Moniteau County MCNA Neighbors Alliance

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Supporting community health and economic well-being through education and advocacy

Moniteau County Neighbors Alliance (MCNA)

Public Comment

HydroAg MO State Operating Permit MO-0140449

April 15, 2024

HydroAg hauling biosolids from Arkansas Wastewater Treatment Plants (WWTP):
1) Berryville WWTP domestic biosolids
2) Green Forest WWTP domestic wastewater, and
industrial wastewater from Tyson Foods

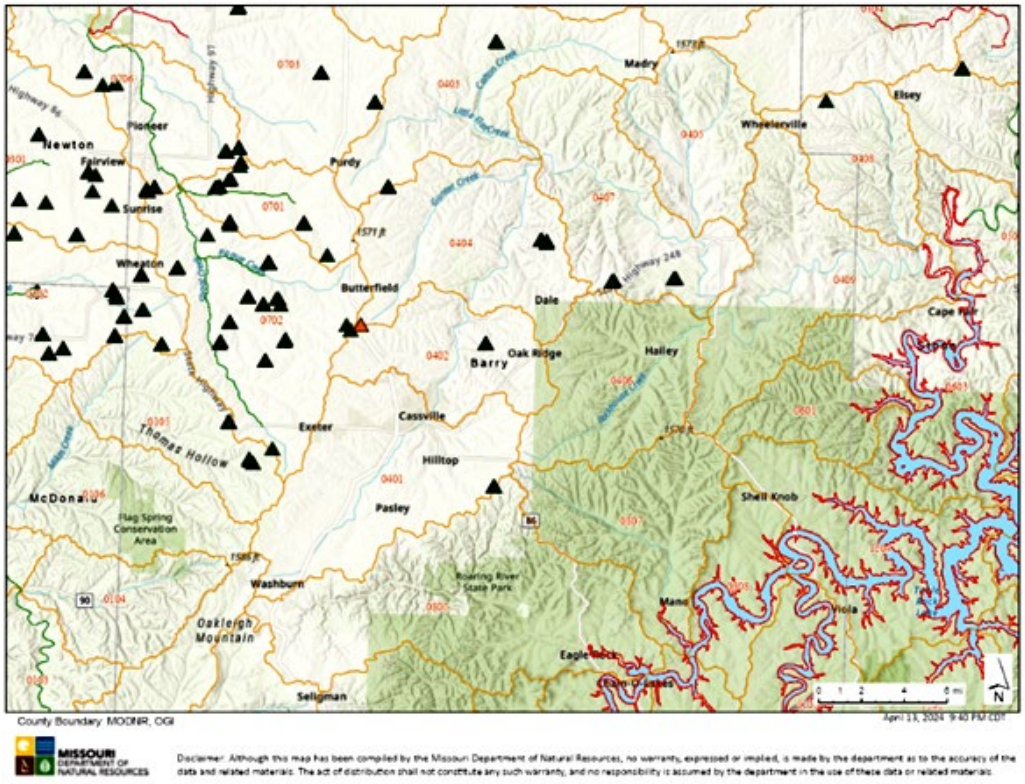
HydroAg LLC will land-apply 800 dry tons of biosolids per year on 1,470.2 acres at 17 Land-Application Sites (Permitted Features) in Barry County. It uses Missouri Department of Natural Resources' (MDNR) Biosolids Permit Application with *Form B-2: Application for an operating permit for facilities that receive primarily domestic waste and have a design flow more than 100,000 gallons per day.*

Land-Application Site Evaluation

It appears from the permit application that none of the Land-Application Sites had a site evaluation to determine if the soil, bedrock, slope, degree of gullying, amount and quality of riparian buffers, etc. make it an appropriate landscape to land-apply waste biosolids. There is no inclusion of other wastes already being applied (see CAFO map), like from the many concentrated animal feeding operations (CAFOs) in the area. There is a real risk of surface and shallow sub-surface transport from waste application runoff if the agronomic rates for plant update are not followed correctly. This is a serious oversight in the permit and needs to be included in any future permits.

Waste Tracking

The counties in the southwest corner of Missouri have had impaired waters for decades, some of which comes from nonpoint source (NPS) Organic Waste Stream land application. How much more can this area take with its **"Pollution Diet?"** We should not be putting more pollution into a system that is already impaired. How much waste can these areas reasonably be expected to manage without causing water



Barry County CAFOs (green triangles)

pollution? Missouri does not adequately track where all the different forms of organic waste are being land applied. There is no way to know if the Pollution Diet is too great or not. Lack of tracking waste to determine if there is over application occurring and contributing to impaired waters in the area is a major pollution problem in Missouri.

The *Pollution Diet* in this area is challenged with another two permits available for Public Comment (April 21, 2024 deadline.)

- HydroAg Biosolids Permit No. MO-0140490 to land-apply waste onto 74 other sites in Barry County.

- Synagro, a waste hauling company, has draft permit application No. MO-0140244 with the same to land apply waste at 67 sites in Barry County and 17 in McDonald County.

These use the Waste Stream term of "wastewater and wastewater treatment residuals." The biosolids will be hauled from Arkansas to Missouri's Barry County. The permits are different from the biosolids permits reported on here and use yet again a new permit with *Form A – Application for nondomestic permit under Missouri Clean Water Law.* What sort of coordination of waste tracking and management is occurring in this area or is it just "bring it on."

Landowner Agreement

The landowner agreement in the biosolid application is weak and an alternative is proposed from the Arkansas permit (attached to email) and examples below.

Permit Inadequacies and Need for a New General Permit

The two permits used for biosolid application (and the two upcoming Wastewater and Wastewater Treatment Residuals) are exceedingly long, convoluted, unclear, and overly burdensome for the applicant. A new General Operating Permit could consolidate all the Waste Streams into one permit. Forms should be made consistent across all the Waste Streams so the data could match and be used for uniform and consistent reporting purposes. They could be designed to have adequate waste tracking, so we know where the waste hot spots are located. Problems could be fixed like putting a waste hauling company in the "Facility" field when it is just hauling the waste away from a facility.

DETAILS on PERMIT PROBLEMS:

The draft permit package used to permit a biosolids waste hauler seems unsuited for the task; it is difficult to follow and understand. The cross-referencing required in the permit to confirm that all rules are being followed is cumbersome and inefficient.

Applicants must study multiple documents to piece together the requirements for land-applying biosolids.

Requiring applicants to select from old NPDES 2014 and 2019 documents, as well as understand the federal rules at 40 CFR 503, is unfair. Each of these documents must be researched line by line to find the differences and then one must determine which regulation appears to take precedence. That should not be the job of an applicant. It is the DNR's permit writer's responsibility to conduct this research and create an easy-to-follow permit with the requirements clearly delineated, like in the Arkansas example.

Comparison of Form B and Form B2

On March 25, 2024, MCNA submitted a Public Comment for Reed Environmental LLC to haul biosolids from Arkansas to Missouri's Vernon and Bates counties. Comparing Reed Environmental (uses Form B) to the HydroAg (uses Form B-2) permit has pointed out problems in the permits, which demonstrate our concern for lack of consistency and comparison between operations.

Application Field	HydroAg	Reed Environmental	Problem
Permit type	**Form B2:** Application for an operating permit for facilities that receive primarily domestic waste and have a design flow more than 100,000 gallons per day	**Form B:** Application for operating permit for facilities that receive primarily domestic waste and have a design flow less than 100,000 gallons per day	*Why do there have to be two different forms for hauling waste from one place to another causing inconsistency in permitting the same type of operations?*
Facility identified and No Discharge classification	HydroAg (the waste hauler) HydroAg is not a facility, but a waste hauler	Decatur WWTP (one of the sources for biosolids)	*Waste haulers are not facilities and classifying them as such is inaccurate in these permits. How does No Discharge truly relate to haulers?*
Domestic versus Industrial biosolids and Class A, Class B, etc.	HydroAg includes Industrial Waste from Tyson yet is still classified as domestic.	Domestic waste only	*Lack of clarity about when Industrial waste trumps domestic waste and how much processing the waste receives to qualify for the various classes.*
Owner	HydroAg	Reed Environmental (cannot be owner of Decatur WWTP)	*Confusion demonstrated between owner relationship to Facility type.*
Biosolids compliance with 40 CRS 503	9.9 All testing is presented in the *Waste Management Plan* (WMP), which is *not included in the permit application*	12.9 See *Biosolids Management Plan* attached *(but it is not attached).*	*Neither plan is incorporated into the permit application and naming conventions for these plans are not consistent.*

Form I – Permit application for operation of wastewater irrigation systems	Added to HydroAg – Part A, #7 not completed properly in Form I. Should Form A for industrial wastewater be added to HydroAg from Tyson industrial waste?	Not added to Reed Neither Form I or Form A added	*The quantity of additional forms is cumbersome and confusing.*
Effluent Testing Data – Monitoring	B-2 includes many pages on monitoring the waste parameters that should be included in all permits. 8. Laboratory control not completed in B-2, but should be	Monitoring not included in Form B.	*Knowing waste parameters is essential. Shows additional inconsistency between Forms B and B2 that should be rectified.*
Maps	Sections not completed properly. B-2 (Part A, Section 7) Form I (3. Land Application System, and 3.2 that requires proper maps to be included in the application	Maps somewhat better than HydroAg because setback distances added, but still not as required in the permit.	*Mapping is the key to identifying where the waste is land applied and in what quantities. Applicants must have clearly defined layers that are to be included in maps.*
B. Special Conditions, 5. Land Application of Biosolids	(a-d) *a) Biosolids Management Plan to be approved* (b, c, and e) in Reed removed from HydroAg	(a–f) a) Biosolids Management Plan to be approved (b) Subsurface Injection Requirement, (c) Temporary stockpiles (e) Slopes	*(a) The plan must be added to the application* *Lack of consistency – removing some conditions from B to B-2. Why makes such changes?*

Other Permit Considerations for Change in HydroAg Permit

A. Standard Conditions

These Standard Conditions should be eliminated as they require the research already commented upon and provide conflicting information about reporting that is not helpful.

B. Special Conditions

The Special Conditions should transition into the actual permit requirements as some important specifics begin to show up here, such as:

B.4 - Access to land

Access to land application areas and any associated biosolids application equipment must be sufficiently restricted or secured to prevent entry by children, livestock, and unauthorized persons.

- How is access securely restricted to land application areas?
- Viewing the land app areas, it is evident that these fields are located adjacent to homes and roads.
- Is fencing required to keep children and pets out of these fields? Is a warning posted that biosolids have been applied to the area so a visitor wouldn't accidentally enter the location?

B.6 - Pollutant limitations

- This is likely one of the most important, but understated, rules in the permit, yet monitoring seems limited to the 9 metals.
- Prior to land application, the permittee shall comply with the pollutant limitations, monitoring, and other requirements for metals, pathogens, and vectors in accordance with Standard Conditions Part III and 40 CFR Part 503.32. 503 Sampling and Analysis includes enteric viruses, fecal coliform, helminth ova, inorganic pollutants, salmonella sp. Bacteria, specific oxygen update rate, and total, fixed, and volatile solids.

B.7 (c) i. - Annual Report very important for tracking Land Application Sites and should be made publicly available.

- This data is comprehensive and allows DNR and the public to understand the methods and quantity of materials applied to the land. If used correctly this could provide insight into when streams, groundwater, or wells show signs of impairment. This information will also give valuable information to the land owner if problems occur with harvested crops or livestock.
- Data recorded: Location, field id, date(s) of application, volume and materials applied, source of material, acreage used, document of forecast for the area during date(s) of application, post application field assessment (ponding, pooling, runoff, solids depth, if applicable), and the annual and cumulative dry tons/acre.

B.8 - No approval needed for additional sites
This is wrong and should be changed. No additional sites should be allowed without approval. Missouri rural citizens should not have to live with the threat of a biosolids land application site suddenly popping up anywhere.

NPDES 7-1-19

Important requirements were included in this historic document.

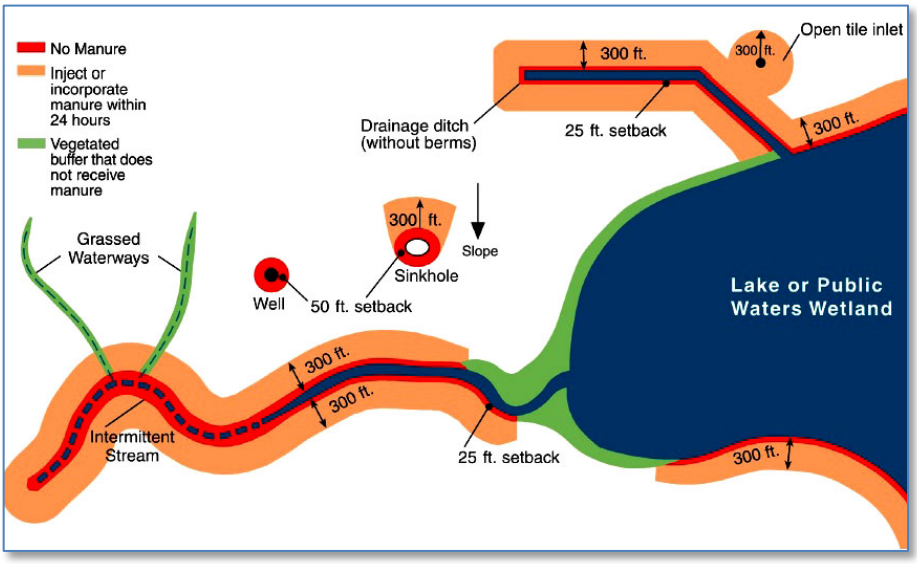
Section G - Land Application of Biosolids

G.2 Class A/Class B

It is not evident in the permit whether the material HydroAg is spreading is a Class A or B. The land owner of the application site needs to know this information due to harvest restrictions of crops grown. These restrictions should be included in the contract between land applicator and land owner, which is NOT included in the application. Class B: Specific lengthy wait times for the harvest of crops or access to areas that have had biosolids land applied. Are landowners advised to the restrictions and required to follow them if they allow the biosolids to be land applied to their fields?

G.6.d (i-vi) Setbacks
Maps in the application provide inadequate information regarding setbacks. Setback distances need to be clearly identified on any maps of the Land-Application Sites. It is difficult to find the setback distances in the permits.

Biosolids contain pollutants and must be land applied in a safe manner. Setbacks should be flagged so haulers clearly know where biosolid boundaries are located without looking at the maps.



This is an example of a map with setback distances that should be included in all draft permit land-application maps. Maps should include streams with designated uses, private wells, sinkholes, etc.

J. Monitoring

- Soil testing needs to be an initial procedure for Land-Application Sites to ensure that the soil is suitable to have biosolids land applied.
- Best Management Practices for Biosolids Land Application indicate that biosolids should not be applied to land with a pH less than 6 or greater than 7.5.

The Fact Sheet

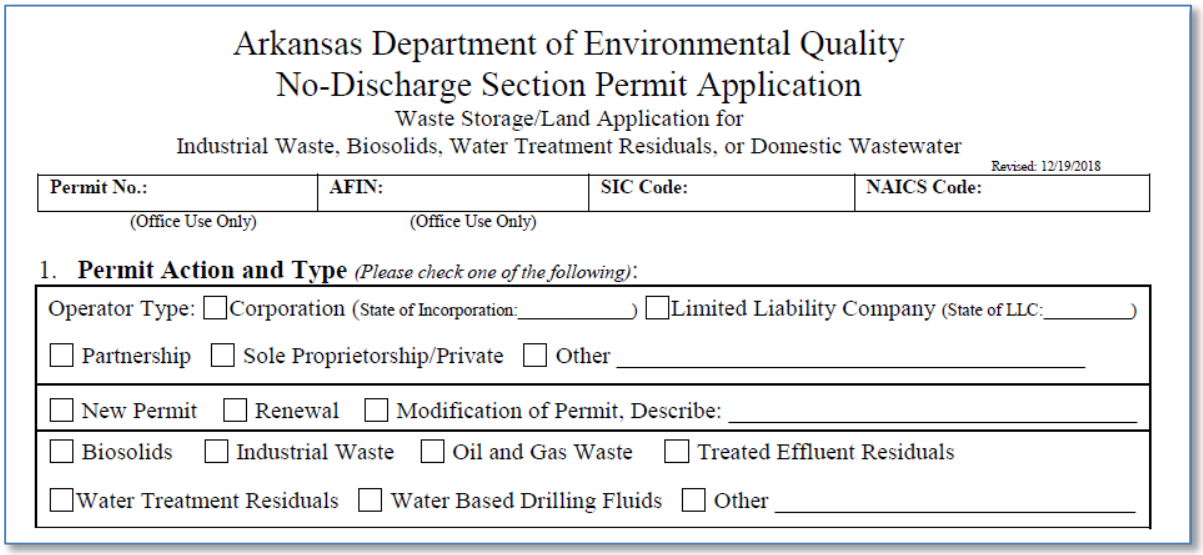
The Fact Sheet has another set of requirements that need to be added to the mix of references already required in the draft permit. These requirements ignore the danger of adding additional toxic materials in Barry County or anywhere else in the state where streams are already impaired. This basically ignores the concept of a Pollution Diet and the limitation as to how much waste can be applied to land without causing pollution.

- **Part II Receiving Stream Information** states,
  *While this facility **is no discharge,** a receiving stream is listed for the purposes of showing what stream would be affected in the event of a discharge due to an acute or chronic rain event.*
  - This is a statement that has no validity with the nature of land-applied waste products like biosolids. If not properly applied or utilized by the plants, any of these streams could receive polluted runoff from the biosolids.

- **Receiving Water Body's Water Quality** states,
  This facility conducts land application of biosolids, therefore, it does not discharge to a 303(d) listed stream or to a stream with an EPA approved TMDL.
  - This statement also has no validity. Of course, there will be runoff to these impaired streams when the biosolids are applied right next to them or in the same HUC-12. There is no question about the importance of keeping additional waste out of these impaired watersheds.

Organic Waste Streams

MCNA has a goal of creating new terms that are all encompassing and allow for simplification of permit applications. We want concise, clear, and uniform terms for discussing land-application permits. For example: Organic Waste Streams could include Wastewater Treatment Plants (WWTP) biosolids, wastewater and wastewater treatment residuals, CAFO animal waste, digestate, and more.



Arkansas Department of Environmental Quality
No-Discharge Section Permit Application
Waste Storage/Land Application for
Industrial Waste, Biosolids, Water Treatment Residuals, or Domestic Wastewater

Revised: 12/19/2018

Permit No.: (Office Use Only)	AFIN: (Office Use Only)	SIC Code:	NAICS Code:

1. **Permit Action and Type** *(Please check one of the following)*:

Operator Type: ☐ Corporation (State of Incorporation:_____) ☐ Limited Liability Company (State of LLC:_____)
☐ Partnership ☐ Sole Proprietorship/Private ☐ Other _____

☐ New Permit ☐ Renewal ☐ Modification of Permit, Describe: _____

☐ Biosolids ☐ Industrial Waste ☐ Oil and Gas Waste ☐ Treated Effluent Residuals
☐ Water Treatment Residuals ☐ Water Based Drilling Fluids ☐ Other _____

This example from Arkansas shows how all the different Waste Streams can be included in one permit application making the permit more concise and clear about what the requirements include.

MCNA thinks that simplification and consolidation of permits is superior to having numerous, complex, and redundant permit applications as DNR is currently doing for the different waste streams. We suggest this as an alternative to the process that is currently underway because it consolidates most of the land-applied waste into one permit. We think CAFO animal waste should also be included. This process facilitates tracking the waste, which should be done to make sure the Pollution Diet remains in balance across the state.

Landowner Agreement

This Arkansas example of a Landowner Agreement is another example of a comprehensive form. It is the direction Missouri should head to avoid having numerous, complex, and redundant permit applications.

Arkansas Department of Environmental Quality
No-Discharge Section Permit Application

Waste Storage/Land Application for
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Revised: 12/19/2018

Permit No.: (Office Use Only)	**AFIN:** (Office Use Only)	**SIC Code:**	**NAICS Code:**

1. **Permit Action and Type** *(Please check one of the following)*:

Operator Type: ☐Corporation (State of Incorporation:_____) ☐Limited Liability Company (State of LLC:_____)
☐ Partnership ☐ Sole Proprietorship/Private ☐ Other _____

☐ New Permit ☐ Renewal ☐ Modification of Permit, Describe: _____

☐ Biosolids ☐ Industrial Waste ☐ Oil and Gas Waste ☐ Treated Effluent Residuals
☐Water Treatment Residuals ☐ Water Based Drilling Fluids ☐ Other _____

2. **Permittee Legal Name and Mailing Address:** *(Must Match Arkansas's Secretary of State)*

Owner Name:		
Address:		Phone Number:
City:	State:	Zip Code:
Contact Person: *(Mr. / Mrs. / Ms.)*		Email:
Title:	Phone Number:	Cell Number:

3. **Facility Location** *(physical address is required; NO P.O. BOX)*:

Facility Name:			
Address *(911 Address)*:			Phone Number:
City:		State:	Zip Code:
1/4 Sec.:	Section:	Township:	Range:
Latitude: ____Deg _____Min _____Sec.		Longitude____Deg _____Min _____Sec.	Source Datum:
County:		Nearest Town:	
Nearest Stream:		Distance: (ft)	Stream Segment:
Licensed Operator Name *(if applicable)*:		Lic. # and Class:	

4. **Consultant Information:**

Name:		Consulting Firm:
Email:		Phone Number:
Address:		Cell Number:
City:	State:	Zip Code:

ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY
5301 NORTHSHORE DRIVE / NORTH LITTLE ROCK / ARKANSAS 72118-5317 / TELEPHONE 501-682-0744 / FAX 501-682-0880
www.adeq.state.ar.us

Please read the following carefully and sign below.

I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, which may include fines and/or imprisonment.

SIGNATORY REQUIREMENTS:

The information contained in this form must be certified by a **responsible official** as defined in the instructions, Part I, Section 3. For example:

Corporation: principal officer at least the level of vice president
Partnership: a general partner
Sole Proprietorship: the proprietor/owner
Limited Liability Company: a member or manager as designated by the operating agreement
Municipal, state, federal, or other public facility: principal executive officer, or ranking elected official

Responsible Official: _____ Title: _____

Responsible Telephone: _____ Email: _____

Responsible Signature: _____ Date: _____

Cognizant Official is an individual that is given signature authority from the Responsible Official

Cognizant Official: _____ Title: _____

Cognizant Telephone: _____ Email: _____

Cognizant Signature: _____ Date: _____

PERMIT REQUIREMENT VERIFICATION (Please check the following to verify the completion of permit requirements.)

Yes	No	
☐	☐	Submittal of Complete Application Does the Owner name match the Secretary of State (Corporation or Limited Liability Company)? Does the Responsible Official match the Secretary of State?
☐	☐	Submittal of Waste Management Plan Stamped & Signed by an Arkansas Registered PE/ ADH Designated Representative Are maps and site description included?
☐	☐	Submittal of Closure Plan (Oil and Gas/Water Based Drilling Fluids) Is the cost estimate included?
☐	☐	Submittal of Disclosure Statement (completed and executed) Not required for public entity
☐	☐	Submittal of Land use Contract/Deed/Lease
☐	☐	Arkansas Department of Health notification letter (letter transmitting documents to ADH) (New permits or modified permits)
☐	☐	Provide Certificate of Good Standings with the Arkansas Secretary of State (If foreign corporation, provide Certificate of Good Standings from the state of Origin)

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Land Use Contract

I, _____, agree to allow _____
Name of Landowner — Name of Permittee (matches application & AR SoS)

to land apply _____ waste from _____
Type of Waste — Waste Source or Type of Waste Facility

to _____ acres of my property located in _____ County.
Total Acreage Available — County of Application Site

Field ID	New/ Existing	Section	Township	Range	Latitude	Longitude	Available Acreage*

*Available acreage is the total acreage minus buffer zone areas

I am also aware that the land applicator or the owner of the operation is to apply _____ in
Type of Waste

accordance with the management plan developed and submitted to the Arkansas Department of Environmental Quality (ADEQ) as well as the requirements and conditions set forth in the permit issued by ADEQ. In addition to these guidelines, the following requirements must also be satisfied when land applying to my property:

_____
_____
_____
_____

The landowner agrees to provide or allow permittee to conduct soil analysis as required by ADEQ for each field listed in this land use contract prior to land application. Additionally, this approval may be terminated with written notice from the landowner.

_____ _____ _____ _____
Permittee's Signature — Date — Landowner Signature — Date

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CONTACT INFORMATION

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Supports community health and economic well-being through education and advocacy in mid-Missouri rural areas.

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