

Region or Bureau: South Central Region
Type List Designation: II

Contact Person: <u>Mark Cain</u>
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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, August 3, 1998 4:30 p.m.
(time)

Applicant: **DEAN'S EGGS, INC.**

Address: N6680 Highway O
Marshall, WI 53559

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

Location: Dane County Town of Deerfield
Township 7 North, Range 12 East
SE 1/4, NE 1/4, Section 12

PROJECT SUMMARY

1. General Description (brief overview)

Dean's Eggs, Inc. is proposing to increase their layer flock from 551,000 to 951,000 layer hens. Two new 72' x 672' total confinement layer buildings will be constructed to house the additional layers, with each building having a 200,000 hen capacity. The proposed buildings are similar in design to the existing buildings.

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

Manure Storage System

The two new buildings will be constructed as two-story facilities. The upper story will house the layers, whose cages will be arranged in an A-frame pattern. This pattern allows the manure from each cage to fall through slots in the floor and down to the manure storage unit which is the lower level. The manure storage units will be constructed according to Natural Resource Conservation Service (NRCS) standards. The floors will be constructed of concrete with water-tight construction joints. The manure storage units will be equipped with large fans to provide air movement and to aid in drying the manure. The manure is stored as

a dry product, with the average moisture content being 30 percent. Each manure storage unit will contain approximately 240,000 cubic feet of storage space or a capacity of approximately 3,200 tons, which will allow a maximum storage duration of 450 days. Since manure is spread twice each year, the storage capacity is more than adequate.

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

The facility will be expanded to provide a more efficient layer operation. This project is the completion of a planned expansion sequence at the facility. Three similar layer houses, although smaller in size, have been constructed at the facility in the last five years. The addition of two new houses and 400,000 layers will allow the facility to maximize the efficiency of its egg handling operations. The egg industry is now dominated by large scale farms, with common operations housing over 1,000,000 layers. The proposed expansion will allow this facility to minimize costs and remain competitive in the market.

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

WPDES Permit and plan approval
NR 216 Construction Site Storm Water Discharge Permit

4. Estimated Cost and Funding Source

Land/Excavating	100,000
Buildings	1,280,000
Equipment	1,215,000
Feed Storage	50,000
Laying Hens	<u>900,000</u>
	\$3,545,000

Private Funding/Financing

PROPOSED PHYSICAL CHANGES (More fully describe the proposal)

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

Approximately 80,000 to 100,000 cubic yards or 50 to 60 acre-feet of soil will need to be excavated for the construction of the two new buildings. The excavated soil will be used to level out the building sites and surrounding area. A large portion of the soil will be used to level out the area to the south of the existing and proposed barns, making this area suitable for possible expansions of the facility in the future. Stockpiling of excavated soil is not expected to be necessary.

The buildings will occupy approximately 3 acres of the property. The total disturbed area is expected to be around 5 acres, which is the threshold area for the requirement of an NR216 Construction Site Storm Water Discharge Permit. The facility will therefore be developing a construction site erosion control plan. A Notice of Intent for an NR 216 Permit will be also be completed and will be submitted to the Department of Natural Resources (DNR) prior to the start of construction.

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

No waterways or aquatic resources will need to be re-routed or altered as a result of this project. Storm water runoff from the roofs of the existing buildings flows through a drainage ditch downward to a field located southwest of the farmstead, and runoff from the roofs of the proposed buildings will follow the same

path.

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

2 - 72' x 672' total confinement layer buildings, each having a 200,000 hen capacity and a manure storage capacity of 3200 tons

Existing gravel roadways will be extended to service the two new buildings, with the total extension length being approximately 300 feet. Three 30-ton bulk storage bins will be installed outside each new building for feed storage. The proposed expansion will occupy approximately 3 acres of the property.

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

There will be an increase in manure production due to this expansion. Based on the average manure production of 0.075 pounds per bird per day at 30% moisture, the 400,000 hen increase will produce an additional 5200 tons of manure per year. This will increase the total annual manure production of the facility to 12,750 tons.

Dean's Eggs, Inc. owns 800 acres of land on which manure spreading is performed. Prior to this expansion proposal, the facility also had access to an additional 5700 acres of land. As part of this expansion proposal, the facility has submitted acreage intent forms for an additional 2020 acres of land. The facility will therefore have access to 8500 acres of land on which to spread manure. Typical average land application rates have been 3 to 4 tons per acre in the last two years. At these application rates, the required land base will range from 3200 to 4250 acres. The facility has access to a land base which is large enough to handle the supply.

In addition to land spreading, the operation is currently exploring commercial markets for the manure in an attempt to maximize profits from the material.

An update to the facility's Nutrient Management Plan has been submitted to the DNR.

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	<u> X </u>	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) 1998 Expansion Proposal, submitted on March 6, 1998.

2) Environmental Assessment Questionnaire, submitted on June 3, 1998.

[X] Personal Contacts (list in item 28)

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

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

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

The two new buildings will be constructed to the north of and parallel to the four existing buildings. The site was planted with a corn-soybean-wheat rotation in 1996 and 1997 and was in the Conservation Reserve Program from 1987 to 1995.

The construction site is located on a drumlin, which is an elongated or oval hill of glacial drift. Approximately 80,000 to 100,000 cubic yards of soil will be excavated in order to create a level site for construction. The facility will address erosion concerns by developing a construction site erosion control plan. The soil is Dodge silt loam, which is characterized by high fertility, a moderate erosion hazard and moderate permeability.

The nearest waterway is Stony Brook, which is located approximately 800-1000 feet down slope of the building site. The facility is located near the headwaters of the stream, which begins in the wetlands area surrounding Goose Lake. Since the buildings are total confinement facilities and the manure will be stored, transported, spread and tilled as a dry product, there should be no problem with nutrient runoff into Stony Brook.

The addition of 400,000 layer hens to the operation will result in an increase of odor from the facility. At this time, the odor from the facility is not extremely objectionable. The manure is dried to approximately 30% moisture, at which the odor from the product is substantially decreased. Large fans will be installed to provide proper ventilation in the two new barns and to aid in the drying process. The nearest home is located approximately 1/5 mile to the northwest of the facility, and there are no homes or businesses located directly downwind. There is some rural development in the area but not in close proximity to this facility. For these reasons, the increase in odor should not be a significant issue.

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

The expansion site has previously been used as cropland, with a corn-soybean-wheat rotation planted in the last two years. No trees will be disturbed. Animal species at the site are common to those found in cropped fields in south central Wisconsin.

Goose Lake is located approximately 1.5 miles northwest of the proposed construction site, and Mud Lake is located to the west of Goose Lake. An 1800 acre area, including a significant wetland area, surrounding these lakes is owned by the Wisconsin Department of Natural Resources and is designated as a wildlife reserve and public hunting area. The closest boundary of the wildlife reserve is located approximately 1/4 mile west of the proposed construction site. Dean's Eggs, Inc. is located down slope of the wildlife and wetlands area, so if poor manure handling practices were to occur at the facility, the contamination would not run off into the protected area.

There are three species located in the wildlife reserve and wetland area surrounding Goose and Mud Lakes listed in the Natural Heritage Inventory (NHI). The tussock bulrush (*Scirpus cespitosus*) is a plant which is listed as an endangered species. The dion skipper (*Euphyes dion*) is a butterfly which is listed as a special concern in Wisconsin. The swamp agrimony (*Agrimonia parviflora*) is a plant which is also listed as a special concern in Wisconsin. The existing operation at Dean's Eggs, Inc. has produced no known adverse impacts on the threatened and endangered species or the surrounding water resources. Based on the facts that the manure is handled as a dry product and that the facility is located down slope of the Goose Lake

area, the expansion should have no adverse affects on the species or the water resources in the area.

Stony Brook is a stream that has its headwaters in the wetlands area surrounding Goose Lake and flows to the south and east. Stony Brook flows south of the facility and then flows east and away from the Goose Lake area. The additional 5200 tons of manure produced annually as a result of this expansion could be spread on fields that drain into Stony Brook, but in most cases the manure application will be replacing the use of commercial fertilizers. As required in the facility's WPDES permit, fertilizer will be applied only in concentrations that are suitable for the soil and crop types. If the manure is handled and spread according to the proper practices currently followed at the facility and required by their WPDES permit, there should be no adverse biological impacts due to the proposed expansion.

The use of the additional manure for land application will have beneficial impacts as a fertilizer. Layer hen manure has very high concentrations of nitrogen and phosphorus, in relation to other types of manure. Based on U.S. Department of Agriculture averages, nutrient values for layer manure are 0.83 pounds of nitrogen and 0.31 pounds of phosphorus per day per 1000 pounds of hens, as excreted. The facility is required to sample their manure annually to determine the exact nutrient concentrations. The nitrogen and phosphorus from the manure provide nutrients for crop growth. When spread in suitable amounts and promptly tilled into the soil to prevent runoff, the manure will produce beneficial rather than harmful biological effects.

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 predominately agricultural. The site has most recently been used for cropland.

- 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. Most land in the area is used for crop production, with some dairy production.

- 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)

Goose Lake and Mud Lake are surrounded by an 1800 acre wildlife reserve and public hunting grounds, owned by the WDNR. This area is located west of the facility, with the closest reserve boundary located approximately 1/4 mile west of the proposed construction site. Dean's Eggs, Inc. is located downstream of the reserve and wetlands area.

A more detailed discussion is included in #12.

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 direct adverse visual consequences. The two new buildings will be constructed directly adjacent to the four existing buildings. The manure storage units are totally enclosed concrete structures located on the first level of each building, so that the manure will not be exposed to the environment or visible from the outside. The manure is a dry product, so spilling is minimized and handling of the manure is simplified when it is removed for spreading in the spring and fall.

There are no plans to stockpile the excavated soil for future use.

The increase of odor from the facility due to the expansion is an unavoidable physical impact. Large ventilation fans in the buildings provide air movement and help to dry the manure. Since the manure is dried to less than 30% moisture, the manure odor is minimized. The manure is kept dry for spreading, which minimizes the odor from that activity. Since the facility is located in a rural, farming community and there are few homes or businesses located in close proximity or downwind of the site, the limited increase in odor is not expected to be a significant issue.

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

The addition of 400,000 laying hens will create an additional 5200 tons of manure each year. If nutrients are managed in accordance with the Nutrient Management Plan as required in the WPDES permit, there should be no adverse biological consequences from this project.

This facility will be required to consider the close proximity of Stony Brook and the nearby wildlife reserve and wetlands. Manure will be spread only in the spring and fall and will be tilled into the ground within 72 hours to reduce the possibility of excess nutrient runoff into these water resources. Proper utilization of the manure will benefit crop production as a fertilizer and should not endanger the surrounding waterways, biological systems or endangered species.

A more detailed discussion is included in #12.

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

The expansion should have no adverse effects on the existing social, economic or cultural environment.

c. Archaeological/Historical

No known archaeological or historical sites will be disturbed.

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

Goose Lake and Mud Lake are surrounded by an 1800 acre wildlife reserve and public hunting grounds, owned by the WDNR. This area is located west of the facility, with the closest reserve boundary located approximately 1/4 mile west of the proposed construction site. Dean's Eggs, Inc. is located down slope of the wildlife reserve and wetland areas.

Stony Brook separates the land owned by Dean's Eggs, Inc. from the wildlife reserve. This stream flows southeast away from the wildlife and wetland areas. Although this stream is located in close proximity to the site, the proper manure handling and land spreading techniques required by the facility's WPDES permit and Nutrient Management Plan will prevent adverse environmental effects to Stony Brook. The manure from the existing and proposed sites will be stored, transported, spread and tilled into the land as a dry

product. This will minimize the possibility of spills and nutrient runoff.

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

The only unavoidable adverse impact of this expansion is the increase in odor from the facility. Although this is an inevitable consequence, the impact should be very small.

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 facility, no other construction sites were considered. The new buildings will be connected to common conveyors for egg handling and for feed and water. The new buildings must also be located in close proximity to the egg cooling and packing operations. The best economic alternative is to site the new buildings next to the existing buildings and this the alternative being proposed. There should be no significant adverse environmental impacts associated with the expansion at this proposed site.

If the facility were not to take action at this time or if the facility was expanded on a smaller scale, they would lose the economic benefits of optimizing their farm size. The egg industry is dominated by large scale farms, similar in size to the proposed size of Dean's Eggs. The expansion of this facility will help them remain competitive in their market. Further expansions at this facility are possible and will be dependent on the market at that time.

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 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 a very beneficial source of fertilizer. The manure will be sold to

local landowners to reduce their use of commercial fertilizers. The net nutrient application will not change, only the type of fertilizer. As part of this plan, the dry manure will be land spread twice each year, once in the fall and once in the spring. The manure will be then be tilled into the soil within 72 hours of application, to minimize the possibility of nutrient runoff. In appropriate amounts on an adequate land base, the phosphorus and nitrogen from the manure 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 expansion will increase the number of layer hens at Dean's Eggs, Inc. to 951,000 and the annual manure production to 12,750 tons. With proper management and the implementation of an appropriate Nutrient Management Plan, the net nutrient load in the basin will not increase. The manure will be used to replace commercial fertilizers, thus the proposed expansion should not produce direct or cumulative adverse environmental effects on the surrounding area.

Since the egg industry is comprised primarily of large farms, further expansion may be proposed at Dean's Eggs, Inc. in the future. It is also likely that other agricultural projects will be proposed in the surrounding rural area. The adverse and beneficial impacts of future projects will be closely examined at the appropriate time. With each new facility or expansion proposal, cumulative effects such as nutrient runoff and odor are closely examined.

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.

Studies of the soil profile, water table, construction site and surrounding environment will be used to determine if the proposed site is an acceptable building location. The plans and specifications will be reviewed and approved by DNR staff prior to construction to ensure that the manure storage units meet Natural Resource Conservation Service (NRCS) standards.

The facility has the responsibility to comply with their Nutrient Management Plan and WPDES permit. Relying on their compliance, the updated Nutrient Management Plan shows that this facility has the required land base to spread the additional manure in concentrations that will benefit, rather than harm, the environment.

These factors are sufficient to indicate that the proposed expansion should have no adverse environmental impacts and that the risk of environmental harm is minimal.

- 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.

The two possible operating problems that could impact the environment include a structural failure of the manure storage unit or poor manure land application practices that lead to nutrient runoff.

The concrete manure storage units will be constructed with water-tight construction joints. Since the

manure at this facility is a dry product, the possibility of leakage is very low.

The manure will be stored, transported, spread and tilled as a dry product. According to the facility's Nutrient Management Plan, the manure will be spread in acceptable concentrations and will be tilled into the soil within 72 hours of land application. Failure to follow the Nutrient Management Plan and proper land application practices could lead to nutrient runoff.

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; All future projects will be evaluated by their own specific adverse and beneficial impacts. There are other laying operations in the state and Midwest of similar and larger sizes. This industry is dominated by large scale farms, and since the expansion or new construction of a facility has the possibility of adverse effects, each individual case is examined closely.

- 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.

There are no known conflicts with local, state or federal policies. This facility has already been issued a WPDES permit for its existing operation. The only formal approval required for this expansion is a plan approval by the Wisconsin Department of Natural Resources. No county or local permits are required.

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.

As with any large farm expansion, there is a possibility that public controversy may be generated as a result of this project. The following concerns were voiced at an informational meeting on the last expansion at Dean's Eggs, Inc., and it is possible that these concerns may be voiced again. There may be concerns about an increase in odor from the facility, the possibility of manure spills on the roads, the possibility of groundwater contamination from nutrient seepage, or trends toward large scale farming in the state. Concerns may also be voiced on the possibility of nutrient runoff into Stony Brook or the Goose Lake area wildlife reserve. Although the expansion of Dean's Eggs, Inc. should produce no significant adverse environmental effects, the public should have access to all available factual information. For this reason, an informational meeting is scheduled to be held on Tuesday, July 28, 1998, at 4:00 p.m. at the Memorial Library in Waterloo, WI. Any questions regarding this meeting may be directed to Mark Cain, WDNR, at (608) 275-3252.

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).

WDNR is currently reviewing the plans and specifications for the manure storage aspect of this proposal, 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>
6/22/98	Mark Cain, Ken Johnson, Bob Hansis, Cassie Johnson, WDNR	Site inspection
6/29/98	Victoria Dirst, WDNR	Historical and archaeological information
7/6/98	Russ Anderson, WDNR	Endangered and threatened species information
7/6/98	Scott Schneider, Dean's Eggs	Informational meeting time/place and acreage verification
	Cassie Johnson and Mark Cain, 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.