

ENVIRONMENTAL ANALYSIS AND DECISION ON THE
NEED FOR AN ENVIRONMENTAL IMPACT STATEMENT (EIS)

Department of Natural Resources
Form 1600-1 Rev. 3-87

Region or bureau:	SCR
Type List Designation:	II

Contact Person:	Mark Cain
Title:	Wastewater Engineer
Address:	3911 Fish Hatchery Road
	Fitchburg, WI 53711
Telephone:	(608) 275-3252

NOTE TO REVIEWERS: Comments should address completeness, accuracy or the EIS decision. For your comments to be considered, they must be received by the contact person before	
Monday, July 27, 1998	4:30 p.m.
	(time)

Applicant: BLUE STAR DAIRY FARMS
Walter Meinholz

Address: 7502 Patton Road
De Forest, WI 53532

Title of Proposal: Request for Plan Review to Expand a Large Dairy's Manure Management System

Location: Dane County Town of Vienna
Township 9 North, Range 9 East
SW 1/4, SW 1/4, Section 10

PROJECT SUMMARY

1. General Description (brief overview)

Blue Star Dairy Farms is proposing to increase their dairy herd from 630 to 850 milking cows. The operation will also house 250 heifers, 100 dry cows and other replacement animals. A new 112' x 512' total confinement free stall barn will be constructed to house the additional cows and to provide space for replacement animals.

The farm exceeds the threshold of 1000 animal units and is regulated by a Wisconsin Pollutant Discharge Elimination System (WPDES) permit.

Manure Management System

The existing 1.87 million gallon concrete bottom earthen manure storage unit will be expanded to store the additional manure. The 130' x 165' expansion will increase the capacity of the manure storage unit to 3.80 million gallons. The existing manure storage unit is not surrounded by a safety fence at this time. As part of the expansion project, a safety fence will be built around the newly expanded manure storage unit to lessen the risk of people and/or animals falling into the unit.

Feedlot Runoff Control System

In accordance with Section C.(1) of the facility's WPDES permit, an evaluation was required of the existing feedlot runoff control system at the facility. It was

determined that a new feedlot runoff control system was needed. In addition to the proposed expansion at the facility, this system will also be installed at this time. The runoff drainage path from the existing outside feedlots will flow through a new sediment basin and over a new vegetative filter strip before joining the clean water drainage path. The drainage path discharges onto a low-lying cornfield just south of the farmstead.

The Wisconsin Department of Natural Resources (WDNR) is currently reviewing the plans and specifications for this project. Approval must be granted before any construction is begun.

2. Purpose and Need (include history and background as appropriate)

The facility will be expanded to provide a more efficient dairy operation. This project is the completion of a planned expansion of the facility. Two other large free stall barns have been constructed in the past five years at this site. The loss of a heifer raising facility at another site triggered the completion to occur at this time.

3. Authorities and Approvals (list local, state and federal permits or approvals required)

WPDES Permit and plan approval
Dane County Earthen Manure Pond (425) Permit

4. Estimated Cost and Funding Source

All Construction Costs	\$ 750,000
Purchase of Cows	
Total	\$ 750,000 + Cows

PROPOSED PHYSICAL CHANGES (More fully describe the proposal)

5. Manipulation of Terrestrial Resources (include relevant quantities - sq. ft., cu. yard., etc.)

The new free stall barn will cover approximately 2 acres of the 159.4 acre site. In addition, 13,300 cubic yards of soil will be excavated in the expansion of the waste storage pond and construction of the drainage systems.

6. Manipulation of Aquatic Resources (include relevant quantities - cfs, acre feet, MGD, etc.)

The farmstead drainage waterway will be re-routed around the new free stall barn and the expanded manure storage unit. The waterway discharge will remain in the same location, at a low-lying cornfield just to the south of the farmstead.

To fulfill a permit requirement, the barnyard runoff will be routed through the new sediment basin and filter strip before joining a portion of the clean water runoff. An underground drainage pipe will be constructed between the free-stall barn and manure storage unit to convey the water to the farmstead drainage waterway for discharge to the crop field.

There are no streams, wetlands, or other aquatic resources in the area.

7. Buildings, Treatment Units, Roads and Other Structures (include size of facilities, road miles, etc.)

Proposal

Addition to manure storage unit	130' x 165'
Free stall barn	112' x 512'

Other On Farm Manure Storage

850,000 gallon manure storage unit with clay sides and concrete floor
5.3 million gallon earthen manure storage unit for milking parlor waste and flush water

8. Emissions and Discharges (include relevant characteristics and quantities)

There will inevitably be an increase in manure production due to this expansion, but adequate land base for spreading is not a concern. Walter Meinholz has stated that the facility has greater than 2200 acres on which to spread, which is larger than the area required. The specific plans will be included in the updated Nutrient Management Plan as required by their WPDES permit. Due to time and planning constraints, the facility will be given until December 31, 1998 to submit an updated Nutrient Management Plan to reflect the proposed expansion. The plan will be submitted well before manure is applied to the fields in the spring.

9. Other Changes

There should be no other changes to the physical environment.

10. Identify the maps, plans and other descriptive material attached

Attachment	_____	County map showing the general area of the project
Attachment	<u> X </u>	USGS topographic map
Attachment	<u> X </u>	Site development plan
Attachment	<u> X </u>	Plat map
Attachment	_____	DNR county wetlands map
Attachment	_____	Zoning map
Attachment	<u> X </u>	Soils Map

AFFECTED ENVIRONMENT (Describe existing features that may be affected by proposal)

Information Based On (check all that apply):

- [X] Literature/correspondence (specify major sources)
 - 1) Environmental Assessment Questionnaire, completed by Walter Meinholz, submitted on 5/15/98.
 - 2) Plans and Specifications, completed by Joseph H. Marter, P.E., submitted on 6/16/98.

[X] Personal Contacts (list in item 28)

Field Analysis By: [X] Authors [] Other (list in item 28)

Past Experience With Site By: [] Other (list in item 28)

11. Physical (topography - soils - water - air)

The new free stall barn will be constructed 50 feet to the north of and parallel to the two existing free stall barns, which were both installed in the last five years. The barn and the expansion to the waste storage pond will be constructed on land that is currently used for farmstead and pasture.

There are no streams or wetlands nearby. When properly implemented, the proposed drainage plan will prevent erosion and will route the farmstead runoff to a low-lying cornfield just to the south for irrigation and fertilization.

12. Biological (dominant aquatic and terrestrial plant and animal species and habitats including threatened/endangered species; wetland amounts, types and hydraulic value)

The site has previously been used for grazing. Plant cover is typical to south-central Wisconsin, with grasses being the predominate vegetation. No trees will be disturbed. There are no wetlands or waterways in the vicinity. Animal species are typical to the area. There are no endangered species at the site.

13. Cultural

a. Land use (dominant features and uses including zoning if applicable)

The land is zoned as A-1, which is for agricultural use. No changes will be required. The surrounding area is predominantly agricultural. Currently, the site is being used for pasture and farmstead.

b. Social/Economic (include ethnic and cultural groups)

The site is located in a typical rural setting, with farming being the predominate business in the immediate area. Farms range in size from small to large with diversified agriculture including dairy and hogs.

c. Archaeological/Historical

There are no known archaeological or historical sites at the project location.

14. Other Special Resources (e.g., State Natural Areas, prime agricultural lands)

There are no wildlife reserves, natural areas or other special resources known in the area.

ENVIRONMENTAL CONSEQUENCES (probable adverse and beneficial impacts including indirect and secondary impacts)

15. Physical (include visual if applicable)

The expansion of the farm should have no adverse visual consequences. The project is the completion of an expansion plan that began in 1993. The new construction is part of the existing farm.

The only adverse physical impact is the increase of odor from the facility. To ensure proper ventilation, large fans will be installed in the new free stall barn. This element is necessary due to the barn's close proximity to the other barns and the large amount of wind blockage from the existing buildings. The surrounding area is predominantly a rural, farming community. Problems with increased odor from the facility are not expected to be a significant issue.

16. Biological (include impacts to threatened/endangered species)

Due the increased number of animals at the facility, there will be an increase in manure production. If nutrients are managed in accordance with the Nutrient Management Plan as required in the WPDES permit, there should not be adverse biological consequences from this project. Proper utilization of the manure will benefit crop production as a fertilizer.

The construction of the sediment basin and filter strip will have a beneficial impact on the surrounding area, by reducing the uncontrolled amount of nutrients in the barnyard runoff. This will allow the application of fertilizer to be more closely controlled, and will reduce the possibility of excess nutrient runoff from this source.

There are no endangered species at the site.

17. Cultural

a. Land Use (include indirect and secondary impacts)

The expansion should have no adverse direct, indirect or secondary impacts on land use. The site is zoned for agriculture, which is the predominate land use in the area.

b. Social/Economic (include ethnic and cultural groups, and zoning if applicable)

The expansion should have no adverse effects on the existing social, economic or cultural environment. The project is consistent with accepted agricultural practices in the area.

The project will have a beneficial impact on the area's economy by creating more jobs and by increasing the area's tax base.

c. Archaeological/Historical

No known archaeological or historical sites will be disturbed.

18. Other Special Resources (e.g., State Natural Areas, prime agricultural lands))

No natural areas, wildlife reserves or other special resources will be affected.

19. Summary of Adverse Impacts That Cannot Be Avoided (more fully discussed in 15 through 18)

The only unavoidable adverse impact is the increase in odor from the facility. This impact will be slight due to the facility's rural and relatively remote location.

ALTERNATIVES (no action - enlarge - reduce - modify - other locations and/or methods)

20. Identify, describe and discuss feasible alternatives to the proposed action and their impacts. Give particular attention to alternatives which might avoid some or all adverse environmental effects.

Due to the project being an expansion of an existing operation, no other sites were considered. Each farm activity relies closely on the other activities. For instance, it is not feasible to move the dairy herd a large distance to be milked three times a day. The proposed free stall barn will be a total confinement facility, which means that the cows travel via indoor walkway to and from the milking parlor. This setup minimizes the unconfined manure in the barnyard, lessening the amount of waste runoff. The best economical and environmental alternative is to place the free stall barn in close proximity to the milking parlor, and this is the location being proposed.

The proposed expansion at Blue Star Dairy is consistent with the current trend toward larger dairy farms in Wisconsin. The facility is being expanded at this time in order to maximize the efficiency of its existing milk handling and other operations, which is why neither reducing nor maintaining the current facility size is the best economic alternative. In accordance with the facility's WPDES permit, they have the flexibility to increase or decrease their dairy herd without a permit revision, but when the capacity of their manure storage units is surpassed, the plans for a new unit must be approved by WDNR. The construction of any new manure storage unit, as well as any expansion proposed in the future, must meet NRCS standards. The facility is required to report information on their manure spreading practices in an annual report.

When properly managed, there should be no significant adverse environmental effects associated with this expansion.

EVALUATION OF PROJECT SIGNIFICANCE (Complete each item)

21. Significance of Environmental Effects

- a. Would the proposed project or related activities substantially change the quality of the environment (physical, biological, socio-economic)? Explain.

No; When properly managed, the facility should have no significant adverse effects on the predominantly agricultural surrounding area.

- b. Discuss the significance of short-term and long-term environmental effects of the proposed project including secondary effects; particularly to geographically scarce resources such as historic or cultural resources, scenic and recreational resources, prime agricultural lands, threatened or endangered species or ecologically sensitive areas. (The reversibility of an action affects the extent or degree of impact)

The only major environmental concern comes from the increased production of manure.

If proper and responsible management techniques are followed and a suitable Nutrient Management Plan is followed, the product will prove to be an extremely beneficial source of fertilizer. As part of this plan, the manure will be injected into the soil while tilling to prevent nutrient runoff. Injection will occur twice each year, once in the fall and once in the spring. In appropriate amounts on an adequate land base, the phosphorus and nitrogen will produce beneficial rather than harmful effects.

22. Significance of Cumulative Effects.

Discuss the significance of reasonably anticipated cumulative effects on the environment. Consider cumulative effects from repeated projects of the same type. What is the likelihood that similar projects would be repeated? Would the cumulative effects be more severe or substantially change the quality of the environment? Include other activities planned or proposed in the area that would compound effects on the environment.

This project is following a state-wide trend toward larger dairy farms. At this time, the number of large farms remains small. It is likely that similar projects will be proposed in the future, but the cumulative effects of these farms should not substantially change the quality of the environment. Agriculture is a large and extremely important industry in Wisconsin and is vital to the state's economy. Large farms, when properly managed and regulated, should not pose a significant risk to the environment.

23. Significance of Risk

- a. Explain the significance of any unknowns which create substantial uncertainty in predicting effects on the quality of the environment. What additional studies or analyses would eliminate or reduce these unknowns? Explain why these studies were not done.

At this time, an updated Nutrient Management Plan has not been drafted for this expansion project. Due to time and planning constraints, the operation will be given until December 31, 1998 to submit the new plan. The plan will be submitted and reviewed well before manure is applied to the fields in the spring. Although the specifics of the plan are not yet known, WDNR has been assured that the facility has 2200 acres of land on which to spread, which will more than meet the required land area.

- b. Explain the environmental significance of reasonably anticipated operating problems such as malfunctions, spills, fires, or other hazards (particularly those relating to health or safety). Consider reasonable detection and emergency response, and discuss the potential for these hazards.

Although the plans and specifications of this expansion project must meet NRCS standards, there is an inevitable risk of malfunction in any manure storage unit. Possible malfunctions include a broken conveyance pipe, a structural failure of the unit or a leak in the unit's liner. In these cases, a manure spill could occur. Possible consequences of a manure spill include contamination of surface water and/or groundwater and a health risk to humans and animals. In the case of a malfunction, appropriate emergency actions would need to be taken to contain the waste and to minimize the adverse effects.

A safety fence will be constructed around the entire perimeter of the expanded manure storage unit, in accordance with NRCS standards. To lessen the risk of people or animals falling into the unit, this fence must be maintained.

24. Significance of Precedent

- a. Would a decision on this proposal influence future decisions or foreclose options that may additionally affect the quality of the environment? Explain the significance.

No; This proposal will not set a new precedent, and all future projects will be evaluated based on their own merits.

- b. Describe any conflicts the proposal has with plans or policy of local, state or federal agencies that provide for the protection of the environment. Explain the significance.

The Dane County Land Conservation Department is currently reviewing the plans, and their approval must be granted before construction may begin on the manure storage unit expansion.

There are no known conflicts with local, state or federal environmental policies.

- 25. Discuss the effects on the quality of the environment, including socio-economic effects, that are (or are likely to be) highly controversial, and summarize the controversy.

This project is consistent with practices in the predominantly agricultural location, and no controversy is expected.

- 26. Explain other factors that should be considered in determining the significance of the proposal.

None

SUMMARY OF ISSUE IDENTIFICATION ACTIVITIES

- 27. Summarize citizen and agency involvement activities (completed and proposed).

The Dane County Land Conservation Department is currently reviewing the plans, and their approval must be granted before construction may begin on the manure storage unit expansion.

WDNR is also currently reviewing the plans, and their approval is required prior to the start of construction.

- 28. List agencies, groups and individuals contacted regarding the project (include DNR personnel and title).

<u>Date</u>	<u>Contact</u>	<u>Comment Summary</u>
6/16/98	Mark Cain and Cassie Johnson, WDNR	Site Inspection
6/19/98	Russ Anderson, WDNR	There are no endangered or threatened species at the project location.
6/19/98	Victoria Dirst, WDNR	There are no known historical or archaeological sites at the project location.
6/98	Mark Cain and Cassie Johnson, WDNR	Co-authors of Environmental Assessment

DECISION (This decision is not final until certified by the appropriate authority)

In accordance with s. 1.11, Stats., and Ch. NR 150, Wis. Adm. Code, the Department is authorized and required to determine whether it has complied with s. 1.11, Stats., and Ch. NR 150, Wis. Adm. Code.

- 29. Complete either A or B below.

A. EIS Process Not Required [X]

Analysis of the expected impacts of this proposal is of sufficient scope and detail to conclude that this is not a major action which would significantly affect the quality of the human environment. In my opinion therefore, an environmental impact

statement is not required prior to final action by the Department on this project.

B. Major Action Requiring the Full EIS Process. []

The proposal is of such magnitude and complexity with such considerable and important impacts on the quality of the human environment that it constitutes a major action significantly affecting the quality of the human environment.

Signature of Evaluator

Date Signed

Copy of news release or other notice attached? [] Yes [] No

Number of responses to public notice _____

Public response log attached? [] Yes [] No

CERTIFIED TO BE IN COMPLIANCE WITH WEPA
Regional Director or Environmental Impact Coordinator (or designee)

NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed.

For judicial review of a decision pursuant to sections 227.52 and 227.53, Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review shall name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to section 227.42, Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. The filing of a request for a contested case hearing is not a prerequisite for judicial review and does not extend the 30-day period for filing a petition for judicial review.

Note: Not all Department decisions respecting environmental impact, such as those involving solid waste or hazardous waste facilities under sections 144.43 to 144.47 and 144.60 to 144.74, Stats., are subject to the contested case hearing provisions of section 227.42, Stats.

This notice is provided pursuant to section 227.48(2), Stats.