

PLANNING & DEVELOPMENT

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Timothy Huey
Director

To: Dee F. Bruemmer, County Administrator

From: Timothy Huey, Planning Director

Date: August 10, 2010

Re: Staff Recommendation on the State Construction Permit Application of Thomas Dittmer, dba Grandview Farms, Inc in the SW¼SW¼ Section 7, T79N, R3E (Sheridan Township) for the expansion of a confined animal feeding operation located at 12090 240th St.

On July 21st the above referenced application was submitted to the Iowa DNR. Scott County has 30 days from the date it was received by the DNR to submit comments and a recommendation on that application. Notice of the receipt of this application has been published as a public notice. The Board held a public hearing on the application on August 5th to take comments from the public. The Board will need to act on a recommendation on the application at its regular meeting on August 19th and that recommendation will then be able to be submitted to the DNR within the required timeframe.

This request is for the expansion of an existing hog confinement operation in Sheridan Township that requires compliance with the standards of the Master Matrix.

The Health Department and Planning and Development staff have reviewed this request for compliance with the Master Matrix and CAFO standards. The Health Department has also reviewed the manure management plan.

The applicant has identified 21 of the 44 possible items listed for scoring criteria for the Matrix in order to score the necessary total points overall and also in each of the three subcategories. The first 25 scoring criteria are listed under *Proposed Site Characteristics*. The applicant has taken points on 16 of those 25. The second section has the remaining 19 scoring criteria listed under *Proposed Site Operation and Manure Management Practices*. The applicant has taken points on 5 of those 19.

Under *Proposed Site Characteristics*, the applicant has taken points on items #2, #3, #4, #6, #7, #8, and #10, all of which score points for the extra distance over the minimum distance required the proposed buildings and expansions will be from specific features identified under the Matrix. Staff will have aerial slides that graphically show these separation distances available at the Committee of the Whole meeting. Staff asked the applicant for additional clarification on two of the items that dealt with distance separation from various water sources. Pending that clarification, staff would concur with the points taken under these items.

The remaining 9 items under *Proposed Site Characteristics* that the applicant has taken points on deal with more subjective criteria and the Iowa Citizens for Community Improvement has

challenged the points taken on 6 of those 9 items stating that the supporting information provided is vague, lacking substantive details and generally insufficient and/or incomplete. Staff does not find that to be the case and would concur with the points scored by the applicant under all 9 of these items. The basis for staff's determination is as follows:

#12 Liquid Manure Storage structure is covered

The reinforced formed concrete manure storage structures are underneath the floor of the proposed new buildings and expansions and as such are fully covered.

#15 Utilization of Landscaping around confinement structure

This was one of the criteria that the DNR requested additional information on before it accepted the application following the initial submission. Staff finds that the proposed mixture of evergreens, hardwoods and shrubs along with the plan for placement and maintenance to be sufficient to take the 20 points identified under the Matrix for this item. Also the condition of the existing green shelter belt on the west side of the property is evidence that the applicant can maintain a variety of landscaping in good health.

#16 Enhancement, above the minimum requirements, of structures used in stockpiling and composting activities, such as an impermeable pad and roof or cover.

This was the other criteria that the DNR requested additional information on before it accepted the application following the initial submission. Staff finds that the use of the "Biovater" and the storage and composting of animal carcasses, and other organic waste under a roofed structure and the compost spread in the spring and fall season is sufficient to take the 30 points identified under the Matrix for this item.

#17 Proposed Manure Storage Structure is Formed

The reinforced formed concrete manure storage structures that are beneath the proposed new buildings and expansions are designed and engineered for their proposed use. The structures will be inspected by an independent third party professional engineering firm to ensure compliance with the design specifications and constructed under appropriate conditions. The footing of these structures will have a drain tile system that will allow for the monitoring of the integrity of the structure during its lifetime.

#19 Proposed confinement site has a suitable truck turnaround area so that semitrailers do not have to back into the facility from the road.

The farm has two entrances that are over 600 feet apart that allow truck traffic to enter at one and leave by the other. Additionally there is sufficient room within the circulation area around the buildings on the property for trucks to enter and leave by one driveway without having to back in from the road or back out on to the road.

#20 Construction permit applicant's animal feeding operation environmental and worker protection violation history for the last five years at all facilities in which the applicant has an interest.

The applicant has no record of Administrative Orders in the last five years.

#22 Construction permit applicant can lawfully claim a Homestead Tax Exemption on the site where the proposed confinement structure is to be constructed.

Having been born and raised at this location the applicant clearly meets this criterion.

#23 Construction permit applicant can lawfully claim a Family Farm Tax Credit for the agricultural land where the proposed confinement operation is to be located pursuant to Iowa Code Chapter 425A.

The applicant meets this criterion.

#25 Construction permit application includes livestock feeding and watering systems that significantly reduces manure volume.

With the use of stainless steel nipple waterers and the use of a controlled and metered feed system this criterion is met.

Under **Proposed Site Operation and Manure Management Practices** the applicant has taken points on 5 of the 19. The Iowa Citizens for Community Involvement has challenged the points taken on the item regarding an emergency action plan. ICC states that the plan is lacking substantive details and generally insufficient. Staff does not find that to be the case and would concur with the points taken under this item.

However staff has determined that two of the items under **Proposed Site Operation and Manure Management Practices** #31 and #32 do not meet the requirement for points to be taken for those two items. Both these items deal with additional separation distance, above the minimum, for land application of manure to identified features or facilities. Even though the applicant's Manure Management Plan contains land far in excess of what is required, two of the fields contained in the plan are closer than 200 feet to the identified feature or facility and therefore staff would recommend deleting the 5 points taken for both these items.

The required score to pass is 440 total points, 53.38 Air points, 67.75 Water points and 101.13 Community points. Staff has determined, based on the above stated review, that this Construction Permit application meets 480 Total points, 91 Air points, 171 Water points and 218 Community points.

Staff has received numerous written and email comments, all of which have been forwarded to the Board for their consideration. Those comments and a copy of the minutes from the public hearing will also be submitted with the Board's recommendation to the IDNR.

Health Department and Planning staff accompanied the IDNR inspector from the Washington, Iowa district office last week on an inspection of the property.

Staff would recommend that the State Construction Permit Application of Thomas Dittmer, dba Grandview Farms, Inc for the expansion of a confined animal feeding operation located at 12090 240th Street be approved based on the determination that it meets the minimum points required under the requirements of the Master Matrix.

Master Matrix Addendum

15. Landscaping Operation and Maintenance

Design: The landscaping will be planted and maintained based upon recommendations from NRCS. Three rows will be planted and will be composed of at least one row of evergreen and one row of shrubs with the shrubs being planted closest to the operation. The third row may be evergreen, shrubs or hardwood. Location of the landscaping is noted on the site drawing.

Operation: This landscaping is planned for a windbreak to protect the buildings from the predominant winter winds as well as provide a visual barrier and air filter to the areas north of the farm.

Maintenance: Dead trees or shrubs will be replaced as needed until the landscaping is functional. Supplemental water will be provided as needed. Pruning will be done as needed to maintain function. Trees and shrubs will be periodically inspected and protected from adverse impacts including insects, diseases or competing vegetation.

16. Compost Enhancement

Design: The device is a stationary composting vessel. The composting vessel consists of a slowly rotating steel drum that has steel paddles mounted on the inside walls. The paddles are mounted in a spiral shaped pattern with varying spacings to allow material to move in one direction at a certain speed inside the vessel. The vessel has loading, inspection and discharge openings. The loading openings are used for loading carcasses and bulking material. The vessel is supported on side nylon rollers and front pillow block. Nylon rollers are supported by a steel skid. The vessel rotates at a speed of 3 revolutions per hour (or 20 minutes per revolution approximately). Additional information on the design of the Biovator is in the manual provided. The procedures, operation and maintenance manual for the Biovator is attached. The Biovator design can be found in the operation manual provided.

Operation: This farm composts all mortalities and afterbirth. The larger sized mortalities are composted in the "Biovator"; a rotating enclosed vessel. The finished compost material that leaves the Biovator is stockpiled under roof until land application in the spring and fall. The small mortalities and afterbirth is composted under roof with wood shavings and finished compost from the Biovator. The compost is held in a roofed shed with 6 bays that are approximately 6' wide by 20' deep. The entire compost system is housed on site to allow for optimal management. Additional information on the operation of the Biovator is in the manual provided.

Maintenance: As needed the Biovator mechanics will be checked and repaired to maintain optimum operation. Compost material will be moved away from the Biovator so to not impede operation. Other maintenance activities will be performed as described in the manual provided.



The device is a stationary composting vessel. The composting vessel consists of a slowly rotating steel drum that has steel paddles mounted on the inside walls. The paddles are mounted in a spiral shaped pattern with varying spacings to allow material to move in one direction at a certain speed inside the vessel. The vessel has loading, inspection and discharge openings. The loading openings are used for loading carcasses and bulking material. The vessel is supported on side nylon rollers and front pillow block. Nylon rollers are supported by a steel skid. The vessel rotates at a speed of 3 revolutions per hour (or 20 minutes per revolution approximately). The procedures, operation and maintenance manual for the Biovator is attached.

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

WINDBREAK/SHELTERBELT ESTABLISHMENT

(Ft.)

CODE 380



Slash pine and red cedar at Florida Dep. Agric. and Consumer Services foundation grove in Dundee.

DEFINITION

Windbreaks or shelterbelts are linear plantings of single or multiple rows of trees or shrubs or sets of linear plantings.

PURPOSE

- Reduce soil erosion from wind.
- Protect plants from wind related damage.
- Alter the microenvironment for enhancing plant growth.
- Provide shelter for structures, livestock, and people.
- Enhance wildlife habitat.
- Provide noise screens.
- Provide visual screens.
- Improve air quality by reducing and intercepting air borne particulate matter (including plant pathogens), chemicals, and odors.

- Delineate property and field boundaries.
- Improve irrigation efficiency.
- Increase carbon storage in biomass and soils.

CONDITIONS WHERE PRACTICE APPLIES

Apply this practice on any areas where linear plantings of woody or herbaceous perennial plants are desired and suited for controlling wind, noise, and visual resources. Use other practices when wind, noise, and visual problems are not concerns.

CRITERIA

General Criteria Applicable To All Purposes

The location, layout, and density of the planting needs to accomplish the purpose and function intended within a 20-year period.

Refer to Florida NRCS Conservation Practice Standard Tree/Shrub Site Preparation, Code 490, for preparing site conditions for plant establishment.

The maximum design height (H) for the windbreak or shelterbelt is based on the expected height of the tallest row of trees/shrubs or herbaceous perennial species at age 20.

Species must be adapted to the soils, climate and site conditions.

Refer to Florida NRCS Conservation Practice Standard Tree/Shrub Establishment, Code 612, and Florida NRCS Windbreak/ Shelterbelt Guidance for more information on planting trees and shrubs, and refer to Florida NRCS

Conservation practice standards are reviewed and periodically updated if needed. To obtain the current version of this standard, contact your Natural Resources Conservation Service State Office or visit the [electronic Field Office Technical Guide](#).

Plants for Conservation Alternatives List [FOTG Sect. II (g) (1)] for acceptable woody and perennial herbaceous materials for the state.

Base spacing between individual plants on the required growing space for plant type and species, to accommodate maintenance equipment, and to ensure the desired plant architecture (e.g., characteristics of the stem(s), branches and canopy) required for a specific purpose is achieved.

Orient windbreak as close to perpendicular to the prevalent wind as possible.

The length of the windbreak needs to be sufficient to protect the site including consideration for "end effect" and change of wind direction.

Provide moisture conservation or supplemental watering during plant establishment and growth when natural precipitation is too low for the selected species.

Comply with applicable federal, state and local laws and regulations during the installation, operation, and maintenance of this practice.

Impact to cultural resources, wetlands, and Federal and State protected species shall be evaluated and avoided or minimized to the extent practical during planning, design and implementation of this conservation practice in accordance with established National and Florida NRCS policy, General Manual (GM) Title 420-Part 401, Title 450-Part 401, and Title 190-Parts 410.22 and 410.26; National Planning Procedures Handbook (NPPH) FL Supplements to Parts 600.1 and 600.6; National Cultural Resources Procedures Handbook (NCRPH); and The National Environmental Compliance Handbook (NECH).

Additional Criteria to Reduce Wind Erosion and Protect Growing Plants

Use current, approved, wind erosion technology to determine the interval between windbreaks. Use soil loss tolerance (T) or other planned soil loss objective to determine the maximum planting interval width. Other practices in the conservation management

system need to be accounted for when calculating windbreak intervals.

For wind erosion control, temporary measures need to be installed to supplement the windbreak until it is fully functional.

Sites, fields, and plants are protected within an area 10 times H on the downwind side and two times H on the upwind side of the windbreak.

Species selected need to be taller than the crop being protected.

Additional Criteria to Provide Shelter for Structures, Livestock, and Recreational Areas

For wind protection, the minimum barrier density needs to be 65 percent during the months of most troublesome wind and the area to be protected needs to fall within a downwind distance of 10 times H.

Prevent drainage of livestock waste from the livestock area from flowing into the windbreak.

Additional Criteria for Noise Screens

Noise screens need to be at least 65 percent dense during all times of the year and to be as tall and as close to the noise source as practical.

The length of the noise screen needs to be twice as long as the distance from the noise source to the receiver.

For high-speed traffic noise, the barrier needs to be 65 feet or wider. For moderate speed traffic noise, the barrier needs to be not less than 20-feet wide.

Select species that are tolerant to noxious emissions, sand and gravel depositions.

Additional Criteria for Visual Screens

Visual screens need to be located as close to the observer as possible with a density, height, and width sufficient to block the view between the area of concern and the sensitive area.

Additional Criteria for Improving Air Quality by Reducing and Intercepting Air Borne Particulate Matter (including plant pathogens), Chemicals, and Odors

The windbreak interval needs to be less than or equal to 10 times H depending on site

conditions and related supporting conservation practices.

Windbreak density upwind of the particulate source needs to be greater than 50 percent to reduce the air flow across particulate source area.

Windbreak density downwind of the particulate source needs to be greater than 65 percent to intercept particulates.

To control windborne plant pathogens such as citrus canker (<http://edis.ifas.ufl.edu/FE286>), windbreaks need to be planted on all sides of the susceptible crop. Windbreak density needs to be between 50 and 70 percent (one to two rows of evergreen trees or bunch type bamboo, or a combination of one row of trees and a row of shrubs adapted to soils where groves are located). Species selections should be compatible with pesticides used in citrus production. Additionally, field sizes (blocks) within windbreak plantings should not exceed 20 acres. (See Florida NRCS Conservation Practice Standard 380 Guidance for specifications for citrus canker control).

Trees and shrubs selected need to have foliar and structural characteristics that optimize the interception, adsorption, and absorption of airborne pathogens, chemicals, or odors.

Additional Criteria for Increasing Carbon Storage in Biomass and Soils

Maximize width and length of the windbreak to fit the site.

For optimal carbon sequestration, select plants that have higher rates of sequestration in biomass and soils. In general, within a growth rate class (e.g., slow, medium, or fast) hardwoods will sequester more pounds of carbon per tree per year than conifers.

Examples of hardwood trees with:

- slow growth rate - American holly (*Ilex opaca*) and flowering dogwood (*Cornus florida*);
- medium growth rate - southern magnolia (*Magnolia grandifolia*) and water oak (*Quercus laurifolia*); and a
- fast growth rate - live oak (*Quercus virginiana*) and black cherry (*Prunus serotina*).

Examples of conifers with:

- slow growth rate - balsam fir (*Abies balsamea*) and European black pine (*Pinus nigra*);
- medium growth rate - Eastern red cedar (*Juniperus virginiana*) and Virginia pine (*Pinus virginiana*); and
- fast growth rate - longleaf pine (*Pinus palustris*) and baldcypress (*Taxodium distichum*).

More information on trees commonly grown in the United States and their age and growth rate dependant expected carbon sequestration rates can be found in Tables 1 and 2 of the Department of Energy, Energy Information Administration publication "Method for Calculating Sequestration by Trees in Urban and Suburban Situations" (ftp://ftp.eia.doe.gov/pub/oiarf/1605/cdrom/pdf/s_equester.pdf).

Plant at the appropriate stocking rate for the site, and manage the planting to maximize above and below ground biomass production.

Additional Criteria for Providing or Enhancing Wildlife Habitat

Select plant species that benefit targeted wildlife species.

Make sure the size of the planting is adequate for targeted wildlife species.

Additional Criteria for Improving Irrigation Efficiency

For sprinkler irrigation systems, the windbreak needs to be shorter than spray height.

Plant the barrier so that it does not interfere with the operation of the irrigation system.

CONSIDERATIONS

Consider enhancing aesthetics by using evergreen species or species with features such as showy flowers, brilliant fall foliage, or persistent colorful fruits.

Consider the impact upon landowner's or public's view of the landscape when designing and locating a windbreak or shelterbelt.

Selection of plants for use in windbreaks should favor species or varieties tolerant to herbicides used in the area.

Avoid using plants that may be alternate hosts to undesirable pests.

All plantings should complement natural features.

Orient tree or shrub rows on or near the contour where water erosion is a concern. Where water erosion is a hazard, additional supporting practices may need to be installed.

Consider wildlife when selecting tree or shrub species. A shelterbelt can be used as a travel corridor to connect existing patches of wildlife habitat.

Species diversity, including use of native species, should be considered to avoid loss of function due to species-specific pests.

Windbreaks for pathogen, odor, and chemical control increase in effectiveness as the amount of foliage available for interception increases. Multiple-row, wide plantings offer greater interception potential than do smaller plantings.

In cropping systems, select windbreak and shelterbelt species that minimize adverse effects on crop growth (e.g., shade, allelopathy, competing root systems, or root sprouts).

PLANS AND SPECIFICATIONS

Specifications for applying this practice shall be prepared for each site and recorded using approved specification sheets, job sheets, technical notes, and narrative statements in the conservation plan, or other acceptable documentation.

Specifications need to minimally have:

- purpose of windbreak/shelterbelt;
- location, size, and width;
- site preparation specifics including type and amount of soil amendments;

- species selection, seeding or planting rates, planting dates, care and handling of seed and/or planting material, and planting method;
- method of browse or grazing control; and
- operation and maintenance plan.

OPERATION AND MAINTENANCE

The following actions need to be carried out to insure that this practice functions as intended throughout its expected life. These actions include normal repetitive activities in the application and use of the practice (operation), and repair and upkeep of the practice (maintenance):

- Replace dead trees or shrubs as need until the windbreak/shelterbelt is functional.
- Provide supplemental water as needed.
- Thin or prune the barrier to maintain its function. (See NRCS Conservation Practice Standards Windbreak/ Shelterbelt Renovation, Code 650, and Tree/Shrub Pruning, Code 660, for more information.)
- Inspect trees and shrubs periodically and protect from adverse impacts including insects, diseases or competing vegetation. Protect plants from fire and damage from livestock and wildlife.
- Periodic applications of nutrients may be needed to maintain plant vigor.

REFERENCES

Muraro, R.P., F.M. Rocka, and T.H. Spreen. 2001. Grower costs of having citrus canker in Florida. Dep. Food Res. Econ., Florida Coop. Ext. Serv., Univ. Florida, IFAS, Gainesville. FE 286

USDA, Agroforestry Center. 2002. Windbreaks: An Agroforestry Practice. AF Note-25.

TABLE 6-C (Swine, Sheep, Horses and Poultry)
Minimum separation distances for expansion of a confinement feeding
operation constructed prior to January 1, 1999

Type of Structure (liquid, semi-liquid and dry manure storage)	Size of operation AUC (AU) and AWC (lbs)	Residences, Businesses, Churches, Schools		Public use areas
		Unincorporated Areas	Incorporated Areas	
Anaerobic lagoons and uncovered earthen manure storage basins	500 AU or less	1,250 feet	1,250 feet	1,250 feet
	501 AU to <625,000 lbs	1,250 feet	1,250 feet	1,250 feet
	625,000 lbs to <1,250,000 lbs	1,875 feet	1,875 feet	1,875 feet
	1,250,000 lbs or more	2,500 feet	2,500 feet	2,500 feet
Covered earthen manure storage basins	500 AU or less	750 feet	1,250 feet	1,250 feet
	501 AU to <625,000 lbs	750 feet	1,250 feet	1,250 feet
	625,000 lbs to <1,250,000 lbs	1,000 feet	1,875 feet	1,875 feet
	1,250,000 lbs or more	1,500 feet	2,500 feet	2,500 feet
Uncovered formed manure storage structures	500 AU or less	None	None	None
	501 AU to <625,000 lbs	1,000 feet	1,250 feet	1,250 feet
	625,000 lbs to <1,250,000 lbs	1,500 feet	1,875 feet	1,875 feet
	1,250,000 lbs or more	2,000 feet	2,500 feet	2,500 feet
Confinement buildings and covered formed manure storage structures	500 AU or less	None	None	None
	501 AU to <625,000 lbs	750 feet	1,250 feet	1,250 feet
	625,000 lbs to <1,250,000 lbs	1,000 feet	1,875 feet	1,875 feet
	1,250,000 lbs or more	1,500 feet	2,500 feet	2,500 feet
Egg washwater storage structures	500 AU or less	None	None	None
	501 AU to <625,000 lbs	750 feet	1,250 feet	1,250 feet
	625,000 lbs to <1,250,000 lbs	1,000 feet	1,875 feet	1,875 feet
	1,250,000 lbs or more	1,500 feet	2,500 feet	2,500 feet

Distances to Wells

Applies to all Animal Feeding Operations, regardless of the size of operation, including operations with 500 AU or less	Public well		Private well	
	Shallow	Deep	Shallow	Deep
Aerobic structure, anaerobic lagoon, earthen manure storage basin, egg washwater storage structure and open feedlot runoff control basin.	1,000 feet	400 feet	400 feet	400 feet
Formed manure storage structure, confinement building, open feedlot solids settling basin and open feedlot.	200 feet	100 feet	200 feet	100 feet

Other Distances

Applies to all Confinement Feeding Operations, regardless of animal unit capacity, including operations with 500 AU or less, unless stated otherwise	
Major water sources, wellhead, cistern of an agricultural drainage well or known sinkhole (Excluding farm ponds, privately owned lakes or when a secondary containment barrier is provided)	1,000 feet
Water sources other than major water sources, surface intakes of an agricultural drainage well (Excluding farm ponds, privately owned lakes or when a secondary containment barrier is provided)	500 feet
Designated wetlands (owned and managed by the Federal government or the Iowa DNR)	2,500 feet
Right-of-way of a public thoroughfare (road, street or bridge) constructed or maintained by the state or a political subdivision (excluding operations with 500 AU or less)	100 feet

IOWA MASTER MATRIX SUPPLEMENT

**Grandview Farms Sow Farm
SCOTT COUNTY**

July 2009

This document will provide documentation, design information along with operation and maintenance (O&M) plans for items in the Master Matrix where points were gained.

Table 1. Summary table of matrix questions receiving points

Question #	Description	Actual
	Site Separation Distances	
2	public use area	>2 miles (Donahue)
3	school, church, business	>2 miles (Donahue)
4	Closest water source > 500'	~1600' to east
6	critical public area	>2 miles (Donahue)
7	Private and public water wells	>400'
8	drainage wells, sinkholes, major water sources	>5 miles (Wapsi)
10	high quality/protected waters	>5 miles (Wapsi)
12	covered manure storage	design / O&M, CDS
15	landscaping	design / O&M
16	compost enhancement	design / O & M
17	formed manure storage structure	design / O&M, CDS
19	Truck turnaround	design / O&M
20	No administrative orders	personal statement
22	Homestead Tax Exemption	personal statement
23	Family Farm tax credit	personal statement
25	Feed and water systems	design / O&M
26	Inject manure	see MMP
	Land Application Separation Distances	
31	public use area	200'
32	school, church, business	200'
35	HQW or PWA	2900' (Wapsi)
40	Emergency action plan	see attachment

12. Covered Manure Storage

This facility has deep pits for manure storage which are formed manure storage structures directly beneath a floor where animals are housed in a confinement feeding operation. The design is based upon the attached building drawings and specs from the builder. The structure will be maintained to ensure its structural integrity for its useful life.

15. Landscaping

The landscaping will be planted and maintained based upon recommendations from NRCS. Three rows will be planted and will be composed of at least one row of evergreen and one row of shrubs with the shrubs being planted closest to the operation. The third row may be evergreen, shrubs or hardwood.

16. Compost Enhancement

This farm composts all mortalities and afterbirth. The larger sized mortalities are composted in the "Biovator"; a rotating enclosed vessel. The finished compost material that leaves the Biovator is stockpiled under roof until land application in the spring and fall. The small mortalities and afterbirth is composted under roof with wood shavings and finished compost from the Biovator. The entire compost system is housed on site to allow for optimal management.

17. Formed Manure Storage Structure

The deep pit manure storage is designed to be below floor storage. The concrete design for the structure will adhere to the specs outlined in the building plans to insure the integrity of the structure.

- The storage structure will be measured for manure volume monthly to monitor the amount of manure being produced.
- The volume of manure will be recorded and records maintained on site.
- A visual inspection of the outer above ground perimeter will be made on a semi-annual basis to check for any structural challenges to the storage structure.
- The perimeter tile outside of the storage structure will be monitored monthly over 3 years to determine the average amount of water present.
- The drainage tile outside of the storage structure will be visually checked on a monthly basis to monitor for potential manure contamination by checking color.
- A sample of the water will be taken during the monthly check if the depth is significantly higher than average (1.5 times the average for the month).
- Foreign materials will not be added to the manure storage structure purposefully.
- Durable lids and caution signs will be used to cover the manure pumpouts located along the sides of the structure.
- Proper fit and placement of lids will be checked monthly.

19. Truck Turnaround

The truck turnaround is designed as shown on the site plan. It has a diameter of at least 120 ft to allow for safe truck turnaround. The turnaround is located over 300 ft from the thoroughfare and therefore creates a safer environment for the truck driver and others on the road.

- When there has been significant snowfall, the snow will be removed from the drive and turnaround to allow for safe entrance and exit of trucks.
- The structure of the turnaround will be maintained with aggregate 2" to 5" thick.

20. I have no history of Administrative Orders in the last five years related to environmental and worker protection.

23. I can lawfully claim a Family Farm Tax Credit for agricultural land where the proposed confinement operation is to be located pursuant to Iowa Code chapter 425A.

25. Feed and Water Systems

The feed and water systems to be used in this facility are intended to reduce feed and water wastage which could impact the manure storage. The feeders are dry feeders and the waterers are cup waterers.

- Feeders and waterers will be checked daily for proper operation.
- If the feeder or waterer is not in proper operation and is causing wasted feed or water it will be addressed appropriately by repair or adjustment.
- Measurement of manure volume in the storage pit will be used to track if there is an irregular amount of waste occurring.

I believe the statements here to be true and agree to adhere to the specifications.

Tom Dittmer Pres. Grandview Farms Inc.
Tom Dittmer of Grandview Farms, Inc.

Daily Checks

Feeders: _____ Checked and working appropriately
 _____ Checked and adjustments made

Waterers: _____ Checked and working appropriately
 _____ Checked and adjustments made

Monthly Checks

Date _____

Manure Depth _____

Drain Tile: Is water present? YES or NO
 Approximate depth? _____ inches

Pumpout lids: Condition? GOOD FAIR NEEDS ATTENTION

Semi-annual Check

The outer above ground perimeter of manure storage:

- _____ Normal as built
- _____ Normal aging no problems
- _____ Evidence of potential problems**
- _____ Manure leakage**

**If either of these situations should occur, an engineer will be contacted to inspect for potential structural integrity issues. If there is evidence of manure leakage, DNR will be contacted.

APPENDIX C MASTER MATRIX

Proposed Site Characteristics

The following scoring criteria apply to the site of the proposed confinement feeding operation. Mark one score under each criterion selected by the applicant. The proposed site must obtain a minimum overall score of 440 and a score of 53.38 in the "air" subcategory, a score of 67.75 in the "water" subcategory and a score of 101.13 in the "community impacts" subcategory.

- 1 Additional separation distance, above minimum requirements, from proposed confinement structure to the closest:
- * Residence not owned by the owner of the confinement feeding operation,
 - * Hospital,
 - * Nursing home, or
 - * Licensed or registered child care facility.

	Score	Air	Water	Community
250 feet to 500 feet	25	16.25		8.75
501 feet to 750 feet	45	29.25		17.50
751 feet to 1,000 feet	65	42.25		22.75
1,001 feet to 1,250 feet	85	55.25		29.75
1,251 feet or more	100	65.00		35.00

(A) Refer to the construction permit application package to determine the animal unit capacity (or animal weight capacity if an expansion) of the proposed confinement feeding operation. Then refer to Table 6 of 567—Chapter 65 to determine minimum required separation distances.

(B) The department will award points only for the single building, of the four listed above, closest to the proposed confinement feeding operation.

(C) "Licensed child care center" – a facility licensed by the department of human services providing child care or preschool services for seven or more children, except when the facility is registered as a child care home.

(D) "Registered child development homes" - child care providers certify that they comply with rules adopted by the department of human services. This process is voluntary for providers caring for five or fewer children and mandatory for providers caring for six or more children.

(E) A full listing of licensed and registered child care facilities is available at county offices of the department of human services.

- 2 Additional separation distance, above minimum requirements, from proposed confinement structure to the closest public use area.

	Score	Air	Water	Community
250 feet to 500 feet	5	2.00		3.00
501 feet to 750 feet	10	4.00		6.00
751 feet to 1,000 feet	15	6.00		9.00
1,001 feet to 1,250 feet	20	8.00		12.00
1,251 feet to 1,500 feet	25	10.00		15.00

1,501 feet or more	30	12.00		18.00
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(A) Refer to the construction permit application package to determine the animal unit capacity (or animal weight capacity if an expansion) of the proposed confinement feeding operation. Then refer to Table 6 of 567--Chapter 65 to determine minimum required separation distances.

(B) "Public use area" - a portion of land owned by the United States, the state, or a political subdivision with facilities which attract the public to congregate and remain in the area for significant periods of time. Facilities include, but are not limited to, picnic grounds, campgrounds, cemeteries, lodges, shelter houses, playground equipment, lakes as listed in Table 2 of 567--Chapter 65, and swimming beaches. It does not include a highway, road right-of-way, parking areas, recreational trails or other areas where the public passes through, but does not congregate or remain in the area for significant periods of time.

- 3 Additional separation distance, above minimum requirements, from proposed confinement structure to the closest:
- * Educational institution,
 - * Religious institution, or
 - * Commercial enterprise.

	Score	Air	Water	Community
250 feet to 500 feet	5	2.00		3.00
501 feet to 750 feet	10	4.00		6.00
751 feet to 1,000 feet	15	6.00		9.00
1,001 feet to 1,250 feet	20	8.00		12.00
1,251 feet to 1,500 feet	25	10.00		15.00
1,501 feet or more	30	12.00		18.00

(A) Refer to the construction permit application package to determine the animal unit capacity (or animal weight capacity if an expansion) of the proposed confinement feeding operation. Then refer to Table 6 of 567--Chapter 65 to determine minimum required separation distances.

(B) The department will award points only for the single building, of the three listed above, closest to the proposed confinement feeding operation.

(C) "Educational institution" - a building in which an organized course of study or training is offered to students enrolled in kindergarten through grade 12 and served by local school districts, accredited or approved nonpublic schools, area educational agencies, community colleges, institutions of higher education under the control of the state board of regents, and accredited independent colleges and universities.

(D) "Religious institution" - a building in which an active congregation is devoted to worship.

(E) "Commercial enterprise" - a building which is used as a part of a business that manufactures goods, delivers services, or sells goods or services, which is customarily and regularly used by the general public during the entire calendar year and which is connected to electric, water, and sewer systems. A commercial enterprise does not include a farm operation.

- 4 Additional separation distance, above minimum requirement of 500 feet, from proposed confinement structure to the closest water source.

	Score	Air	Water	Community
250 feet to 500 feet	5		5.00	
501 feet to 750 feet	10		10.00	
751 feet to 1,000 feet	15		15.00	
1,001 feet to 1,250 feet	20		20.00	
1,251 feet to 1,500 feet	25		25.00	
1,501 feet or more	30		30.00	

"Water source" - a lake, river, reservoir, creek, stream, ditch, or other body of water or channel having definite banks and a bed with water flow, except lakes and ponds without an outlet to which only one landowner is riparian.

5 Separation distance of 300 feet or more from the proposed confinement structure to the nearest thoroughfare.

	Score	Air	Water	Community
300 feet or more	30	9.00		21.00

(A) "Thoroughfare" - a road, street, bridge, or highway open to the public and constructed or maintained by the state or a political subdivision.

(B) The 300-foot distance includes the 100-foot minimum setback plus additional 200 feet.

6 Additional separation distance, above minimum requirements, from proposed confinement structure to the closest critical public area.

	Score	Air	Water	Community
500 feet or more	10	4.00		6.00

(A) All critical public areas as defined in 567-65.1(455B), are public use areas, and therefore subject to public use area minimum separation distances.

(B) Refer to the construction permit application package to determine the animal unit capacity (or animal weight capacity if an expansion) of the proposed confinement feeding operation. Then refer to Table 6 of 567-Chapter 65 to determine minimum required separation distances.

7 Proposed confinement structure is at least two times the minimum required separation distance from all private and public water wells.

	Score	Air	Water	Community
Two times the minimum separation distance	30		24.00	6.00

Refer to Table 6 of 567-Chapter 65 for minimum required separation distances to wells.

8 Additional separation distance, above the minimum requirement of 1,000 feet, from proposed confinement structure to the closest:

- * Agricultural drainage well,
- * Known sinkhole, or
- * Major water source.

	Score	Air	Water	Community
250 feet to 500 feet	5	0.50	2.50	2.00
501 feet to 750 feet	10	1.00	5.00	4.00
751 feet to 1,000 feet	15	1.50	7.50	6.00
1,001 feet to 1,250 feet	20	2.00	10.00	8.00
1,251 feet to 1,500 feet	25	2.50	12.50	10.00
1,501 feet to 1,750 feet	30	3.00	15.00	12.00
1,751 feet to 2,000 feet	35	3.50	17.50	14.00
2,001 feet to 2,250 feet	40	4.00	20.00	16.00
2,251 feet to 2,500 feet	45	4.50	22.50	18.00
2,501 feet or more	50	5.00	25.00	20.00

- (A) The department will award points only for the single item, of the three listed above, that is closest to the proposed confinement feeding operation.
- (B) "Agricultural drainage wells" - include surface intakes, cisterns and wellheads of agricultural drainage wells.
- (C) "Major water source" - a lake, reservoir, river or stream located within the territorial limits of the state, or any marginal river area adjacent to the state which can support a floating vessel capable of carrying one or more persons during a total of a six-month period in one out of ten years, excluding periods of flooding. Major water sources in the state are listed in Tables 1 and 2 in 567--Chapter 65.

- 9 Distance between the proposed confinement structure and the nearest confinement facility that has a submitted department manure management plan.

	Score	Air	Water	Community
Three-quarter of a mile or more (3,960 feet)	25	7.50	7.50	10.00

Confinement facilities include swine, poultry, and dairy and beef cattle.

- 10 Separation distance from proposed confinement structure to closest:
 *High quality (HQ) waters,
 * High quality resource (HQR) waters, or
 * Protected water areas (PWA)
 is at least two times the minimum required separation distance

	Score	Air	Water	Community
Two times the minimum separation distance	30		22.50	7.50

(A) The department will award points only for the single item, of the three listed above, closest to the proposed confinement feeding operation.

(B) HQ waters are identified in 567--Chapter 61.

(C) HQR waters are identified in 567--Chapter 61.

(D) A listing of PWAs is available at

<http://www.state.ia.us/government/dnr/organiza/ppd/prowater.htm#Location%20of%20PWA's%20in>.

- 11 Air quality modeling results demonstrating an annoyance level less than 2 percent of the time for residences within two times the minimum separation distance.

	Score	Air	Water	Community
University of Minnesota OFFSET model results demonstrating an annoyance level less than 2 percent of the time	10	6.00		4.00

(A) OFFSET can be found at <http://www.extension.umn.edu/distribution/livestocksystems/DI7680.html>. For more information, contact Dr. Larry Jacobson, University of Minnesota, (612) 625-8288, jacob007@tc.umn.edu.

(B) A residence that has a signed waiver for the minimum separation distance cannot be included in the model.

(C) Only the OFFSET model is acceptable until the department recognizes other air quality models.

- 12 Liquid manure storage structure is covered.

	Score	Air	Water	Community
Covered liquid manure storage	30	27.00		3.00

- (A) "Covered" - organic or inorganic material, placed upon an animal feeding operation structure used to store manure, which significantly reduces the exchange of gases between the stored manure and the outside air. Organic materials include, but are not limited to, a layer of chopped straw, other crop residue, or a naturally occurring crust on the surface of the stored manure. Inorganic materials include, but are not limited to, wood, steel, aluminum, rubber, plastic, or Styrofoam. The materials shall shield at least 90 percent of the surface area of the stored manure from the outside air. Cover shall include an organic or inorganic material which current scientific research shows reduces detectable odor by at least 75 percent. A formed manure storage structure directly beneath a floor where animals are housed in a confinement feeding operation is deemed to be covered.
- (B) The design, operation and maintenance plan for the manure cover must be in the construction permit application and made a condition in the approved construction permit.

- 13** Construction permit application contains design, construction, operation and maintenance plan for emergency containment area at manure storage structure pump-out area.

	Score	Air	Water	Community
Emergency containment	20		18.00	2.00

- (A) The emergency containment area must be able to contain at least 5 percent of the total volume capacity of the manure storage structure.
- (B) The emergency containment area must be constructed on soils that are fine-grained and have low permeability.
- (C) If manure is spilled into the emergency containment area, the spill must be reported to the department within six hours of onset or discovery.
- (D) The design, construction, operation and maintenance plan for the emergency containment area must be in the construction permit application and made a condition in the approved construction permit.

- 14** Installation of a filter(s) designed to reduce odors from confinement building(s) exhaust fan(s).

	Score	Air	Water	Community
Installation of filter(s)	10	8.00		2.00

The design, operation and maintenance plan for the filter(s) must be in the construction permit application and made a condition in the approved construction permit.

- 15** Utilization of landscaping around confinement structure.

	Score	Air	Water	Community
Utilization of landscaping	20	10.00		10.00

The design, operation and maintenance plan for the landscaping must be in the construction permit application and made a condition in the approved construction permit. The design should contain at least three rows of trees and shrubs, of both fast and slow-growing species that are well suited for the site.

- 16** Enhancement, above minimum requirements, of structures used in stockpiling and composting activities, such as an impermeable pad and a roof or cover.

	Score	Air	Water	Community
Stockpile and compost facility enhancements	30	9.00	18.00	3.00

- (A) The design, operation and maintenance plan for the stockpile or compost structure enhancements must be in the construction permit application and made a condition in the approved construction permit.
- (B) The stockpile or compost structures must be located on land adjacent or contiguous to the confinement building.

- 17** Proposed manure storage structure is formed

	Score	Air	Water	Community

Formed manure storage structure	30		27.00	3.00
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(A) "Formed manure storage structure" - a covered or uncovered impoundment used to store manure from an animal feeding operation, which has walls and a floor constructed of concrete, concrete block, wood, steel, or similar materials. Similar materials may include, but are not limited to, plastic, rubber, fiberglass, or other synthetic materials. Materials used in a formed manure storage structure shall have the structural integrity to withstand expected internal and external load pressures.

(B) The design, operation and maintenance plan for the formed manure storage structure must be in the construction permit application and made a condition in the approved construction permit.

18 Manure storage structure is aerated to meet departmental standards as an aerobic structure, if aeration is not already required by the department.

	Score	Air	Water	Community
Aerated manure storage structure(s)	10	8.00		2.00

(A) Aerobic structure - an animal feeding operation structure other than an egg washwater storage structure which relies on aerobic bacterial action which is maintained by the utilization of air or oxygen and which includes aeration equipment to digest organic matter. Aeration equipment shall be used and shall be capable of providing oxygen at a rate sufficient to maintain an average of 2 milligrams per liter dissolved oxygen concentration in the upper 30 percent of the depth of manure in the structure at all times.

(B) The design, operation and maintenance plan for the aeration equipment must be in the construction permit application and made a condition in the approved construction permit.

19 Proposed confinement site has a suitable truck turnaround area so that semitrailers do not have to back into the facility from the road

	Score	Air	Water	Community
Truck turnaround	20			20.00

(A) The design, operation and maintenance plan for the truck turn around area must be in the construction permit application and made a condition in the approved construction permit.

(B) The turnaround area should be at least 120 feet in diameter and be adequately surfaced for traffic in inclement weather.

20 Construction permit applicant's animal feeding operation environmental and worker protection violation history for the last five years at all facilities in which the applicant has an interest.

	Score	Air	Water	Community
No history of Administrative Orders in last five years	30			30.00

(A) "Interest" - means ownership of a confinement feeding operation as a sole proprietor or a 10 percent or more ownership interest held by a person in a confinement feeding operation as a joint tenant, tenant in common, shareholder, partner, member, beneficiary or other equity interest holder. Ownership interest is an interest when it is held either directly, indirectly through a spouse or dependent child, or both.

(B) An environmental violation is a final Administrative Order (AO) from the department of natural resources or final court ruling against the construction permit applicant for environmental violations related to an animal feeding operation. A Notice of Violation (NOV) does not constitute a violation.

21 Construction permit applicant waives the right to claim a Pollution Control Tax Exemption for the life of the proposed confinement feeding operation structure.

	Score	Air	Water	Community
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Permanent waiver of Pollution Control Tax Exemption	5			5.00
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(A) Waiver of Pollution Control Tax Exemption is limited to the proposed structure(s) in the construction permit application.

(B) The department and county assessor will maintain a record of this waiver, and it must be in the construction permit application and made a condition in the approved construction permit.

22 Construction permit applicant can lawfully claim a Homestead Tax Exemption on the site where the proposed confinement structure is to be constructed

- OR -

the construction permit applicant is the closest resident to the proposed confinement structure.

Site qualifies for Homestead Tax Exemption or permit applicant is closest resident to proposed structure	Score	Air	Water	Community
	25			25.00

Proof of Homestead Tax Exemption is required as part of the construction permit application.

(A) Applicant include persons who have ownership interests. "Interest" - means ownership of a confinement feeding operation as a sole proprietor or a 10 percent or more ownership interest held by a person in a confinement feeding operation as a joint tenant, tenant in common, shareholder, partner, member, beneficiary or other equity interest holder. Ownership interest is an interest when it is held either directly, indirectly through a spouse or dependent child, or both.

23 Construction permit applicant can lawfully claim a Family Farm Tax Credit for agricultural land where the proposed confinement feeding operation is to be located pursuant to Iowa Code chapter 425A.

Family Farm Tax Credit qualification	Score	Air	Water	Community
	25			25.00

(A) Applicant include persons who have ownership interests. "Interest" - means ownership of a confinement feeding operation as a sole proprietor or a 10 percent or more ownership interest held by a person in a confinement feeding operation as a joint tenant, tenant in common, shareholder, partner, member, beneficiary or other equity interest holder. Ownership interest is an interest when it is held either directly, indirectly through a spouse or dependent child, or both.

24 Facility size.

	Score	Air	Water	Community
1 to 2,000 animal unit capacity	20			20.00
2,001 to 3,000 animal unit capacity	10			10.00
3,001 animal unit capacity or more	0			0.00

(A) Refer to the construction permit application package to determine the animal unit capacity of the proposed confinement structure at the completion of construction.

(B) If the proposed structure is part of an expansion, animal unit capacity (or animal weight capacity) must include all animals confined in adjacent confinement structures.

(C) Two or more animal feeding operations under common ownership or management are deemed to be a single animal feeding operation if they are adjacent or utilize a common area or system for manure disposal. In addition, for purposes of determining whether two or more confinement feeding operations are adjacent, all of the following must apply:

(a) At least one confinement feeding operation structure must be constructed on and after May 21, 1998.

(b) A confinement feeding operation structure which is part of one confinement feeding operation is separated by less than a minimum required distance from a confinement feeding operation structure which is part of the other confinement feeding operation. The minimum required distance shall be as follows:

(1) 1,250 feet for confinement feeding operations having a combined animal unit capacity of less than 1,000 animal units.

(2) 2,500 feet for confinement feeding operations having a combined animal unit capacity of 1,000 animal units or more.

25 Construction permit application includes livestock feeding and watering systems that significantly reduce manure volume.

	Score	Air	Water	Community
Wet/dry feeders or other feeding and watering systems that significantly reduce manure volume	25		12.50	12.50

The design, operation and maintenance plan for the feeding system must be in the construction permit application and made a condition in the approved construction permit.

Proposed Site Operation and Manure Management Practices

The following scoring criteria apply to the operation and manure management characteristics of the proposed confinement feeding operation. Mark one score under each criterion that best reflects the characteristics of the submitted manure management plan.

26 Liquid or dry manure (choose only one subsection from subsections "a" - "e" and mark one

	Score	Air	Water	Community
a. Bulk dry manure is sold under Iowa Code chapter 200A and surface-applied	15		15.00	
	30	12.00	12.00	6.00
b. Dry manure is composted and land-applied under the requirements of a department manure management plan	10	4.00	4.00	2.00
	30	12.00	12.00	6.00

c.	Methane digester is used to generate energy from manure and remaining manure is surface-applied under the requirements of an approved department manure management plan	10	3.00	3.00	4.00
	After methane digestion is complete, manure is injected or incorporated on the same date it is land-applied under the requirements of an approved department manure management plan	30	12.00	12.00	6.00
d.	Dry manure is completely burned to generate energy and no remaining manure is applied under the requirements of a manure management plan	30	9.00	9.00	12.00
	Some dry manure is burned to generate energy, but remaining manure is land-applied and incorporated on the same date it is land-applied	30	12.00	12.00	6.00
e.	Injection or incorporation of manure on the same date it is land-applied	30	12.00	12.00	6.00

(A) Choose only ONE line from subsection "a", "b", "c", "d," or "e" above and mark only one score in that subsection.

(B) The injection or incorporation of manure must be in the construction permit application and made a condition in the approved construction permit.

(C) If an emergency arises and injection or incorporation is not feasible, prior to land application of manure the applicant must receive a written approval for an emergency waiver from a department field office to surface-apply manure.

(D) Requirements pertaining to the sale of bulk dry manure under pursuant to Iowa Code chapter 200A must be incorporated into the construction permit application and made a condition of the approved construction permit.

(E) The design, operation and maintenance plan for utilization of manure as an energy source must be in the construction permit application and made a condition in the approved construction permit.

(F) The design, operation and maintenance plan for composting facilities must be in the construction permit application and made a condition in the approved construction permit.

27 Land application of manure is based on a two-year crop rotation phosphorus uptake level.

	Score	Air	Water	Community
Two-year phosphorus crop uptake application rate	10		10.00	

(A) Land application of manure cannot exceed phosphorus crop usage levels for a two-year crop rotation cycle.

(B) The phosphorus uptake application rates must be in the construction permit application and made a condition in the approved construction permit.

28 Land application of manure to farmland that has USDA Natural Resources Conservation Service (NRCS) approved buffer strips contiguous to all water sources traversing or adjacent to the fields listed in the manure management plan.

	Score	Air	Water	Community
Manure application on farmland with buffer strips	10		8.00	2.00

(A) The department may request NRCS maintenance agreements to ensure proper design, installation and maintenance of filter strips. If a filter strip is present but not designed by NRCS, it must meet NRCS standard specifications.

(B) The application field does not need to be owned by the confinement facility owner to receive points.

(C) On current and future manure management plans, the requirement for buffer strips on all land application areas must be in the construction permit application and made a condition in the approved construction permit.

29 Land application of manure does not occur on highly erodible land (HEL), as classified by the USDA NRCS.

	Score	Air	Water	Community
No manure application on HEL farmland	10		10.00	

Manure application on non-HEL farmland must be in the construction permit application and made a condition in the approved construction permit.

30 Additional separation distance, above minimum requirements (0 or 750 feet, see below), for the land application of manure to the closest:

*Residence not owned by the owner of the confinement feeding operation,

* Hospital,

* Nursing home, or

*Licensed or registered child care facility.

	Score	Air	Water	Community
Additional separation distance of 200 feet	5	3.25		1.75
Additional separation distance of 500 feet	10	6.50		3.50

(A) The department will award points only for the single building, of the four listed above, closest to the proposed confinement feeding operation.

(B) Minimum separation distance for land application of manure injected or incorporated on the same date as application: 0 feet.

(C) Minimum separation distance for land application of manure broadcast on soil surface: 750 feet.

(D) The additional separation distances must be in the construction permit application and made a condition in the approved construction permit.

(E) "Licensed child care center" – a facility licensed by the department of human services providing child care or preschool services for seven or more children, except when the facility is registered as a child care home.

(F) "Registered child development homes" - child care providers certify that they comply with rules adopted by the department of human services. This process is voluntary for providers caring for five or fewer children and mandatory for providers caring for six or more children.

(G) A full listing of licensed and registered child care facilities is available at county offices of the department of human services.

31 Additional separation distance, above minimum requirements (0 or 750 feet, see below), for land application of manure to closest public use area.

	Score	Air	Water	Community
Additional separation distance of 200 feet	5	2.00		3.00

- (A) "Public use area" - a portion of land owned by the United States, the state, or a political subdivision with facilities which attract the public to congregate and remain in the area for significant periods of time. Facilities include, but are not limited to, picnic grounds, campgrounds, cemeteries, lodges, shelter houses, playground equipment, lakes as listed in Table 2 in 567--Dchapter 65, and swimming beaches. It does not include a highway, road right-of-way, parking areas, recreational trails or other areas where the public passes through, but does not congregate or remain in the area for significant periods of time.
- (B) Minimum separation distance for land application of manure injected or incorporated on the same date as application: 0 feet.
- (C) Minimum separation distance for land application of manure broadcast on soil surface: 750 feet.
- (D) The additional separation distances must be in the construction permit application and made a condition in the approved construction permit.

32 Additional separation distance, above minimum requirements (0 or 750 feet, see below), for the land application of manure to the closest:

- * Educational institution,
- * Religious institution, or
- * Commercial enterprise.

	Score	Air	Water	Community
Additional separation distance of 200 feet	5	2.00		3.00

- (A) Minimum separation distance for land application of manure broadcast on soil surface: 750 feet.
- (B) Minimum separation distance for land application of manure injected or incorporated on same date as application: 0 feet.
- (C) The additional separation distances must be in the construction permit application and made a condition in the approved construction permit.
- (D) "Educational institution" - a building in which an organized course of study or training is offered to students enrolled in kindergarten through grade 12 and served by local school districts, accredited or approved nonpublic schools, area educational agencies, community colleges, institutions of higher education under the control of the state board of regents, and accredited independent colleges and universities.
- (E) "Religious institution" - a building in which an active congregation is devoted to worship.
- (F) "Commercial enterprise" - a building which is used as a part of a business that manufactures goods, delivers services, or sells goods or services, which is customarily and regularly used by the general public during the entire calendar year and which is connected to electric, water, and sewer systems. A commercial enterprise does not include a farm operation.

33 Additional separation distance of 50 feet, above minimum requirements (0 or 200 feet, see below), for the land application of manure to the closest private drinking water well or public drinking water well

- OR -

well is properly closed under supervision of county health officials.

	Score	Air	Water	Community
Additional separation distance of 50 feet or well is properly closed	10		8.00	2.00

- (A) Minimum separation distance for land application of manure injected or incorporated on the same date as application or 50-foot vegetation buffer exists around well and manure is not applied to the buffer: 0 feet.
- (B) Minimum separation distance for land application of manure broadcast on soil surface: 200 feet.
- (C) If applicant chooses to close the well, the well closure must be incorporated into the construction permit application and made a condition in the approved construction permit.

34 Additional separation distance, above minimum requirements, for the land application of manure to the closest:

- * Agricultural drainage well,
- * Known sinkhole,
- * Major water source, or
- * Water source.

	Score	Air	Water	Community
Additional separation distance of 200 feet	5	0.50	2.50	2.00
Additional separation distance of 400 feet	10	1.00	5.00	4.00

- (A) "Agricultural drainage wells" - include surface intakes, cisterns and wellheads of agricultural drainage wells.
 (B) "Major water source" - a lake, reservoir, river or stream located within the territorial limits of the state, or any marginal river area adjacent to the state, which can support a floating vessel capable of carrying one or more persons during a total of a six-month period in one out of ten years, excluding periods of flooding. Major water sources in the state are listed in Tables 1 and 2 in 567--Chapter 65.
 (C) "Water source" - a lake, river, reservoir, creek, stream, ditch, or other body of water or channel having definite banks and a bed with water flow, except lakes or ponds without an outlet to which only one landowner is riparian.
 (D) The additional separation distances must be in the construction permit application and made a condition in the approved construction permit.

35 Additional separation distance above minimum requirements, for the land application of manure, to the closest:

- * High quality (HQ) water,
- * High quality resource (HQR) water, or
- * Protected water area (PWA).

	Score	Air	Water	Community
Additional separation distance of 200 feet	5		3.75	1.25
Additional separation distance of 400 feet	10		7.50	2.50

- (A) HQ waters are identified in 567--Chapter 61.
 (B) HQR waters are identified in 567--Chapter 61.
 (C) A listing of PWAs is available at <http://www.state.ia.us/government/dnr/organiza/ppd/prowater.htm#Location%20of%20PWA's%20in>

36 Demonstrated community support.

	Score	Air	Water	Community
Written approval of 100% of the property owners within a one mile radius.	20			20.00

37 Worker safety and protection plan is submitted with the construction permit application.

	Score	Air	Water	Community
Submission of worker safety and protection plan	10			10.00

- (A) The worker safety and protection plan must be in the construction permit application and made a condition in the approved construction permit.
 (B) The worker safety and protection plan and subsequent records must be kept on site with the manure management plan records.

38 Applicant signs a waiver of confidentiality allowing public to view confidential manure management plan land application records

	Score	Air	Water	Community
Manure management plan confidentiality waiver	5			5.00

The waiver of confidentiality must be in the construction permit application and made a condition in the approved construction permit. The applicant may limit public inspection to reasonable times and places.

- 39 Added economic value based on quality job development (number of full time equivalent (FTE) positions), and salary equal to or above Iowa department of workforce development median (45-2093)

- OR -

the proposed structure increases commercial property tax base in the county.

	Score	Air	Water	Community
Economic value to local community	10			10.00

The Iowa department of workforce development regional profiles are available at <http://www.iowaworkforce.org/centers/regionalsites.htm>. Select the appropriate region and then select "Regional Profile."

- 40 Construction permit application contains an emergency action plan.

	Score	Air	Water	Community
Emergency action plan	5		2.50	2.50

(A) Iowa State University Extension publication PM 1859 lists the components of an emergency action plan. The emergency action plan submitted should parallel the components listed in the publication.

(B) The posting and implementation of an emergency action plan must be in the construction permit application and made a condition in the approved construction permit.

(C) The emergency action plan and subsequent records must be kept on site with the manure management plan records.

- 41 Construction permit application contains a closure plan.

	Score	Air	Water	Community
Closure plan	5		2.50	2.50

(A) The closure plan must be in the construction permit application and made a condition in the approved construction permit.

(B) The closure plan must be kept on site with the manure management plan records.

- 42 Adoption and implementation of an environmental management system (EMS) recognized by the department.

	Score	Air	Water	Community
EMS	15	4.50	4.50	6.00

(A) The EMS must be in the construction permit application and made a condition in the approved construction permit.

(B) The EMS must be recognized by the department as an acceptable EMS for use with confinement operations.

- 43 Adoption and implementation of NRCS approved Comprehensive Nutrient Management Plan (CNMP).

	Score	Air	Water	Community
CNMP	10	3.00	3.00	4.00

The implementation and continuation of a CNMP must be in the construction permit application and made a condition in the approved construction permit.

- 44 Groundwater monitoring wells installed near manure storage structure), and applicant agrees to provide data to the department.

	Score	Air	Water	Community
Groundwater monitoring	15		10.50	4.50

(A) Monitoring well location, sampling and data submission must meet department requirements.

(B) The design, operation and maintenance plan for the groundwater monitoring wells, and data transfer to the department, must be in the construction permit application and made a condition in the approved construction permit.

	Total Score	Air	Water	Community
Score to pass	880	213.50	271.00	404.50
	440	53.38	67.75	101.13

Points scored: 490 95 171 224

Emergency Action Plans

Emergency action plans provide detailed information on what to do if you have an accident or emergency at your livestock facility, such as a manure spill. While Emergency Action Plans are not required, it is a good idea to keep a copy of the plan with your manure management plan or records, production records, or somewhere that is easily located by you, family members, or employees. A well-designed and implemented emergency action plan can reduce the severity of emergencies, the risk to humans and animals, the economic losses, and the potential of environmental pollution.

This fact sheet is designed to address emergency action plans in the event of a manure leak or spill. In addition to developing an emergency action plan to address manure management, you might consider developing additional plans to address mass animal mortalities; weather-related emergencies; or electrical, plumbing, or other mechanical failures.

An emergency action plan should contain four items:

- 1) a plan of action to prevent the release of manure or prevent environmental contamination
- 2) a detailed map of the site and application fields
- 3) a list of contact names and numbers included with the plan and posted near the phone
- 4) a clean-up plan

This fact sheet is not designed to be a "fill-in-the-blank" form.

It is designed to give you the basic information needed to prepare an emergency action plan. The plan you design will be specific to your livestock facility and your management practices. You may want to work with your local emergency management coordinator when developing your emergency action plan. The coordinator can help you identify resources and file any necessary notifications needed in the response of an accident or spill.

PLAN OF ACTION

A plan of action should be developed for each livestock facility. Review the plan of action every six months and make sure all personnel involved with the livestock facility are familiar with the plan. Items to consider for a plan of action include:

- Assess the situation, know what factors are at risk (human health, animal welfare, the environment, livestock structures)
- Reduce risk through implementation of planned steps
 - Prevent spills or discharges by maintaining equipment and following plans
 - Eliminate the source of manure if spill or discharge occur
 - Contain the spill
- Contact appropriate authorities to report emergencies or accidents
- Assess damages

In the event of a manure spill or leak, every effort possible should be made to prevent movement of manure off-site. If necessary, contact neighbors or nearby contractors with earth-moving equipment available to assist with containment. If tile intakes are present, have devices on hand to prevent manure from entering the tile lines. Contact neighbors with manure handling equipment to land apply the manure. Prevent manure from entering bodies of water or other environmentally sensitive areas, such as sinkholes and ag drainage wells. For assistance, contact your local sheriff's department or other emergency response personnel in your county. **State law requires that you report manure spills or leaks to the Iowa**

Department of Natural Resources as soon as possible, but not later than 6 hours from onset or discovery of the problem (see *Contact Names and Numbers*).

SITE MAP

A good planning tool for emergency action plans is a site map of the livestock facility. A site map can be of assistance to new employees, delivery personnel, and emergency response personnel.

A site map should include the following information:

- Facility address and location (including 911 address)
- Building locations
- Electrical service boxes
- Water main connections and shut-off valves
- Identification of the manure storage structure with associated pump-out ports, valves, pumps, etc...
- Location of wellheads
- Identification of nearby tile intakes, sinkholes, ag drainage wells, streams, lakes or other environmentally sensitive areas
- Drainage and water movement indications
- Identification of property boundaries
- First aid kit
- Fire extinguisher(s)

In addition to a site map for livestock facilities, copies of maps of fields for land application of manure should be included. If you already have these maps filed with your manure management plans, an extra set could be filed with your emergency action plan. These maps should include manure application setback distances, designated areas, watercourses, and property boundaries. It is also helpful to include the location of field access roads and gates. You may wish to file a site map with your DNR regional field office.

CONTACT NAMES AND NUMBERS

See attached sheets.

CLEAN-UP PLAN

A clean-up plan should include methods of proper manure removal and land application of manure at agronomic rates. Manure applications from a spill should also be recorded in your manure management plan if you are required to have one. You should consult DNR field staff for appropriate clean-up methods. You may be required to file a report following a manure spill, leak or other incident.

Emergency Action Plans Contact Names and Numbers

A list of contact names and numbers should be filed with the emergency action plan and a copy posted by the phone for emergencies.

Site Name

Grandview Farms Sow Farm
Owner/Operator

Name: Tom Dittmer
Phone: 563-285-4006

Site Address (including 911 address)

12090 - 240th St.
Eldridge, IA 52748

Specific Directions to the Site

From Eldridge, IA
take 240th (LeClaire Rd.)
west out of town
about 3 miles. The
farm is on the north
side of the road.

HUMAN INJURY

Explain that self-contained breathing apparatus may be required if someone has been overcome by gases.

Rescue Unit/Ambulance

Phone: 911

Doctor or Physician

Name: Dr Matt Neil
Phone: 285-7223

Hospital or Medical Clinic

Name: Genesis - Eldridge
Phone: 285-7223

Fire Department

Phone: 911

County Sheriff

Name: 911
Phone:

County Health Official

Name:
Phone:

Poison Control Center

Phone: 911

Others

Name:
Phone:

Name:
Phone:

Emergency Action Plans

Contact Names and Numbers

Manure Leaks or Spills

IOWA DEPARTMENT OF NATURAL RESOURCES FIELD OFFICE

State law requires that you report manure spills or leaks to the Iowa Department of Natural Resources as soon as possible, but not later than 6 hours from onset or discovery of the problem (see *Contact Names and Numbers*).

Work Days 8 a.m. - 4:30 p.m.

Phone:

Weekends, Holidays, and After Business Hours

Phone: (515) 281-8694

FIELD PHONE

OFFICE LOCATION NUMBER

1 909 W. Main, Suite 4 • Manchester, IA 52057 319-927-2640
2 2300 15th St. SW • Mason City, IA 50401 641-424-4073
3 1900 North Grand Ave. • Spencer, IA 51301 712-262-4177
4 1401 Sunnyside Lane • Atlantic, IA 50022 712-243-1934
5 401 SW 7th St., Suite 1 • Des Moines, IA 50309 515-725-0268
6 1004 West Madison • Washington, IA 52353 319-653-2135

COUNTY SHERIFF

Name:

Dennis Conrad

Phone:

CONTRACTOR

Earth Moving

Name:

Engelbrechts

Phone:

Cony - 529-1164

Pumping Equipment

Name:

Engelbrechts

Phone:

Cony 529-1164

Hauling Equipment

Name:

Grandview

Phone:

285-4006

Equipment Owners

Name:

Engelbrechts

Phone:

Cony 529-1164

County Engineer

Name:

Phone:

Others

Name:

Phone:

Emergency Action Plans

Contact Names and Numbers

PARTIAL SYSTEM FAILURE

Equipment suppliers and technicians:

Electricity

Name: Devan Warner - Central City Electric

Phone: 1-800-642-6676 cell 370-5460

Plumbing

Name: Munty Tillis

Phone: 563-349-7486

Ventilation

Name: Darrin Vittitoe

Phone: 563-357-6336

Heating

Name: Brian Brooks

Phone: 563-343-7598

Feed

Name: RUC - Mill - Keny / Loren

Phone: 285-6551

Veterinarian

Name: Dr Mark Brinkman

Phone: 319-668-1111 / 319-430-3423

Mortality Disposal

Name: National BY-Products / Darling

Phone:

1-800-262-6550

Insurance Carrier

Name: State Farm - Shane Brust

Phone: 285-9958 / 343-7401

Policy: Full Coverage - everything

Other

THE COUNTY AUDITOR'S SIGNATURE CERTIFIES THAT
THIS RESOLUTION HAS BEEN FORMALLY APPROVED BY
THE BOARD OF SUPERVISORS ON _____
DATE _____

SCOTT COUNTY AUDITOR

RESOLUTION
SCOTT COUNTY BOARD OF SUPERVISORS
August 19, 2010
ADOPTING A RECOMMENDATION TO THE IOWA DEPARTMENT OF NATURAL
RESOURCES TO APPROVE THE CONSTRUCTION PERMIT APPLICATION OF
THOMAS DITTMER FOR THE EXPANSION OF AN EXISTING CONFINED ANIMAL
FEEDING OPERATION IN SECTION 7 OF SHERIDAN TOWNSHIP

BE IT RESOLVED by the Scott County Board of Supervisors as follows:

- Section 1. Thomas Dittmer, dba Grandview Farms, Inc in the SW¼SW¼ Section 7, T79N, R3E (Sheridan Township) has submitted an application to the Iowa Department of Natural Resources (DNR) for a construction permit for the expansion of an existing confined animal feeding operation at 12090 240th Street in unincorporated Scott County
- Section 2. The Scott County Health Department and the Scott County Planning and Development Department have reviewed the construction permit application and the manure management plan and determined that both appear to be in compliance with the requirements of the Master Matrix, Iowa Code Section 459 and Iowa DNR rules.
- Section 3. The Scott County Board of Supervisors has determined that there are not any additional objects or locations not included in the application that are within the required separation distances, the soils and hydrology of the site appear to be suitable for the proposed expansion, and the applicant has adequate land for the application of manure originating from this confinement feeding operation available.
- Section 4. The Scott County Board of Supervisors published public notice of the receipt of said application, accepted written and electronic comments on the application and held a public hearing on August 5, 2010 during its regularly scheduled meeting to receive public comments on application.
- Section 5. The Scott County Board of Supervisors will submit to the Iowa DNR the written reports it received from the Scott County Planning and Development and Health Departments on which its determination is based, and the documentation of publication of the required public notices. The Board will also submit all the written or electronic comments from the general public it received on this application.
- Section 6. The Scott County Board of Supervisors would recommend that the construction permit application of Grandview Farms be approved based on its compliance with the requirements of the Master Matrix, Iowa DNR rules and Iowa Code regulations for such applications.
- Section 7. This resolution shall take effect immediately.

