LAND APPLICATION SITE

CARL D UPSHAW JR

CRCDU 2 - 27

CAROLINE COUNTY

RECYC SYSTEMS, INC

PART D-VI BIOSOLIDS APPLICATION AGREEMENT

This biosolids application agreement is made on 6-2-09 between Carl D. Upshaw, Jr., referred to here as "landowner", and Recyc Systems, Inc, referred to here as the "Permittee".

Landowner is the owner of agricultural land shown on the map attached as Exhibit A and designated there as _____ ("landowner's land"). Permittee agrees to apply and landowner agrees to comply with certain permit requirements following application of biosolids on landowner's land in amounts and in a manner authorized by (VPA) (VPDES) permit number _____ which is held by the Permittee.

Landowner acknowledges that the appropriate application of biosolids will be beneficial in providing fertilizer and soil conditioning to the property and consents to the application of biosolids on his property. Moreover, landowner acknowledges having been expressly advised that, in order to protect public health:

1. Public access to landowner's land upon which biosolids have been applied should be controlled for at least 30 days following any application of biosolids and no biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;

2. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil, or 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation. Other food crops, feed crops and fiber crops shall not be harvested for 30 days after the application of biosolids;

3. Following biosolids application to pasture or hayland sites, meat producing livestock should not be grazed or fed chopped foliage for 30 days and lactating dairy animals should be similarly restricted for a minimum of 60 days. Other animals should be restricted from grazing for 30 days;

4. Supplemental commercial fertilizer or manure applications should be coordinated with the biosolids applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia to be supplied to the landowner by the permittee at the time of application of biosolids to a specific permitted site;

5. Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of biosolids borne cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

6. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the permitting authority.

The landowner agrees to allow county officials access to the area of the property permitted for biosolids, whenever necessary, to complete site inspections related to the scheduled biosolids program.

Permittee agrees to notify landowner or landowner designee of the proposed schedule for biosolids application and specifically prior to any particular application to landowner's land. This agreement may be terminated by either party upon written notice to the address specified below.

Landowner Signature: Carl D. Upshaw Jr.

Mailing Address: 23035 Bagby Rd
Bowling Green VA 22427

Farm Operator Signature: Upshaw Farms
Carl D. Upshaw Jr.

Mailing Address: 23035 Bagby Rd
Bowling Green VA 22427

Permittee: Recyc Systems, Inc.

Mailing Address: P.O. Box 562
Remington Virginia 22734
(540) 547-3300

RECYC SYSTEMS, INC

PART D-VI BIOSOLIDS APPLICATION AGREEMENT

This biosolids application agreement is made on 6-2-09 between Edwin T. Upshaw III, referred to here as "landowner", and Recyc Systems, Inc, referred to here as the "Permittee".

Landowner is the owner of agricultural land shown on the map attached as Exhibit A and designated there as _____ ("landowner's land"). Permittee agrees to apply and landowner agrees to comply with certain permit requirements following application of biosolids on landowner's land in amounts and in a manner authorized by (VPA) (VPDES) permit number _____ which is held by the Permittee.

Landowner acknowledges that the appropriate application of biosolids will be beneficial in providing fertilizer and soil conditioning to the property and consents to the application of biosolids on his property. Moreover, landowner acknowledges having been expressly advised that, in order to protect public health:

1. Public access to landowner's land upon which biosolids have been applied should be controlled for at least 30 days following any application of biosolids and no biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;

2. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil, or 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation. Other food crops, feed crops and fiber crops shall not be harvested for 30 days after the application of biosolids;

3. Following biosolids application to pasture or hayland sites, meat producing livestock should not be grazed or fed chopped foliage for 30 days and lactating dairy animals should be similarly restricted for a minimum of 60 days. Other animals should be restricted from grazing for 30 days;

4. Supplemental commercial fertilizer or manure applications should be coordinated with the biosolids applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia to be supplied to the landowner by the permittee at the time of application of biosolids to a specific permitted site;

5. Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of biosolids borne cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

6. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the permitting authority.

The landowner agrees to allow county officials access to the area of the property permitted for biosolids, whenever necessary, to complete site inspections related to the scheduled biosolids program.

Permittee agrees to notify landowner or landowner designee of the proposed schedule for biosolids application and specifically prior to any particular application to landowner's land. This agreement may be terminated by either party upon written notice to the address specified below.

Landowner Signature: Edwin T. Upshaw III

Mailing Address: 23333 Bagby Rd
Bowling Green VA 22427

Farm Operator Signature: Edwin T. Upshaw III
Upshaw Farms

Mailing Address: 23035 Bagby Rd
Bowling Green VA 22427

Permittee: Recyc Systems, Inc.

Mailing Address: P.O. Box 562
Remington Virginia 22734
(540) 547-3300

RECYC SYSTEMS, INC

PART D-VI BIOSOLIDS APPLICATION AGREEMENT

This biosolids application agreement is made on 6-2-09 between Margarette C. Upshaw, referred to here as "landowner", and Recyc Systems, Inc, referred to here as the "Permittee".

Landowner is the owner of agricultural land shown on the map attached as Exhibit A and designated there as _____ ("landowner's land"). Permittee agrees to apply and landowner agrees to comply with certain permit requirements following application of biosolids on landowner's land in amounts and in a manner authorized by (VPA) (VPDES) permit number _____ which is held by the Permittee.

Landowner acknowledges that the appropriate application of biosolids will be beneficial in providing fertilizer and soil conditioning to the property and consents to the application of biosolids on his property. Moreover, landowner acknowledges having been expressly advised that, in order to protect public health:

1. Public access to landowner's land upon which biosolids have been applied should be controlled for at least 30 days following any application of biosolids and no biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;

2. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil, or 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation. Other food crops, feed crops and fiber crops shall not be harvested for 30 days after the application of biosolids;

3. Following biosolids application to pasture or hayland sites, meat producing livestock should not be grazed or fed chopped foliage for 30 days and lactating dairy animals should be similarly restricted for a minimum of 60 days. Other animals should be restricted from grazing for 30 days;

4. Supplemental commercial fertilizer or manure applications should be coordinated with the biosolids applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia to be supplied to the landowner by the permittee at the time of application of biosolids to a specific permitted site;

5. Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of biosolids borne cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

6. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the permitting authority.

The landowner agrees to allow county officials access to the area of the property permitted for biosolids, whenever necessary, to complete site inspections related to the scheduled biosolids program.

Permittee agrees to notify landowner or landowner designee of the proposed schedule for biosolids application and specifically prior to any particular application to landowner's land. This agreement may be terminated by either party upon written notice to the address specified below.

Landowner Signature: Margarette C. Upshaw

Mailing Address: 23035 Bagby Rd
Bowling Green VA 22427

Farm Operator Signature: Upshaw Farms
Edwin J. Upshaw III

Mailing Address: 23035 Bagby Rd
Bowling Green VA 22427

Permittee: Recyc Systems, Inc.

Mailing Address: P.O. Box 562
Remington Virginia 22734
(540) 547-3300

RECYC SYSTEMS, INC

PART D-VI BIOSOLIDS APPLICATION AGREEMENT

This biosolids application agreement is made on 6-2-09 between Sally W. Upshaw, referred to here as "landowner", and Recyc Systems, Inc, referred to here as the "Permittee".

Landowner is the owner of agricultural land shown on the map attached as Exhibit A and designated there as _____ ("landowner's land"). Permittee agrees to apply and landowner agrees to comply with certain permit requirements following application of biosolids on landowner's land in amounts and in a manner authorized by (VPA) (VPDES) permit number _____ which is held by the Permittee.

Landowner acknowledges that the appropriate application of biosolids will be beneficial in providing fertilizer and soil conditioning to the property and consents to the application of biosolids on his property. Moreover, landowner acknowledges having been expressly advised that, in order to protect public health:

1. Public access to landowner's land upon which biosolids have been applied should be controlled for at least 30 days following any application of biosolids and no biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;

2. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil, or 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation. Other food crops, feed crops and fiber crops shall not be harvested for 30 days after the application of biosolids;

3. Following biosolids application to pasture or hayland sites, meat producing livestock should not be grazed or fed chopped foliage for 30 days and lactating dairy animals should be similarly restricted for a minimum of 60 days. Other animals should be restricted from grazing for 30 days;

4. Supplemental commercial fertilizer or manure applications should be coordinated with the biosolids applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia to be supplied to the landowner by the permittee at the time of application of biosolids to a specific permitted site;

5. Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of biosolids borne cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

6. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the permitting authority.

The landowner agrees to allow county officials access to the area of the property permitted for biosolids, whenever necessary, to complete site inspections related to the scheduled biosolids program.

Permittee agrees to notify landowner or landowner designee of the proposed schedule for biosolids application and specifically prior to any particular application to landowner's land. This agreement may be terminated by either party upon written notice to the address specified below.

Landowner Signature:
Sally W. Upshaw

Mailing Address:
25249 Mattaponi Trail
Gotha, VA 22514

Farm Operator Signature:
Upshaw Farms
Edwin T. Upshaw III

Mailing Address:
23035 Bagby Rd
Bowling Green VA 22427

Permittee:
Recyc Systems, Inc.

Mailing Address:
P.O. Box 562
Remington Virginia 22734
(540) 547-3300

For Office Copy Only

Farm site name changed from Douglas C Upshaw to Carl D Upshaw Jr

Field 2 dropped

Field 27 was added

FIELD DATA SHEET

Field Identification	Gross Acres	Environmentally Sensitive Soils				Hydro Map	Tax Map #	FSA Tract #
		Water Table	Bed Rock/Shallow	Surf/Leach	Freq Flood			
CRCDU 2	15.7	----	----	----	----	YO 53	TM 88 P 3	1134
CRCDU 3	21.9	----	----	----	----	YO 53	TM 88 P 3	1134
CRCDU 4	30.8	----	----	----	----	YO 53	TM 88 P 4	1134
CRCDU 5	26.4	----	----	----	----	YO 53	TM 88 P 3	2237
CRCDU 6	63.1	----	----	----	----	YO 53	TM 88 P 3	1134
CRCDU 7	20.3	----	----	----	----	YO 53	TM 88 P 68	1141
CRCDU 8	9.0	----	----	----	----	YO 53	TM 88 P 67	1141
CRCDU 9	19.0	----	----	----	----	YO 53	TM 88 P 68	1141
CRCDU 10	8.0	----	----	----	----	YO 53	TM 88 P 68	1141
CRCDU 11	18.9	4A	----	4A	4A	YO 53	TM 88 P 68	1141
CRCDU 12	16.9	----	----	----	----	YO 53	TM 88 P 67, 68	1141
CRCDU 13	7.0	----	----	----	----	YO 53	TM 88 P 68	1141
CRCDU 14	20.0	----	----	----	----	YO 53	TM 88 P 67	1141
CRCDU 15	9.5	----	----	----	----	YO 53	TM 88 P 67	1141

RECYC SYSTEMS, INC
FIELD DATA SHEET

Field Identification	Gross Acres	Environmentally Sensitive Soils				Hydro Map	Tax Map #	FSA Tract #
		Water Table	Bed Rock/Shallow	Surf/Leach	Freq Flood			
CRCDU 16	5.6	----	----	----	----	YO 53	tm 88 P 66	1159
CRCDU 17	8.0	----	----	----	----	YO 53	TM 88 P 65, 66	1141
CRCDU 18	9.2	----	----	----	----	YO 53	TM 88 P 66	1159
CRCDU 19	8.1	----	----	----	----	YO 53	TM 88 P 66, 66C	1159
CRCDU 20	21.3	----	----	----	----	YO 53	TM 88 P 65, 66	1141
CRCDU 21	45.6	----	----	----	----	YO 53	TM 88 P 64, 65, 1-B	1141
CRCDU 22	30.7	----	----	----	----	YO 53	TM 88 P 64, 65	1141
CRCDU 23	11.1	----	----	----	----	YO 53	TM 88 P 64, 67	1141
CRCDU 24	28.6	----	----	----	----	YO 53	TM 88 P 59	1154
CRCDU 25	62.0	----	----	----	----	YO 53	TM 88 P 49 TM 89 P 18 TM 99 P 17	392
CRCDU 26	9.6	----	----	----	----	YO 53	TM 88 P 49 TM 89 P 18	392
CRCDU 27	10.4	----	----	----	----	YO 53	TM 88 P 10	3459
TAL ACRES IN SI	536.7							

Recyc Systems, Inc
Carl D Upshaw, Jr
Caroline County

Operator	Owner	FSA Tract No	Recyc Field No	Acres	Date of Last Application	Latitude	Longtitude
	Carl D Upshaw Jr	T 1134 F 4	CRCDU 2	15.7	12/06	37 56'44"	77 14'19"
Carl Upshaw	Edwin T Upshaw III	T 1134 F 2, 3	CRCDU 3	21.9	01/08	37 56'44"	77 14'19"
Tracy Upshaw		T 1134 F 1, 5	CRCDU 4	30.8	12/06	37 56'44"	77 14'19"
		T 2237 F 1	CRCDU 5	26.4	01/03	37 56'44"	77 14'19"
		T 1134 F 6	CRCDU 6	63.1	01/08	37 56'44"	77 14'19"
	Margarette C Upshaw	T 1141 F 4	CRCDU 7	20.3	12/06	"	"
	Carl D Upshaw Jr	T 1141 F 7	CRCDU 8	9.0	01/08	37 56'55"	77 13'37"
		T 1141 F 1	CRCDU 9	19.0	12/01	37 56'55"	77 13'37"
	Margarette C Upshaw	T 1141 F 2,6	CRCDU 10	8.0	12/06	37 56'55"	77 13'37"
		T 1141 F 3	CRCDU 11	18.9	12/01	37 56'55"	77 13'37"
	Margarette C Upshaw & Carl D Upshaw Jr	T 1141 F 5	CRCDU 12	16.9	12/06	37 56'55"	77 13'37"
	Margarette C Upshaw	T 1141 F 10	CRCDU 13	7.0		37 56'55"	77 13'37"
		T 1141 F 9	CRCDU 14	20.0	01/03	37 56'55"	77 13'37"
	Carl D Upshaw Jr	T 1141 F 8	CRCDU 15	9.5	12/06	37 56'55"	77 13'37"
		T 1159 F 4	CRCDU 16	5.6	01/06	37 56'28"	77 13'44"
	Edwin T Upshaw III, Tr	T 1159 F 18	CRCDU 17	8.0	01/06	37 56'28"	77 13'44"
	Carl D Upshaw Jr	T 1159 F 3	CRCDU 18	9.2	01/06	37 56'28"	77 13'44"
		T 1159 F 2	CRCDU 19	8.1	01/03	37 56'28"	77 13'44"
	Edwin T Upshaw III, Tr	T 1141 F 11	CRCDU 20	21.3	12/01	37 56'28"	77 13'44"
		T 1141 F 12,13	CRCDU 21	45.6	12/01	37 56'28"	77 13'44"
		T 1141 F 14,15,16	CRCDU 22	30.7	12/06	37 56'14"	77 12'48"
	Carl D Upshaw Jr	T 1141 F 17	CRCDU 23	11.1	12/06	37 56'14"	77 12'48"
	Edwin T Upshaw III, et ux	T 1154 F 1,2	CRCDU 24	28.6	12/01	37 55'30"	77 12'42"
	Edwin T Upshaw III, et als	T 392 F 2,3	CRCDU 25	62.0	12/06	37 55'04"	77 12'22"
		T 392 F 1	CRCDU 26	9.6		37 55'04"	77 12'22"
	Carl D Upshaw Jr et als	T 3459 F 1	CRCDU 27	10.4		37 56'44"	77 14'19"

Report Number:
R06312-0098
Account Number:
70594

A&L Eastern Laboratories, Inc.

7621 Whitepine Road Richmond, Virginia 23237 (804) 743-9401
Fax No. (804) 271-6446 Email: office@al-labs-eastern.com

Send To: RECYC SYSTEMS INC
POB 562
REMINGTON, VA 22734

Grower: DOUGLAS UPSHAW
CAROLINE CO

Submitted By: SONNY DEAL

Farm I D:

Field I D: CRCDU

SOIL ANALYSIS REPORT

Page: 1 **Date Received:** 11/8/2006 **Date of Analysis:** 11/9/2006 **Date of Report:** 11/10/2006

Analytical Method(s):
Mehlich III

Sample Number	Lab Number	Organic Matter %	Organic Matter ENR lbs/A	Organic Matter ENR Rate	Phosphorus Available ppm	Phosphorus Available Rate	Phosphorus Reserve ppm	Phosphorus Reserve Rate	Potassium K ppm	Potassium K Rate	Magnesium MG ppm	Magnesium MG Rate	Calcium CA ppm	Calcium CA Rate	Sodium NA ppm	Sodium NA Rate	pH Soil pH	pH Buffer Index	Acidity H meq/100g	C.E.C. meq/100g
2	15261	1.8	81	L	65	H			77	M	45	M	520	H			6.3	6.9	0.4	3.5
4	15262	1.8	80	L	39	M			87	M	45	L	530	M			5.9	6.9	0.7	3.9
5	15263	2.5	93	L	38	M			52	L	85	M	790	H			6.7	6.9	0.2	5.0
6	15264	2.1	86	L	31	M			114	H	50	L	640	H			6.4	6.9	0.4	4.3
7	15265	1.8	80	L	51	H			75	M	60	M	510	M			5.9	6.9	0.7	3.9

Sample Number	Percent Base Saturation K %	Mg %	Ca %	Na %	H %	Nitrate NO3-N ppm	Nitrate Rate	Sulfur SO4-S ppm	Sulfur Rate	Zinc ZN ppm	Zinc Rate	Manganese MN ppm	Manganese Rate	Iron FE ppm	Iron Rate	Copper CU ppm	Copper Rate	Boron B ppm	Boron Rate	Soluble Salts ms/cm	Soluble Salts Rate	Chloride CL ppm	Chloride Rate	Aluminum AL ppm	Aluminum Rate
2	5.6	10.6	73.3		10.6																				
4	5.7	9.6	67.6		17.2																				
5	2.7	14.1	78.7		4.5																				
6	6.8	9.7	74.6		8.9																				
7	4.9	12.8	65.2		17.2																				

Values on this report represent the plant available nutrients in the soil.
Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High).
ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams).
Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to the sample(s) tested. Samples are retained a maximum of thirty days after testing. Soil Analysis prepared by:
A & L EASTERN LABORATORIES, INC.

by:
Paul Chu, Ph.D.

Report Number:
R07278-0023
Account Number:
70594

A&L EASTERN LABORATORIES, INC.

7621 Whitepine Road • Richmond, Virginia 23237-2214
Phone (804) 743-9401 • Fax (804) 271-6446
Website: www.al-labs-eastern.com • E-mail: office@al-labs-eastern.com

Send To: RECYC SYSTEMS INC
POB 562
REMINGTON, VA 22734

Grower: DOUGLAS UPSHAW
CAROLINE COUNTY
CRCDU

Submitted By: SONNY DEAL

Farm I D:

Field I D:

SOIL ANALYSIS REPORT

Page: 1 **Date Received:** 10/5/2007 **Date of Analysis:** 10/6/2007 **Date of Report:** 10/9/2007

Analytical Method(s): Mehlich III

Sample Number	Lab Number	Organic Matter %	Organic Matter ENR lbs/A	Organic Matter Rate	Phosphorus Available ppm	Phosphorus Available Rate	Phosphorus Reserve ppm	Phosphorus Reserve Rate	Potassium K ppm	Potassium K Rate	Magnesium MG ppm	Magnesium MG Rate	Calcium CA ppm	Calcium CA Rate	Sodium NA ppm	Sodium NA Rate	pH Soil pH	pH Buffer Index	Acidity H meq/100g	C.E.C. meq/100g
3	4894	4.8	134	M	80	H			122	H	156	H	1244	H			6.4	6.9	0.8	8.6
~~6~~	~~4895~~	~~2.6~~	~~94~~	~~M~~	~~35~~	~~M~~			~~125~~	~~H~~	~~56~~	~~L~~	~~657~~	~~M~~			~~5.5~~	~~6.8~~	~~1.4~~	~~5.5~~
~~19~~	~~4896~~	~~3.5~~	~~112~~	~~M~~	~~75~~	~~H~~			~~84~~	~~M~~	~~65~~	~~L~~	~~798~~	~~M~~			~~5.9~~	~~6.8~~	~~1.0~~	~~5.7~~

Sample Number	Percent Base Saturation K %	Mg %	Ca %	Na %	H %	Nitrate NO3-N ppm	Rate	Sulfur SO4-S ppm	Rate	Zinc ZN ppm	Rate	Manganese MN ppm	Rate	Iron FE ppm	Rate	Copper CU ppm	Rate	Boron B ppm	Rate	Soluble Salts ms/cm	Rate	Chloride CL ppm	Rate	Aluminum AL ppm	Rate
3	3.6	15.1	72.3		8.9																				
6	5.8	8.5	59.9		25.8																				
19	3.8	9.5	69.6		17.2																				

ALE-Soil

Values on this report represent the plant available nutrients in the soil.
Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High).
ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams).
Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to the sample(s) tested. Samples are retained a maximum of thirty days after testing. Soil Analysis prepared by: A & L EASTERN LABORATORIES, INC.

by: Paul Chu

Paul Chu, Ph.D.

Report Number:
R07309-0086
Account Number:
70594

A&L EASTERN LABORATORIES, INC.

7621 Whitepine Road • Richmond, Virginia 23237-2214
Phone (804) 743-9401 • Fax (804) 271-6446
Website: www.al-labs-eastern.com • E-mail: office@al-labs-eastern.com

Send To: RECYC SYSTEMS INC
POB 562
REMINGTON, VA 22734

Grower: DOUGLAS UPSHAW
CAROLINE COUNTY
CRCDU

Submitted By: SONNY DEAL

Farm I D:

Field I D:

SOIL ANALYSIS REPORT

Page: 1 **Date Received:** 11/5/2007 **Date of Analysis:** 11/6/2007 **Date of Report:** 11/7/2007

Analytical Method(s):
Mehlich III

Sample Number	Lab Number	Organic Matter %	Organic Matter ENR lbs/A	Organic Matter Rate	Phosphorus Available ppm	Phosphorus Available Rate	Phosphorus Reserve ppm	Phosphorus Reserve Rate	Potassium K ppm	Potassium Rate	Magnesium MG ppm	Magnesium Rate	Calcium CA ppm	Calcium Rate	Sodium NA ppm	Sodium Rate	pH Soil pH	pH Buffer Index	Acidity H meq/100g	C.E.C. meq/100g
8	15155	2.1	85	L	46	M			98	M	129	H	604	M			6.0	6.9	0.8	5.1

Sample Number	Percent Base Saturation K %	Mg %	Ca %	Na %	H %	Nitrate NO3-N ppm	Rate	Sulfur SO4-S ppm	Rate	Zinc ZN ppm	Rate	Manganese MN ppm	Rate	Iron FE ppm	Rate	Copper CU ppm	Rate	Boron B ppm	Rate	Soluble Salts ms/cm	Rate	Chloride CL ppm	Rate	Aluminum AL ppm	Rate
8	4.9	20.9	58.8		15.4																				

ALE-soil

Values on this report represent the plant available nutrients in the soil.
Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High).
ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams).
Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to the sample(s) tested. Samples are retained a maximum of thirty days after testing. Soil Analysis prepared by:
A & L EASTERN LABORATORIES, INC.

by: Paul Chu

Paul Chu, Ph.D.

Report Number:
R08336-0072
Account Number:
70594

A&L EASTERN LABORATORIES, INC.

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REMINGTON, VA 22734

Grower: DOUGLAS C UPSHAW/CRDUC
CAROLINE CO

Submitted By: SONNY DEAL

Farm I D:

Field I D:

Susan Trumbo

SOIL ANALYSIS REPORT

Page: 1 **Date Received:** 12/1/2008 **Date of Analysis:** 12/2/2008 **Date of Report:** 12/3/2008

Analytical Method(s):
Mehlich III

Sample Number	Lab Number	Organic Matter %	Organic Matter ENR lbs/A	Organic Matter ENR Rate	Phosphorus Available ppm	Phosphorus Available Rate	Phosphorus Reserve ppm	Phosphorus Reserve Rate	Potassium K ppm	Potassium K Rate	Magnesium MG ppm	Magnesium MG Rate	Calcium CA ppm	Calcium CA Rate	Sodium NA ppm	Sodium NA Rate	pH Soil pH	pH Buffer Index	Acidity H meq/100g	C.E.C. meq/100g
~~5~~	~~757~~	~~2.7~~	~~95~~	~~M~~	~~39~~	~~M~~			~~105~~	~~H~~	~~109~~	~~M~~	~~909~~	~~H~~			~~6.6~~	~~6.9~~	~~0.4~~	~~6.1~~
9	758	2.0	84	L	36	M			86	M	62	M	642	H			6.5	6.9	0.3	4.3
11	759	2.2	87	L	219	VH			99	H	69	M	794	H			6.7	6.9	0.2	5.0
14	760	1.8	79	L	61	H			113	H	79	M	654	H			6.5	6.9	0.3	4.6
19	761	2.0	84	L	37	M			137	H	74	M	601	M			6.4	6.9	0.4	4.4

Sample Number	Percent Base Saturation K %	Mg %	Ca %	Na %	H %	Nitrate NO3-N ppm	Nitrate Rate	Sulfur SO4-S ppm	Sulfur Rate	Zinc ZN ppm	Zinc Rate	Manganese MN ppm	Manganese Rate	Iron FE ppm	Iron Rate	Copper CU ppm	Copper Rate	Boron B ppm	Boron Rate	Soluble Salts ms/cm	Soluble Salts Rate	Chloride CL ppm	Chloride Rate	Aluminum AL ppm	Aluminum Rate
5	4.4	14.9	74.7		5.9																				
9	5.2	12.1	75.3		7.4																				
11	5.1	11.4	79.0		4.5																				
14	6.4	14.5	71.8		7.4																				
19	8.1	14.1	68.9		8.9																				

ALE-Soil

Values on this report represent the plant available nutrients in the soil.
Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High).
ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams).
Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to the sample(s) tested. Samples are retained a maximum of thirty days after testing. Soil Analysis prepared by:
A & L EASTERN LABORATORIES, INC.

by: Paul Chu

Paul Chu, Ph.D.

Report Number:
R06304-0096
Account Number:
70594

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REMINGTON, VA 22734

Grower: D C UPSHAW
CAROLINE CO

Submitted By: RYAN BACKE

Farm I D: **Field I D:**

SOIL ANALYSIS REPORT

Page: 1 **Date Received:** 10/31/2006 **Date of Analysis:** 11/1/2006 **Date of Report:** 11/2/2006

Analytical Method(s):
Mehlich III

Sample Number	Lab Number	Organic Matter %	Organic Matter ENR lbs/A	Organic Matter Rate	Phosphorus Available ppm	Phosphorus Available Rate	Phosphorus Reserve ppm	Phosphorus Reserve Rate	Potassium K ppm	Potassium K Rate	Magnesium MG ppm	Magnesium MG Rate	Calcium CA ppm	Calcium CA Rate	Sodium NA ppm	Sodium NA Rate	pH Soil pH	pH Buffer Index	Acidity H meq/100g	C.E.C. meq/100g
~~CRCDU3~~	~~11173~~	~~3.3~~	~~107~~	~~M~~	~~69~~	~~H~~			~~32~~	~~VL~~	~~68~~	~~L~~	~~1090~~	~~VH~~			~~6.8~~	~~6.9~~	~~0.2~~	~~6.2~~
CRCDU10	11174	2.3	89	L	64	H			63	L	65	M	570	M			5.6	6.8	1.1	4.6
CRCDU15	11175	3.4	108	M	42	M			101	M	100	M	810	M			5.4	6.7	2.0	7.2

Sample Number	Percent Base Saturation K %	Mg %	Ca %	Na %	H %	Nitrate NO3-N ppm	Nitrate Rate	Sulfur SO4-S ppm	Sulfur Rate	Zinc ZN ppm	Zinc Rate	Manganese MN ppm	Manganese Rate	Iron FE ppm	Iron Rate	Copper CU ppm	Copper Rate	Boron B ppm	Boron Rate	Soluble Salts ms/cm	Soluble Salts Rate	Chloride CL ppm	Chloride Rate	Aluminum AL ppm	Aluminum Rate
CRCDU3	1.3	8.0	87.7		2.9																				
CRCDU10	3.5	11.7	61.5		23.3																				
CRCDU15	3.6	11.6	56.5		28.3																				

Values on this report represent the plant available nutrients in the soil.
Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High).
ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams).
Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to the sample(s) tested. Samples are retained a maximum of thirty days after testing. Soil Analysis prepared by:
A & L EASTERN LABORATORIES, INC.

by: Paul Chu, Ph.D.

Report Number:
R06312-0098
Account Number:
70594

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Grower: DOUGLAS UPSHAW
CAROLINE CO

Submitted By: SONNY DEAL

Farm I D:

Field I D: CRCDU

SOIL ANALYSIS REPORT

Page: 2 **Date Received:** 11/8/2006 **Date of Analysis:** 11/9/2006 **Date of Report:** 11/10/2006

Analytical Method(s):
Mehlich III

Sample Number	Lab Number	Organic Matter %	Organic Matter ENR lbs/A	Organic Matter Rate	Phosphorus Available ppm	Phosphorus Available Rate	Phosphorus Reserve ppm	Phosphorus Reserve Rate	Potassium K ppm	Potassium Rate	Magnesium MG ppm	Magnesium Rate	Calcium CA ppm	Calcium Rate	Sodium NA ppm	Sodium Rate	pH Soil pH	pH Buffer Index	Acidity H meq/100g	C.E.C. meq/100g
~~9~~	~~15266~~	~~1.9~~	~~82~~	~~L~~	~~50~~	~~M~~			~~68~~	~~L~~	~~35~~	~~L~~	~~650~~	~~H~~			~~6.6~~	~~6.9~~	~~0.2~~	~~4.0~~
~~11~~	~~15267~~	~~2.4~~	~~82~~	~~L~~	~~203~~	~~VH~~			~~55~~	~~L~~	~~40~~	~~L~~	~~750~~	~~H~~			~~6.6~~	~~6.9~~	~~0.3~~	~~4.5~~
12	15268	1.9	82	L	97	H			104	H	50	L	680	H			6.4	6.9	0.4	4.5
13	15269	2.0	83	L	36	M			54	L	125	H	650	M			6.2	6.9	0.6	5.0
~~14~~	~~15270~~	~~1.7~~	~~79~~	~~L~~	~~63~~	~~H~~			~~82~~	~~M~~	~~50~~	~~M~~	~~550~~	~~H~~			~~6.7~~	~~6.9~~	~~0.2~~	~~3.5~~

Sample Number	Percent Base Saturation K %	Mg %	Ca %	Na %	H %	Nitrate NO3-N ppm	Nitrate Rate	Sulfur SO4-S ppm	Sulfur Rate	Zinc ZN ppm	Zinc Rate	Manganese MN ppm	Manganese Rate	Iron FE ppm	Iron Rate	Copper CU ppm	Copper Rate	Boron B ppm	Boron Rate	Soluble Salts ms/cm	Soluble Salts Rate	Chloride CL ppm	Chloride Rate	Aluminum AL ppm	Aluminum Rate
9	4.4	7.4	82.3		5.9																				
11	3.1	7.4	83.5		5.9																				
12	5.9	9.3	75.8		8.9																				
13	2.7	20.7	64.5		12.1																				
14	5.9	11.8	77.8		4.5																				

Values on this report represent the plant available nutrients in the soil.
Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High).
ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams).
Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to the sample(s) tested. Samples are retained a maximum of thirty days after testing. Soil Analysis prepared by: A & L EASTERN LABORATORIES, INC.

by: Paul Chu, Ph.D.

Report Number:
R05319-0105
Account Number:
70594

A&L EASTERN LABORATORIES, INC.

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Grower: DOUGLAS C UPSHAW
CAROLINE CO

Submitted By: MARVIN MINOR

SOIL ANALYSIS REPORT

Page: 2 **Date Received:** 11/14/2005 **Date of Analysis:** 11/15/2005 **Date of Report:** 11/16/2005

Analytical Method(s):
Mehlich III

Sample Number	Lab Number	Organic Matter %	ENR lbs/A	ENR Rate	Phosphorus Available ppm	Available Rate	Phosphorus Reserve ppm	Reserve Rate	Potassium K ppm	K Rate	Magnesium MG ppm	MG Rate	Calcium CA ppm	CA Rate	Sodium NA ppm	NA Rate	pH Soil pH	pH Buffer Index	Acidity H meq/100g	C.E.C. meq/100g
16	13774	1.6	82	L	20	L			50	L	50	M	436	M			6.1	6.9	0.4	3.2
17	13775	2.8	106	M	23	L			43	VL	100	H	709	M			6.2	6.9	0.6	5.1
18	13776	2.0	90	L	18	L			64	L	85	H	451	M			6.1	6.9	0.5	3.6
~~19~~	~~13777~~	~~1.7~~	~~84~~	~~L~~	~~58~~	~~H~~			~~66~~	~~L~~	~~53~~	~~L~~	~~685~~	~~H~~			~~6.4~~	~~6.9~~	~~0.4~~	~~4.4~~
~~20~~	~~13778~~	~~2.0~~	~~90~~	~~L~~	~~31~~	~~M~~			~~92~~	~~M~~	~~69~~	~~M~~	~~809~~	~~H~~			~~6.7~~	~~6.9~~	~~0.2~~	~~5.1~~

Sample Number	Percent Base Saturation K %	Mg %	Ca %	Na %	H %	Nitrate NO3-N ppm	Nitrate Rate	Sulfur SO4-S ppm	Sulfur Rate	Zinc ZN ppm	Zinc Rate	Manganese MN ppm	Manganese Rate	Iron FE ppm	Iron Rate	Copper CU ppm	Copper Rate	Boron B ppm	Boron Rate	Soluble Salts ms/cm	Soluble Salts Rate	Chloride CL ppm	Chloride Rate	Aluminum AL ppm	Aluminum Rate
16	4.1	13.2	69.0		13.7																				
17	2.2	16.3	69.4		12.1																				
18	4.5	19.5	62.2		13.7																				
19	3.8	10.0	77.3		8.9																				
20	4.6	11.3	79.6		4.5																				

Values on this report represent the plant available nutrients in the soil.
Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High).
ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams).
Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to the sample(s) tested. Samples are retained a maximum of thirty days after testing. Soil Analysis prepared by: A & L EASTERN LABORATORIES, INC.

by: Paul Chu
Paul Chu, Ph.D.

Report Number:
R08336-0072
Account Number:
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CAROLINE CO

Submitted By: SONNY DEAL

Farm I D:

Field I D:

Susan Trumbo

SOIL ANALYSIS REPORT

Page: 2 **Date Received:** 12/1/2008 **Date of Analysis:** 12/2/2008 **Date of Report:** 12/3/2008

Analytical Method(s):
Mehlich III

Sample Number	Lab Number	Organic Matter %	Organic Matter ENR lbs/A	Organic Matter ENR Rate	Phosphorus Available ppm	Phosphorus Available Rate	Phosphorus Reserve ppm	Phosphorus Reserve Rate	Potassium K ppm	Potassium K Rate	Magnesium MG ppm	Magnesium MG Rate	Calcium CA ppm	Calcium CA Rate	Sodium NA ppm	Sodium NA Rate	pH Soil pH	pH Buffer Index	Acidity H meq/100g	C.E.C. meq/100g
20	762	1.9	82	L	35	M			107	H	71	M	581	H			6.7	6.9	0.2	3.9
21	763	1.8	78	L	72	H			104	H	67	M	893	H			7.1			5.3
24	764	1.3	71	L	36	M			79	M	51	M	567	H			6.6	6.9	0.2	3.7

Sample Number	Percent Base Saturation K %	Mg %	Ca %	Na %	H %	Nitrate NO3-N ppm	Nitrate Rate	Sulfur SO4-S ppm	Sulfur Rate	Zinc ZN ppm	Zinc Rate	Manganese MN ppm	Manganese Rate	Iron FE ppm	Iron Rate	Copper CU ppm	Copper Rate	Boron B ppm	Boron Rate	Soluble Salts ms/cm	Soluble Salts Rate	Chloride CL ppm	Chloride Rate	Aluminum AL ppm	Aluminum Rate
20	6.9	15.0	73.6		4.5																				
21	5.0	10.6	84.4																						
24	5.5	11.5	77.0		5.9																				

ALE-Soil

Values on this report represent the plant available nutrients in the soil.
Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High).
ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams).
Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to the sample(s) tested. Samples are retained a maximum of thirty days after testing. Soil Analysis prepared by:
A & L EASTERN LABORATORIES, INC.

by: Paul Chu

Paul Chu, Ph.D.

Report Number:
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Account Number:
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Grower: D C UPSHAW
CAROLINE CO

Submitted By: RYAN BACKE

Farm I D: **Field I D:**

SOIL ANALYSIS REPORT

Page: 2 **Date Received:** 10/31/2006 **Date of Analysis:** 11/1/2006 **Date of Report:** 11/2/2006

Analytical Method(s):
Mehlich III

Sample Number	Lab Number	Organic Matter			Phosphorus				Potassium		Magnesium		Calcium		Sodium		pH		Acidity	C.E.C.
		%	ENR lbs/A	Rate	Available ppm	Rate	Reserve ppm	Rate	K ppm	Rate	MG ppm	Rate	CA ppm	Rate	NA ppm	Rate	Soil pH	Buffer Index	H meq/100g	meq/100g
CRCDU23	11241	1.6	78	L	215	VH			92	H	50	M	320	M			5.7	6.9	0.6	2.9

Sample Number	Percent Base Saturation					Nitrate		Sulfur		Zinc		Manganese		Iron		Copper		Boron		Soluble Salts		Chloride		Aluminum	
	K %	Mg %	Ca %	Na %	H %	NO3-N ppm	Rate	SO4-S ppm	Rate	ZN ppm	Rate	MN ppm	Rate	FE ppm	Rate	CU ppm	Rate	B ppm	Rate	ms/cm	Rate	CL ppm	Rate	AL ppm	Rate
CRCDU23	8.3	14.6	56.1		21.1																				

Values on this report represent the plant available nutrients in the soil.
Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High).
ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams).
Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to the sample(s) tested. Samples are retained a maximum of thirty days after testing. Soil Analysis prepared by:
A & L EASTERN LABORATORIES, INC.

by:
Paul Chu, Ph.D.

Report Number:
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Account Number:
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Submitted By: SONNY DEAL

Farm I D:

Field I D:

SOIL ANALYSIS REPORT

Page: 1 **Date Received:** 12/11/2006 **Date of Analysis:** 12/12/2006 **Date of Report:** 12/13/2006

Analytical Method(s):
Mehlich III

Sample Number	Lab Number	Organic Matter %	Organic Matter ENR lbs/A	Organic Matter Rate	Phosphorus Available ppm	Phosphorus Available Rate	Phosphorus Reserve ppm	Phosphorus Reserve Rate	Potassium K ppm	Potassium K Rate	Magnesium MG ppm	Magnesium MG Rate	Calcium CA ppm	Calcium CA Rate	Sodium NA ppm	Sodium NA Rate	pH Soil pH	pH Buffer Index	Acidity H meq/100g	C.E.C. meq/100g
~~20~~	~~10267~~	~~2.2~~	~~88~~	~~L~~	~~29~~	~~L~~			~~91~~	~~M~~	~~69~~	~~M~~	~~705~~	~~H~~			~~6.7~~	~~6.9~~	~~0.2~~	~~4.5~~
~~24~~	~~10268~~	~~1.5~~	~~76~~	~~L~~	~~40~~	~~M~~			~~60~~	~~L~~	~~36~~	~~M~~	~~435~~	~~H~~			~~6.4~~	~~6.9~~	~~0.3~~	~~2.9~~
25	10269	1.2	71	L	26	L			63	L	26	M	248	M			5.9	6.9	0.3	2.0

Sample Number	Percent Base Saturation K %	Mg %	Ca %	Na %	H %	Nitrate NO3-N ppm	Nitrate Rate	Sulfur SO4-S ppm	Sulfur Rate	Zinc ZN ppm	Zinc Rate	Manganese MN ppm	Manganese Rate	Iron FE ppm	Iron Rate	Copper CU ppm	Copper Rate	Boron B ppm	Boron Rate	Soluble Salts ms/cm	Soluble Salts Rate	Chloride CL ppm	Chloride Rate	Aluminum AL ppm	Aluminum Rate
20	5.1	12.7	77.7		4.5																				
24	5.3	10.4	75.4		8.9																				
25	8.3	11.1	63.5		17.2																				

Values on this report represent the plant available nutrients in the soil.
Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High).
ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams).
Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to the sample(s) tested. Samples are retained a maximum of thirty days after testing. Soil Analysis prepared by:
A & L EASTERN LABORATORIES, INC.

by: Paul Chu
Paul Chu, Ph.D.

Report Number:
R06304-0107
Account Number:
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Grower: D C UPSHAW
CAROLINE CO

Submitted By: RYAN BACKE

Farm I D: **Field I D:**

SOIL ANALYSIS REPORT

Page: 1 **Date Received:** 10/31/2006 **Date of Analysis:** 11/1/2006 **Date of Report:** 11/2/2006

Analytical Method(s):
Mehlich III

Sample Number	Lab Number	Organic Matter			Phosphorus				Potassium		Magnesium		Calcium		Sodium		pH		Acidity	C.E.C.
		%	ENR lbs/A	Rate	Available ppm	Rate	Reserve ppm	Rate	K ppm	Rate	MG ppm	Rate	CA ppm	Rate	NA ppm	Rate	Soil pH	Buffer Index	H meq/100g	meq/100g
~~CRCDU8~~	~~11236~~	~~1.7~~	~~77~~	~~L~~	~~64~~	~~H~~			~~94~~	~~M~~	~~125~~	~~H~~	~~608~~	~~M~~			~~6.4~~	~~6.9~~	~~0.4~~	~~4.7~~
~~CRCDU19~~	~~11237~~	~~1.7~~	~~76~~	~~L~~	~~96~~	~~H~~			~~86~~	~~M~~	~~60~~	~~L~~	~~940~~	~~H~~			~~6.7~~	~~6.9~~	~~0.3~~	5.7
CRCDU26	11238	2.1	84	L	47	M			99	M	70	M	850	H			6.5	6.9	0.4	5.5
CRCDU27	11239	1.8	80	L	56	H			99	H	55	M	710	H			6.7	6.9	0.2	4.5
CRCDU22	11240	1.5	75	L	71	H			108	H	55	M	520	H			6.7	6.9	0.2	3.5

Sample Number	Percent Base Saturation					Nitrate		Sulfur		Zinc		Manganese		Iron		Copper		Boron		Soluble Salts		Chloride		Aluminum	
	K %	Mg %	Ca %	Na %	H %	NO3-N ppm	Rate	SO4-S ppm	Rate	ZN ppm	Rate	MN ppm	Rate	FE ppm	Rate	CU ppm	Rate	B ppm	Rate	ms/cm	Rate	CL ppm	Rate	AL ppm	Rate
CRCDU8	5.0	22.2	63.9		8.9																				
CRCDU19	3.9	8.8	82.8		4.5																				
CRCDU26	4.6	10.6	77.4		7.4																				
CRCDU27	5.7	10.3	79.6		4.5																				
CRCDU22	7.9	13.1	74.5		4.5																				

Values on this report represent the plant available nutrients in the soil.
Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High).
ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams).
Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to the sample(s) tested. Samples are retained a maximum of thirty days after testing. Soil Analysis prepared by:
A & L EASTERN LABORATORIES, INC.

by: Paul Chu, Ph.D.

THE PLANNER IS NOT STATE CERTIFIED

Nutrient Management Plan Balance Sheet
(Fall, 2009-Winter, 2013)
Carl D Upshaw Jr
Planner: Recyc Systems Inc

Tract: 1134 Location: Caroline
(N = N based, 1P = P based, 1.5P = P based at 1.5 removal, 0P = No P allowed)

Field CFSA No. /Name	Size (ac) Total/ Used	Yr.	Crop	Needs N-P-K (lbs/ac)	Leg /Man Resid	Manure/Biosld Rate & Type (season)	IT (d)	Man/Bios N-P-K (lbs/ac)	Net = Needs - appld N-P-K (lbs/ac)	Sum P rem cred	Commercial N-P-K (lbs/ac)	Notes	
4/CRCDU 2(N)	16/16	2009	Alfalfa (Hay) estb.	0-110-130	0/0				0-110-130	N/A			
		2010	Alfalfa (hay), maint	0-40-170	0/0				0-150-300	N/A			
		2011	... ...	0-40-170	0/0				0-190-470	N/A			
		2012	... ...	0-40-170	0/0				0-230-640	N/A			
		2013	... ...	0-40-170	0/0				0-270-810	N/A			
2 3/CRCDU 3(N)	22/22	2009	Snap Beans	0-0-0	20/0				(20)-0-0	N/A			
1 5/CRCDU 4(N)	31/31	2009	Wheat (grain)	100-60-60	0/0				100-60-60	N/A			
		2010	... ...	-- -- --									
6/CRCDU 6(N)	63/63	2009	Alfalfa (hay), maint	0-50-160	0/0				0-50-160	N/A			

Commercial Application Methods:
br - Broadcast ba - Banded sd - Sidedress

Notes:

Tract: 1141 Location: Caroline
(N = N based, 1P = P based, 1.5P = P based at 1.5 removal, 0P = No P allowed)

Field CFSA No. /Name	Size (ac) Total/ Used	Yr.	Crop	Needs N-P-K (lbs/ac)	Leg /Man Resid	Manure/Biosld Rate & Type (season)	IT (d)	Man/Bios N-P-K (lbs/ac)	Net = Needs - appld N-P-K (lbs/ac)	Sum P rem cred	Commercial N-P-K (lbs/ac)	Notes	
8/CECDU 15(N)	10/10	2009	Alfalfa (Hay) estb.	0-120-130	0/0				0-120-130	N/A			
		2010	Alfalfa (hay), maint	0-40-170	0/0				0-160-300	N/A			
		2011	... ...	0-40-170	0/0				0-200-470	N/A			
		2012	... ...	0-40-170	0/0				0-240-640	N/A			
		2013	... ...	0-40-170	0/0				0-280-810	N/A			
2 6/CRCDU 10(N)	8/8	2009	Alfalfa (hay), maint	0-40-200	0/0				0-40-200	N/A			
3/CRCDU 11(1P)	19/19	2009	Wheat (grain)	100-0-60	0/0				100-0-60	29			
		2010	... ...	-- -- --									
5/CRCDU 12(N)	17/17	2009	Alfalfa (Hay) estb.	0-80-130	0/0				0-80-130	N/A			
		2010	Alfalfa (hay), maint	0-40-170	0/0				0-120-300	N/A			
		2011	... ...	0-40-170	0/0				0-160-470	N/A			
		2012	... ...	0-40-170	0/0				0-200-640	N/A			
		2013	... ...	0-40-170	0/0				0-240-810	N/A			
10/CRCDU 13(N)	7/7	2009	Alfalfa (Hay) estb.	0-120-160	0/0				0-120-160	N/A			
		2010	Alfalfa (hay), maint	0-40-220	0/0				0-160-380	N/A			
		2011	... ...	0-40-220	0/0				0-200-600	N/A			
		2012	... ...	0-40-220	0/0				0-240-820	N/A			
		2013	... ...	0-40-220	0/0				0-280-1040	N/A			
9/CRCDU 14(N)	20/20	2009	Wheat (grain)	100-40-40	0/0				100-40-40	N/A			
		2010	... ...	-- -- --									
11/CRCDU 20(N)	21/21	2009	Wheat (grain)	100-60-40	0/0				100-60-40	N/A			
		2010	... ...	-- -- --									
12 13/CRCDU 21(N)	46/46	2009	Alfalfa-grass estb.	0-80-130	0/0				0-80-130	N/A			
		2010	Alfalfa (Hay) estb.	0-80-130	0/0				0-160-260	N/A			
		2011	Alfalfa (hay), maint	0-40-170	0/0				0-200-430	N/A			
		2012	... ...	0-40-170	0/0				0-240-600	N/A			
		2013	... ...	0-40-170	0/0				0-280-770	N/A			
14 15 16/CRCDU 22(N)	31/31	2009	Wheat (grain)	100-30-40	0/0				100-30-40	N/A			
		2010	... ...	-- -- --									

Tract: 1141 Location: Caroline

Field CFSA No. /Name	Size (ac) Total/ Used	Yr.	Crop	Needs N-P-K (lbs/ac)	Leg /Man Resid	Manure/Biosld Rate & Type (season)	IT (d)	Man/Bios N-P-K (lbs/ac)	Net = Needs - appld N-P-K (lbs/ac)	Sum P rem cred	Commercial N-P-K (lbs/ac)	Notes	
17/CRCDU 23(1P)	11/11	2009 2010	Wheat (grain)	100-0-60 -- -- --	0/0				100-0-60	29			
4/CRCDU 7(N)	20/20	2009	Alfalfa (hay), maint	0-40-170	0/0				0-40-170	N/A			
7/CRCDU 8(N)	9/9	2009	Wheat (cover)	20-0-0	0/0				20-0-0	N/A			
1/CRCDU 9(N)	19/19	2009	Hay/Pasture	120-80-170	0/0				120-80-170	N/A			

Commercial Application Methods:

br - Broadcast ba - Banded sd - Sidedress

Notes:

Tract: 1154 Location: Caroline
(N = N based, 1P = P based, 1.5P = P based at 1.5 removal, 0P = No P allowed)

Field CFSA No. /Name	Size (ac) Total/ Used	Yr.	Crop	Needs N-P-K (lbs/ac)	Leg /Man Resid	Manure/Biosld Rate & Type (season)	IT (d)	Man/Bios N-P-K (lbs/ac)	Net = Needs - appld N-P-K (lbs/ac)	Sum P rem cred	Commercial N-P-K (lbs/ac)	Notes	
1 2/CRCDU 24(N)	29/29	2009	Alfalfa (Hay) estb.	0-130-130	0/0				0-130-130	N/A			
		2010	Alfalfa (hay), maint	0-50-170	0/0				0-180-300	N/A			
		2011	... ...	0-50-170	0/0				0-230-470	N/A			
		2012	... ...	0-50-170	0/0				0-280-640	N/A			
		2013	... ...	0-50-170	0/0				0-330-810	N/A			

Commercial Application Methods:
br - Broadcast ba - Banded sd - Sidedress

Notes:

Tract: 1159 Location: Caroline
(N = N based, 1P = P based, 1.5P = P based at 1.5 removal, 0P = No P allowed)

Field CFSA No. /Name	Size (ac) Total/ Used	Yr.	Crop	Needs N-P-K (lbs/ac)	Leg /Man Resid	Manure/Biosld Rate & Type (season)	IT (d)	Man/Bios N-P-K (lbs/ac)	Net = Needs - appld N-P-K (lbs/ac)	Sum P rem cred	Commercial N-P-K (lbs/ac)	Notes	
4/CRCDU 16(N)	6/6	2009	Hay/Pasture	100-70-120	0/0				100-70-120	N/A			
0/CRCDU 17(N)	8/8	2009	Alfalfa (Hay) estb.	0-140-150	0/0				0-140-150	N/A			
		2010	Alfalfa (hay), maint	0-60-200	0/0				0-200-350	N/A			
		2011	... ...	0-60-200	0/0				0-260-550	N/A			
		2012	... ...	0-60-200	0/0				0-320-750	N/A			
		2013	... ...	0-60-200	0/0				0-380-950	N/A			
3/CRCDU 18(N)	9/9	2009	Hay/Pasture	100-70-110	0/0				100-70-110	N/A			
0/CRCDU 19(N)	8/8	2009	Alfalfa (Hay) estb.	0-130-110	0/0				0-130-110	N/A			
		2010	Alfalfa (hay), maint	0-50-145	0/0				0-180-255	N/A			
		2011	... ...	0-50-145	0/0				0-230-400	N/A			
		2012	... ...	0-50-145	0/0				0-280-545	N/A			
		2013	... ...	0-50-145	0/0				0-330-690	N/A			

Commercial Application Methods:
br - Broadcast ba - Banded sd - Sidedress

Notes:

Tract: 2237 Location: Caroline
(N = N based, 1P = P based, 1.5P = P based at 1.5 removal, 0P = No P allowed)

Field CFSA No. /Name	Size (ac) Total/ Used	Yr.	Crop	Needs N-P-K (lbs/ac)	Leg /Man Resid	Manure/Biosld Rate & Type (season)	IT (d)	Man/Bios N-P-K (lbs/ac)	Net = Needs - appld N-P-K (lbs/ac)	Sum P rem cred	Commercial N-P-K (lbs/ac)	Notes	
1/CRCDU 5(N)	26/26	2009 2010	Wheat (grain)	100-60-80 -- -- --	0/0				100-60-80	N/A			

Commercial Application Methods:
br - Broadcast ba - Banded sd - Sidedress
Notes:

Tract: 3459 **Location: Caroline**
(N = N based, 1P = P based, 1.5P = P based at 1.5 removal, 0P = No P allowed)

Field CFSA No. /Name	Size (ac) Total/ Used	Yr.	Crop	Needs N-P-K (lbs/ac)	Leg /Man Resid	Manure/Biosld Rate & Type (season)	IT (d)	Man/Bios N-P-K (lbs/ac)	Net = Needs - appld N-P-K (lbs/ac)	Sum P rem cred	Commercial N-P-K (lbs/ac)	Notes	
1/CRCDU 27(N)	10/10	2009	Hay/Pasture	120-60-170	0/0				120-60-170	N/A			

Commercial Application Methods:
br - Broadcast ba - Banded sd - Sidedress
Notes:

Tract: 392 **Location: Caroline**
(N = N based, 1P = P based, 1.5P = P based at 1.5 removal, 0P = No P allowed)

Field CFSA No. /Name	Size (ac) Total/ Used	Yr.	Crop	Needs N-P-K (lbs/ac)	Leg /Man Resid	Manure/Biosld Rate & Type (season)	IT (d)	Man/Bios N-P-K (lbs/ac)	Net = Needs - appld N-P-K (lbs/ac)	Sum P rem cred	Commercial N-P-K (lbs/ac)	Notes	
2 3/CRCDU 25(N)	62/62	2009	Hay/Pasture	100-60-110	0/0				100-60-110	N/A			
0/CRCDU 26(N)	10/10	2009	Alfalfa (Hay) estb.	0-110-130	0/0				0-110-130	N/A			
		2010	Alfalfa (hay), maint	0-40-170	0/0				0-150-300	N/A			
		2011	... ...	0-40-170	0/0				0-190-470	N/A			
		2012	... ...	0-40-170	0/0				0-230-640	N/A			
		2013	... ...	0-40-170	0/0				0-270-810	N/A			

Commercial Application Methods:
br - Broadcast ba - Banded sd - Sidedress
Notes:

THE PLANNER IS NOT STATE CERTIFIED

Carl D Upshaw Jr Narrative

This is Carl D Upshaw Jr farm located in Caroline County. The farm consistes of hay/pasture fields.

This is partial plan written for the purpose of obtainging a biosolids permit. Biosolids application has not been shown since it is uncertain when a permit will be obtained. The partial plan will be revised prior to biosolids application to obtain a target biosolids application rate.

Soil Test Summary

Tract	Field	Acre	Date	P2O5	K2O	Lab	Soil pH	Lime Date	rec. lime tons/Ac
1134	CRCDU 2	16	2009-Fa	H- (65 P ppm)	M (77 K ppm)	A&L MIII	6.3		
1134	CRCDU 3	22	2009-Fa	H (80 P ppm)	M+ (122 K ppm)	A&L MIII	6.4		
1134	CRCDU 4	31	2009-Fa	M (39 P ppm)	M (87 K ppm)	A&L MIII	5.9		
1134	CRCDU 6	63	2009-Fa	M (31 P ppm)	M+ (114 K ppm)	A&L MIII	6.4		
1141	CECDU 15	10	2009-Fa	M+ (42 P ppm)	M (101 K ppm)	A&L MIII	5.4		
1141	CRCDU 10	8	2009-Fa	H (64 P ppm)	L+ (63 K ppm)	A&L MIII	5.6		
1141	CRCDU 11	19	2009-Fa	VH (219 P ppm)	M (99 K ppm)	A&L MIII	6.7		
1141	CRCDU 12	17	2009-Fa	H (97 P ppm)	M (104 K ppm)	A&L MIII	6.4		
1141	CRCDU 13	7	2009-Fa	M+ (36 P ppm)	L (54 K ppm)	A&L MIII	6.2		
1141	CRCDU 14	20	2009-Fa	H- (61 P ppm)	M+ (113 K ppm)	A&L MIII	6.5		
1141	CRCDU 20	21	2009-Fa	M (35 P ppm)	M+ (107 K ppm)	A&L MIII	6.7		
1141	CRCDU 21	46	2009-Fa	H (72 P ppm)	M (104 K ppm)	A&L MIII	7.1		
1141	CRCDU 22	31	2009-Fa	H (71 P ppm)	M+ (108 K ppm)	A&L MIII	6.7		
1141	CRCDU 23	11	2009-Fa	VH (215 P ppm)	M (92 K ppm)	A&L MIII	5.7		
1141	CRCDU 7	20	2009-Fa	H- (51 P ppm)	M (75 K ppm)	A&L MIII	5.9		
1141	CRCDU 8	9	2009-Fa	M+ (46 P ppm)	M (98 K ppm)	A&L MIII	6.		
1141	CRCDU 9	19	2009-Fa	M (36 P ppm)	M (86 K ppm)	A&L MIII	6.5		
1154	CRCDU 24	29	2009-Fa	M (36 P ppm)	M (79 K ppm)	A&L MIII	6.6		
1159	CRCDU 16	6	2009-Fa	L+ (20 P ppm)	L+ (50 K ppm)	A&L MIII	6.1		
1159	CRCDU 17	8	2009-Fa	M- (23 P ppm)	L+ (43 K ppm)	A&L MIII	6.2		
1159	CRCDU 18	9	2009-Fa	L+ (18 P ppm)	M- (64 K ppm)	A&L MIII	6.1		
1159	CRCDU 19	8	2009-Fa	M (37 P ppm)	H- (137 K ppm)	A&L MIII	6.4		
2237	CRCDU 5	26	2009-Fa	M (38 P ppm)	L+ (52 K ppm)	A&L MIII	6.7		
3459	CRCDU 27	10	2009-Fa	H- (56 P ppm)	M (99 K ppm)	A&L MIII	6.7		
392	CRCDU 25	62	2009-Fa	M- (26 P ppm)	M- (63 K ppm)	A&L MIII	5.9		
392	CRCDU 26	10	2009-Fa	H- (47 P ppm)	M (99 K ppm)	A&L MIII	6.5		

Field Productivities for Major Crops

Tract Name	Tract/ Field	Field Name	Acres	Predominant Soil Series	Corn	Small Grain	Alfalfa	Grass Hay	Environmental Warnings
1134	1134/4	CRCDU 2	16	Kempsville	IIIa	II	Not Suited	III	
	1134/2 3	CRCDU 3	22	Kempsville	IIIa	II	III	II	
	1134/1 5	CRCDU 4	31	Kempsville	IIIa	II	Not Suited	III	
	1134/6	CRCDU 6	63	Kempsville	IIIa	II	Not Suited	II	
1141	1141/8	CECDU 15	10	Kempsville	IIIa	II	Not Suited	II	
	1141/2 6	CRCDU 10	8	Kempsville	IIIb	II	Not Suited	III	
	1141/3	CRCDU 11*	19	Bojac1	IIIb	II	III	III	High Leaching, Poor Drain
	1141/5	CRCDU 12	17	Kempsville	IIIa	II	Not Suited	III	
	1141/10	CRCDU 13*	7	Altavista	IIa	I	III	II	High Leaching, High Slope
	1141/9	CRCDU 14	20	Kempsville	IIIa	II	Not Suited	III	
	1141/11	CRCDU 20	21	Kempsville	IIIa	II	Not Suited	III	
	1141/12 13	CRCDU 21	46	Kempsville	IIIa	II	III	III	
	1141/14 15 1	CRCDU 22	31	Kempsville	IIIa	II	III	II	
	1141/17	CRCDU 23*	11	Bojac1	IVb	II	Not Suited	III	High Leaching, High Slope
	1141/4	CRCDU 7	20	Kempsville	IIIa	II	Not Suited	II	
	1141/7	CRCDU 8	9	Kempsville	IIIa	II	III	II	
	1141/1	CRCDU 9	19	Kempsville	IIIa	II	Not Suited	III	
1154	1154/1 2	CRCDU 24	29	Kempsville	IIIa	II	Not Suited	III	
1159	1159/4	CRCDU 16*	6	Kempsville	IIIa	II	Not Suited	III	High Leaching, High Slope
	1159/0	CRCDU 17	8	Kempsville	IIIa	II	Not	III	

	1159/3	CRCDU 18	9	Kempsville	IIIa	II	Suited Not Suited	III
	1159/0	CRCDU 19	8	Kempsville	IIIa	II	Not Suited	II
2237	2237/1	CRCDU 5	26	Kempsville	IIIa	II	Not Suited	II
3459	3459/1	CRCDU 27	10	Slagle	IIb	I	III	I
392	392/2 3	CRCDU 25	62	Kempsville	IIIa	II	Not Suited	III
	392/0	CRCDU 26	10	Kempsville	IIIa	II	Not Suited	III

* Do not apply manure or biosolids more than 30 days prior to planting. Apply commercial fertilizer nitrogen to row crops in split spring applicaions.

Yield Range

Field Productivity Group	Corn Grain Bu/Acre	Barley/Intensive Wheat Bu/Acre	Std. Wheat Bu/Acre	Alfalfa Tons/Acre	Grass/Hay Tons/Acre
I	>170	>80	>64	>6	>4.0
II	150-170	70-80	56-64	4-6	3.5-4.0
III	130-150	60-70	48-56	<4	3.0-3.5
IV	100-130	50-60	40-48	NA	<3.0
V	<100	<50	<40	NA	NA

Farm Summary Report

Plan: **New Plan** **Fall, 2009 - Winter, 2013**

Farm Name: **Carl D Upshaw Jr**
Location: Caroline
Specialist: Recyc Systems Inc

Tract Name: **1134**
FSA Number: 1134
Location: Caroline

Field Name: **CRCDU 2**
Total Acres: 15.70 Usable Acres: 15.70
FSA Number: 4
Tract: 1134
Location: Caroline
Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

Conservation Practices:
Pasture (>75% cover)

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2009	6.3	H-(65 P ppm)	M(77 K ppm)	A&L MIII

Field Warnings:

Field Name: **CRCDU 3**
Total Acres: 21.90 Usable Acres: 21.90

FSA Number: 2 3
Tract: 1134
Location: Caroline
Slope Class: C Hydrologic Group: C

Riparian buffer width: 0 ft
Distance to stream: 0 ft

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2009	6.4	H(80 P ppm)	M+(122 K ppm)	A&L MIII

Field Warnings:

Field Name: CRCDU 4
Total Acres: 30.80 Usable Acres: 30.80
FSA Number: 1 5
Tract: 1134
Location: Caroline
Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2009	5.9	M(39 P ppm)	M(87 K ppm)	A&L MIII

Field Warnings:

Field Name: **CRCDU 6**
Total Acres: 63.10 Usable Acres: 63.10
FSA Number: 6
Tract: 1134
Location: Caroline
Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

Conservation Practices:
Pasture (>75% cover)

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2009	6.4	M(31 P ppm)	M+(114 K ppm)	A&L MIII

Field Warnings:

Tract Name: **1141**
FSA Number: 1141
Location: Caroline

Field Name: **CECDU 15**
Total Acres: 9.50 Usable Acres: 9.50
FSA Number: 8
Tract: 1141
Location: Caroline
Slope Class: C Hydrologic Group: B

Riparian buffer width: 0 ft

Distance to stream: 0 ft

Conservation Practices:
Pasture (>75% cover)

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2009	5.4	M+(42 P ppm)	M(101 K ppm)	A&L MIII

Field Warnings:

Field Name: **CRCDU 10**
Total Acres: 8.00 Usable Acres: 8.00
FSA Number: 2 6
Tract: 1141
Location: Caroline
Slope Class: C Hydrologic Group: B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

Conservation Practices:
Pasture (>75% cover)

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2009	5.6	H(64 P ppm)	L+(63 K ppm)	A&L MIII

Field Warnings:

Field Name: **CRCDU 11**
Total Acres: 18.90 Usable Acres: 18.90
FSA Number: 3
Tract: 1141
Location: Caroline
Slope Class: C Hydrologic Group: B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

P-Index Summary
P-based(1.0)
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2009	6.7	VH(219 P ppm)	M(99 K ppm)	A&L MIII

Field Warnings:
Environmentally Sensitive Soils due to:

Soils with potential for leaching based on soil texture or excessive drainage

Soils with high potential for subsurface lateral flow based on soil texture and poor drainage

Soils with perent slope in excess of 15%

Field Name: **CRCDU 12**
Total Acres: 16.90 Usable Acres: 16.90
FSA Number: 5
Tract: 1141
Location: Caroline
Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft

Distance to stream: 0 ft

Conservation Practices:
Pasture (>75% cover)

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2009	6.4	H(97 P ppm)	M(104 K ppm)	A&L MIII

Field Warnings:

Field Name: **CRCDU 13**
Total Acres: 7.00 Usable Acres: 7.00
FSA Number: 10
Tract: 1141
Location: Caroline
Slope Class: C Hydrologic Group: C

Riparian buffer width: 0 ft
Distance to stream: 0 ft

Conservation Practices:
Pasture (>75% cover)

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2009	6.2	M+(36 P ppm)	L(54 K ppm)	A&L MIII

Field Warnings:

Environmentally Sensitive Soils due to:

Soils with potential for leaching based on soil texture or excessive drainage

Soils with perent slope in excess of 15%

Field Name: **CRCDU 14**
Total Acres: 20.00 Usable Acres: 20.00
FSA Number: 9
Tract: 1141
Location: Caroline
Slope Class: C Hydrologic Group: B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2009	6.5	H-(61 P ppm)	M+(113 K ppm)	A&L MIII

Field Warnings:

Field Name: **CRCDU 20**
Total Acres: 21.30 Usable Acres: 21.30
FSA Number: 11
Tract: 1141
Location: Caroline
Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2009	6.7	M(35 P ppm)	M+(107 K ppm)	A&L MIII

Field Warnings:

Field Name: **CRCDU 21**
Total Acres: 45.60 Usable Acres: 45.60
FSA Number: 12 13
Tract: 1141
Location: Caroline
Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

Conservation Practices:
Pasture (>75% cover)

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2009	7.1	H(72 P ppm)	M(104 K ppm)	A&L MIII

Field Warnings:

Field Name: **CRCDU 22**
Total Acres: 30.70 Usable Acres: 30.70
FSA Number: 14 15 16
Tract: 1141

Location: Caroline
Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2009	6.7	H(71 P ppm)	M+(108 K ppm)	A&L MIII

Field Warnings:

Field Name: CRCDU 23
Total Acres: 11.10 Usable Acres: 11.10
FSA Number: 17
Tract: 1141
Location: Caroline
Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

P-Index Summary
P-based(1.0)
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2009	5.7	VH(215 P ppm)	M(92 K ppm)	A&L MIII

Field Warnings:
Environmentally Sensitive Soils due to:

Soils with potential for leaching based on soil texture or excessive drainage

Soils with perent slope in excess of 15%

Field Name: **CRCDU 7**
Total Acres: 20.30 Usable Acres: 20.30
FSA Number: 4
Tract: 1141
Location: Caroline
Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

Conservation Practices:
Pasture (>75% cover)

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2009	5.9	H-(51 P ppm)	M(75 K ppm)	A&L MIII

Field Warnings:

Field Name: **CRCDU 8**
Total Acres: 9.00 Usable Acres: 9.00
FSA Number: 7
Tract: 1141
Location: Caroline
Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft

Distance to stream: 0 ft

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2009	6.0	M+(46 P ppm)	M(98 K ppm)	A&L MIII

Field Warnings:

Field Name: **CRCDU 9**
Total Acres: 19.00 Usable Acres: 19.00
FSA Number: 1
Tract: 1141
Location: Caroline
Slope Class: C Hydrologic Group: B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

Conservation Practices:
Pasture (>75% cover)

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2009	6.5	M(36 P ppm)	M(86 K ppm)	A&L MIII

Field Warnings:

Tract Name: **1154**
FSA Number: 1154

Location: Caroline

Field Name: CRCDU 24
Total Acres: 28.60 Usable Acres: 28.60
FSA Number: 1 2
Tract: 1154
Location: Caroline
Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

Conservation Practices:
Pasture (>75% cover)

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2009	6.6	M(36 P ppm)	M(79 K ppm)	A&L MIII

Field Warnings:

Tract Name: 1159
FSA Number: 1159
Location: Caroline

Field Name: CRCDU 16
Total Acres: 5.60 Usable Acres: 5.60
FSA Number: 4
Tract: 1159
Location: Caroline
Slope Class: D Hydrologic Group: B

Riparian buffer width: 0 ft

Distance to stream: 0 ft

Conservation Practices:
Pasture (>75% cover)

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2009	6.1	L+(20 P ppm)	L+(50 K ppm)	A&L Mill

Field Warnings:
Environmentally Sensitive Soils due to:

Soils with potential for leaching based on soil texture or excessive drainage

Soils with perent slope in excess of 15%

Field Name: **CRCDU 17**
Total Acres: 8.00 Usable Acres: 8.00
FSA Number: 0
Tract: 1159
Location: Caroline
Slope Class: C Hydrologic Group: B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

Conservation Practices:
Pasture (>75% cover)

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2009	6.2	M-(23 P ppm)	L+(43 K ppm)	A&L MIII

Field Warnings:

Field Name: **CRCDU 18**
Total Acres: 9.20 Usable Acres: 9.20
FSA Number: 3
Tract: 1159
Location: Caroline
Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

Conservation Practices:
Pasture (>75% cover)

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2009	6.1	L+(18 P ppm)	M-(64 K ppm)	A&L MIII

Field Warnings:

Field Name: **CRCDU 19**
Total Acres: 8.10 Usable Acres: 8.10
FSA Number: 0
Tract: 1159
Location: Caroline
Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

Conservation Practices:
Pasture (>75% cover)

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2009	6.4	M(37 P ppm)	H-(137 K ppm)	A&L MIII

Field Warnings:

Tract Name: **2237**
FSA Number: 2237
Location: Caroline

Field Name: **CRCDU 5**
Total Acres: 26.40 Usable Acres: 26.40
FSA Number: 1
Tract: 2237
Location: Caroline
Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2009	6.7	M(38 P ppm)	L+(52 K ppm)	A&L MIII

Field Warnings:

Tract Name: **3459**
FSA Number: 3459
Location: Caroline

Field Name: **CRCDU 27**
Total Acres: 10.40 Usable Acres: 10.40
FSA Number: 1
Tract: 3459
Location: Caroline
Slope Class: B Hydrologic Group: C

Riparian buffer width: 0 ft
Distance to stream: 0 ft

Conservation Practices:
Pasture (>75% cover)

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2009	6.7	H-(56 P ppm)	M(99 K ppm)	A&L MIII

Field Warnings:

Tract Name: **392**
FSA Number: 392
Location: Caroline

Field Name: **CRCDU 25**
Total Acres: 62.00 Usable Acres: 62.00
FSA Number: 2 3
Tract: 392

Location: Caroline
Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

Conservation Practices:
Pasture (>75% cover)

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2009	5.9	M-(26 P ppm)	M-(63 K ppm)	A&L MIII

Field Warnings:

Field Name: CRCDU 26
Total Acres: 9.60 Usable Acres: 9.60
FSA Number: 0
Tract: 392
Location: Caroline
Slope Class: C Hydrologic Group: B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

Conservation Practices:
Pasture (>75% cover)

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

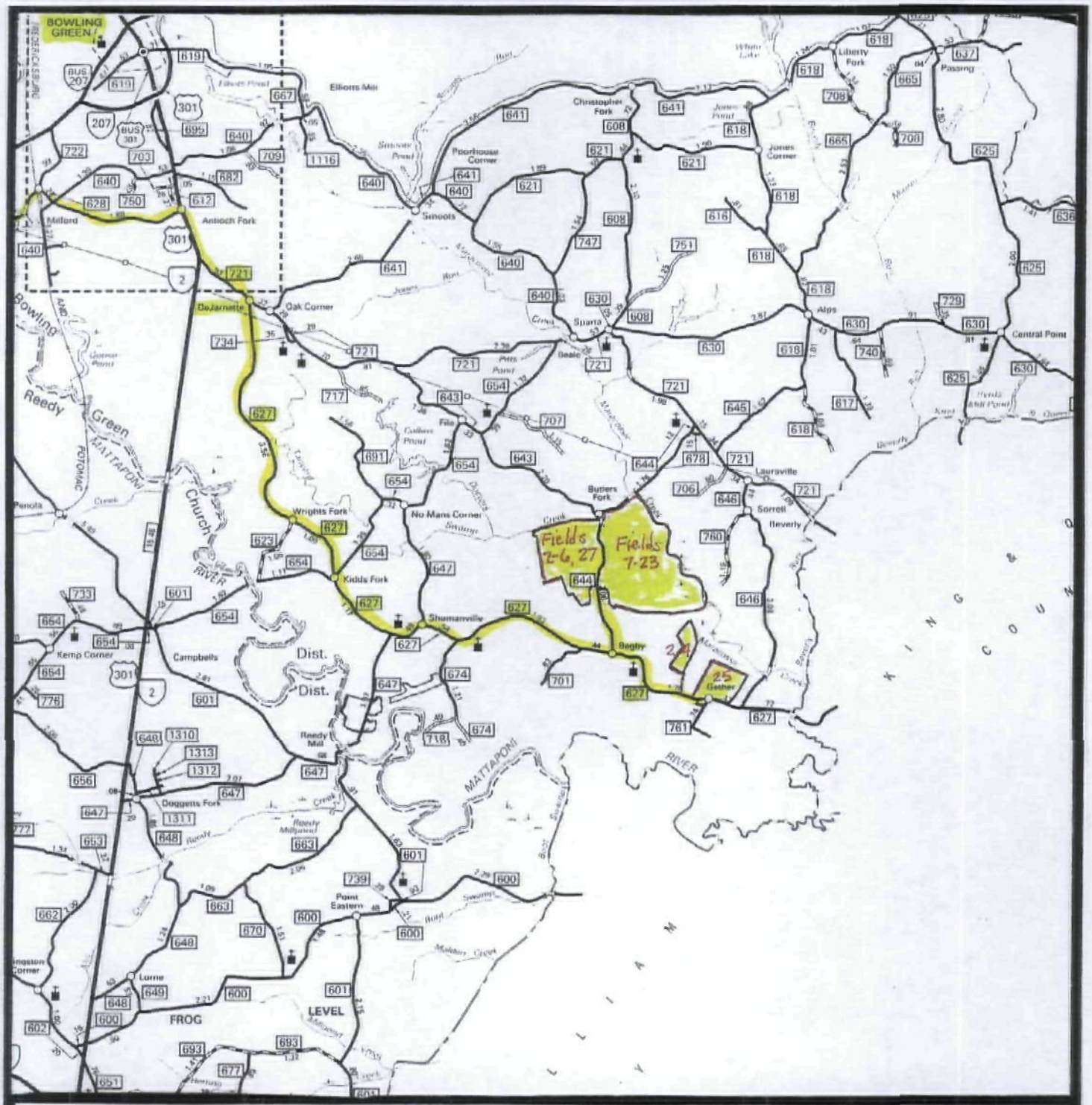
Soil Test Results:

DATE	PH	P	K		Lab
Fa-2009	6.5	H-(47 P ppm)	M(99 K ppm)	A&L MIII	

Field Warnings:

MAPS

Recyc Systems™ Inc. (Biosolids Land Application)



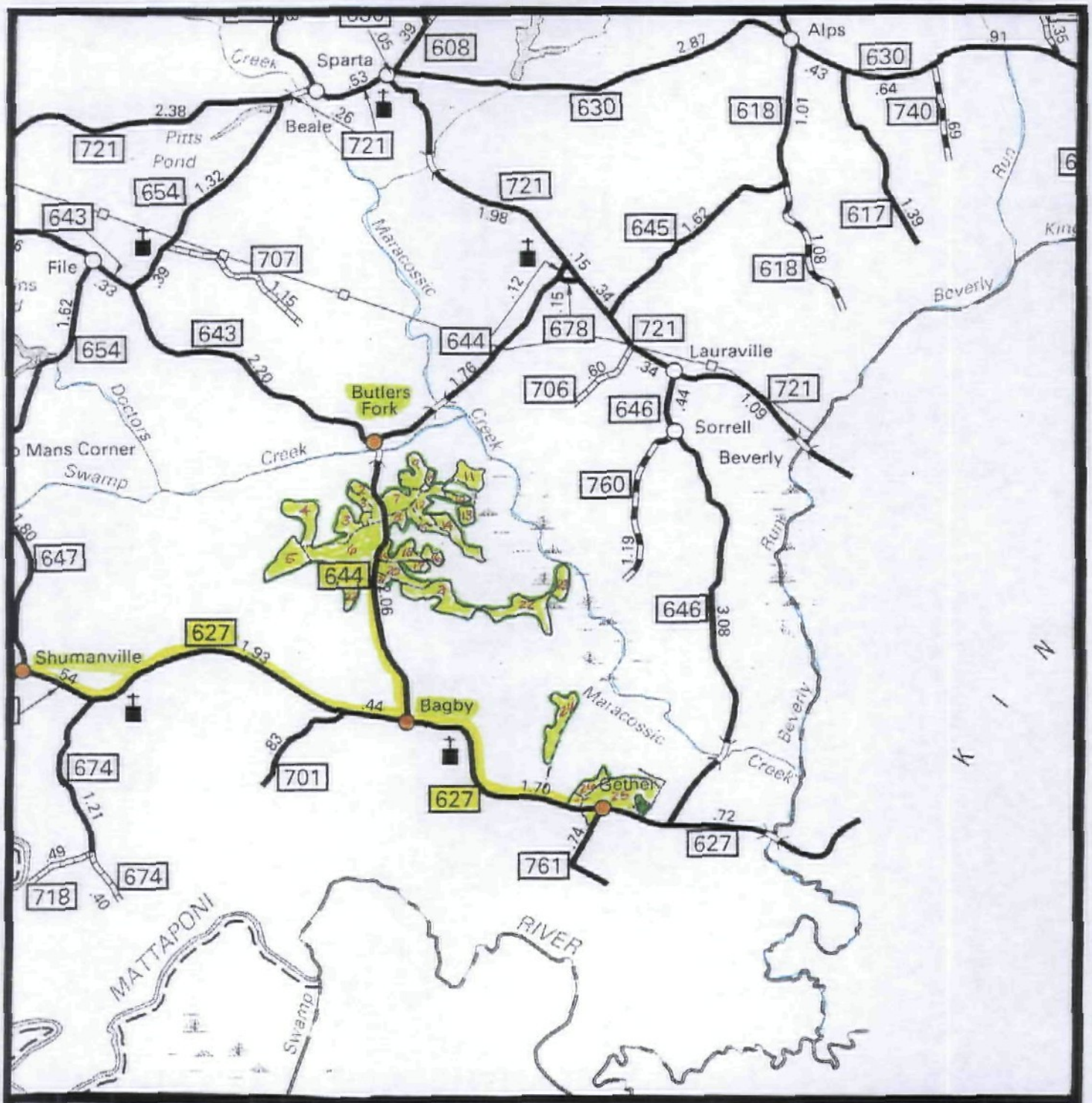
Scale: 1"= 2 miles

CRCDU 2-27

VICINITY MAP

N

Recyc Systems™ Inc. (Biosolids Land Application)



Scale: 1"= 1 mile

CRCDU 2-27

VICINITY MAP

N

Recyc Systems™ Inc. (Biosolids Land Application)

Scale: 1"= 1,000'

CRCDU 2-6,27

TAX MAP

N

Recyc Systems™ Inc. (Biosolids Land Application)

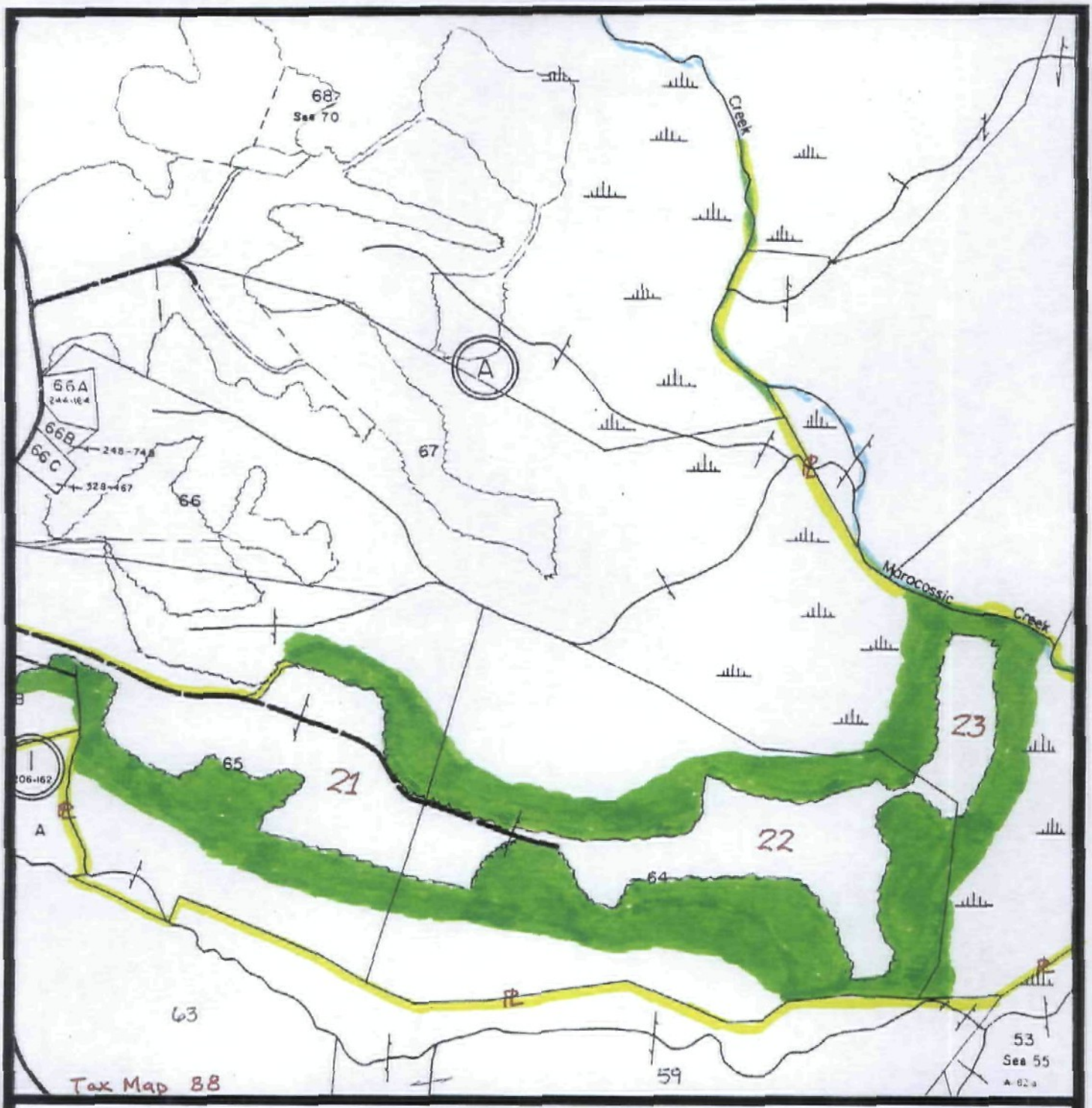
Scale: 1"= 1,000'

CRCDU 7-21

TAX MAP

N

Recyc Systems™ Inc. (Biosolids Land Application)



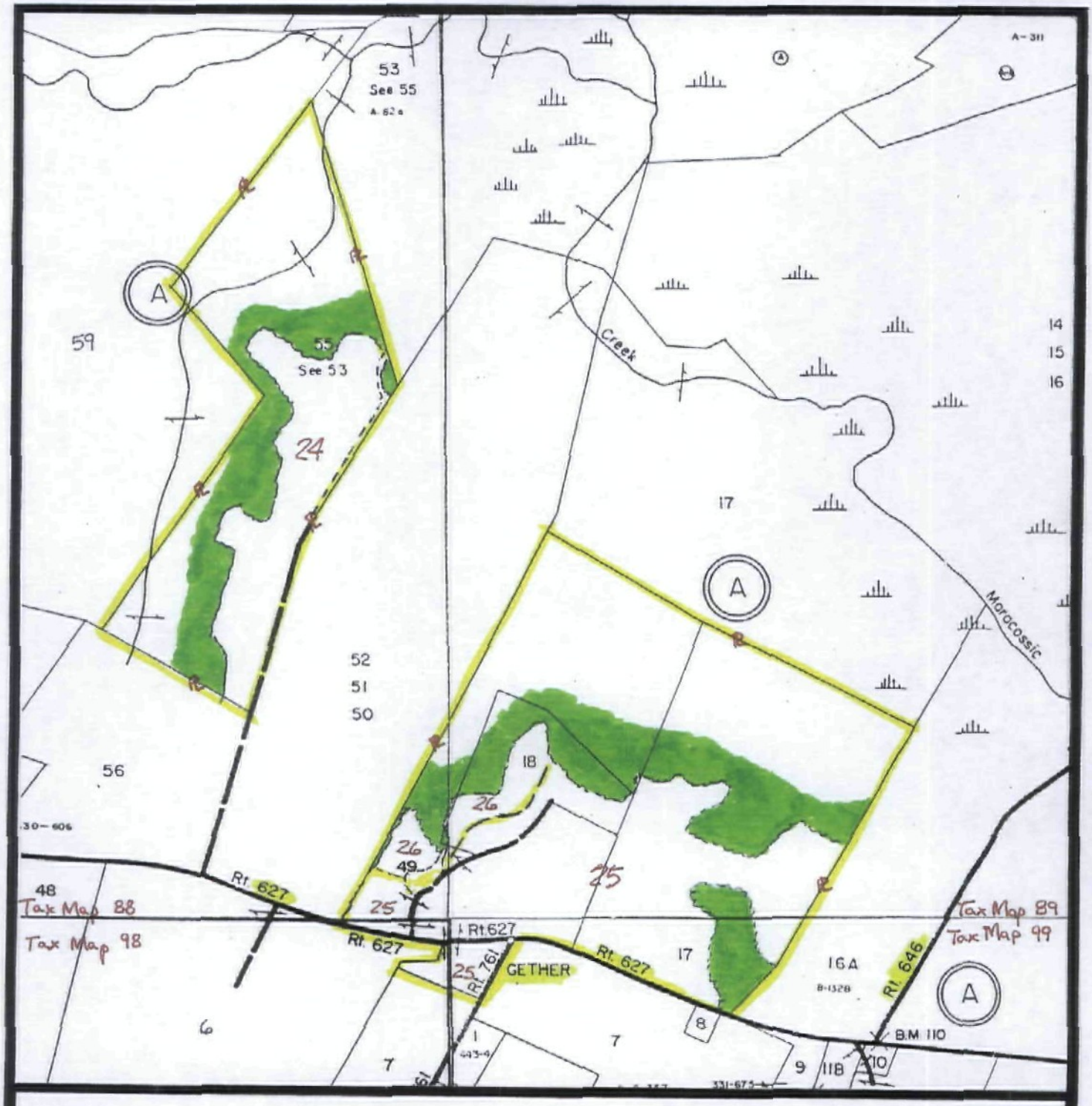
Scale: 1"= 1,000'

CRCDU 21-23

TAX MAP

N

Recyc Systems™ Inc. (Biosolids Land Application)



Scale: 1"= 1,000'

CRCDU 24-26

TAX MAP

N

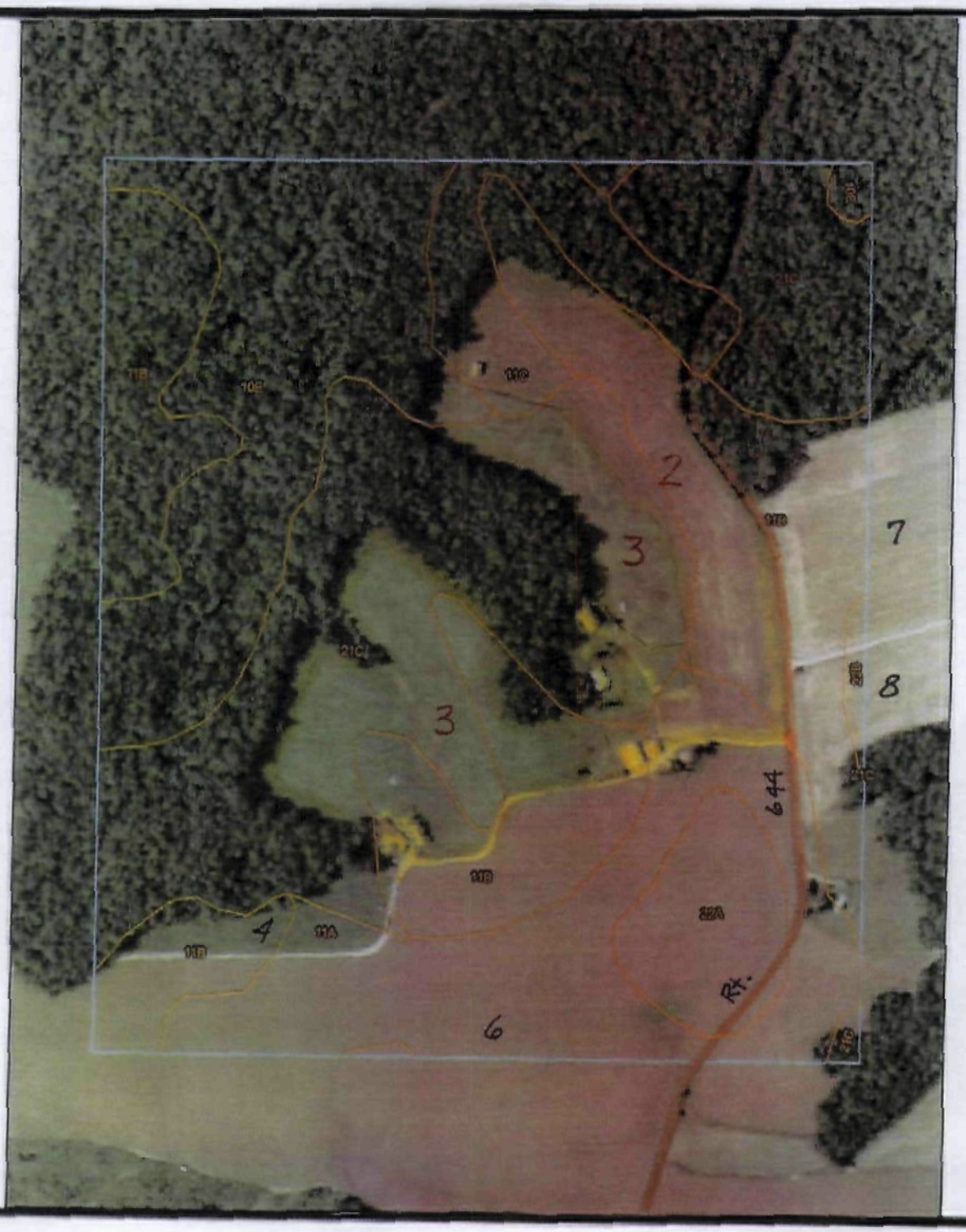
ADJOINING LANDOWNERS

Carl D Upshaw, Jr

CAROLINE COUNTY

Tax Map	Parcel #	Owner Name(s)
88	6	Benjamin Jetet
	9	Bob Groat
	10a	Gus P & Olivia Jones
	12	Joseph I Thomas
	18	Jane C Wait
	50	Samuel B Ball
	53	Sherrie A Upshay etals
	56	Lynwood D Broaddus
	59	Clara V Gibson
	63	Gregory W Vaughan
	70	C Wayne Beazley et ux
98	6	Woodford B Broaddus etals
	7	Woodford B Broaddus etals
99	7	Robert D Upshaw
	8	Robert D Upshaw
	16A	William R & Rosa Hickman

Recyc Systems™ Inc. (Biosolids Land Application)



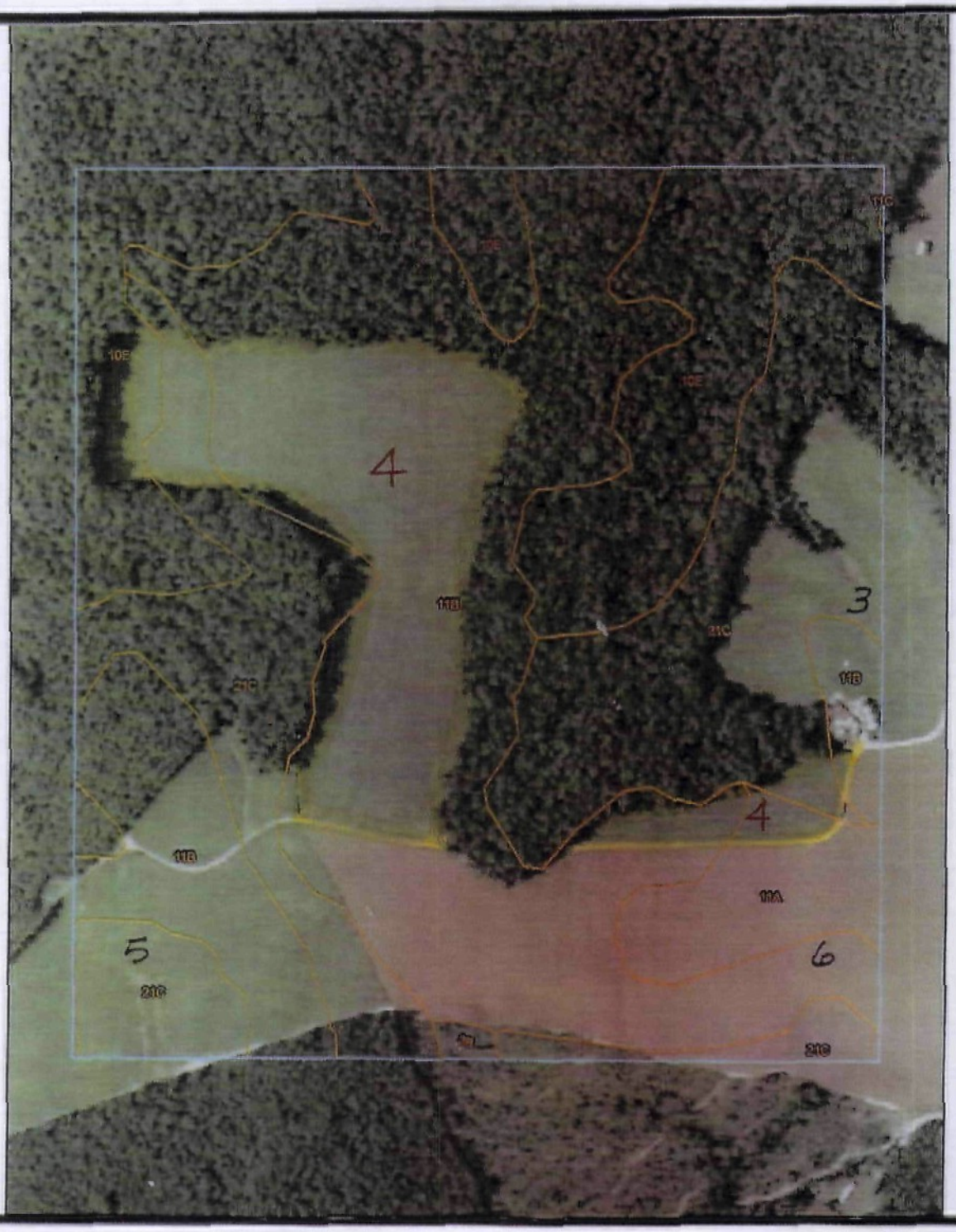
Scale: 1"= 500'

CRCDU 2,3

SOIL MAP

N

Recyc Systems™ Inc. (Biosolids Land Application)



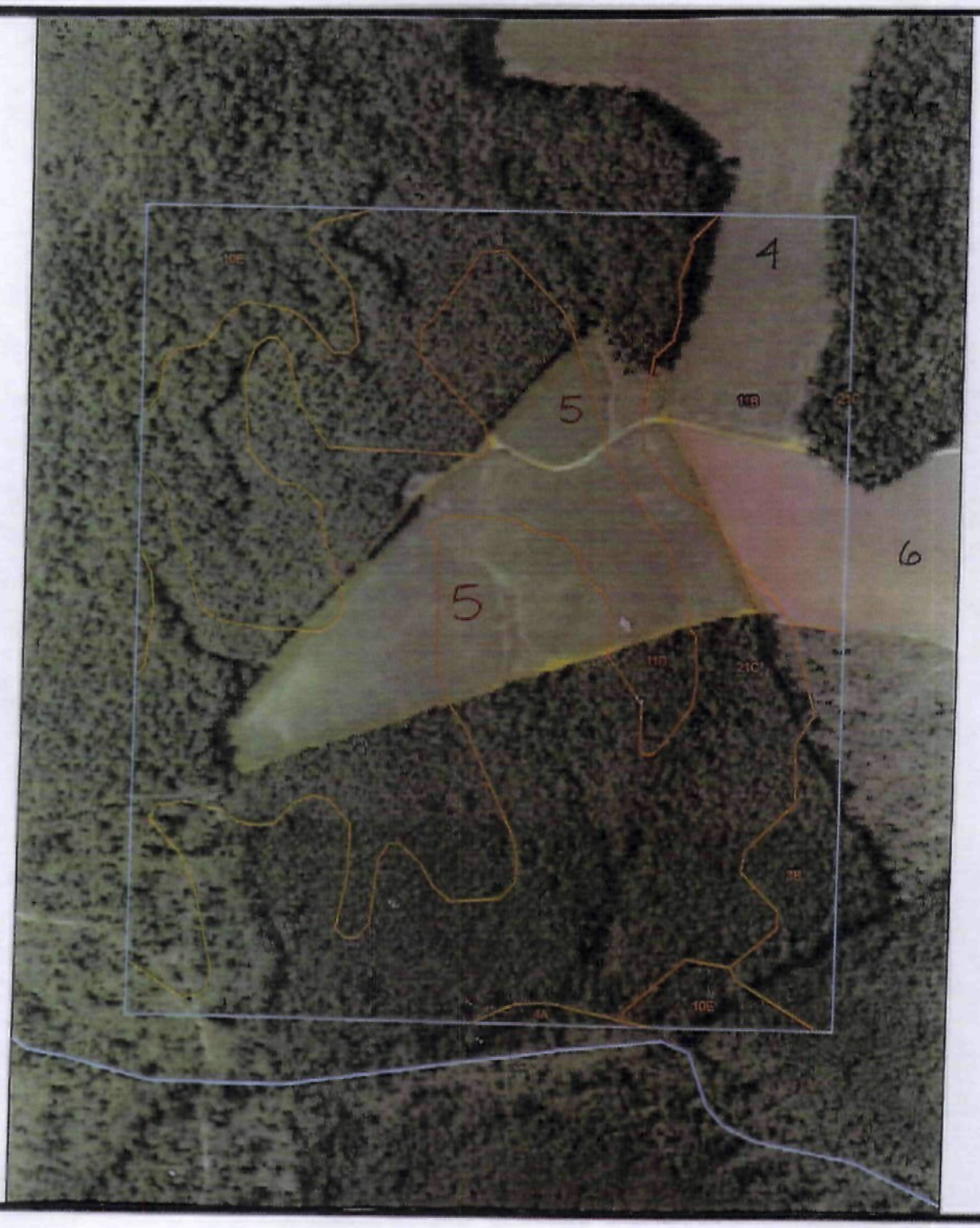
Scale: 1"= 500'

CRCDU 4

SOIL MAP

N

Recyc Systems™ Inc. (Biosolids Land Application)



Scale: 1"= 500'

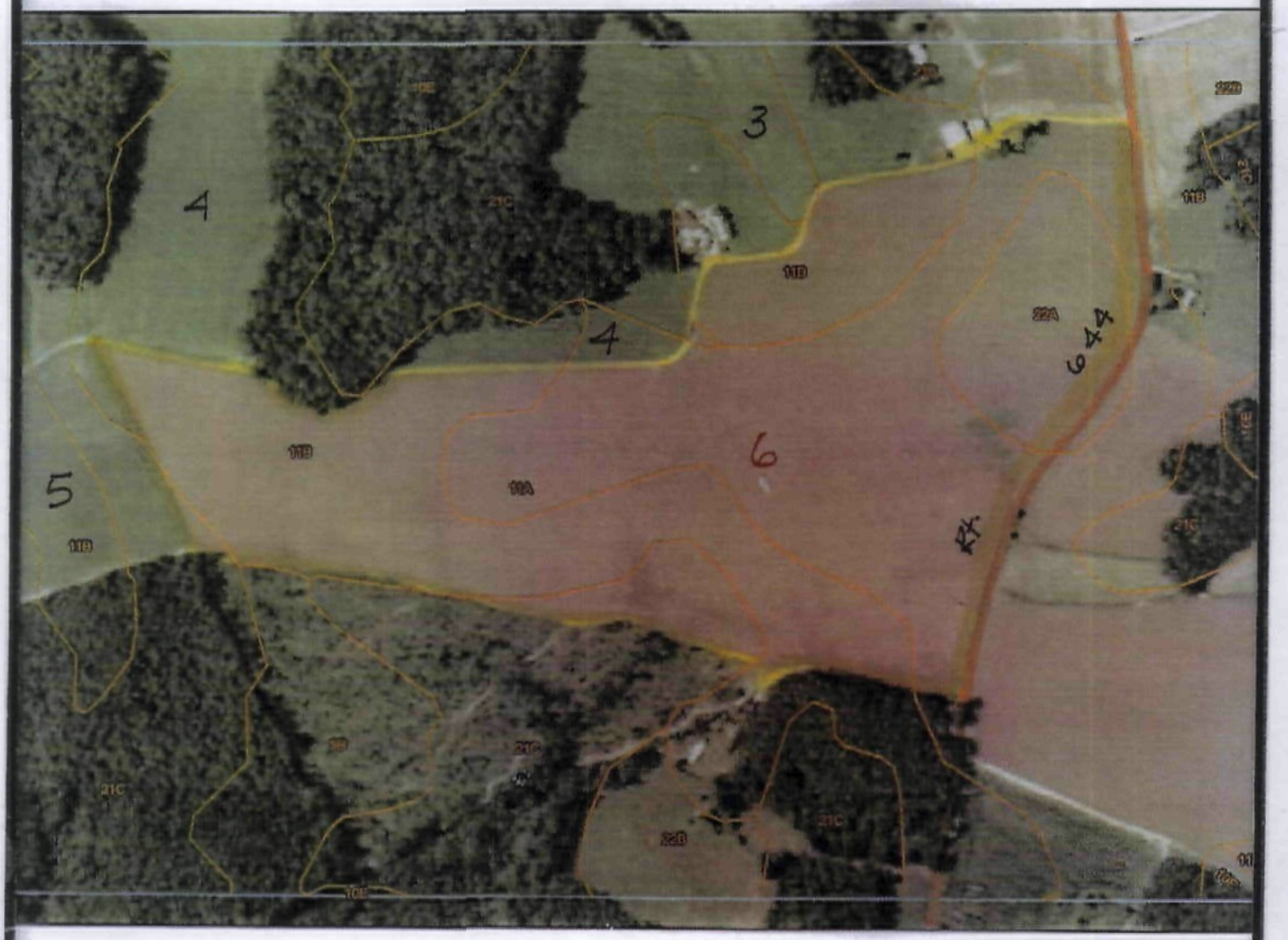
CRCDU 5

SOIL MAP

N

Recyc Systems™ Inc. (Biosolids Land Application)

Soil Map—Caroline County, Virginia



Map Scale: 1:6,000 if printed on A size (8.5" x 11") sheet.

Meters: 0 50 100 200 300

Feet: 0 300 600 1,200 1,800

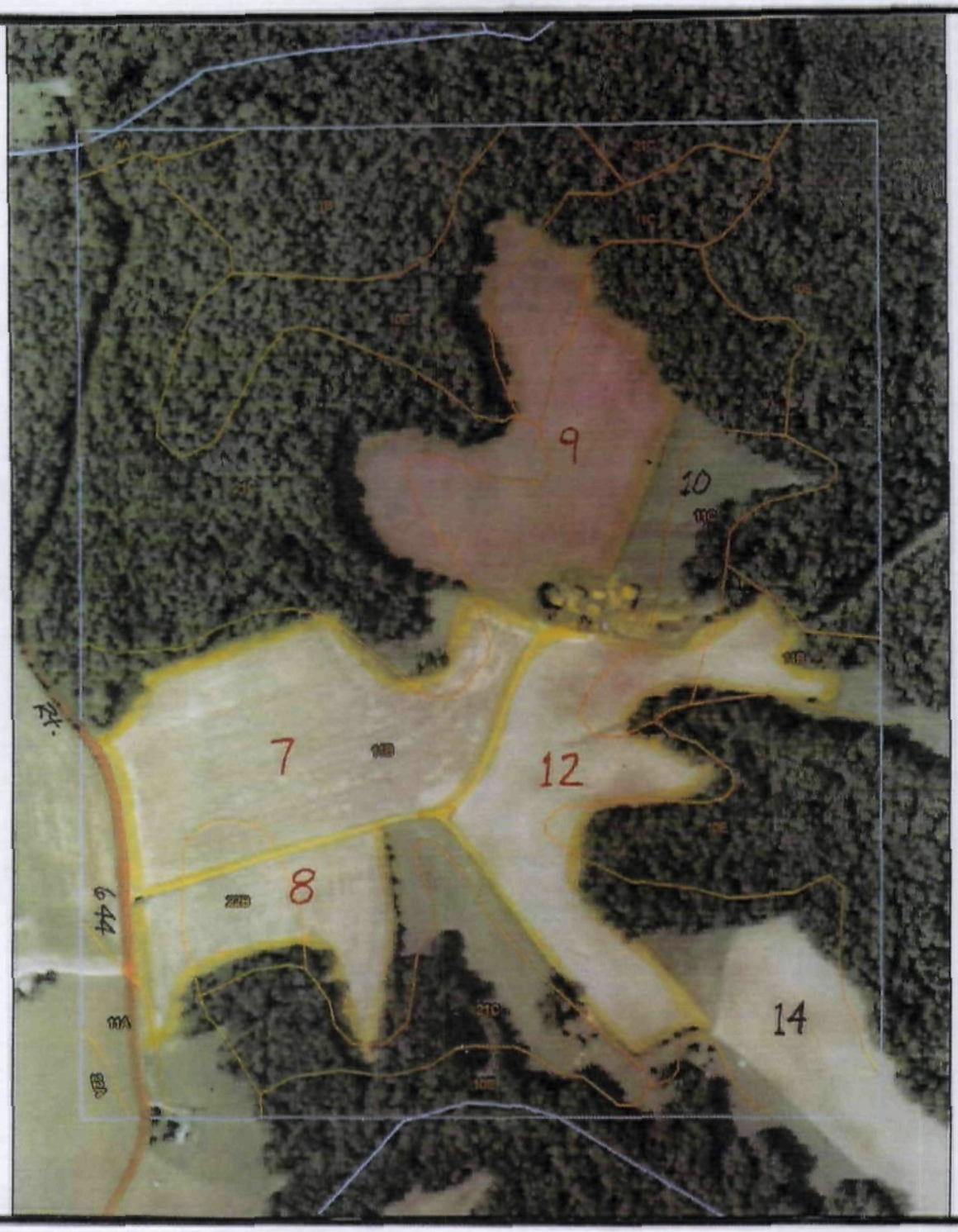
Scale: 1"= 500'

CRCDU 6

SOIL MAP

N

Recyc Systems™ Inc. (Biosolids Land Application)



Scale: 1"= 500'

CRCDU 7-9,12

SOIL MAP

N

Recyc Systems™ Inc. (Biosolids Land Application)

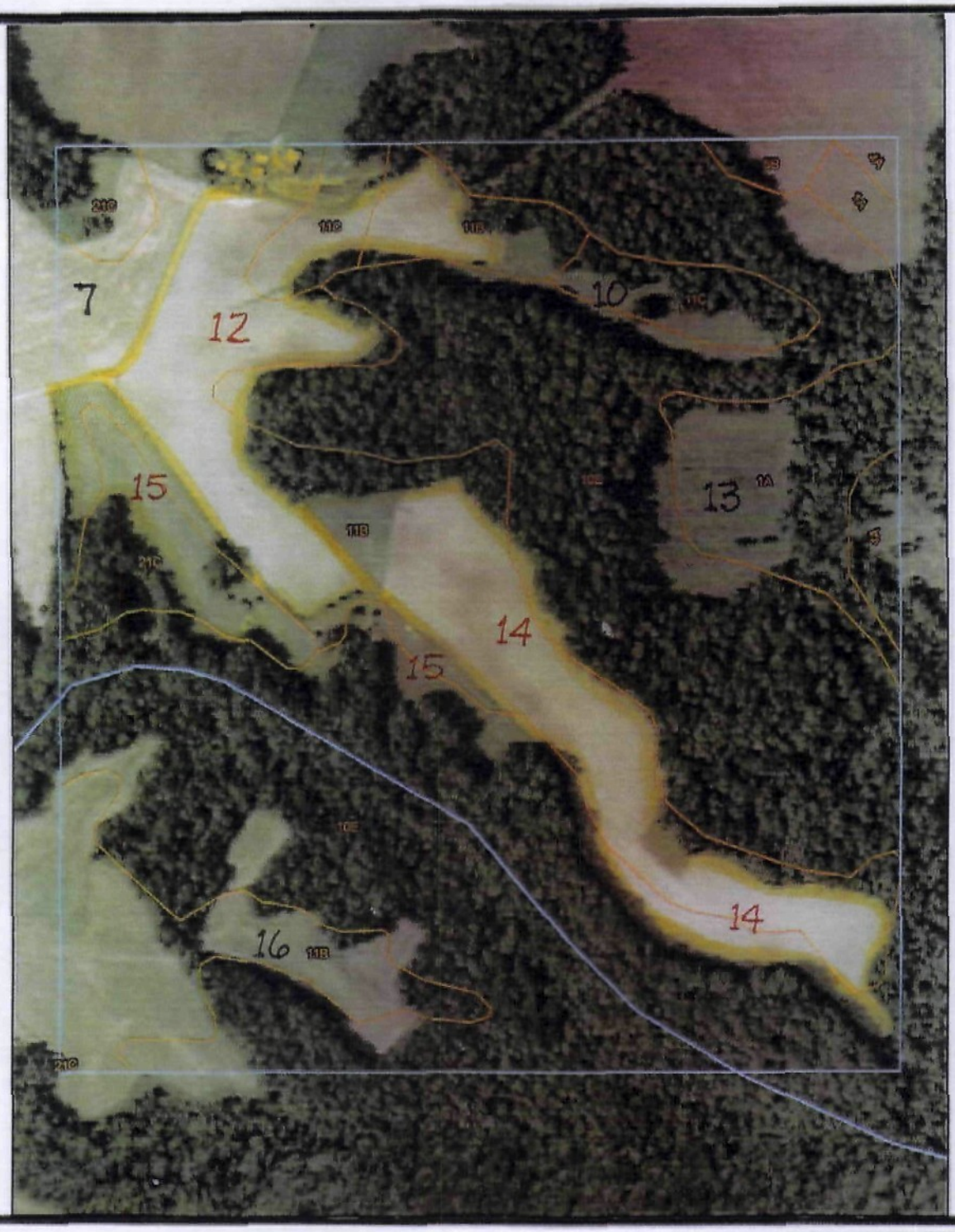
Scale: 1"= 500'

CRCDU 10,11,13

SOIL MAP

N

Recyc Systems™ Inc. (Biosolids Land Application)



Scale: 1"= 500'

CRCDU 12,14,15

SOIL MAP

N

Recyc Systems™ Inc. (Biosolids Land Application)

Scale: 1"= 500'

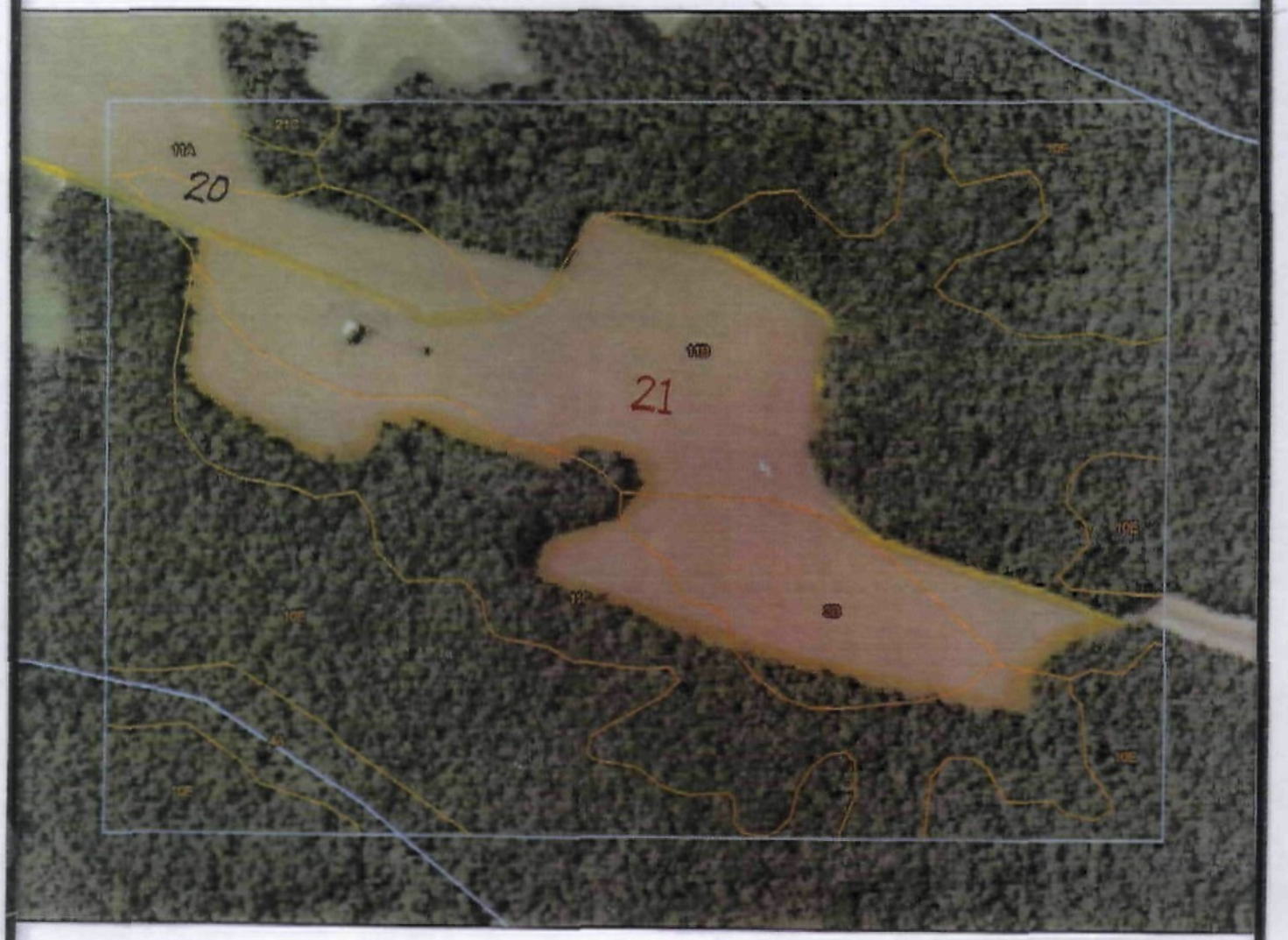
CRCDU 16-21

SOIL MAP

N

Recyc Systems™ Inc. (Biosolids Land Application)

Soil Map—Caroline County, Virginia



Map Scale: 1:6,000 if printed on A size (8.5" x 11") sheet.

Meters: 0 50 100 200 300

Feet: 0 300 600 1,200 1,800

Scale: 1"= 500'

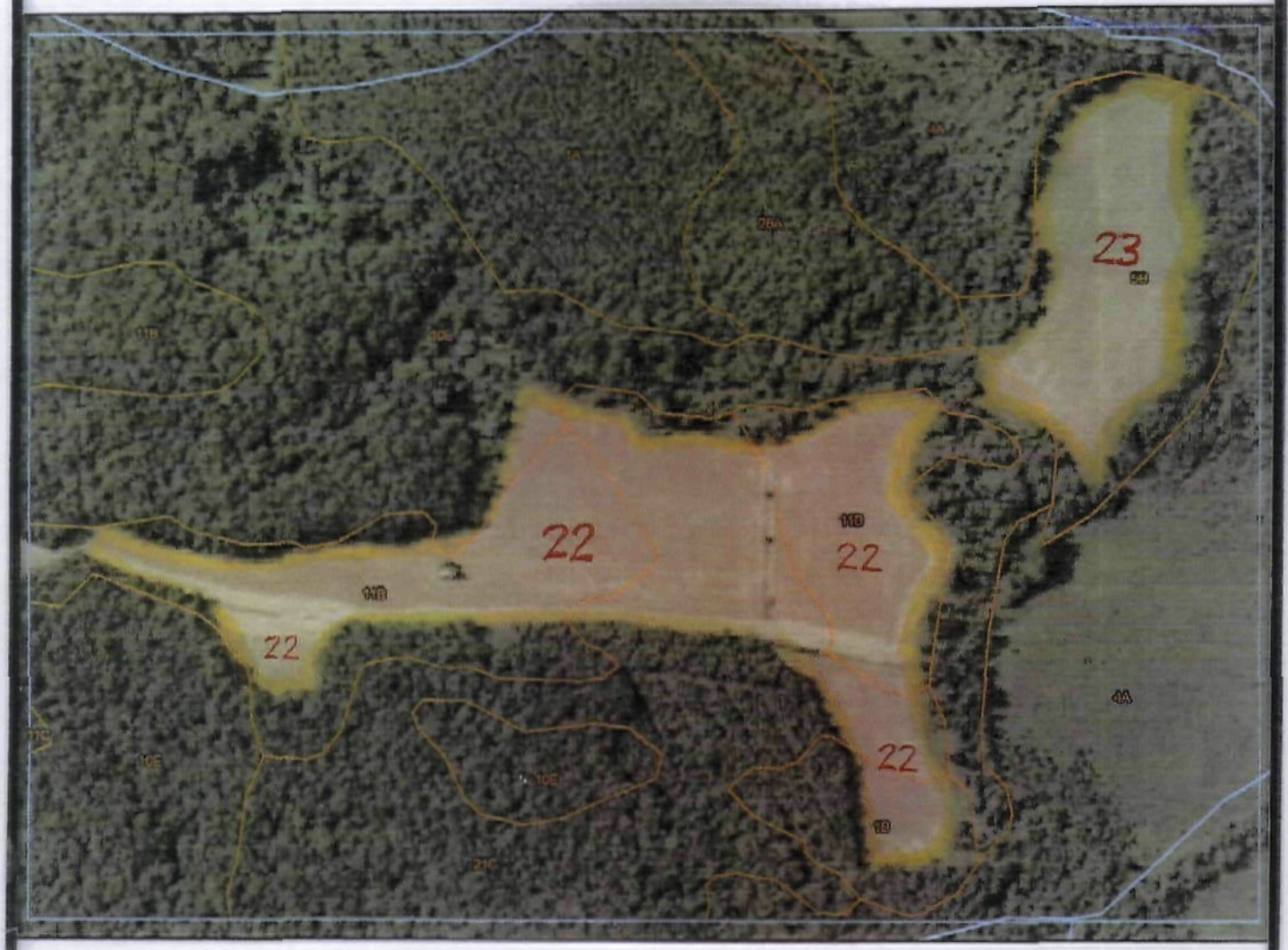
CRCDU 21

SOIL MAP

N

Recyc Systems™ Inc. (Biosolids Land Application)

Soil Map—Caroline County, Virginia



Map Scale: 1:6,000 if printed on A size (8.5" x 11") sheet.

Meters: 0 50 100 200 300

Feet: 0 300 600 1,200 1,800

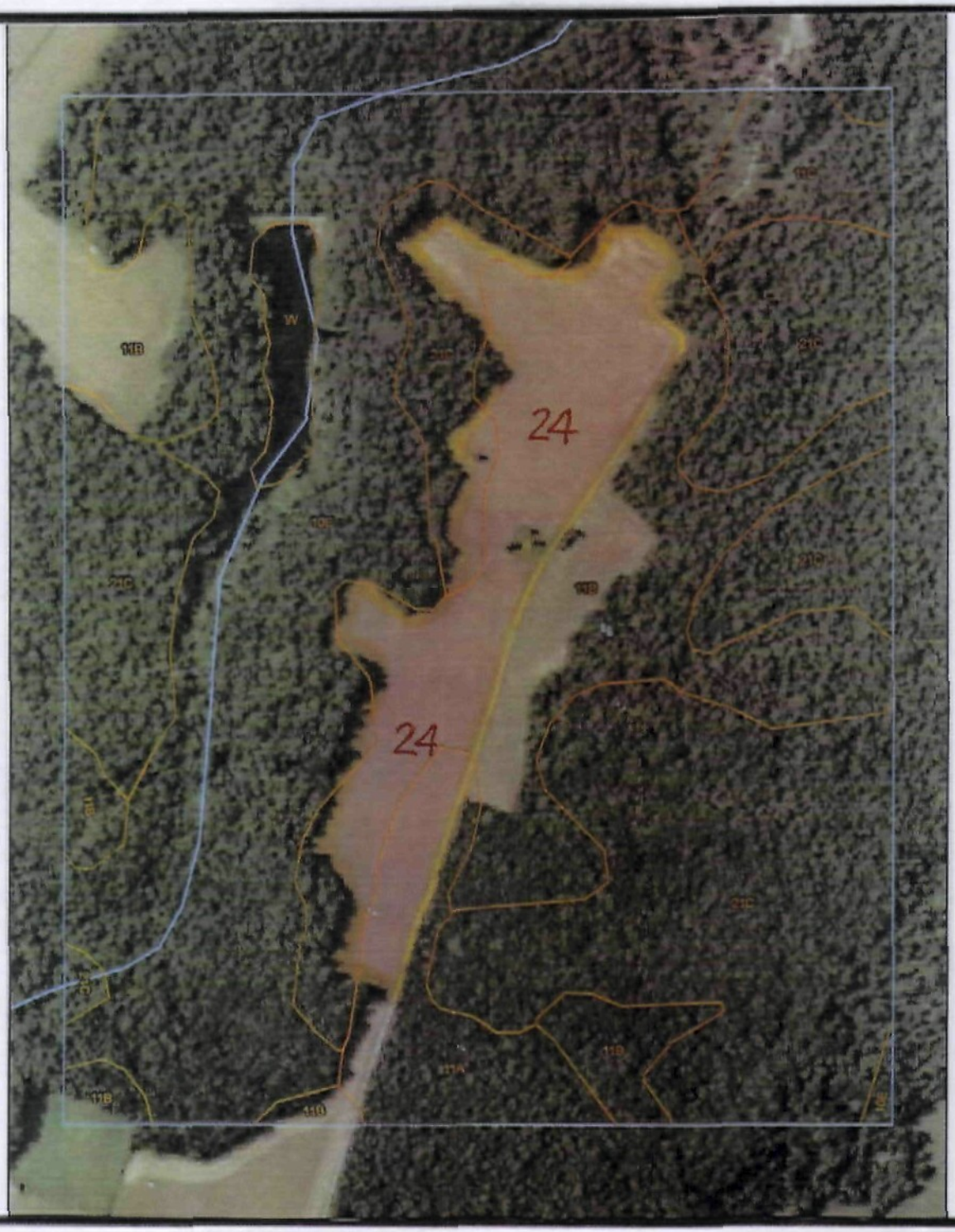
Scale: 1"= 500'

CRCDU 22,23

SOIL MAP

N

Recyc Systems™ Inc. (Biosolids Land Application)



Scale: 1"= 500'

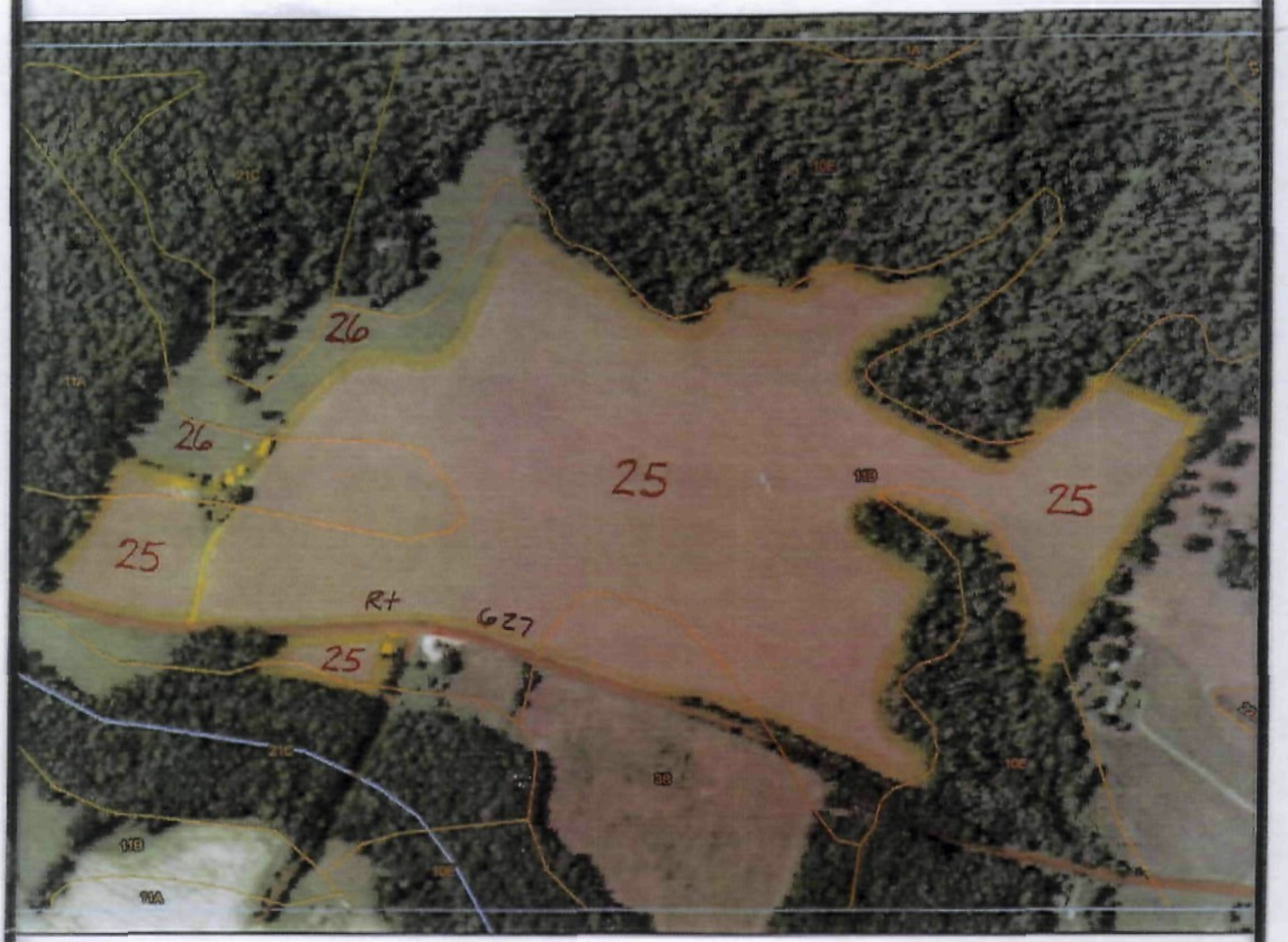
CRCDU 24

SOIL MAP

N

Recyc Systems™ Inc. (Biosolids Land Application)

Soil Map—Caroline County, Virginia



Map Scale: 1:6,000 if printed on A size (8.5" x 11") sheet.

Meters: 0 50 100 200 300

Feet: 0 300 600 1,200 1,800

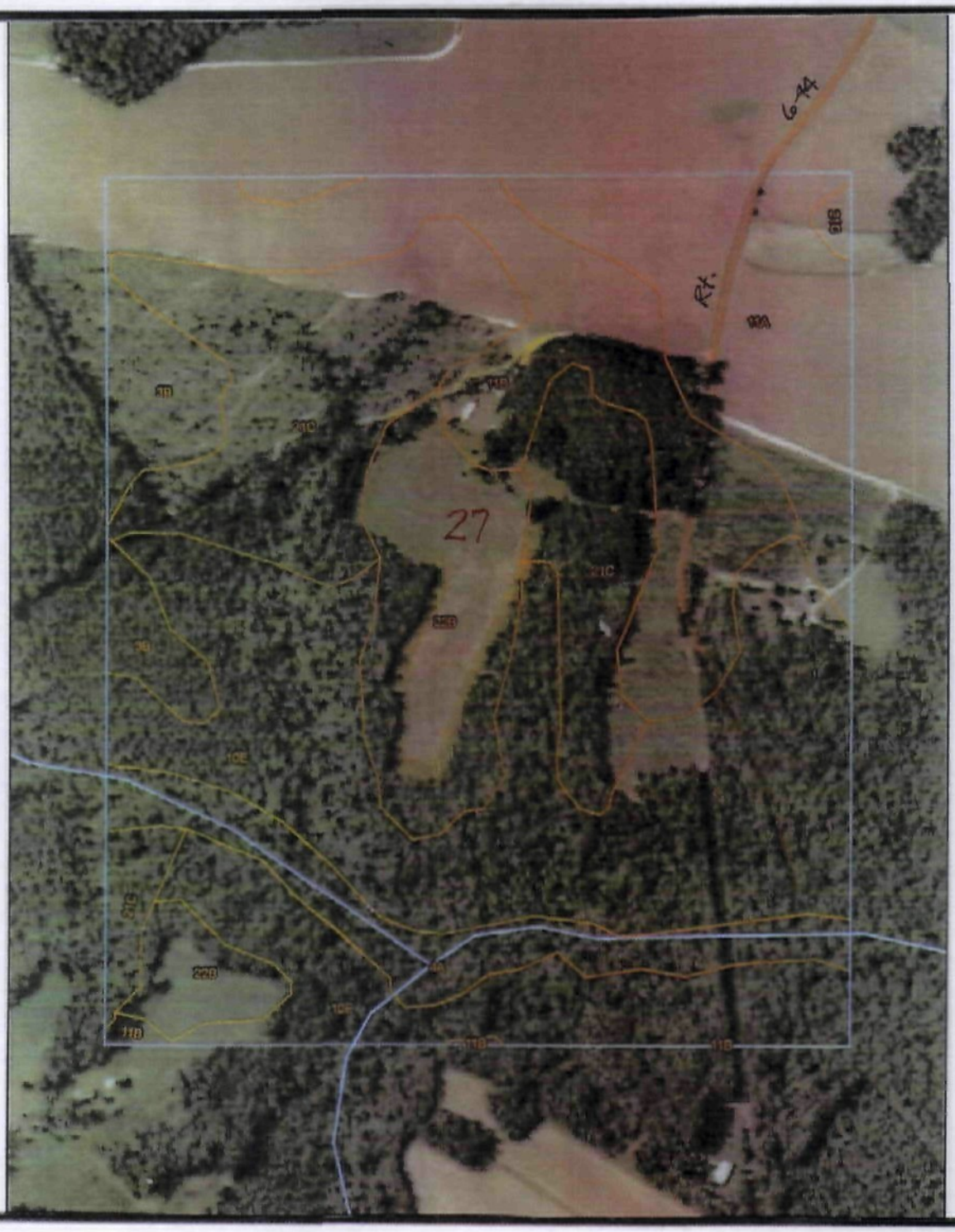
Scale: 1"= 500'

CRCDU 25,26

SOIL MAP

N

Recyc Systems™ Inc. (Biosolids Land Application)



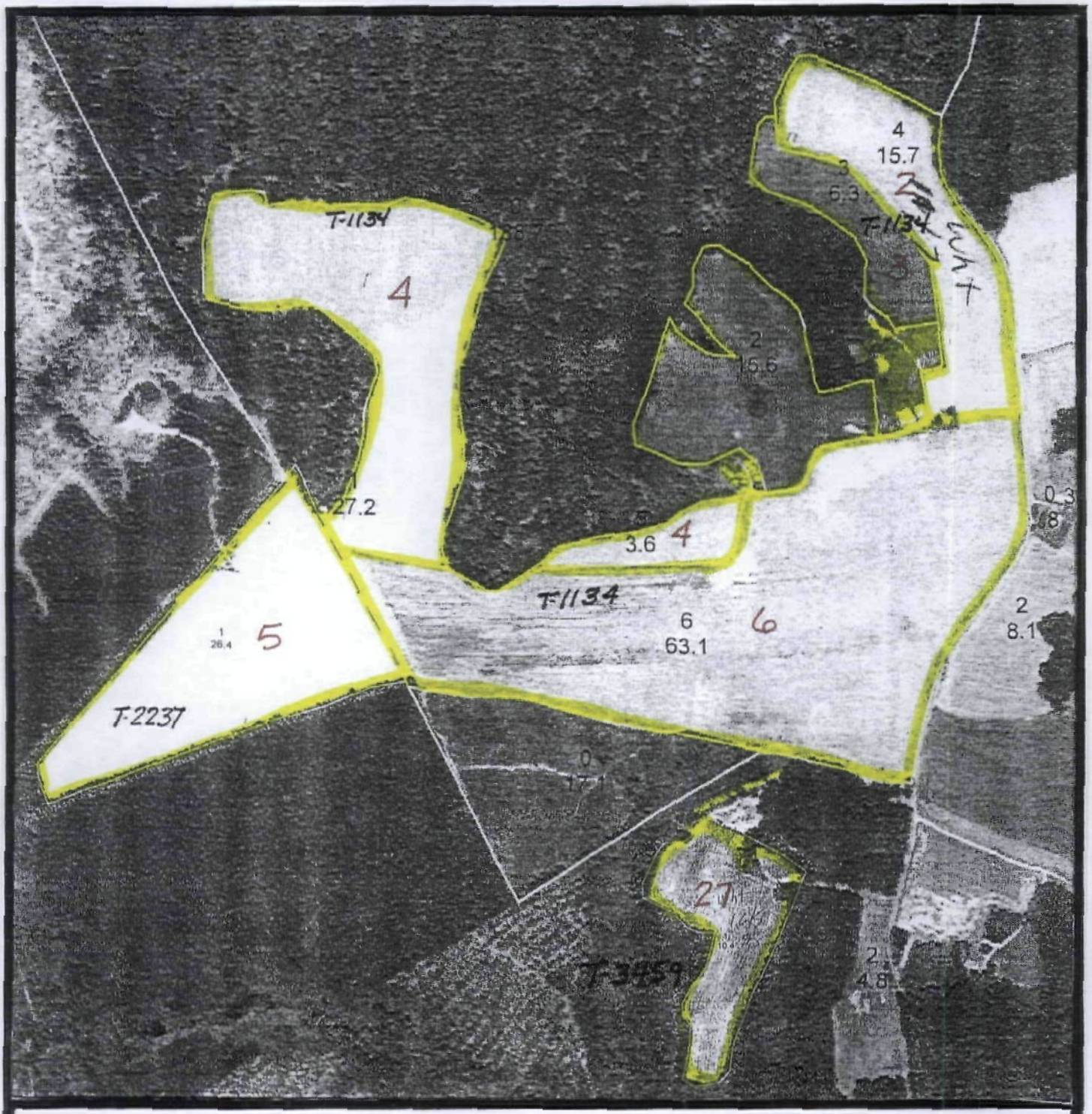
Scale: 1"= 500'

CRCDU 27

SOIL MAP

N

Recyc Systems™ Inc. (Biosolids Land Application)



Scale: 1"= 660'

CRCDU 2-6,27

AERIAL MAP

N

Recyc Systems™ Inc. (Biosolids Land Application)

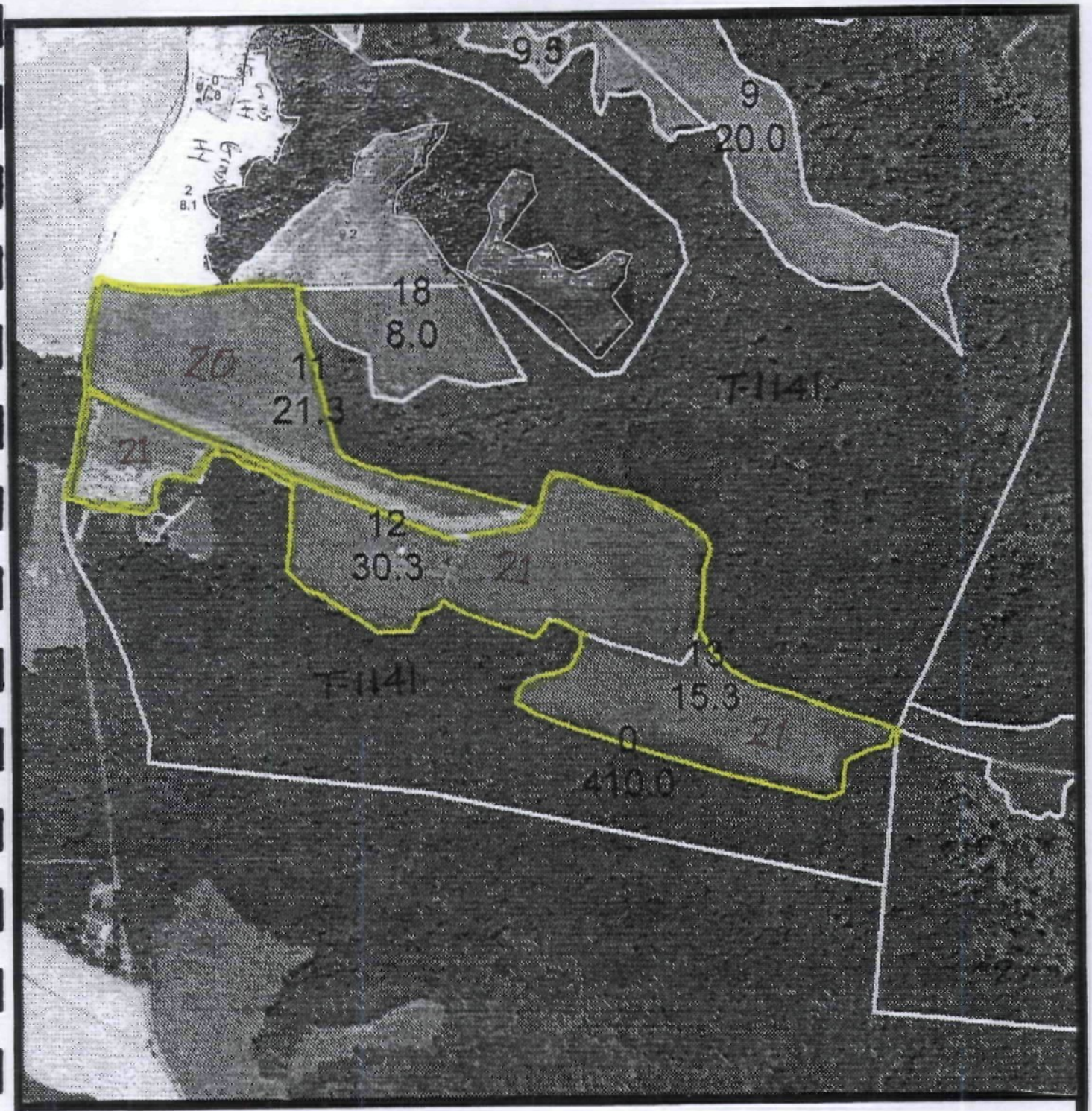
Scale: 1"= 660'

CRCDU 7-19

AERIAL MAP

N

Recyc Systems™ Inc. (Biosolids Land Application)



Scale: 1"= 660'

CRCDU 20,21

AERIAL MAP

N

Recyc Systems™ Inc. (Biosolids Land Application)

Scale: 1"= 660'

CRCDU 22,23

AERIAL MAP

N

Recyc Systems™ Inc. (Biosolids Land Application)

Hanover/Caroline
FSA County Office

Farm 1886
Tract 1154

N

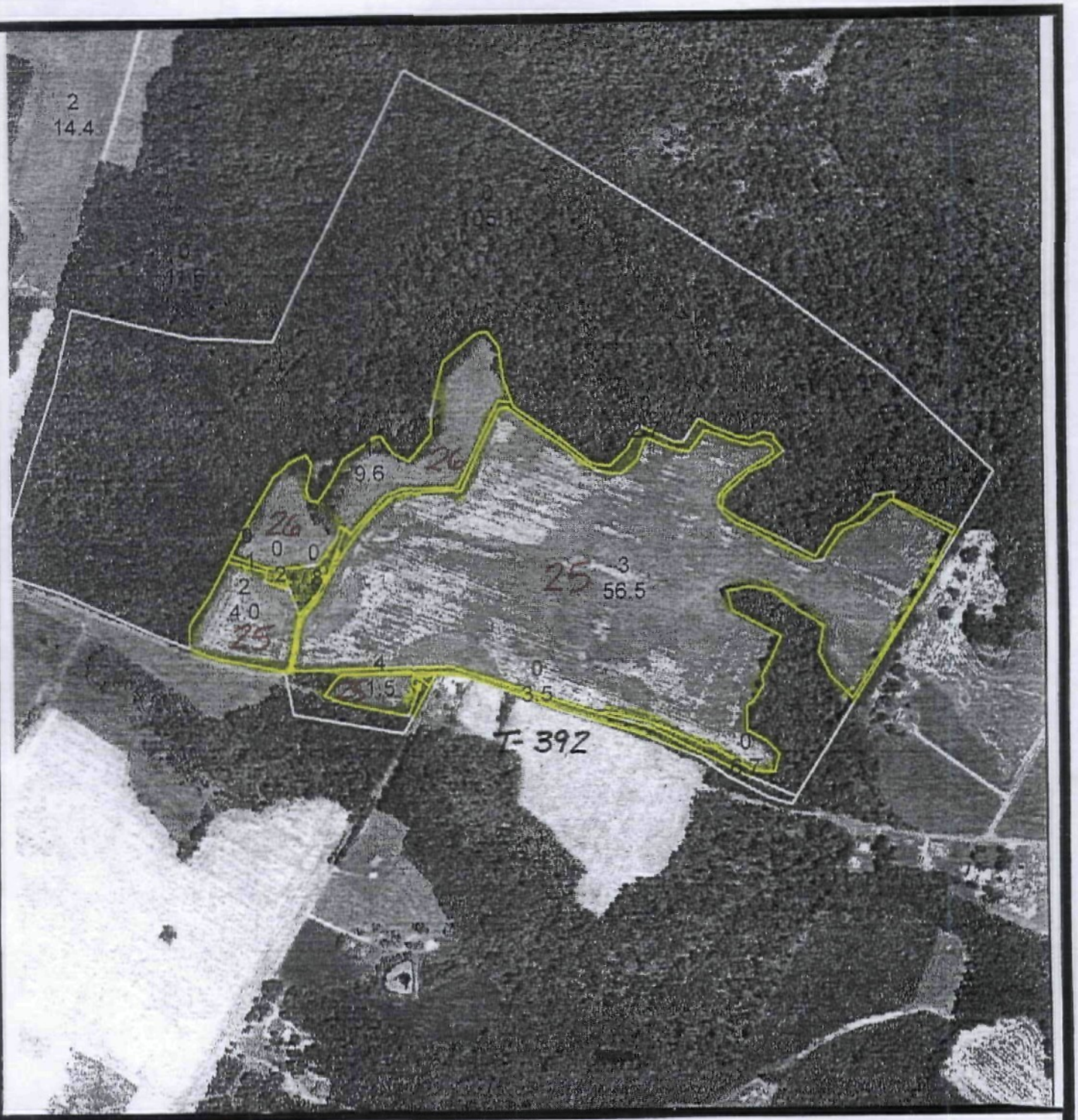
Scale: 1"= 660'

CRCDU 24

AERIAL MAP

N

Recyc Systems™ Inc. (Biosolids Land Application)



Scale: 1"= 660'

CRCDU 25,26

AERIAL MAP

N

Legend for Site Plan

H/W House and Well

W Well

Perennial Streams & Surface Waters

Wet Spot

Intermittent Stream / Drainage Ditch

Trees and Woods

Private Drive

R Rock / Rocky Area

S Sinkhole

Severely Eroded Spot

State Road

Field Boundary / Fence

Property Line

SL Slope

FF Frequent Flooded Soil (seasonal)

Recyc Systems™ Inc. (Biosolids Land Application)

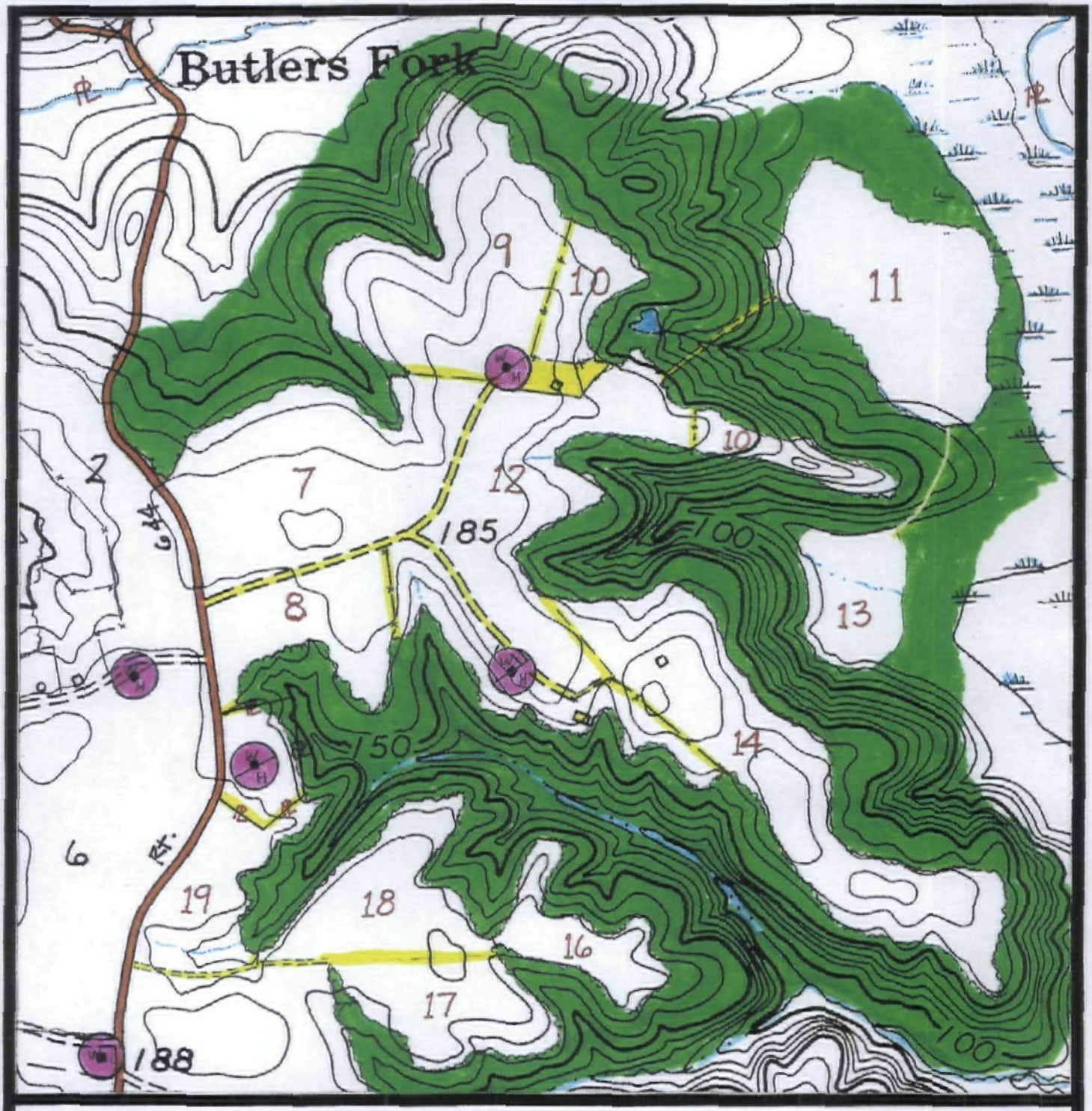
Scale: 1"= 660'

CRCDU 2-6

SITE PLAN

N

Recyc Systems™ Inc. (Biosolids Land Application)



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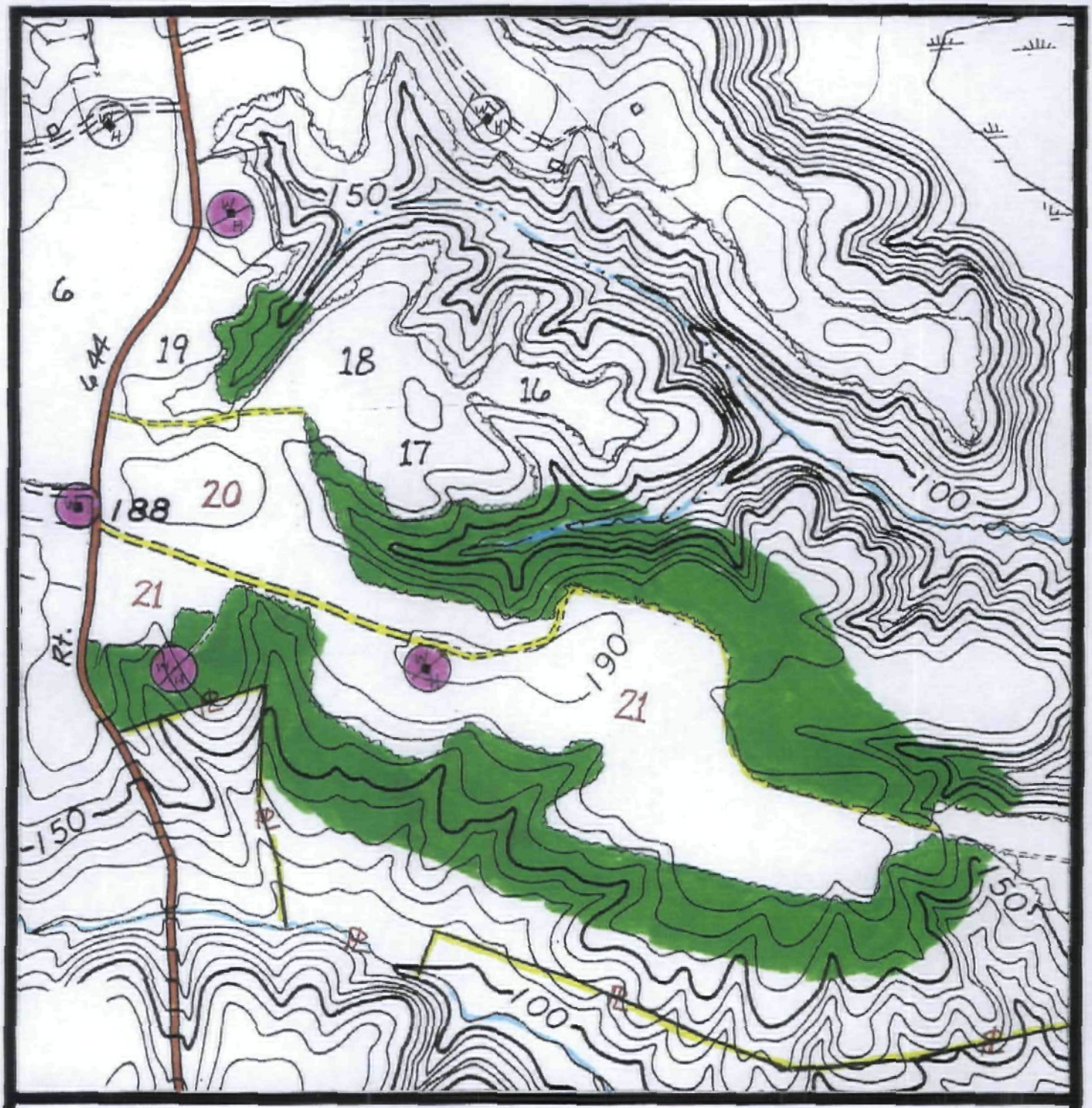
CRCDU 7-19

SITE PLAN

N

Recyc Systems™ Inc. (Biosolids Land Application)



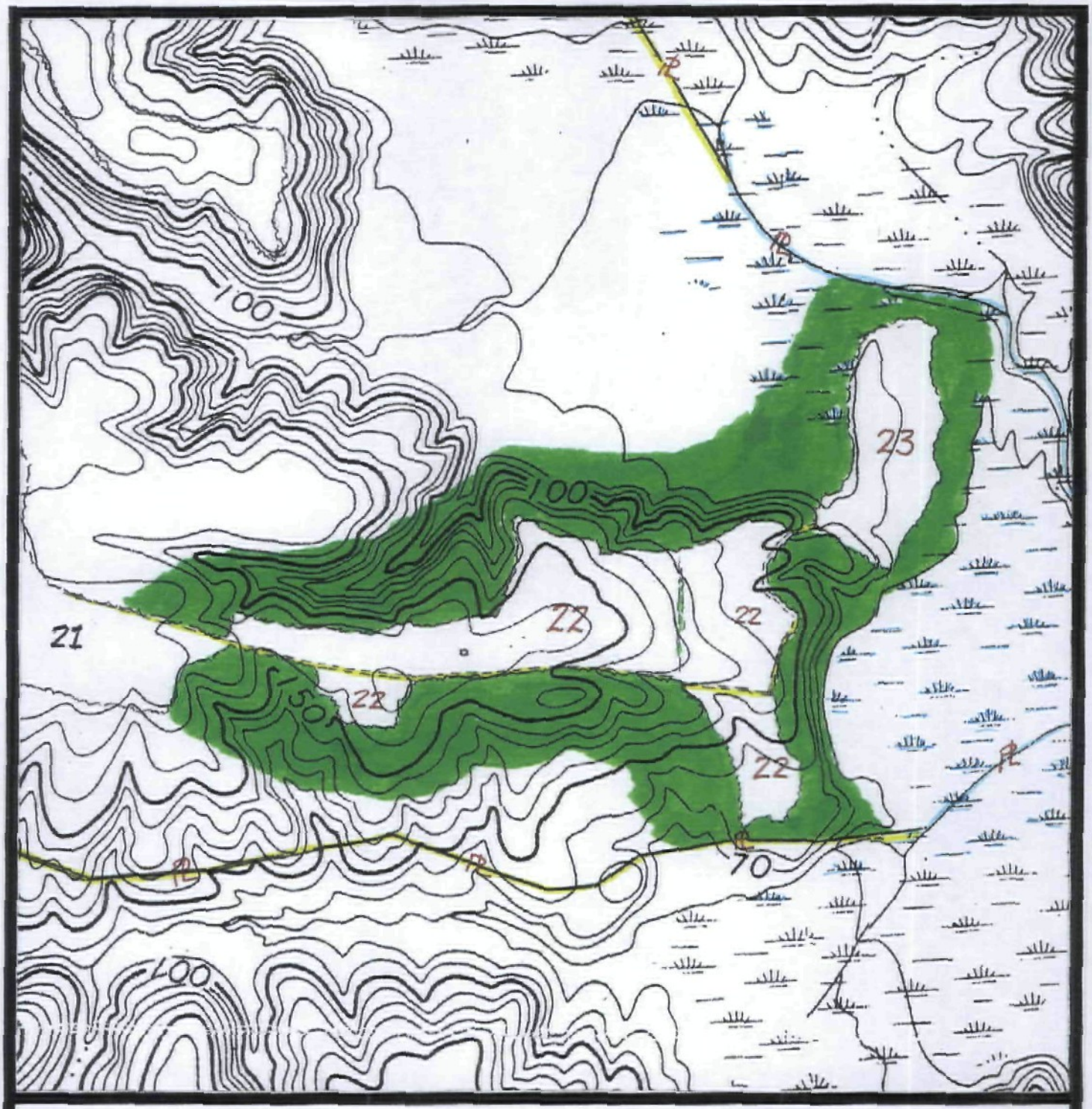
Scale: 1"= 660'

CRCDU 20,21

SITE PLAN

N

Recyc Systems™ Inc. (Biosolids Land Application)



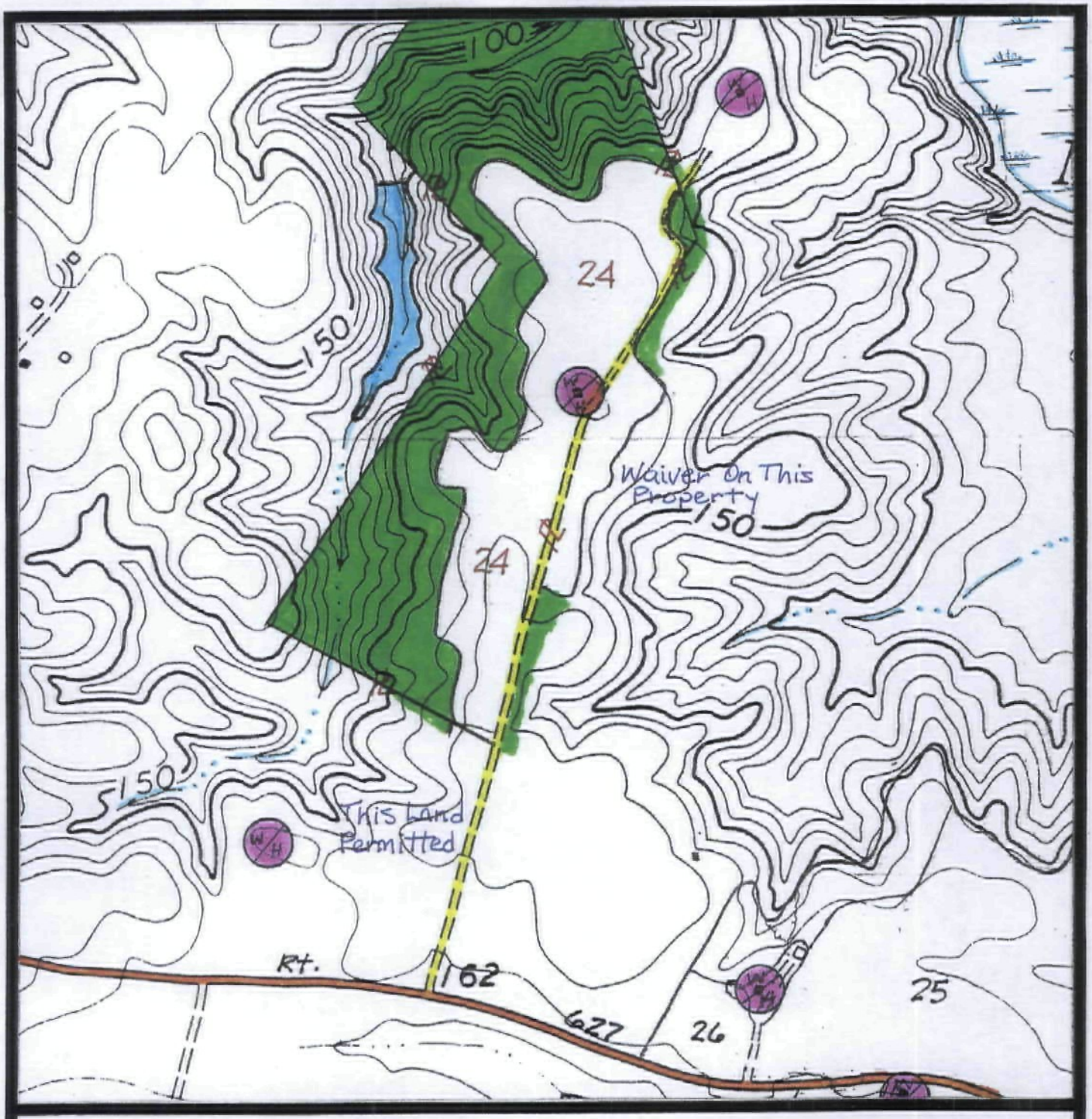
Scale: 1"= 660'

CRCDU 22,23

SITE PLAN

N

Recyc Systems™ Inc. (Biosolids Land Application)



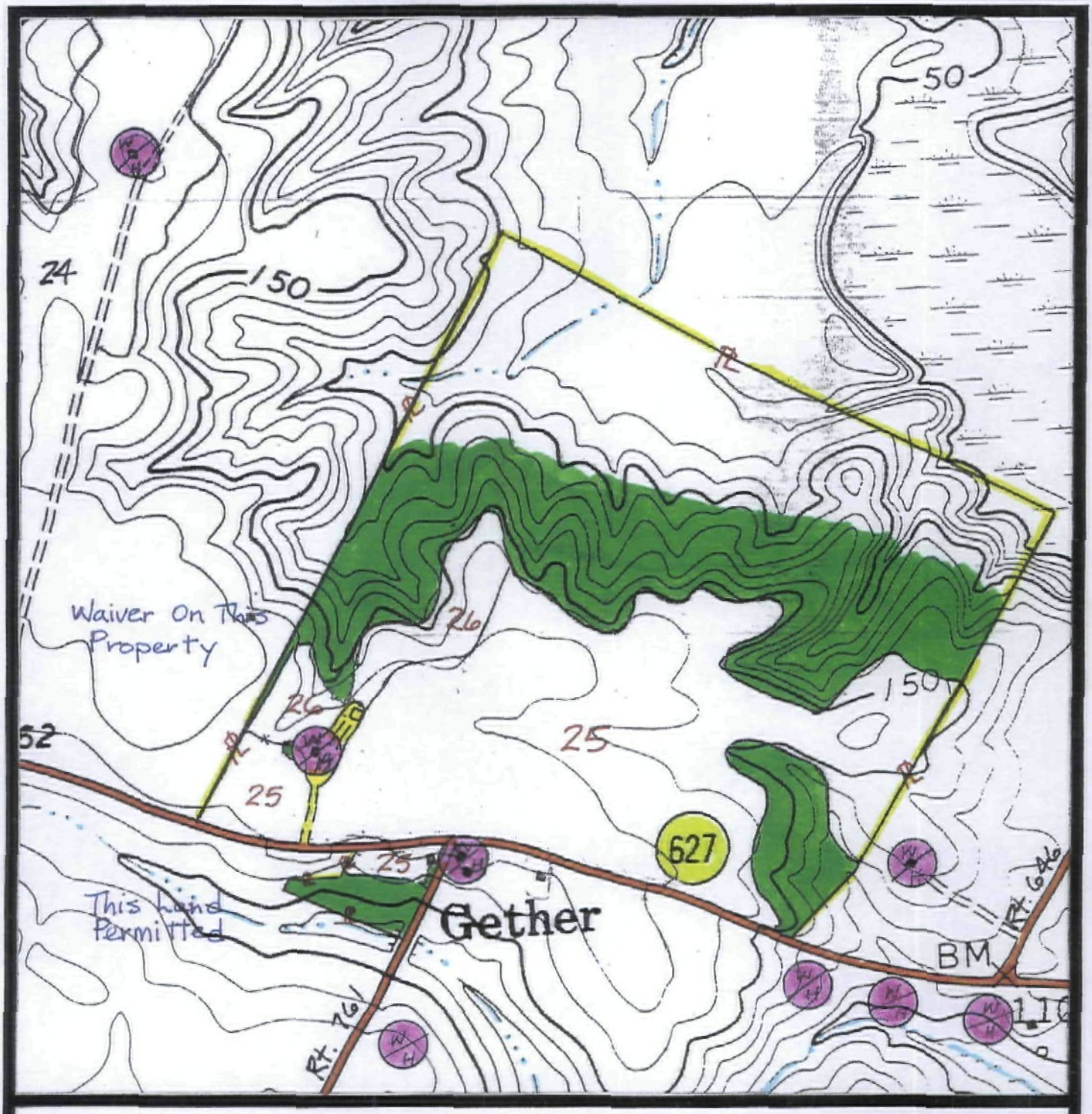
Scale: 1"= 660'

CRCDU 24

SITE PLAN

N

Recyc Systems™ Inc. (Biosolids Land Application)



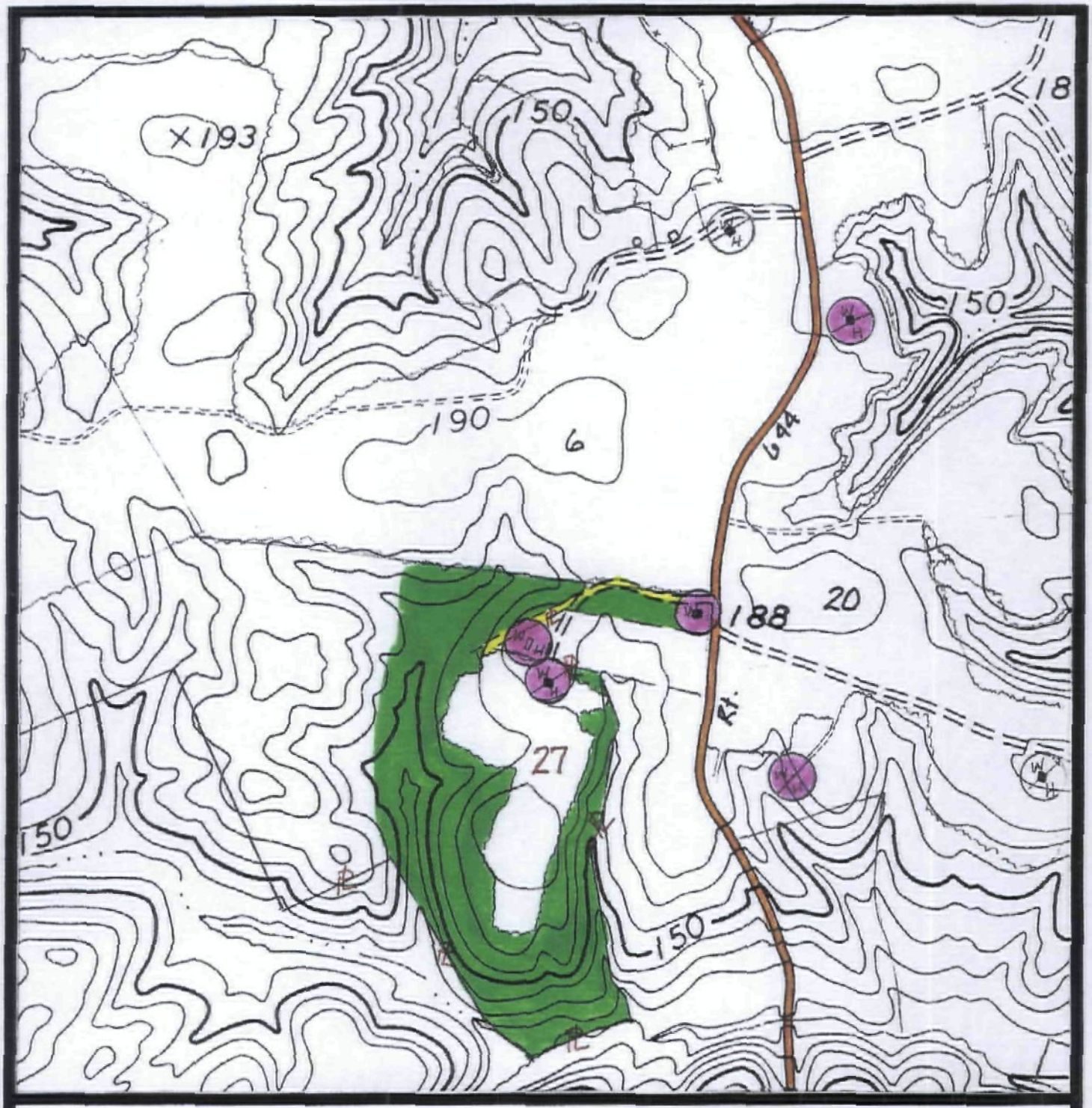
Scale: 1"= 660'

CRCDU 25-26

SITE PLAN

N

Recyc Systems™ Inc. (Biosolids Land Application)



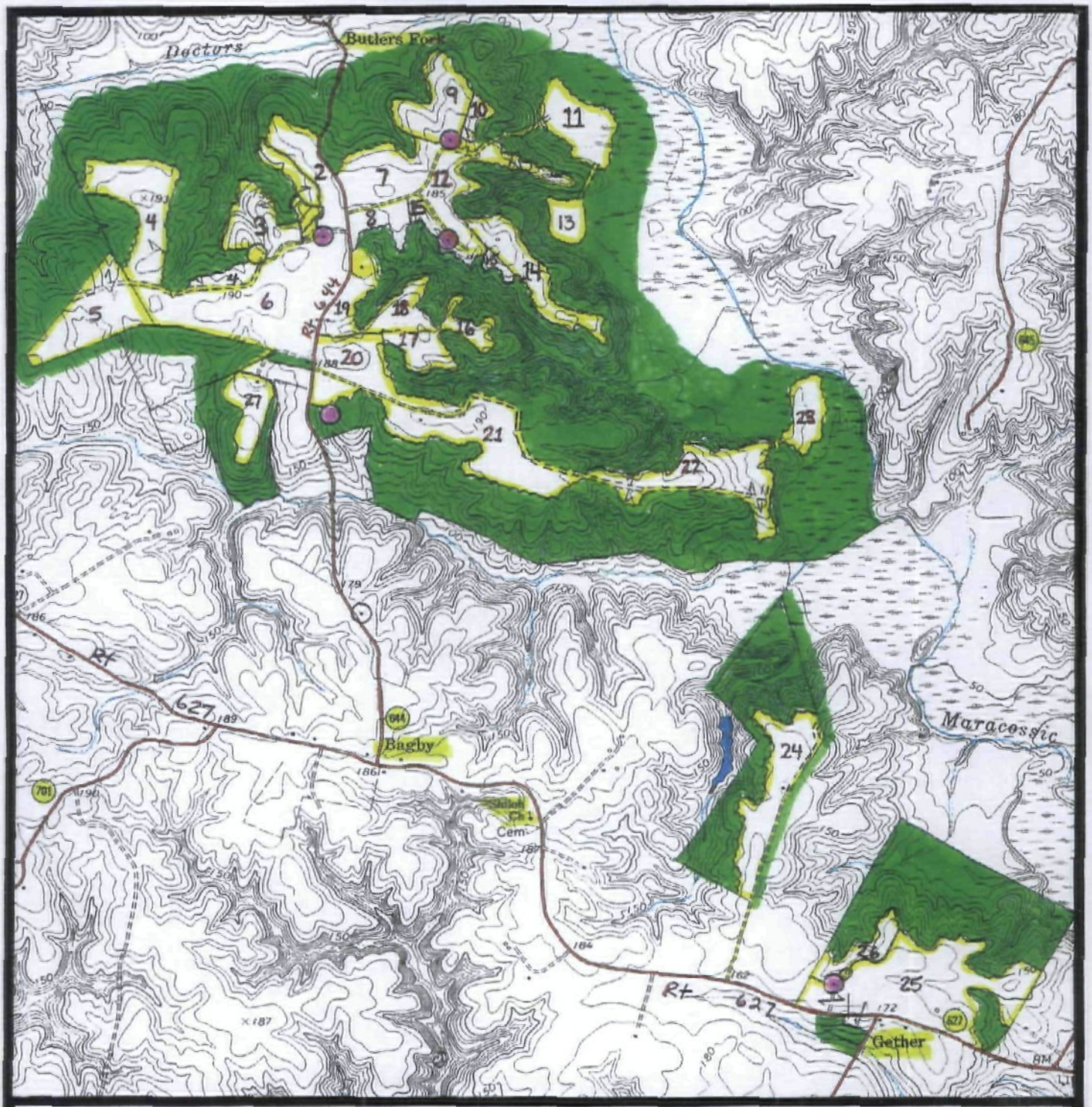
Scale: 1"= 660'

CRCDU 27

SITE PLAN

N

Recyc Systems™ Inc. (Biosolids Land Application)



Scale: 1"= 2,000'

CRCDU 2-27

TOPOGRAPHIC MAP

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