Moniteau County MCNA Neighbors Alliance

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

Public Comment

HydroAg Environmental LLC MO State Operating Permit MO-0140490

April 21, 2024

On February 16, 2024, the Missouri Department of Natural Resources (DNR) issued a Public Notice for HydroAg Environmental LLC (HydroAg) MO State Operating Permit MO-0140490, a company applying for authorization "to either discharge to waters of the state, or to operate a no-discharge wastewater treatment facility." The DNR proposes to issue a Missouri State Operating Permit for HydroAG subject to certain effluent limitations, schedules, and special conditions.

The Moniteau County Neighbors Alliance (MCNA) objects to the issuance of this permit for the numerous errors, omissions, discrepancies and/or misstatements identified in HydroAg's draft *Permit Application and Nutrient Management Plan (NMP).* We also object to the application that DNR is using to permit a hauling company that is solely land applying waste. The problems need to be fixed in this draft permit application before a permit is granted.

Questions and Comments

Terms

The terms used through the permit application are unclear, redundant, and confusing. Terms must be standardized. In this document, MCNA is using the terms:

- **Industrial Food Residue (IFR)** as an all-inclusive term for the waste products associated with food processing (as opposed to biosolids from a waste water treatment plant).
- **Nutrient Management Plan (NMP)** as an alternative to Land Application Management Plan (LAMP).

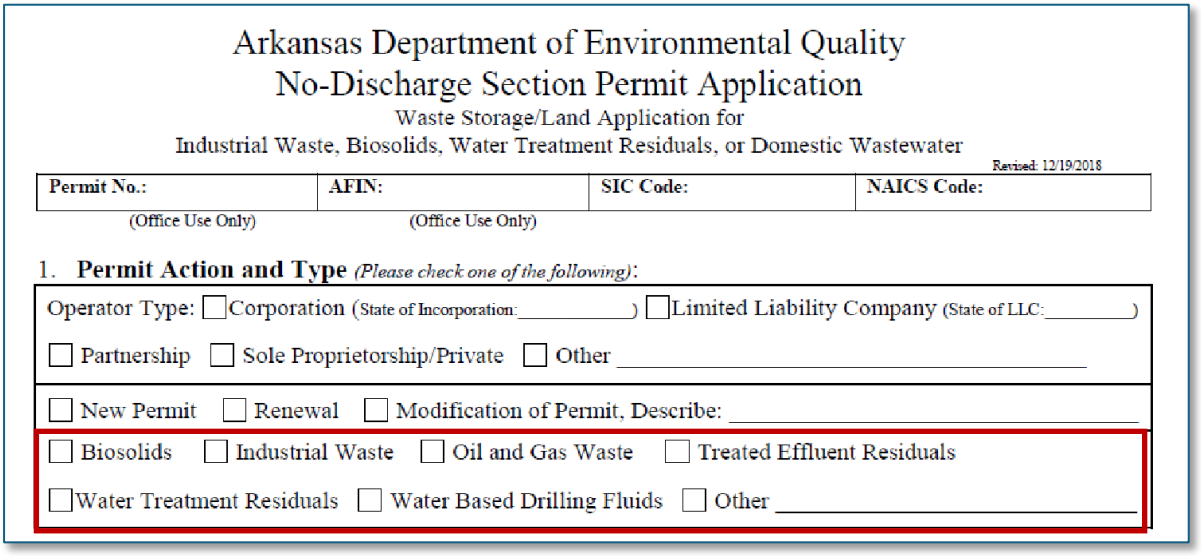
Facility Description (page 2 of 26)

How can DNR justify issuing a "facility" permit for an operation that is a waste hauling company? It clearly states in the application that "HydroAg collects and recycles pretreatment wastewater industrial food residuals (IFR) that are of food and/or organic origin from various industrial food

processing plants to be beneficially land applied as organic soil amendments to farmland. IFR may come from sources such as livestock processing including beef, pork, and poultry facilities, further food processing facilities, and industrial facilities that produce a beneficial food by-product."

It is concerning that this mixture of IFR from various sources may contain varying amounts of live bacterial and viral pathogens. It is not the same as inert digested sludge from aerobic/anaerobic wastewater processing facilities. Land application of this type of waste may be beneficial for soils, but studies show that e-coli and salmonella bacteria can live in soil for months. Extra restrictions should therefore be considered to prevent direct pathogenic contamination of streams and groundwater by this type of waste product.

MCNA believes a dedicated permit application form and permitting process for haulers of IFR land application is needed as this is not a "facility." A new type of permit needs to be developed for waste haulers, or a new general permit needs to be created that is dedicated to land application of multiple types of organic wastes. This example from Arkansas demonstrates how the different types of land-applied wastes can be included in one permit:



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 _____

Permitted Features (page 2-26)

- What sort of **Site Evaluation** process was conducted to select the 74 Land Application Sites, referred to as *Permitted Features* in the application? Was the soil, slope, degree of gullying, amount and quality of riparian buffers, timing of application, and other factors considered for their contribution to surface and shallow sub-surface transport to streams? Was a geohydrological evaluation conducted of each site?

- Why were **Legal Descriptions** and **UTM coordinates** not properly identified before being put out for review (see map below)?

- In the **USGS Basin and Sub-Watershed No.** category, why is **11010001-0805**, the Roaring River

HUC-12, used for all Permitted Features when sites are scattered across HUC-12s?

- How does the category **Application Rate Basis** describe how the waste will be applied at agronomic rates in accordance with University of Missouri Extension recommendations and procedures? There should be a specific application rate basis listed in this category.

- How can agronomic rates be estimated when the **Vegetation Type** category is non-specific about the type of plant that will be absorbing the nutrients?

- Without specifics about 1) application rate basis, 2) vegetation type, and 3) field slope, how can the proper **Equipment Type** be selected for land application?

- Why is the **Field Slope Maximum** 12% when that is above the recommended slope for waste land application? The LAMP indicates that maximum slope must be less than 10%. Other recommendations are available that specifically state what equipment must be used depending on slope differences as it is so important to prevent pollution from nutrient runoff.

- How much waste will be applied to the **Application Area** and how often? To be assured that overapplication is not occurring, land application records must show waste quantities applied by HUC-12 for tracking purposes

Form A: Application for nondomestic permit under Missouri Clean Water Law

- Why is this form used when it is for a facility and this permit application is for hauling waste for land application?

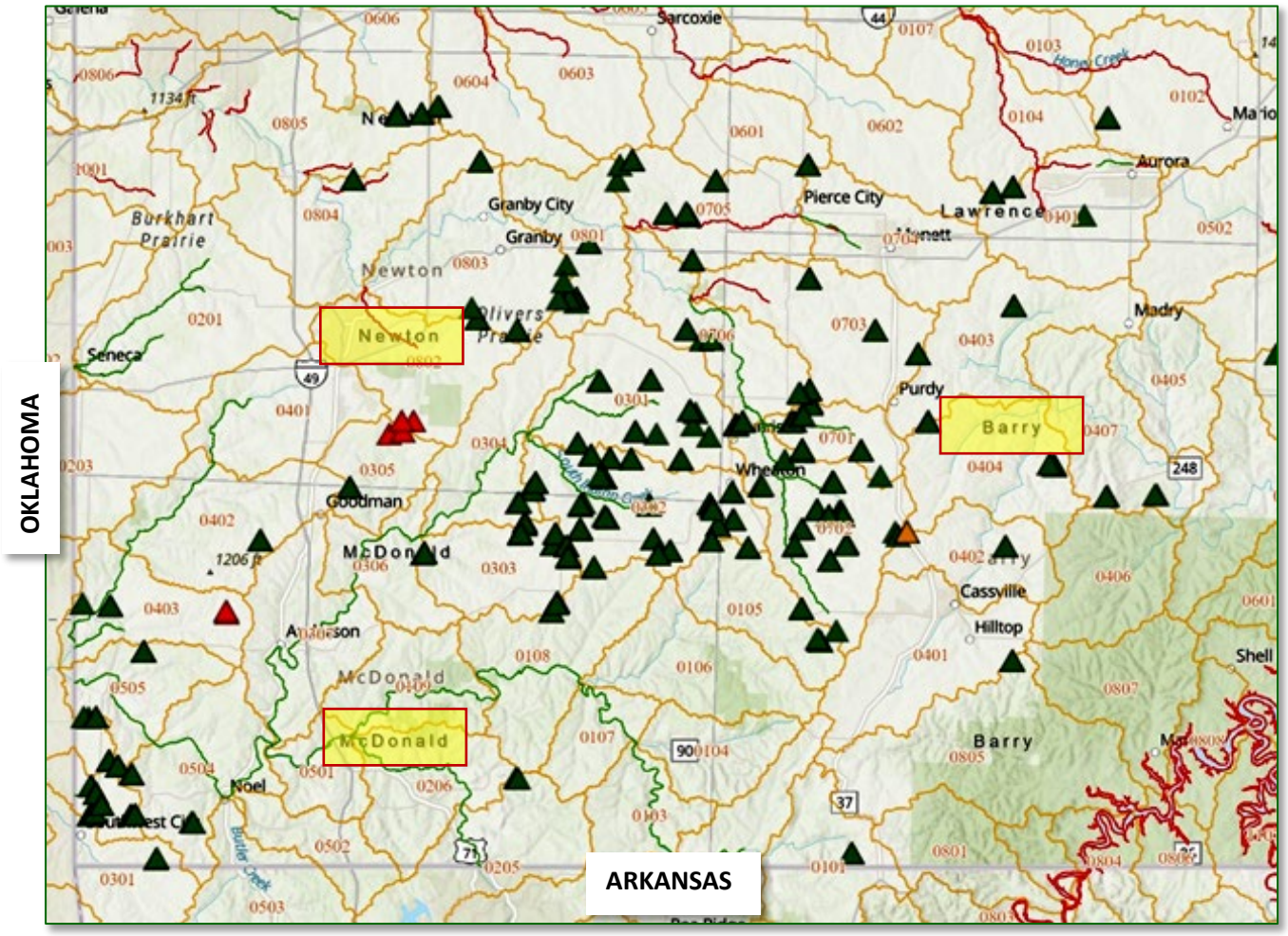
- Why is there no record required for the amount of IFR applied to the land?

- How can a no-discharge permit be used for hauling an unquantified amount of IFR for land application?

- Where is the Antidegradation Review for the application?

- Why is Continuing Authority not completed?

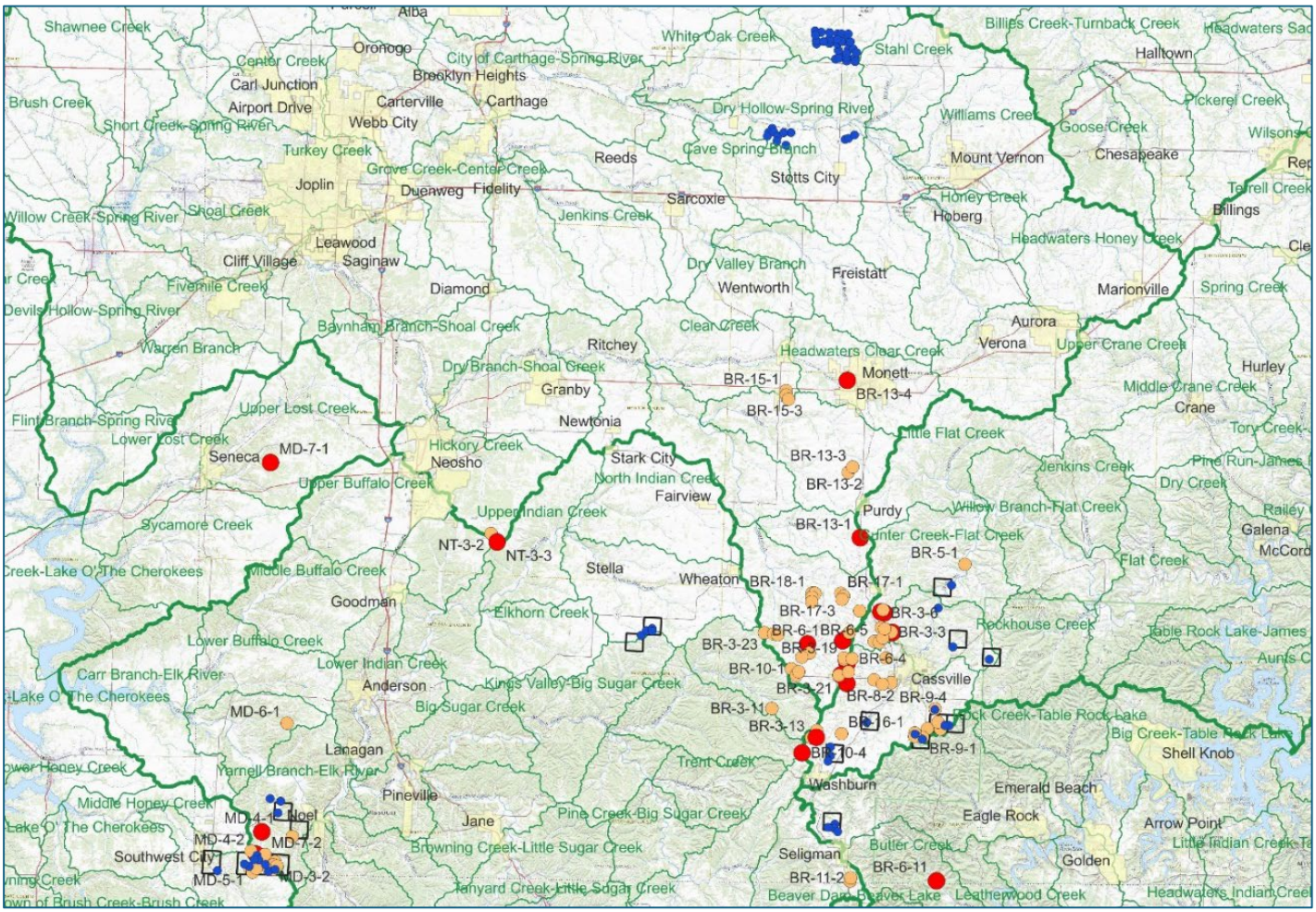
- Why is Form R not included as required in 9.D?



Southwest Missouri Location Map with Counties and CAFOs

Green triangles = Permitted concentrated animal feeding operations (CAFOs)

Map from DNR MAPiT.



Permitted Features (Land Application Sites) in Southwest Missouri

HUC 8 watersheds have **dark green** lines.
HUC 12 watersheds have light green lines and light green text.

This map shows the proposed sites from three draft permits:

1) Synagro (# MO-0140244) IFR - **ORANGE** and **RED**. **Red** indicates an apparent discrepancy between X/Y coordinates and the legal description (Sec, Township, Range)

2) HydroAg Environmental (# MO-0140490) IFR – **BLUE** dots.
Note: Many of the IFR sites appear to overlap with biosolid land application sites (see #3).

3) HydroAg Environmental (# MO-0140449) Biosolids – **BLACK** squares (1-mile^2 "sections") for biosolid application.

Effluent Limitations and Monitoring Requirements

- Why is quarterly testing required for out-of-state facilities, but not for in-state facilities?
- Wouldn't quarterly testing ensure that ILR isn't overapplied to Missouri land, thereby protecting soil and water quality?
- Why is waste testing not based on multiple (composite) samples rather than a single grab sample when it ensures accuracy?
- Will testing be required for PFAS now that EPA is providing such requirements?
- Will effluent sampling test results be easily accessible to the public?

IFR Sources and Mapping

- Will DNR require a Site Evaluation for any permitted feature, including all fields proposed after a permit is issued by DNR, that requires a geohydrologic evaluation prior to any land application occurring?
- How will DNR hold HydroAg and its contractors accountable for proper land application of IFR?
- Are the individual sources of IFR identified in the application?
- Will IFR be tracked by the originating facility in case phototoxicity occurs in plants or if animal health issues arise at land application sites?
- Will DNR require land application IFR quantities be reported by HUC-12?
- Will DNR require proper maps from the permittee including adequate USGS maps with sensitive 10-year floodplain features (such as swales and adjacent flood channels), setbacks from private drinking water wells, dwellings, and losing streams, etc.?
- Does DNR plan to deny land application in the 100-year flood plain? Ten-year flood plain buffers are insufficient in Karst areas underlain by limestone.
- Will future homesites have setbacks established and land application areas changed to protect new homes and wells?
- What evidence will DNR have that proper flagging of sensitive features is routinely done correctly and closely observed during land application operations to protect ground and surface water?

Soil Testing

- How can application rates and loading be accomplished without specific information on soil sampling, including for low volume fields?

- Why is there no mention of pH testing as recommended by the University of Missouri Extension prior to land application of IFR?

Operational Control and Forage/Grazing Deferments

- What constitutes "operational control" for land application?

- Does each land application site have a unique Nutrient Management Plan (NMP)? If so, which entity develops it?

- Will a specific schedule for monitoring phytotoxicity be in the application rate and loading plan?

- How will Forage/Grazing deferment be communicated to the landowners that are not under direct operational control of the permittee? (The sample land application landowner agreement does not include the deferment statement.)

Accountability and Reporting

- How will DNR hold HydroAg and its contractors accountable for adhering to *Land Application Field Minimum Requirements* and for reporting requirements?

- How will the resulting data be made publicly available and easily and quickly accessible?

Permit Denial:
The application for the HydroAg Environmental State Operating Permit MO-0140490 should be denied due numerous errors, omissions, discrepancies and/or misstatements contained in the draft permit.

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