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Groundwater and Wastewater Services File Imaging Project

May 2007

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5100A

# SOIL AND SITE REPORT FOR A GROUND ABSORPTION WASTEWATER SYSTEM

by

JOE LYNN, REGIONAL SOIL SPECIALIST
ON-SITE WASTEWATER SECTION
DIVISION OF ENVIRONMENTAL HEALTH

Submitted to:

WILLIAM MARLIN, SOIL SCIENTIST
MECKLENBURG COUNTY HEALTH DEPARTMENT

FEBRUARY 24, 1993

Joe Lynn
Regional Soil Specialist

## SUMMARY

This site is **UNSUITABLE** for a ground absorption wastewater treatment and disposal system under current laws and rules 15A NCAC 18A .1900. **No ground absorption wastewater (septic tank) system can be permitted on this site.**

| | |
|---|---|
| Conventional systems | NO |
| Shallow conventional systems | NO |
| Large Diameter Pipe systems | NO |
| Prefabricated Porous Block Panel systems | NO |
| Low Pressure Pipe Systems | NO |
| Fill Systems | NO |
| Aerobic Treatment Systems | NO |

This report gives a brief summary of the findings, conclusions, and recommendations.

If you have any questions or I can be of assistance contact me at the Mooresville Regional Office (704) 663-1699.

## INTRODUCTION

**COUNTY:** Mecklenburg

**OWNER/APPLICANT:** James B. Streater

**LOCATION:** Mallard Creek Road I.D. # 029-171-27

**TYPE OF FACILITY:** Residence

**DESIGN UNIT:** 360 gpd

**PROPOSED WATER SUPPLY:** On-Site well

**EVALUATED BY:** Joe Lynn assisted by William Marlin using hand augers

**DATE OF EVALUATION:** January 14, 1993

**OTHER(S) PRESENT:** None

## SITE INFORMATION

**AREA/PRESENT USE:** 4.19 acres / grass, weeds, & woods

**TOPOGRAPHY:** 3 to 15 percent

**LANDSCAPE POSITION:** Linear, nose, & foot slopes

**SITE LIMITATIONS:** Many depressions, small gullies, old terraces, farm road, drainage feature, and stream

## SOIL INFORMATION

**SOIL TEXTURE:** (surface) Loam, clay, and various fill material
(subsoil) Clay

**SOIL STRUCTURE:** (subsoil) Blocky

**CLAY MINERALOGY:** Expansive

**SOIL DEPTH:** 0 to 4 inches to unsuitable soil condition

**SOIL WETNESS:** 10 inches to chromas of 2 or less

**RESTRICTIVE HORIZONS:** None

**SAPROLITE:** 13 to 23 inches to unsuitable saprolite

**AREA of S or PS SOIL:** None found

## CONCLUSIONS

This site is unsuitable for the installation of a conventional ground absorption wastewater system due to:

1. Unsuitable Topography and Landscape Position — Section .1940
   Drainage features (gullies) and depressions
2. Unsuitable Soil Characteristics — Section .1941
   Expansive clay mineralogy
3. Unsuitable Soil Wetness — Section .1942
   Chromas of 2 or less from Munsell Color Book
4. Insufficient Soil Depth — Section .1943
   Soil depths of less than 36 inches
5. Insufficient Available Space — Section .1945
   Not enough area for an initial sewage system and a repair if needed.

The site is Unsuitable under Rule .1956 Modifications to Septic Tank Systems. Neither shallow trenches, large diameter pipe, nor porous block panel systems are options for this site. The saprolite is unsuitable by this rule. Drainage will not be sufficient to reclassify the site to Provisionally Suitable.

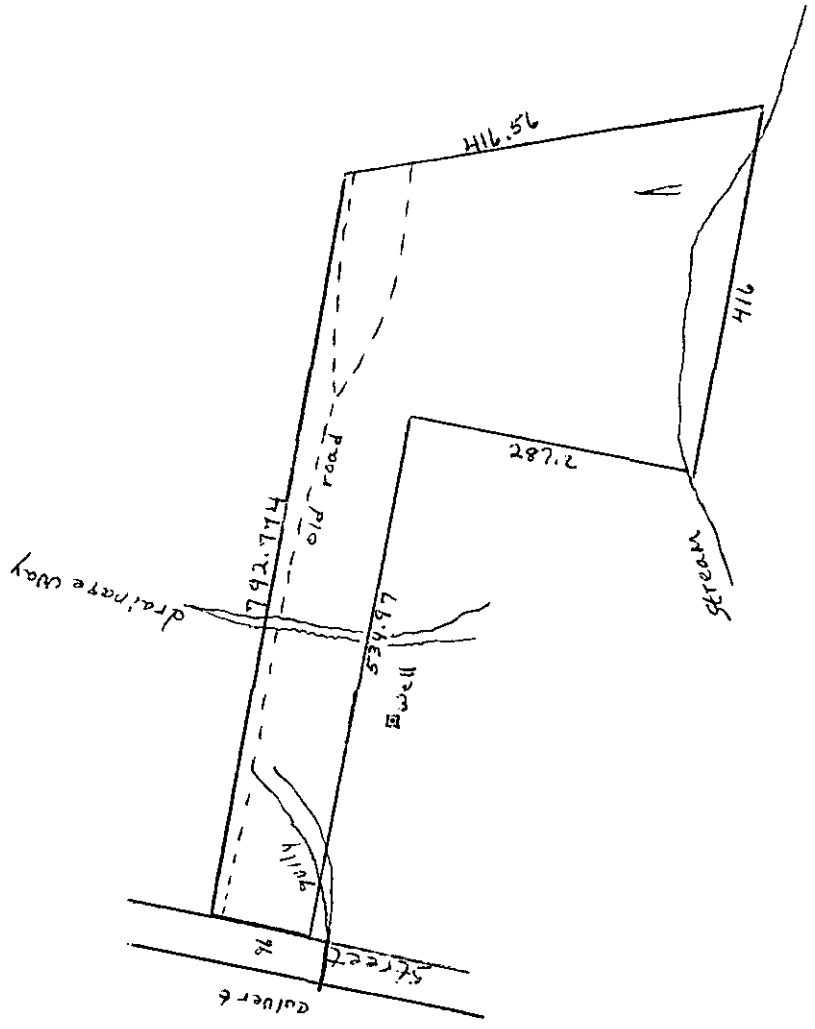
The site is Unsuitable under Rule .1957 Alternative Sewage Systems. Neither a low pressure pipe system, fill system, nor an aerobic treatment unit are options for this site.

## RECOMMENDATIONS

The owner has the following options that might allow the use of this property as desired:

1. The applicant may purchase other Suitable or Provisionally Suitable property to place the ground absorption sewage system on.

2. The applicant may obtain an easement on a Suitable or Provisionally Suitable property to place the ground absorption sewage system on.
3. The Division of Environmental Management in Mooresville, N. C. at (704) 663-1699 may be contacted to pursue options available through that office.
4. A sewage system can be pursued under Rule 1957 (c). Written documentation must be submitted to your office showing that the proposed sewage system can be expected to function properly. The data must contain the following:
   A. The effluent must receive adequate treatment.
   B. The ground water and the surface water must not be contaminated by the effluent.
   C. The effluent must not be exposed to the ground surface or discharged to surface waters where it could come into contact with people, animals, or vectors.


gulver &
Street
%
hilly
well
539.97
792.774
old road
Drainage way
287.2
stream
416
416.56

# Mecklenburg County

## Health Department

**Betty S. Snow, R.N., M.A.**
Health Director


June 16, 1992

Mr. James B. Streater
P.O. Box 3266
Concord, NC 28025

Dear Mr. Streater:

I overlooked mentioning in my letter of June 09, 1992; that a spray irrigation system would require a surface discharge permit. Our office does not handle this type of permit. You would need to contact Rex Gleason of the Department of Environmental Management at (704) 663-1699 IN Mooresville, NC for additional information.

The Singulair System would require surface or subsurface disposal of the effluent. The property on Mallard Creek Road has been classified **UNSUITABLE** for subsurface disposal of septic tank system effluent. This system is a small package treatment plant. Contact our office if we can be of assistance.

Sincerely,

William R. Marlin

William R. Marlin, R.S.
Individual Water and Wastewater Systems

# Mecklenburg County

## Health Department

**Betty S. Snow, R.N., M.A.**
Health Director

June 09, 1992

James B. Streater
P.O. Box 3266
Concord, NC 28025

File: 5100A

Dear Mr. Streater:

Sylvia Daniel referred your request for information regarding the setbacks used for spray irrigation sewage disposal systems. The information I have listed below is the distance from the disposal areas to different objects.

- -Dwelling on property - 100 feet
- -Dwelling not on property - 400 feet
- -Property line - 150 feet
- -Water source - 100 feet

Please advise us if you need additional information concerning the spray irrigation sewage disposal systems. A system such as this would probably need to be designed by an engineer and plans submitted along with an application for an improvement permit. Your request mentioned a type of septic tank system that I am not familiar with our office will be glad to review any information that you have relative to a specific septic tank system. Please contact us if we can be of assistance.

Sincerely,

William R. Marlin

William R. Marlin, Soil Scientist
Individual Water and Wastewater Systems

# Mecklenburg County
# Health Department

Basil G. Deltu, M.D., M.P.H.
Health Director

May 10th, 1989

James B. Streater
P. O. Box 7436
New Haven, Ct 06519

RE: Property located at Mallard Creek Road
FILE: 5100A
PARCEL: 02917127

Dear Sir:

At your request, a field investigation was conducted on the property designated above for the purpose of determining site suitability for the installation of a ground absorption sewage disposal system. The results of this investigation showed the property to be classified UNSUITABLE for the installation of such a system. A copy of the Site Evaluation Report (Serial Number 12080) is enclosed.

State regulations provide that sites originally classified unsuitable may be utilized for the installation of alternate or modified sewage disposal systems provided the requirements of 10 NCAC 10A .1948 (c) are met. A reprint of this section is enclosed for your information.

Should you desire to file for permission to install an alternate or modified sewage treatment system on the property, please submit an Application For An Improvement Permit with an ACCURATELY dimensioned plot plan detailing the location of current and/or proposed buildings, wells and sewage disposal systems to this office. They will be reviewed, and if it is determined that the proposed system may reasonably be expected to function satisfactorily, an Improvement Permit will be issued by the Department upon completion by you, of a formal request for lot reclassification.

If I may be of any assistance, please feel free to call.

Very truly yours,

Sylvia D. Daniel, R.S., Supervisor
On Premises Waste Disposal & Water Supply

Enclosure (2)

**MECKLENBURG COUNTY ENVIRONMENTAL HEALTH**
**SITE EVALUATION REPORT**
**SERIAL NUMBER** 12080

File: 5100A  Action 2

Parcel: 029-171-27  ☐ PC

Location: Mallard Creek Road

Subdivision:

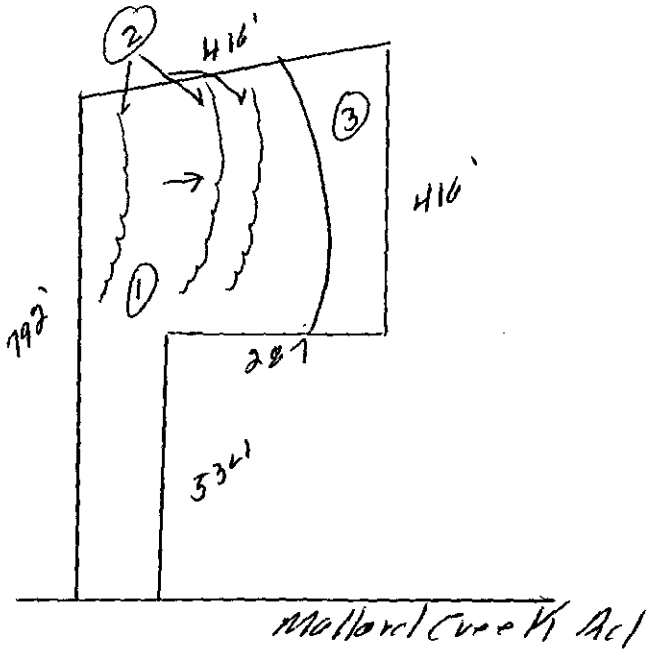
Lot: Block: Acres: 2.0 inv.

Owner: James Streater
Address: PO Box 7436
New Haven, Ct 06519

Comments: Drawing includes area investigated 10-98

Described by: William A. Marks

Date: 5/22/99




***** EVALUATION KEY *****
S = Suitable U = Unsuitable
PS = Provisionally Suitable
The "Area Classification" below indicates the suitability of areas in the diagram.

| FACTORS | AREA 1 | AREA 2 | AREA 3 | AREA 4 | AREA 5 | AREA 6 |
|---|---|---|---|---|---|---|
| Topography | (S) PS U 6-10% | S PS (U) complex slopes | S PS (U) Drainageway Depression | S PS U | S PS U | S PS U |
| Texture | S PS (U) 2-Clay | S PS U | S PS U | S PS U | S PS U | S PS U |
| Structure | S (PS) U Blocky | S PS U | S PS U | S PS U | S PS U | S PS U |
| Drainage | S PS (U) 6-20" | S PS U | S PS (U) Seasonal Water 15-30" | S PS U | S PS U | S PS U |
| Depth | S PS (U) 10-24" | S PS U | S PS U | S PS U | S PS U | S PS U |
| Restrictive Horizons | S (PS) U > 36" | S PS U | S PS U | S PS U | S PS U | S PS U |
| Available Space | S (PS) U | S PS U | S PS U | S PS U | S PS U | S PS U |
| Other (specify) | S PS U | S PS U | ~~S~~ PS U | S PS U | S PS U | S PS U |
| Soil Group/Series | IuB Wil/Mec-Iredell | complex Slopes | Drainageway Depression | | | |
| Area Classification | S PS (U) | S PS (U) | S PS (U) | S PS U | S PS U | S PS U |

5-9-89

I had checked an area on this tract last fall. They wanted ~~two~~ two more investigated which I did. This report reflects what I did yesterday as well as what was done last fall.

N Bixby

# MECKLENBURG COUNTY HEALTH DEPARTMENT
## ENVIRONMENTAL HEALTH DIVISION

### CHARGE SLIP

Date 3/31/89

Name/Company Mesa Laurel Design

Sanitation _____

Vector Control _____

O.P.W.D. ✓

Service: Soil Test Inc
#5100A

MECKLENBURG COUNTY
HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
PAID
MAR 31 1989

Fee: $ 60 — ck # 1044 $60.00

Received by _____ Collected by _____

MISENHEIMER
DESIGN

RECEIVED
MECKLENBURG COUNTY
HEALTH DEPT.
FEB 2...
ENVIRONMENTAL HEALTH
DIVISION

February 23, 1989

Mr. Jim Ericson
Mecklenburg County Health Department
Environmental Health Division
1200 Blythe Boulevard
Charlotte, North Carolina 28203

Re: Property of Mr. James B. Streater
P.O. Box 7436
New Haven, CT 06519

File: 5100A
Parcel: 02917127
Serial No.: 15703

Mr. Jim Ericson,

A Soils Investigation was conducted on one (1) acre of three (3) on the property as designated above. I feel it would be necessary to investigate the remaining two (2) acres before pursuing a final house design for the Streaters. Enclosed find the $60 fee.

Please notify me of time and date you will be conducting your investigation, and I will meet you at the site.

Very truly yours,

David L. Misenheimer
Misenheimer Design
704/786-9437

Enclosures
cc: Mr. & Mrs. James B. Streater

644 burrage road northeast
concord, north carolina 28025
704·782·0692

# Mecklenburg County
## Health Department

Basil G. Deltas, M.D., M.P.H.
Health Director


October 31st, 1988

James B. Streater
P. O. Box 7436
New Haven, Ct 06519

RE: Property located at Mallard Creek Road
FILE: 5100A
PARCEL: 02917127

Dear Sir:

At your request a soils investigation was conducted on the property designated above. Results of this investigation showed the site to be classified as UNSUITABLE under criteria as set forth in Section .1900 of the North Carolina Administrative Code, Title 10, Department of Human Resources, Chapter 10, Division of Health Services; Sanitary Engineering Section, Subchapter 10A, Sanitation. A copy of the Site Evaluation Report (Serial Number 15703) is enclosed.

The soil on this property is not suitable for use with any conventional, modified or alternative system of which I am aware.

If I can be of assistance, please do not hesitate to call.

Very truly yours,

Sylvia D. Daniel, R.S., Supervisor
On Premises Waste Disposal & Water Supply

Enclosure


Environmental Health Division
1200 Blythe Boulevard • Charlotte, North Carolina 28203 • (704) 376-4603

**MECKLENBURG COUNTY ENVIRONMENTAL HEALTH**
**SITE EVALUATION REPORT**
**SERIAL NUMBER** 15703

File: 5100A  Action 3
Parcel: 02917127  ☐ PC

Location: Mallard Creek Road

Subdivision:

Lot: Block: Acres: Approx 1.0 inv.

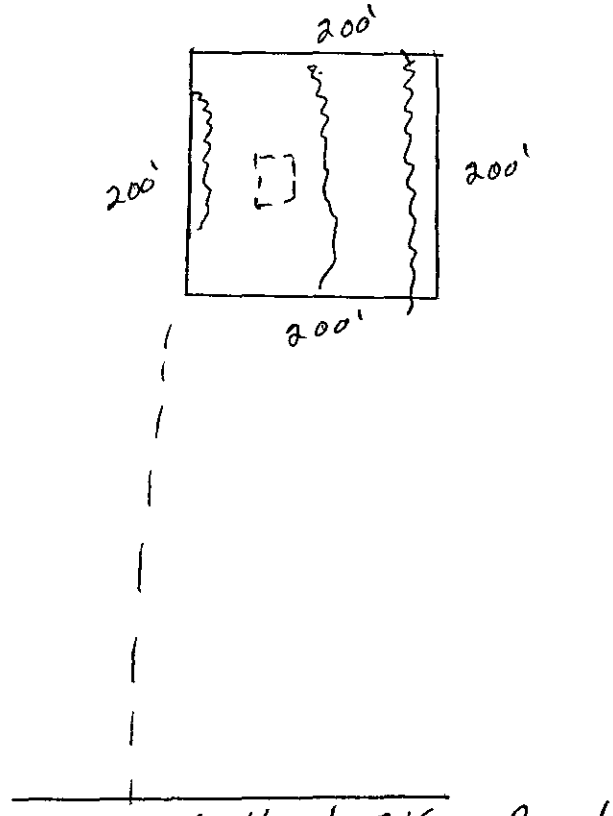
Owner: James B. Streater
Address: P. O. Box 7436
New Haven, Ct 06519

Comments: _____

Described by: William R. Marks

Date: 10-27-86

Dimensions Approximate




***** EVALUATION KEY *****

S = Suitable U = Unsuitable
PS = Provisionally Suitable
The "Area Classification" below indicates the suitability of areas in the diagram.

| FACTORS | AREA 1 | AREA 2 | AREA 3 | AREA 4 | AREA 5 | AREA 6 |
|---|---|---|---|---|---|---|
| Topography | (S) PS U 6-10% | S PS (U) complex slopes | S PS U | S PS U | S PS U | S PS U |
| Texture | S PS (U) 2-1 clay | S PS U — | S PS U | S PS U | S PS U | S PS U |
| Structure | S (PS) U Blocky | S PS U — | S PS U | S PS U | S PS U | S PS U |
| Drainage | S PS (U) perched water 6-12" | S PS U — | S PS U | S PS U | S PS U | S PS U |
| Depth | S PS (U) 15-24" | S PS U — | S PS U | S PS U | S PS U | S PS U |
| Restrictive Horizons | S (PS) U 7-36" | S PS U — | S PS U | S PS U | S PS U | S PS U |
| Available Space | S (PS) U | S PS U — | S PS U | S PS U | S PS U | S PS U |
| Other (specify) | S PS U | S PS U | S PS U | S PS U | S PS U | S PS U |
| Soil Group/Series | UB Iredell Lino | complex slopes | | | | |
| Area Classification | S PS (U) | S PS (U) | S PS U | S PS U | S PS U | S PS U |

# APPLICATION FOR SOIL INVESTIGATION

MECKLENBURG COUNTY · ENVIRONMENTAL HEALTH ·

1200 BLYTHE BOULEVARD
CHARLOTTE, NC 28203
PHONE (704) 376-4603

(OFFICE USE ONLY)

FILE: 5100-A

TC: _____

☐ PC ☐ REPT

**JOB LOCATION**

① ADDRESS: Lot 3 Mallard Creek Rd

② SUBDIVISION: _____ ③ LOT: _____ ④ BLOCK: _____

⑤ PARCEL REFERENCE: BOOK NO.: 029 PAGE NO.: 17 PARCEL NO.: 029-171-27

⑥ DEED REFERENCE: BOOK NO.: 5352 PAGE NO.: 0412

**OWNER**

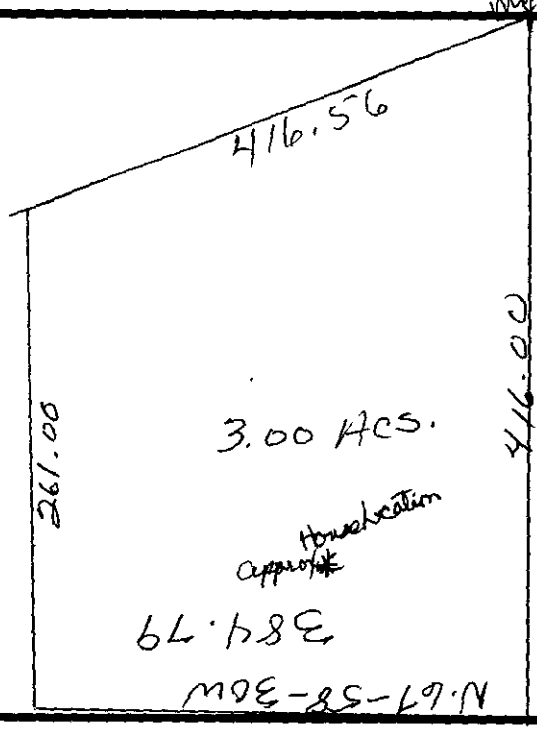
⑦ NAME: Mr. James B. Streater (Streater)
(FIRST) (MIDDLE) (LAST)

⑧ MAILING ADDRESS: P.O. Box 7436

⑨ CITY: New Haven ⑩ STATE: CT ⑪ ZIP: 06519

⑫ PHONE: (~~WORK~~ Home) 203-624-3629 (HOME) _____

⑬ Accurately diagram and dimension lot.




⑭ The undersigned, owner of the property described above as the "JOB LOCATION" has read the foregoing application, acknowledges that the contents of same are true, and authorizes agents of the MECKLENBURG COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH to enter onto the property for the purpose of processing this request.

Signed: James B Streater

Date: 10-11-88

Mecklenburg County services are available without regard to ethnic origin, sex, or disability.

WHITE - ENVIRONMENTAL HEALTH DEPARTMENT'S COPY ● CANARY - ENVIRONMENTALIST'S COPY ● PINK - OWNER'S COPY

# MECKLENBURG COUNTY HEALTH DEPARTMENT
# ENVIRONMENTAL HEALTH DIVISION

## CHARGE SLIP

Date 10-11-88

Name/Company Jami Streater

Sanitation _____

Vector Control _____

O.P.W.D. ✓

Service: Soil test 1.0 acres
1013 Mallard Creek Rd
File # 5100-A
Ph 704-[illegible] ~~COUNTY~~

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
PAID

OCT 11 1988

Fee: $ 30.00 Cash 545
30.00

Completed by

Collected by