North Carolina Department of Environment and Natural Resources
Division of Water Resources
Water Quality Programs
Thomas A. Reeder
Director

Pat McCrory
Governor

John E. Skvarla, III
Secretary

March 3, 2014

Murphy-Brown LLC
Fox Ridge Complex
PO Box 856
Warsaw, NC 28398

Subject: Application for Renewal of Coverage for Expiring State General Permit

Dear Permittee:

Your facility is currently approved for operation under one of the Animal Waste Operation State Non-Discharge General Permits, which expire on September 30, 2014. Copies of the new animal waste operation State Non-Discharge General Permits are available at http://www.ncwaterquality.org/web/wq/aps/afo/apps or by writing or calling:

NCDENR–DWR
Animal Feeding Operations Branch
1636 Mail Service Center
Raleigh, North Carolina 27699-1636

Telephone number: (919) 807-6464

In order to assure your continued coverage under the State Non-Discharge General Permits, you must submit an application for permit coverage to the Division. Enclosed you will find a 'Request for Certificate of Coverage Facility Currently Covered by an Expiring State Non-Discharge General Permit.' The application form must be completed, signed and returned by **April 1, 2014**. Please note that you must **include one (1) copy of your most recent Waste Utilization Plan with the signed application form.**

Failure to request renewal of your coverage under a general permit within the time period specified may result in a civil penalty. Operation of your facility without coverage under a valid general permit would constitute a violation of NCGS 143-215.1 and could result in assessments of civil penalties of up to $25,000 per day.

If you have any questions about the State Non-Discharge General Permits, the enclosed application, or any related matter please feel free to contact the Animal Feeding Operations Branch staff at 919-807-6464.

Sincerely,

S. Jay Zimmerman, P.G., Chief
Water Quality Regional Operations Section

Enclosures
cc (w/o enclosures): Fayetteville Regional Office, Water Quality Regional Operations Section
Anson County Soil and Water Conservation District
WQROS Unit Central Files - AWS040030
Murphy-Brown LLC

1636 Mail Service Center, Raleigh, North Carolina 27699-1636
Location: 512 N. Salisbury St. Raleigh, North Carolina 27604
Phone: 919-807-6464 \ FAX: 919-807-6492
Internet: www.ncwaterquality.org

State of North Carolina
Department of Environment and Natural Resources
Division of Water Resources

Animal Waste Management Systems
Request for Certificate of Coverage
Facility Currently Covered by an Expiring State Non-Discharge General Permit

On September 30, 2014, the North Carolina State Non-Discharge General Permits for Animal Waste Management Systems will expire. As required by these permits, facilities that have been issued Certificates of Coverage to operate under these State Non-Discharge General Permits must apply for renewal at least 180 days prior to their expiration date. Therefore, all applications must be received by the Division of Water Resources by no later than **April 1, 2014**.

Please do not leave any question unanswered. Please verify all information and make any necessary corrections below.

Application must be signed and dated by the Permittee.

1. Facility Number: 040030 and Certificate of Coverage Number: AWS040030
2. Facility Name: Fox Ridge Complex
3. Landowner's name (same as on the Waste Management Plan): Murphy-Brown LLC
4. Landowner's mailing address: PO Box 856
   City/State: Warsaw NC Zip: 28398
   Telephone Number (include area code): (910)293-5330 **E-mail:** kraigwesterbeek@murphybrownllc.com
5. **Facility's physical address:** Sr 1621
   City: Wadesboro **State:** NC **Zip:** 28170
6. County where facility is located: Anson
7. Farm Manager's name (If different than the Landowner): David Nordin
8. Farm Manager's telephone number (include area code): _____
9. Integrator's name (if there is not an integrator write "None"): Murphy-Brown LLC
10. Operator in Charge (OIC) name: Sanford Williams Telephone Number 910-217-2016 OIC # 994935
11. Lessee's name (if there is not a lessee write "None"): _____
12. Indicate animal operation type and number:

Swine		**Cattle**	**Dry Poultry**
Wean to Finish		Dairy Calf	Non Laying Chickens
Wean to Feeder	**2000**	Dairy Heifer	Laying Chickens
Farrow to Finish		Milk Cow	Turkeys
Feeder to Finish	**3360**	Dry Cow	Other
Farrow to Wean	**3600**	Beef Stocker Calf	Pullets
Farrow to Feeder		Beef Feeder	Turkey Poults
Boar/Stud	**50**	Beef Brood Cow	
Gilts	**100**	Other	
Other			**Wet Poultry**
Horses - Horses		Sheep - Sheep	Non Laying Pullets
Horses - Other		Sheep - Other	Layers

Mail one (1) copy of the most recent Waste Utilization Plan (WUP) along with the field maps for this facility with this completed and signed application as required by NC General Statures 143-215.10C(d) to the address below. The WUP must be signed by the owner and a certified technical specialist.

As a second option to mailing paper copies of the application package, you can scan and email one signed copy of the application and the WUP to: animalpermits@ncdenr.gov

I attest that this application has been reviewed by me and is accurate and complete to the best of my knowledge. I understand that, if all required parts of this application are not completed and that if all required supporting information and attachments are not included, this application package will be returned to me as incomplete. **Note**: In accordance with NC General Statutes 143-215.6A and 143-215.6B, any person who knowingly makes any false statement, representation, or certification in any application may be subject to civil penalties up to $25,000 per violation. (18 U.S.C. Section 1001 provides a punishment by a fine of not more than $10,000 or imprisonment of not more than 5 years, or both for a similar offense.)

Printed Name of Signing Official (Landowner, or if multiple Landowners all landowners should sign. If Landowner is a corporation, signature should be by a principal executive officer of the corporation):

Name: Murphy Brown, LLC Title: owner

Signature: _____ Date: 3-14-2014

Name: _____ Title: _____

Signature: _____ Date: _____

Name: _____ Title: _____

Signature: _____ Date: _____

THE COMPLETED APPLICATION SHOULD BE SENT TO THE FOLLOWING ADDRESS:

NCDENR–DWR
Animal Feeding Operations Branch
1636 Mail Service Center
Raleigh, North Carolina 27699-1636

Telephone number: (919) 807-6464
E-mail: animalpermits@ncdenr.gov

Murphy-Brown, LLC

3/24/2014

2822 Hwy 24 West
P.O. Box 856
Warsaw, NC 28398

NUTRIENT UTILIZATION PLAN

Grower(s):	Murphy-Brown, LLC
Farm Name:	Fox Ridge; Fac. No.: 4-30
County:	Anson

Farm Capacity:	
Farrow to Wean	3600
Stud, Isolation,	150
Depot, Truck Wash	46.3
Wean to Feeder	2000
Feeder to Finish	3360

Storage Structure:	Anaerobic Lagoon
Storage Period:	>180 days
Application Method:	Irrigation

The waste from your animal facility must be land applied at a specified rate to prevent pollution of surface water and/or groundwater. The plant nutrients in the animal waste should be used to reduce the amount of commercial fertilizer required for the crops in the fields where the waste is to be applied.

This waste utilization plan uses nitrogen as the limiting nutrient. Waste should be analyzed before each application cycle. Annual soil tests are strongly encouraged so that all plant nutrients can be balanced for realistic yields of the crop to be grown.

Several factors are important in implementing your waste utilization plan in order to maximize the fertilizer value of the waste and to ensure that it is applied in an environmentally safe manner:

1. Always apply waste based on the needs of the crop to be grown and the nutrient content of the waste. Do not apply more nitrogen than the crop can utilize.

2. Soil types are important as they have different infiltration rates, leaching potentials, cation exchange capacities, and available water holding capacities.

3. Normally waste shall be applied to land eroding at less than 5 tons per acre per year. Waste may be applied to land eroding at 5 or more tons per acre annually, but less than 10 tons per acre per year providing that adequate filter strips are established.

4. Do not apply waste on saturated soils, when it is raining, or when the surface is frozen. Either of these conditions may result in runoff to surface waters which is not allowed under DWQ regulations.

5. Wind conditions should also be considered to avoid drift and downwind odor problems.

6. To maximize the value of the nutrients for crop production and to reduce the potential for pollution, the waste should be applied to a growing crop or applied not more than 30 days prior to planting a crop or forages breaking dormancy. Injecting the waste or disking will conserve nutrients and reduce odor problems.

This plan is based on the waste application method shown above. If you choose to change methods in the future, you need to revise this plan. Nutrient levels for different application methods are not the same.

The estimated acres needed to apply the animal waste is based on typical nutrient content for this type of facility. In some cases you may want to have plant analysis made, which could allow additional waste to be applied. Provisions shall be made for the area receiving waste to be flexible so as to accommodate changing waste analysis content and crop type. Lime must be applied to maintain pH in the optimum range for specific crop production.

This waste utilization plan, if carried out, meets the requirements for compliance with 15A NCAC 2H .0217 adopted by the Environmental Management Commission.

AMOUNT OF WASTE PRODUCED PER YEAR (gallons, ft^3, tons, etc.):

Capacity	Type	Waste Produced per Animal	Total
3600	Farrow to Wean	3212 gal/yr	11,563,200 gal/yr
150	Farrow to Feeder	4015 gal/yr	602,250 gal/yr
46.3	Farrow to Finish	10585 gal/yr	490,086 gal/yr
2000	Wean to Feeder	223 gal/yr	446,000 gal/yr
3360	Feeder to Finish	986 gal/yr	3,312,960 gal/yr
		Total	**16,414,496 gal/yr**

AMOUNT OF PLANT AVAILABLE NITROGEN PRODUCED PER YEAR (lbs):

*46.3 Capacity is equivalent combination of remaining animals on site.

Capacity	Type	Nitrogen Produced per Animal	Total
3600	Farrow to Wean	5.4 lbs/yr	19,440 lbs/yr
150	Stud, Isolation,	6.5 lbs/yr	975 lbs/yr
46.3	Depot, Truck Wash	26 lbs/yr	1,204 lbs/yr
2000	Wean to Feeder	0.48 lbs/yr	960 lbs/yr
3360	Feeder to Finish	2.3 lbs/yr	7,728 lbs/yr
		Total	**30,307 lbs/yr**

Applying the above amount of waste is a big job. You should plan time and have appropriate equipment to apply the waste in a timely manner.

LAND UTILIZATION SUMMARY

The following table describes the nutrient balance and land utilization rate for this facility Note that the Nitrogen Balance for Crops indicates the ratio of the amount of nitrogen produced on this facility to the amount of nitrogen that the crops under irrigation may uptake and utilize in the normal growing season.

Total Irrigated Acreage:	**170.43**
Total N Required 1st Year:	**38280.76**
Total N Required 2nd Year:	**0**

Average Annual Nitrogen Requirement of Crops:	**38,280.76**
Total Nitrogen Produced by Farm:	**30,306.80**
Nitrogen Balance for Crops:	**(7,973.96)**

The following table describes the specifications of the hydrants and fields that contain the crops designated for utilization of the nitrogen produced on this facility. This chart describes the size, soil characteristics, and uptake rate for each crop in the specified crop rotation schedule for this facility.

Reception Area Specifications

Tract	Field	Irrigated Acreage	Soil Type	1st Crop Code	Time to Apply	1st Crop Yield	1st Crop lbs N/Unit	Lbs N/Ac Residual	Lbs N /Ac	Total lbs N Utilized	2nd Crop Code	Time to Apply	2nd Crop Yield	2nd Crop lbs N/Unit	Lbs N/Ac Residual	Lbs N /Ac	Total lbs N Utilized	Total Lbs N/Ac	Total lbs N Utilized
T1206	1	4.82	Badin	H	Aug-Jul	4.0	50		200	964	*					0	0	200	964
T1206	2	3.58	Badin	H	Aug-Jul	4.0	50		200	716	*					0	0	200	716
T1206	4	1.81	Badin	H	Aug-Jul	4.0	50		200	362	*					0	0	200	362
T1206	5	6.19	Badin	H	Aug-Jul	4.0	50		200	1238	*					0	0	200	1238
T1206	6	4.7	Badin	H	Aug-Jul	4.0	50		200	940	*					0	0	200	940
T1206	7	3.9	Badin	H	Aug-Jul	4.0	50		200	780	*					0	0	200	780
T1206	8	0.66	Badin	H	Aug-Jul	4.0	50		200	132	*					0	0	200	132
T1206	9	1.85	Badin	H	Aug-Jul	4.0	50		200	370	*					0	0	200	370
T1206	10	1.96	Tarrus	H	Aug-Jul	4.5	50		225	441	*					0	0	225	441
T1206	11	1.94	Tarrus	H	Aug-Jul	4.5	50		225	436.5	*					0	0	225	436.5
T1206	12	3.26	Tarrus	H	Aug-Jul	4.5	50		225	733.5	*					0	0	225	733.5
T1206	13	4.79	Badin	C	Mar-Sept	4.0	50		200	958	L	Sept-Apr	1	50		50	239.5	250	1197.5
T1206	14	5.08	Badin	C	Mar-Sept	4.0	50		200	1016	L	Sept-Apr	1	50		50	254	250	1270
T1206	15	5.71	Badin	C	Mar-Sept	4.0	50		200	1142	L	Sept-Apr	1	50		50	285.5	250	1427.5
T1206	16	5.28	Badin	C	Mar-Sept	4.0	50		200	1056	L	Sept-Apr	1	50		50	264	250	1320
T1206	17A	29.21	Badin	C	Mar-Sept	4.0	50		200	5842	L	Sept-Apr	1	50		50	1460.5	250	7302.5
T1206	17B	29.21	Badin	C	Mar-Sept	4.0	50		200	5842	L	Sept-Apr	1	50		50	1460.5	250	7302.5
T1206	21	2.88	Badin	C	Mar-Sept	4.0	50		200	576	L	Sept-Apr	1	50		50	144	250	720
T1206	28	2.16	Badin	F	Mar15-July	700.0	0.12	30	54	116.64	CoverCrop	Sept-Apr	30	1		30	64.8	84	181.44
T1206	29	4.23	Badin	F	Mar15-July	700.0	0.12	30	54	228.42	CoverCrop	Sept-Apr	30	1		30	126.9	84	355.32
T1206	30	1.33	Badin	H	Aug-Jul	4.0	50		200	266	*					0	0	200	266
T1206	F31-32	16.1	Badin	H	Aug-Jul	4.0	50		200	3220	*					0	0	200	3220
T1206	Murphy A	12.29	Badin	H	Aug-Jul	4.0	50		200	2458	*					0	0	200	2458
T1206	Sub 13-27	12.98	Badin	C	Mar-Sept	4.0	50		200	2596	L	Sept-Apr	1	50		50	649	250	3245
T1206	Sub 30	4.51	Badin	H	Aug-Jul	4.0	50		200	902	*					0	0	200	902
Totals:		***170.43***								***33332.06***							***4948.7***		***38280.76***

Reception Area Specifications

Tract	Field	Irrigated Acreage	Soil Type	1st Crop Code	Time to Apply	1st Crop Yield	1st Crop lbs N/Unit	Lbs N/Ac Residual	Lbs N /Ac	Total lbs N Utilized	2nd Crop Code	Time to Apply	2nd Crop Yield	2nd Crop lbs N/Unit	Lbs N/Ac Residual	Lbs N /Ac	Total lbs N Utilized	Total Lbs N/Ac	Total lbs N Utilized
Totals:		*0*								*0*							*0*		*0*

This plan does not include commercial fertilizer. The farm should produce adequate plant available nitrogen to satisfy the requirements of the crops listed above.

The applicator is cautioned that P and K may be over applied while meeting the N requirements. In the future, regulations may require farmers in some parts of North Carolina to have a nutrient management plan that addresses all nutrients. This plan only addresses nitrogen.

In interplanted fields (i.e. small grain, etc, interseeded in bermuda), forage must be removed through grazing, hay, and/or silage. Where grazing, plants should be grazed when they reach a height of six to nine inches. Cattle should be removed when plants are grazed to a height of four inches. In fields where small grain, etc, is to be removed for hay or silage, care should be exercised not to let small grain reach maturity, especially late in the season (i.e. April or May). Shading may result if small grain gets too high and this will definately interfere with stand of bermudagrass. This loss of stand will result in reduced yields and less nitrogen being utilized. Rather than cutting small grain for hay or silage just before heading as is the normal situation, you are encouraged to cut the small grain earlier. You may want to consider harvesting hay or silage two to three times during the season, depending on the time small grain is planted in the fall.

The ideal time to interplant small grain, etc, is late September or early October. Drilling is recommended over broadcasting. Bermudagrass should be grazed or cut to a height of about two inches before drilling for best results.

CROP CODE LEGEND

Crop Code	Crop	Lbs N utilized / unit yield
A	Barley	1.6 lbs N / bushel
B	Grazed Bermudagrass	37.5 lbs N / ton
C	Hybrid Bermudagrass Hay	50 lbs N / ton
D	Corn - Grain	1.25 lbs N / bushel
E	Corn - Silage	12 lbs N / ton
F	Cotton	0.12 lbs N / lbs lint
G	Grazed Fescue	37.5 lbs N / ton
H	Fescue - Hay	50 lbs N / ton
I	Oats	1.3 lbs N / bushel
J	Rye	2.4 lbs N / bushel
K	Grazed Overseed	50 lbs N / acre
L	Overseed Hay	50 lbs N / acre
M	Grain Sorghum	2.5 lbs N / cwt
N	Wheat	2.4 lbs N / bushel
O	Soybean	4.0 lbs N / bushel
P	Pine Trees	40 lbs N / acre / yr

Acres shown in the preceding table are considered to be the usable acres excluding required buffers, filter strips along ditches, odd areas unable to be irrigated, and perimeter areas not receiving full application rates due to equipment limitations. Actual total acres in the fields listed may, and most likely will be, more than the acres shown in the tables.

See attached map showing the fields to be used for the utilization of animal waste.

SLUDGE APPLICATION:

The following table describes the annual nitrogen accumulation rate per animal in the lagoon sludge

Farm Specifications	PAN/yr/animal	Farm Total/yr
3600 Farrow to Wean	0.84	3024
150 Farrow to Feeder	1	150
46.3 Farrow to Finish	4.1	189.83
2000 Wean to Feeder	0.072	144
3360 Feeder to Finish	0.36	1209.6

The waste utilization plan must contain provisions for periodic land application of sludge at agronomic rates. The sludge will be nutrient rich and will require precautionary measures to prevent over application of nutrients or other elements. Your production facility will produce approximately 4717.43 pounds of plant available nitrogen per year will accumulate in the lagoon sludge based on the rates of accumulation listed above.

If you remove the sludge every 5 years, you will have approximately 23587.15 pounds of plant available nitrogen to utilize. Assuming you apply this PAN to hybrid bermuda grass hayland at the rate of 300 pounds of nitrogen per acre, you will need 78 acreas of land. If you apply the sludge to corn at a rate of 125 pounds per acre, you will need 188.6972 acres of land. Please note that these are only estimates of the PAN produced and the land required to utilize that PAN. Actual values may only be determined by sampling the sludge for plant available nitrogen content prior to application Actual utilization rates will vary with soil type, crop, and realistic yield expectations for the specific application fields designated for sludge application at time of removal.

APPLICATION OF WASTE BY IRRIGATION:

The irrigation application rate should not exceed the intake rate of the soil at the time of irrigation such that runoff or ponding occurs. This rate is limited by initial soil moisture content, soil structure, soil texture, water droplet size, and organic solids. The application amount should not exceed the available water holding capacity of the soil at the time of irrigation nor should the plant available nitrogen applied exceed the nitrogen needs of the crop.

If surface irrigation is the method of land application for this plan, it is the responsibility of the producer and irrigation designer to ensure that an irrigation system is installed to properly irrigate the acres shown in the preceding table. Failure to apply the recommended rates and amounts of nitrogen shown in the tables may make this plan invalid.

*This is the maximum application amount allowed for the soil assuming the amount of nitrogen allowed for the crop is not over applied. In many situations, the application amount shown cannot be applied because of the nitrogen limitation. The maximum application amount shown can be applied under optimum soil conditions.

Your facility is designed for >180 days of temporary storage and the temporary storage must be removed on the average of once every 6 months. In no instance should the volume of the waste stored in your structure be within the 25 year 24 hour storm storage or one foot of freeboard except in the event of the 25 year 24 hour storm.

It is the responsibility of the producer and waste applicator to ensure that the spreader equipment is operated properly to apply the correct rates to the acres shown in the tables. Failure to apply the recommended rates and amounts of nitrogen shown in the tables may make this plan invalid.

Call your technical specialist after you receive the waste analysis report for assistance in determining the amount of waste per acre and the proper application prior to applying the waste.

Application Rate Guide

The following is provided as a guide for establishing application rates and amounts.

Tract	Hydrant	Soil Type	Crop	Application Rate in/hr	Application Amount * inches
T1206	1	Badin	H	0.35	1
T1206	2	Badin	H	0.35	1
T1206	4	Badin	H	0.35	1
T1206	5	Badin	H	0.35	1
T1206	6	Badin	H	0.35	1
T1206	7	Badin	H	0.35	1
T1206	8	Badin	H	0.35	1
T1206	9	Badin	H	0.35	1
T1206	10	Tarrus	H	0.5	1
T1206	11	Tarrus	H	0.5	1
T1206	12	Tarrus	H	0.5	1
T1206	13	Badin	C	0.35	1
T1206	14	Badin	C	0.35	1
T1206	15	Badin	C	0.35	1
T1206	16	Badin	C	0.35	1
T1206	17A	Badin	C	0.35	1
T1206	17B	Badin	C	0.35	1
T1206	21	Badin	C	0.35	1
T1206	28	Badin	F	0.35	1
T1206	29	Badin	F	0.35	1
T1206	30	Badin	H	0.35	1
T1206	F31-32	Badin	H	0.35	1
T1206	Murphy A	Badin	H	0.35	1
T1206	Sub 13-27	Badin	C	0.35	1
T1206	Sub 30	Badin	H	0.35	1

Additional Comments:

This plan revised to show a crop change from row crops to fescue hay for (hyds 1-12) and from the high rate to the regular rate on the overseed (hyds 13-21). All other parameters remianed the same.

Matua may be substituted as the overseed crop if desired. The PAN rates and application windows will remain the same, with half of the total PAN applied during each of the specified windows. The overseed crop must be removed by the first week of April.

NUTRIENT UTILIZATION PLAN CERTIFICATION

Name of Farm: **Fox Ridge; Fac. No.: 4-30**
Owner: **Murphy-Brown, LLC**
Manager:

Owner/Manager Agreement:

I/we understand and will follow and implement the specifications and the operation and maintenance procedures established in the approved animal waste nutrient management plan for the farm named above. I/we know that any expansion to the existing design capacity of the waste treatment and/or storage system, or construction of new facilities, will require a new nutrient management plan and a new certification to be submitted to DWQ before the new animals are stocked.

I/we understand that I must own or have access to equipment, primarily irrigation equipment, to land apply the animal waste described in this nutrient management plan. This equipment must be available at the appropriate pumping time such that no discharge occurs from the lagoon in the event of a 25 year 24 hour storm. I also certify that the waste will be applied on the land according to this plan at the appropriate times and at rates which produce no runoff.

This plan will be filed on site at the farm office and at the office of the local Soil and Water Conservation District and will be available for review by NCDWQ upon request.

Name of Facility Owner: **Murphy-Brown, LLC**

Signature: _____ 9-1-2013
Date

Name of Manager (if different from owner): _____

Signature: _____
Date

Name of Technical Specialist: **Toni W. King**
Affiliation: **Murphy-Brown, LLC.**
Address: **2822 Hwy 24 West, PO Drawer 856**
Warsaw, NC 28398
Telephone: **(910) 293-3434**

Signature: Toni W. King 9-1-2013
Date

NUTRIENT UTILIZATION PLAN

REQUIRED SPECIFICATIONS

1 Animal waste shall not reach surface waters of the state by runoff, drift, manmade conveyances, direct application, or direct discharge during operation or land application. Any discharge of waste which reaches surface water is prohibited.

2 There must be documentation in the design folder that the producer either owns or has an agreement for use of adequate land on which to properly apply the waste. If the producer does not own adequate land to properly dispose of the waste, he/she shall provide evidence of an agreement with a landowner, who is within a reasonable proximity, allowing him/her the use of the land for waste application. It is the responsibility of the owner of the waste production facility to secure an update of the Nutrient Utilization Plan when there is a change in the operation, increase in the number of animals, method of application, recieving crop type, or available land.

3 Animal waste shall be applied to meet, but not exceed, the nitrogen needs for realistic crop yields based upon soil type, available moisture, historical data, climatic conditions, and level of management, unless there are regulations that restrict the rate of applications for other nutrients.

4 Animal waste shall be applied to land eroding less than 5 tons per acre per year. Waste may be applied to land eroding at more than 5 tons per acre per year but less than 10 tons per acre per year provided grass filter strips are installed where runoff leaves the field (See USDA, NRCS Field Office Technical Guide Standard 393 - Filter Strips).

5 Odors can be reduced by injecting the waste or disking after waste application. Waste should not be applied when there is danger of drift from the land application field.

6 When animal waste is to be applied on acres subject to flooding, waste will be soil incorporated on conventionally tilled cropland. When waste is applied to conservation tilled crops or grassland, the waste may be broadcast provided the application does not occur during a season prone to flooding (See "Weather and Climate in North Carolina" for guidance).

7 Liquid waste shall be applied at rates not to exceed the soil infiltration rate such that runoff does not occur offsite or to surface waters and in a method which does not cause drift from the site during application. No ponding should occur in order to control odor and flies.

8 Animal waste shall not be applied to saturated soils, during rainfall events, or when the

REQUIRED SPECIFICATIONS
(continued)

9 Animal waste shall be applied on actively growing crops in such a manner that the crop is not covered with waste to a depth that would inhibit growth. The potential for salt damage from animal waste should also be considered.

10 Nutrients from waste shall not be applied in fall or winter for spring planted crops on soils with a high potential for leaching. Waste/nutrient loading rates on these soils should be held to a minimum and a suitable winter cover crop planted to take up released nutrients. Waste shall not be applied more than 30 days prior to planting of the crop or forages breaking dormancy.

11 Any new swine facility sited on or after October 1, 1995 shall comply with the following: The outer perimeter of the land area onto which waste is applied from a lagoon that is a component of a swine farm shall be at least 50 feet from any residential property boundary and canal. Animal waste, other than swine waste from facilities sited on or after October 1, 1995, shall not be applied closer than 25 feet to perennial waters.

12 Animal waste shall not be applied closer than 100 feet to wells.

13 Animal waste shall not be applied closer than 200 feet of dwellings other than those owned by the landowner.

14 Waste shall be applied in a manner not to reach other property and public right-of-ways.

15 Animal waste shall not be discharged into surface waters, drainageways, or wetlands by discharge or by over-spraying. Animal waste may be applied to prior converted cropland provided the fields have been approved as a land application site by a "technical specialist". Animal waste shall not be applied on grassed waterways that discharge directly into water courses, and on other grassed waterways, waste shall be applied at agronomic rates in a manner that causes no runoff or drift from the site.

16 Domestic and industrial waste from washdown facilities, showers, toilets, sinks, etc., shall not be discharged into the animal waste management system.

REQUIRED SPECIFICATIONS
(continued)

17 A protective cover of appropriate vegetation will be established on all disturbed areas (lagoon embankments, berms, pipe runs, etc.). Areas shall be fenced, as necessary, to protect the vegetation. Vegetation such as trees, shrubs, and other woody species, etc., are limited to areas where considered appropriate. Lagoon areas should be kept mowed and accessible. Berms and structures should be inspected regularly for evidence of erosion, leakage, or discharge.

18 If animal production at the facility is to be suspended or terminated, the owner is responsible for obtaining and implementing a "closure plan" which will eliminate the possibility of an illegal discharge, pollution and erosion.

19 Waste handling structures, piping, pumps, reels, etc., should be inspected on a regular basis to prevent breakdowns, leaks and spills. A regular maintenance checklist should be kept on site.

20 Animal waste can be used in a rotation that includes vegetables and other crops for direct human consumption. However, if animal waste is used on crops for direct human consumption, it should only be applied pre-plant with no further applications of animal waste during the crop season.

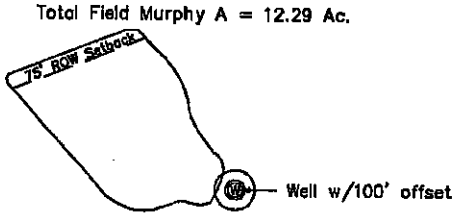
21 Highly visible markers shall be installed to mark the top and bottom elevations of the temporary storage (pumping volume) of all waste treatment lagoons. Pumping shall be managed to maintain the liquid level between the markers. A marker will be required to mark the maximum storage volume for waste storage ponds.

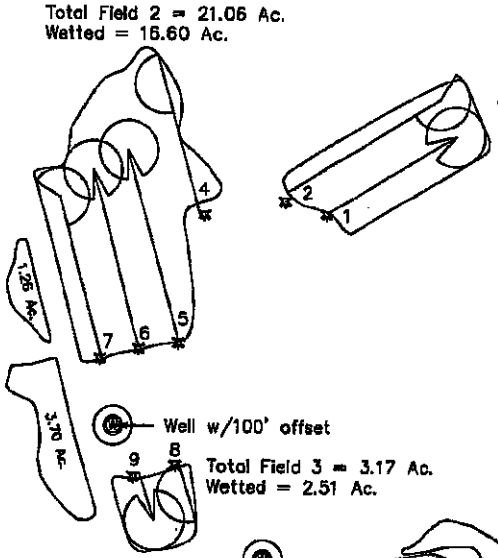
22 Waste shall be tested within 60 days of utilization and soil shall be tested at least annually at crop sites where waste products are applied. Nitrogen shall be the rate-determining nutrient, unless other restrictions require waste to be applied based on other nutrients, resulting in a lower application rate than a nitrogen based rate. Zinc and copper levels in the soil shall be monitored and alternative crop sites shall be used when these metals approach excessive levels. pH shall be adjusted and maintained for optimum crop production. Soil and waste analysis records shall be kept for a minimum of five years. Poultry dry waste application records shall be maintained for a minimum of three years. Waste application records for all other waste shall be maintained for a minimum of five years.

23 Dead animals will be disposed of in a manner that meets North Carolina regulations.

Fox Ridge
Fac. No.: 4–30
Scale: 1"=600'

Pull/Hyd	Acres
1	4.82
2	3.58
4	1.81
5	6.19
6	4.70
7	3.90
8	0.66
9	1.85
10	1.96
11	1.94
12	3.26
13	4.79
14	5.08
15	5.71
16	5.28
17A	29.21
17B	29.21
21	2.88
28	2.16
29	4.23
30	1.33
Total	124.55





Specifications:
3" Traveler w/Nelson 150
1.08" nozzle @ 60 PSI
182 GPM; 300' WD
200' Lane Spacing
900' Pivot

NUTRIENT UTILIZATION PLAN AMENDMENT

Grower(s):	Murphy-Brown, LLC
Farm Name:	Fox Ridge; Fac. No.: 4-30
County:	Anson

Farm Capacity:	
Farrow to Wean	3600
Farrow to Feeder	
Farrow to Finish	
Wean to Feeder	2000
Feeder to Finish	3,360

Storage Structure:	Anaerobic Lagoon
Storage Period:	>180 days
Application Method:	Irrigation

This amendment allows the producer to apply to the leased fields as shown on the attached sheet. Setbacks from residences and roads have been accounted for in the acres shown.

David Nordan
Owner/Manager

3-4-10
Date

M. Kevin Weeks
Technical Specialist

3/4/2010
Date

Reception Area Specifications

Tract	Field	Irrigated Acreage	Soil Type	1st Crop Code	Time to Apply	1st Crop Yield	1st Crop lbs N/Unit	Lbs N/Ac Residual	Lbs N /Ac	Total lbs N Utilized	2nd Crop Code	Time to Apply	2nd Crop Yield	2nd Crop lbs N/Unit	Lbs N/Ac Residual	Lbs N /Ac	Total lbs N Utilized	Total Lbs N/Ac	Total lbs N Utilized
Murphy	A	9.69	Badin	Cotton	Mar15-July	700.0	0.12	30	54	523.26	Cover Crop	Sept-Apr	1	30		30	290.7	84	813.96
Shankle	Shankle A	25.58	Badin	Fescue(G)	Aug-July	4.0	37.5		150	3837	*					0	0	150	3837
Shankle	Shankle B	6.64	Badin	Fescue(G)	Aug-July	4.0	37.5		150	996	*					0	0	150	996
Shankle	Shankle C	5.36	Badin	Fescue(G)	Aug-July	4.0	37.5		150	804	*					0	0	150	804
Shankle	Shankle D	29.06	Badin	Fescue(G)	Aug-July	4.0	37.5		150	4359	*					0	0	150	4359
Lee	Lee A	14.61	Badin	Fescue(G)	Aug-July	4.0	37.5		150	2191.5	*					0	0	150	2191.5
Lee	Lee B	57.99	Badin	Fescue(G)	Aug-July	4.0	37.5		150	8698.5	*					0	0	150	8698.5
											*					0	0		
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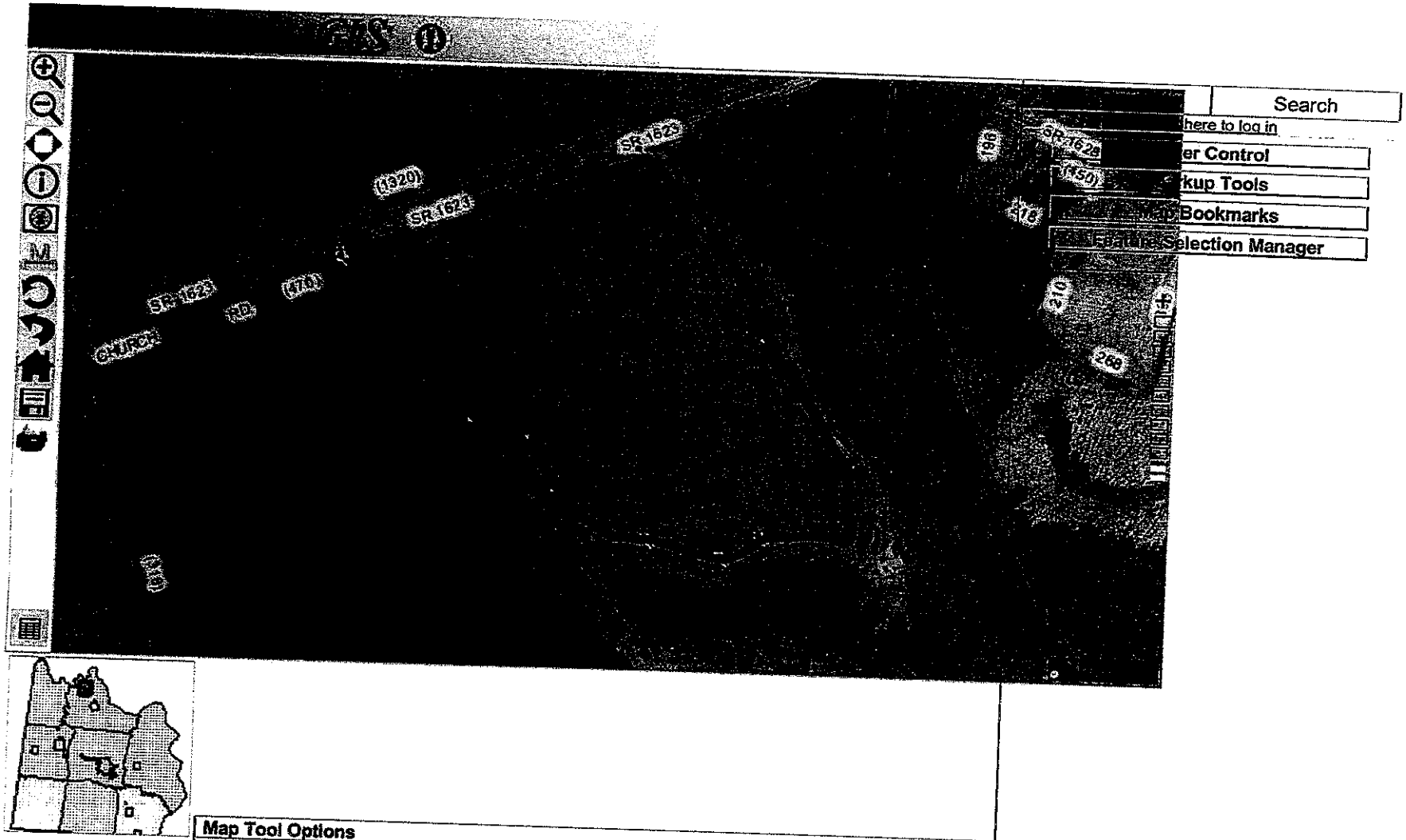
											*					0	0		
Totals:		*148.93*								*21409.26*							*290.7*		*21699.96*



- 1.2 ac - Setbacks

9.69 ac

Map Tool Options

The current cursor mode is set to 'Measure'. Clicking on the map will add a point to the distance being measured and place a marker. If the cursor is held in place over the marker, it will give the distances..

Active Tool: Measure Distance Site Information

Units: Feet

Live Update: ☐

Distance: 5157.6 ft

Show Area: ☐

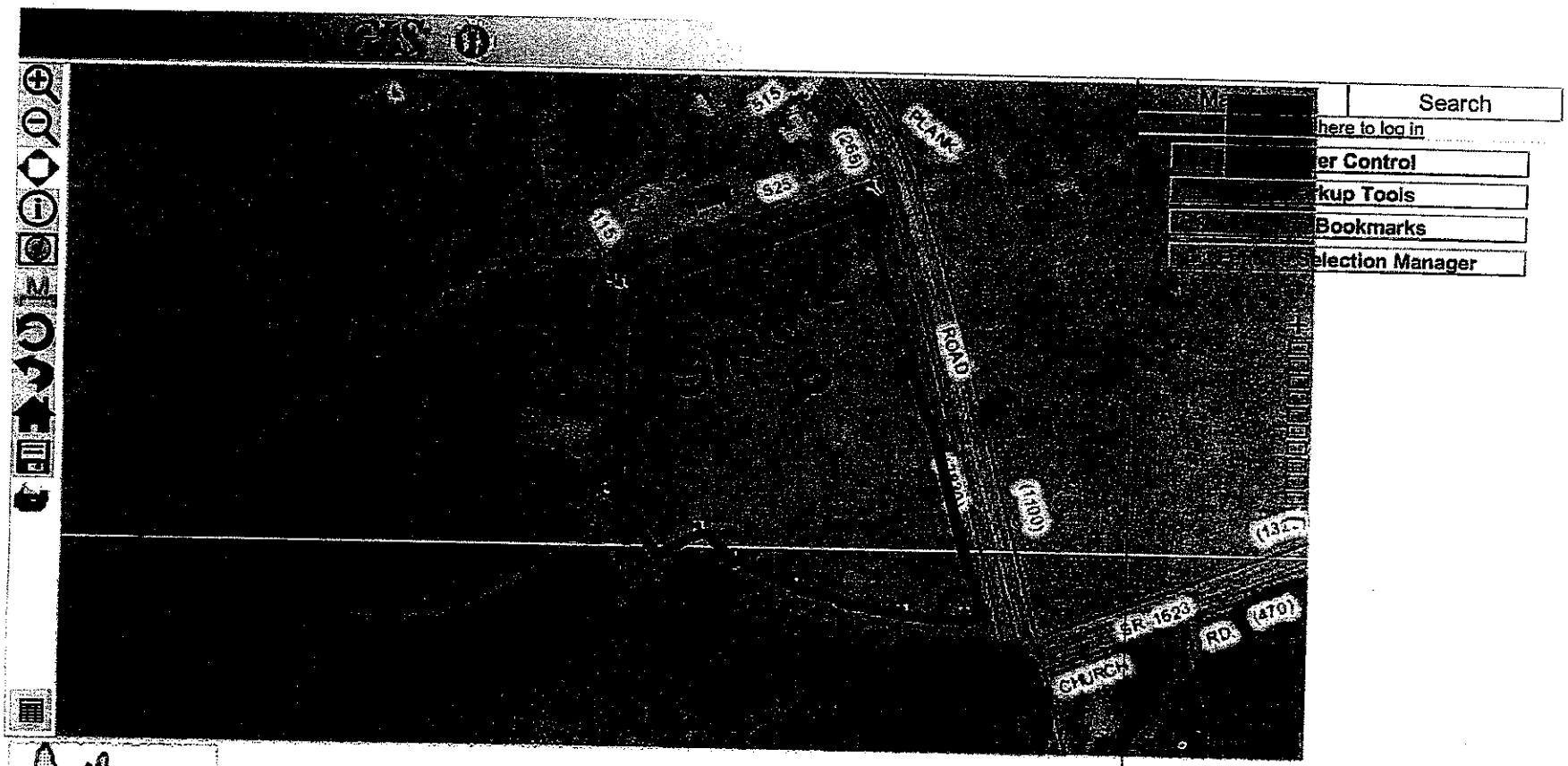
Area: 1263869.72 sq. ft

Acreage: 29.01 ac

Clear

-3.43 ac SETBACKS

25.58 AC



Map Tool Options

The current cursor mode is set to 'Measure'. Clicking on the map will add a point to the distance being measured and place a marker. If the cursor is held in place over the marker, it will give the distances..

Active Tool: *Measure Distance*

Units: Feet

Distance:2437.36 ft

Area: 355756.83 sq. ft

Acreage: 8.16 ac

Live Update:

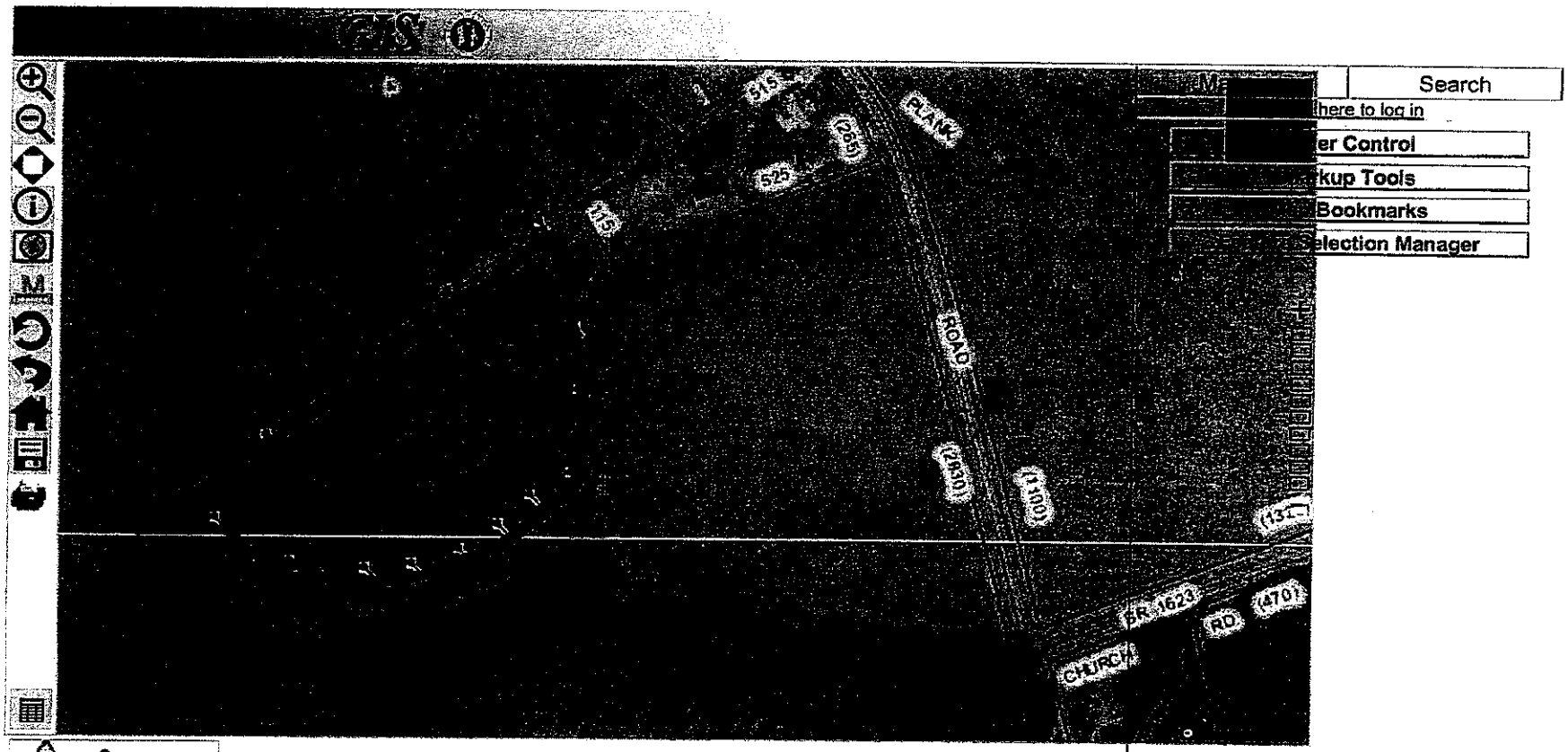
Show Area:

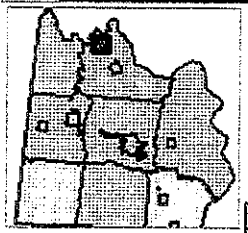
Clear

-1.52 ac Setbacks

6.64 ac

Site Information





Map Tool Options

The current cursor mode is set to 'Measure'. Clicking on the map will add a point to the distance being measured and place a marker. If the cursor is held in place over the marker, it will give the distances..

Active Tool: *Measure Distance*

Units: Feet

Distance: 1964.66 ft

Area: 233725.63 sq. ft

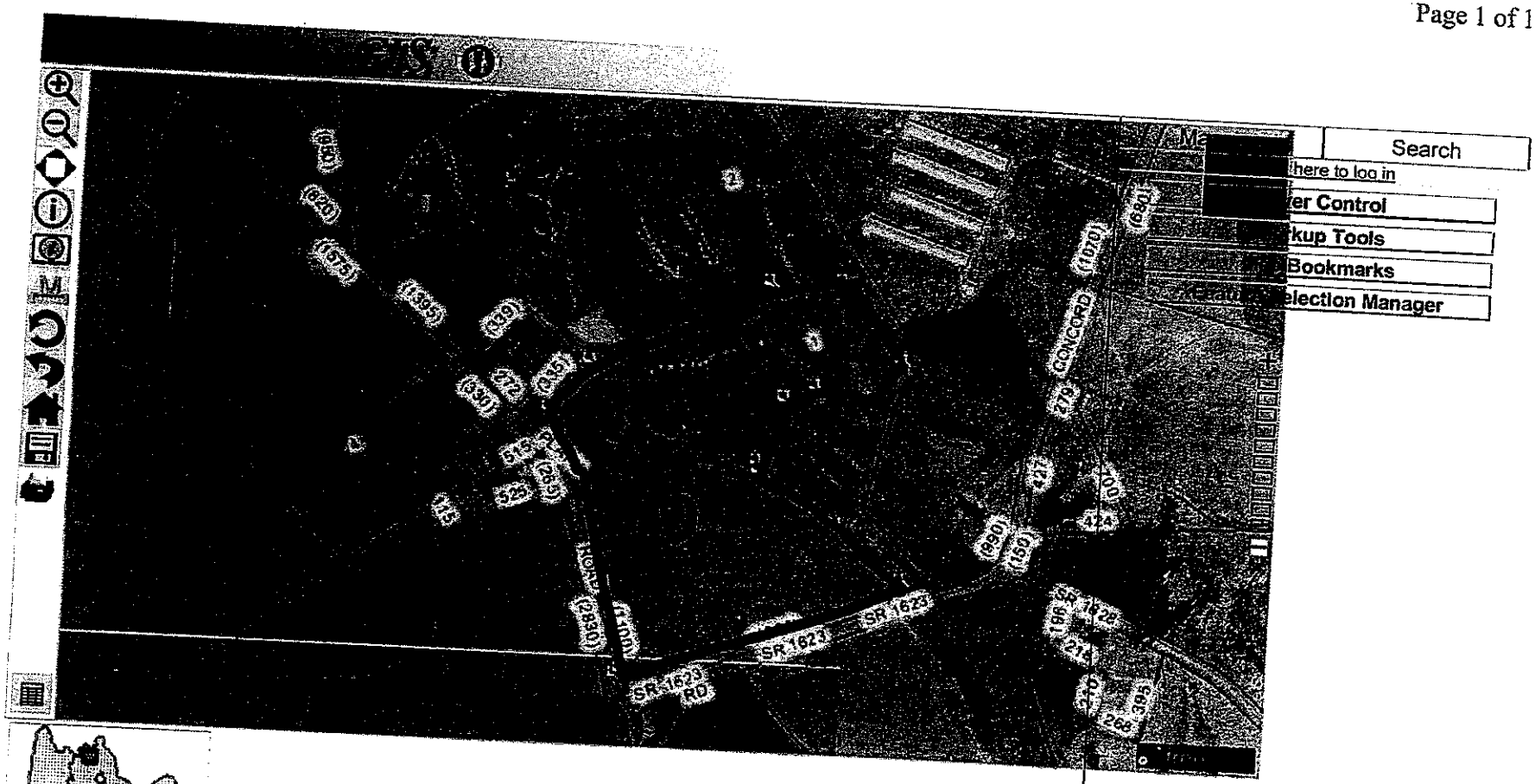
Acreage: 5.36 ac

Live Update:

Show Area:

Clear

Site Information



Site Information

−4.56 ac Setbacks

29.06 ac

Map Tool Options

The current cursor mode is set to 'Measure'. Clicking on the map will add a point to the distance being measured and place a marker. If the cursor is held in place over the marker, it will give the distances..

Active Tool: *Measure Distance* **Information**

Units: Feet

Live Update:

Distance: 5818.16 ft

Show Area:

Area: 814522.59 sq. ft

Acreage: 18.69 ac

Clear

-4.08 ac SETBACKS

14.61 AC


Search
here to log in
er Control
kup Tools
Bookmarks
lection Manager
Map Tool Options
Active Tool: Measure Distance
Site Information
The current cursor mode is set to 'Measure'. Clicking on the map will add a point to the distance being measured and place a marker. If the cursor is held in place over the marker, it will give the distances..
Units: Feet
Live Update:
Distance: 10865.19 ft
Show Area:
Area: 2683873.22 sq. ft
Clear
Acreage: 61.61 ac
-3.62 ac SETBACK
57.99 ac

Animal Waste Utilization Agreement
Murphy Brown LLC

I, Robert Lee, hereby give Murphy Brown LLC permission to apply animal waste from the waste utilization system on 150 acres of my land for the duration of time specified below.

I understand that this waste contains nitrogen, phosphorous, and other trace elements and when properly applied should not harm my land or crops. I also understand that the use of waste will reduce my overall needs for commercial fertilizer, and that Nitrogen limitations exist based on individual farm Waste Utilization Plans. After the completion of animal waste application, Murphy Brown LLC shall provide said Landowner / Farmer with a Nitrogen total of animal waste derived nutrients vs. the remaining nutrients allowed in the Waste Utilization Plan.

Adjacent Landowner Robert D. Lee Date: 2-9-10

Waste Producer Murphy-Brown LLC / Fox Ridge Date: 2-9-10

Technical Representative [signature] Date: 2-9-10

Term of Agreement 2-9, 20 10 to 2-1, 20, 12

contact: Robert Lee
704-826-6254

Animal Waste Utilization Agreement
Murphy Brown LLC

I, Bruce Shankle, hereby give Murphy Brown LLC permission to apply animal waste from the waste utilization system on 150 acres of my land for the duration of time specified below.

I understand that this waste contains nitrogen, phosphorous, and other trace elements and when properly applied should not harm my land or crops. I also understand that the use of waste will reduce my overall needs for commercial fertilizer, and that Nitrogen limitations exist based on individual farm Waste Utilization Plans. After the completion of animal waste application, Murphy Brown LLC shall provide said Landowner / Farmer with a Nitrogen total of animal waste derived nutrients vs. the remaining nutrients allowed in the Waste Utilization Plan.

Adjacent Landowner E Bruce Shankle II Date: 2/10/10

Waste Producer Murphy Brown LLC / Fox Ridge Date: 2-10-10

Technical Representative [signature] Date: 2-10-10

Term of Agreement 2-10, 20 10 to 2-1, 20 12

Contact: Bruce Shankle
919-270-7094 (c)
704-826-8848 (H)