

# **LURAY WWTP**

*Houser Site*





**VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION: PART D-VI LAND APPLICATION AGREEMENT**

Permittee: Town of Luray County or City: Page County

Landowner: Houser Properties, LLC

**Landowner Site Management Requirements:**

I, the Landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

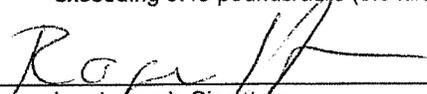
I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, until at least 30 days after land application at that site is completed.
2. Public Access
  - a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
  - b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. 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;
  - c. 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 DEQ.
3. Crop Restrictions:
  - a. 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.
  - b. 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,
  - c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation.
  - d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
  - e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy animals).
4. Livestock Access Restrictions:

Following biosolids application to pasture or hayland sites:

  - a. Meat producing livestock shall not be grazed for 30 days,
  - b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
  - c. Other animals shall be restricted from grazing for 30 days;
5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals 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;
6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on the Landowner's land for three years following the application of biosolids or industrial residuals which bear cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

  
Landowner's Signature

11/13/15  
Date

**VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION  
FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS**

**PART D-VI: LAND APPLICATION AGREEMENT - BIOSOLIDS AND INDUSTRIAL RESIDUALS**

A. This land application agreement is made on 11/13/2015 between Debra Houser referred to here as "Landowner", and Town of Luray referred to here as the "Permittee". This agreement remains in effect until it is terminated in writing by either party or, with respect to those parcels that are retained by the Landowner in the event of a sale of one or more parcels, until ownership of all parcels changes. If ownership of individual parcels identified in this agreement changes, those parcels for which ownership has changed will no longer be authorized to receive biosolids or industrial residuals under this agreement.

**Landowner:**

The Landowner is the owner of record of the real property located in Page County, Virginia, which includes the agricultural, silvicultural or reclamation sites identified below in Table 1 and identified on the tax map(s) attached as Exhibit A.

Table 1.: Parcels authorized to receive biosolids, water treatment residuals or other industrial sludges			
Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID
42-A-14k			

Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one:  The Landowner is the sole owner of the properties identified herein.  
 The Landowner is one of multiple owners of the properties identified herein.

In the event that the Landowner sells or transfers all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, the Landowner shall:

1. Notify the purchaser or transferee of the applicable public access and crop management restrictions no later than the date of the property transfer; and
2. Notify the Permittee of the sale within two weeks following property transfer.

The Landowner has no other agreements for land application on the fields identified herein. The Landowner will notify the Permittee immediately if conditions change such that the fields are no longer available to the Permittee for application or any part of this agreement becomes invalid or the information herein contained becomes incorrect.

The Landowner hereby grants permission to the Permittee to land apply residuals as specified below, on the agricultural sites identified above and in Exhibit A. The Landowner also grants permission for DEQ staff to conduct inspections on the land identified above, before, during or after land application of permitted residuals for the purpose of determining compliance with regulatory requirements applicable to such application.

<u>Class B biosolids</u>	<u>Water treatment residuals</u>	<u>Food processing waste</u>	<u>Other industrial sludges</u>
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Debra Houser *Debra Houser* 211 Walnut Hill Lane, Luray, V.  
 Landowner – Printed Name, Title Signature Mailing Address

**Permittee:**

Town of Luray, the Permittee, agrees to apply biosolids and/or industrial residuals on the Landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia.

The Permittee agrees to notify the Landowner or the Landowner's designee of the proposed schedule for land application and specifically prior to any particular application to the Landowner's land. Notice shall include the source of residuals to be applied.

I reviewed the document(s) assigning signatory authority to the person signing for landowner above. I will make a copy of this document(s) available to DEQ for review upon request. (Do not check this box if the landowner signs this agreement)

Thomas H. Brown *Thomas H. Brown* POB 629 Luray, VA  
 Permittee – Authorized Representative Signature Mailing Address  
 Printed Name

**DEQ Valley**  
**NOV 13 2015**

**FO:** \_\_\_\_\_  
**FILE:** \_\_\_\_\_

**VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION: PART D-VI LAND APPLICATION AGREEMENT**

Permittee: Town of Luray County or City: Page County

Landowner: Debra Houser

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Debra Houser 11/13/15  
Landowner's Signature Date



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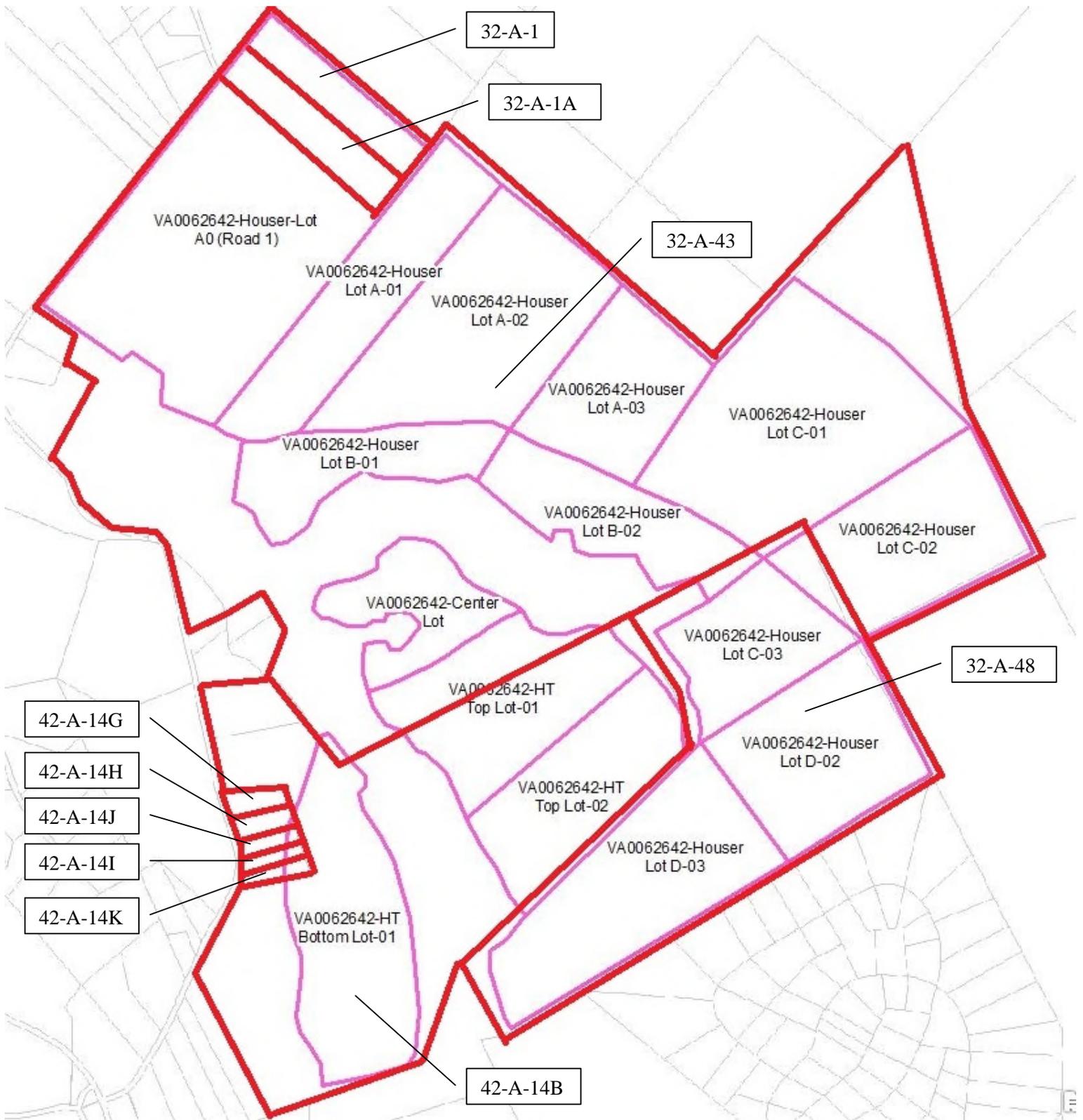
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9/16/15  
Date

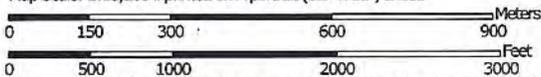
# TAX MAP



Soil Map—Page County, Virginia



Map Scale: 1:13,200 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84



Natural Resources Conservation Service

Web Soil Survey National Cooperative Soil Survey

11/13/2015 Page 1 of 3

## Map Unit Legend

Page County, Virginia (VA139)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
3B	Braddock loam, 2 to 7 percent slopes	60.0	15.7%
3C	Braddock loam, 7 to 15 percent slopes	166.5	43.5%
3D	Braddock loam, 15 to 25 percent slopes	12.1	3.2%
6E	Carbo-Rock outcrop complex, 15 to 35 percent slopes	37.1	9.7%
10A	Combs fine sandy loam, 0 to 3 percent slopes, occasionally flooded	25.4	6.6%
11B	Cotaco loam, 2 to 7 percent slopes	19.6	5.1%
12A	Craigsville cobbly sandy loam, 0 to 4 percent slopes, frequently flooded	13.4	3.5%
29B	Lodi silt loam, 2 to 7 percent slopes	3.8	1.0%
29C	Lodi silt loam, 7 to 15 percent slopes	20.5	5.3%
29E	Lodi silt loam, 25 to 35 percent slopes	0.2	0.1%
37E	Oaklet-Carbo complex, 15 to 35 percent slopes, very rocky	20.1	5.3%
48A	Tygart silt loam, 0 to 3 percent slopes	4.1	1.1%
<b>Totals for Area of Interest</b>		<b>382.9</b>	<b>100.0%</b>

## Depth to Any Soil Restrictive Layer

Depth to Any Soil Restrictive Layer— Summary by Map Unit — Page County, Virginia (VA139)				
Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
3B	Braddock loam, 2 to 7 percent slopes	>200	60.0	15.7%
3C	Braddock loam, 7 to 15 percent slopes	>200	166.5	43.5%
3D	Braddock loam, 15 to 25 percent slopes	>200	12.1	3.2%
6E	Carbo-Rock outcrop complex, 15 to 35 percent slopes	76	37.1	9.7%
10A	Combs fine sandy loam, 0 to 3 percent slopes, occasionally flooded	>200	25.4	6.6%
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29E	Lodi silt loam, 25 to 35 percent slopes	>200	0.2	0.1%
37E	Oaklet-Carbo complex, 15 to 35 percent slopes, very rocky	>200	20.1	5.3%
48A	Tygart silt loam, 0 to 3 percent slopes	>200	4.1	1.1%
<b>Totals for Area of Interest</b>			<b>382.9</b>	<b>100.0%</b>

## Depth to Water Table

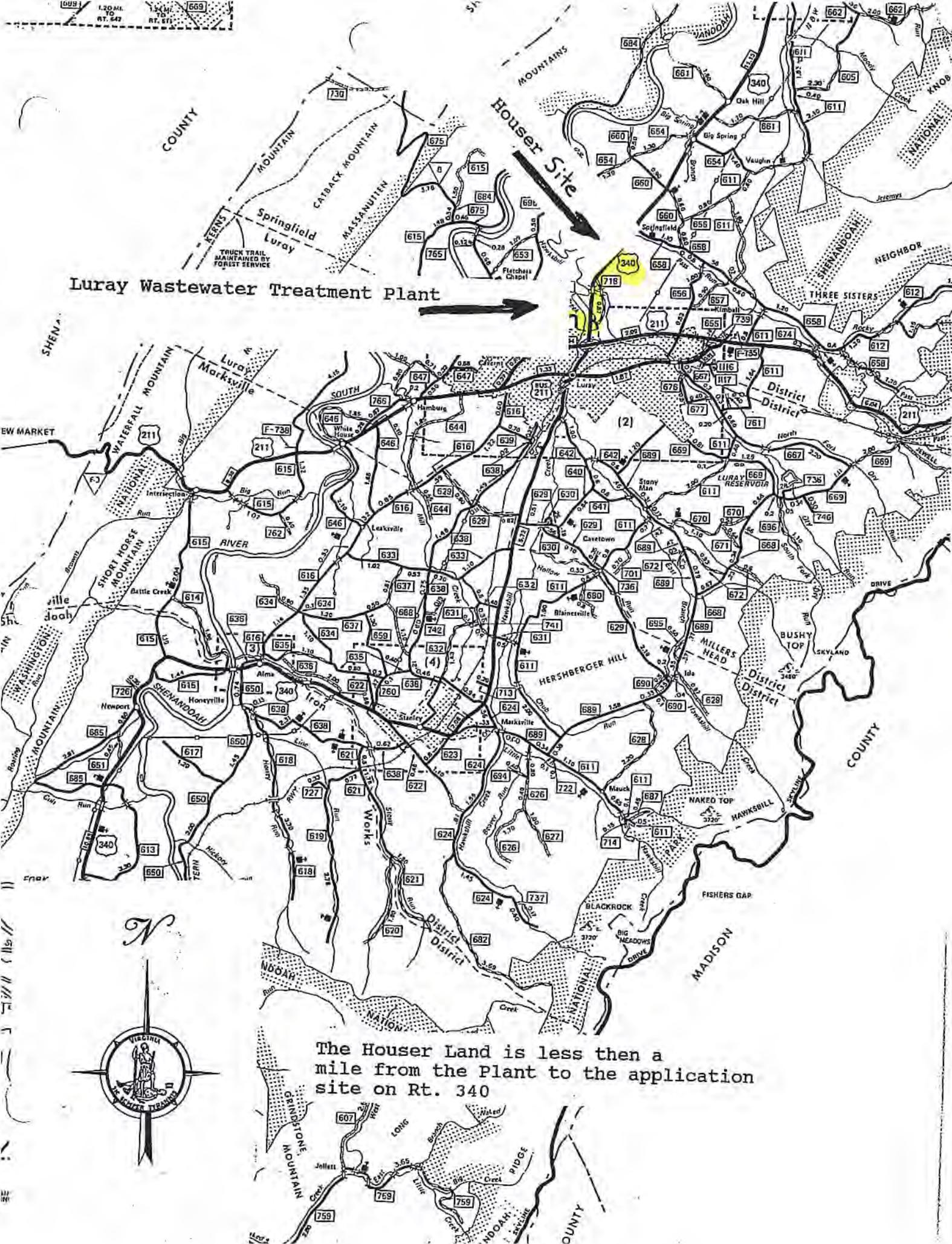
Depth to Water Table— Summary by Map Unit — Page County, Virginia (VA139)				
Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
3B	Braddock loam, 2 to 7 percent slopes	>200	60.0	15.7%
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3D	Braddock loam, 15 to 25 percent slopes	>200	12.1	3.2%
6E	Carbo-Rock outcrop complex, 15 to 35 percent slopes	>200	37.1	9.7%
10A	Combs fine sandy loam, 0 to 3 percent slopes, occasionally flooded	>200	25.4	6.6%
11B	Cotaco loam, 2 to 7 percent slopes	61	19.6	5.1%
12A	Craigsville cobbly sandy loam, 0 to 4 percent slopes, frequently flooded	>200	13.4	3.5%
29B	Lodi silt loam, 2 to 7 percent slopes	>200	3.8	1.0%
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48A	Tygart silt loam, 0 to 3 percent slopes	31	4.1	1.1%
<b>Totals for Area of Interest</b>			<b>382.9</b>	<b>100.0%</b>

### Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

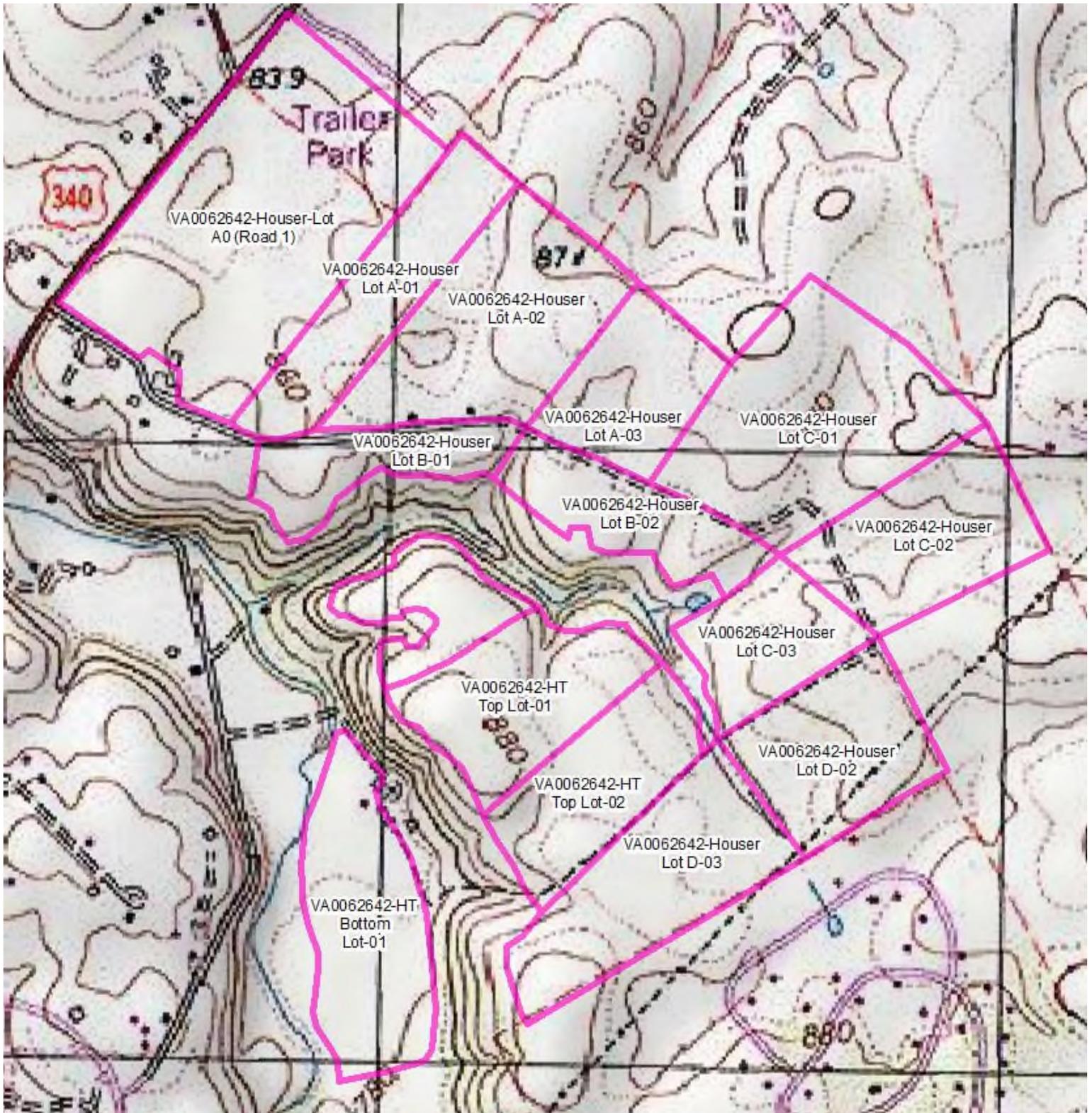
1.20 MI. TO RT. 642  
1.34 MI. TO RT. 671



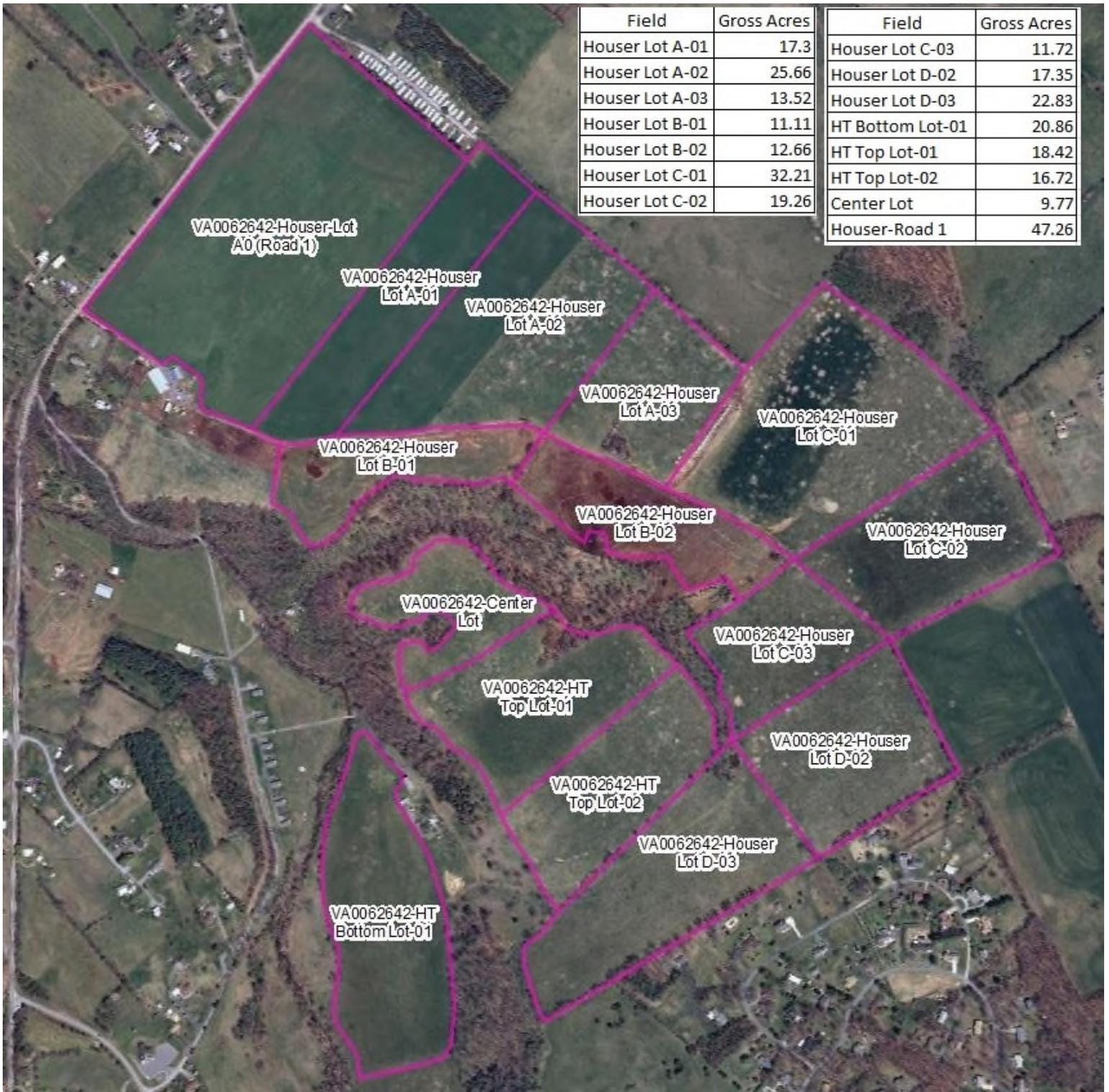
### Luray Wastewater Treatment Plant

The Houser Land is less than a mile from the Plant to the application site on Rt. 340

# TOPO MAP



# SITE MAP



# MAP LEGEND



Occupied Dwelling with Well- 200', unless waiver issued  
100' buffer - well



Water Supply Well/Spring- 100'



Lake/Pond- 35' w/ vegetative buffer;  
100' w/out vegetative buffer; public water supply 400'



Slopes that exceed 15%, unless waiver issued



Surface Water- 35' w/ vegetative buffer;  
100' w/out vegetative buffer; public water supply 100'



Field Boundary



Property Line- 100', unless waiver issued

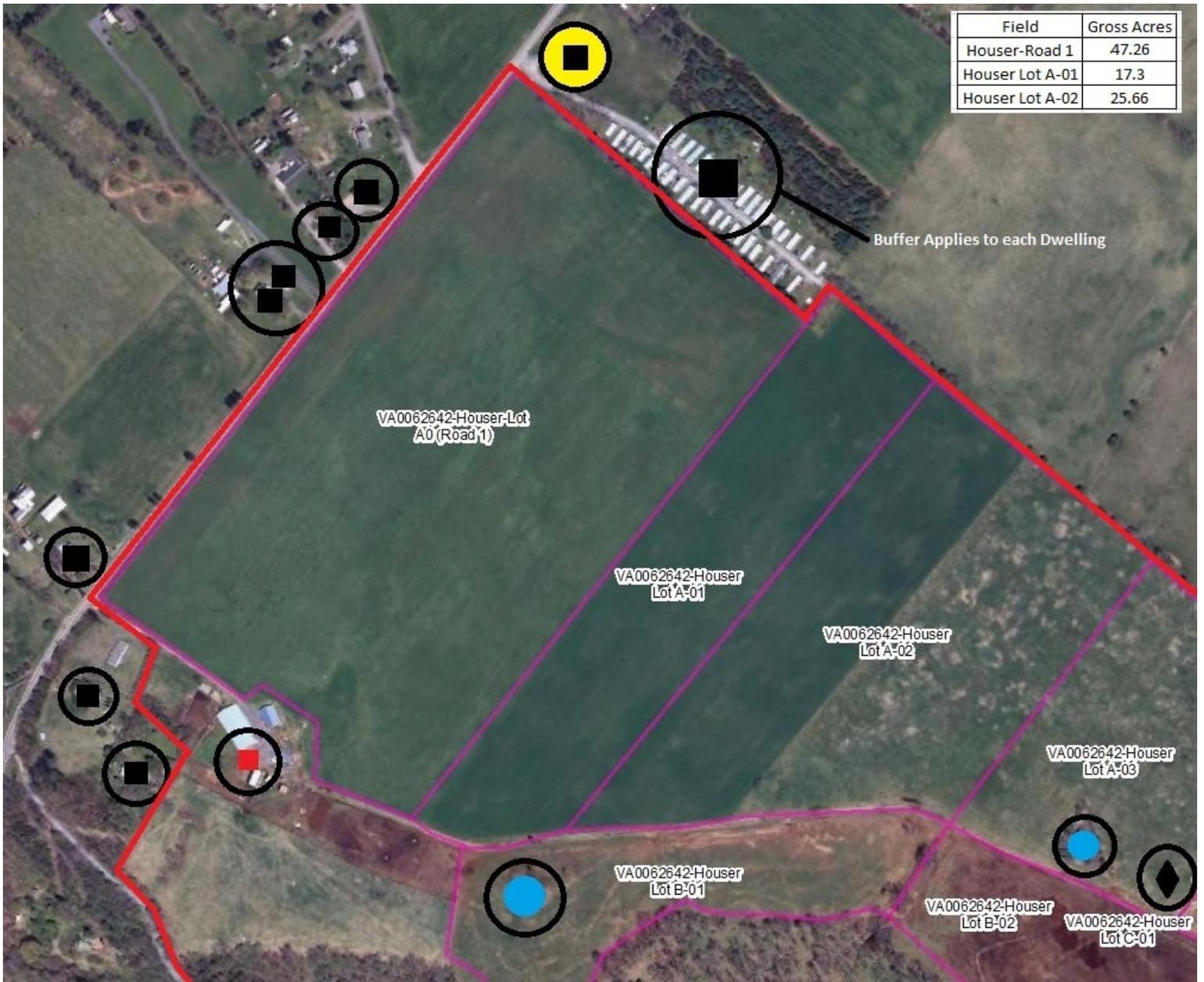


Publically Accessible- 200' from property line &  
400' from odor sensitive receptors

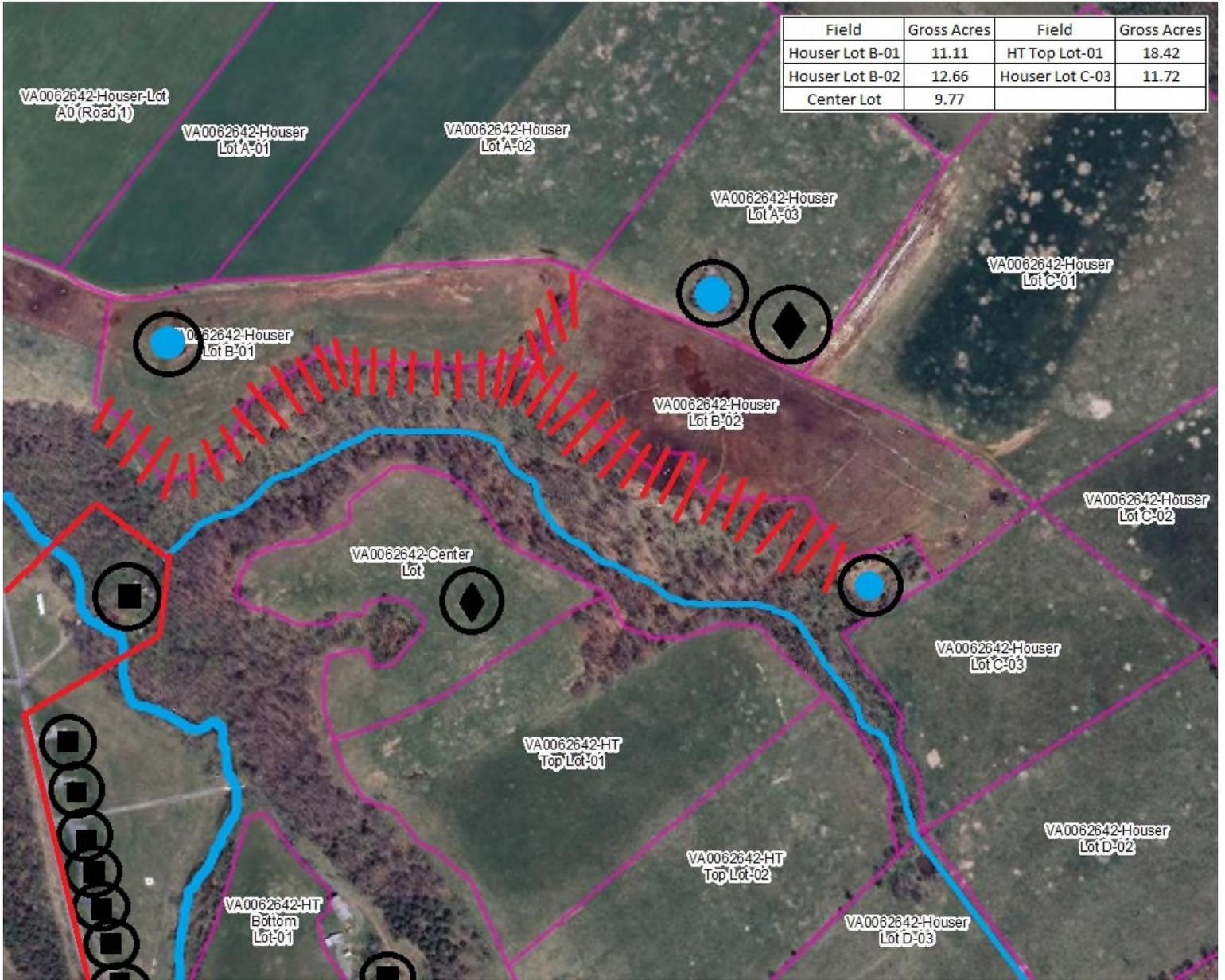


Sinkhole- closed 50'; open 100'

# FIELD MAPS

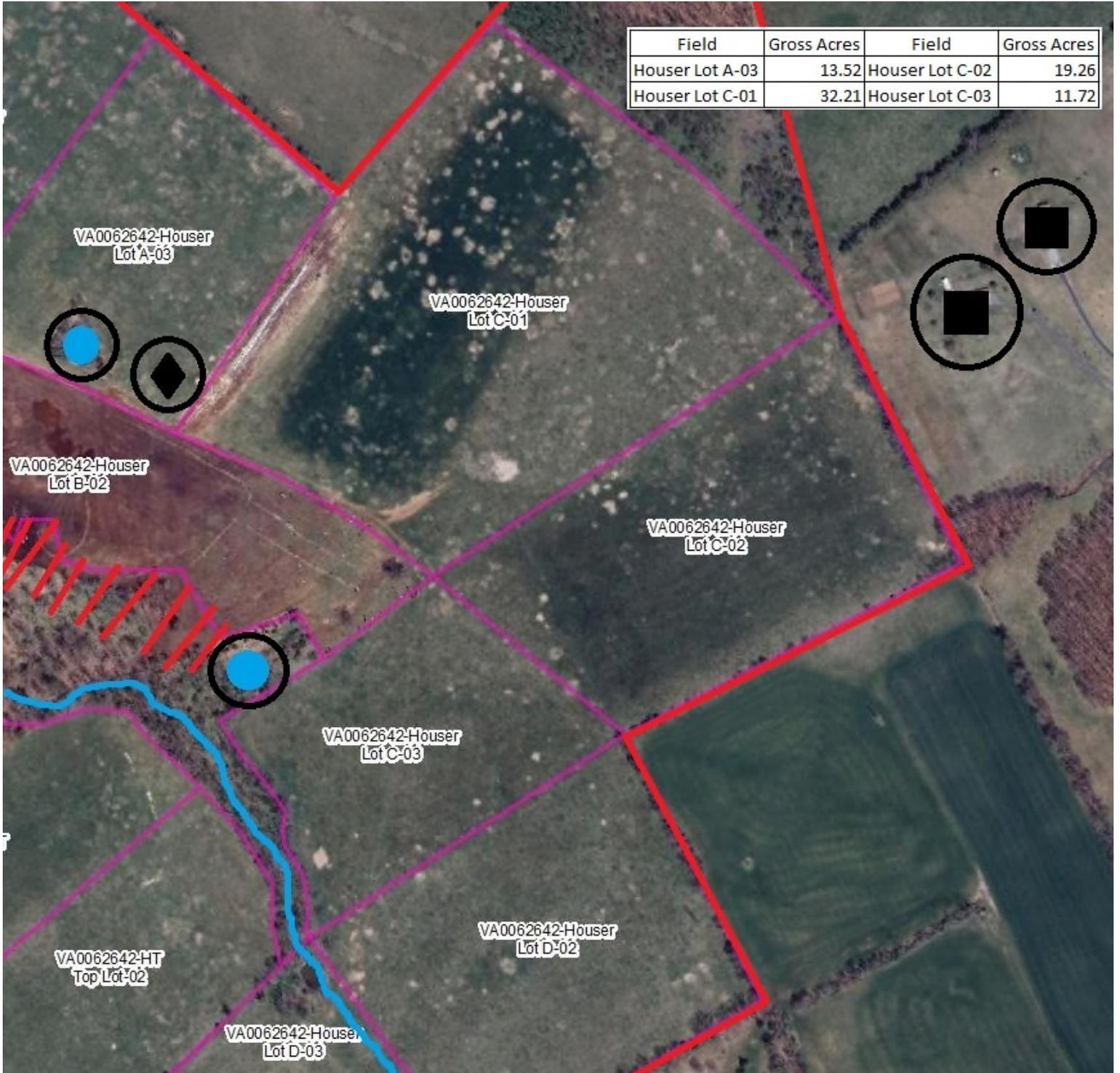


# FIELD MAPS

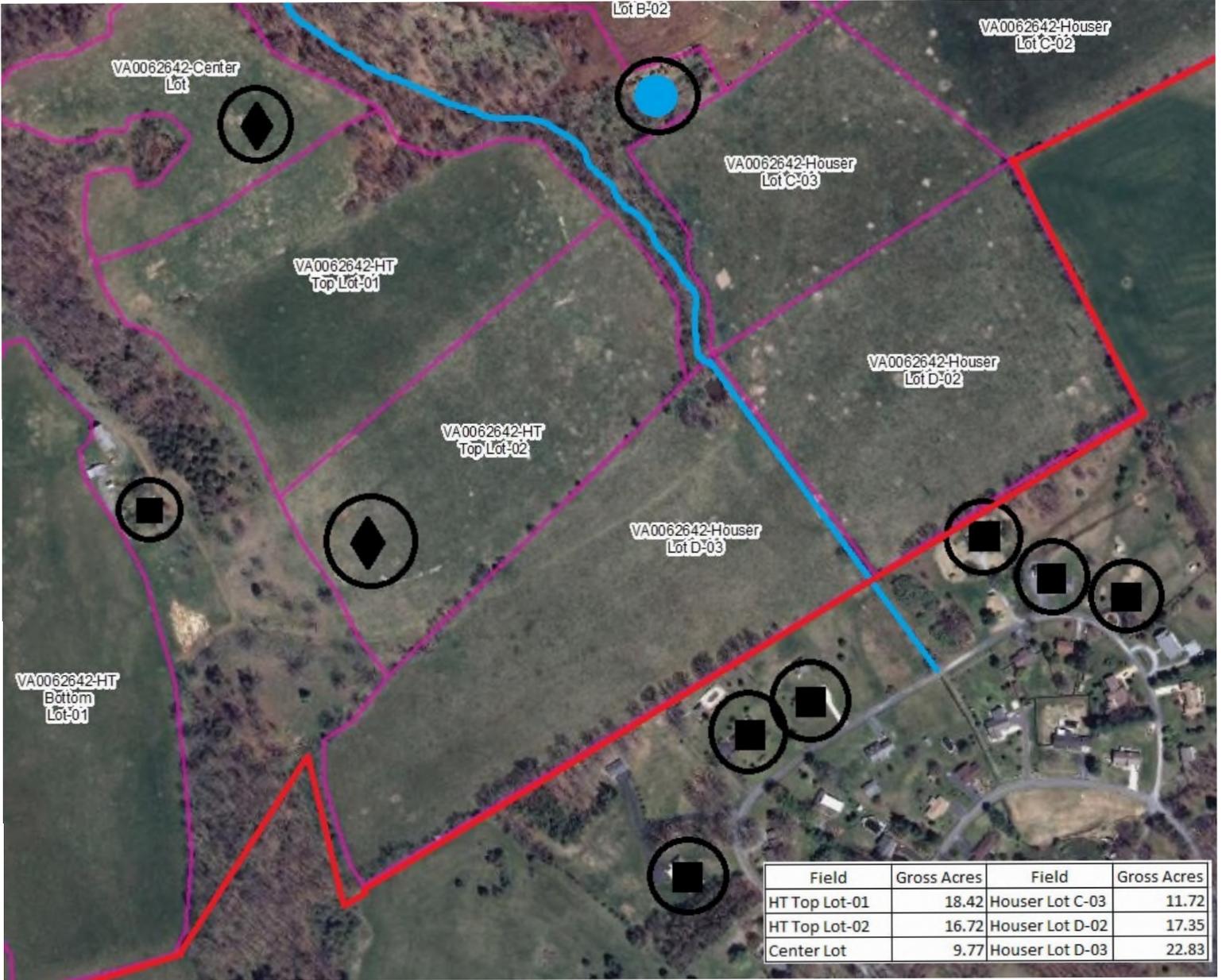


# FIELD MAPS

Field	Gross Acres	Field	Gross Acres
Houser Lot A-03	13.52	Houser Lot C-02	19.26
Houser Lot C-01	32.21	Houser Lot C-03	11.72



# FIELD MAPS



# FIELD MAPS

