

## Anastasia Sharp

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**From:** Jeff Retzke <jeff.retzke@denaliwater.com>  
**Sent:** Friday, August 11, 2017 3:38 PM  
**To:** Eddy Bouzeid; Anastasia Sharp  
**Cc:** Rob Richmond; Randy Sollie  
**Subject:** RE: Chickasaw Trails Biosolids Land Application Site off Nucholls Road, Fayette County, TN  
**Attachments:** SOUR 1710800 Basic Report FINAL 08 10 2017 1133.pdf; CN-1441 NOI 8-11-17.pdf; agronomic\_calca.pdf

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Good afternoon Eddy and Ms. Sharp,

Attached is the SOUR result [(0.89 mg/g/hr (dw))] for Chickasaw Trails, the TDEC agronomic rate calculator, and the revised, and, hopefully satisfactory, completed NOI submittal. The passing SOUR test means we would like to surface land apply the material on the Nuckolls farm.

Additionally, please note that I slightly modified the rate calculator to account for the Bermuda grass rate of 200 lbs of PAN/ac/yr. The 200 lb nitrogen requirement is identified in the general rule in Section 3.2.2 (see below). Thanks in advance for your consideration in regards to this Notice of Intent.

Table 4 – Crop Nitrogen Requirements

CROP	EXPECTED YIELD	NITROGEN REQUIREMENT (lbs N per acre per year)
Corn (grain)	100-125 bu/ac	120
	125-150 bu/ac	150
Corn (silage)	20 tons/ac	120-150
Bermuda grass	5-10 tons/ac	200
Soybeans(1)	30 bu/ac	100
	40 bu/ac	150
	50 bu/ac	190
Wheat	40 bu/ac	60
Summer Annual Grass	6 tons (1 cutting)*	60-120
Hybrid Hay	8 tons (4 cuttings)*	400(2)
Tall Fescue Hay	3 tons (2 cuttings)*	120
Orchard Grass Hay	4 tons (2 cuttings)*	60-120
Sorghum (grain)	60 bu/ac	60
Cotton	1 bale/ac	50
	1.5 bales/ac	90
Other (3)	(3)	(3)

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**From:** Eddy Bouzeid [<mailto:Eddy.Bouzeid@tn.gov>]  
**Sent:** Thursday, August 03, 2017 1:47 PM  
**To:** Anastasia Sharp  
**Cc:** Jeff Retzke; John Newberry  
**Subject:** Chickasaw Trails Biosolids Land Application Site off Nucholls Road, Fayette County, TN

In response to a request from Mr. Jeff Retzke with Denali Water Solutions, I conducted a site suitability regarding the application of biosolids from the Chickasaw Trails Waste Water Treatment Plant (WWTP) in Mississippi. On Thursday, August 3, 2017, I met with Retzke at the Nucholls Road land application site to determine the site suitability. The land application site's coordinates are: 35.136145; -89.553261.

The above reference site was, at the time of the site visit, in hay production. Mr. Retzke stated that the site is expected to stay in hay production. A site map was submitted with the NOI. All the channels onsite would be considered waters of the State (streams) for the purpose of buffer requirements. Based on the site assessment, it appears that the Nucholls Road land application site is suitable for the biosolids land application (see attached photos).

Meanwhile, I informed Mr. Retzke that the permittee must comply with the requirements of the General State Operation Permit for the Land Application of Non-Exceptional quality Biosolids before any land application, specifically the following sections of the permit:

1. Section 3.1.2 – Pathogen Reduction
2. Section 3.1.2.3 - Site Restrictions for Class B Biosolids and,
3. Section 3.1.3 - Vector Attraction Reduction Limitations

Before leaving the site, Mr. Retzke, informed me that he was headed to the Chickasaw Trails WWTP to collect another biosolids sample for volatile percent solids and SOUR testing. He was also going to resubmit another verification of their agronomic loading rate calculations. Once all the data is collected, he will forward it all to you.

Please let me know if you have any questions.



Eddy Bouzeid  
Environmental Protection Specialist  
Tennessee Department of Environment and Conservation  
Division of Water Resources  
Office (901) 371-3023

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