

## DNR Form 542-0982

- ☐ Enclose aerial photo or engineering drawing showing the proposed location of the animal truck wash facility and effluent storage structure and all applicable separation distances, as described in Applicant's submittal checklist.
- ☐ I manage or I am the majority owner of another animal feeding operation located within 1,250 feet of the proposed site. Please contact the DNR AFO Program staff at (712) 262-4177 to verify site adjacency requirements.

## ITEM 2 - SITING INFORMATION

### A) Karst Determination:

Go to DNR AFO Siting Atlas at <https://programs.iowadnr.gov/maps/afo/>

Then search for your site by either scrolling into your location or entering an address or legal description in the bottom search bar. Left click on the location of your proposed structure. Make sure the karst layer box is checked on the map layers. If you cannot access the map, or if you have questions about this issue, contact the AFO Engineer at (712) 262-4177. Check one of the following:

- ☐ The site is not in karst or potential karst. Print and enclose the map with the name and location of the site clearly marked.
- ☐ The site is in karst. The upgraded concrete standards of 567 IAC 65.15(14)"c" must be used if constructing a Formed Animal Truck Wash Effluent Storage Structure. Refer to "Applicant's submittal checklist" for karst documentation.
- ☐ An Unformed Animal Truck Wash Effluent Storage Structure is not allowed in karst terrain. If a soil boring shows more than 25 feet between the bottom of a proposed unformed structure and any karst bedrock, then the site is not considered to be in karst terrain.
- ☐ The site is within 1,000 feet of a known sinkhole, Secondary Containment Barrier is required in accordance with 567 IAC 65.15(17).

### B) Alluvial Soils Determination:

Go to the AFO Siting Atlas as described above. Make sure the alluvial layer box is checked on the map legend. If you have questions about this issue, contact DNR Flood Plain at (866) 849-0321. Check one of the following:

- ☐ The site is not in alluvial soils. Print and enclose the map with the name and location of the site clearly marked.
- ☐ The site is in alluvial soils. You will need to submit a request for a flood plain determination from DNR Flood Plain (866) 849-0321. After receiving determination submit one of the following:
- ☐ Correspondence from the DNR Flood Plain Section that the site is not in 100-year floodplain or does not require a flood plain permit.
- ☐ Correspondence from the DNR Flood Plain Section that the site is in 100-year floodplain and requires a flood plain permit. Include flood plain permit.
- ☐ Documentation has been submitted to determine site is not in alluvial soils. Refer to "Applicant's Submittal Checklist" for alluvial soils documentation.

## ITEM 3 - DESCRIPTION OF THE PROJECT

In your own words, describe in detail, the proposed construction, expansion, installation, modification or repair being proposed in this project (Must be completed). Attach additional pages if necessary:

---



---



---



---



---

#### ITEM 4 - SUBMITTAL REQUIREMENTS

The attached checklist describes the submittal requirements, which are based on the type of animal truck wash effluent storage structure proposed. To determine which section of the checklist to use, choose the option that best describes your animal truck wash effluent storage structure:

A) ☐ **Formed animal truck wash effluent storage structure:**

The proposed animal truck wash facility will use a formed effluent storage structure (covered/uncovered concrete or steel tanks or concrete pits below a building). Check one of the following boxes:

1. ☐ A new formed effluent storage structure
2. ☐ An existing formed manure or formed effluent storage structure at an existing animal feeding operation.

If box 1 is checked the design tables in IAC Chap 65 Appendix D may be used if the concrete structure is non circular and is laterally supported. Midwest Plan Service publication MWPS-36 may be used if the concrete structure is not laterally supported. MWPS TR-9 publication may be used if concrete structure is circular, otherwise a PE design is required.

B) ☐ **Unformed animal truck wash effluent storage structure<sup>3</sup>:**

The proposed animal truck wash facility will use an unformed effluent storage structure<sup>3</sup>. Check one of the boxes:

- ☐ A new unformed effluent storage structure. A Professional Engineer (PE) licensed in Iowa must design and sign the engineering documents.
- ☐ An existing unformed manure or unformed effluent storage structure at an existing animal feeding operation. A Professional Engineer (PE) licensed in Iowa must submit a report that the existing structure meets the design and construction standards.

#### ITEM 5 - NUTRIENT MANAGEMENT PLAN (NMP)

NMP FORM 542-2021 may be used. This form can be found at:

<https://www.iowadnr.gov/Environmental-Protection/Land-Quality/Animal-Feeding-Operations/AFO-Resources/AFO-Forms>

All Permitted Animal Truck Wash Facilities must submit a new or updated NMP. If the Truck Wash effluent is stored in a confinement manure storage structure than an updated manure management plan (MMP) may be submitted. See application submittal checklist for minimum NMP requirements.

#### ITEM 6 - SIGNATURE:

I hereby certify that the information contained in this application is complete and accurate.

Signature of Applicant(s): \_\_\_\_\_ Date: \_\_\_\_\_  
\_\_\_\_\_

#### MAILING INSTRUCTIONS:

To expedite the application process, follow the submittal requirements explained in the attached Checklist. Mail three (3) complete copies of all documents to:

**Iowa DNR  
AFO Program  
1900 N Grand Ave  
Gateway North, Ste E17  
Spencer, IA 51301**

(Note: Incomplete applications will be returned to the sender.)

#### QUESTIONS

Questions about construction permit requirements or regarding this form should be directed to an engineer of the animal feeding operations (AFO) Program at (712) 262-4177 or (641) 424-4073. To contact the appropriate DNR Field Office, go to <https://www.iowadnr.gov/fieldoffice>

## Applicant's Submittal Checklist

To expedite the review process, please ensure that the construction permit application form is the first page of the application package. For more information, visit: [www.iowaDNR.gov](http://www.iowaDNR.gov) and select the link to "Environmental Protection, Land Quality, Animal Feeding Operations, AFO Resources, AFO Forms" or call (712) 262-4177.

Mail three (3) copies of construction permit application form, completed items 1-6 (see below) and applicable maps, engineering drawings, reports, specifications, etc. Include two (2) copies of the MMP or NMP. Follow mailing instructions given on page 5. Incomplete applications will be returned to sender. Do not include this checklist.

Submit items in the following order:

### CONSTRUCTION PERMIT APPLICATION FORM:

- ☐ **Item 1: Location - completed (page 1). See page 17 for instructions and example on location.**
- ☐ **Item 2: Siting Information - enclose the necessary documentation requested on page 2:**

#### A) Karst documentation (page 2):

- ☐ The site is not in karst. Enclose the Siting Atlas Map, with the name and the footprint of the structures clearly marked.
- ☐ The site is in karst. The upgraded concrete standards of 567 IAC 65.15(14)"c" must be followed if constructing a formed truck wash effluent storage structure. You must also include copy of soils study and soil borings performed by a PE, an NRCS engineer or a qualified organization. A well record or boring (by a certified well driller, NRCS qualified staff, or professional engineer) from within 200 feet of the site showing over 5 feet of unconsolidated material above the bedrock surface may be sufficient for the upgraded standards.
- ☐ An unformed Animal Truck Wash Effluent Storage Structure is not allowed in karst terrain. If a soil boring shows more than 25 feet between the bottom of a proposed unformed structure and any karst bedrock, then the site is not considered to be in karst terrain.
- ☐ The site is within 1,000 feet of a known sinkhole, Secondary Containment Barrier is required in accordance with 567 IAC 65.15(17).

#### B) Alluvial soils documentation (page 2):

- ☐ The site is not in alluvial soils. Enclose the Siting Atlas Map, with the name and footprint of the structures clearly marked.
- ☐ The site is in alluvial soils. Submit one of the following:
  - ☐ a. Include correspondence from DNR showing that the site is not in floodplain or that a flood plain permit is not required.
  - ☐ b. Include documentation refuting the alluvial classification by a qualified professional (NRCS qualified staff or a soils professional).

- ☐ **Item 3: Description of the Project – Include description of existing facility and all proposed structures. (page 2)**
- ☐ **Item 4: Submittal requirements -completed (page 2)**
- ☐ **Item 5: Nutrient Management Plan (NMP) or Manure Management Plan (MMP)**
- ☐ **Item 6: Signature - applicant must sign the form (page 3)**

### ATTACHMENTS:

- ☐ **Attachment 1 - Site Plan (3 copies):**

A site plan drawing must be submitted that clearly shows the location of all existing and proposed truck wash structures including applicable confinement feeding operation structures and open lot effluent structures. The Plan must show at least a one-mile radius around the proposed structures and include the legal description of the site and closest roads labeled. The site plan must show that the proposed structures comply with all statutory minimum required separation distances to the objects listed below:

- Residences (not owned by the permit applicant), churches, businesses, schools, public use areas
- Water wells (depends on type)

**DO NOT SUBMIT THIS PAGE**

- Major water sources, wellhead or cistern of an agricultural drainage well or known sinkholes
- Water sources (other than major water sources) or surface intakes of an agricultural drainage well
- Designated wetlands
- Road right-of-way

The separation distance to each of the above objects must be noted with a straight line between the proposed structure(s) and the object. If any of the above objects is not located within one mile from the proposed structures, note the fact on the drawings or use additional pages. (Example: "No agricultural drainage wells within one mile.") The method of measurement shall be listed. Any measurements obtained by on line aerial mapping within 110% of the required separation distance shall be measured by standard surveying practices.

The site plan must also show and label existing facilities, truck wash structure, solids settling structures, solids stockpile areas, reception pits, effluent piping, effluent storage structure and all other pertinent features to the truck wash facility.

☐ **Attachment 1"b" - Written waivers (3 copies):**

If the required separation distance to a house, church, business, school, or public use area cannot be met, a waiver from the affected landowner may be obtained. If the required separation distance to the right-of-way cannot be met, a waiver from the state or the political subdivision may be obtained. Waivers must be recorded in the recorder's office of the county to become effective. A copy of the recorded written waiver must be submitted with the application.

☐ **Attachment 1"c" - Secondary containment barrier (3 copies):**

As provided in Iowa Code section 459.310, the separation distance requirements to a major water source; wellhead, cistern of an agricultural drainage well; known sinkhole; water sources (other than major water sources); surface intakes of an agricultural drainage well and designated wetland do not apply if the confinement feeding operation structure<sup>1</sup> is proposed with a secondary containment barrier that meets the requirements of 567 IAC 65.15(17). Contact an AFO engineer at (712) 262-4177 for more information.

☐ **Attachment 2"a" – Construction Design Statement and Report:**

Submit one of the following with the Report if constructing a formed truck wash effluent storage structure and no PE design is required:

1. Completed and signed Construction Design Statement (CDS) on DNR Form 542-8068 if a formed concrete structure with lateral support is proposed.
2. Midwest Plan Service MWPS-36 completed design pages if a formed rectangular concrete structure without lateral support is proposed.
3. Midwest Plan Service MWPS-TR-9 completed design pages if a formed concrete circular structure without lateral support is proposed.
4. Manufacturers standard design pages if a non cast in place concrete structure is proposed (steel, pre cast concrete, etc.) The Department may require a PE design.
5. A report is required along with any of the design submittals (1-4) above. The report must describe: all proposed truck wash operation structures including the truck wash facility, solids removal, solids storage, effluent piping system, effluent storage structure and effluent removal system; monthly effluent generation estimate; volume of effluent storage requirements and storage provided (minimum of 6 months of storage and maximum of 18 months of storage including 1 foot of freeboard) as well as capacity for existing animal feeding operation manure or effluent if storage structures are shared.

**DO NOT SUBMIT THIS PAGE**

☐ **Attachment 2"b" - Engineering report, engineering plans, and technical specifications** (3 copies of each):

Prepared and sealed by a professional engineer (PE) licensed in the state of Iowa or a NRCS Engineer if the formed effluent storage structure is designed by a PE or an unformed effluent storage structure is proposed:

☐ **Engineering report**

Must describe: all proposed truck wash operation structures including the truck wash facility, solids removal, solids storage, effluent piping system, effluent storage structure and effluent removal system; monthly effluent generation estimate; volume of effluent storage requirements and storage provided (minimum of 6 months of storage and maximum of 18 months of storage including 1 foot of freeboard, 2 feet if unformed) as well as capacity for existing animal feeding operation manure or effluent if storage structures are shared. Include a statement certifying that the proposed truck wash effluent structures<sup>1</sup> comply with the design standards of Iowa Code section 459 and 567 IAC 65.

☐ **Engineering Site Plan**

Must show all information as required in Attachment 1-Site Plan above.

☐ **Engineering Drawings**

Must include (plan view and cross sectional views as needed) for each proposed effluent structure<sup>1</sup>, including dimensions, existing and proposed contours, storm water flow paths, roads, entrances, property lines, existing utilities, elevation benchmarks and their reference and accuracy, drawings must be to scale and include legal description, compass orientation and all existing features associated with the facility. Plans must show the following:

- For a formed manure storage structure<sup>2</sup>, compliance with 567 IAC 65.15(14) "Minimum concrete standards".
- For an unformed storage structure, compliance with 567 IAC 65.206. The following must also be furnished:
  1. ☐ **Three (3) copies** of a soil and hydrogeological exploration report that meets the requirements of 567 IAC 65.206(2) must be submitted including drain tile investigation, ground water table determination and soil investigation. Soil borings shall be obtained by a method that identifies the continuous soil profile and must include at least the following information:
    - a) ☐ A minimum of three intact continuous core samples located within the footprint of the structure with one at the deepest point of excavation.
    - b) ☐ One coring shall be obtained at least 25 feet below the structures bottom elevation if proposed structure is shown within one mile of karst or potential karst on the DNR AFO Siting Atlas. Unformed effluent storage structures are not allowed in karst or potential karst terrain as indicated on the DNR AFO Siting Atlas. If soils investigation shows more than 25 feet between the bottom of the unformed effluent storage structure and any karst bedrock then the site is not considered to be in karst.
    - c) ☐ All other borings shall penetrate to a depth of at least 10 feet below the structures bottom.
    - d) ☐ The seven-day water level in core holes shall be reported and the monitoring well construction details shall be identified.
    - e) ☐ The location and surface elevation of all borings shall be identified.
    - f) ☐ The coring logs shall indicate existing surface elevation, proposed storage structure bottom elevation, ground water table elevation and bottom of coring.
    - g) ☐ Method of plugging coring holes.
    - h) ☐ PE certification on the soils exploration report.
  2. ☐ If a permanent artificial groundwater lowering system as provided in 567 IAC 65.206, is being proposed for the unformed effluent storage structure, detailed engineering plans and calculations that show it will effectively lower the GW table, must be submitted for review and approval.
  3. ☐ A minimum separation of 2 feet must be maintained between the proposed bottom elevation of the unformed effluent storage structure and the groundwater table. Submit detailed engineering plans, including cross sectional and longitudinal views.
  4. ☐ Unformed animal truck wash effluent storage structures proposed to be located on alluvial soils according to the DNR AFO Siting Atlas must submit a Flood Plain Determination to the DNR Flood Plain Dept.

**DO NOT SUBMIT THIS PAGE**

5. ☐ The proposed seal of the unformed animal truck wash effluent storage structure shall not allow a seepage that exceeds 1/16 inch/day at the design depth in accordance to 567 IAC 65.206(7).
6. ☐ Mail 3 copies of the information requested in this Addendum, at the address indicated on page 5.

For questions or for more information, visit: [www.iowaDNR.gov](http://www.iowaDNR.gov) and select the link to "Environmental Protection, Land Quality, Animal Feeding Operations, AFO Resources, AFO Forms" or call (712) 262-4177.

☐ **Technical specifications**

Include all technical specification sections that address the applicable design requirements of 567 IAC 65.206 including but not limited to earthwork sections to comply with basin liner requirements, cast in place concrete sections and piping sections.

☐ **Drainage tile certification statement** (signed by a PE or NRCS Engineer)

If constructing an unformed truck wash effluent storage structure, indicating that the proposed structure will not impede the drainage of established drainage tile lines which cross your property boundary lines, unless measures are taken to reestablish the drainage prior to completion of construction.

☐ **Attachment 3**

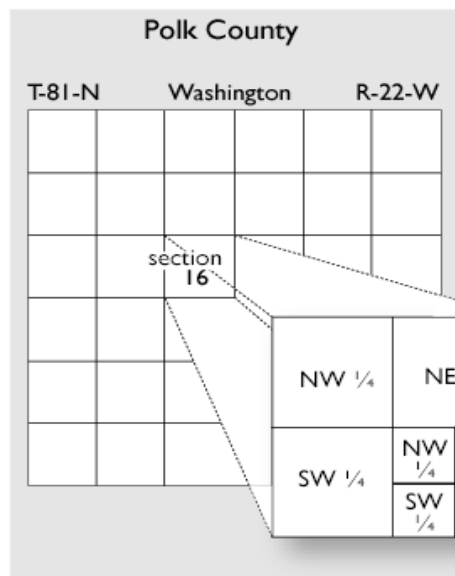
**Manure Management Plan (MMP) or Nutrient Management Plan (NMP) (on DNR Form 542-4000) – 2 copies only:**

If the effluent from the truck wash will be stored in an existing confinement manure storage structure then a MMP may be filed to account for the truck wash effluent **(on DNR Form 542-4000)**. If the effluent from the truck wash will be stored in an existing open lot effluent storage structure or a new effluent storage structure then a NMP may be filed to account for the truck wash effluent **(on DNR Form 542-2021)**. If the operation is or will be selling scraped or settled solids under Iowa Code Chapter 200 or 200A, a completed and signed DNR Form 542-8069 must be filed.

**Information about other permits that may be required:**

- Storm Water Permit General Permit No. 2, associated with construction activities, is required prior to disturbing one (1) or more acres of land. This includes the clearing, grading and excavation of the confinement feeding operation structures and phased construction. For more information contact the Storm Water Program at (515) 725-8417 or (515) 725-8415 or at <http://www.iowadnr.gov/Environment/WaterQuality/WatershedImprovement/WatershedBasics/Stormwater.aspx>.
- A water use permit is required for the withdrawal or diversion of more than 25,000 gallons per day of water. Water purchased from municipal or rural water systems is excluded. For more information, contact Mike Anderson at (515) 725-0336 or visit the following web site: <https://www.iowadnr.gov/Environmental-Protection/Water-Quality/Water-Supply-Engineering/Water-Allocation-Use>

EXAMPLE OF LOCATION INFORMATION FOR ITEM 1

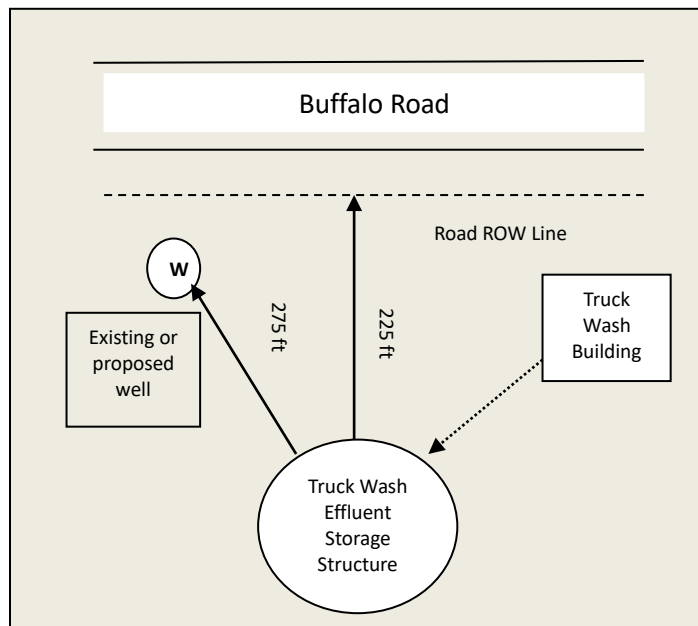


This location would be described as follows:  
NE 1/4 of the SE 1/4 of section 16 T81N-R22W

Location	NE	SE	16	T81N - R22W	Washington	Polk
	(1/4 1/4)	(1/4)	(Section)	(Tier & Range)	(Name of Township)	(County)

Map 1: Small Scale Map to Show Road ROW and Well Separation Distances

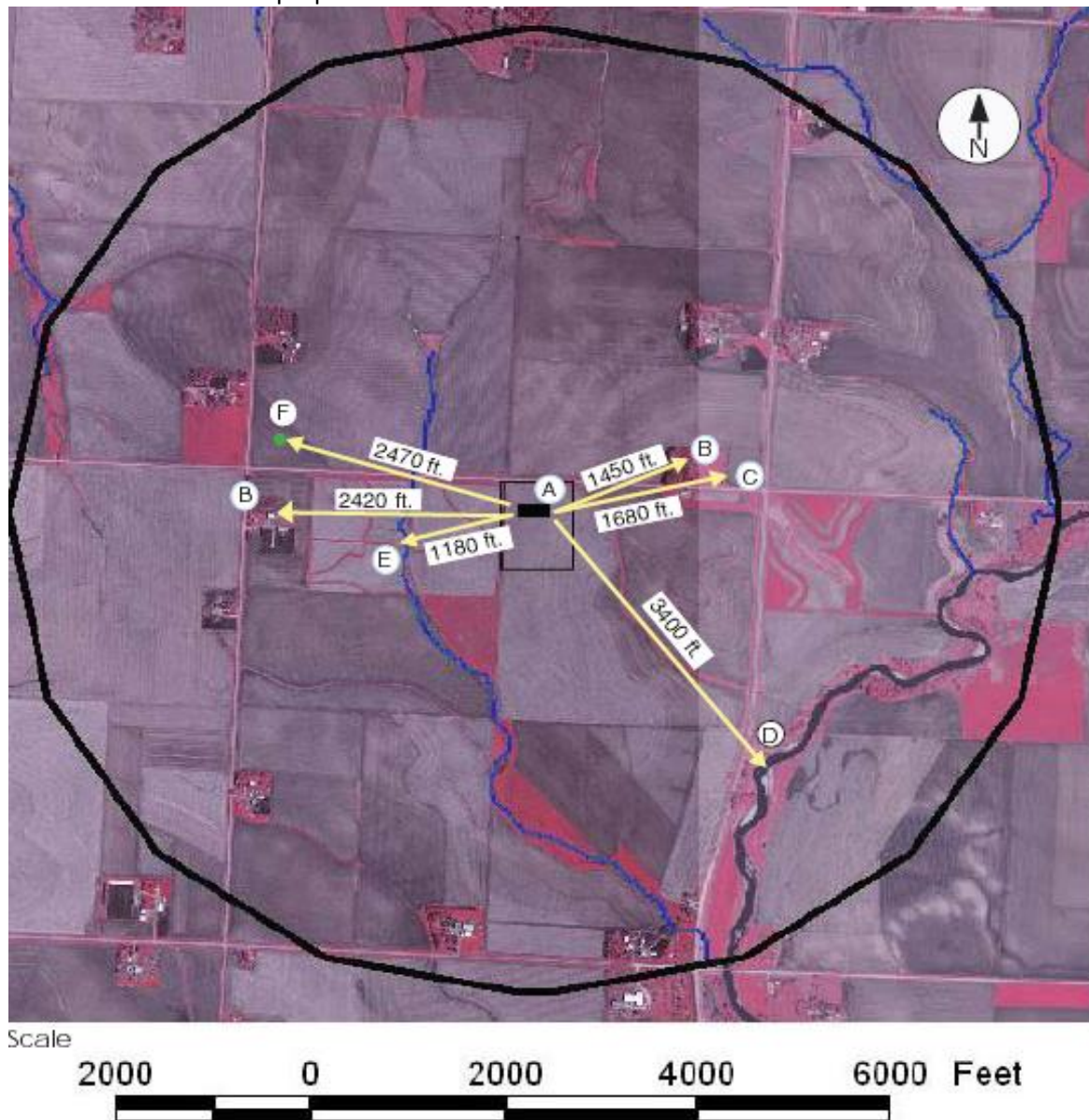
If the map scale with the one-mile radius is too small to show some distances, you can add an extra label, or draw a map with a different scale. For example, see below.





**DNR EXAMPLE AERIAL PHOTO AND MAP****Showing Separation Distances for Construction or Expansion of Animal Truck Wash Effluent Storage Structures**

Instructions: Please indicate the scale of the aerial photo or map. Please label and show the distances to the objects that have a required separation distance and how distances were obtained. See Table 7A for required separation distances. Indicate a one-mile radius from the proposed site.



Aerial Photo 1: One-Mile Radius Aerial Photo with Relevant Separation Distances

**Key for Aerial Photo 1**

■ Animal Truck Wash Effluent Structure

A Site and building location.

B Distances to nearest residences - 1450 and 2420 ft. (No business, school, church or public area within one mile)

C Distance to nearest private well - 1680 ft.

D Distance to a major water source - 3400 ft.

E Distance to a water source - 1180 ft.

F Distance to nearest sinkhole - 2470 ft.

There are no ag drainage wells, surface intakes of ag drainage well or designated wetlands within one mile of the site.

TABLE 7A

**Minimum Required Separation Distances for Construction of a New Animal Truck Wash Effluent Storage Structure  
Constructed on or after July 1, 2015**

<b>DISTANCES TO BUILDINGS AND PUBLIC USE AREAS<sup>1</sup></b>		
Type of Structure	Size of Operation	Residences, Businesses, Churches, Schools or Public Use Area
Formed or Unformed Effluent Storage Structure	Small Animal Truck Wash	0 feet
	Permitted Size	1,250 feet

<b>DISTANCES TO WATER WELLS</b>				
Applies to all Animal Truck Wash Effluent Storage Structures Including Small Animal Truck Wash Size	Public Well		Private Well	
	Shallow	Deep	Shallow	Deep
Unformed Effluent Storage Structure	1,000 feet	400 feet	400 feet	400 feet
Formed Effluent Storage Structure	200 feet	100 feet	200 feet	100 feet

<b>OTHER DISTANCES</b>	
Applies to all Animal Truck Wash Effluent Storage Structures Including Small Animal Truck Wash Size Unless noted otherwise	
Surface intake of an agricultural drainage well or water source other than major (Excluding farm ponds, privately owned lakes or when a secondary containment barrier is provided)	500 feet
Wellhead or cistern of agricultural drainage well, known sinkhole or major water source (Excluding farm ponds, privately owned lakes or when a secondary containment barrier is provided)	1,000 feet
Designated wetlands pursuant to subrule 65.11(4) and Iowa Code section 459.310	2,500 feet
Right-of-way of a thoroughfare maintained by a political subdivision (Exemptions provided in subrule 65.106(4))	100 feet
Does not apply to Small Animal Truck Washes	

<b>REQUIRED SEPARATION DISTANCES FOR STOCKPILE OF SOLIDS FROM ANIMAL TRUCK WASH</b>	
Designated area other than a high-quality water resource	400 feet <sup>1</sup>
High-quality water resource	800 feet <sup>2</sup>
Terrace tile inlet or surface tile inlet or known sinkhole unless methods, structures or practices are implemented to contain the stockpile	200 feet
Manure stockpiles are prohibited on grassed waterways or where water ponds or has concentrated flow. Stockpiles are also prohibited on land with slopes greater than 3% unless methods, structures or practices are implemented to contain the stockpile.	
1) Designated areas include a known sink hole, abandoned well, unplugged agricultural drainage well, ag drainage well cistern, ag drainage well surface tile inlet, drinking water well, designated wetland or water source. It does not include a terrace tile inlet or surface tile inlet. 2) High Quality Water Resources are listed in IAC Chap 61.3(5)"e" and on the DNR website.	

<b>REQUIRED SEPARATION DISTANCES FOR EFFLUENT APPLICATION FROM AN ANIMAL TRUCK WASH FACILITY</b>	
Applies to permitted Truck Wash Facilities Only not associated with a Small Animal Feeding Operation	
	Residence
Surface Application	750 feet
Injected or incorporated on the same date of application or written waiver.	0 feet