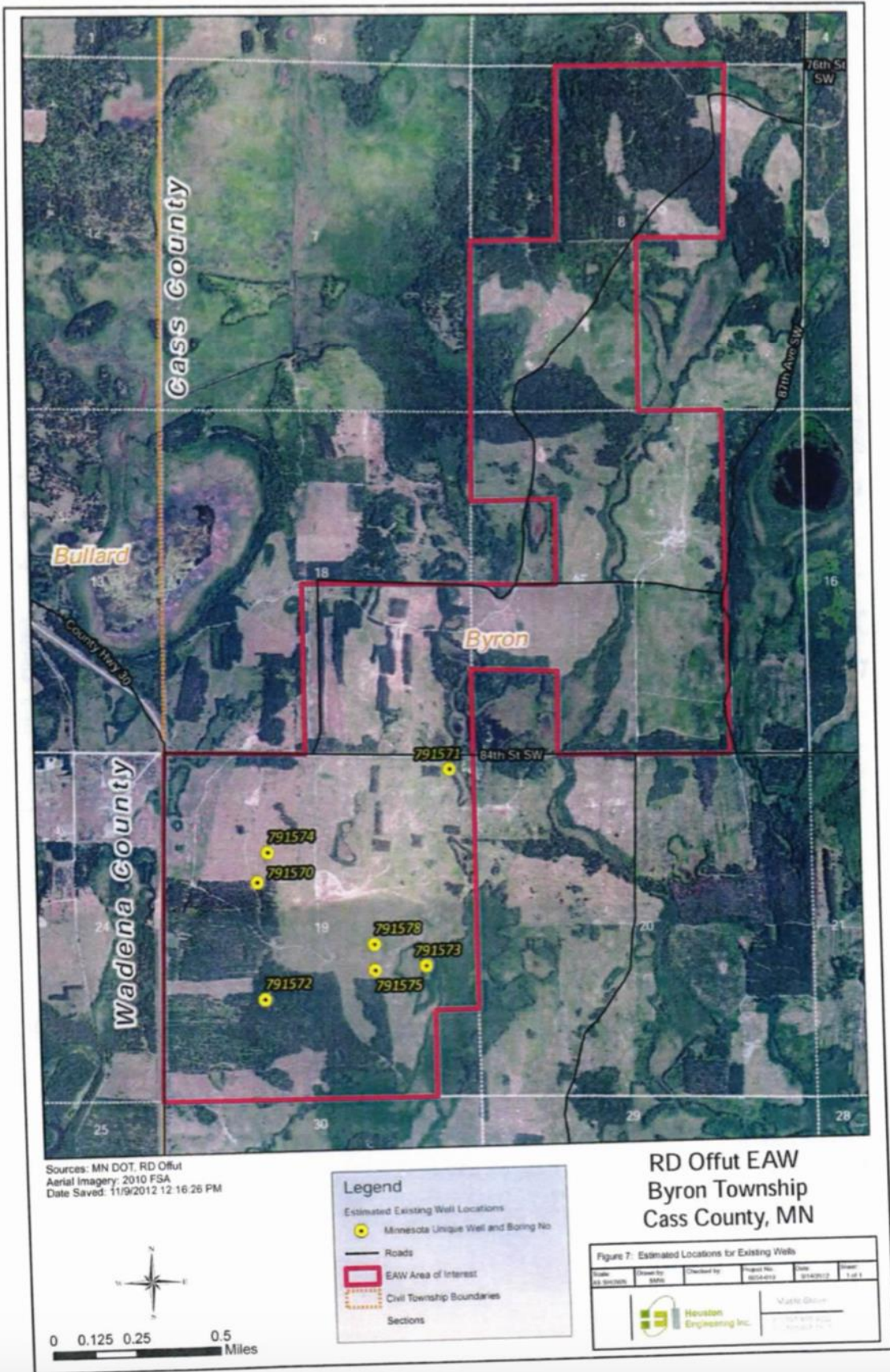


**RD Offut EAW
 Byron Township
 Cass County, MN**

Figure 6. MN DNR Threatened and Endangered Species

Drawn	Drawn by	Checked by	Project No.	Date	Sheet
11/7/2012	gsh	gsh	2012-005	11/7/2012	1 of 1

Houston Engineering Inc. | Project: Byron Township EAW



ATTACHMENT 15

Minnesota Department of Natural Resources
Division of Ecological and Water Resources
2115 Birchmont Beach Rd NE
Bemidji, MN 56601
218-308-2626



January 22, 2013

John P. Ringle
ESD Director
PO Box 3000, Cass County Courthouse
Walker, MN 56484
Phone: 218-547-7256
Fax: 218-547-7429
john.ringle@co.cass.mn.us

Re: Winnemucca Farms Cass County Potato Farm Environmental Assessment Worksheet (EAW)
Department of Natural Resources (DNR) Comments

Dear Mr. Ringle,

The Department of Natural Resources (DNR) has reviewed the EAW for the Winnemucca Farms Cass County Potato Farm. We appreciate the opportunity to review this project and offer the following comments for your consideration.

We have reviewed the EAW and do not believe the project's potential environmental impacts are adequately disclosed. Our comments indicate the potential for significant impact having to do with both potential water table drawdown effects on wetlands and surface waters, and the potential for nutrient contamination of the drinking water aquifer. If the Responsible Government Unit (RGU)/the County share this conclusion, they have two choices for moving forward: (1) make a positive declaration on the need for an environmental impact statement (EIS), or (2) postpone the decision on the need for any EIS for 30 days or other such period of time agreed upon by the RGU and the proposer. In some cases, a proposer also voluntarily withdraws an EAW to modify a project or otherwise address concerns.

While these potential impacts are subject to mitigation by ongoing regulatory authority (a consideration in determining the need for an EIS), the project triggers an EAW of which the purpose is to disclose information about potential environmental impacts. Likewise, we recommend that all potential impacts and measures to offset those impacts be disclosed in the EAW. If required by the RGU, this information would serve a dual purpose of public disclosure and meeting permit requirements.

Sincerely,

A handwritten signature in black ink, appearing to read "P. Buesseler".

Peter Buesseler, Regional Manager
DNR Division of Ecological and Water Resources

Enc: DNR Specific Comments and Winnemucca.PDF

Winnemucca Farms Environmental Assessment Worksheet (EAW)

DNR Specific Comments

Question 8. Permits and Approvals Required

If the project involves any proposed work in *Public Water Wetland 11-0654W*, a permit to work in public waters may be necessary. Exemptions provided by the Wetland Conservation Act (WCA) for wheeled booms on irrigation devices do not apply to public waters. Also, proposals with the purpose of creating upland or for the construction of roadways or pathways through public waters are explicitly prohibited (see MN Rules 6115.0190 Subp. 3). In order to permit a wheeled irrigation crossing, it will be necessary to look at non-filling crossing alternatives (bridges, boardwalks) and still meet other goals and requirements contained in MN Statutes 103G and MN Rules Chapter 6115.

Question 10. Cover Types

The answer to this question indicates that wetland acreage will remain unchanged, yet the answer to Question #12 indicates that wetland filling activities will occur to accommodate movement of the center pivot irrigation systems.

DNR recommendation:

The EAW should provide estimates of wetland fill and update the answer to Question #10 accordingly.

Question 11.a. Fish, Wildlife and Ecologically Sensitive Resources

This question asks for the identification of fish and wildlife resources and habitats on or near the site, and to describe how they will be affected by the project. While the answer to this question provides some data on existing resources, impacts and methods to minimize and avoid impacts, it falls short in adequately describing all. By not including this information, potential impacts and information about necessary mitigation measures are not disclosed (a main purpose of an EAW). DNR is providing the following supplemental information to assist the County in providing this information.

General Ecological Setting

Every state recently completed a "state wildlife action plan (SWAP)" which identifies conservation needs, actions and priorities for species of concern, including threatened and endangered wildlife and other important wildlife species. Minnesota's SWAP titled, "*Tomorrow's Habitat for the Wild and Rare*" describes conservation concerns for species of greatest conservation need (SGCN) and their *key habitats* within various landscape settings (characterized using the Ecological Classification System [ECS]).

SGCN are defined as species whose populations are rare, declining, or vulnerable to decline and are below levels desirable to ensure long-term health and stability (includes threatened and endangered species). Much of the species documentation within Minnesota's SWAP is provided by the Minnesota County Biological Survey (MCBS). Key habitats are defined as the habitats most important to the greatest number of SGCN. Key habitats are specific to individual *ecological subsection* and are not found everywhere in the state. Minnesota's SWAP identifies 292 SGCN's in the state. Each of the species was evaluated to determine the factors influencing their rarity, vulnerability, or decline (SWAP, Page 60). The

results of the species analysis indicated that habitat loss and degradation are the most significant challenges facing Minnesota's SGCN. A copy of Minnesota's SWAP is available online at http://www.dnr.minnesota.gov/cwcs/wild_action_plan.html.

The proposed project is within the Pine Moraines and Outwash Plains Subsection (212Nc) of the Laurentian Mixed Forest Province (212). A full profile of the Pine Moraines and Outwash Plains Subsection (which includes *key habitats*, *SGCN*, and subsection conservation actions and priorities) is available at <http://www.dnr.state.mn.us/ecs/212Nc/index.html>

Identified *key habitats* within the Pine Moraines and Outwash Plains Subsection include upland forests (Red-white Pine), shrub/woodland-uplands (Jack pine woodland), non-forested wetlands, and rivers.

89 Species of Greatest Conservation Need (SGCN) are known or predicted to occur within the Pine Moraines and Outwash Plains Subsection. These SGCN's include 29 species that are federal or state endangered, threatened, or of special concern. This is an important transition zone interspersed with lakes and wetlands valuable for wildlife. Featured wildlife includes bald eagles, gray wolves, sharp-tailed grouse, sandhill cranes, upland sandpipers, common terns, yellow rails, red-necked grebes, trumpeter swans, common loons, least darters, and eastern hognose snakes. In addition to all key habitats, other areas important for SGCN include Camp Ripley Military Reservation; Chippewa National Forest; Deep Portage Conservation Reserve; Smoky Hills, Two Inlets, Badoura, Huntersville, Foot Hills, Pillsbury, and Crow Wing State Forests; Greenwater Lake Scientific & Natural Area; *Itasca State Park*; and several *WMAs* (remove italics).

DNR recommendation:

DNR recommends that the soil and water conservation plan identify how soil and water conservation actions and key habitats intersect on the property, then incorporate on-ground tasks that will preserve and enhance remaining key habitats (likely non-forested wetland areas).

Fish and Wildlife Habitats on and Near the Site and Potential Impacts

Fish Habitats

As indicated in the EAW, no substantial fish habitats are found on the property; however, in Section 5, immediately north of the project area, Tower Creek is a Designated Trout Stream Tributary identified or classified as a tributary to a Designated Trout Stream – Farnham Creek which flows to the southwest less than one mile from the project. Because surface water and the shallow groundwater are related in this area, pumping from future wells could impact this stream (existing wells on south end of project site less likely to impact the trout stream tributary). Per MN Statute 103G.285, pumping from a trout stream is not allowed unless temporary, and this protection may extend to protected tributaries if impacts to the tributary impact the designated trout stream.

Also, the Crow Wing River, a significant high quality resource, is located about 0.3 miles from the southwest corner of the project area with a backwater oxbow located closer. East of the project area is Swan Creek, which is as close as 0.3 miles from the east side of the project site.

DNR recommendation:

DNR recommends that the EAW included assessment of potential impacts to Tower Creek and other nearby surface waters. Testing will be required for wells located in close proximity to the trout

stream tributary and other surface waters as part of the Appropriation of Waters application process.

Wetlands and Surface Water Habitats

The EAW correctly indicates that an open water shallow water wetland community exists adjacent to the center of the property and makes mention of other wetland on the property, including shrub cars and shallow marshes, both as isolated basins and as flow-through wetland complexes.

The EAW does not describe potential hydrologic impacts to onsite and nearby wetlands and surface waters (many of which are *key habitats*) that may occur as a result of pumping and irrigation, or from construction of wheel paths. The exiting documentation of onsite *key habitats*, listed species presence, and high species diversity (DNR Heritage Review, October 10, 2012) increase the importance for thorough assessment, disclosure of potential impacts, and identification of adequate mitigation measures.

It is widely accepted that small changes in hydrology can significantly affect wetland and surface water ecological processes, species composition and ecological function. Such impacts include but are not limited to declines in vegetation diversity, shifts to tolerant species (including invasives), and declines in overall wildlife species richness. The impacts of changes in water level dynamics are further summarized in an online document titled, Working Paper No. 1 – An Overview of the Impacts of Water Level Dynamics (“Bounce”) on Wetlands.

Impacts to Hydrology Caused by Pumping and Irrigation - The well logs submitted with the EAW show that all the proposed wells are located in the water table aquifer and are generally shallow. We've estimated the land surface elevation at each well and the nearby lake and wetlands using the USGS topographic map (the best available elevation data at this location). The results show static water elevations just below land surface and similar in elevation to the nearby surface water bodies (wetlands and shallow lakes). This data indicates that the shallow water table aquifer is directly connected to the nearby surface water bodies. This is expected in an outwash area such as what. Based on the pumping levels provided in the well logs, pumping levels are significantly below the nearby surface water bodies at the tested rates (see attached map Winnemucca.pdf). Pumping elevations are estimated to be between 1192 to 1248 ft mean sea level, while nearby wetlands and lakes range from 1260 to 1274 ft. The sandy soils (Figure 9 in EAW and Well Logs), in addition to pumping elevations provided, indicates that pumping these wells may impact nearby surface water bodies and wetlands by reducing water table elevations below the landsurface or otherwise affecting water level dynamics.

As acknowledged in answering Question #17, runoff will be increased from the site as a result of the project. The EAW indicates that changes in runoff will be insignificant within the watershed context. It is unclear what watershed is being referenced, but based on information described above in addition to the changes in runoff; we believe impacts resulting from changes in runoff may be significant within the watersheds of the onsite and nearby wetland habitats.

Impacts to Hydrology Caused by Wheel Boom Paths – The project will result in direct habitat loss through filling and potential indirect habitat impacts through changes in water level dynamics (i.e. “bounce”).

DNR recommendations:

The EAW should describe, through quantifiable means, the changes in hydrology that could occur (due to pumping, irrigation/changes in runoff, and construction of wheel paths through wetlands), and the effects on onsite and nearby wetlands and surface water level dynamics.

Specifically, the potential changes in water level dynamics should be informed by water pump testing and modeling. Prior to continuous pumping, all wells should be evaluated with resource aquifer tests (multiple pumping wells and longer duration), in conjunction with installation of water level observation wells at several locations. In addition, staff gages (or piezometers if no standing water is present) should be installed in the wetlands to determine the sustainability of this pumping. Once the area of potential affect is identified, operational controls and maximum use thresholds that would avoid impacts should be described.

Basic hydraulic analysis/modeling should be provided to explain and describe culvert size and placement location recommendations associated with the irrigation wheel boom pathways. Similar analysis should be provided for changes in surface water run-off and potential impacts resulting from changes in "bounce".

While DNR Appropriation of Waters applications require this testing to inform appropriate permit actions, the EAW process should disclose all potential project related impacts. Since the project has the potential for impacts to extend offsite into public use areas, this is especially important.

Existing onsite wetlands should be described by type (Circular 39 Classification) and amount of direct impact caused by filling (per type within the project area). Measures to avoid and minimize impacts should also be described (as asked by EAW Question #11).

Public Lands

It is the DNR's responsibility to avoid, when possible, all potential adverse impacts to DNR administered lands. Farnham Lake Wildlife Management Area (WMA) is located directly adjacent to the west. It was created in 2010 to secure and protect long-standing public use of Farnham Lake for waterfowl hunting, trapping, and wild rice harvesting. Farnham Lake is classified as a shallow/wildlife lake due to its mean depth of 1.7', maximum depth of 2.0', and 80% wild rice coverage (DNR wildlife lake survey, June 20, 2007). If adequate control mechanisms are not identified, the impacts described above could potentially extend into the WMA and significantly impact and degrade habitats and public use of the WMA.

DNR recommendation:

The impacts assessment described above (pump testing, operational controls, etc.) should include potential impacts and avoidance measure to protect habitats and public use of Farnham Lake WMA.

Terrestrial Habitats

Clearing for agriculture will result in permanent loss of forest areas. Replacement of forested areas with agricultural field will eliminate these areas' habitat functions. The EAW indicates that wildlife movement will be altered - we agree. The removal and fragmentation of plant communities leaves fewer habitats

for wildlife, as they are pushed into other habitats which many times are already at their carrying capacity. As limiting factors come into play, an overall net decrease in species abundance and diversity can result, leaving the residual areas populated by species that thrive in the presence of disturbance and human activity. These are often species viewed as nuisance species.

Since onsite forested areas appear to have been harvested and intensively managed in the past, their habitat value would not be the same as native plant communities and other on-site key habitats (intensively managed forests typically lack the structural diversity and habitat value of stands originating from fire).

Question 13. Water Use

There are no permitted appropriators within one mile of this EAW boundary. There are no location-verified groundwater users per MN Department of Health County Well Index (CWI) near this property. There is a domestic well located within ½ or one-half mile east of the eastern boundary of Section 18 of this EAW (see attached map Winnemucca.pdf). This domestic well is located in a deep confined aquifer (131 ft deep) and will not to be impacted by the shallower proposed production wells based on the information we have to date. There are other shallow domestic wells > ½ or less than one-half mile to the west and east, and appear to be in the same aquifer as the proposed production wells. However, impacts to these wells would most likely occur after impacts to the nearby wetlands.

Nutrient contamination from agriculture has been demonstrated in sand and gravel outwash plains in similar areas to this area (Straight River area). The soils in this area are moderately to excessively well-drained (per SSURGO soils information and well logs), with the exception of very poorly drained mucks in the wetlands. Soil textures indicate a high potential for nutrient contamination in the shallow water table if nutrient application rates are not strictly managed. This can pose a health risk if there are nearby receptors. The EAW indicates that University of MN has developed best management practices (BMP's) for sandy soils which are used to develop nutrient recommendations for individual fields; however, it is unclear from the EAW whether the BMP's are effective in preventing exceedance of minimum water quality standards or whether they will be used.

At the time of this review, there was limited use of the groundwater in and in close proximity to the project area for drinking water and, therefore, limited risk to human health. However, if additional wells are installed in this area and nutrient concentration is above MN Department of Health's Risk Limits, it is likely that the water table aquifer may be of limited use for domestic drinking water.

DNR recommendation:

DNR recommends that the EAW described effectiveness of the University of MN's BMP's and describe plans for incorporation of measures to prevent agricultural chemical contamination. Such plans should be described in context of well pump test findings.

Question 19. Geologic Hazards and Soil Conditions

Soils survey information indicates that the majority of the site contains soils classified as excessively drained to moderately well drained soils. This creates much higher potential for pumping associated with irrigation to adversely impact other uses and resources.

The testing, mentioned above, will be necessary to further define the relationship between pumping draw downs and effects on other uses and resources. With projects that trigger mandatory

environmental review, it is important that potential use conflicts be fully disclosed through the process provided by the EAW.

Question 25. Nearby Resources.

The Crow Wing River provides excellent angling opportunities, particularly for smallmouth bass and walleye, and is a popular canoe route.

DNR recommendation:

The Crow Wing River is a State Water Trail and should be included as a nearby trail resource.

Question 29. Cumulative Potential Effects

Records indicates that in Wadena County alone, 676 acres of Potlatch lands were sold to Winnemucca Farms or RD Offutt between the publications of the 1999 and 2012 plat books, and an additional 868 acres of Potlatch lands were sold since the publication of the 2012 plat book and today.

DNR recommendation:

In order to determine whether the additional holdings represent reasonably expected projects that could interact with the current proposal, DNR recommends that the EAW describe other landholdings in the area and their potential for interactions with the proposed project. At a minimum, the distance of the other projects and potential for those projects to affect the sustainability of overlapping resources (e.g. habitats, aquifers, surface waters within the same watershed) should be described.

Thank you for the opportunity to review and comment on this project. Please call Nathan Kestner, Regional Environmental Assessment Ecologist, at 218-308-2672, with general questions about this review. For specific direction about the scope and methods of the water resource testing and monitoring, it will be necessary to work directly with Michele Walker, NW Regional Groundwater Specialist, at 218-308-2664.

ATTACHMENT 16



Minnesota Pollution Control Agency

520 Lafayette Road North | St. Paul, Minnesota 55155-4194 | 651-296-6300
800-657-3864 | 651-282-5332 TTY | www.pca.state.mn.us | Equal Opportunity Employer

January 23, 2013

Mr. John P. Ringle
ESD Director
PO Box 3000, Cass County Courthouse
Walker, MN 56484

Re: Winnemucca Farms Cass County Potato Farm Environmental Assessment Worksheet

Dear Mr. Ringle:

Thank you for the opportunity to review and comment on the Environmental Assessment Worksheet (EAW) for the Winnemucca Farms Cass County Potato Farm project (Project) located in Cass County, Minnesota. The Project consists of the conversion of 1,459 acres of commercial forest to irrigated agricultural land. Based on this review by Minnesota Pollution Control Agency (MPCA) staff, we believe that the information provided in the EAW is insufficient to fully identify and assess the environmental effects of the Project. Consequently, we respectfully recommend that Cass County either withdraw the EAW and re-notice an augmented version, or issue a positive declaration to prepare an Environmental Impact Statement (EIS) to provide more information and analysis. Nevertheless, in the interest of informing the ongoing environmental review of the Project, the following comments are provided for your consideration.

Water Use (Item 13)

- This section of the EAW states that irrigation wells have already been installed. According to Minn. R. 4410.3100, subp. 1, if an EAW is required, a project may not be started until completion of the environmental review process. It appears that the installation of the irrigation wells may not be consistent with the Environmental Quality Board rules.
- Information related to the potential impacts and mitigation to be afforded by the permitting of the irrigation wells appears to be generally lacking. If such information is available at this time it should have been summarized and presented in the EAW. If information is not currently available, it should be developed and incorporated into the environmental review.

Geologic Hazards and Soil Conditions (Item 19)

The EAW does not identify or discuss the use of pesticides or fungicides, or potential environmental effects resulting from pesticide or fungicide use, in potato production. In particular, the high likelihood of fungicide use for as long as this land is in potato production should be discussed at some level in several parts of this document in order for the EAW to be complete. The majority of all Minnesota potato farms use applications of fungicide and a high majority of these use chlorothalonil specifically. The application of chlorothalonil, presumably via crop dusting, should be a consideration when discussing, at a minimum, items 11, 17, 20, 23, or 30. Chlorothalonil is classified by the Environmental Protection Agency (EPA) as "very highly toxic" or "highly toxic" to aquatic invertebrates. The EPA Reregistration Eligibility Decision (RED) fact sheet also states that "Chlorothalonil can contaminate surface water via spray drift or through runoff and erosion. Chlorothalonil can be dissolved in runoff and adsorbed to sediment in the runoff." As this proposed agricultural site has both wetlands and a stream that drains to the Crow Wing River, the potential for surface and groundwater contamination resulting from the use of pesticides and fungicides should be addressed in this environmental review.

In addition, recent reports by numerous sources, including the University of Minnesota Extension Service, indicate that the combination of chlorothalonil and some of the chemicals that beekeepers use as miticides in their apiaries can dramatically increase the toxicity of both products, and contribute to the death of the hive: (<http://www.extension.org/pages/61004/miticide-and-fungicide-interactions>).

Mr. John P. Ringle
Page 2
January 23, 2013

This possible connection has been observed by members of the North Central Beekeepers Association in Brainerd, Minnesota, where hive death occurred repeatedly in hives with comb that had elevated levels of chlorothalonil and chlorpyrifos. We believe that information and analysis regarding all possible fungicides and pesticides that are likely to be used as a result of this project, and potential environmental and human health hazards of each, must be addressed in the environmental review of this Project in order for it to meet the intended purpose of adequately informing future decision making and the public.

The failure to have addressed this very significant environmental impact potential renders this EAW ineffective as an assessment tool, and considerations should be given to either retracting and reissuing the document with this issue being more adequately addressed, or making a positive declaration requiring an Environmental Impact Statement for this proposal.

Cumulative Potential Effects (Item 29)

A cumulative potential effects analysis is applicable and must be conducted for the environmental review to be complete. This requires an analysis of specific projects that may interact with the proposed project in such a way as to cause cumulative impacts. The responsible governmental unit must inquire whether a proposed project, which may or may not individually have the potential to cause significant environmental effects, could have a significant effect when considered along with other projects that (1) are already in existence or planned for the future; (2) are located in the surrounding area; and (3) might reasonably be expected to affect the same natural resource(s). The cumulative potential effects assessment should:

- Consider *past projects*, *existing projects*, as well as anticipated *future projects* that have been planned or for which a 'basis of expectation has been laid' (future projects for which permit applications or EAWs have been submitted either at the state or local level, or projects for which plats have been approved on the local level may be considered to demonstrate the required basis of expectation).
- Consider a limited geographic area surrounding the project in which facilities may reasonably be expected to affect the same natural resource – for instance, a nearby lake – as the proposed project.

In completing this analysis, the responsible governmental unit must identify: a) the limited geographical area considered; b) any other projects as outlined above, (and explain how they were identified); c) the cumulative impacts that may occur as a result of interaction of the other project(s) with the proposed project; and d) the natural resource(s) affected and how it may be affected.

We appreciate the opportunity to review this project. If you have any questions concerning our review of this EAW, please contact me at 651-757-2508.

Sincerely,



Karen Kromar
Planner Principal
Environmental Review Unit
Resource Management and Assistance Division

KK:bt

cc: Craig Affeldt, MPCA, St. Paul
Reed Larson, MPCA, Brainerd
Scott Lucas, MPCA, Brainerd

Attachment 17

Forest to Row Crop Agricultural Conversion Risk Process

Darrin Hoverson, Area Hydrologist – MN DNR

Forest to Row Crop Agriculture Risk Assessment

The Forest to Row Crop Agriculture Risk Assessment evaluated 5 categories to determine the parcels risk for land conversion. Starting with an overall maximum score of 4 for each parcel was evaluated using GIS software and layers consisting of parcels and parcel data, air photos, SWUDS (state water use data system) layer, and SSURGO soils layer with information on soil type, drainage classification, farmland classification, slope, and other information. When each individual parcel had points dropped under each category so did the overall score. Those parcels with a score of 4 have a particularly high susceptibility to be converted to row crop irrigated agriculture because of the makeup of the soil, its farmland classification as prime or significant farmland, its size of 80 acres or greater, and the flat or relatively flat landscaped of the parcel. Parcels with a score of 3 have similar attributes to a 4 but were missing one of the maximum scores under the 5 components; usually farmland classification was not classified as prime farmland but when comparing proximity to other agricultural lands through air photos a center irrigation pivot was nearby on similar or the same soil type. Scores of 2 and 1 are much less likely to be converted to row crop agriculture and for many of these parcel size and location reduced the overall score. Those with scores of 4 and 3 should be used to gauge the most likely to be converted while those with 2 and 1 are much less likely to be converted to row crop agriculture, particularly with an irrigation system.

Evaluation

- 1) Size of the Parcel - Parcel Size was either the parcel itself or if adjacent parcels were present there were graded as a single parcel.
 - a. > 80 acres - 4
 - b. ~ 80 acres - 3
 - c. ~ 40 acres - 2
 - d. Less than 40 acres - 1
- 2) Proximity to other Irrigated or non-irrigated agricultural lands – Using aerial photography to identify center pivot irrigation signatures on the land and the SWUDS layer it could be determined the proximity of the parcel to adjacent agriculture lands, irrigated agriculture lands, or non agricultural lands.
 - a. Adjacent - 4
 - b. Within Section - 3
 - c. Nearby – 2
 - d. Distant - 1
- 3) Topography – Using SSURGO layer and attribute table slope was identified and based on farmland classification from NRCS the slopes below fit with agricultural practices.
 - a. Flat – 0-8% Slope - 4
 - b. Less Flat -8-15% Slope - 2

c. > 15% Slope - 1

4) Drainage of Soils – Indication of Groundwater Availability – Using Soil Drainage classification and Groundwater Evaluation for the parcel the below scores were given.

- a. Very High – 4
- b. Med – 2
- c. Low – 1

5) Farmland Classification based on SSURGO – The farmland classification was determined by the local soil scientist evaluating the soil types for each county. The factored in soil type, drainage classification, slope, and multiple other attributes of not just current agriculture lands within each county but those in other land uses such as forest. This was particularly helpful as the ability to farm the land within each parcel was evident in this classification.

- a. Very High – 4
 - i. All Farmlands are Prime Farmland
 - ii. Farmland of Statewide Importance
 - iii. Farmland of Local Importance
 - iv. Prime Farmland if Irrigated
- b. Med – 2
 - i. Prime Farmland if Drained
 - ii. Prime Farmland if Drained and Protected from Flooding or Not Frequently Flooded During Growing Season
 - iii. Prime Farmland Protected from Flooding or Not Frequently Flooded During Growing Season
- c. Low – 1 Not Prime Farmland

ATTACHMENT 18

From: Mike Tauber
Sent: Monday, December 23, 2019 5:56 AM
To: Kestner, Nathan (DNR) <nathan.kestner@state.mn.us>
Subject: Public website for Pineland Sands EAW

Hello Nathan,
Two questions for you.

In October I believe you stated in an email that there would be a public website to disseminate information gathered for the Pineland Sands EAW. How do I find that?

Were the 3 water appropriations that the Nolte's are now seeking part of the 21 groundwater appropriations, and 33 preliminary well assessments that RDO applied for back in 2015?

Thank you for your time.
We wish you and yours well, happiness and peace to all.
Mike Tauber

From: Kestner, Nathan (DNR) <nathan.kestner@state.mn.us>
Sent: Monday, January 6, 2020 1:43 PM
To: Mike Tauber <mjtauber42@outlook.com>
Cc: Doneen, Randall (DNR) <randall.doneen@state.mn.us>
Subject: RE: Public website for Pineland Sands EAW

Mike-

Below is the current link we have for the Tim Nolte–R.D. Offutt Potato Field Expansion project.

<https://www.dnr.state.mn.us/input/environmentalreview/tim-nolte-rd-offutt-potato-field-expansion.html>

In terms of your second question - 2017-4235, 2017-4236, and 2017-4237 were previously RDO permit applications 2014-2058, 2014-2098, and 2014-2104 respectively.

Nathan Kestner
NW Regional Manager | Division of Ecological and Water resources

Minnesota Department of Natural Resources
2115 Birchmont Beach Rd. NE
Bemidji, MN 56601
Phone: 218-308-2626
Fax: 218-755-4066
Email: nathan.kestner@state.mn.us
mndnr.gov

NA-00056-02



State of Minnesota
DEPARTMENT OF NATURAL RESOURCES
FACSIMILE TRANSMITTAL COVERSHEET

Date sent 9/29/93
of pages including this page 4

TO: <i>Paul Burns</i>	Telephone Number: Fax Number: <i>7-7678</i>
FROM: <i>Tom Balcom</i>	Telephone Number: <i>2964796</i>
<p><i>But I think this is what you are looking for, at least partially. Please take care in using this that ^{he made clear that} it is a <u>draft</u> permit with conditions. As far as water quality monitoring, some of the parameters listed in #1 on the second page of our last Sept. 24 memo plus any input from PCA on this subject would be appropriate. Call if you want to discuss further.</i></p>	

Minnesota Department of Natural Resources - 500 Lafayette Road, St. Paul MN 55155 FAX: 612/296-3500

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WATERS

STATE OF MINNESOTA
OFFICE MEMORANDUM

DATE : August 19, 1993

TO : Pete Otterson

FROM : Jim Japs

SUBJECT : TRIPLE J DRAFT PERMIT CONDITIONS

Attached is a draft list of permit conditions that could be used if a decision is made to issue a temporary permit with monitoring conditions. I did not attempt to draft a permit condition for surface water quantity or quality monitoring. Before drafting a condition to monitor water quantity we should get a recommendation from Bob Merritt regarding gaging options. DFW will also need to define surface water quality testing requirements.

cc: Belcom
Merritt
(8/19/93)

Memo

To: Jim Japs, Permits Unit

From: Jennie Leete, Ground Water Unit

Date: 6/21/93

Subject: Triple J irrigation project PAs 93-1135 & 93-1136, Becker Co.

The setting of this project includes a deeply incised ground water fed creek. Because of the potential for impacts on the creek, the monitoring should include the aquifer which likely supplies the creek and which lies directly above the production aquifer. I suggest that you require two wells to be drilled approximately 100 feet from either of the irrigation wells. One should be screened in the aquifer in which the irrigation well is screened, the other should be approximately 40 feet shallower, screened in the aquifer just above the confining bed over the production aquifer.

Specifications:

locations: approximately 100 feet from one of the irrigation wells
diameter: 2 inch minimum
material: PVC or iron pipe
screen: maximum 5 foot length
slot size appropriate to aquifer material
depths: shallow well
 approximately 45 to 50 feet
 deeper well
 approximately 95 to 100 feet
 the above depths are estimates based on well 523313.
 Actual depths must be determined at the time of well
 construction in order to meet the stated goals.
other: both observation wells must be constructed according to
 the Minnesota well code

Ideally then, these observation wells will constitute a nest at one location. The option of installing both observation wells at one site would also be less expensive than drilling one well at each site because the driller wouldn't have to pick up the rig and move to a completely different site.

The choice between the northern or southern well locations is probably not critical. The observation wells will be somewhat deeper and further from the creek if they are constructed near the northern well, but access may be easier. At the southern site it may be difficult to keep from interfering with field operations (place the wells along the access road to the pump?) but money could be saved on the drilling due to the predicted shallower depths and the wells would be closer to the creek.

Water levels in both these wells should be measured each time either irrigation system is turned on or off. The notes about these measurements should include the date, time, comments about the pumping operations, water level in the shallow well and water level in the deep well. Water levels should be measured at least monthly (except January & February) whether or not the irrigation system is in operation.

Additional Conditions

1. Flow Meter. Minnesota Statutes require all installations for appropriating water to be equipped with flow meters, unless another method of measurement is approved by the Division of Waters.
2. Well Abandonment. The permittee shall notify the Commissioner prior to abandoning, removing, covering, plugging or filling the well(s) from which the authorized appropriation was made. The well(s) must be abandoned by a licensed well driller and in accordance with the procedures required under the Minnesota Department of Health Water Well Code (4725.2500-4725.2900).
3. Interference. If notified by the Division of Waters that well interference is suspected and probable from your appropriation, based on confirmation of a formal well interference complaint, all appropriation authorized by this permit must cease immediately until the interference is resolved.
4. Conservation. The permittee shall implement adequate soil and water conservation measures in order to protect water quality and prevent erosion and sedimentation.
5. Conservation Plan. The permittee must comply with conservation plans and best management practices that may be required by the local soil and water conservation district (SWCD). The permittee is responsible for SWCD costs for development, monitoring and modification of soil and water conservation plans.
6. Wetland Conservation Act. Where the work authorized by this permit involves the draining, filling or burning wetlands not subject to DNR jurisdiction, the permittee shall not initiate any work under this permit until the permittee has obtained official approval from the responsible governmental unit as required by the Minnesota Wetlands Conservation Act of 1991.
7. Groundwater Monitoring. The permittee must construct a well for monitoring water levels and water quality. Well specifications Permits 93-1135 and 93-1136 are defined in Attachment B. Water levels must be taken each time the irrigation system is turned on or off and once per month, except January and February, when the system is not in operation. Water quality samples must be collected _____ times each year (dates). Water samples shall be collected by a certified contractor and tested for _____. Water level data must be submitted to the Division of Waters Observation Well Manager by January 1, each year or upon request. Water quality testing results must be submitted to the Area Hydrologist in Detroit Lakes as soon as the data are available. The permittee is responsible for all well construction and monitoring costs.
8. Temporary Permit. This permit is valid for a two year period ending September 30, 1995. Extension of the permit will be based on compliance with the soil and water conservation plan and any impacts to Dead Horse Creek and groundwater resources resulting from the use of agricultural chemicals and practices.

John Linc Stine, Administrator
Permits and Land Use Section

____ / ____ / ____
Date

ATTACHMENT 20



500 LAFAYETTE ROAD • ST. PAUL, MINNESOTA • 55155-4010

DNR INFORMATION
(612) 296-6157

RECEIVED

July 21, 1993

JUL 21 1993

Paul Burns, Planner
Minnesota Department of Agriculture
90 Plato Boulevard
St. Paul, MN 55107

AG PLNG & DEV DIV

RE: Triple J Farms Irrigation Project
Environmental Assessment Worksheet (EAW)

EXHIBIT

6A

Dear Mr. Burns:

The Department of Natural Resources (DNR) has reviewed the EAW for the proposed Triple J Farms Irrigation project. We offer the following comments for your consideration.

The EAW correctly notes the problematic and sensitive nature of the site in question, and in doing so, it highlights those aspects of the project where information is lacking. We believe insufficient information is available at this time to make a recommendation on the need for further environmental review. In this regard, we request that the Minnesota Department of Agriculture (MDA), as responsible governmental unit (RGU), consider postponing this decision for 30 days as provided in the rules governing environmental review. We base this recommendation on the following discussion and believe that much of the lacking information can be detailed over this 30 day period.

Review of the EAW indicates that the project area exhibits a rolling landscape characterized by coarse, sandy soils. The slopes found along Dead Horse Creek, a designated trout stream, are particularly steep and these slopes and the general project area exhibit features characteristic of both water and wind erosion. The current cover type of pasture and grasses provides an efficient method of restricting erosion to rates approaching the "natural" condition. The change from a pastured and grassed area to one of irrigated row crops could significantly increase soil erosion and sedimentation rates, thus degrading the ecological integrity of Dead Horse Creek. It should be acknowledged that although agricultural activity is an approved land use in a shoreland district, detrimental impacts to a protected fishery and unique stream resource must be avoided.

We note that lands surrounding the project site include uses other than row crop production as detailed in Item 9. Pasture is located to the north, and a neighboring 400-acre parcel is in the process of being converted to a "wildlife preserve." Wooded, creek-bottom land is located to the west. Row crop production in the vicinity is generally restricted to areas flatter than this site.

Item 8 in the EAW indicates that a potential exists for the future use of chemigation and fertigation techniques as a component of agricultural water management. The EAW does not indicate the expected types or use-levels of nutrients and pesticides, whether herbicides, insecticides, or fungicides. The likely impacts of these agents to Dead Horse Creek require assessment. Wind drift from either aerial spraying or during irrigation applications could seriously threaten the vegetation which serves as a buffer between the proposed irrigated areas and the creek. Presently, an excellent fringe of lush grass, brush, and trees provides this needed buffer zone. This area needs to be maintained in a natural condition to provide adequate filtration of sediments and nutrients from the fields. The coarse soils and heavy applications of fertilizers

required for the proposed crop rotation could lead to elevated nitrate levels in the upper aquifers and may potentially lead to down-gradient migration of this and other chemicals. Such an occurrence would potentially threaten the local groundwater and surface water quality. The EAW does not detail whether water chemistry monitoring will be a component of this project or how this will be accomplished. In addition, remediation measures are not explicitly detailed.

A site review conducted by DNR field staff determined that a spring located south of the westernmost pivot (#1) in Field 1 will receive spray from the boom or end gun, and this spring can provide direct runoff to the stream. We are concerned that any chemicals added during irrigation will have a direct link with the stream from this point. We also noted during the site visit that this same pivot will cross the largest "valley" on the north side of the creek. A wheel track will have to be filled in this valley. If the fill is not properly constructed, this could cause a considerable erosion hazard. This fill will require stabilization measures, and if properly planned and constructed with the use of appropriate soils, this point could become a sediment impoundment site.

The ecological classification system used for these streams that is noted in Item 11a requires clarification. The DNR stream classification system places all trout streams into one of four subclasses, 1-A through 1-D. Class 1-A are wild trout waters and 1-D are marginal trout streams. Dead Horse Creek, designated as Class 1-B, is an above average trout stream. The other designated trout streams in Becker County, including the Toad River, are Class 1-C. In addition, Section of Fisheries staff conducted a survey of Dead Horse Creek during July 6-9, 1993. Important elements of trout habitat such as undercut banks, gravel substrate, overhanging vegetation, and woody cover, were found throughout the stream but were most abundant in the section where the DNR owns the access easement, an area which could be directly impacted by the proposed irrigation project. All the information gathered in the survey indicates that Dead Horse Creek provides nearly ideal conditions for stream trout. In addition, the public has recently expressed a desire for more intensive fisheries management for the creek.

Item 17, which discusses project-related erosion potentials, does not indicate what rate of sediment delivery to Dead Horse Creek is expected to result from the proposed change in up-slope land use. The existing vegetative buffer on this site is not a level or gently sloping border typically seen along a field edge or drainage ditch, but rather the areas in question are the most steeply sloping portions of the site. The effectiveness of the proposed 100-foot buffer strips, a component of the Soil and Water Conservation District (SWCD) Conservation Plan, has not been detailed in terms of its continuing effectiveness as a sediment trap in these steeply sloping areas. Maintenance of the current natural condition may prove difficult if aerial or end gun spraying of herbicides is used, particularly if drift leads to a loss of buffer vegetation.

The conservation plan noted above has been accepted by the Becker County SWCD. The SWCD staff author has indicated to our field staff that the plan is only designed to reduce soil losses in order to sustain farming, and is based on general methodology. We are particularly concerned that the proposed soil conservation plan does not take into account the site specific problems nor is it designed to protect the aquatic environment of the stream from associated siltation or other impacts. We must also note that compliance monitoring has not yet been established, that the plan does not achieve the goal of reducing erosion to a tolerable level of agricultural soil loss (T), and that the possibility exists that such a plan may not accomplish its desired goals.

The Conservation Plan is based on standard measures to conserve soil, and although a 100-foot or greater buffer strip will prove an important component of any stream protection plan, it is not designed to completely protect the stream. The DNR has concerns about how this plan will adequately address the potential impacts posed by the irrigation and other farming activities proposed for this site and how the plan mitigates potential impacts to Dead Horse Creek. The following questions require further elaboration and investigation:

1. *What are the soil erosion objectives with respect to preventing unacceptable impacts to the recipient streams?*
2. *Can a plan reduce soil erosion enough to meet these objectives?*
3. *Is there a practical means of monitoring and enforcing the plan?*

Question 3 leads to areas of special concern. To make any plan work on this environmentally sensitive site, monitoring and enforcement would be especially important and would need to continue as long as the land is farmed. Although properly noted in the EAW, the responsibility and details of such measures must be fully delineated to accurately assess this project's potential for significant environmental effects. Enforcement options, in particular, need to be listed.

The contention in Item 30a that it is likely that future irrigation activity will occur, especially for potato crops, and that these requests will probably not trigger mandatory environmental review, is correct. It is our understanding that additional acreage in the area is needed to make the operation economical for the large scale production of potatoes by professional management companies. Triple J should clarify its plans, and the cumulative impacts of any related farming operations within the watershed should be addressed. The potential for additional development should be evaluated, and this should include an examination of what environmental review and regulatory measures might be necessary in this regard.

As evidenced in our discussion, the EAW fails to answer the following questions at this time:

1. **What types and extent of chemical inputs are expected to be used in this farming operation?**
2. **What measures will be used to prevent the loss of both the buffer vegetation and grassed waterways during normal agricultural activities involving the use of herbicides?**
3. **What measures will be taken to protect Dead Horse Creek from chemical or nutrient inputs associated with the proposed farming activity?**
4. **How will the proposed conservation plan be modified to protect all of the natural resources at this site, not just the soils? In this regard, what measures will be taken to reduce project-related wind and water erosion impacts onsite?**
5. **What are the plans of nearby landowners in terms of similar farming operations?**
6. **What type of monitoring should be required and who will do it?**

Paul Burns
July 21, 1993
Page 4

It is not possible to determine the potential for significant environmental effects associated with this project without the answers to these, and other, relevant questions. Therefore, it is not possible for us to make a recommendation on the need for further environmental review. As originally noted, we believe the option provided by Minn. Rules 4410.1700, subd. 2B, which provides for a 30-day delay in deciding on the need for an Environmental Impact Statement (EIS), will provide an opportunity to obtain the following lacking information:

- a. Revise the SWCD Conservation Plan to further reduce soil loss and avoid accumulative impacts from multiple agricultural operations to Dead Horse Creek through the application of additional BMPs, especially for potato production.
- b. Determine whether the Becker County SWCD will monitor and enforce the conservation plan and BMPs for this project.
- c. Evaluate additional environmental protection conditions for DNR's groundwater appropriation permit and the Department of Agriculture's chemigation/fertigation permit.
- d. Determine the extent of future plans for potato production and irrigation in the area.

The EAW clearly indicates that there is uncertainty associated with this proposal. The DNR requests the opportunity to further consult with the Department of Agriculture and other involved parties in delineating the missing information. We are willing to provide assistance where appropriate in this regard.

Thank you for the opportunity to review this document. We look forward to receiving your record of decision and responses to our comments. Minnesota Rules 4410.1700, subparts 4 & 5, requires you to send us your Record of Decision within five days of deciding this action. Please contact Don Buckhout of my staff, at (612) 296-8212, if you have questions regarding this letter.

Sincerely,



Thomas W. Balcom, Supervisor
Natural Resources Environmental Review Section
Office of Planning

c: Paul Swenson
Steve Colvin
Pete Otterson
Paul Stolen, FWEAB
Bob Merritt, Area Hydrologist
Paul Glander, Area Fisheries Supervisor
Dean Hendrickson, Becker County SWCD
Lynn M. Lewis, USFWS
Gregg Downing, EQB
Julian Janke, Triple J Farms

#930241-01/ER9.TRIPLEJ1.DOC

ATTACHMENT 21

DEPARTMENT : Department of Natural Resources
Division of Fish and Wildlife
Ecological Services Section

STATE OF MINNESOTA

7-00069 15 4-86

Office Memorandum

DATE : September 16, 1993
TO : Tom Balcolm, Office of Planning, St. Paul
Through Con Christianson, Environmental Review Supervisor
Ecological Services Section
FROM : Paul Stolen, Bemidji, *Paul Stolen*
Fisheries and Wildlife
Environmental Assessment Biologist
PHONE : 218-755-4068
SUBJECT : EIS Scoping information, Triple J irrigation project, as per
September 2 request from the Minnesota Department of
Agriculture (MDA)

A. BACKGROUND. The September 2 Detroit Lakes meeting about the Triple-J project, which also involved a site visit, did not result in a clear consensus that an EIS was needed. However, it did elaborate on a number of important issues. It ended with a request from the MDA to PCA, DNR, and the Department of Health to provide recommendations for either: 1) mitigation measures that would reduce the impacts below the "potential to cause significant impact," or, alternatively, 2) a scoping out of topics and methodology for an EIS.

B. EIS NEEDED. At the meeting, the PCA and the Division of Fish and Wildlife were advocates of doing an EIS. After the discussion and site visit, the Division of Fish and Wildlife is even more of the opinion that an EIS should be done. We do recognize that there is interest from the public in programmatic-type issues with water appropriations for agriculture in eastern Becker and Hubbard County. In this case, however, we also support the concept of a carefully scoped EIS that focuses on specific issues on this watershed. Such a study would be more manageable, and may well be useful elsewhere because it would likely assist both the DNR and MDA in doing better EAW's, and perhaps EIS's, in the future on projects in these counties and elsewhere.

Our conclusion is based on two unarguable premises:

- 1) the decision at hand is whether to do an EIS, which must be done if there is evidence in the EAW and subsequent discussions that there is "a potential for significant impacts" (the key phrase in the law and rules); and
- 2) Dead Horse Creek is a significant natural resource, being a Class IB trout stream in an area of the state that has few such resources. It shows evidence of recovery from damage from past farming practices, and may support naturally reproducing fish after re-introduction.

Our conclusion is also based on the MEQB criteria for deciding whether a project has the "potential for significant effects," which includes the following:

"A. type, extent, and reversibility of environmental effects;

"B. cumulative potential effects of related or anticipated future projects;

"C. the extent to which the environmental effects are subject to mitigation by ongoing public regulatory authority; and

"D. the extent to which environmental effects can be anticipated and controlled as a result of other environmental studies undertaken by public agencies or the project proposer, or of EIS's previously prepared on similar projects." (MEQB 4410.1700, Subp. 6)

We believe that the September 2 meeting provided extensive discussion relevant to these criteria, as pointed out below.

(The previous Region 1 Fish and Wildlife staff findings regarding the significance of impacts from this proposal are detailed in: 1) a June 14, 1993 memo suggesting contents of the EAW (Paul Stolen to Con Christianson,) 2) the EAW itself, and 3) June 30, 1993 comments on the EAW (Paul Stolen to Don Buckhout).)

C. RELEVANT NEW INFORMATION OR DISCUSSION AT THE SEPTEMBER 2 MEETING. It would be too lengthy to summarize all the discussions held during the September 2 meeting. However, it is important to summarize several key issues that have previously been points of uncertainty that were elaborated on at the meeting. We feel these are key issues because of their relevance to the above-quoted criteria in the MEQB rules. These are as follows:

1) Criteria A. There were two issues relevant to this criteria discussed during the site visit September 2 and subsequent meeting. First, it was determined that down-slope soil movement caused by water is a significant factor on the site even though the soils are highly permeable because of their sandy nature. In some places this down-slope movement results in gullies; in others they are in the form of slumps when soil is saturated.

This information is relevant to Criteria A ("type" of impact potential) because there had previously been some disagreement about the causes of the slumps located apparently somewhat randomly on the hillsides. It had been maintained that these were caused by wind erosion. In addition, the representative from the R.D. Offut company present at the meeting stated that, in their experience on other sites, slow rains on similar soils penetrated and leached out nitrogen, while heavy rains did not penetrate because they ran off.

Secondly, DFW has maintained in earlier comments that irrigation

could increase the rate of flow of shallow groundwater and, among other effects, could enlarge the area of unstable saturated soils next to the creek. As the R.D. Offut representative pointed out, slow rains result in water penetration beyond the root zone, the need for additional nitrogen application, and a general increase in flow to groundwater.

2) Criteria B. There are at least two other sites upstream from the Triple-J project where irrigation is likely to occur that are close to the creek. This issue is relevant to the above MEQB Criteria B regarding "related or anticipated" projects. At the September 2 meeting, Julian Janke stated that holding up permits for his project was holding up other applicants who were "standing in line." In addition, Dean Hendrickson from the Becker County SWCD said he has names of individuals from the area in his files who have approached him. We regard this information as highly relevant to the criteria and the decision that must be made, and that it cannot be ignored. (Indeed, R.D. Offut company earlier (in April) provided maps that showed some of these areas.)

There are a number of other places in the MEQB rules where it is evident that including these other sites is either required in an EIS or intended to be addressed in impact discussions. These are rules on projects that induce other projects, connected actions, cumulative impacts, and joint review of projects that occur in a single area that have the potential for significant impact.

3) Criteria C. There was extensive discussion at the meeting about possible mitigation measures. Our position has strongly been one that, because of the high value of the stream, any proposed mitigation measures must: a) be examined very closely as to their technical probability of achieving adequate reduction in impacts, and b) feasible in practice, e.g. is there a regulatory structure that will ensure that the mitigation measures are monitored and enforced. As we have said in earlier memos, we are not aware of previous situations where government agencies (state, federal, or local) have intervened, or can intervene, in agricultural operations to the extent that may be necessary to ensure that any proposed measures will work on this environmentally sensitive site. Our comments are directly related to the language in Criteria C.

During the September 2 meeting Dean Hendrickson of Becker County was asked what sort of monitoring the Soil and Water Conservation District had in mind regarding the conservation plan. He stated that he intended to go out a couple of times during the summer to measure crop residue. The Division of Fish and Wildlife then restated (as we have done in our previous comments) that any plan had to be designed to protect the creek and the plan had to be monitored accordingly. DFW said that this would include, for example, monitoring after heavy rainfall events to determine what was happening with erosion and runoff.

We would submit that the negative response from several individuals at the meeting to this proposal is evidence that, in the language of Criteria C, there is no such "ongoing public regulatory authority" relevant to mitigating these impacts. Our point is a simple one: mitigation measures that cannot be effectively monitored or enforced are not relevant to the decision and do not effectively reduce the risk to the aquatic environment of Dead Horse Creek.

D. BASIC METHODOLOGY FOR EIS REGARDING IMPACTS FISHERIES AND WILDLIFE RESOURCES

The basic methodology needed in an EIS would involve what would be essentially a risk assessment of impacts to Dead Horse Creek from the proposed Triple-J project and from irrigation and land clearing on the other sites located upstream.

Terrestrial and wetlands habitats. We have not investigated the other sites so there may be impacts to wetlands and terrestrial habitats that need investigation. The methodology for doing this would be relatively simple: site investigations would reveal wetlands and unusual wildlife habitats, if any. We are unable to properly scope this issue until such investigations would be done.

In addition to the several ongoing studies in Minnesota that were discussed at the September 2 meeting, a useful general discussion of the issues associated with irrigation on sandy soils is found in a University of Wisconsin publication entitled "Irrigation in the Central Sands of Wisconsin. Potentials and Impacts." (1978) An initial call to Wisconsin indicated that there are several ongoing water quality studies similar to the Minnesota studies. These are likely to be useful in an EIS.

Aquatic environments. In order to do a proper assessment of risks to the aquatic environment of Dead Horse Creek, information about the following topics would need to be developed in the EIS:

1) Runoff impacts to the aquatic environment. A necessary first step would involve a site-specific forecast of run-off from the Triple-J site and from the other upstream sites along the creek. At least two sites were discussed at the September 2 meeting, one north of the creek and the other south.

After discussions with the PCA and the University of Minnesota and University of Wisconsin, it appears that a worthwhile approach would be two-fold: a) to develop more detailed site information on soils and slopes and model runoff, and b) look at other nearby sites with similar soils and slopes where irrigated row crops are currently being produced. (The R.D. Offut Company representative stated at the meeting that such sites exist. In addition DFW will investigate a few known sites next week.) This two-fold approach would allow some degree of reality-check on the model.

This forecast is crucial in determining nutrient loading, pesticide impacts, and sediment impacts (if any) from runoff.

2) Characterizing the existing aquatic environment. More information is needed about Dead Horse Creek itself in the vicinity of these projects. The stream survey of fish species present has been completed by DFW. Other data that would need to be gathered include:

►nutrients: a)TKN, NO₂, NO₃, NH₃, total P, ortho P

►water temperatures (several locations)

►stream flow--discharge, velocity--several locations

►quantify bottom substrate

►invertebrates in the stream and riparian area

►Possible survey of plants and algae

►The Dead Horse Creek watershed needs to be characterized in more detail so that present and future conditions would be better understood. This would also fulfill the requirements to characterize land use in an EIS. A careful look at present and past aerial photography would likely provide most of this information. A watershed map could be developed from this.

Data would not need to be exhaustive, but would need to be sufficient to understand potential effects on the aquatic environment in more detail, and to determine if, for example, such items as nitrates, sediments and pesticides will affect drift organisms, the differential mix of bottom substrates, spawning areas, etc.

3) Shallow groundwater flow. A deeper understanding of the shallow groundwater/Dead Horse Creek interaction at the Janke site and the other upstream sites is important in assessing impacts to the creek from nitrates, pesticides, and possible changes in the shallow groundwater regime. Rates of flow toward the creek from the irrigation site is one important example. Basically, because of the high soil permeability, much of the "runoff" from most rains that is not taken up by vegetation likely occurs in the near-surface.

4) Stream water quality and associated adverse impacts to habitat for trout. An attempt must be made to forecast nutrient loading from the Triple-J project and the other upstream sites. Only then can the effects on habitats be understood.

5) Pesticides and chemigation. A review of the pesticides used on these crops now and with chemigation needs to be accomplished.

Toxicity to fish and wildlife species and persistence needs to be looked at, including differential persistence in different soils. The potential of effects from drift and different application methods needs to be realistically assessed.

6) Mitigation measures. The EIS needs to contain a careful assessment of the feasibility of three key features of any proposed mitigation plan: 1) in achieving objectives of actually reducing impacts, 2) monitoring plans that monitor as directly as possible impacts to the creek, and 3) ability to enforce. This important issue came up during the September 2 meeting, as noted above. Monitoring crop residue is a very indirect method of determining whether the plan is actually protecting the creek. Such indirect measures may be appropriate for a resource of lesser importance, but are not adequate for a Class IB stream in this part of Minnesota.

We understand that Julian Janke has agreed to a widening of the buffer strip. This is appropriate. However, this proposal is occurring before the proper impact assessment, and may not properly address other adverse impacts to the creek from, for example, subsurface "runoff" and other changes in the watershed due to the other sites upstream. It also precedes a crucial site-specific assessment of runoff and effects on water quality. Our conclusion is that the public value of the Dead Horse Creek requires the more detailed study entailed by an EIS.

cc: Jim Breven
Robert Strand
Paul Glander
Rob Naplin
Jerry Paul
Bob Merritt
Paul Svenson

Concurrence:
1/15/93
[Signature] Regional Wildlife Manager _____ Date
[Signature] Regional Fisheries Manager 8/16/93 Date

ATTACHMENT 22

Certification Number 19-159-010-



**STATE OF MINNESOTA
AGRICULTURAL WATER QUALITY CERTIFICATION AGREEMENT**

This agreement is between Timothy Nolte ("Producer") and the Minnesota Department of Agriculture ("MDA"), which is authorized to sign on behalf of the Minnesota Pollution Control Agency, Minnesota Department of Natural Resources, and the Board of Water and Soil Resources pursuant to Minnesota Governor's Executive Order 14-09.

This contract is governed by Minnesota Statutes Sections 17.9891-17.993 which outline procedures for implementing the Minnesota Agricultural Water Quality Certification Program. All parties agree that the Minnesota Agricultural Water Quality Certification Program is in the public interest as it enhances the water quality of Minnesota's rivers, lakes, streams, wetlands and groundwater, as well as promotes and accelerates environmental stewardship by Minnesota's farmers.

A. TERMS OF AGREEMENT:

Agreement start date is 9.30.2019 and expires on 9.30.2029.

B. PRODUCER'S DUTIES:

Producer, upon completing a formal water quality assessment of all land in Producer's agricultural operation, achieving a passing score using the certification instrument, and having the assessment approved by a MDA-accredited certifying agent, agrees to the following:

1. Maintain compliance with all water quality rules and regulations in place at the time of certification, and if Producer is adjudicated to be in violation of said laws and regulations anytime during the certification period of this agreement, Producer has the affirmative duty to notify MDA within 30 days. Further, if Producer knows, or has reason to know, of a violation of said laws and regulations anytime during the certification period of this agreement, even though it has not been adjudicated, Producer has the affirmative duty to report the violation to MDA within 30 days.

Minnesota Agricultural Water Quality Certification Agreement

2. Disclose to the certifying agent all land comprising Producer's agricultural operation. Land comprising the agricultural operation is land that may be possessed by ownership, written lease, or other legal agreement that Producer operates.
3. Perform the management practices on land as outlined in the Certification Instrument Report, which is attached and incorporated into this agreement as Exhibit A.
4. Upon the purchasing of any additional agricultural land after the start date of this agreement, notify a certifying agent and obtain certification of the additional land within one year of the purchase of said agricultural land.
5. Upon leasing any additional agricultural land after the start date of this agreement, notify a certifying agent before performing any farming practices on the additional land.
 - a. Producer is not required to implement practices that permanently alter the landscape of the leased land in order to be certified or remain certified if leased land is added after the start date of this agreement.
 - b. Producer shall demonstrate, to the satisfaction of MDA or its agents, sufficient practices utilizing non-structural and non-permanently landscape-altering management and conservation practices.
6. Retain all records regarding this certification, such as, but not limited to, certification records; Federal, State, or Local technical and financial agreements for conservation practice assistance and implementation; records of implementation of nutrient, fertilizer and pest management plans; and receipts for supplies and equipment.

C. INABILITY TO PERFORM:

If Producer is unable to comply with the agreement due to circumstances Producer believes is beyond Producer's control, Producer shall notify a certifying agent within 30 days. The certifying agent shall then determine whether conditions exist such that Producer cannot comply with certification agreement due to circumstances beyond Producer's control and is therefore allowed to forgo Producer's requirements for one year, that conditions exist that Producer cannot comply with requirements but that there are alternative practices that Producer can perform sufficient to accomplish the same goals, or that Producer can accomplish the requirements outlined in certification agreement. The certifying agent will report findings and recommendations to MDA within 30 days of being notified by Producer. Within 30 days of receiving findings and recommendations from the certifying agent, MDA will determine whether Producer shall suspend, modify or continue the agreement requirements as is. Until MDA determines in writing that Producer shall suspend or modify the agreement requirements, Producer must comply with all of the original requirements. If Producer disagrees with MDA's determination, Producer has 30 days to appeal pursuant to section E of this agreement. If MDA finds that Producer is required to modify or continue the original terms of the agreement and Producer appeals those findings, Producer has the burden of proving by a preponderance of the evidence that Producer is unable to comply with MDA's findings.

D. PRODUCER CERTAINTY:

As long as Producer is certified and maintains certification status, Producer is deemed in compliance with any new state water quality laws and rules that take effect during the agreement period. As long as

Minnesota Agricultural Water Quality Certification Agreement

Producer is certified and maintains certification status; Producer is presumed to be meeting Producer's contribution to any targeted reduction of pollutants during the certification period; Prior to recertification, or upon expiration or termination of this agreement, Producer is required to comply with all water quality laws and rules. This certification does not preclude enforcement of a local rule or ordinance by a local unit of government.

E. VIOLATIONS:

If Producer is found to have violated any terms of this agreement, MDA reserves the right to terminate this agreement or prescribe corrective action, and MDA may seek reimbursement of any monetary benefit a producer may have received due to certification. Producer has 30 days from date of termination or prescribed corrective action to appeal. If Producer appeals, MDA shall hold an administrative hearing before an impartial hearing officer of the Department within 30 days to determine whether the certification is terminated or corrective action is prescribed. The length of time may be extended by agreement of the parties. MDA or MDA's delegate shall issue an opinion within 30 days of holding a hearing. If Producer notifies MDA that Producer intends to contest MDA's opinion, the Office of Administrative Hearings shall conduct a hearing in accordance with Minnesota Statutes Chapter 14.

F. AMENDMENTS:

Any amendment to this agreement must be in writing and will not be effective until it has been executed and approved by Producer and MDA, its agents, or their successors in office. An amendment to this agreement shall not constitute a recertification of Producer.

G. ASSIGNMENT:

Producer may neither assign nor transfer any rights, benefits, or obligations under this agreement.

H. LIABILITY:

In the performance of this agreement by Producer, or Producer's agents or employees, Producer must indemnify, save, and hold harmless the State, its agents, and employees, from any claims or causes of action, including attorney's fees incurred by the State, to the extent caused by Producer's:

- a. Intentional, willful, or negligent acts or omissions; or
- b. Actions that give rise to strict liability; or
- c. Breach of contract or warranty.

I. JURISDICTION:

Minnesota law, without regard to its choice-of-law provisions, governs this agreement. Venue for all legal proceedings out of this agreement, or its breach, must be in the appropriate state or federal court with competent jurisdiction in Ramsey County, Minnesota.

J. AUDITS:

Pursuant to Minnesota Statutes Section 17.9898, Producer's books, records, documents, and practices relevant to the performance of this agreement are subject to examination by MDA or its agents. Any

Minnesota Agricultural Water Quality Certification Agreement

delay, obstruction, or refusal to cooperate with the audit or falsification of or failure to provide required data or information is a violation of law and of the agreement, and is cause to terminate the agreement.

K. DATA:

All data collected under this program that identifies Producer or Producer's location are considered nonpublic data as defined in Minnesota Statutes Section 13.02, subd 9, or private data on individuals as defined in Minnesota Statutes Section 13.02, subd 12. MDA will not share nonpublic data and private data on individuals unless provided by statute, a court, or federal law; or by written consent of Producer.

<u>Timothy Nolte</u>	<u>26914 181st Avenue</u>		
Producer Name	Producer Address		
<u>Sebeka</u>	<u>MN</u>	<u>56477</u>	<u>Wadena</u>
City	State	Zip	County

X Timothy Nolte

Producer Signature

X 7/3/19

Date

Mufney Place

Commissioner or Commissioner Designee
Minnesota Department of Agriculture

9.30.2019

Date



**MINNESOTA DEPARTMENT
OF AGRICULTURE**

**Program Contact: 651-201-6489
mda.mawqcp@state.mn.us**



**Minnesota Pollution
Control Agency**



Minnesota Agricultural Water Quality Certification Agreement

Exhibit A: Certification Record Signature Page

The sites on certification record(s) #1-63 (see attached) have been reviewed for the Minnesota Agricultural Water Quality Certification Program and meet certification requirements.

Certification Assessment Completed By:

Name: James A. Lahn Organization: MAWQCP/EOT SWCD

Signature:  A.C.S. Date: 7/3/2019

Licensed Certifier Review and Approval:

Name: James A. Lahn Signature:  A.C.S. Date: 7/3/2019

Minnesota Department of Agriculture Review and Approval:

Name: Carolyn D'Amico Signature:  A.C.S. Date: 9/30/19

Certification is contingent on the implementation of the following:

Livestock access to river and streams: Continue the practice of cow - calf herd having controlled, managed access to the river and to streams, for water quality protection and streambank protection.

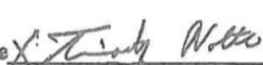
Farmstead feed yard management: Continue proper management of feed yards, including proper stockpiling and application of livestock manure, according to MPCA and NRCS standards.

Crop Residue Cover: Tillage of sod and of cornstalks will be performed in the spring, not in the fall. Additionally, the time between spring tillage and planting will be kept as short as possible.

Nutrient Management: Commercial fertilizer & livestock manure will be applied at rates and in a manner which is in accord with University of Minnesota recommendations.

Pasture Management: Continue good techniques for pasture management, including rotational grazing. Continue to maintain riparian buffers or grassed filter strips along river and streams.

I agree to the preceding implementation schedule and additionally to maintain the managements and practices detailed on the Certification Records attached. I will contact my Certifying Agent regarding any changes requiring reassessment including newly leased or purchased land.

Producer Name Timothy Nolte Signature  A.C.S. Date 7/3/19

Tim Nolte
26914 181st Avenue
Sebeka, Minnesota 56477

September 24, 2019

Minnesota Agricultural Water Quality Certification Program (MAWQCP)

Operation Narrative – Tim Nolte Farming Operation

Farmland located in 6 townships in central Wadena County. [T-135N to T-137N and R-33W to R-35W]

Tim Nolte and his family have Wadena County farming operation which primarily involves pasture and forage for their 600 pair cow – calf herd. The majority of the Nolte farms are south and/or east of the town of Sebeka. The Nolte farmstead is about 5 miles southeast of Sebeka and is located in the NW1/4 – Sec. 9 – North Germany Twp [T-136N – R-34W].

Some aspects of the Noltes' farming operation are:

- The 2019 FSA Farm Data Report lists the following for the Noltes' farming operation:
 - 7,112.2 acres of Farmland
 - 2,623.5 acres of Cropland
 - The great majority of these 'cropland' acres are established to permanent pasture or to long-term hay production, as I observed in my field reviews of the Nolte tracts of land. The Nolte's described that they have:
 - 2,000 acres in long-term hay production
 - 500 acres in permanent pasture
 - 200 acres in corn production each year
- The remaining 'farmland' is in forest or other land not utilized for pasture, hay, or crops.
- The common crop rotation of the Nolte farmland is:

Year 1	Year 2	Year 3	Year 4 to Years 9 - 19
Corn Silage	Corn Silage	Oats with under-seeding of Hay	Long-term Hay

- The Noltes discussed that their hay fields remain in hay production for periods of 5 – 15 years (or longer) and frequently are in hay production longer than 10 years. After the hay production years, fields are then in corn silage (or corn grain) production for 2 years; this is followed by re-establishment of the field to hay or pasture, utilizing an oats nurse crop. The Noltes estimate that their cow-calf herd has 200 days of grazing each year, utilizing the pastures and the annual ryegrass cover crop after the corn silage is harvested.
- The Noltes hayfields generally have 2 cuttings per year. In the hayfields that are predominantly grass, each year 1 cutting of hay is taken which is then followed by the field being utilized for pasture.

Operation Narrative – Tim Nolte Farming Operation

Page 2

- The Noltes often rotate the cow-calf herd between different paddocks, and they utilize cross-fencing in this rotation of pasture paddocks. In the river bottom pastures, they do practice some flash grazing. On the home farm which is adjacent to the Red Eye River, the Noltes have livestock watering system with water supplied by a well. In this way, the cow-calf herd has alternative water sources other than the river.
- Manure Management: In the winter months, the Nolte's utilize 2 feedyards for their cow-calf herds. Associated with these feedyards, the Nolte's have a Manure Management Plan (MMP) through the NRCS – Wadena office. Additionally, I contacted Molly Costin with the MPCA; Molly informed me that the Noltes are currently up-to-date on any required permits through the MPCA, regarding their cattle in feedlots or feedyards. The Noltes haul approximately 1,000 bushels per year of solid, bedded cattle manure (bedding pack) to their fields. This bedded, solid manure is primarily applied on acres that are transitioning from long-term hay to corn; this manure is applied either in the fall or the spring at a rate of 4 tons/acre, using a horizontal beater spreader. Each year the Noltes apply a total of 720 tons of bedded, solid manure on approximately 182 acres.
- The Noltes comment that they 'use as little commercial fertilizer as possible', in efforts to reduce their input costs.
- The Noltes practice no fall tillage during the years that their fields are brought into row crop production. Their goal is for time between spring tillage and planting is kept to the minimum possible.
- Cover Crop: When top-dressing of nitrogen is performed in corn production years, the Noltes also broadcast annual rye at the same time. This annual rye is a cover crop which is utilized for grazing in the fall. Additionally, the annual rye provides cover and/or crop residue on the soil surface on fields that have been chopped for silage.
- The Noltes have many grassed filter strips and/or riparian buffers along the water courses and water bodies on their farms.
- The Noltes apply no insecticides or fungicides on their farms. To reduce input costs, the Noltes use lower rates of herbicides and only apply herbicide one time per growing season.
- The Noltes did additional soil sampling in the spring of 2019.
- The Noltes utilize 'low inputs' for both their nutrient management and pest management systems, to save on input costs and to protect water resources.

Tim Nolte
26914 181st Avenue
Sebeka, Minnesota 56477

September 24, 2019

Operation Narrative – Tim Nolte Farming Operation

Page 3

- Visual observation shows that the slopes of the Nolte fields is predominantly in the 0% - 5% land slope. However, a few tracts have slopes ranging up to 9% - 12% land slope.
- The great majority of the Nolte land is in perennial vegetation for extended periods of years and is utilized as pasture or hay. The Noltes practice no fall tillage and do plant a rye grain cover crop on fields where silage is chopped. As a result, the water and/or wind erosion rates are very low and any delivery of soil or nutrients to water resources is negligible. Additionally, The Noltes practice a 'low input' method of farming.
- The current landuse and management of Tim Nolte farming operation results in natural resource protection; water quality is protected, and soil quality is improved.

Jim Lahn, A.C.S.

ATTACHMENT 23

Report:	Nolte Family Irrigation Project EAW - Initial Data Submittal					
Date Sent:	November 1, 2019					
Instructions:	<p>PURPOSE: This table displays all comments and requests for additional information generated during review of the Nolte Family Irrigation Project Data Submittal #1. The information described is needed for the DNR to prepare an EAW for the proposed project. Some items request specific information or provide suggestion for consideration, while other seek clarification that may, upon further review, result in the need for additional information. Items have been numbered for easy reference and subsequent discussions.</p> <p>INSTRUCTIONS: Column G (Comment (Submittal 1) and Requested Action) contains both grey and white cells. Grey cells are for proposer awareness-only and require no further action. The white cells contain action-items and require response or additional submittal material. There is a column (Column H) to record your team's response to the comments provided. Please submit the additional information within attached spreadsheet rather than a new EAW form. After the next data submittal is received, it will initiate another 30-day round of agency review for accuracy and completeness of the EAW data submission.</p>					
Comment ID	Commenter	Document	Page #	Question #	Line#	Comment (Submittal 1) and Requested Action
00011	2	EAW	11	9	426 & 430	The "commodity/staple crop" is not specified. Typically a stand of alfalfa for hay will persist for more than one year so the 4th year (line 425) conversion option to the unspecified commodity crop is in question. Also, for example, potatoes and corn and sugar beets all have different water quality impacts, pesticide needs, nitrogen needs, nutrient capture, water needs, and rooting depths, which influence total impacts. Please indicate what crop is anticipated (or perhaps unlikely) for Year 5.
00015	2	EAW	23	18	965 to 968	"From their feed yards, the Noltes haul approximately 720 tons of bedded solid cattle manure on approximately 182 acres." This section contains no information about the timing of manure application(s) in relation to the cropped fields, the method(s) of manure application/soil incorporation(?), or the nutrient content of the bedded solid manure (which could be low or high depending on age, bedding material, etc.--typically it is tested at a University to know how much N is applied). Also, there will be 303 cropped acres and it is presumed that manure will not be applied to the hay ground comprised of the alfalfa and fescue rotation. How much of an overlap is there between the 182 acres where the cattle manure is applied and the 303 acres that is designated for irrigation or other land that the Noltes own? How many successive years will the manure be applied to the same plot of ground? As only a portion of the Plant Available Nitrogen (PAN) contained in the manure will be available the first year and additional nitrogen will be released in subsequent years, this cumulative addition should be factored into the total applied nitrogen for the various crops grown and their respective nitrogen needs (e.g., little if any manure-derived nitrogen would be applied to alfalfa as the symbiotic <i>Rhizobia</i> bacteria present in the root nodules would "fix" nitrogen from the atmosphere in order to meet the legume's N-needs).
00016	4	Fig 3	2	5	66/67	Maps provided do not show the land use of the landscape area. Recommend providing the landuse for the area to provide context
00017	4	Fig 5	2	5	68	Wadena county Zoning map should contain a legend with various zoning in plain language. Also, it should include a zoomed in inset so you can see if the project is in the shoreland area or not. (Fig 5)
00018	4	Fig 6	2	5	69	Show soils in the surrounding landscape with the project footprint to provide landscape context
00019	4	Fig 10	2	5	72	Recommend putting a house symbol where wells are not in the index but a household is present (and therefore likely a well). Also recommend selecting a different color for the wells.

Comment ID	Commenter	Document	Page #	Question #	Line#	Comment (Submittal 1) and Requested Action
00020	4	EAW	2	5	NA	Are there going to be barns or other infrastructure for the cattle (fencing, manure stockpiling areas, feed yards, etc)? Are these locations already known? Right now none of the figures in the EAW suggest cattle will ever be on-site. Suggest incorporating some of the necessary infrastructure associated with grazing.
00021	4	EAW	3	5b	NA	Are certain areas going to be in pasture vs crops? And where is the 6 acres of timberland to be cut? Suggest showing these areas on the map.
00022	4	EAW	3	5b	118	Recommend giving the date the wells were drilled
00023	4	EAW	3	5b	NA	Recommend giving an overview of how many cattle will be grazing this land, fencing, any farm roads needed, any water access for cattle, or watering areas, any feeding areas, or any needed barns for livestock or equipment needed on these sites.
00024	4	EAW	4	5c	125	Other uses- livestock grazing should be revised to include crop production
00025	4	EAW	5	9ai	NA	Indicate the distance and direction to all residential areas or other sensitive receptors surrounding the site. Are there cabins/private forested lands used for recreation here as well? If so, describe.

Comment ID	Commenter	Document	Page #	Question #	Line#	Comment (Submittal 1) and Requested Action
00027	4	EAW	6	9aii	NA	They should include language from the Red Eye River watershed management and TMDL plans. https://www.pca.state.mn.us/water/watersheds/redeye-river (goals and actions for the subwatershed from WRAPS and TMDL and how the project will or will not be consistent with those.) Also include in 9b.
00029	4	EAW	7	9b	244	Are there private cabins and recreational hunting lands nearby? If so, please include (e.g., Within 5 miles, look for easements for hunting; conservation tax credit with County)

Comment ID	Commenter	Document	Page #	Question #	Line#	Comment (Submittal 1) and Requested Action
00030	4	EAW	7	9b	275	This section brings to my attention that perhaps somewhere (likely toward the front) this document needs to clarify if the project meets the definition of a feedlot: "A lot or building or combination of lots and buildings intended for the confined feeding, breeding, raising, or holding of animals and specifically designed as a confinement area in which manure may accumulate. Or, where the concentration of animals is such that a vegetative cover cannot be maintained within the enclosure. Open lots used for the feeding and rearing of poultry (poultry ranges) shall be considered to be animal feedlots. Pastures shall not be considered animal feedlots."
00031	4	EAW	8	9b	287	Limiting the number of head/acre based on soil productivity and management is critical for vegetation, soil, and water health. I don't see this mentioned. Recommend describing if they are.
00033	4	EAW	12	10a	449	Not sure what area you're referring to, because parcel lines aren't on the map. Recommendation to either add parcel lines to Figure 7, or describe differently where the wetland is located.
00034	4	EAW	12	10aii	469	I don't know that the aquifers are described under 10a. Please include this information.
00035	4	EAW	12	10aii	474	Many times domestic households have a well not found on the index. Recommend including the locations of households likely to have a well not on the index.
00037	4	EAW	14	10biii	549	This is a high volume irrigation for some of the crops they are proposing. Are they planning to plant corn on all fields at the same time? Can they be alternated instead?
00038	4	EAW	15	10biii	NA	recommend the discussion of volume of water used be put into the context of a complete water budget, which should include the annual recharge.

Comment ID	Commenter	Document	Page #	Question #	Line#	Comment (Submittal 1) and Requested Action
00039	4	EAW	15	10biii	NA	Not sure if this is the place to do so, but there needs to be a broader discussion on groundwater quality of the area. Chemigation and cattle can increase exposure of recharge water to contaminants. In addition to nutrient issues, there's also the issue of chemicals in the groundwater. This area is vulnerable to groundwater contamination. How will the proposed project effect groundwater quality?

Comment ID	Commenter	Document	Page #	Question #	Line#	Comment (Submittal 1) and Requested Action
00040	4	EAW	17	10c	665	Where is the existing Nolte farm? Why is this brought up? State what they plan to do on the project site. Also, clarify if "no insecticides" is referring to applied insecticides. Are seeds planted treated with neonicotinoids?
00041	4	EAW	17	12	NA	This section is not sufficient. They need to discuss the fishery of the Red Eye River as well as wildlife of the globally imperiled Jack Pine woodland system found here. Recommend they use e-bird, as well as mention insect populations, since this is a big area for pollinators in these open pine ecosystems.

Comment ID	Commenter	Document	Page #	Question #	Line#	Comment (Submittal 1) and Requested Action
00042	4	EAW	18	12b	707	There is also an NHIS hit for pipe savannah ecosystems located just to the south of this area. Given that they will be chemigating, this should be mentioned, as irrigation pivots can cause effects to plant, animal, and insect populations at fairly large distances.
00043	4	EAW		12c		Over-spray of herbicides and pesticides present a threat to species diversity in the surrounding area. In addition, the Red-Eye River is currently being proposed for an ecoli impairment. This increases the potential for exacerbation of the impaired water status Plant and pollinator species genetic diversity throughout the Jack Pine barrens will be come more and more isolated as irrigation pivots expand through this area. Expansion of row crops will be cutting off migration corridors, and isolating remaining small pockets of Jack Pine barrens further pollinator hatching and foraging habitat. Over-spray of herbicides and pesticides present a threat to species diversity in the surrounding area. In addition, the Red-Eye River is currently being proposed for an ecoli impairment (see GIS layer Impaired streams -proposed 2018). Will this project be using manure fertilizer? This increases the potential for exacerbation of the impaired water status.
00045	4	EAW	11	9b	414	I would rephrase this, because cumulatively speaking run-off from the landscape is the main issue with water quality and no spot of land has negligible effects (even broadleaf forests vs piney woods). Suggest re-phrasing to state that agricultural run-off will be filtered through a 650ft buffer prior to reaching the Red Eye and unlikely to cause a large spike in sediment/nutrients into the river. Please confirm.
00046	4	EAW	11	9b	432	Avoid using certainties and absolutes in this language because run-off is the main issue for water quality. Also, they are still doing tillage and not no-till, which means there will be erosion. Rephrase to state that incorporation of cover crops will reduce need for fertilizer & pesticides, reduce soil erosion, reduce run-off, and help with manure re-absorption. These factors will keep nutrient and sediment run-off to a minimum. Please confirm.

Comment ID	Commenter	Document	Page #	Question #	Line#	Comment (Submittal 1) and Requested Action
00049	4	EAW	unsure	unsure	unsure	In general, more information is needed on the types of agricultural chemicals what will be used and the water quality of the area. In addition, there's no discussion of groundwater vulnerability to chemical contamination anywhere in the document.
00050	4	EAW	unsure	unsure	unsure	Additional description of potential effects to nearby plant and pollinator communities should be mentioned.
00051	7	2019-10-31-NFIP-EAW	8 & 12	9	301 & 468	Wadena County Geologic atlas has been completed and should be incorporated into the discussion. Of particular relevance is cross section C-C' on Plate 4 (Lusardi, B.A, and K. J. Marshall, 2016, Quaternary Stratigraphy: Geologic atlas of Wadena County, Minnesota Geological Survey, County Atlas Series C-20, Part A, pl. 4, https://conservancy.umn.edu/handle/11299/183206) which is in the area of the proposed irrigation (and uses one of the test hole logs for permit 2017-4235). The cross-section documents at least 3 confined aquifers and 1 unconfined aquifer (pineland sands aquifer) in this area. Note that the Helgeson report focused on only the unconfined aquifer of the Pineland Sands and therefore is not an authoritative source for confined aquifer potenti als <u>in the area. Please supplement the Helgeson write-up with the more current source.</u>
00054	7	2019-10-31-NFIP-EAW	12	10	473	There are more domestic wells than listed in CWI. See Walker, M., and J. Rose, 2019, Well Interference Risk Analysis for Permit Applications 2017-4235, 2017-4236, 2017-4237 Pineland sands, Wadena County, available on MPARS under the listed permit numbers at: https://webapps11.dnr.state.mn.us/mpars/public/authentication/login

Comment ID	Commenter	Document	Page #	Question #	Line#	Comment (Submittal 1) and Requested Action
00055	7	2019-10-31-NFIP-EAW	14	10	527	Aquifer types and areal distribution should be re-evaluated using information from Wadena County Geologic Atlas. (Available at: https://conservancy.umn.edu/handle/11299/183206)
00056	7	2019-10-31-NFIP-EAW	14	10	544	Need more individual risk analysis of the rates and volumes for each permit separately and then cumulatively together. (Pumping separately and also together)
00057	7	2019-10-31-NFIP-EAW	14	10	550	The referenced aquifer test and data should be included as an appendice. DNR has not reviewed this report or data to date and will need time to do so.
00058	7	2019-10-31-NFIP-EAW	14	10	550	The referenced aquifer test occurred 16 miles away from this site. As shown in the Wadena County geologic atlas, the geology in this area changes significantly within a short distance, therefore an aquifer test with nested monitoring wells will be needed at this site. This will help determine the leakage between systems and provide the data needed to evaluate impacts from pumping the deeper confined aquifer on the other aquifers and the surficial resources. Recommend completing an aquifer test for the EAW. If not, proposer should note that an aquifer test will be required during permitting application process.
00059	7	2019-10-31-NFIP-EAW	14	10	561	The assessment of the unconfined aquifer in the pineland sands area does not apply to the confined aquifer that the wells are completed within. There is no nearby testing of the proposed pumped aquifer, therefore an aquifer test with nested monitoring wells will be needed at this site to properly evaluate the impacts from pumping the three proposed irrigation wells. Recommend completing an aquifer test for the EAW. If not, proposer should note that an aquifer test will be required during permitting .
00060	7	2019-10-31-NFIP-EAW	15	10	570	Wadena County Geologic Atlas (see above reference) clearly shows that the aquifer is not contiguous and that the aquifers in the area tend to be more chanelized with varying vertical and horizontal interconnectivity. The presence of barrier or recharge boundaries will affect the aquifer response to pumping. Recommend completing an aquifer test for the EAW. If not, proposer should note that an aquifer test will be required during permitting .
00061	7	2019-10-31-NFIP-EAW	15	10	570	Comparing the total recharge of the entire pineland sands unconfined aquifer for this confined aquifer system isn't appropriate on either a local or regional scale. It isn't known how much of the recharge in the surficial system recharges the confined systems.

Comment ID	Commenter	Document	Page #	Question #	Line#	Comment (Submittal 1) and Requested Action
00062	7	2019-10-31-NFIP-EAW	15	10	579	Need to identify the aquifer that the referenced observation wells are completed within, then present the data for the observation wells along with the statistical analysis used to determine lack of trend. Compare nested well locations if possible.
00063	7	2019-10-31-NFIP-EAW	15	10	585	The total permitted water use for the pineland sands region needs to be broken down into aquifer types.
00064	7	2019-10-31-NFIP-EAW	15	10	595 & 621	Localized impacts from pumping the confined aquifer on the surficial aquifer will need to be evaluated with an aquifer test. The results of this test can then be used evaluate pumping impacts on the wetlands and streams (including the Redeye River) that are connected to the surficial aquifer. Recommend completing an aquifer test for the EAW. If not, proposer should note that an aquifer test will be required during permitting.
00065	7	2019-10-31-NFIP-EAW	17	12	680	Impacts from pumping the confined aquifer on surficial aquifers will need to be evaluated with an aquifer test. The results of this test are needed to evaluate pumping impacts on the wetlands and streams near the site. Recommend completing an aquifer test for the EAW. If not, proposer should note that an aquifer test will be required during permitting.
00066	7	2019-10-31-NFIP-EAW	22	18	892	Analysis of impacts to each of the five aquifers of this area should be completed; water table (unconfined aquifer), and the 3 confined aquifers (of which the pumped aquifer is the deepest). There isn't local information on the connectivity of these aquifers, therefore an aquifer test will be needed with nested monitoring wells to evaluate aquifer interconnectivity and impacts from pumping. Recommend completing an aquifer test for the EAW. If not, proposer should note that an aquifer test will be required during permitting.
00067	7	2019-10-31-NFIP-EAW	22	18	904	Irrigation wells should be classified by aquifer type. Following an aquifer test to evaluate interconnectivity, cumulative impacts from pumping all wells should be evaluated. Recommend completing an aquifer test for the EAW. If not, proposer should note that an aquifer test will be required during permitting.
00068	7	2019-10-31-NFIP-EAW	22	18	914 & 924	There is no local information on the connectivity of the aquifers of this area; including the water table (unconfined aquifer), and the 3 confined aquifers (of which the pumped aquifer is the deepest). An aquifer test that incorporates nested monitoring wells is needed to evaluate aquifer interconnectivity and impacts from pumping. Recommend completing an aquifer test for the EAW. If not, proposer should note that an aquifer test will be required during permitting.

Comment ID	Commenter	Document	Page #	Question #	Line#	Comment (Submittal 1) and Requested Action
00070	5	EAW	12	10. a.	458	According to the MPCA Construction Stormwater mapping tool this water body (Redeye River) is also impaired for Mercury in fish tissue. Please discuss.
00074	5	EAW	11	10. b.	429-431	EAW contains the statement: "Incorporating cover crops and alfalfa with grasses followed by grazing enhances soil health, humus production and soil stability and virtually eliminates any erosion potential." Is there any research you can cite to back up this statement? See correction to word "virtual" in red.
00076	5	EAW	11	10. b.	429-431	Might want to also discuss the change in soil erosion in comparison to that of the current tree cover (increase or decrease)
00078	6	EAW	3	5. b.	98-121	It seemed to me that the description of the land said most is already pasture or crop land, with only a small percentage is forest land that will be converted. I looked at aerial photography for several years, and essentially all of the acreage was forest or forest plantation a couple years ago. From what I could tell, crops have only been grown on this land for one year. And describing much of the land as "pasture" seemed like quite a stretch, because the drone photo showed cows standing out in an area with recently cut young pine plantation trees still laying in windrows. It should be stated in the land description when the land was converted from forest or pine plantation to agriculture (when the first row crops were grown on the land, etc.) to more accurately depict the land cover change that is occurring.
00079	6	EAW	various	9. b	108 392 410-411 936	It was stated that cattle would sometimes be grazing the irrigated acres, and that they would have access to the Red Eye River. Since there is a forested buffer between the fields and river, it needs clarification on where the cattle would access the river.
00085		All	n/a	n/a	n/a	All documents and attachments should be accessible. For information on accessibility, please visit: use this website (https://mn.gov/mnit/about-mnit/accessibility/) as a resource for making accessible documents. The two links to focus on are "Documents" and "Maps". For maps, please focus on design (the color schemes are vetted for accessibility), static maps and then tagging. If at all possible, it is better for us to receive a map exported as a Jpeg rather than PDF. The Jpeg can then be put into a word document and converted to PDF. This takes out all of the layers that otherwise pose challenges with accessibility.
00086		Appendix	n/a	n/a	n/a	Please resubmit the completed Nolte Farm Irrigation Conservation Plan (sent via email on November 15) with Data Submittal #2. DNR cannot accept new data while in the process of determining the completeness of a data submittal.

ATTACHMENT 24



Minnesota Department of Health
Division of Environmental Health
925 Delaware Street Southeast
P.O. Box 59040
Minneapolis, MN 55459-0040
(612) 627-5100

RECEIVED
JUL 23 1993
AG PLNG & DEV DIV

July 21, 1993

Paul Burns, Assistant Director
Agriculture Planning & Development Division
Minnesota Department of Agriculture
90 West Plato Boulevard
St. Paul, Minnesota 55107

Dear Mr. Burns:

Minnesota Department of Health (MDH) staff have reviewed the Environmental Assessment Worksheet (EAW) for the proposed Triple J Farms Irrigation Project, and have some serious concerns. The project appears to have the potential for contamination of groundwater and surface water, with resultant negative impacts on drinking water and public health. More analysis of issues related to contamination of waters is needed. These concerns are serious; however, we are not at this time recommending that an Environmental Impact Statement (EIS) be done for this project. Our hope is that these concerns can be addressed during an extension of the decision period for an EIS.

The proposed fields to be irrigated are on either side of Dead Horse Creek. It is expected that fertilizers and pesticides will be applied to crops. Potatoes, corn, and beans will be grown in rotation. In two of the three years, little residue cover will remain on the fields. In the vicinity of the creek, the fields slope steeply towards the creek, some of the soils are coarse, and erosion is expected to be a big problem. Even with erosion control measures, the erosion is expected to be twice the recommended tolerable level of annual soil erosion. There are springs located on both the north and south sides of the ravine containing Dead Horse Creek, which is contiguous with groundwater. Groundwater flows are thought to be high in the area.

The EAW states that actual impact on surface water (Dead Horse Creek) of intense tillage, increased fertilization, and chemical impacts is unknown. Further, Dead Horse Creek is hydraulically connected to both the surficial and middle aquifers in the vicinity of the project area. It is stated that the mixture of sandy coarse textured soils and clay layers, coupled with localized depressions, presents a complex situation regarding the potential for direct groundwater contamination. Nitrate and pesticide leaching to groundwater is seen to be a major issue. The EAW concludes that the assessment of the potential for significant environmental effects associated with this project is precluded by the current lack of information associated with the water resource of this site.

EXHIBIT

6C

Paul Burns
July 21, 1993
Page 2

The EAW contains no information about domestic wells in the area. Also, no provision appears to have been made to investigate, via a groundwater and surface water monitoring system, impacts on quality of area waters. It is stated that future stages of development are likely, but that these will probably be in increments too small to trigger mandatory environmental review.

Additionally, MDH has received a report from a citizen that there may be an abandoned well in the area. If so, this well should be located and properly sealed. Finally, if agricultural chemicals are applied through the irrigation system, the chemical supply tank must be at least 20 feet from the irrigation wells.

Conclusion. The following health-related issues need to be addressed, either in an extended decision period and permitting, or in an EIS:

1. Groundwater and surface-water monitoring. No water quality monitoring is at present proposed.
2. Feasibility of mitigation of impacts on groundwater and surface water. Best Management Practices would seem to be a logical mitigation tool.
3. Plans for further developments. The present proposal is to irrigate only 140 acres. If it is likely that more acreage will have to be irrigated to achieve economies of scale, or if other independent projects are thought to be likely in the area, then impacts on water quality of further expansion of the irrigation area should be considered to the extent possible. at this time.

Thank you for the opportunity to review this EAW. If you have any questions please call either me at 627-5035 or Dr. Rita Messing at 627-5052.

Sincerely,



Patricia A. Bloomgren
Director

PAB:RBM:rlk

cc: Rita Messing

ATTACHMENT 25



Minnesota Department of Health

Division of Environmental Health
925 Delaware Street Southeast
P.O. Box 59040
Minneapolis, MN 55459-0040
(612) 627-5100

RECEIVED
SEP 15 1993
AG PLNG & DEV DIV

September 14, 1993

Paul Burns, Assistant Director
Agriculture Planning and Development Division
Minnesota Department of Agriculture
90 West Plato Boulevard
St. Paul, Minnesota 55107

Dear Mr. Burns:

I am writing in response to your telephone request of Thursday, September 9, regarding the Triple J Irrigation Project. As I understand it, you requested that MDH communicate with you regarding our ideas for scoping an EIS, or alternatively, that we enumerate some suggested permit conditions.

We do not believe that an EIS is necessary for this project. However, as you stated in your letter to me of September 1, 1993, some information, which could be part of an EIS, is needed before permitting. This includes the following:

1. The types and quantities of pesticides and herbicides and fertilizers that will be used.
2. The plans of nearby landowners or the proposers for future similar projects.
3. A description of the location and (where known) the depth of nearby domestic wells.

Since the soils in the area to be irrigated are sandy and have high infiltration rates, we would suggest that permit conditions be devised to minimize the possibility for applied fertilizers or other chemicals to reach groundwater. Best Management Practices, where available, should be used. Also, the proposer should develop a comprehensive groundwater and surface water monitoring program for applied chemicals. Such a plan should include measurements of baseline (i.e. pre-project) conditions.

We appreciate your contacting us, and would be happy to review additional information and/or a draft permit when one is available.

Sincerely,

Patricia A. Bloomgren
Director

PAB:RBM:sdr

An Equal Opportunity Employer

ATTACHMENT 26

EQB



RECEIVED
AUG 23 1993
AG PLNG & DEV DIV

August 18, 1993

Mr. Paul Burns
Assistant Director
Programs and Management Support Division
MN Department of Agriculture
90 W. Plato Blvd.
St. Paul, MN 55107

RE: Time extension: Triple J Farms Irrigation Project

Dear Mr. Burns:

In response to your request of the Chair, by letter of August 10, and the authority of Minnesota Rules, part 4410.1700, subpart 2, item B, you are hereby granted an extension of up to 15 working days to make a decision on the need for an EIS.

If there are any questions in this matter, please contact me at 296-8253.

Sincerely,

Gregg Downing
Coordinator
Environmental review program



Minnesota Department of Agriculture

(612) 296-1488

September 1, 1993

Mr. Julian Janke
Triple J Farms
P. O. Box 217
Perham, MN 56573

Dear Mr. Janke:

The Minnesota Department of Agriculture has determined that insufficient information exists to make a determination of the need for an Environmental Impact Statement (EIS) for the Triple J Farms Irrigation project. An Environmental Assessment Worksheet (EAW) was prepared for this project, but the Department needs additional information to make a decision on the need for an EIS.

The following questions need to be answered before a decision can be made on the need for an EIS:

- What types and extent of chemical inputs are expected to be used in this farming operation?
- Do any domestic wells exist nearby?
- What measures will be used to prevent the loss of both the buffer vegetation and grassed waterways during normal agricultural activities involving the use of herbicides?
- What measures will be taken to protect Dead Horse Creek from chemical or nutrient inputs associated with the proposed farming activity?
- How will the proposed conservation plan be modified to protect all of the natural resources at this site, not just the soils? In this regard, what measures will be taken to reduce project-related wind and water erosion impact on-site?
- What are the plans of nearby landowners in terms of similar farming operations?
- What type of monitoring should be required and who will do it.

EXHIBIT

7A