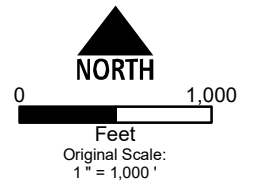
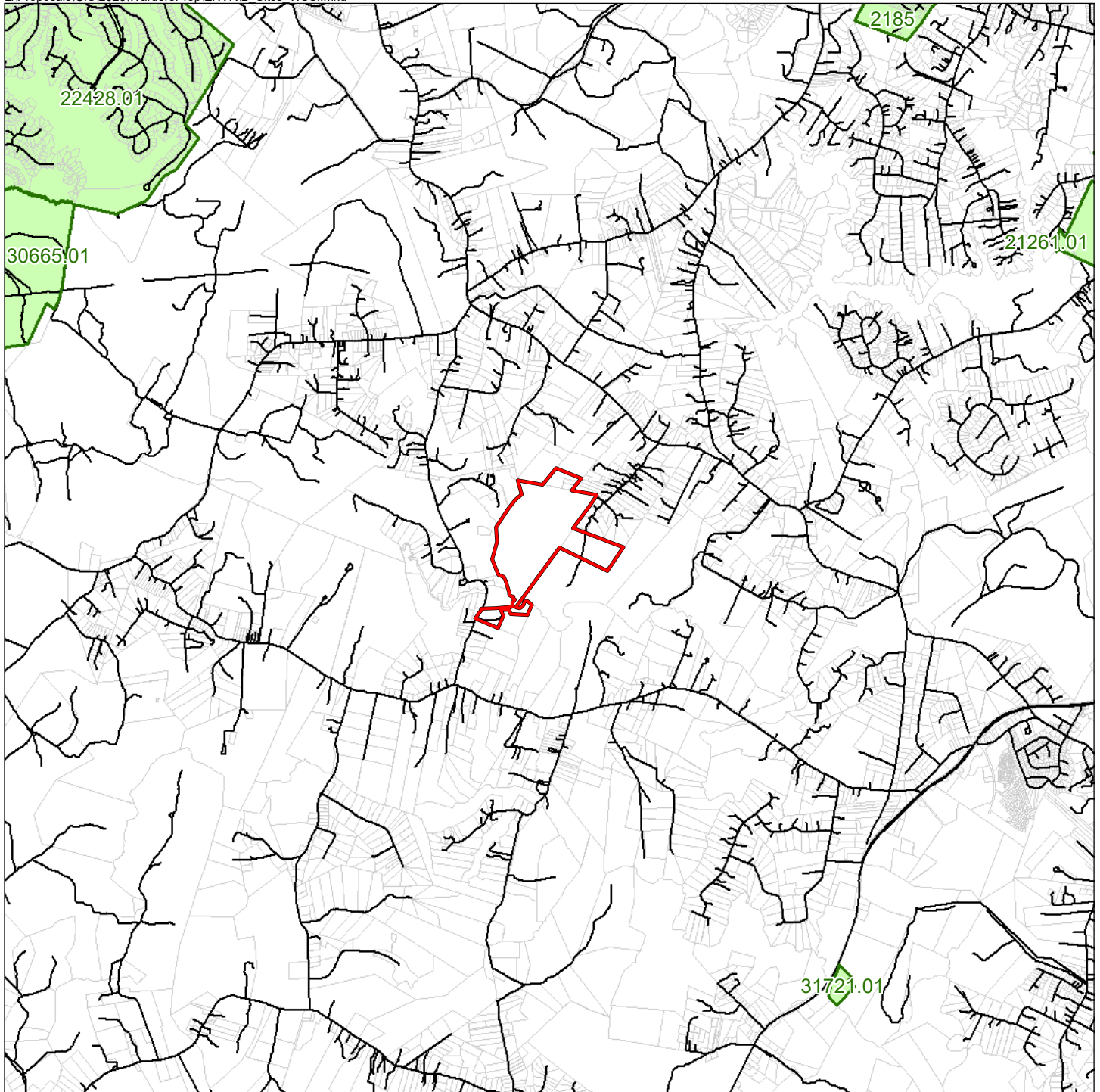


 Study Area: ± 273.5 acres

Study Area Location Map Wardere

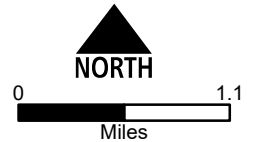


Jurisdiction: Spotsylvania County, VA
VA Congressional District: 07
Magisterial District: Livingston, Chancellor
*Area is based on GIS data, and does not reflect the legal acreage of the site.

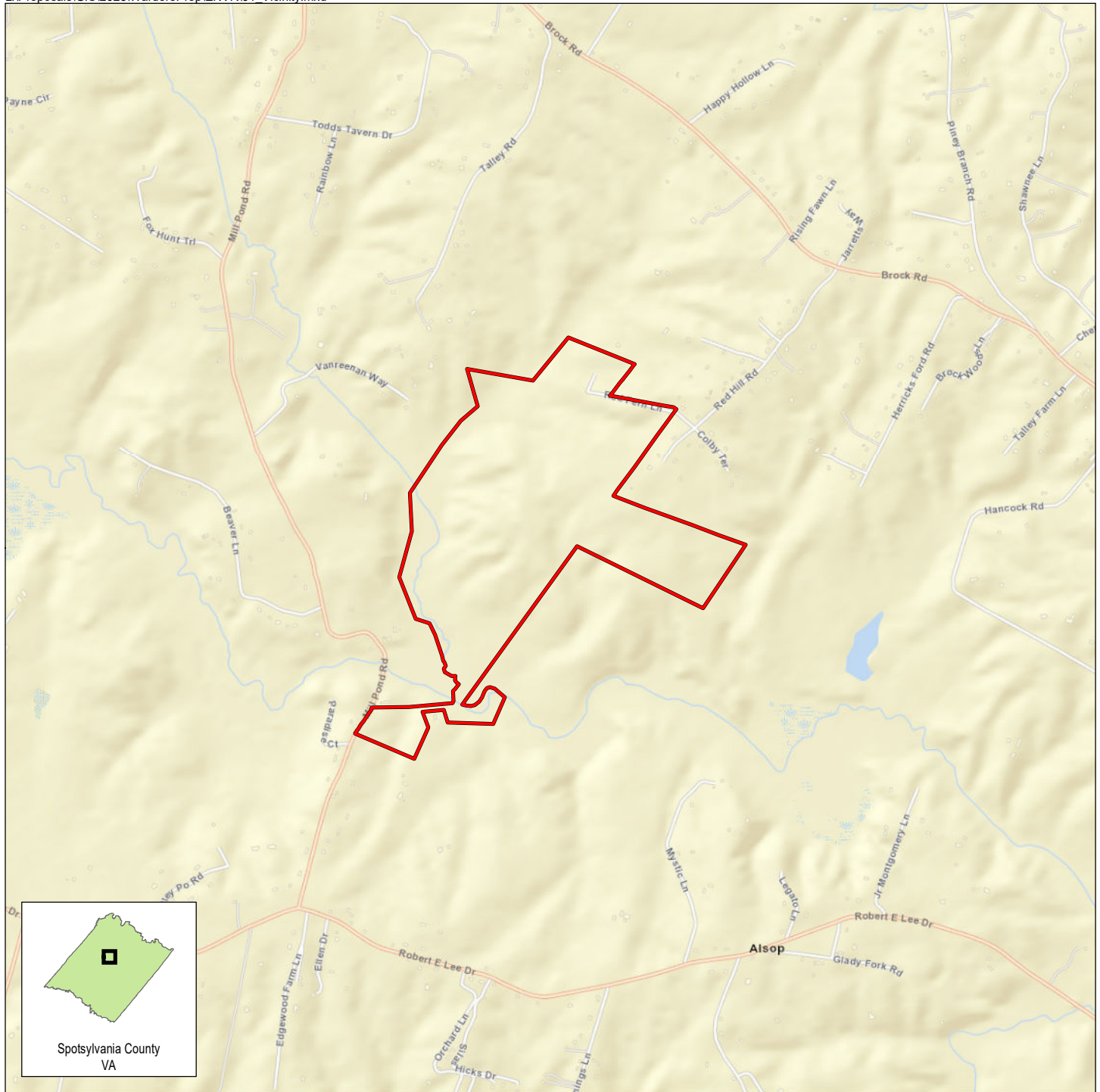



-  Study Area
-  Previous WSSI Projects

WSSI Project Sites Wardere

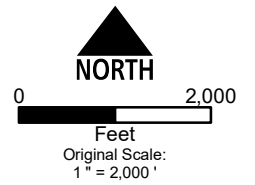


Study Area Acreage*: ±273.5
Jurisdiction: Spotsylvania County, VA
VA Congressional District: 07
Magisterial District: Livingston, Chancellor
*Area is based on GIS data, and does not reflect the legal acreage of the site.

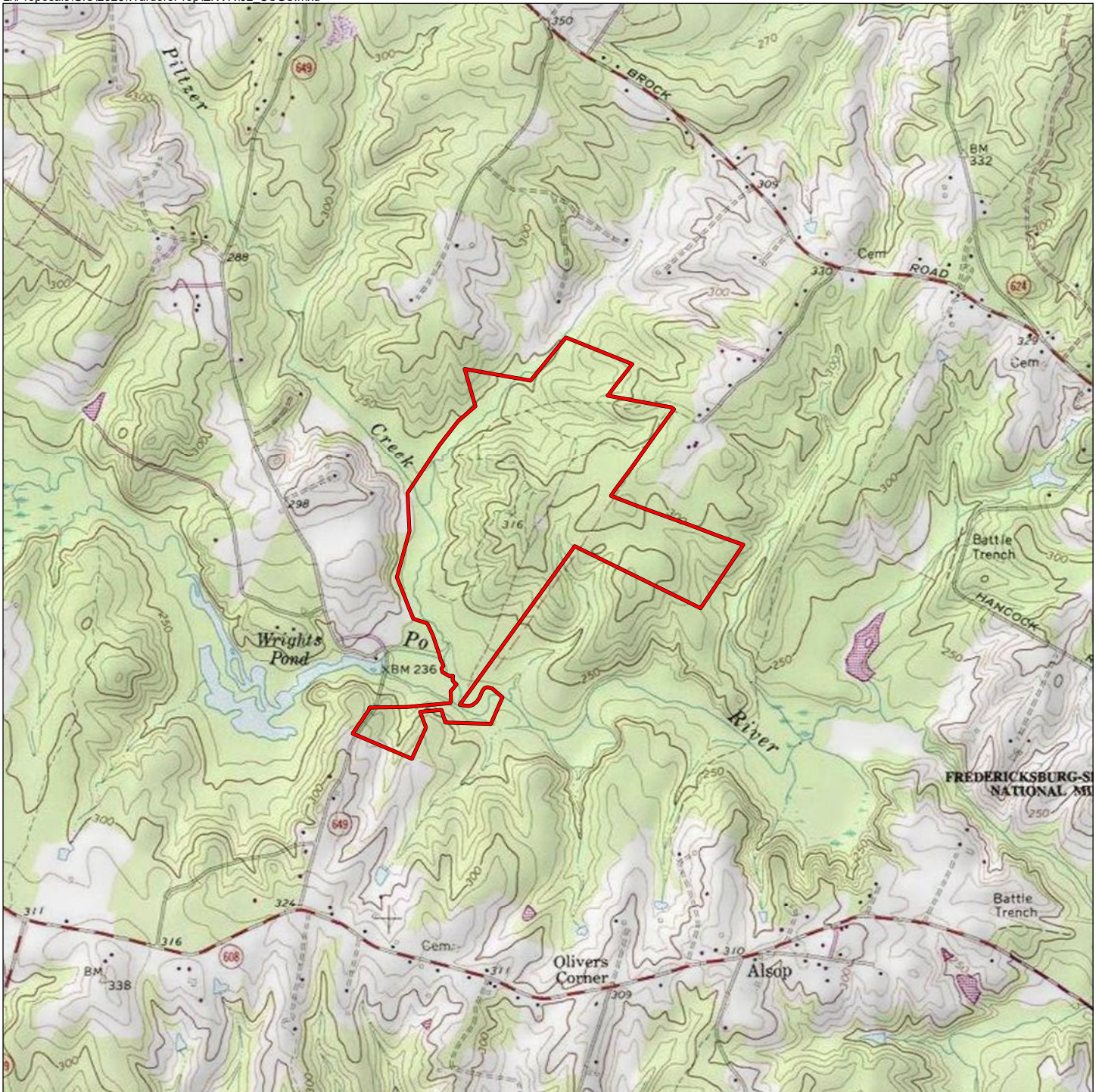



 Study Area

Vicinity Map Wardere

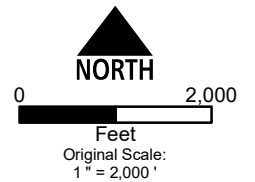


Source: World Street Map - ESRI

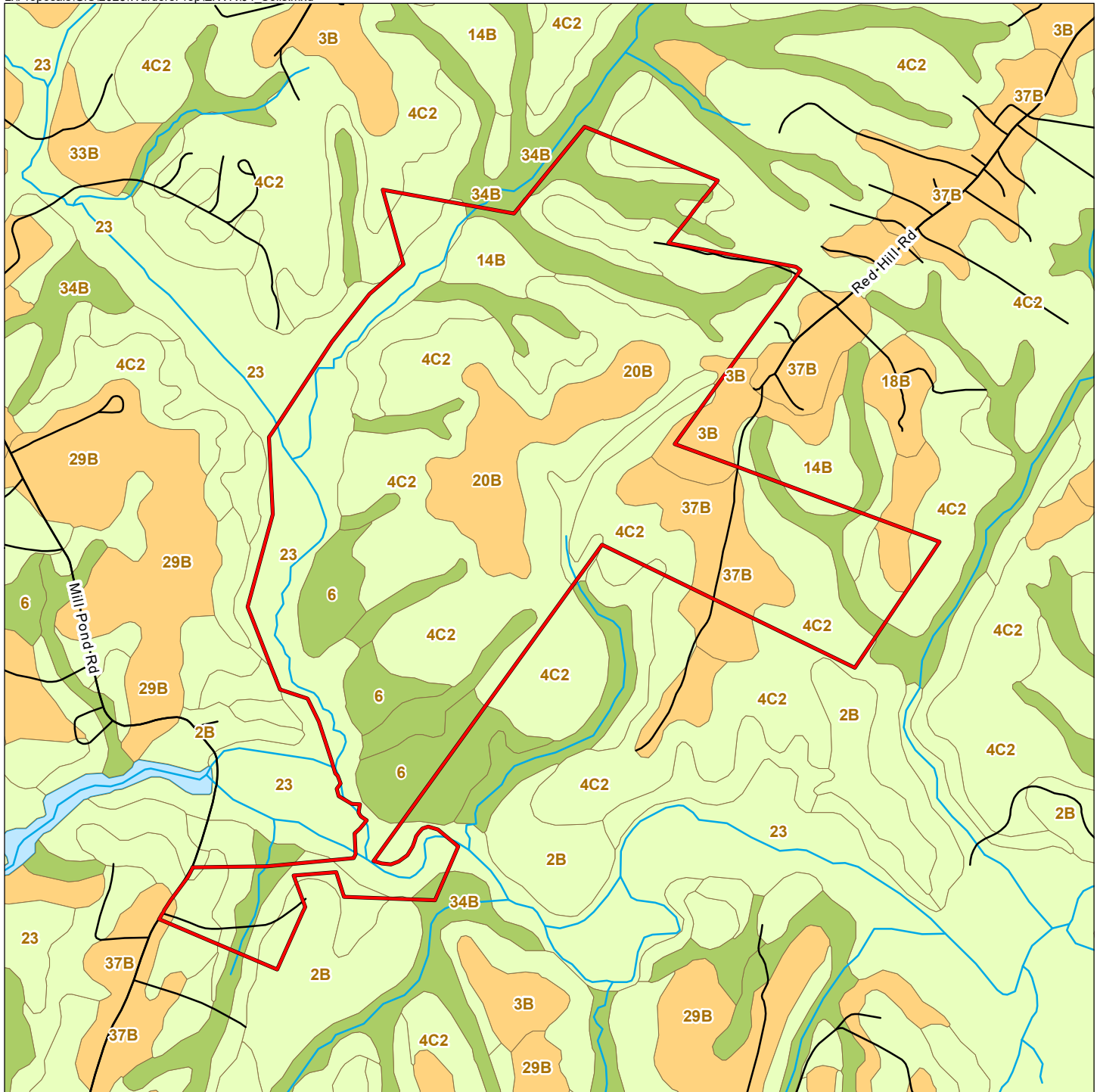







 Study Area

**USGS 7.5' Quadrangle Map
Wardere**

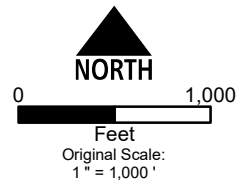


Brokenburg, VA 1989
Latitude: 38°13'24"N
Longitude: 77°39'33"W
Hydrologic Unit Code (HUC): 020801050102
HUC12 Name: Robertson Run-Po River
COE Region: Atlantic and Gulf Coastal Plain; Eastern Mountains and Piedmont

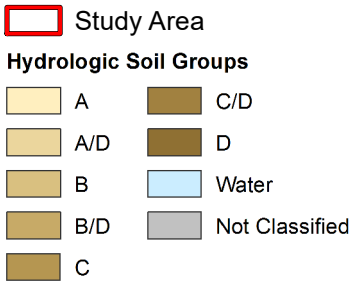
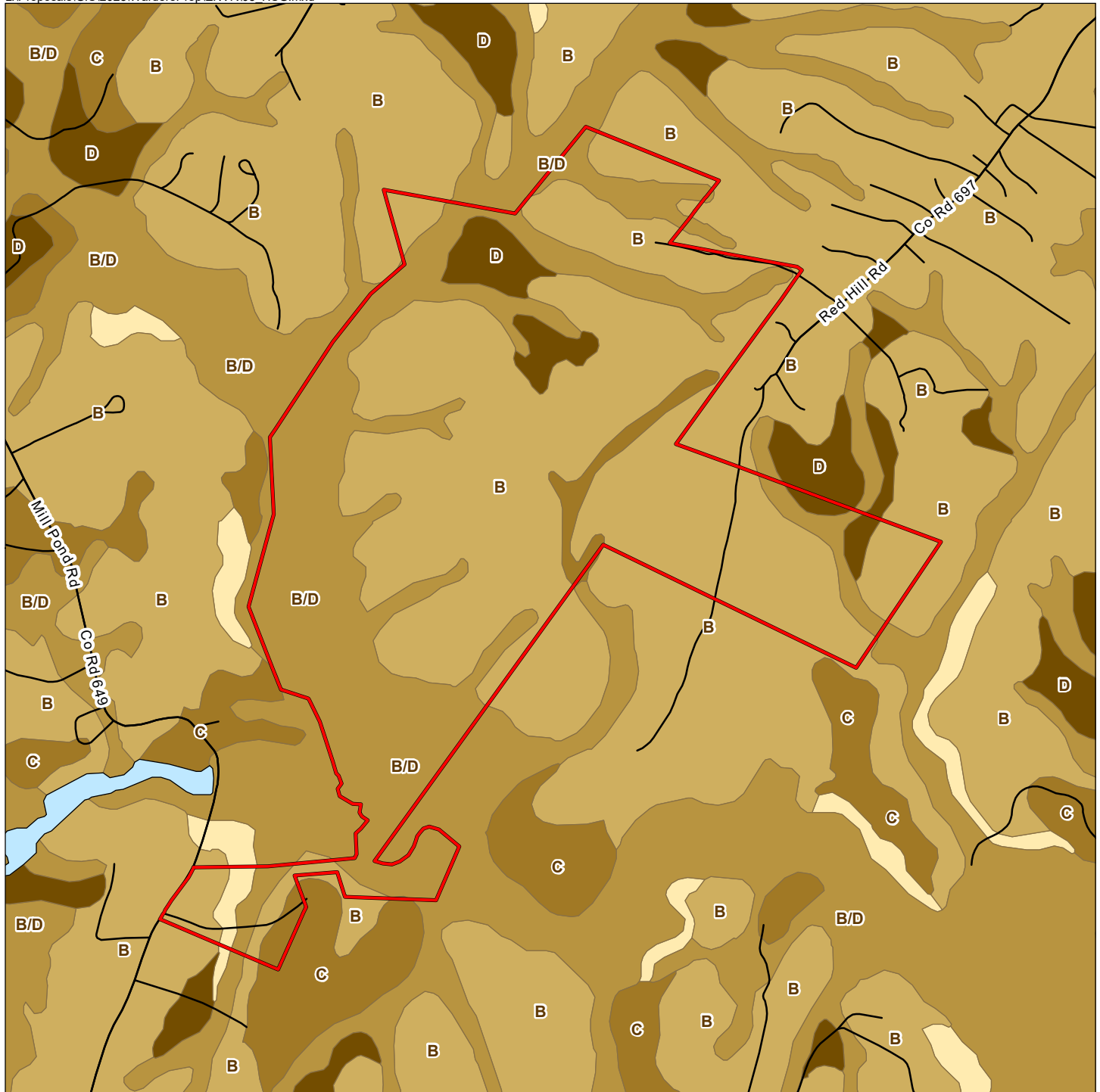


-  Study Area
-  Hydric Soil
-  Soil with Hydric Inclusion
-  Non-Hydric Soil
-  Water

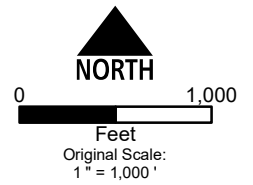
Soils Map Wardere



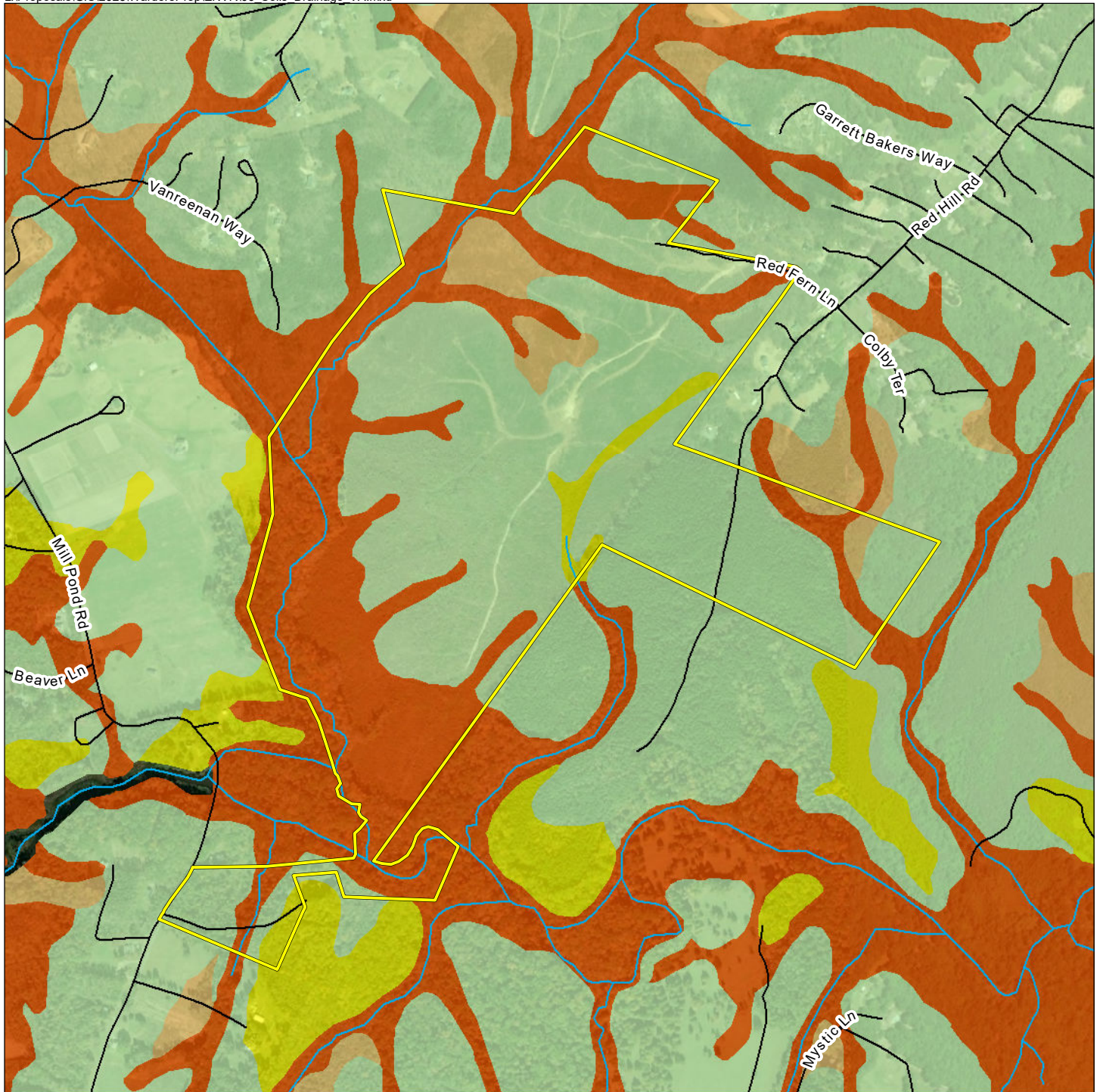
Major Land Resource Area: Southern Piedmont, 136
Land Resource Region: South Atlantic and Gulf Slope Cash Crops, Forest, and Livestock Region, P
Source: Spotsylvania County Digital Data, U.S. Department of Agriculture, 2021




Hydrologic Soil Groups Wardere











Source: Spotsylvania County Digital Data, U.S. Department of Agriculture, 2021

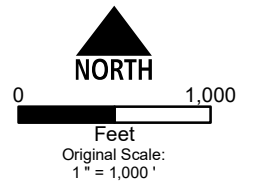


 Study Area

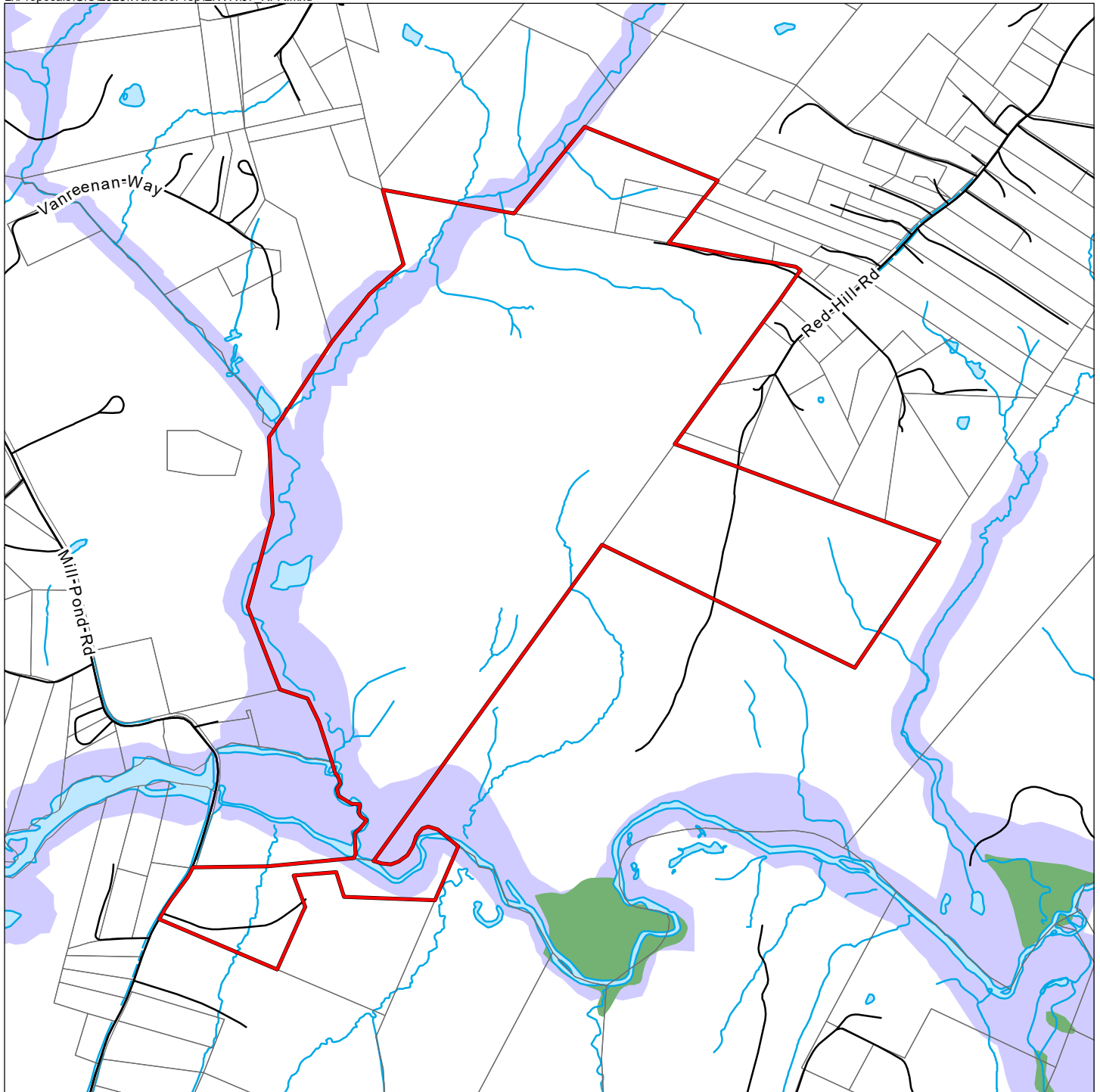
Soils Map - Drainage Class Wardere




Drainage Class - Dominant Condition

- | | |
|---|---|
|  Excessively drained |  Somewhat poorly drained |
|  Somewhat excessively drained |  Poorly drained |
|  Well drained |  Very poorly drained |
|  Moderately well drained |  Open Water |

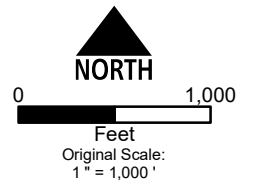


Source: U.S. Department of Agriculture, 2021; Aerial Source: ESRI

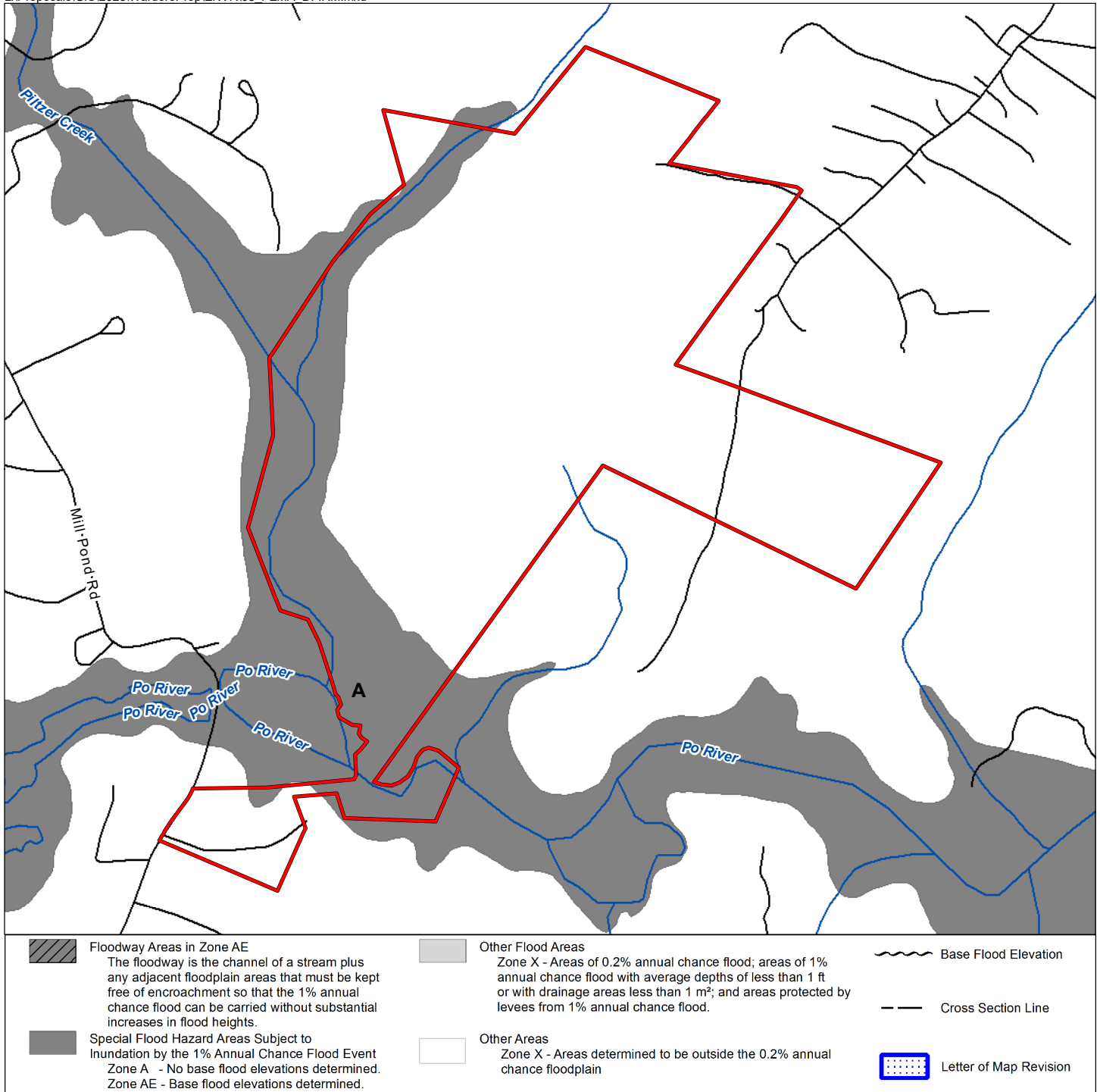


-  Study Area
-  County Mapped Wetland
-  County Mapped RPA

Resource Protection Area Map Wardere

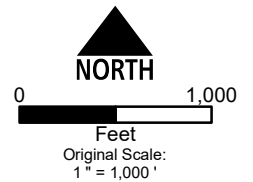


Source: Spotsylvania County Digital Data

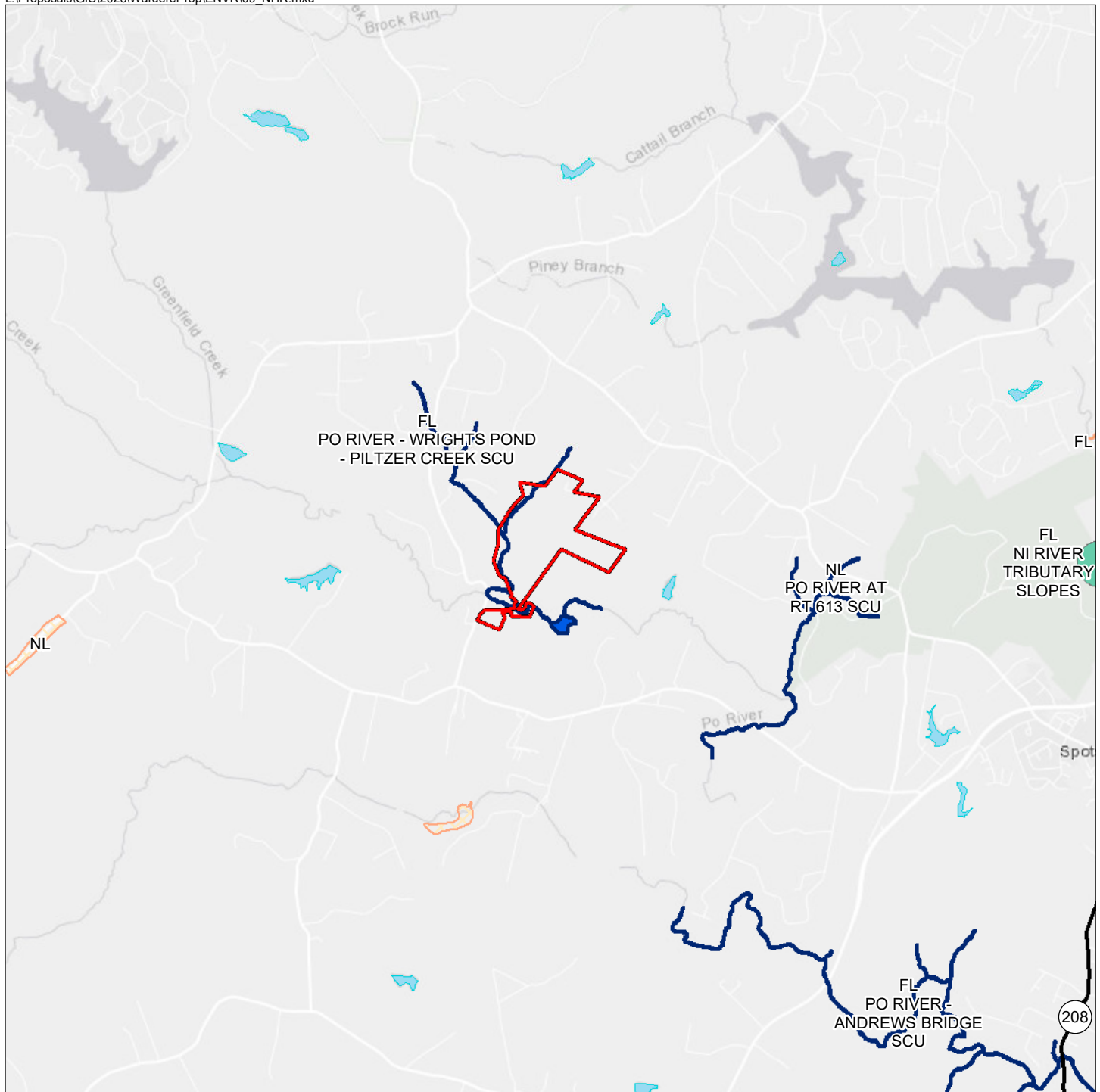


Study Area

FEMA Digital Flood Insurance Rate Map Wardere

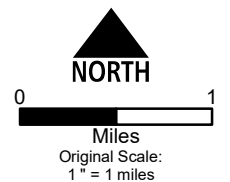


Panel: 5103080175C, Effective: 02/18/1998

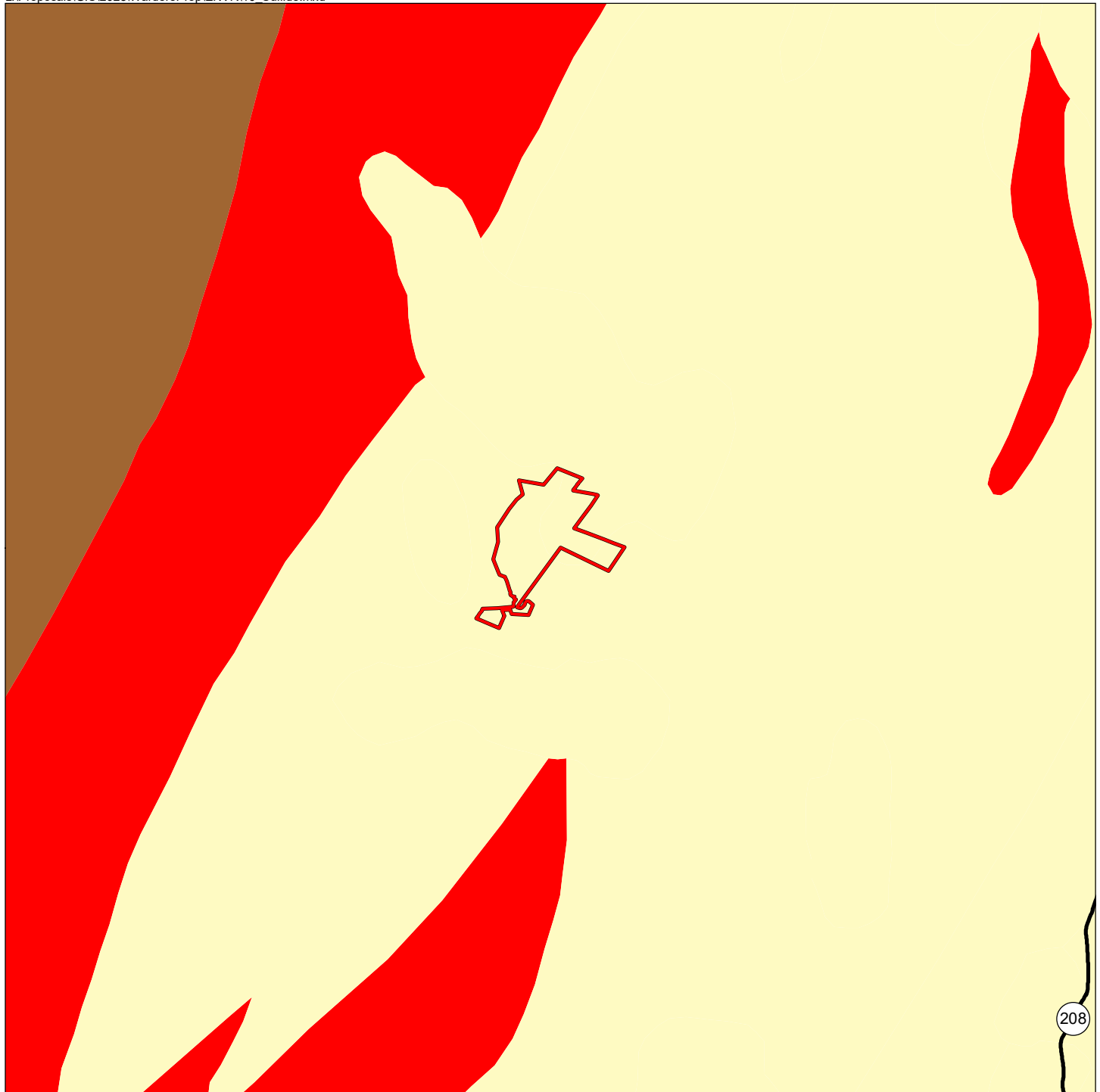



- Study Area
- Conservation Site
- General Location of Natural Heritage Resource
- Stream Conservation Unit (SCU)
- NL No state/federally listed species present
- SL State listed species present
- FL Federally listed species present

Natural Heritage Resources Map Wardere










Source: Virginia Department of Conservation and Recreation

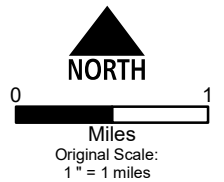


 Study Area

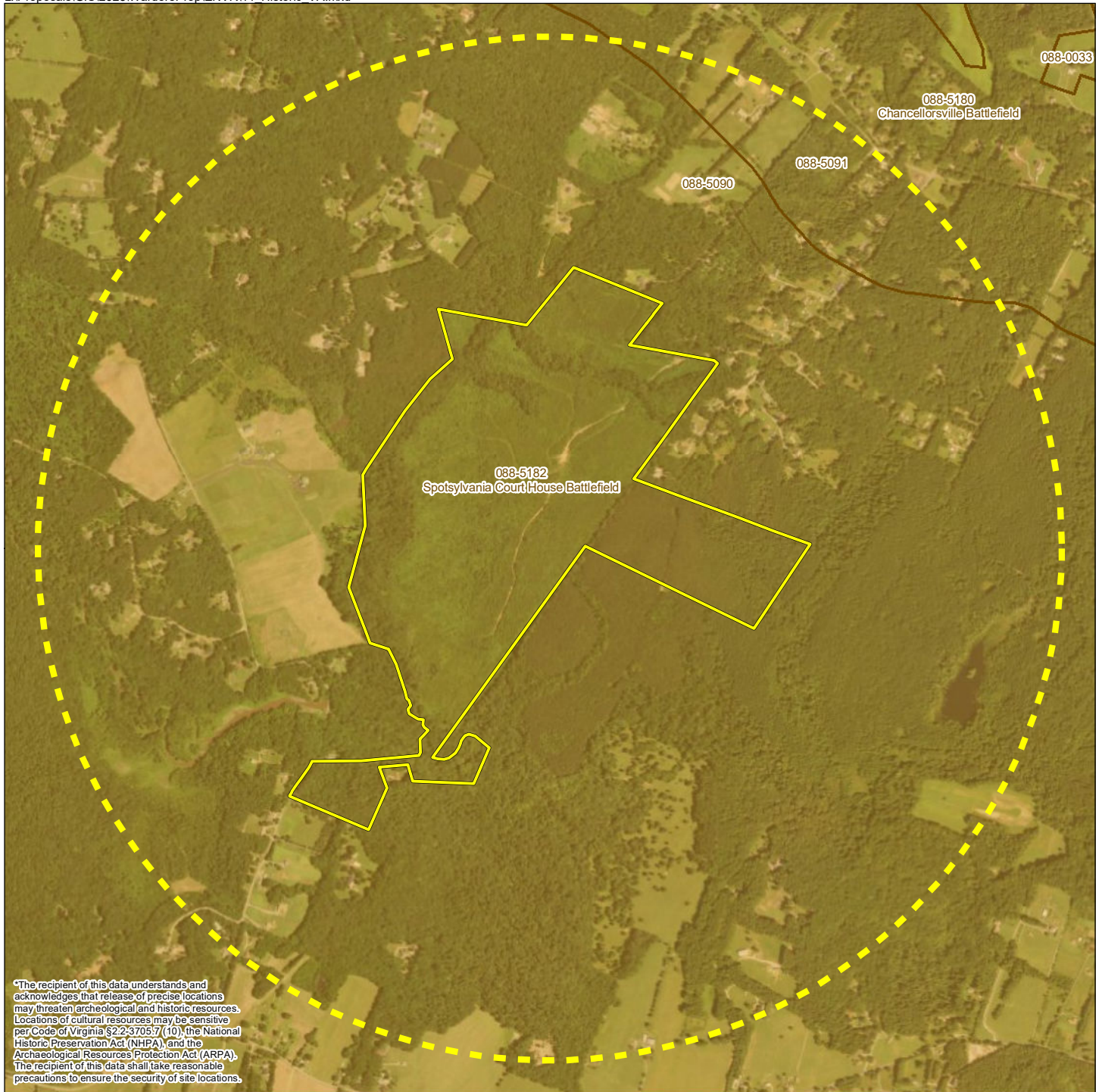
Sulfide Hazard Risk Map Wardere





Estimated acid producing risk
potential of sulfide bearing materials

- | | |
|--|---|
|  Low-mod risk |  No documented risk |
|  Mod risk |  Unknown. Sulfides documented in literature. |
|  Mod-high risk |  Water |
|  High risk | |

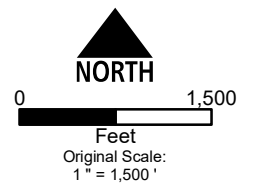


Source: Virginia Tech Department of Crop and Soil Environmental Sciences. Zenah W. Orndoff and W. Lee Daniels

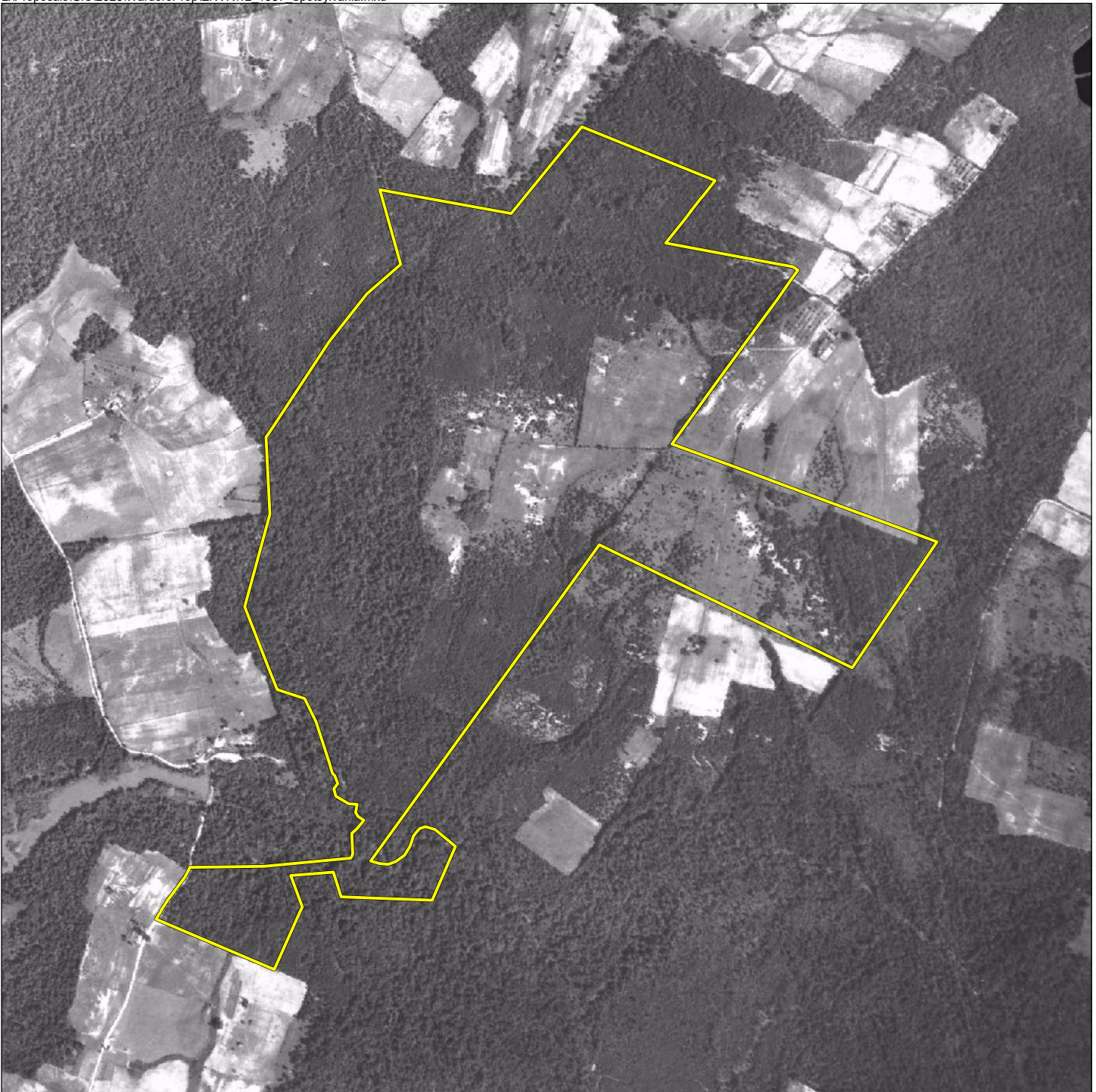



-  Study Area
-  Archeological Resource
-  Architectural Resource
-  1 Mile Radius From Center of Study Area

Cultural Resources Map Wardere

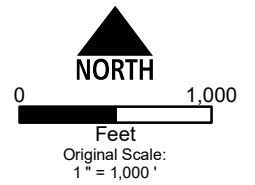


Source: VA Department of Historic Resources (VDHR)* - December 4th, 2022
National Agriculture Imagery Program - 2018

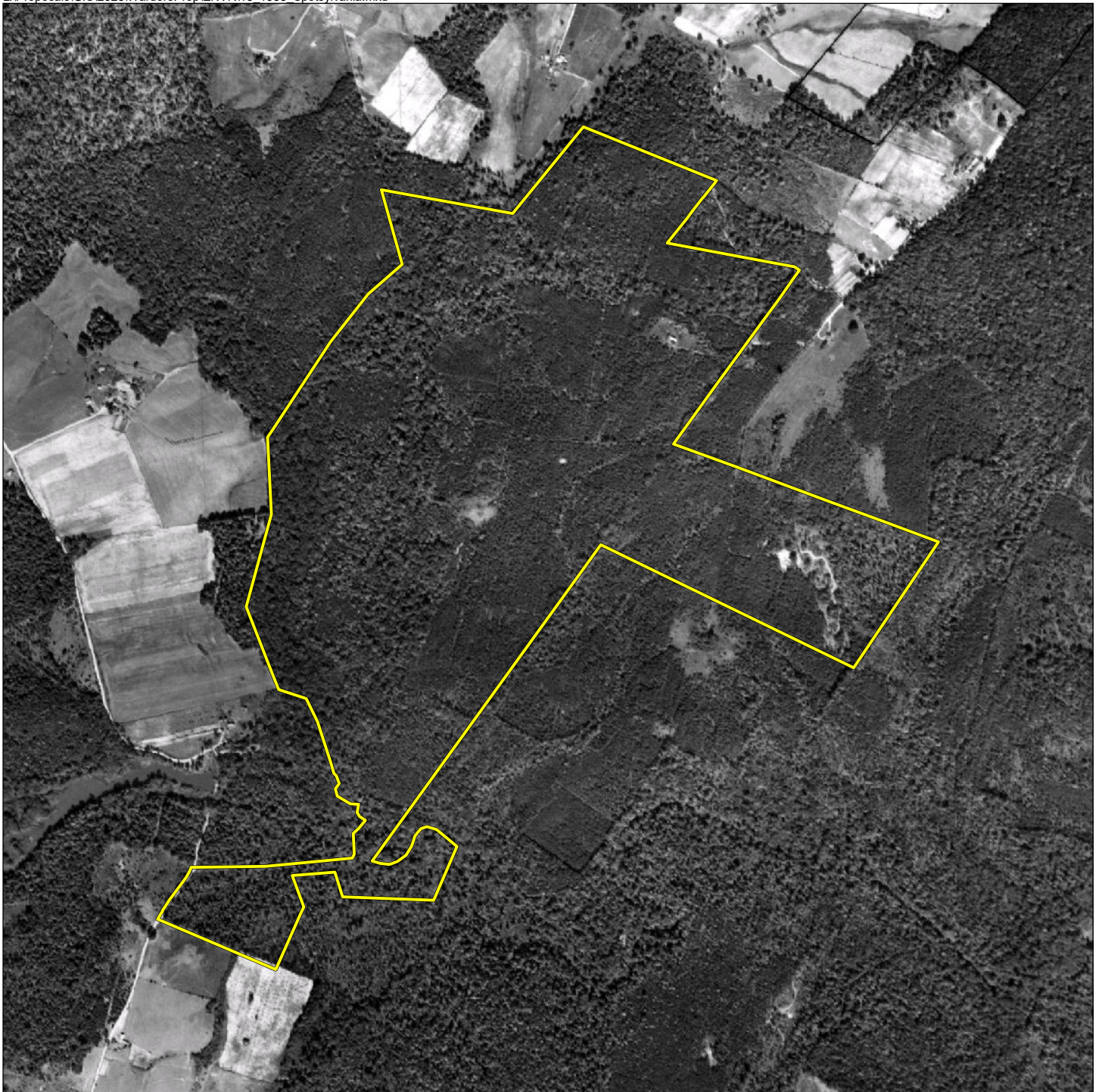



 Study Area

**1937 Black and White Imagery
Wardere**

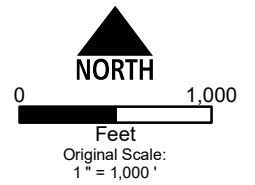


Source: Spotsylvania County Department of GIS/Mapping



 Study Area

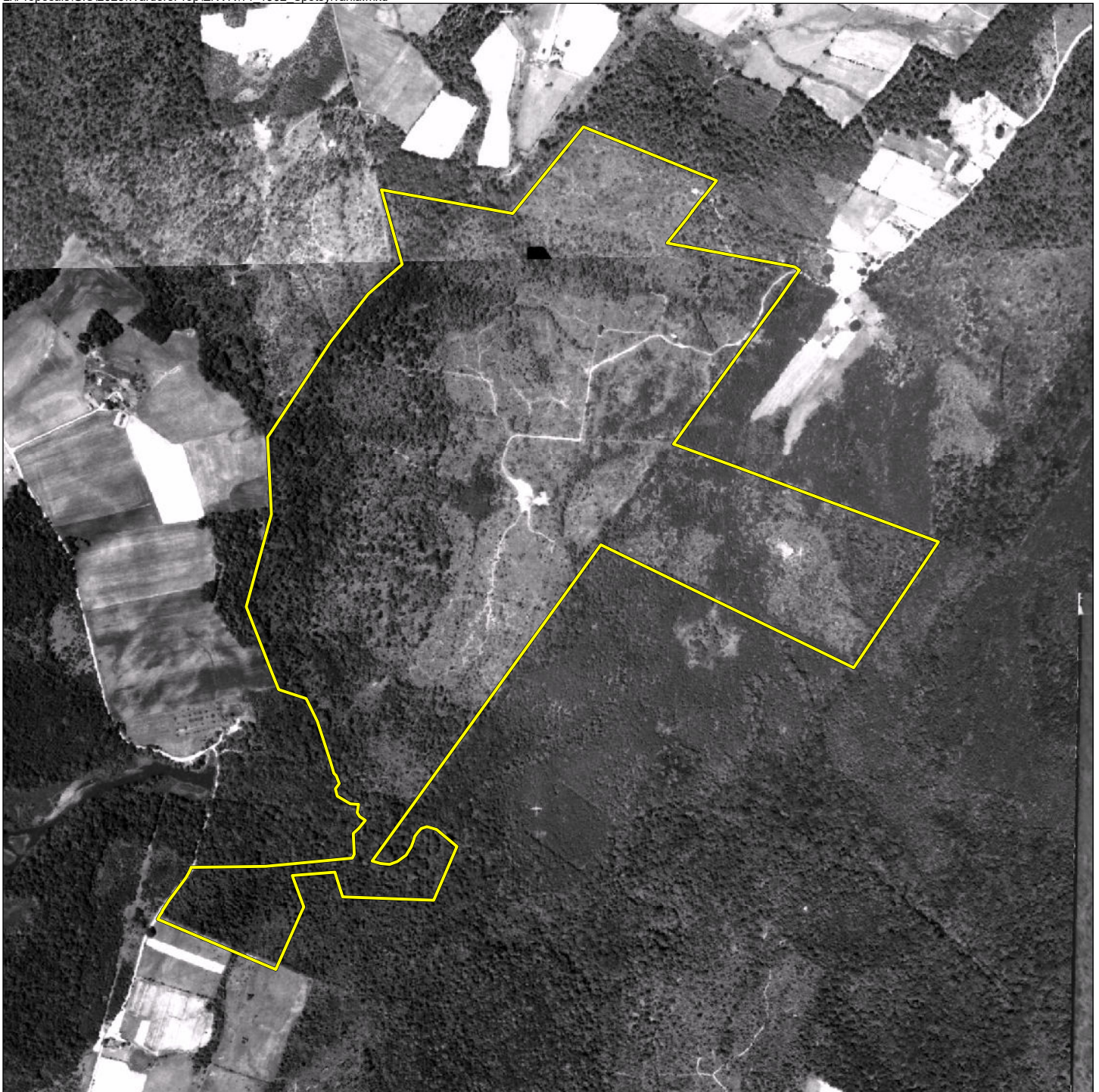
1953 Black and White Imagery Wardere




Source: Spotsylvania County Department of GIS/Mapping

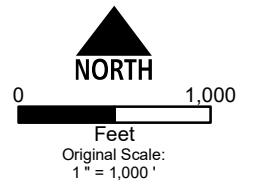
Wetland Studies and Solutions, Inc.
a **DAVEY**  company

Exhibit 13



 Study Area

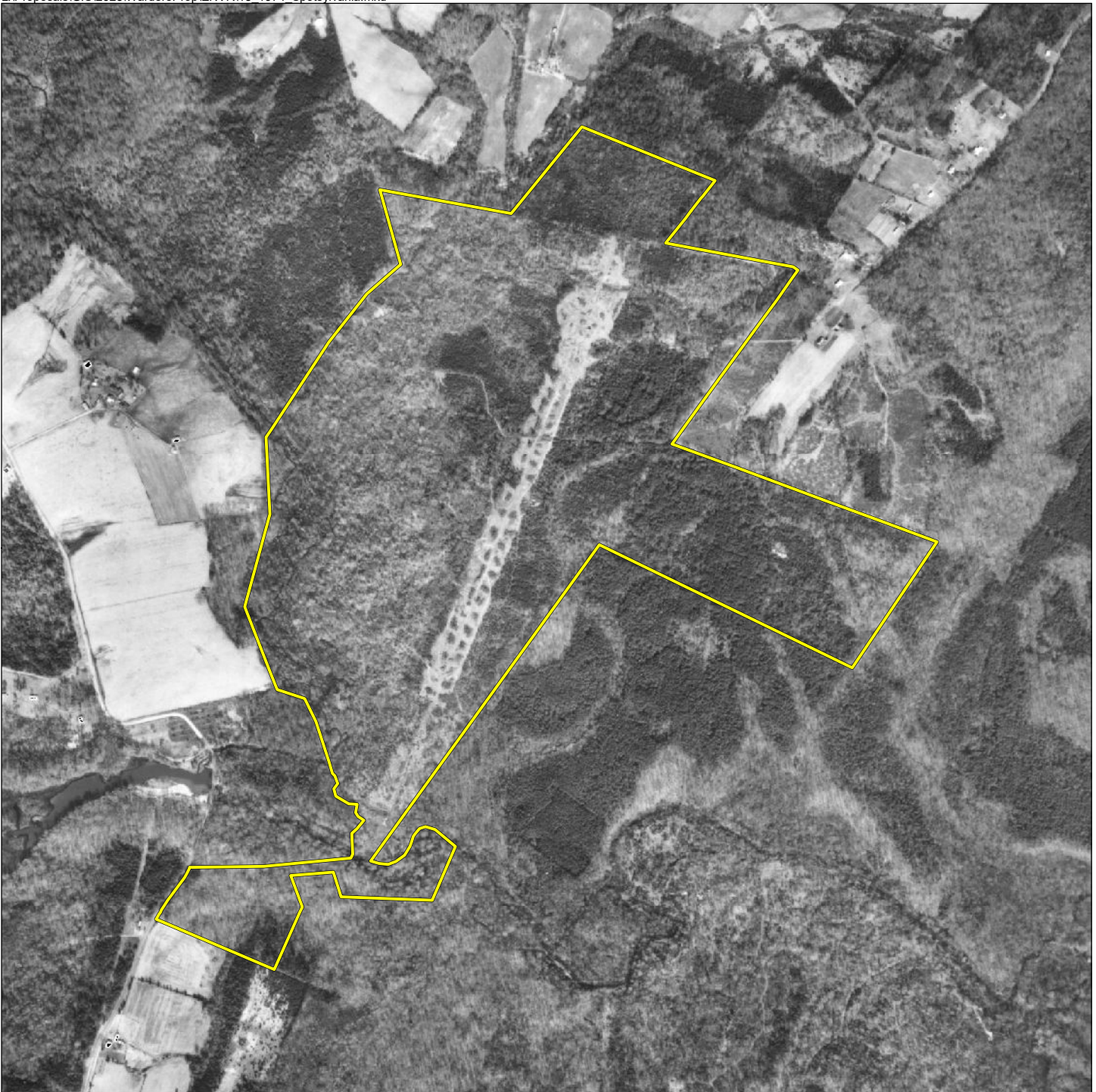
1962 Black and White Imagery Wardere




Source: Spotsylvania County Department of GIS/Mapping

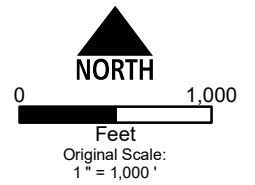
Wetland Studies and Solutions, Inc.
a **DAVEY**  company

Exhibit 14

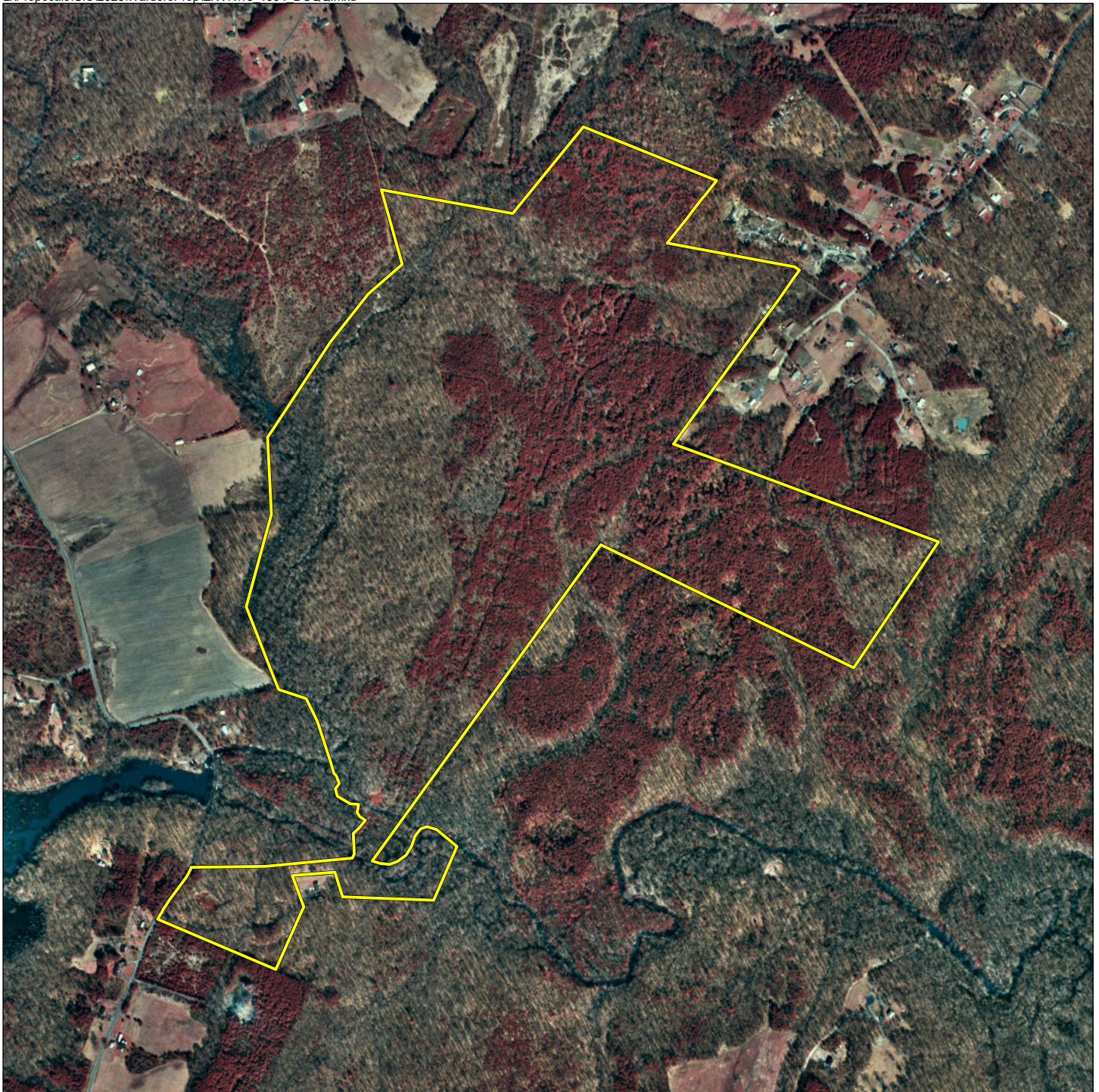



 Study Area

**1974 Black and White Imagery
Wardere**

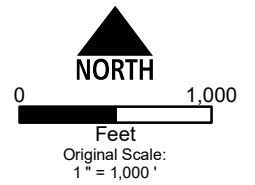


Source: Spotsylvania County Department of GIS/Mapping

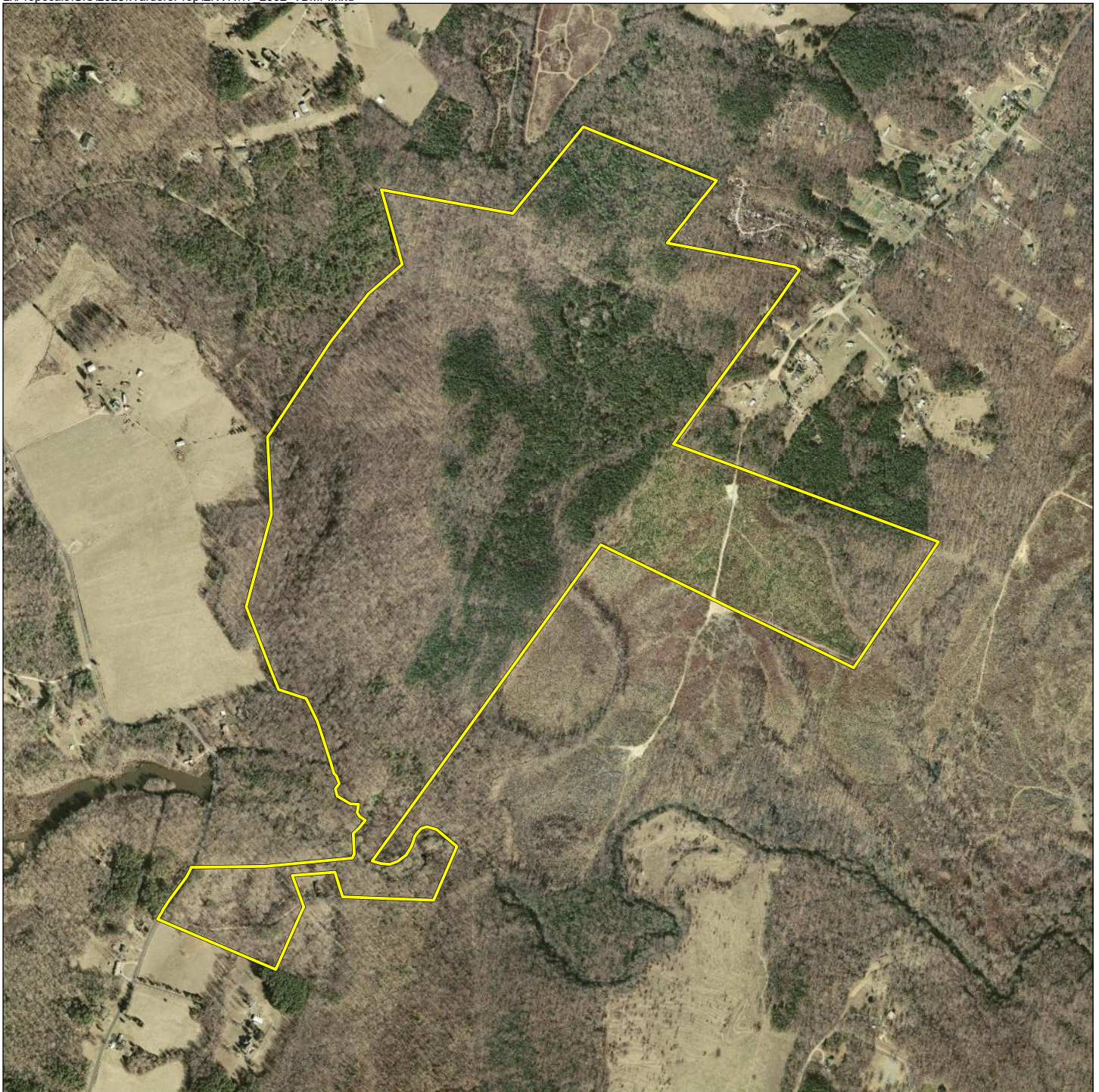



 Study Area

Spring 1994 Color Infrared Imagery Wardere

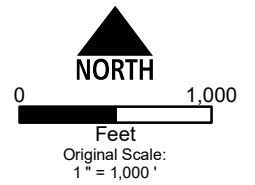


Source: U.S. Geological Survey Digital Orthophoto Quarter Quad

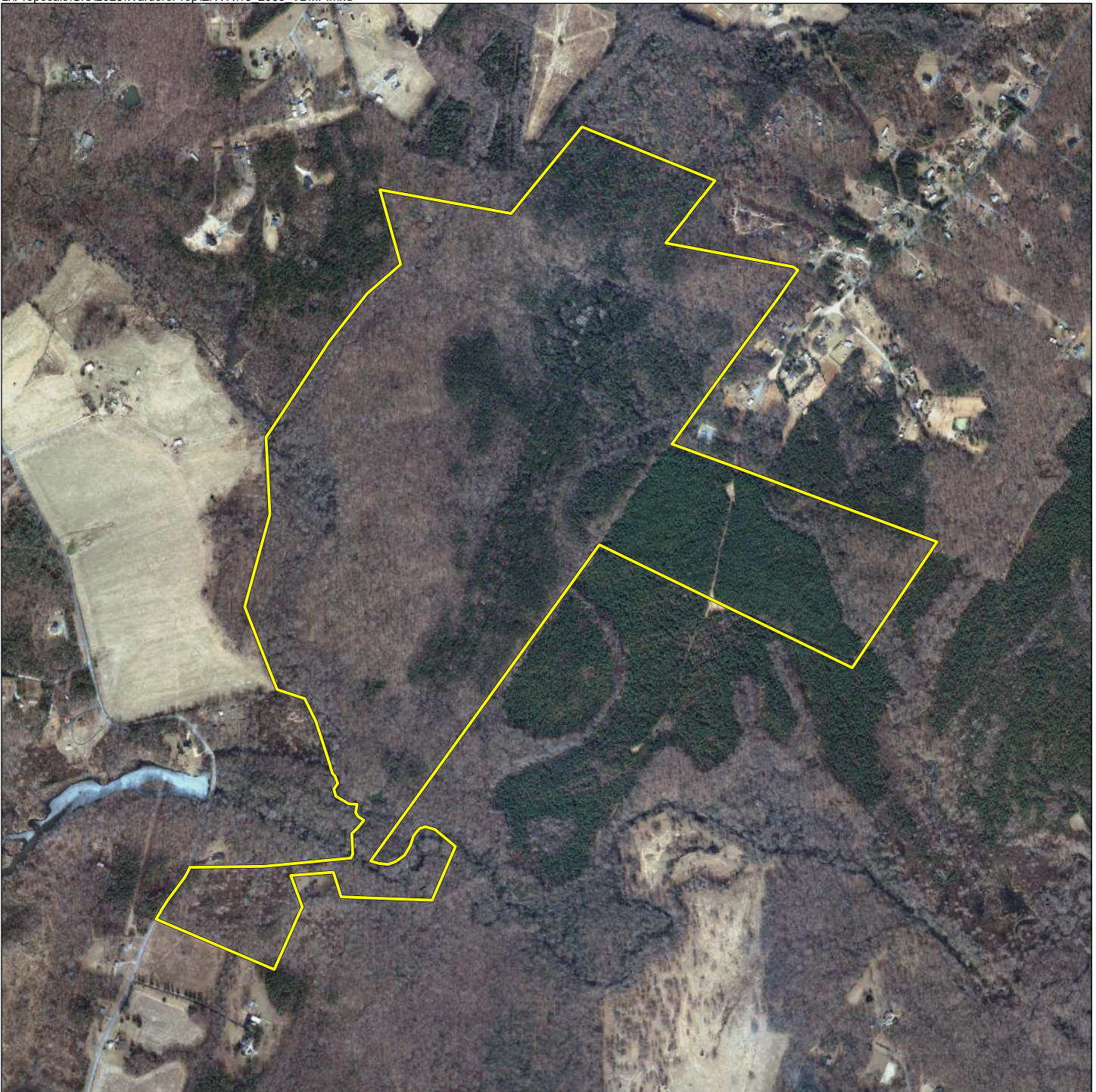



 Study Area

Spring 2002 Natural Color Imagery Wardere

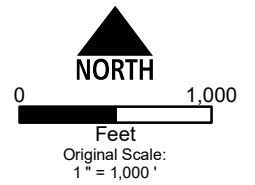


Source: Virginia Base Mapping Program (VBMP)

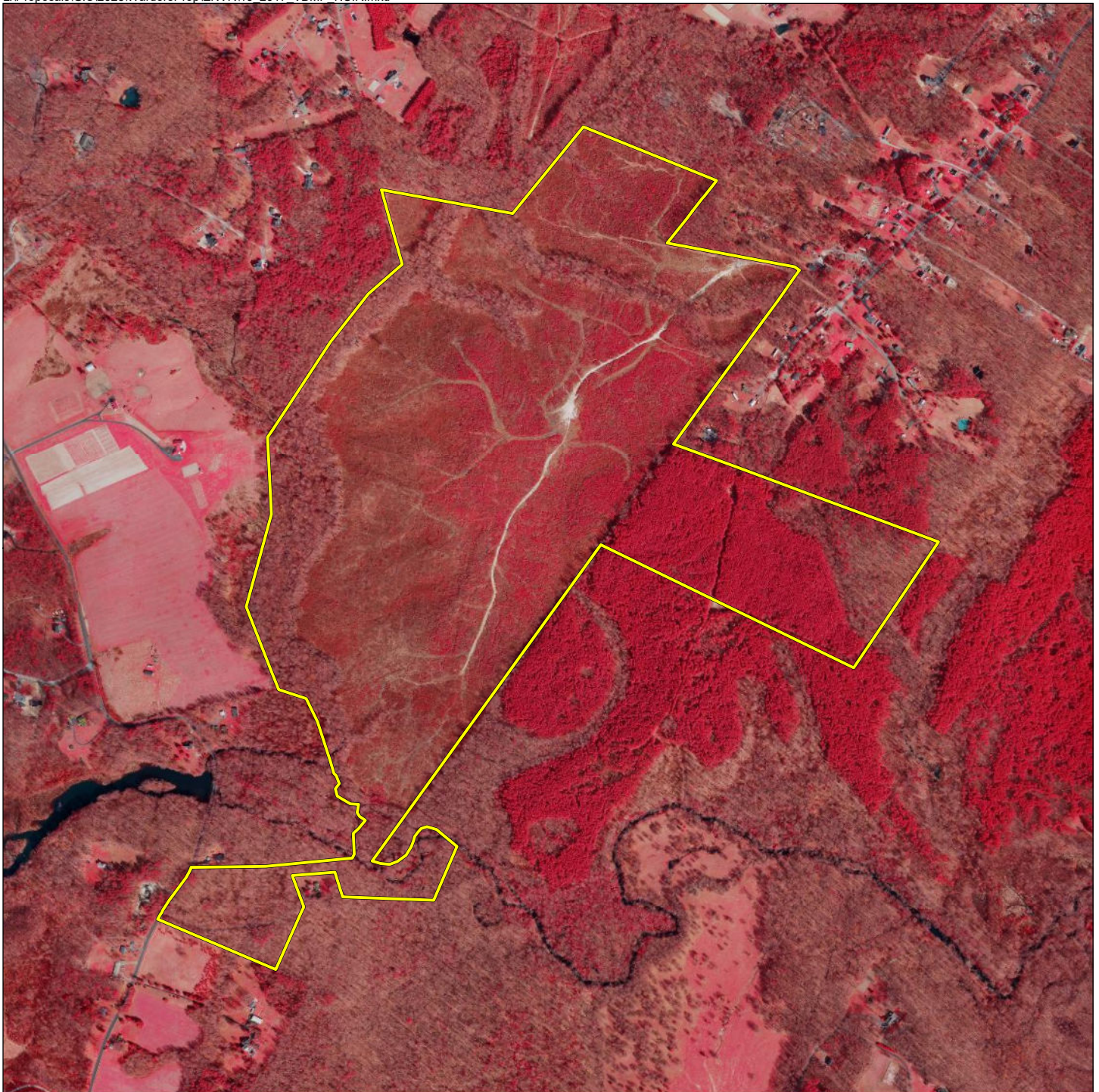



 Study Area

Spring 2009 Natural Color Imagery Wardere

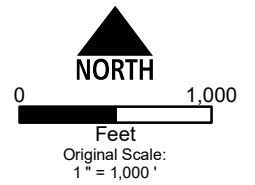


Source: Virginia Base Mapping Program (VBMP)

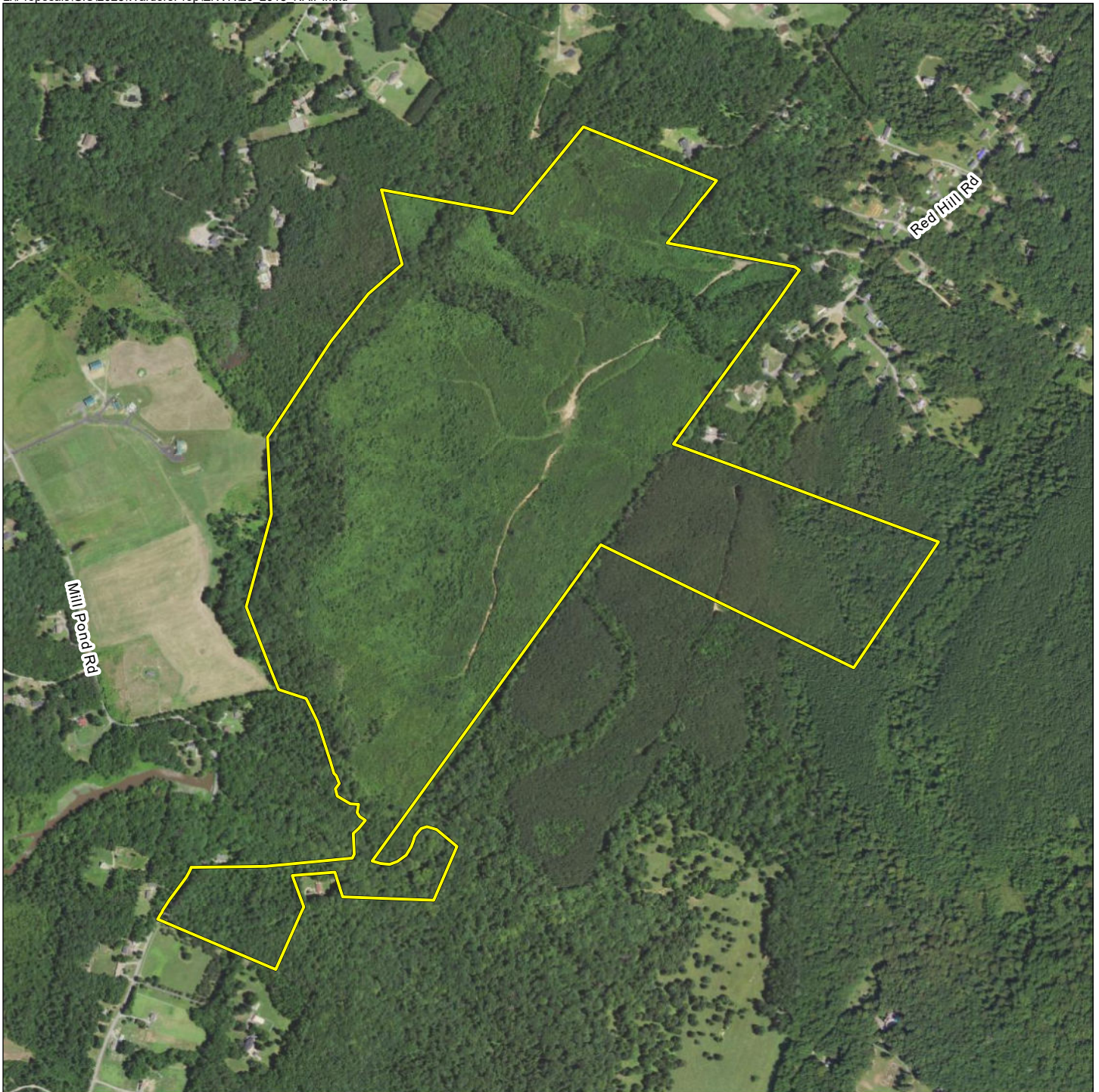



 Study Area

Spring 2017 Near Color Infrared Imagery Wardere

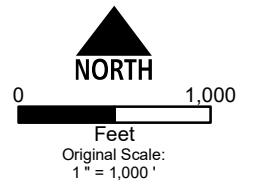


Source: Virginia Base Mapping Program (VBMP)

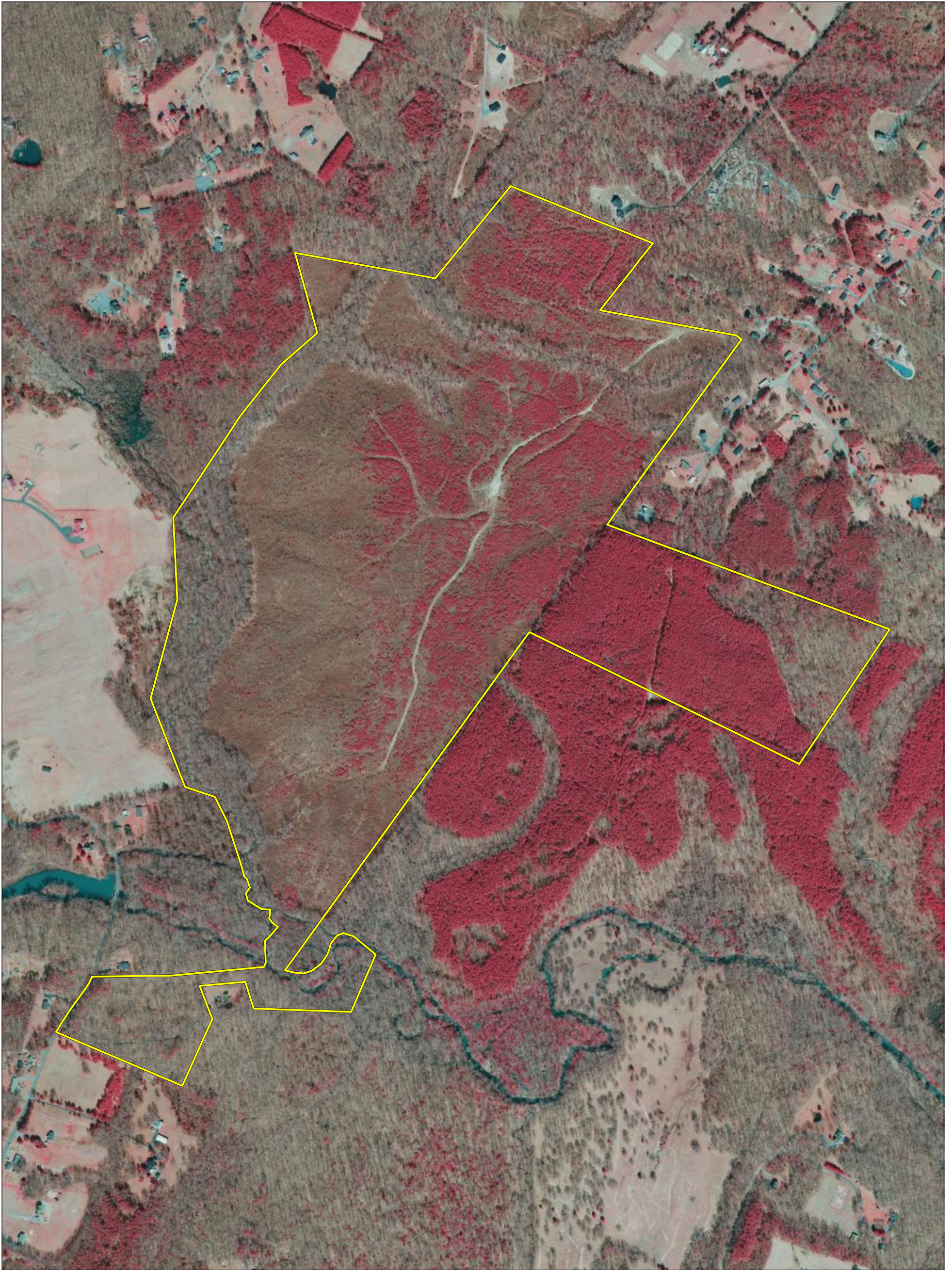



 Study Area

Summer 2018 Natural Color Imagery Wardere

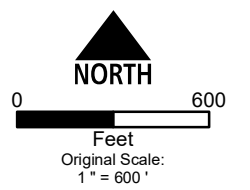


Source: National Agriculture Imagery Program (NAIP)

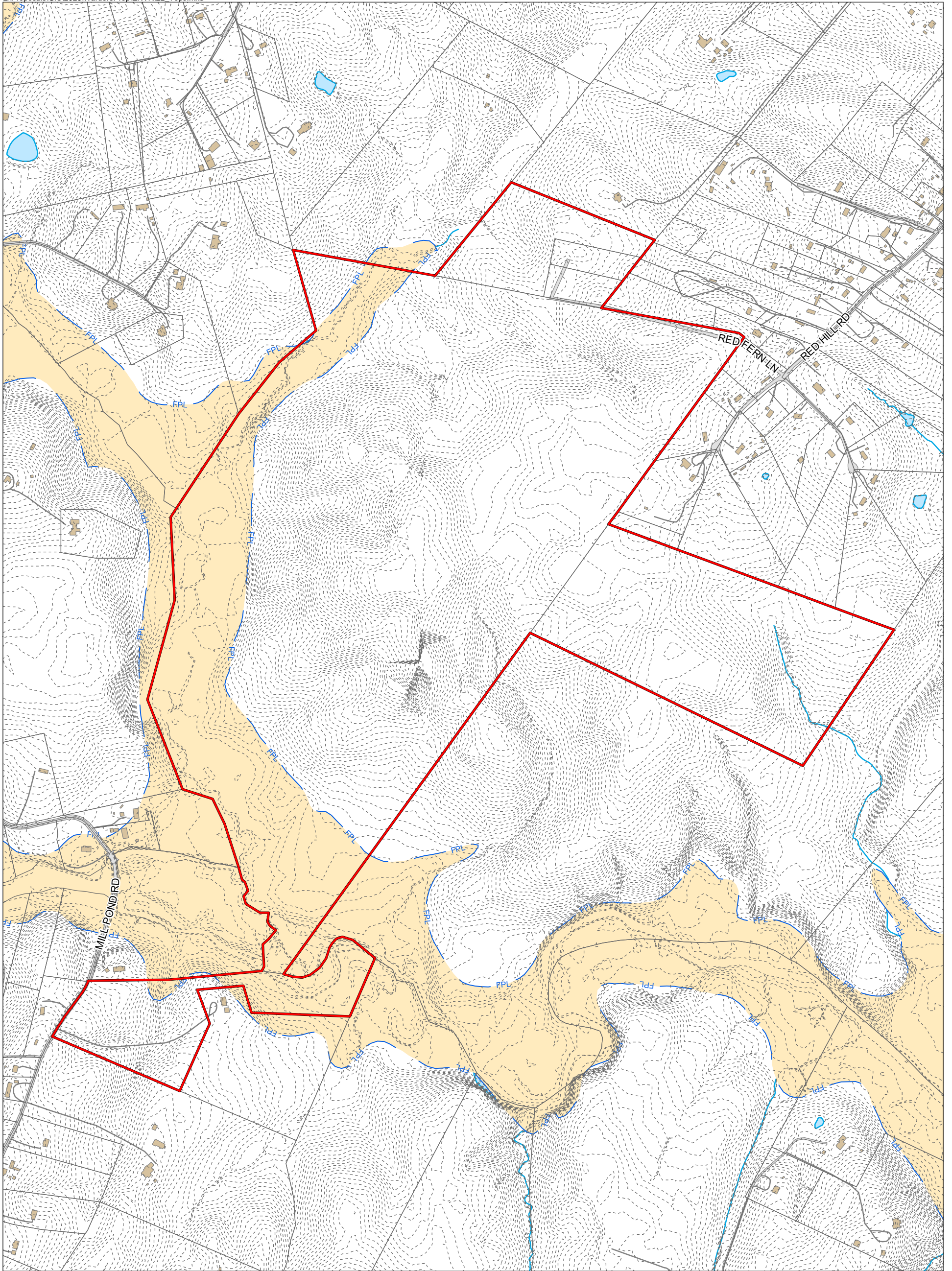



 Study Area

**2021 Color Infrared Imagery
Wardere**

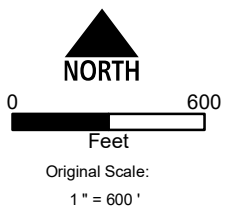


Source: VBMP

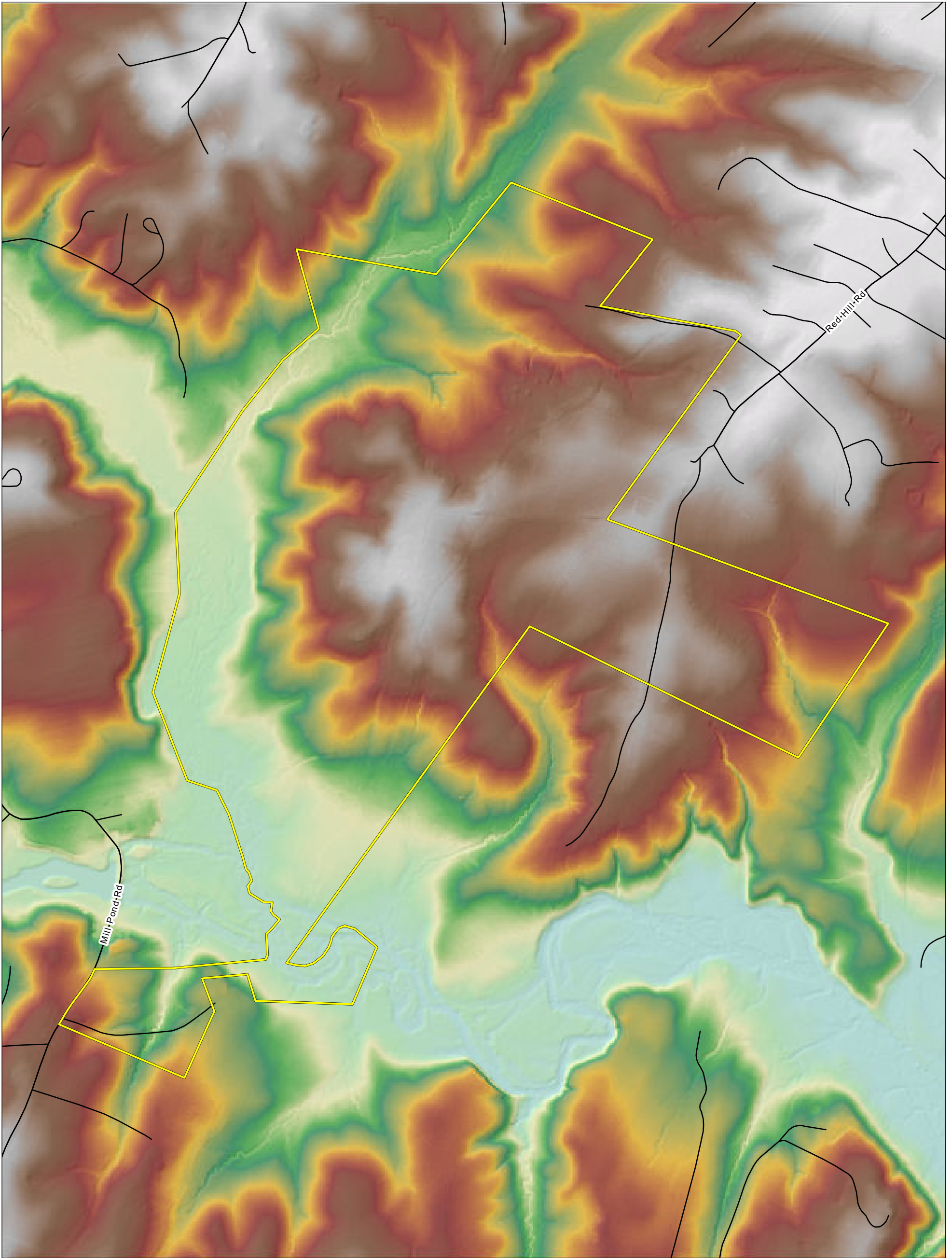



 Study Area

Topographic Data Wardere



Contour Interval: 2'
Vertical Datum: Unknown
Source: Spotsylvania County Digital Data

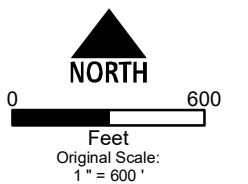


 Study Area

**Digital Elevation Model (DEM)
Wardere**

Elevation (Meters)

High : 103.07
Low : 67.4291



Source: USGS 3DEP Elevation Program