

DATA INVENTORY FOR PLANNING LIVESTOCK WASTE MANAGEMENT SYSTEMS

prepared by: _____ date: _____

I. BASIC DATA

(See AWMFH Chpt. 2)

A. Contacts

Name of Operation.....: _____
Name of Owner/Operator....: _____ Name of Facility.....: _____
Principal Contact.....: _____ Twnshp-Range-Section.....: _____
Address (RR, PO Box, etc.): _____ Address (RR, PO Box, etc.): _____
City, State, Zip.....: _____ City, State, Zip.....: _____
Telephone No.....: _____ Telephone No.....: _____

B. Facility Description *(give a brief description of the facilities, any special problems & management objectives)*

C. Waste Management Data

How many times per year is manure/waste collected? _____ Is waste stored on site before disposal/use? yes no

If yes, describe how, where and how long? _____

Existing Handling Method(s): ___ Liquid ___ Slurry ___ Solid Describe existing waste handling equipment:

Describe the frequency for cleaning lots, lanes, feed bunk areas, etc., or frequency & volume of flushing holding pits, gutters, parlor & equipment, etc. _____

How is storm runoff currently handled? _____

Are dead animals currently disposed of on site? yes no If yes, how? _____

Are there local zoning or other regulations that will affect waste management at this facility? yes no

If yes, explain: _____

II. WASTE PRODUCTION DATA

(see AWMFH Chpt.4)

A. Animal Inventory						
(a)	(b)	(c)	(d)	(e)	(f)	(g)
Animal Type(s)	Existing Capacity (# head)	Maximum Capacity (# head)	Working Capacity (# head)	Average Weight (lb.)	Animal Units (no.)	Confinement Period(s) (from ___ to ___)
Confinement						
Open Lot						
				Total AU's in Confinement ^(b)		
				Total AU's in Open Lot ⁽ⁱ⁾		
				Total AU's for Animal Type 1:		
				Total AU's for Animal Type 2:		
				Total AU's (of same species) ^(h + i)		

- (a) Describe all animals confined by species, age class (cow vs. calf), management group (lactating vs. dry cow), etc.
- (b) Number of animals on site when inventory was made.
- (c) Estimate the maximum number of animals that could occupy the facility.
- (d) Annual average working capacity to be used for planning and design - include proposed expansion.
- (e) Estimate the average weight of this type of animal during its confinement period.
- (f) Use IDNR Animal Unit definitions: Slaughter and Feeder cattle, 1.0; Immature Dairy Cattle, 1.0; Mature Dairy Cattle, 1.4; Butcher or Breeding Swine Weighing more than 55 lbs, 0.4; Swine weighing more than 15 lbs but not more than 55 lbs, 0.1; Sheep or Lambs, 0.1; Horses, 2.0; Turkeys, 0.018; Broiler or Layer Chickens, 0.010. Otherwise use the following for animal species not listed previously, multiply the working capacity (b) by the average weight (d) and divide by 1,000 lb.
- (g) Show the usual time period(s) this type of animal is confined in the facility (e.g. January to April, October to December, etc.).
- (h) Construction permits and manure management plans are not required for operations less than 500 AU's.
- (i) Construction/NPDES permits are not required for operations with less than 1,000 AU's. NPDES permit may be required if operation traverses water of the state or discharges directly via a man-made conveyance.

General Note: Current Iowa regulations determine permit requirements based on housing used (confinement or open lot) and on the total animal units of each species on site, regardless of housing situation.

B. Other Solid Waste Generation					
Source	Current Volume	Units	Proposed Volume	Units	Notes/Explanation
Bedding	_____	cu.ft./day	_____	cu.ft./day	_____
Waste Feed	_____	cu.ft./day	_____	cu.ft./day	_____
Dead Animal Carcasses:	_____	# head/yr	_____	# head/yr	_____
Other	_____	_____	_____	_____	_____

C. Process Wastewater Generation				
Source	Existing Use	Proposed Use	Notes/Explanation	
Milking Parlor	_____ gal/day	_____ gal/day	_____	
Milkhouse related	_____ gal/day	_____ gal/day	_____	
Silage Pit Seepage	_____ gal/day	_____ gal/day	_____	
Flush tanks/gutters/etc. :	_____ gal/day	_____ gal/day	_____	
Leaking watering facilities:	_____ gal/day	_____ gal/day	_____	
Other	_____ gal/day	_____ gal/day	_____	

D. Storm Runoff Producing Areas					
Source	Existing Area	Units (circle one)	Proposed Area	Units (circle one)	Notes/Explanation
Roofs or Covered Lots	_____	Sq. Ft. or Ac.	_____	Sq. Ft. or Ac.	_____
Paved open lots	_____	Sq. Ft. or Ac.	_____	Sq. Ft. or Ac.	_____
Unpaved open lots	_____	Sq. Ft. or Ac.	_____	Sq. Ft. or Ac.	_____
Contributing Drainage Area :	_____	Sq. Ft. or Ac.	_____	Sq. Ft. or Ac.	_____
Drainage Area to be diverted:	_____	Sq. Ft. or Ac.	_____	Sq. Ft. or Ac.	_____

E. Dust and Odors
 Describe any current or anticipated problems resulting from dust or odors produced at the site. _____

III. SITE INVENTORY

(See AWMFH Chpt. 2 & 8)

A. Legal Description Section ____, Township ____, Range ____, ____ P.M., _____ County
 Site is shown on USGS Quadrangle Sheets(s): _____
 (attach copy when available)
 This site is approximately _____ from _____
 (distance & direction) (nearest town)

The following table can be used in conjunction with the map on the next page to determine if separation distances are adequate for existing and planned structures (For more details and exceptions to rules see: [IDNR website](#)).

DISTANCES TO BUILDINGS AND PUBLIC USE AREAS (FACILITIES less than 1,000 AU'S)				
Type of Structure	Residences, Businesses, Churches, Schools		Public Use Areas	
Uncovered earthen manure storage	1,875 feet	1,875 feet	1,875 feet	
Covered earthen manure storage	1,250 feet	1,875 feet	1,875 feet	
Uncovered formed manure storage structures	1,500 feet	1,875 feet	1,875 feet	
Confinement buildings and covered formed manure storage structures	1,250 feet	1,875 feet	1,875 feet	
Egg wash water storage structures	1,000 feet	1,875 feet	1,875 feet	
DISTANCES TO WELLS				
Type of Structure	Public Well		Private Well	
	Shallow	Deep	Shallow	Deep
Aerobic structure, anaerobic lagoon, earthen manure storage basin, egg wash water 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 facility and open feedlot	200 feet	100 feet	200 feet	100 feet
OTHER DISTANCES FOR ANIMAL FEEDING OPERATION STRUCTURES (regardless of animal unit capacity)				
Surface intake of an agricultural drainage well or water source other than major (excludes farm ponds, privately owned lakes, or when a secondary containment barrier is provided.)				500 feet
Wellhead, cistern of agricultural drainage well, known sinkholes or major water source (excludes farm ponds, privately owned lakes, or when a secondary containment barrier is provided.)				1,000 feet
Right-of-way of a thoroughfare maintained by a political subdivision (excluding animal feeding operations with 500 or fewer animal unit capacity).				100 feet
Designated wetlands pursuant to subrule 65.11(4) and Iowa Code section 459.310				2,500 feet

The following table can be used in conjunction with the map on the next page to determine if separation distances are adequate for existing and planned stockpiles from open feedlot operations, stockpiles from dry manure confinements, and stockpiles from dry bedded confinement operations. (For more details and exceptions to rules see: [IDNR website](#)).

DISTANCES TO RESIDENCES AND SPECIAL AREAS FOR MANURE STOCKPILES^{1,2}	
Residence, commercial enterprise, bona fide religious institution, educational institution, or public use area (does not apply to stockpiles from SAFO sized confinements and open feedlots)	1,250 feet
Designated area other than a high-quality water resource	400 feet ³
High-quality water resource	800 feet
Terrace tile intake or surface tile intake – unless methods, structures or practices are implemented to contain the stockpiled manure.	200 feet

¹Manure stockpiles are prohibited on grassed waterways or where water pools on the surface. Manure stockpiles are also prohibited on land with slopes greater than 3% unless methods, structures, or practices are implemented to contain the stockpiled manure to prevent or diminish precipitation-induced runoff from the stockpiled manure.

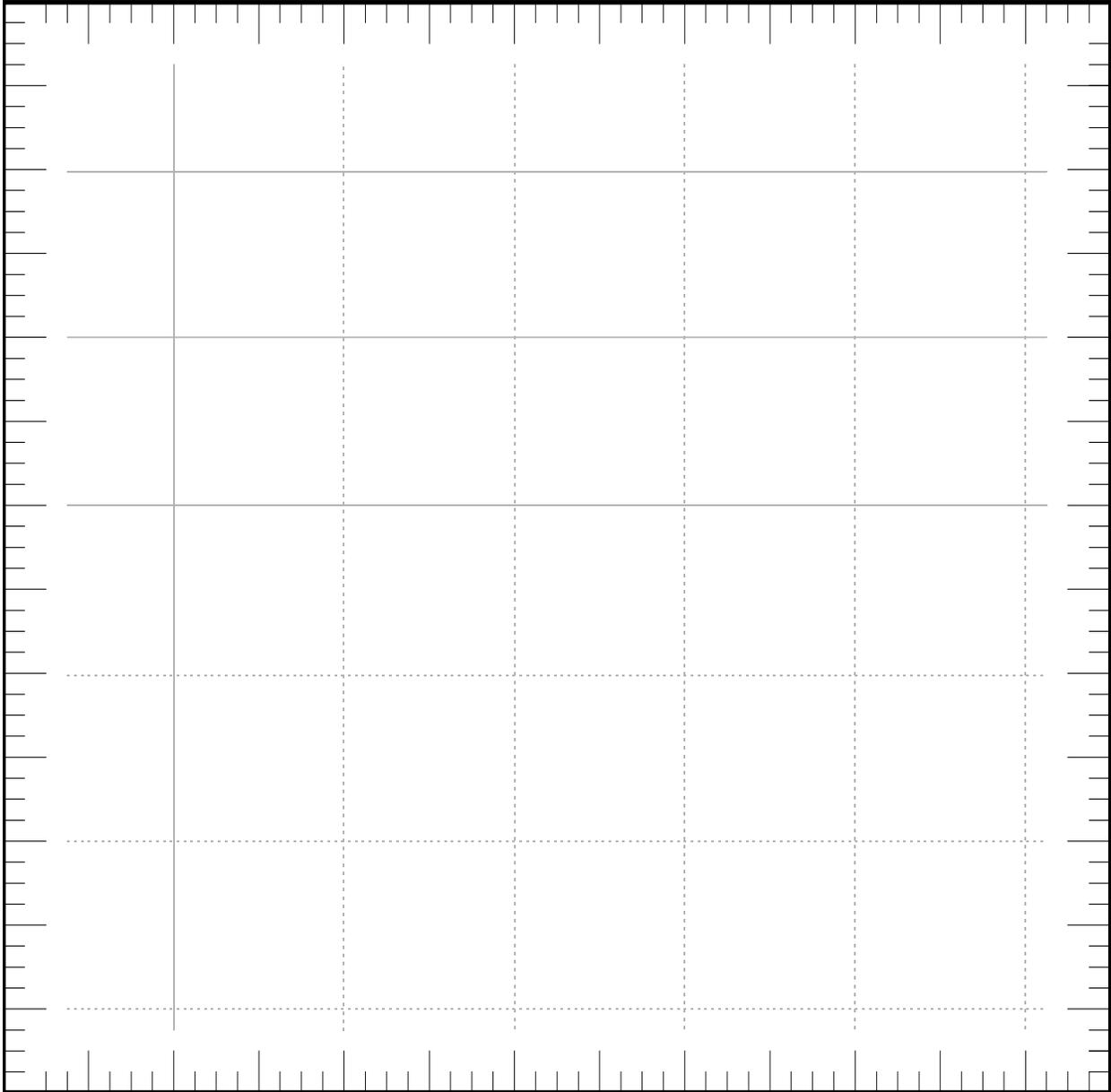
²See subparagraph 65.2(3)"d"(4) and paragraph 65.11(8)"c" for exemptions pertaining to dry manure stockpiles.

³For stockpiles from dry manure confinement operations, the separation distance is 800 feet to agricultural drainage wells and known sinkholes.

B. Location Map

Show all of the following within a two mile radius of the facility (note separation distances if possible):

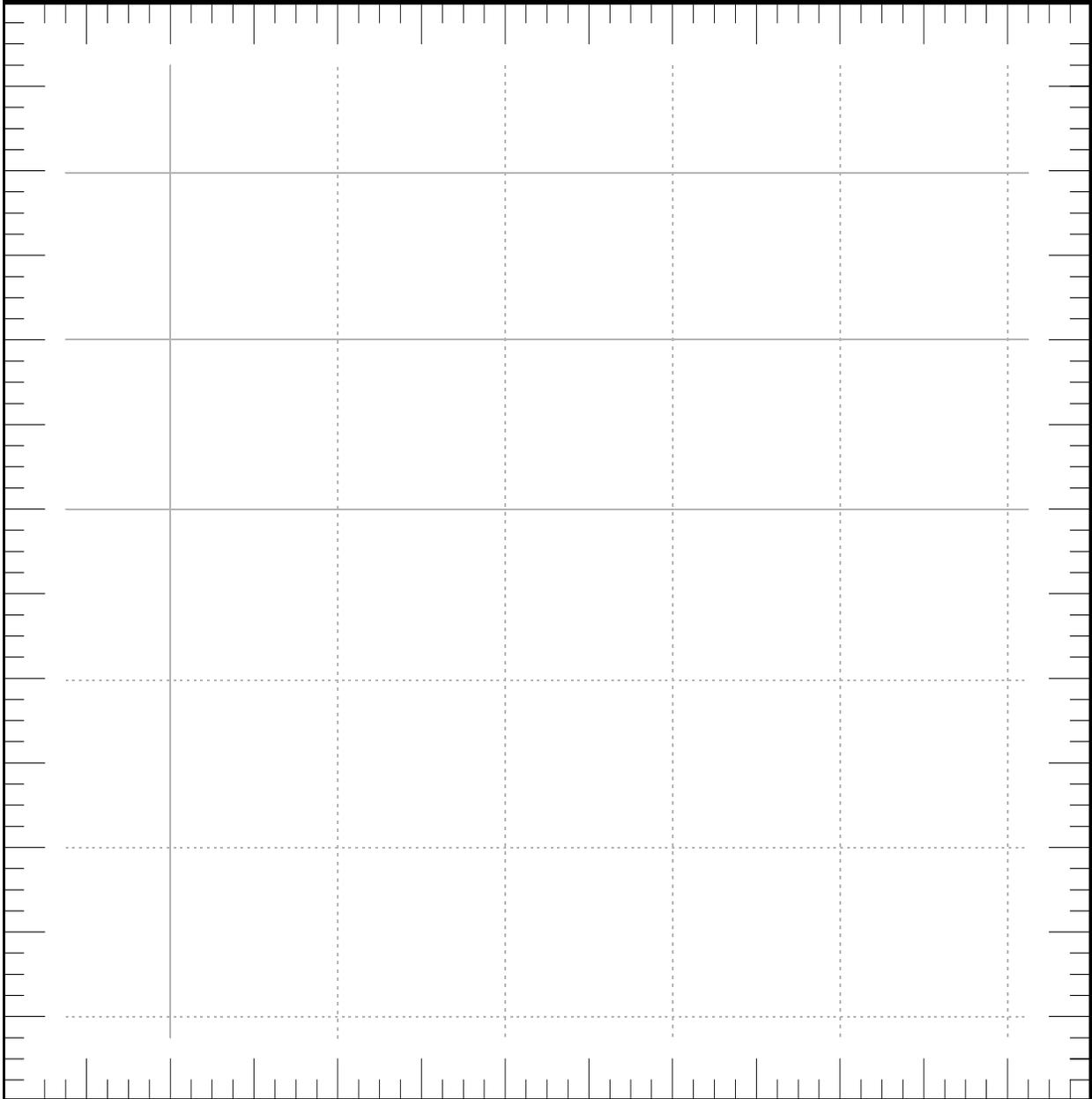
- Location of the facility, public roads and fields receiving waste from the facility;
- Location of public, commercial & residential developments;
- Wells, streams, canals, lakes, wetlands, general direction of land slopes, and drainage areas affecting the facility, and the general direction of prevailing winds.



C. Facility Map

Show pertinent on site features, such as:

- *Location and dimensions of existing or proposed lots, alleys, buildings, ponds, etc.;*
- *Location of all utilities, dwellings, wells & surface water courses at the site; and*
- *Location of soil boring/sampling sites.*



IV. SOILS DATA

(see AWMFH Chpt. 5, 7, & Appendix 10D)

A. Soil Survey Information

Survey Name:		Date:		Map Sheet #:	
Dominant Soil Series'	% Slope	Texture/Classification USDA	% of Site	Depth to Water, (ft)	Describe any limitations or restrictions
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

B. Well Logs

Attach completion reports, logs, & any other information available for wells at or adjacent to the site. Information may also be available at the Iowa Geologic Survey well database located at: <http://gsbdata.igsb.uiowa.edu/geosam/>

C. General Remarks & Interpretations (describe in general any concerns or restrictions that should be considered in the facility plan)

The following table can be used in conjunction with the field map on page 8 of 8 to determine if separation distances are adequate for field application (For more details and exceptions to rules see: [IDNR website](#)).

REQUIRED SEPARATION DISTANCES					
Buildings or Public Use Areas	Dry Manure- Surface Application		Liquid Manure - (except irrigated)		
	Incorporated within 24 hrs	Incorporated after 24 hrs or not at all	Direct Injection	Incorporated within 24 hrs	Incorporated after 24 hrs or not at all
Residence, business, church, school, public use area	0 feet	0 feet	0 feet	0 feet	750 feet
Designated Areas	Dry Manure - Surface Application		Liquid Manure - (except irrigated)		
	Incorporated on same date	Not Incorporated	Direct Injection	Incorporated on same date	Not Incorporated
Sinkhole, abandon well, cistern, drinking water well, designated wetland, water source (1)	0	200 feet (50 feet w/buffer)	0	0	200 feet (50 feet w/buffer)
High quality water resource (2)	0	800 feet (50 feet w/buffer)	0	0	800 feet (50 feet w/buffer)
Unplugged ag drainage well, ag drainage well surface inlet (3)	0	200 feet	0	0	200 feet
Protected Areas	Irrigated Liquid Manure				
	Low Pressure (≤ 25 psi)		High Pressure (> 25 psi)		
Property Boundary Line	100 feet		100 feet		
Buildings or Public Use Areas	250 feet		750 feet		
Designated Areas - (1)	200 ft (50 ft w/buffer)		200 ft (50 ft w/buffer)		
Designated Areas - (2)	800 feet		800 feet		
Designated Areas - (3)	Not Allowed		Not Allowed		

V. WASTE UTILIZATION/DISPOSAL DATA

(see AWMFH Chpt. 6 & 11)

Is waste applied on cropland managed by the operation? *yes no*

If no, describe disposal methods for manure and other organic by-products of the operation. _____

If yes: (a) Describe methods used for waste transport and application: _____

(b) When is waste spread on the fields? *spring summer fall winter*

(c) Estimate the average annual application rate per field ____ (*tons/acre*) (*1000gal/acre*) (*acre-in.*)

(d) Is the waste sampled and tested for nutrient content before/during application? *yes no*
 If yes, list typical test results for:

Total N	_____	NH ₄ ⁺	_____
NO ₃ ⁻	_____	Total P	_____
Total K	_____	Total Salts	_____

(e) Are the nutrients in the waste used to replace some or all of the commercial fertilizer that would otherwise be applied to the crop? *yes no*

Available Utilization/Disposal Areas

Field No.	Area (acres)	Transport Distance	Soil Type(s)	Slope (%)	Rotation Year	Crop	Yield	List any restrictions on land use

Field Map

Are there soil test available for this field? *yes* *no*
Attach soil tests if available.

Show pertinent on site features and separation distances for:

- *Location of sensitive areas such as water courses, sinkholes, ponds, etc.;*
- *Location of all residences, businesses, public use areas, etc; and*
- *Location of all terraces, waterways, filter/buffer strips, etc.*

