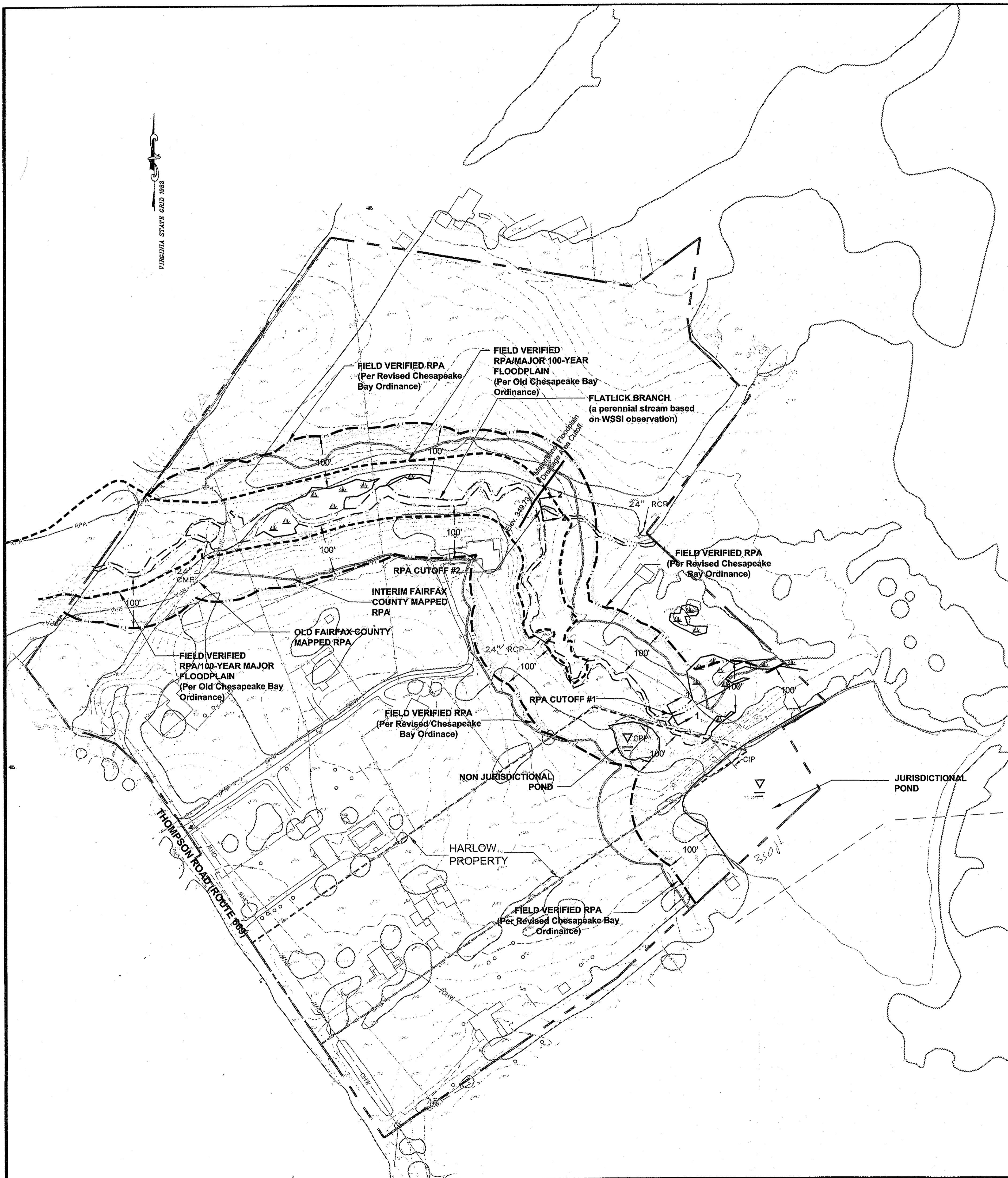




VIRGINIA STATE ORD 1983



- Boundary information and topographic information was provided in digital (Autocad) format by BC Consultants. The contour interval (C.I.) is 2 feet. This information is based in the NAD 83 horizontal coordinate system and referenced to the NGVD 29 vertical datum.
- The boundaries of jurisdictional wetlands and other Waters of the U.S. on the site were delineated and surveyed (by conventional methods) by Wetland Studies and Solutions, Inc. (WSSI) and described in two separate reports. The U.S. Army Corps of Engineers verified both delineations with Jurisdictional Determinations. The following is a list of the reports and Jurisdictional Determinations:
  - Wetland Delineation Report #1 (Thompson Road Assemblage)
    - Wetland Delineation Report, Thompson Road Assemblage (± 37 acres), Fairfax County, Virginia, dated March 14, 2003
    - Jurisdictional Determination (#03-N0204) dated March 20, 2003.
  - Wetland Delineation Report #2 (Harlow Property)
    - Wetland Delineation Report, Harlow Property: Parcel F1 (± 5.0 acres), Fairfax County, Virginia, dated May 20, 2003
    - Jurisdictional Determination (#03-N0243) dated May 27, 2003.
 A copy of each Jurisdictional Determination is enclosed in Sheet #10.
- A flood-plain study for the project site was prepared by BC Consultants (FFX# 9820-FP-02-1, approved 9/3/2003), and provided to WSSI in digital (AutoCAD) format. Only the Major portion of the floodplain is provided here on (BC study depicted both Major and Minor). The elevation of the floodplain at the Major/Minor confluence was then continued upstream to depict its backwater extents.
- Fairfax County Mapped RPA per old Chesapeake Bay Ordinance was imported from Fairfax County Digital (GIS) Data. The Fairfax County Mapped RPA per Interim Guidance Map was digitized by WSSI.
- A 100 foot buffer, landward of RPA core components, governs the location of the RPA when it exceeds the limits of the major floodplain (defined in Section 118-1-6 (o) of the Chesapeake Bay Preservation Ordinance). Flatlick Branch, an RPA core component, is present on this site and therefore a 100-foot buffer extends landward of the stream channel.
- The Chesapeake Bay Ordinance for Fairfax County was revised on July 7, 2003, with an effective date set as the day following adoption of the Chesapeake Bay Preservation Area map (expected on 11/17/2003). Prior to this date, it has been requested by Fairfax County that the RPA be shown based on both the old and new ordinance guidelines. The "old" Chesapeake Bay Ordinance, adopted March 22, 1993, defines a RPA as "any land characterized by one or more of the following features:
  - A tidal wetland;
  - A tidal shore;
  - A tributary stream;
  - A nontidal wetland connected by surface flow and contiguous to a tidal wetland or tributary stream;
  - A buffer area as follows:
    - Any land within a major floodplain;
    - Any land within 100 feet of a feature listed in Sections 118-1-7(b) (1) - (4)."
 A tributary stream is defined as "any perennial stream that is so depicted on the most recent U.S. Geological Survey 7 1/2 minute topographic quadrangle map (scale 1 : 24,000)." Flatlick Branch is mapped as intermittent on the 1994 USGS Herndon Quad Map (see Exhibit #2, Sheet #5). Therefore, Flatlick Branch is not an RPA component and there is no RPA for this site according to the old Chesapeake Bay Ordinance, adopted March 22, 1993.

The revised Chesapeake Bay Ordinance, adopted July 7, 2003, defines a RPA as "any land characterized by one or more of the following features:

- A tidal wetland;
- A tidal shore;
- A water body with perennial flow;
- A nontidal wetland connected by surface flow and contiguous to a tidal wetland or water body with perennial flow;
- A buffer area as follows:
  - Any land within a major floodplain;
  - Any land within 100 feet of a feature listed in Sections 118-1-7(b) (1) - (4).

The full buffer area shall be designated as the landward component of the RPA notwithstanding the presence of permitted uses, encroachments, and permitted vegetation clearing in compliance with Article 3. Designation of the components listed in Sections 118-1-7(b) (1)-(4) shall not be subject to modification unless based on reliable, site-specific information as provided for in Section 118-1-9."

A water body with perennial flow is defined as "a body of water flowing in a natural or man-made channel year-round, except during periods of drought. The term 'water body with perennial flow' includes perennial streams, estuaries, and tidal embayments. A perennial stream means any stream that is both perennial and so depicted on the map of Chesapeake Bay Preservation Areas adopted by the Board of Supervisors pursuant to Section 118-1-9(a). Streams identified as perennial on the adopted map are based on field studies conducted by the Department of Public Works and Environmental Services. Lakes and ponds that form the source of a perennial stream, or through which the perennial stream flows, are a part of the perennial stream. The width of a perennial stream may be measured from top-of-bank to top-of-bank or at the Ordinary High Water Mark (OHWM) as defined by 33 CFR Part 328.3(e). The aerial extent of a pond or lake is measured at the OHWM. Generally, the water table is located above the streambed for most of the year and groundwater is the primary source for stream flow. In the absence of pollution or other manmade disturbances, a perennial stream is capable of supporting aquatic life."

Flatlick Branch was field investigated as perennial and is mapped as perennial on the Fairfax County Chesapeake Bay Preservation Areas Interim Guidance Map (see Exhibit #5, Sheet #5). Therefore, Flatlick Branch and the associated 100-foot buffer and floodplain constitute the RPA for this site according to the revised Chesapeake Bay Ordinance, adopted July 7, 2003.

7. The pond completely within the Harlow Property has been classified as non-jurisdictional by the U.S. Army Corps of Engineers. Furthermore, this body of water does not provide the source of the perennial stream, Flatlick Branch, nor is it a part of, or located through which Flatlick Branch flows. Therefore this pond is not an RPA core component. The larger pond to the east of which is partly situated on the site, is located in-line with Flatlick Branch and is therefore an RPA core component with a 100-foot buffer surrounding it.

8. RPA Cutoff #1 is located at the confluence of an unnamed intermittent stream with Flatlick Branch. There are nontidal wetlands associated with this stream, however, they are not connected to the RPA core component, Flatlick Branch, by surface flow nor are they contiguous to it.

9. RPA Cutoff #2 is located at the confluence of an unnamed stream which has no associated nontidal wetlands.

### LEGEND

	SITE BOUNDARY (THOMPSON ROAD ASSEMBLAGE)
	SITE BOUNDARY (HARLOW PROPERTY)
	PERENNIAL STREAM (Per WSSI field investigation)
	INTERMITTENT STREAM (Per WSSI field investigation)
	RPA CUTOFF
	FIELD VERIFIED RPA (Per Old Chesapeake Bay Ordinance) 100 YEAR FLOODPLAIN
	FIELD VERIFIED RPA (Per Revised Chesapeake Bay Ordinance)
	OLD FAIRFAX COUNTY MAPPED RESOURCE PROTECTION AREA BOUNDARY
	INTERIM FAIRFAX COUNTY MAPPED RESOURCE PROTECTION AREA BOUNDARY
	JURISDICTIONAL WETLAND AREAS

14498-M Sullyfield Circle, Chantilly, Virginia 20151  
Phone 703.631.5800 Fax 703.631.5804  
www.wetlandstudies.com

---

THOMPSON ROAD ASSEMBLAGE  
PRESERVATION AREA PLAN  
FAIRFAX COUNTY, VIRGINIA

PRESERVATION AREA PLAN  
Copyright © 2003 Wetland Studies and Solutions, Inc.

---

COMMONWEALTH OF VIRGINIA  
Professional Engineer  
John W. Kelley, Jr.  
No. 035786  
9/03

---

REVISIONS		SCALE: 1"=100'
No.	Date	Description

---

Horizontal Datum: NAD 83		
Vertical Datum: NGVD 29		
Boundary and Topo Source: BC CONSULTANTS		
Design	Draft	Approved
BMW	BMW	JTK
Sheet #		
2 of 11		
Computer File Name: L:\S432\Cadd\RPAPlan\dwg\PLAN.dwg		



March 14, 2003  
VIA FEDERAL EXPRESS

Peter T. Johnson  
Winchester Homes, Inc.  
6905 Rockledge Drive  
Suite 800  
Bethesda, MD 20817

Re: Wetland Delineation  
Thompson Road Assemblage (± 37 acres)  
Fairfax County, Virginia  
WSSI #5432

Dear Mr. Johnson:

Per your request, Wetland Studies and Solutions, Inc. (WSSI) has determined and survey-located the boundaries of the Jurisdictional Wetlands and other Waters of the U.S. (i.e., streams and ponds) on the above-referenced site, with the exception of the Harlow property (parcel F1), on which a reconnaissance was performed. Our findings are described in this letter report and are graphically depicted (as a location map) on Attachment I.

Site Description:

The Thompson Road Assemblage site is located on the north side of Thompson Road (Route 669) approximately 2000' southeast of its intersection with Tuckaway Drive in Fairfax County, Virginia. The site is bounded by Thompson Road to the southwest and residential properties on all other sides. Exhibit 1 is a vicinity map that depicts the approximate location of the site and its general vicinity. The site is gently sloped with drainage trending to the west toward Flatlick Branch. This topography can be seen in Exhibit 2 as well as in the background topography on Attachment I.

Methodology:

This wetland delineation was performed pursuant to "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1 (1987 Manual). The Routine On-Site Wetland Determination Method for sites greater than 5 acres was used with multiple transects performed as depicted on Attachment I. Field work was performed by Laura Giese, Ph.D., P.W.S. and Benjamin Rosner on March 7, 10 and 12, 2003. Survey work was performed on March 10-13, 2003 by WSSI using conventional survey methods.

Prior to conducting field work, relevant background information was reviewed including site topography, the USGS Herndon, VA Quad Map (Exhibit 2), National Wetlands Inventory Map (Exhibit 3), and Fairfax County Soils Map data (Exhibit 4). The

14088-M Sullyfield Circle, Chantilly, Virginia 20151  
Phone: 703.631.5800 Fax: 703.631.5804

Web Page: <http://www.wetlandstudies.com> E-mail: [contactus@wetlandstudies.com](mailto:contactus@wetlandstudies.com)

Peter T. Johnson  
March 14, 2003  
WSSI #5432  
Page 4 of 7

These areas lack either an ordinary high water mark and a defined bed and bank (and are therefore not jurisdictional streams) or fail to satisfy all three parameters (hydrophytic vegetation, wetland hydrology, and hydric soils) for a Jurisdictional Wetland. Data Point #2 (Exhibit 11, Photo #9) characterizes an upland swale adjacent to a PEM in the eastern part of the site. While there was evidence of hydrology, due to significant recent snow melt, the data point lacked hydrophytic vegetation and hydric soils; thus, the area is not a Jurisdictional Wetland.

Data Point #3 (Exhibit 11, Photo #4) describes the riparian area adjacent to the perennial stream in the northeastern portion of the site. While hydrophytic vegetation was dominant, evidence of hydrology and hydric soils were lacking, thus the area is not a Jurisdictional Wetland.

Data Point #4 (Exhibit 11, Photo #6) describes a depressional area adjacent to the perennial stream in the eastern portion of the site. This data point contained hydric soils and evidence of hydrology, however the hydrophytic vegetation criteria was not satisfied. Thus the area is not a Jurisdictional Wetland.

H. The remainder of the site is dominated by upland. Much of the site consists of residences and associated open space (maintained lawns and gardens) and pasture. The northern portion of the site is forested, and is dominated by white oak (*Quercus alba*), red oak (*Quercus rubra*) and various hickory species (*Carya* sp.). These areas contain no Jurisdictional Wetlands or other Waters of the U.S.

I. Permits from the U.S. Army Corps of Engineers (COE) and Virginia's Department of Environmental Quality (DEQ) will be required to impact wetlands on this site. The other "Waters of the U.S." in the study area (i.e., the streams and ponds) are also regulated by Section 401 and 404 of the Clean Water Act and cannot be disturbed without the appropriate permits, which may include permits from state and local agencies, as well as the COE, depending upon the extent and type of impacts.

J. The Fairfax County RPA Map (Exhibit 5) depicts RPA mapped in the western portion of the site. The existing Fairfax County Chesapeake Bay Preservation Area Ordinance defines an RPA as including the following:

- (1) Tidal wetlands;
- (2) Tidal shores;
- (3) Tributary streams;
- (4) Nontidal wetlands connected by surface flow and contiguous to tidal wetlands or tributary streams;
- (5) A buffer area as follows:
  - a. Any land within a major floodplain.
  - b. Any land within 100 feet of a feature listed in (1)-(4) above.

Peter T. Johnson  
March 14, 2003  
WSSI #5432  
Page 2 of 7

Fairfax County Resource Protection Area (RPA) Map was also reviewed, an excerpt of which is provided in Exhibit 5. Aerial photographs of the site, including a Spring 1994 USGS Color Infrared Orthophoto (Exhibit 6), 1998 Eyemap Imagery (Exhibit 7) provided by VARGIS, LLC, 2000 DigiAir Imagery (Exhibit 8) and 2001 AirPhotoUSA Imagery (Exhibit 9) were also examined to investigate whether signatures indicative of wetlands are found on the site.

Other pertinent information was reviewed including the Thompson Road Parcels E1, F1 & G Wetland Reconnaissance (WSSI #5430, dated April 10, 1998), and the Thompson's Moore Permit Verification (WSSI #5431, dated December 14, 1998), as well as the Off-site Sewer Delineation for Oak Hill Reserve (WSSI #6821, dated November 15, 2000).

Samples of vegetation, soils and hydrology were taken at representative locations in the wetlands and adjacent non-wetland areas to determine the wetland boundaries. Routine Wetland Determination data forms describing representative plant communities are included as Exhibit 10. Photographs of the site are included in Exhibit 11. The surveyed locations of delineated wetlands, other Waters of the U.S., data points, and the approximate locations of photographs are depicted on Attachment I.

In addition, stream evaluation methods developed by the North Carolina Division of Water Quality (NCDWQ) and the Fairfax County Department of Public Works and Environmental Services (DPWES) were utilized in the field to distinguish between ephemeral and intermittent streams (based on the NCDWQ method) and perennial streams (based on the DPWES method). Stream evaluation data forms for this site are provided in Exhibit 12. Based on the NCDWQ method, streams scoring 19 or greater are at least intermittent. Streams scoring below 19 are considered to be ephemeral. A pilot study conducted by Fairfax County utilizing the Fairfax County DPWES method indicated that streams with a score greater than 25 are perennial.

Findings:

In WSSI's opinion, Jurisdictional Wetlands and other Waters of the U.S. (i.e. streams and ponds) are present on this site. Our specific findings can be summarized as follows:

- A. Palustrine emergent (PEM) wetlands, which are dominated by herbaceous vegetation, are present in the eastern portion of the site, adjacent to an unnamed perennial stream and downslope of a pond embankment. Data Point #1 (Exhibit 11, Photo #8) characterizes this wetland which has hydrology primarily supported by groundwater and augmented by surface flow associated with the stream. These areas were flagged with the D and E flagging series.
- B. Palustrine scrub/shrub wetlands, which are dominated by shrubby vegetation, are present in the eastern portion of the site. These areas, flagged by the J and K flagging series, are

*Based on an email communication from Matthew Meyers, Fairfax County DPWES dated June 18, 2002 describing the findings of their pilot study.*

Peter T. Johnson  
March 14, 2003  
WSSI #5432  
Page 5 of 7

No tidal wetlands or tidal shores are present on the Thompson Road Assemblage site. "Tributary streams" are currently defined only by mapping (i.e., a tributary stream is a stream that is depicted on the most recent U.S. Geological Survey 7 1/2 minute topographic quadrangle map (scale 1:24,000)), and there are no tributary streams mapped on the site. Non-tidal wetlands are present on the site, but they are not contiguous to tidal wetlands or a tributary stream (as currently defined). Therefore, based on the existing Fairfax County Chesapeake Bay Preservation Area Ordinance, the RPA present on the site at this time is the limits of the 100-year floodplain. The floodplain limits should be delineated on detailed topographic mapping to more accurately delineate the floodplain and resulting RPA.

However, recently amended regulations by the Chesapeake Bay Local Assistance Board (CBLAB), which develops regulations establishing the criteria by which local municipalities in Tidewater Virginia will determine and regulate Resource Protection Areas, require local governments to make a determination on a case-by-case basis as to whether or not a perennial stream exists on a site. CBLAB's Chesapeake Bay Preservation Area Designation and Management Regulations (9 VAC 10-20-10 et seq.), with amendments adopted December 10, 2001 and effective March 1, 2002, state that local governments shall make or confirm determinations as to whether a stream is perennial using "a scientifically valid system of in-field indicators of perennial flow" (9 VAC 10-20-80 (D)). All Tidewater Virginia local governments are required to revise their ordinances accordingly by December 2003.

As stated above in section D, the unnamed tributary stream was determined to be perennial by the Fairfax County DPWES method. Therefore, according to CBLAB's adopted amendments this stream qualifies as a RPA core component. The non-tidal wetlands are connected by surface flow to the perennial stream and thus qualify as RPA core components. Therefore the extent of the RPA is the 100' buffer from the stream or adjacent wetlands, or to the limits of the major floodplain, if one is present, whichever is greater.

WSSI examined the nature of the connection of all wetlands and non-tributary (i.e., intermittent) streams leading into the perennial stream in the study area to determine the RPA cutoff, the point at which these features are no longer connected by surface flow with the perennial stream. One RPA cutoff was determined along the northern bank of the stream where an intermittent stream flows into the unnamed stream. This cutoff was flagged with pink and blue flagging and serve as the northern limits of the RPA core components along the stream (Exhibit 11, Photo #3).

A second RPA cutoff was placed where the outlet stream from the pond flows into the stream (Exhibit 11, Photo #7). Upstream of this confluence, the stream was determined to be intermittent; therefore no RPA buffer should be associated with this reach of stream. RPA buffer extends 100 feet from this cutoff point.

Peter T. Johnson  
March 14, 2003  
WSSI #5432  
Page 3 of 7

dominated by Virginia rose (*Rosa virginiana*), and contained saturated, hydric soils (Exhibit 11, Photo #10).

C. Palustrine forested (PFO) wetlands, which are dominated by trees, are present along both the north and south sides of an unnamed perennial stream, on parcels C1 and D2. These wetlands were flagged with the A25-31, B29-46 and D1-13 flagging series (Exhibit 11, Photo #1). Hydrology is primarily supported by groundwater associated with the stream, and secondarily by possible seepage associated with the adjacent sewer line.

D. In addition to wetlands, other Jurisdictional Waters of the U.S. (i.e., streams and ponds) are present on the site. An unnamed perennial stream flows to the west across the central portion of the site and was flagged with the A, B, C, D and E flagging series. This stream possesses a well-defined bed and bank with width ranging from 4-8'. This stream contained approximately 1" of flow, with 6-12" deep pools during our site visit (Exhibit 11, Photo #2). Reach B (Exhibit 12) describes this stream which scored 28 points with the Fairfax County stream assessment method, indicating that this stream is likely perennial. Reach C (Exhibit 12) was performed upstream of the confluence with the stream containing outflow from the farm pond. Above this confluence, the stream scored 18 points with the Fairfax County stream assessment method, indicating that this portion of the stream is likely intermittent (Exhibit 11, Photo #11).

E. A second, unnamed stream located in the northeast portion of the site originates offsite from the east and flows west where it merges with the unnamed perennial stream described above (D). This stream was flagged with the F and G flagging series. This stream possessed a defined bed and bank with width ranging from 2-4' (Exhibit 11, Photo #5). During our site visit this stream contained approximately 1/2" of flow with 4-8" deep pools. Reach A (Exhibit 12) describes this stream which scored 21 points with the Fairfax County stream assessment method, indicating that this stream is likely intermittent. While aquatic organisms were not present in the stream due to the time of year, flow was high due to significant run-off associated with recent snowmelt; thus, in WSSI's opinion, this reach would not have scored significantly higher (i.e. above 25 points) during a different time of year.

F. A large pond is also present along the eastern edge of the site (Exhibit 11, Photo #12). This pond was flagged with the H and I flagging series. The outflow and associated stream are located entirely within the Harlow property, and thus only the approximate location is sketched on Attachment I. A second, smaller pond is also located in the eastern portion of the Harlow Property, adjacent to the perennial stream. This pond does not appear to have any surface or channeled connection with the stream, and was possibly created in uplands.

G. Other areas on the site were investigated for the presence of jurisdictional features, but were determined not to be Jurisdictional Wetlands or other Waters of the U.S.

Peter T. Johnson  
March 14, 2003  
WSSI #5432  
Page 6 of 7

K. A reconnaissance of the Harlow property (parcel F1) revealed several features that may be Jurisdictional Wetlands or other Waters of the U.S. A large pond is present in the north eastern portion of the site, as well as an outflow structure and associated stream from this pond. A second, smaller pond is present on the south side of the perennial stream which flows west through the adjacent properties. These areas possess a high potential for Jurisdictional Wetlands and other Waters of the U.S.

Several swales run northeast toward the small pond in the northern portion of the site. These swales had evidence of hydrology during our site visit and therefore represent an area of medium potential for Jurisdictional Wetlands and other Waters of the U.S. A wetland delineation is necessary to accurately determine the extent of any wetlands or other Waters of the U.S. on this property.

Summary:

In WSSI's opinion, Jurisdictional Wetlands or other Waters of the U.S. are present within the study area, based on our site observations as described in this letter. We have forwarded this letter to the U.S. Army Corps of Engineers for a Jurisdictional Determination that will verify the extent of Jurisdictional Wetlands located on the site. If you have any questions, please call our office at (703) 631-5800.

Limitations:

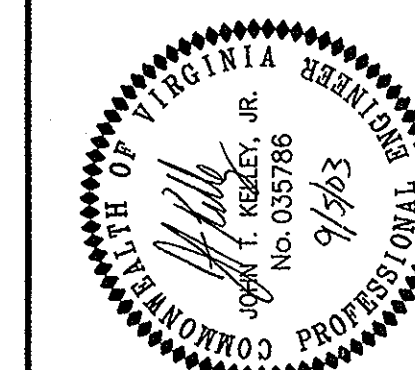
This study is based on examination of the vegetation, soils and hydrology and available reference documents. Field indicators can change with variations in hydrology and other factors. Therefore, our conclusions may vary significantly from future observation by others. This report assesses the potential for wetlands at the site at the time of our review and does not address conditions at a given time in the future.

Our review and report have been prepared in accordance with generally accepted guidelines for the conduct of a survey and reconnaissance for potential wetlands. We make no other warranties, either expressed or implied, and our report is not a recommendation to buy, sell or develop the property.

We offer no opinion and do not purport to opine on the possible application of various building codes, zoning ordinances, other land use or plating regulations, environmental or health laws and other similar statutes, laws, ordinances, code and regulations affecting the possible use and occupancy of the Property for the purpose for which it is being used, except as specifically provided above.

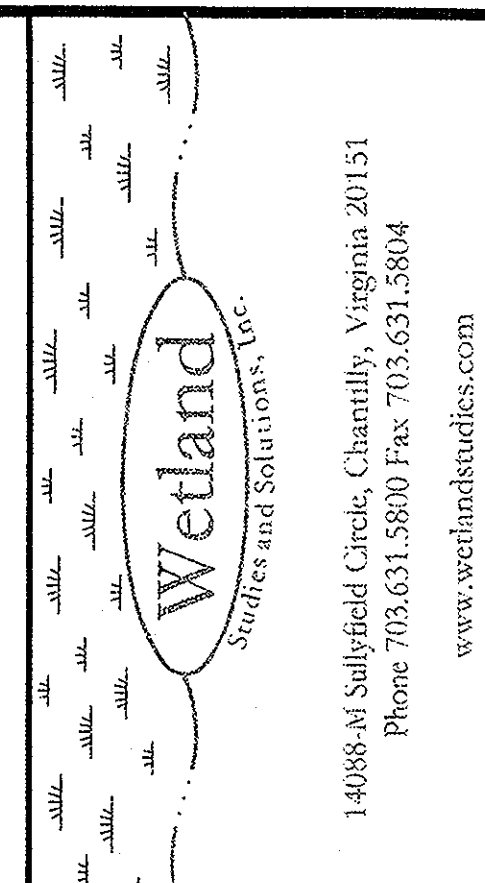
The foregoing opinions are based on applicable laws, ordinances, and regulations in effect as of the date hereof and should not be construed to be an opinion as to the matters set out herein should such laws, ordinances or regulations be modified, repealed or amended.

THOMPSON ROAD ASSEMBLAGE  
PRESERVATION AREA PLAN  
FAIRFAX COUNTY, VIRGINIA



REVISIONS		App. By	Rev. By
No.	Date		
	Description		

DATE: SEPTEMBER 2003 SCALE: N/A  
Horizontal Datum: N/A  
Vertical Datum: N/A  
Boundary and Topo Source: N/A  
Design Draft Approved  
BMW BMW JTK  
Sheet #  
3 of 11  
Computer File Name: LA5432CaddRPAPlan.dwg/RPA Plans



14088-M Sullyfield Circle, Chantilly, Virginia 20151  
Phone: 703.631.5800 Fax: 703.631.5804  
www.wetlandstudies.com  
Copyright © 2003, Wetland Studies and Solutions, Inc.

Peter T. Johnson  
March 14, 2003  
WSSI #5432  
Page 7 of 7

This report does not constitute a jurisdictional determination of Waters of the United States since such determinations must be verified by the U.S. Army Corps of Engineers or the Natural Resources Conservation Service (as applicable), and are subject to review by the U.S. Environmental Protection Agency; nor does it constitute a stream characterization determination since such determinations must be verified by the Commonwealth of Virginia's Department of Environmental Quality; nor does it constitute a resource protection area determination since such determinations must be verified by the Fairfax County Department of Public Works and Environmental Services.

Sincerely,  
WETLAND STUDIES AND SOLUTIONS, INC.

Benjamin N. Rosner  
Environmental Technician

Mark Headly, P.W.S.  
Vice President

Enclosure

bnw/L:\5432\admin\031403delrpt



May 20, 2003  
VIA FEDERAL EXPRESS

Peter T. Johnson  
Winchester Homes, Inc.  
6905 Rockledge Drive  
Suite 800  
Bethesda, MD 20817

Re: Wetland Delineation Report  
Harlow Property; Parcel F1 (± 5.0 acres)  
Fairfax County, Virginia  
WSSI #5432(F)

Dear Mr. Johnson:

Per your request, Wetland Studies and Solutions, Inc. (WSSI) has determined and survey-located the boundaries of the Jurisdictional Wetlands and other Waters of the U.S. (i.e., streams and ponds) on the above-referenced site. Our findings described in this letter report are to supplement the Thompson Road Assemblage wetland delineation performed by WSSI and described in a report dated March 14, 2003 (WSSI #5432). The Thompson Road Assemblage Attachment 1 has been revised to graphically depict (as a location map) the Harlow property findings.

**Site Description:**

The Harlow property is Parcel F1 of the Thompson Road Assemblage which is located on the north side of Thompson Road (Route 669) approximately 2000' southeast of its intersection with Tuckaway Drive in Fairfax County, Virginia. Exhibit 1 is a vicinity map that depicts the approximate location of the site and its general vicinity. The site is gently sloped with drainage trending to the northeast toward an unnamed stream that flows into Flatlick Branch. This topography can be seen in Exhibit 2 as well as in the background topography on Attachment 1.

**Methodology:**

This wetland delineation was performed pursuant to "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1 (1987 Manual). The Routine On-Site Wetland Determination Method for sites greater than 5 acres was used employing transects established for the Thompson Road Assemblage as depicted on Attachment 1. Field work for the Harlow property was performed by Laura Giese, Ph.D., P.W.S. May 15, 2003. Survey work was performed on May 16, 2003 by WSSI using conventional survey methods.

Prior to conducting field work, relevant background information was reviewed including site topography, the USGS Herndon, VA Quad Map (Exhibit 2), National Wetlands Inventory Map (Exhibit 3), and Fairfax County Soils Map data (Exhibit 4). The Fairfax County Resource Protection Area (RPA) Map was also reviewed, an excerpt of which is provided in Exhibit 5. Aerial photographs of the site, including a 1994 USGS Color Infrared Orthophoto (Exhibit 6), 1998 Eyemap Imagery (Exhibit 7) provided

14088-M Sullyfield Circle, Chantilly, Virginia 20151  
Phone 703.631.5800 Fax 703.631.5804

Web Page: <http://www.wetlandstudies.com> E-mail: [contactus@wetlandstudies.com](mailto:contactus@wetlandstudies.com)

Peter T. Johnson  
May 20, 2003  
WSSI #5432  
Page 2 of 4

by VARGIS, LLC, 2000 DigiAir Imagery (Exhibit 8) and 2001 AirPhotoUSA Imagery (Exhibit 9) were also examined to investigate whether signatures indicative of wetlands are found on the site.

Samples of vegetation, soils and hydrology were taken at representative locations in the wetlands and adjacent non-wetland areas to determine the wetland boundaries. Routine Wetland Determination data forms describing representative plant communities are included as Exhibit 10. Photographs of the site are included in Exhibit 11. The surveyed locations of delineated wetlands, other Waters of the U.S., data points, and the approximate locations of photographs are depicted on Attachment 1.

Stream assessments were performed during the Thompson Road Assemblage wetland delineation.

**Findings:**

In WSSI's opinion, Jurisdictional Wetlands and other Waters of the U.S. (i.e. streams and a pond) are present on this site. Our specific findings can be summarized as follows:

- A. Palustrine emergent (PEM) wetlands, which are dominated by herbaceous vegetation, are present in the northeastern portion of the site, along the fringe of an unnamed perennial stream and downslope of a pond embankment. Data Point #2 (Exhibit 11, Photo #13) characterizes this wetland which has hydrology primarily supported by groundwater and augmented by surface flow associated with the stream.
- B. In addition to wetlands, other Jurisdictional Waters of the U.S. (i.e., streams and ponds) are present on the site. An unnamed perennial stream, depicted with flags BB1-BB10 and CC5-CC10, flows from the pond in the northeastern portion of the site. This stream possesses a well-defined bed and bank with width ranging from 3-8'. This stream contained less than one inch (1") flow, with 6" deep pools during the site visit (Exhibit 11, Photo #14).
- C. The fringe of a large pond is present along the northeastern edge of the site (Exhibit 11, Photo #15). This pond was flagged with the DD flagging series.
- D. A small pond is located in the northeastern portion of the Harlow Property (Exhibit 11, Photo #16). Despite the close proximity of this pond to the stream, it is not situated in-line with a stream system and does not have any surface or channelized connection with the stream. This pond appears to have been excavated in a swale that may have not satisfied all three parameters for a jurisdictional feature prior to construction of the pond. The out flow from a 12" pipe immediately enters a hole in the ground (Exhibit 11, Photo #7) and does not discharge directly into the stream, with the potential exception during elevated flow rates. According to the Commentary for CER Section 328.3, in the Final Rule for Regulatory Programs of the U.S. Army Corps of Engineers (Fed. Reg. 51 (219): 41217), "Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing" are not generally considered Waters of the U.S. by the U.S. Army Corps of Engineers (COE). We will request confirmation from the COE that this water feature is not a jurisdictional Waters of the U.S.

Peter T. Johnson  
May 20, 2003  
WSSI #5432  
Page 3 of 4

E. Other areas on the site were investigated for the presence of jurisdictional features, but were determined not to be Jurisdictional Wetlands or other Waters of the U.S. These areas lack either an ordinary high water mark and a defined bed and bank (and are therefore not jurisdictional streams) or fail to satisfy all three parameters (hydrophytic vegetation, wetland hydrology, and hydric soils) for a Jurisdictional Wetland. Data Point #1 (Exhibit 11, Photo #18) characterizes an upland swale adjacent to the small pond in the northeastern part of the site. While there was evidence of hydrology, due to significant recent precipitation events and a very wet spring, and hydric red parent material soils, the data point lacked hydrophytic vegetation; thus, the area is not a Jurisdictional Wetland.

F. The remainder of the site is dominated by upland. Much of the site consists of open space (maintained lawns and gardens) associated with the Harlow residence and accompanying buildings (Exhibit 11, Photo #18). These areas contain no Jurisdictional Wetlands or other Waters of the U.S.

G. Permits from the U.S. Army Corps of Engineers (COE) and Virginia's Department of Environmental Quality (DEQ) will be required to impact wetlands on this site. The other "Waters of the U.S." in the study area (i.e., the streams and pond) are also regulated by Section 401 and 404 of the Clean Water Act and cannot be disturbed without the appropriate permits, which may include permits from state and local agencies, as well as the COE, depending upon the extent and type of impacts.

H. The Fairfax County Chesapeake Bay Preservation Areas Interim Guidance (RPA) Map (Exhibit 5) depicts new (field) RPA mapped on the Harlow property based on proposed changes to the Chesapeake Bay Ordinance that are due to take effect May-December 2003. Based on our fieldwork, the limits of the RPA on the site appear to be similar to the RPA boundary shown on the Fairfax County Chesapeake Bay Preservation Areas Interim Guidance Map (Exhibit 5) as depicted on Attachment 1.

RPA is present on the site along the unnamed stream that flows from the large pond in the northeastern part of the site, since as stated in section D of the Thompson Road Assemblage report, the unnamed stream was determined to be perennial by the Fairfax County DPWES method. Therefore, according to CBLAB's adopted amendments this stream qualifies as a RPA core component. The non-tidal wetlands that are connected by surface flow to the perennial stream thus qualify as RPA core components. Therefore the extent of the RPA is the 100' buffer from the stream or adjacent wetlands, or to the limits of the major floodplain, if one is present, whichever is greater.

**Summary:**

In WSSI's opinion, Jurisdictional Wetlands or other Waters of the U.S. are present within the study area, based on our site observations as described in this letter. We have forwarded this letter with revised location map to the U.S. Army Corps of Engineers for a Jurisdictional Determination that will verify the extent of Jurisdictional Wetlands located on the site. If you have any questions, please call our office at (703) 631-5800.

**Limitations:**

This study is based on examination of the vegetation, soils and hydrology and available reference documents. Field indicators can change with variations in hydrology and other factors. Therefore, our conclusions may vary significantly from future observation by

Peter T. Johnson  
May 20, 2003  
WSSI #5432  
Page 4 of 4

others. This report assesses the potential for wetlands at the site at the time of our review and does not address conditions at a given time in the future.

Our review and report have been prepared in accordance with generally accepted guidelines for the conduct of a survey and reconnaissance for potential wetlands. We make no other warranties, either expressed or implied, and our report is not a recommendation to buy, sell or develop the property.

We offer no opinion and do not purport to opine on the possible application of various building codes, zoning ordinances, other land use or plating regulations, environmental or health laws and other similar statutes, laws, ordinances, code and regulations affecting the possible use and occupancy of the property for the purpose for which it is being used, except as specifically provided above.

The foregoing opinions are based on applicable laws, ordinances, and regulations in effect as of the date hereof and should not be construed to be an opinion as to the matters set out herein should such laws, ordinances or regulations be modified, repealed or amended.

This report does not constitute a jurisdictional determination of Waters of the United States since such determinations must be verified by the U.S. Army Corps of Engineers or the Natural Resources Conservation Service (as applicable), and are subject to review by the U.S. Environmental Protection Agency; nor does it constitute a stream characterization determination since such determinations must be verified by the Commonwealth of Virginia's Department of Environmental Quality; nor does it constitute a resource protection area determination since such determinations must be verified by the Fairfax County Department of Public Works and Environmental Services.

Sincerely,  
WETLAND STUDIES AND SOLUTIONS, INC.

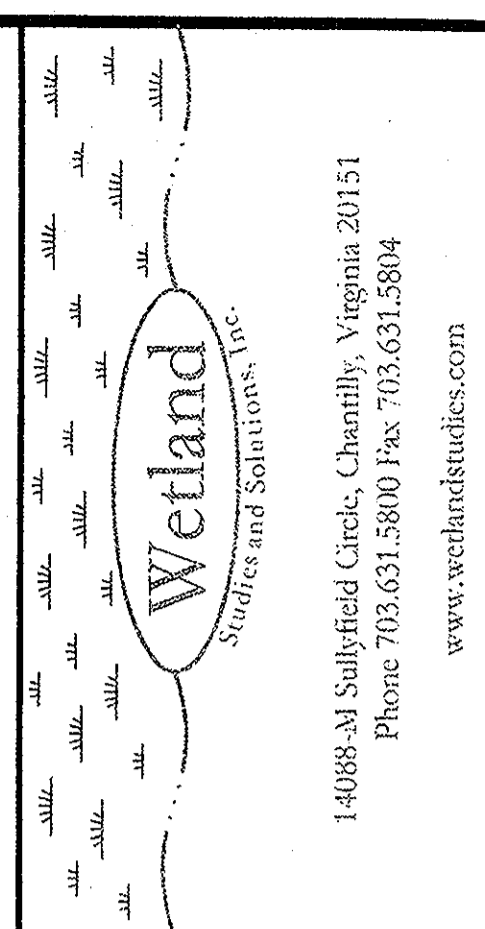
Laura A. B. Giese, PhD, CF, PWS  
Senior Environmental Scientist

Mark W. Headly, P.W.S.  
Vice President

Enclosure

labg/L:\5432\admin\051903delrpt-Harlow

Computer File Name: L:\5432\Cadd\RPAPlan\dwg\RPA Plans



THOMPSON ROAD ASSEMBLAGE  
PRESERVATION AREA PLAN  
FAIRFAX COUNTY, VIRGINIA  
WETLAND DELINEATION REPORT #2

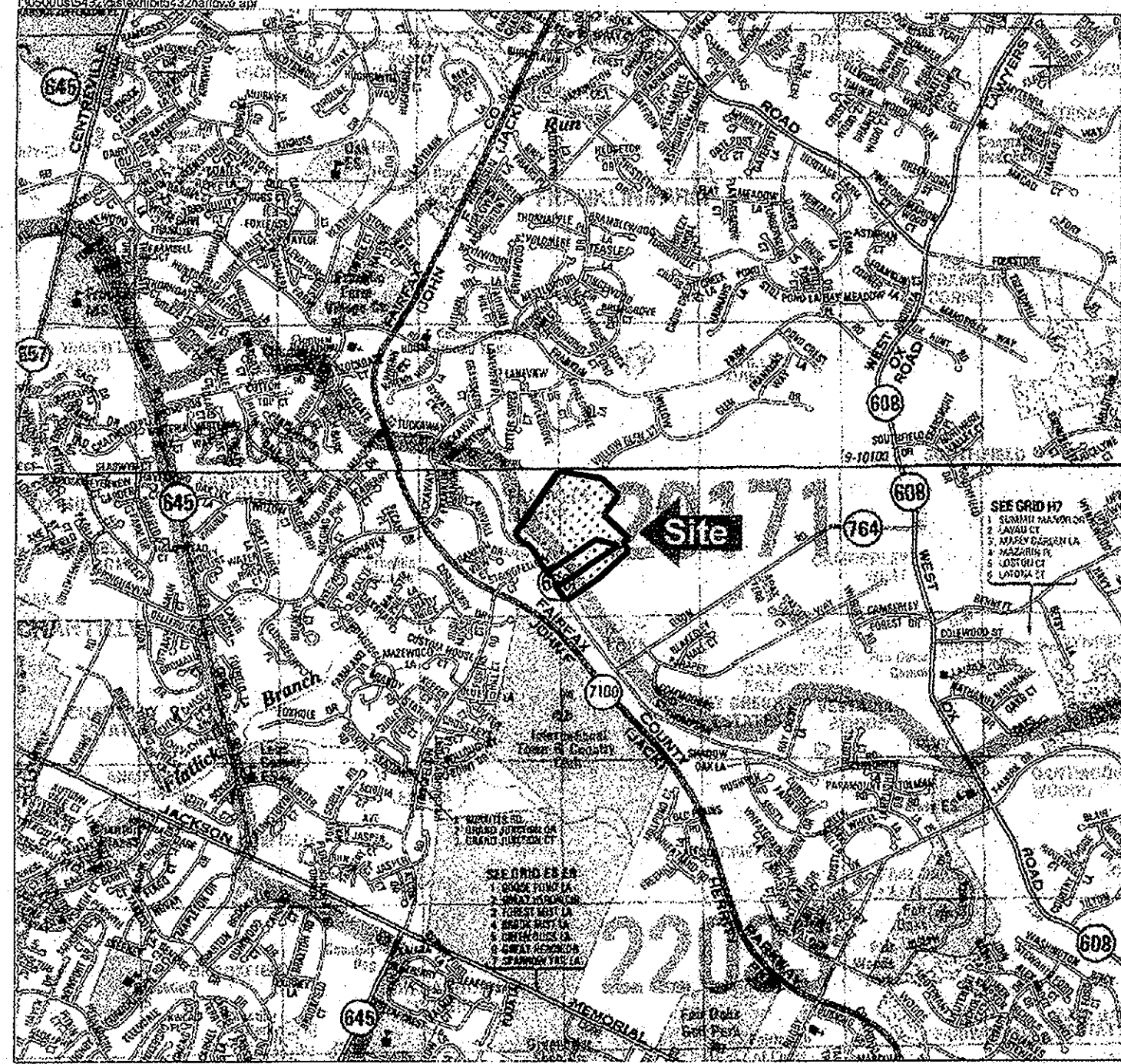


REVISIONS		App. By	Rev. By
No.	Description		

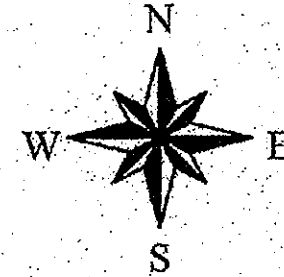
Horizontal Datum: N/A  
Vertical Datum: N/A  
Boundary and Topo Source: N/A  
Design: BMW Draft: BMW Approved: JTK  
Sheet #: 4 of 11  
DATE: SEPTEMBER 2003 SCALE: N/A

14088-M Sullyfield Circle, Chantilly, Virginia 20151  
Phone 703.631.5800 Fax 703.631.5804  
www.wetlandstudies.com

Copyright © 2003 Wetland Studies and Solutions, Inc.

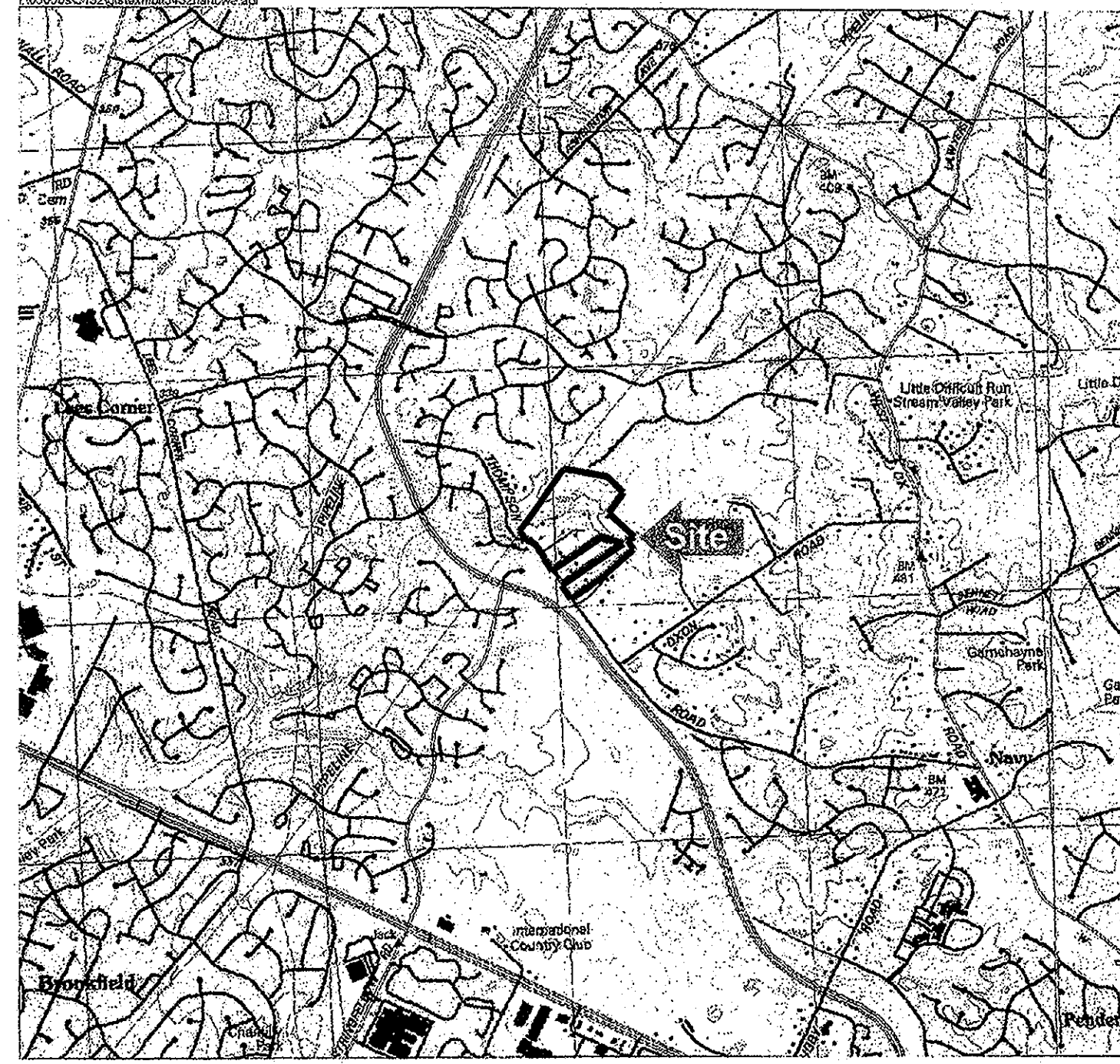


Vicinity Map  
Thompson Road Assemblage--Harlow  
WSSI #5432  
Scale: 1" = 2000'

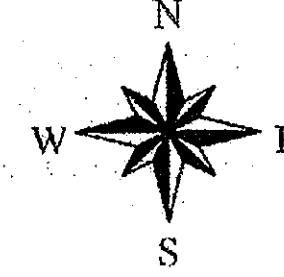


Wetland Studies and Solutions, Inc.

Exhibit 1



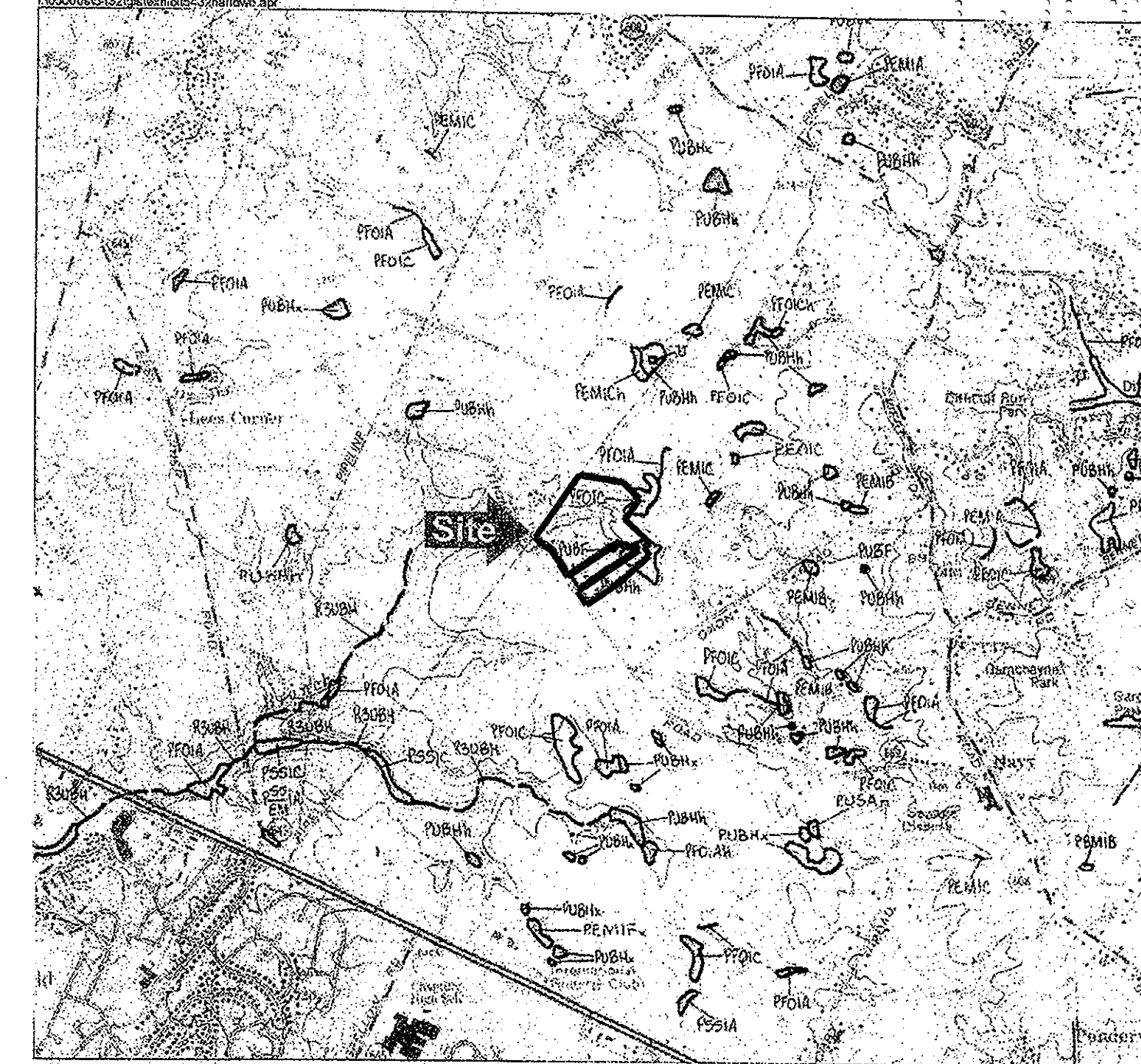
USGS Quad Map  
Herndon, VA 1994  
Thompson Road Assemblage--Harlow  
WSSI #5432  
Scale: 1" = 2000'



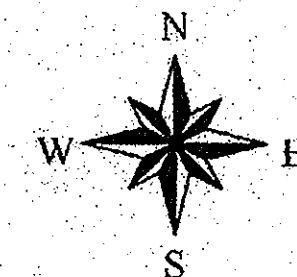
Latitude: 38°53'57"  
Longitude: 77°23'51"  
Hydrologic Unit Code (HUC): 02070010  
Stream Class: III  
Name of Watershed: Flatlick Branch

Wetland Studies and Solutions, Inc.

Exhibit 2

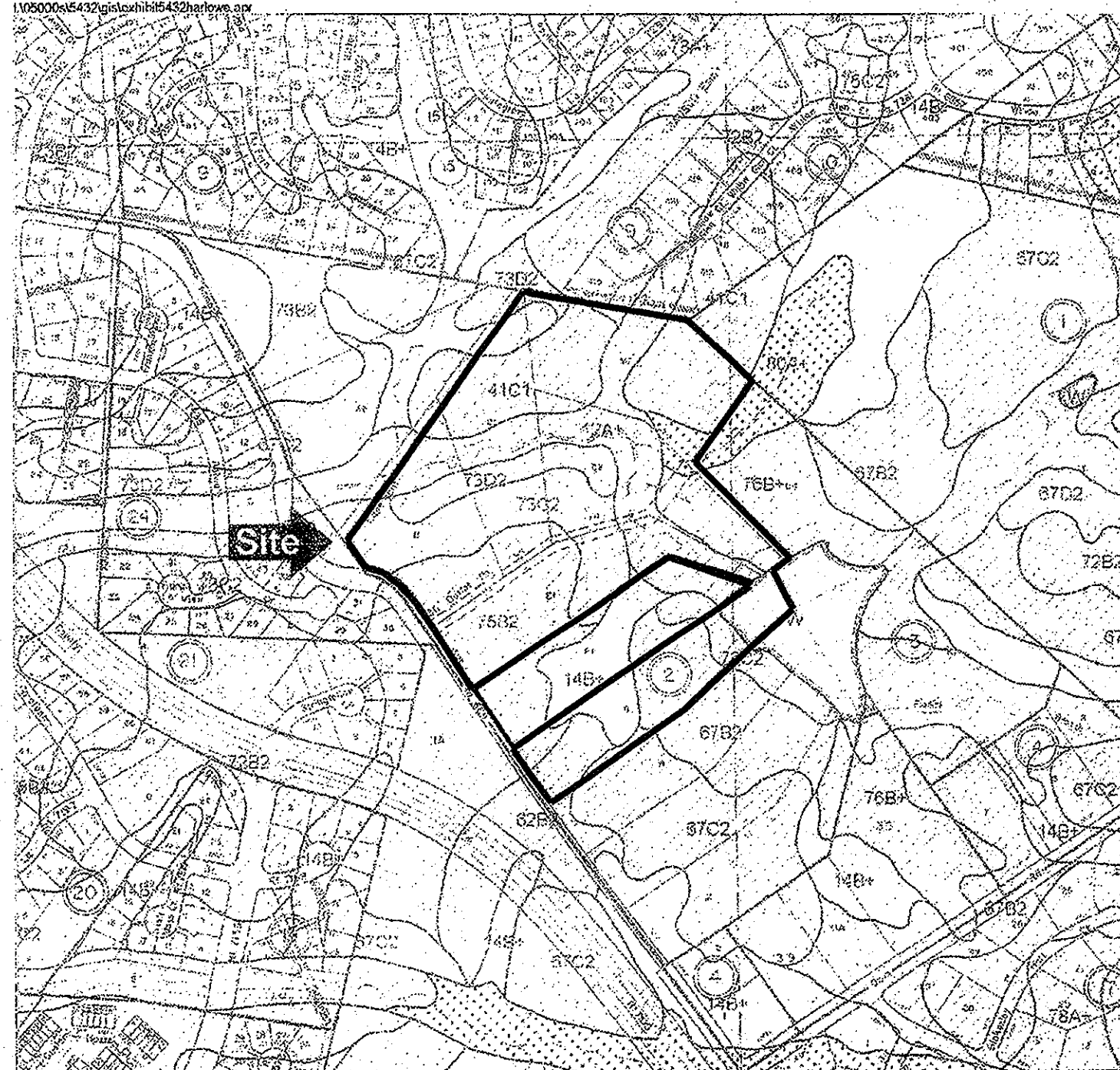


National Wetlands Inventory Map  
Herndon, VA 1995  
Thompson Road Assemblage--Harlow  
WSSI #5432  
Scale: 1" = 2000'

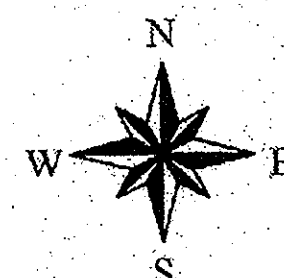


Wetland Studies and Solutions, Inc.

Exhibit 3



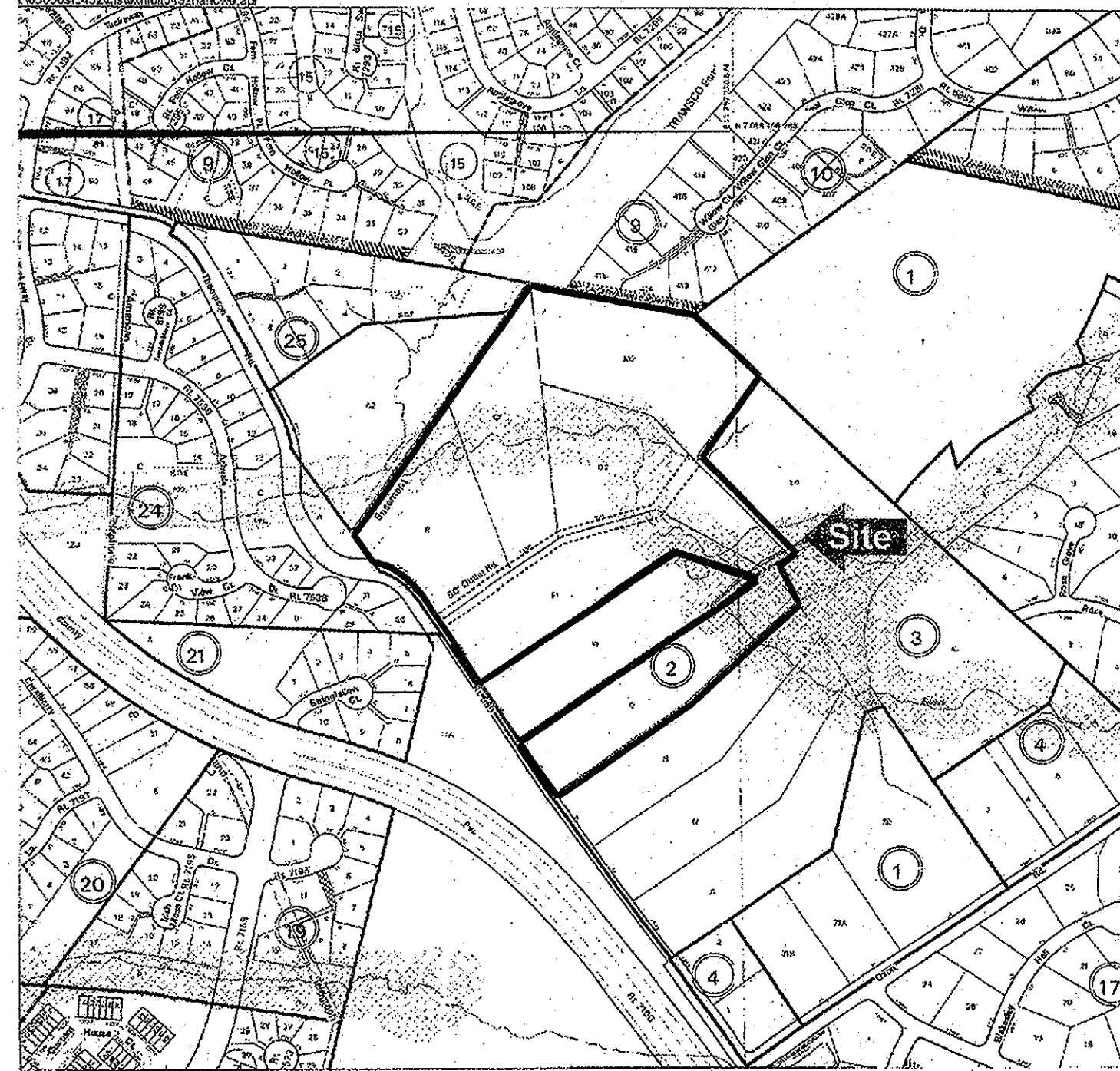
Soils Map - Fairfax County Digital Data  
Thompson Road Assemblage--Harlow  
WSSI #5432  
Scale: 1" = 500'



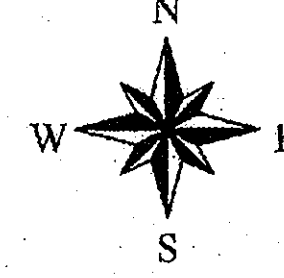
Hydric Soils  
Soils with Hydric Inclusions  
Non-hydric Soils

Wetland Studies and Solutions, Inc.

Exhibit 4



RPA Map - Fairfax County Digital Data  
Thompson Road Assemblage--Harlow  
WSSI #5432  
Scale: 1" = 500'



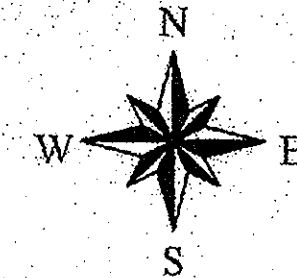
CRENSHAW BAY PRESERVATION AREAS  
INTERIM GUIDANCE MAP  
LEGEND  
Existing RPA  
New RPA - Final  
New RPA - Draft  
Revised RPA - Final (2004)  
Revised RPA - Draft (2004)  
Revised RPA - Draft (2004)

Wetland Studies and Solutions, Inc.

Exhibit 5

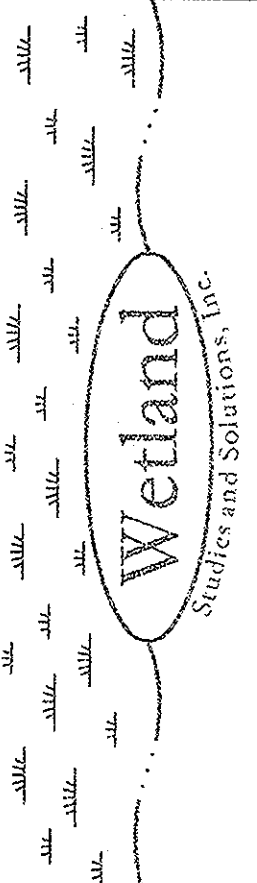


USGS Color Infrared Orthophoto  
Thompson Road Assemblage--Harlow  
WSSI #5432  
Scale: 1" = 500'



Wetland Studies and Solutions, Inc.

Exhibit 6



14088-M Sullyfield Circle, Chantilly, Virginia 20151  
Phone 703.631.5800 Fax 703.631.5804  
www.wetlandstudies.com

THOMPSON ROAD ASSEMBLAGE  
PRESERVATION AREA PLAN  
FAIRFAX COUNTY, VIRGINIA

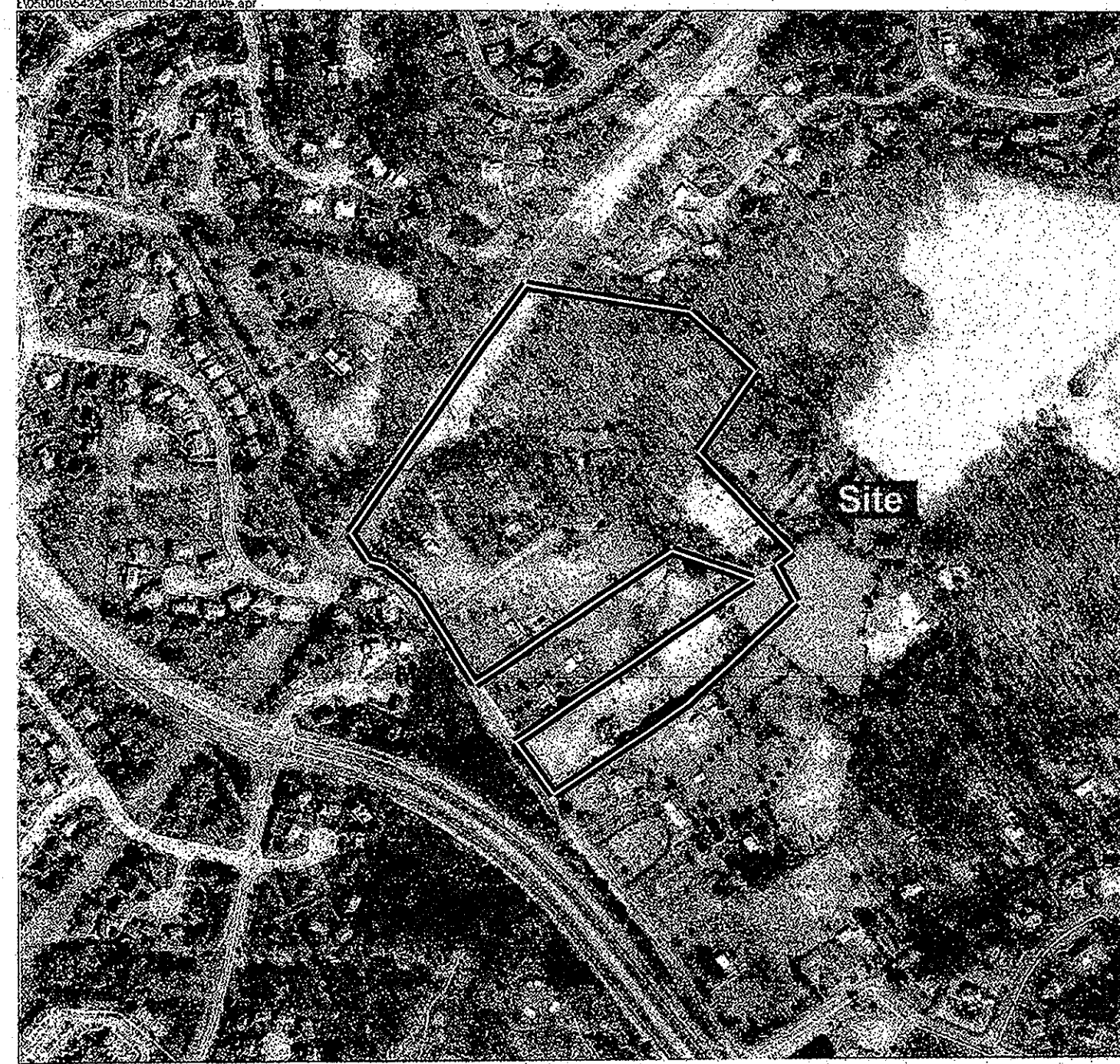
WETLAND DELINEATION EXHIBITS

Copyright © 2003 Wetland Studies and Solutions, Inc.

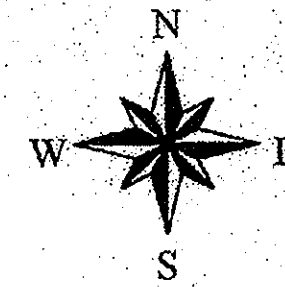


REVISIONS		Rev. App. By	Date
No.	Description		

Horizontal Datum: N/A  
Vertical Datum: N/A  
Boundary and Topo Source: N/A  
Design: BMW, Draft: BMW, Approved: JTK  
Sheet # 5 of 11  
Computer File Name: L:\5432\Cadd\RPAPlan\dwg\RPAPlan.dwg



1998 Eyemap Imagery  
Thompson Road Assemblage--Harlow  
WSSI #5432  
Scale: 1" = 500'

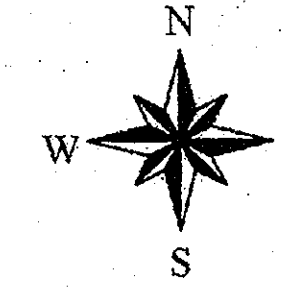


1998 Imagery provided by VARGIS, LLC 1-800-834-0225  
Wetland Studies and Solutions, Inc.

Exhibit 7

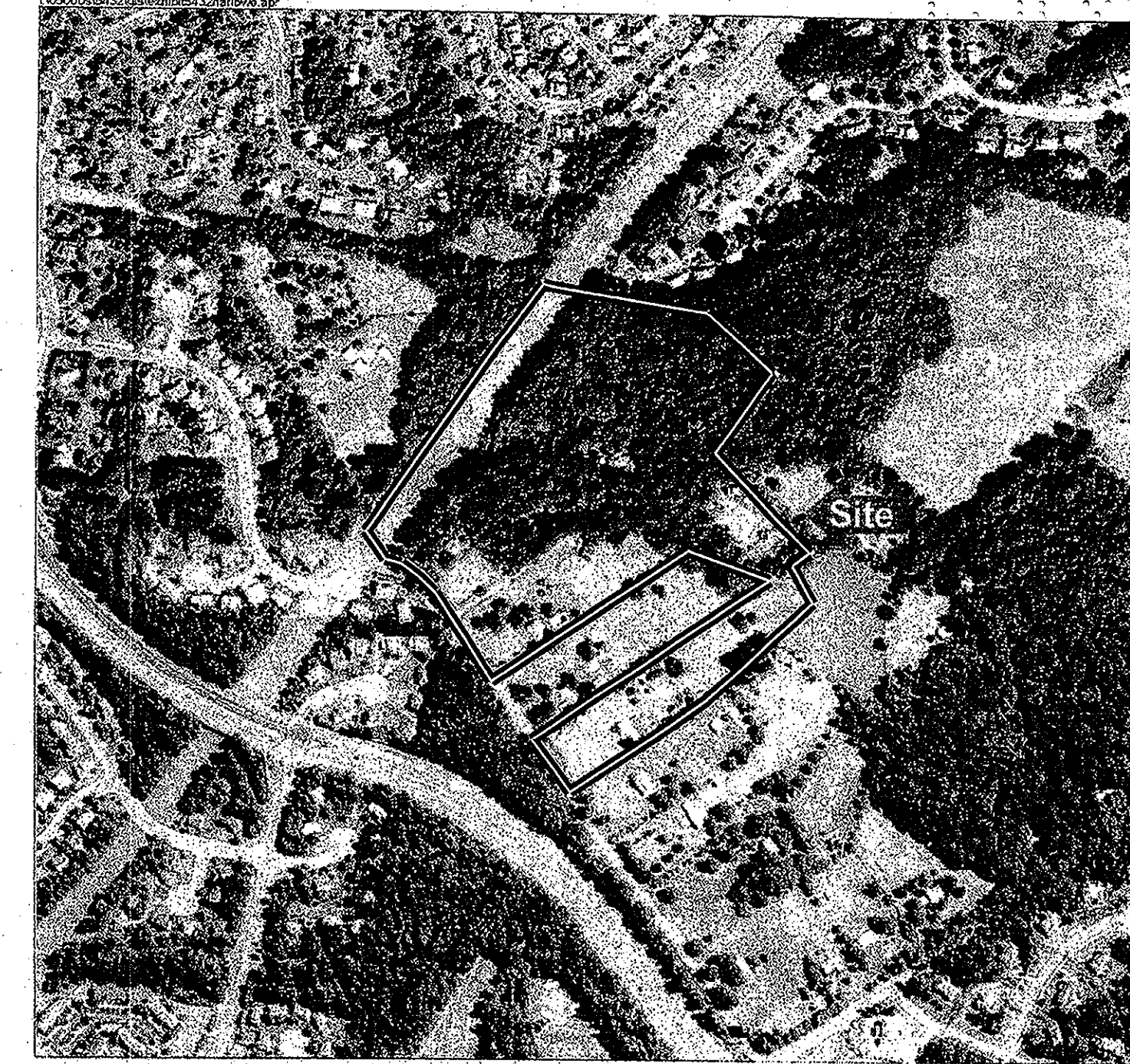


2000 Dig/Air Imagery  
Thompson Road Assemblage--Harlow  
WSSI #5432  
Scale: 1" = 500'

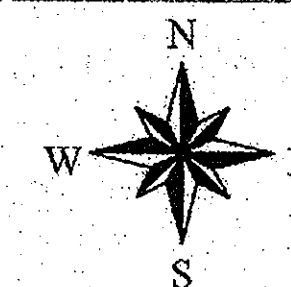


Wetland Studies and Solutions, Inc.

Exhibit 8



2001 AirPhotoUSA Imagery  
Thompson Road Assemblage--Harlow  
WSSI #5432  
Scale: 1" = 500'



Wetland Studies and Solutions, Inc.

Exhibit 9

THOMPSON ROAD ASSEMBLAGE  
WSSI #5432  
EXHIBIT 11 - SITE PHOTOGRAPHS



#1. Looking southwest at a palustrine forested wetland along the perennial stream in the western portion of the site. Hydrology is primarily supported by groundwater.



#2. Looking northwest (downstream) at the perennial stream in the western portion of the site which flows west through the site.

THOMPSON ROAD ASSEMBLAGE  
WSSI #5432  
EXHIBIT 11 - SITE PHOTOGRAPHS



#3. Looking northeast at RPA Cutoff #1 in the northeast portion of the site, where an intermittent stream flows into the unnamed perennial stream.



#4. Looking south at Data Point #3 which describes the riparian forested area in the northeast portion of the site. While hydrophytic vegetation was present, hydric soils and evidence of hydrology were lacking, thus, this area is not a Jurisdictional Wetland.

THOMPSON ROAD ASSEMBLAGE  
WSSI #5432  
EXHIBIT 11 - SITE PHOTOGRAPHS



#5. Looking east along a stream in the eastern portion of the site. The stream ranged from 2-4' wide with less than 1/2" of flow during our site visit. The Fairfax County stream assessment method indicated that this stream is likely intermittent.



#6. Looking north-northeast at Data Point #4 which describes an upland swale in the eastern portion of the site. While there was evidence of hydrology and hydric soils, hydrophytic vegetation was not dominant, thus the area is not a Jurisdictional Wetland.



REVISIONS		App. By	By
No.	Date	Description	

DATE: SEPTEMBER 2003 SCALE: N/A

THOMPSON ROAD ASSEMBLAGE  
WSSI #5432  
EXHIBIT 11 - SITE PHOTOGRAPHS



#7. Looking east at RPA Cutoff #2 in the eastern portion of the site. Above this point, where the stream is joined by outfall from the large pond, the stream scored as intermittent with the Fairfax County stream assessment method and thus, is not a RPA-core component.



#8. Looking northeast at Data Point #1 which describes the palustrine emergent wetland in the eastern portion of the site. Hydrology is primarily supported by groundwater and augmented by surface flow associated with the stream.

THOMPSON ROAD ASSEMBLAGE  
WSSI #5432  
EXHIBIT 11 - SITE PHOTOGRAPHS



#9. Looking northwest at Data Point #2 which describes an upland swale in the eastern portion of the site. While there was evidence of hydrology, the data point lacked hydric soils and hydrophytic vegetation, therefore, the area is not a Jurisdictional Wetland.



#10. Looking southwest at a palustrine scrub/shrub wetland in the eastern portion of the site. Hydrology is primarily supported by groundwater.

THOMPSON ROAD ASSEMBLAGE  
WSSI #5432  
EXHIBIT 11 - SITE PHOTOGRAPHS



#11. Looking southwest (downstream) at a stream in the eastern portion of the site. The stream ranged from 2-4' wide with approximately 1/2" of flow during our site visit. The Fairfax County stream assessment method indicated that this stream is likely intermittent.



#12. Looking southwest at a large pond in the eastern portion of the site. Outflow from this pond feeds the perennial stream which flows north and west across the site.

HARLOW PROPERTY - PARCEL F1  
WSSI #5432 (F)  
EXHIBIT 11 - SITE PHOTOGRAPHS



#13. Looking northeast at Data Point #6 which describes a palustrine emergent (PEM) wetland in the northeastern portion of the site. Hydrology is primarily supported by groundwater.



#14. Looking southwest (downstream) at the perennial stream (per Fairfax County stream assessment method) in the northeastern portion of the site. Note the PEM wetland fringe.

HARLOW PROPERTY - PARCEL F1  
WSSI #5432 (F)  
EXHIBIT 11 - SITE PHOTOGRAPHS



#15. Looking southwest at the edge of the large pond in the northeastern part of the site.



#16. Looking east at the small pond in the northeastern part of the site. This pond was likely excavated in uplands and therefore non-jurisdictional (subject to COE concurrence).

HARLOW PROPERTY - PARCEL F1  
WSSI #5432 (F)  
EXHIBIT 11 - SITE PHOTOGRAPHS



#17. Looking south-southwest at the 12" outfall pipe from the small pond. Note that the flow immediately enters the ground and does not create a channel.



#18. Looking south-southeast at Data Point #5 which describes an upland swale in the northeastern portion of the site. While there was evidence of hydrology and hydric soils, hydrophytic vegetation was not dominant, thus the area is not a Jurisdictional Wetland.

Wetland  
Justice and Solutions, Inc.  
14088-A1 Sullyfield Circle, Chantilly, Virginia 20151  
Phone 703.651.5600 Fax 703.651.5604  
www.wetlandjustice.com

THOMPSON ROAD ASSEMBLAGE  
PRESERVATION AREA PLAN  
FAIRFAX COUNTY, VIRGINIA  
WETLAND DELINEATION PHOTOS



REVISIONS		App. By	By
No.	Date	Description	

DATE: SEPTEMBER 2003 SCALE: N/A

Horizontal Datum: N/A  
Vertical Datum: N/A  
Boundary and Topo Source: N/A

Design	Draft	Approved
BMW	BMW	JTK

Sheet #  
7 of 11

Computer File Name:  
L:\S432\Cadd\RPAPlan\dwg\RPAPlan.dwg

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
*(1987 COE Wetlands Delineation Manual)*

Project/Site: Thompson Road Assemblage Project No: 5432 Date: 7-Mar-2003  
 Applicant/Owner: Winchester Homes Inc. County: Fairfax  
 Investigators: Laura Giese, Benjamin Rosner State: Virginia  
 Plot ID: 1

Do Normal Circumstances exist on the site?  Yes  No  
 Is the site significantly disturbed (Atypical Situation)?  Yes  No  
 Is the area a potential Problem Area?  Yes  No  
 (If needed, explain on the reverse side)

Community ID: Palustrine Emergent Wetland  
 Transect ID: SE of D  
 Field Location: 30' south of D73

**VEGETATION** (USFWS Region No. 1)

Dominant Plant Species(Latin/Common)	Stratum	Indicator	Plant Species(Latin/Common)	Stratum	Indicator
<i>Boehmeria cylindrica</i>	Herb	FACW+	<i>Asclepias incarnata</i>	Herb	OBL
False-Nettle, Small-Spike			Milkweed, Swamp		
<i>Mimulus ringens</i>	Herb	OBL	<i>Epilobium coloratum</i>	Herb	OBL
Monkey-Flower, Alleghany			Willow-Herb, Purple-Leaf		
<i>Juncus effusus</i>	Herb	FACW+	<i>Polygonum antiochium</i>	Herb	OBL
Rush, Soft			Tearthumb, Hairbert-Leaf		

Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 6/6 = 100.00%  
 FAC Neutral: 6/6 = 100.00%  
 Numeric Index: 8/6 = 1.33

Remarks: The percentage of plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

**HYDROLOGY**

NO Recorded Data(Describe in Remarks):  
 N/A Stream, Lake or Tide Gauge  
 N/A Aerial Photographs  
 N/A Other  
 YES No Recorded Data

Field Observations

Depth of Surface Water: N/A (in.)  
 Depth to Free Water in Pit: = 0 (in.)  
 Depth to Saturated Soil: = 0 (in.)

Remarks: Primary and secondary indicators of wetland hydrology were observed during our site visit.

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
*(1987 COE Wetlands Delineation Manual)*

Project/Site: Thompson Road Assemblage Project No: 5432 Date: 7-Mar-2003  
 Applicant/Owner: Winchester Homes Inc. County: Fairfax  
 Investigators: Laura Giese, Benjamin Rosner State: Virginia  
 Plot ID: 2

Do Normal Circumstances exist on the site?  Yes  No  
 Is the site significantly disturbed (Atypical Situation)?  Yes  No  
 Is the area a potential Problem Area?  Yes  No  
 (If needed, explain on the reverse side)

Community ID: Upland Swale  
 Transect ID: SE of D  
 Field Location: 10' north of D73

**VEGETATION** (USFWS Region No. 1)

Dominant Plant Species(Latin/Common)	Stratum	Indicator	Plant Species(Latin/Common)	Stratum	Indicator
<i>Apocynum cannabinum</i>	Herb	FACU	<i>Asclepias incarnata</i>	Herb	OBL
Dogbane, Clasp-Leaf			Milkweed, Swamp		
<i>Festuca pratensis</i>	Herb	FACU	<i>Mimulus ringens</i>	Herb	OBL
Fescue, Meadow			Monkey-Flower, Alleghany		
<i>Daucus carota</i>	Herb	OBL			
Queen Anne's Lace					

Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 2/5 = 40.00%  
 FAC Neutral: 2/5 = 40.00%  
 Numeric Index: 15/5 = 3.00

Remarks: The percentage of plant species rated OBL, FACW, or FAC is less than 50%; therefore, the vegetation is upland dominant.

**HYDROLOGY**

NO Recorded Data(Describe in Remarks):  
 N/A Stream, Lake or Tide Gauge  
 N/A Aerial Photographs  
 N/A Other  
 YES No Recorded Data

Field Observations

Depth of Surface Water: N/A (in.)  
 Depth to Free Water in Pit: = 5 (in.)  
 Depth to Saturated Soil: = 1 (in.)

Remarks: Primary indicators of wetland hydrology were observed during our site visit.

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
*(1987 COE Wetlands Delineation Manual)*

Project/Site: Thompson Road Assemblage Project No: 5432 Date: 12-Mar-2003  
 Applicant/Owner: Winchester Homes Inc. County: Fairfax  
 Investigators: Laura Giese, Benjamin Rosner State: Virginia  
 Plot ID: 3

Do Normal Circumstances exist on the site?  Yes  No  
 Is the site significantly disturbed (Atypical Situation)?  Yes  No  
 Is the area a potential Problem Area?  Yes  No  
 (If needed, explain on the reverse side)

Community ID: Riparian Forest  
 Transect ID: Btw C+D  
 Field Location: 7' west of C2

**VEGETATION** (USFWS Region No. 1)

Dominant Plant Species(Latin/Common)	Stratum	Indicator	Plant Species(Latin/Common)	Stratum	Indicator
<i>Ulmus americana</i>	Tree	FACW-	<i>Smilax rotundifolia</i>	Vine	FAC
Elm, American			Greenbrier, Common		
<i>Ulmus americana</i>	Shrub	FACW-	<i>Lonicera japonica</i>	Herb	FAC-
Elm, American			Honeysuckle, Japanese		
<i>Nyssa sylvatica</i>	Shrub	FAC			
Gum, Black					

Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 4/5 = 80.00%  
 FAC Neutral: 2/2 = 100.00%  
 Numeric Index: 13/5 = 2.60

Remarks: The percentage of plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

**HYDROLOGY**

NO Recorded Data(Describe in Remarks):  
 N/A Stream, Lake or Tide Gauge  
 N/A Aerial Photographs  
 N/A Other  
 YES No Recorded Data

Field Observations

Depth of Surface Water: N/A (in.)  
 Depth to Free Water in Pit: > 18 (in.)  
 Depth to Saturated Soil: > 18 (in.)

Remarks: Only one secondary indicator of wetland hydrology was observed during our site visit. Because two secondary indicators are required (in the absence of any primary indicators) to establish wetland hydrology, wetland hydrology was determined to be absent from this data point location.

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
*(1987 COE Wetlands Delineation Manual)*

Project/Site: Thompson Road Assemblage Project No: 5432 Date: 7-Mar-2003  
 Applicant/Owner: Winchester Homes Inc. County: Fairfax  
 Investigators: Laura Giese, Benjamin Rosner State: Virginia  
 Plot ID: 1

**SOILS**

Map Unit Name (Series and Phase): Rowland silt loam  
 Map Symbol: 12 Drainage Class: well drained  
 Taxonomy (Subgroup): Fluventic Dystrachrepts  
 Profile Description: Mapped Hydric Inclusion? BOWMANVILLE  
 Field Observations Confirm Mapped Type? Yes  No

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Color (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-2	A	10YR4/2	10YR4/6	Few Distinct	Silt loam
2-9	E	10YR5/2	10YR4/6	Common Distinct	Clay loam, Concretions
9-18	B	10YR5/2	10YR5/6	Few Distinct	Clay loam, Concretions
			5YR4/4	Common Prominent	Sandy clay loam, few manganese concretions

Hydric Soil Indicators:  
 NO Histosol  
 NO Histic Epipedon  
 NO Sulfidic Odor  
 NO Aquic Moisture Regime  
 NO Reducing Conditions  
 YES Gleyed or Low Chroma Colors

YES Concretions  
 NO High Organic Content in Surface Layer in Sandy Soils  
 NO Organic Streaking in Sandy Soils  
 NO Listed on Local Hydric Soils List  
 NO Listed on National Hydric Soils List  
 NO Other (Explain in Remarks)

Remarks: The low-chroma matrix with high-chroma mottles at a depth of 10' below the surface indicates that the soil is hydric.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?  Yes  No  
 Wetland Hydrology Present?  Yes  No  
 Hydric Soils Present?  Yes  No

Is the Sampling Point within the Wetland?  Yes  No

Remarks: All three wetland criteria were satisfied at this data point, which characterizes the palustrine emergent wetland adjacent to an intermittent stream in the eastern portion of the site.

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
*(1987 COE Wetlands Delineation Manual)*

Project/Site: Thompson Road Assemblage Project No: 5432 Date: 7-Mar-2003  
 Applicant/Owner: Winchester Homes Inc. County: Fairfax  
 Investigators: Laura Giese, Benjamin Rosner State: Virginia  
 Plot ID: 2

**SOILS**

Map Unit Name (Series and Phase): Rowland silt loam  
 Map Symbol: 12 Drainage Class: well drained  
 Taxonomy (Subgroup): Fluventic Dystrachrepts  
 Profile Description: Mapped Hydric Inclusion? BOWMANVILLE  
 Field Observations Confirm Mapped Type? Yes  No

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Color (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-4	A	10YR4/2	10YR4/6	Few Distinct	Silty clay loam, few concretions
4-8	E	2.5Y5/3	2.5Y6/1	Few Faint	Clay loam
8-15	B	2.5Y6/4	10YR5/6	Common Distinct	Sandy clay

Hydric Soil Indicators:  
 NO Histosol  
 NO Histic Epipedon  
 NO Sulfidic Odor  
 NO Aquic Moisture Regime  
 NO Reducing Conditions  
 YES Gleyed or Low Chroma Colors

NO Concretions  
 NO High Organic Content in Surface Layer in Sandy Soils  
 NO Organic Streaking in Sandy Soils  
 NO Listed on Local Hydric Soils List  
 NO Listed on National Hydric Soils List  
 NO Other (Explain in Remarks)

Remarks: The soil lacks a low-chroma matrix (i.e., chroma 1, or chroma 2 with high-chroma mottles) at 10' or immediately below the A horizon, and no other hydric soil indicators were observed. Therefore, the soil at this data point is not hydric. Auger refusal on rock at 15'.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?  Yes  No  
 Wetland Hydrology Present?  Yes  No  
 Hydric Soils Present?  Yes  No

Is the Sampling Point within the Wetland?  Yes  No

Remarks: Only one of the three wetland criteria was satisfied at this data point, which characterizes the upland swale adjacent to a palustrine emergent wetland in the eastern portion of the site.

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
*(1987 COE Wetlands Delineation Manual)*

Project/Site: Thompson Road Assemblage Project No: 5432 Date: 12-Mar-2003  
 Applicant/Owner: Winchester Homes Inc. County: Fairfax  
 Investigators: Laura Giese, Benjamin Rosner State: Virginia  
 Plot ID: 3

**SOILS**

Map Unit Name (Series and Phase): Rowland silt loam  
 Map Symbol: 12 Drainage Class: well drained  
 Taxonomy (Subgroup): Fluventic Dystrachrepts  
 Profile Description: Mapped Hydric Inclusion? BOWMANVILLE  
 Field Observations Confirm Mapped Type? Yes  No

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Color (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-6	A	10YR3/3	N/A	N/A	Loam
6-12	E	10YR4/4	10YR4/6	Common Distinct	Loam
12-18	B	10YR4/3	N/A	N/A	Sandy loam

Hydric Soil Indicators:  
 NO Histosol  
 NO Histic Epipedon  
 NO Sulfidic Odor  
 NO Aquic Moisture Regime  
 NO Reducing Conditions  
 YES Gleyed or Low Chroma Colors

NO Concretions  
 NO High Organic Content in Surface Layer in Sandy Soils  
 NO Organic Streaking in Sandy Soils  
 NO Listed on Local Hydric Soils List  
 NO Listed on National Hydric Soils List  
 NO Other (Explain in Remarks)

Remarks: The soil lacks a low-chroma matrix (i.e., chroma 1, or chroma 2 with high-chroma mottles) at 10' or immediately below the A horizon, and no other hydric soil indicators were observed. Therefore, the soil at this data point is not hydric.

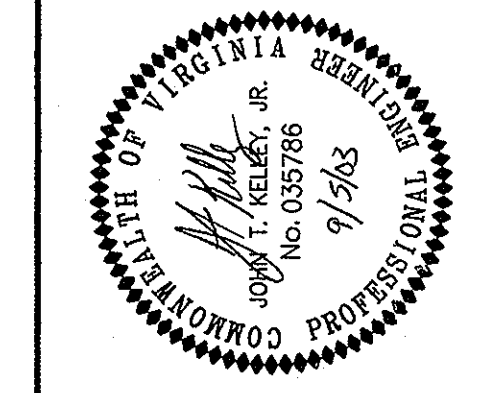
**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?  Yes  No  
 Wetland Hydrology Present?  Yes  No  
 Hydric Soils Present?  Yes  No

Is the Sampling Point within the Wetland?  Yes  No

Remarks: Only one of the three wetland criteria was satisfied at this data point, which characterizes the riparian area adjacent to a stream in the central portion of the site.

THOMPSON ROAD ASSEMBLAGE  
 PRESERVATION AREA PLAN  
 FAIRFAX COUNTY, VIRGINIA  
 WETLAND DELINEATION DATA SHEETS



No.	Date	Description	App. By	Rev. By

Horizontal Datum: N/A  
 Vertical Datum: N/A  
 Boundary and Topo Source: N/A

Design	Draft	Approved
BMW	BMW	JTK

Sheet #  
 8 of 11

Computer File Name:  
 LA5432\Cadd\RP\Plan\dwg\RP\_Plan

Wetland  
 Studies and Solutions, Inc.  
 14088-M Sullyfield Circle, Chantilly, Virginia 20151  
 Phone: 703.631.9800 Fax: 703.631.5804  
 www.wetlandstudies.com  
 Copyright © 2003 Wetland Studies and Solutions, Inc.



**DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetlands Delineation Manual)**

Project/Site: Thompson Road Assemblage Project No: 5432 Date: 7-Mar-2003  
 Applicant/Owner: Winchester Homes Inc. County: Fairfax  
 Investigators: Laura Giese, Benjamin Rosner State: Virginia Plot ID: 4

Do Normal Circumstances exist on the site?  Yes  No Community ID: Depressional swale  
 Is the site significantly disturbed (Atypical Situation)?  Yes  No Transect ID: N of D  
 Is the area a potential Problem Area?  Yes  No Field Location: 40' north of D53  
 (If needed, explain on the reverse side)

**VEGETATION (USFWS Region No. 1)**

Dominant Plant Species(Latin/Common)	Stratum	Indicator	Plant Species(Latin/Common)	Stratum	Indicator
<i>Diospyros virginiana</i>	Shrub	FAC	<i>Aster viminalis</i>	Herb	FAC
Persimmon, Common			<i>Aster, Small White</i>		
<i>Rubus argutus</i>	Shrub	FACU	<i>Lonicera japonica</i>	Herb	FAC
Blackberry, Serrate-Leaf			Honeysuckle, Japanese		
<i>Boehmeria cylindrica</i>	Herb	FACW+			
Falco-Nettle, Small-Spike					

Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 2/5 = 40.00% FAC Neutral: 1/2 = 50.00%  
 Numeric Index: 15/5 = 3.00

Remarks: The percentage of plant species rated OBL, FACW, or FAC is less than 50%; therefore, the vegetation is upland dominant.

**HYDROLOGY**

NO Recorded Data(Describe in Remarks):  
 N/A Stream, Lake or Tide Gauge  
 N/A Aerial Photographs  
 N/A Other

YES No Recorded Data

Field Observations

Depth of Surface Water: N/A (in.)  
 Depth to Free Water in Pit: = 0 (in.)  
 Depth to Saturated Soil: = 0 (in.)

Wetland Hydrology Indicators  
 Primary Indicators  
 NO Inundated  
 YES Saturated in Upper 12 Inches  
 NO Water Marks  
 NO Drift Lines  
 NO Sediment Deposits  
 NO Drainage Patterns in Wetlands  
 Secondary Indicators (2 or more required):  
 NO Oxidized Root Channels in Upper 12 Inches  
 NO Water-Stained Leaves  
 NO Local Soil Survey Data  
 NO FAC-Neutral Test  
 NO Other (Explain in Remarks)

Remarks: Primary indicators of wetland hydrology were observed during our site visit. However, this may likely be the result of significant recent snow melt.

**DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetlands Delineation Manual)**

Project/Site: Harlow Project No: 5432F Date: 15-May-2003  
 Applicant/Owner: Winchester Homes Inc. County: Fairfax  
 Investigators: L. Giese State: Virginia Plot ID: 5

Do Normal Circumstances exist on the site?  Yes  No Community ID: Open Field Upland Swale  
 Is the site significantly disturbed (Atypical Situation)?  Yes  No Transect ID: Bw D&E  
 Is the area a potential Problem Area?  Yes  No Field Location: 38' NW of A18  
 (If needed, explain on the reverse side)

**VEGETATION (USFWS Region No. 1)**

Dominant Plant Species(Latin/Common)	Stratum	Indicator	Plant Species(Latin/Common)	Stratum	Indicator
<i>Juncus tenuis</i>	Herb	FAC-	<i>Plantago major</i>	Herb	FACU
Rush, Slender			Plantain, Common		
<i>Ambrosium odoratum</i>	Herb	FACU	<i>Lycopus virginicus</i>	Herb	OBL
Grass, Sweet Vernal			Bugleweed, Virginia		
<i>Poa pratensis</i>	Herb	FACU			
Bluegrass, Kentucky					

Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 1/5 = 20.00% FAC Neutral: 1/4 = 25.00%  
 Numeric Index: 16/5 = 3.20

Remarks: The percentage of plant species rated OBL, FACW, or FAC is less than 50%; therefore, the vegetation is upland dominant.

**HYDROLOGY**

NO Recorded Data(Describe in Remarks):  
 N/A Stream, Lake or Tide Gauge  
 N/A Aerial Photographs  
 N/A Other

YES No Recorded Data

Field Observations

Depth of Surface Water: N/A (in.)  
 Depth to Free Water in Pit: = 17 (in.)  
 Depth to Saturated Soil: = 12 (in.)

Wetland Hydrology Indicators  
 Primary Indicators  
 NO Inundated  
 YES Saturated in Upper 12 Inches  
 NO Water Marks  
 NO Drift Lines  
 NO Sediment Deposits  
 NO Drainage Patterns in Wetlands  
 Secondary Indicators (2 or more required):  
 NO Oxidized Root Channels in Upper 12 Inches  
 NO Water-Stained Leaves  
 NO Local Soil Survey Data  
 NO FAC-Neutral Test  
 NO Other (Explain in Remarks)

Remarks: A primary indicator of wetland hydrology was observed during our site visit. However, this saturation may be a result of recent precipitation and a very wet spring rather than indicating that saturated conditions are present for a sufficient duration during the growing season to actually support wetland hydrology.

**DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetlands Delineation Manual)**

Project/Site: Harlow Project No: 5432F Date: 15-May-2003  
 Applicant/Owner: Winchester Homes Inc. County: Fairfax  
 Investigators: L. Giese State: Virginia Plot ID: 6

Do Normal Circumstances exist on the site?  Yes  No Community ID: Palustrine Emergent Wetland  
 Is the site significantly disturbed (Atypical Situation)?  Yes  No Transect ID: SE of D  
 Is the area a potential Problem Area?  Yes  No Field Location: 10' NNW of B12  
 (If needed, explain on the reverse side)

**VEGETATION (USFWS Region No. 1)**

Dominant Plant Species(Latin/Common)	Stratum	Indicator	Plant Species(Latin/Common)	Stratum	Indicator
<i>Impatiens capensis</i>	Herb	FACW	<i>Parthenocissus quinquefolia</i>	Herb	FACU
Touch-me-Not, Spotted			Creeper, Virginia		
<i>Juncus effusus</i>	Herb	FACW+	<i>Euthamia graminifolia</i>	Herb	FAC
Rush, Soft			Fragment-Golden-Rod, Flat-Top		
<i>Eupatorium perfoliatum</i>	Herb	FACW+			
Boneset, Common					

Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 4/5 = 80.00% FAC Neutral: 3/4 = 75.00%  
 Numeric Index: 13/5 = 2.60

Remarks: The percentage of plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

**HYDROLOGY**

NO Recorded Data(Describe in Remarks):  
 N/A Stream, Lake or Tide Gauge  
 N/A Aerial Photographs  
 N/A Other

YES No Recorded Data

Field Observations

Depth of Surface Water: N/A (in.)  
 Depth to Free Water in Pit: = 1 (in.)  
 Depth to Saturated Soil: = 1 (in.)

Wetland Hydrology Indicators  
 Primary Indicators  
 NO Inundated  
 YES Saturated in Upper 12 Inches  
 NO Water Marks  
 NO Drift Lines  
 NO Sediment Deposits  
 NO Drainage Patterns in Wetlands  
 Secondary Indicators (2 or more required):  
 YES Oxidized Root Channels in Upper 12 Inches  
 NO Water-Stained Leaves  
 NO Local Soil Survey Data  
 YES FAC-Neutral Test  
 NO Other (Explain in Remarks)

Remarks: Primary and secondary indicators of wetland hydrology were observed during our site visit.

**DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetlands Delineation Manual)**

Project/Site: Thompson Road Assemblage Project No: 5432 Date: 7-Mar-2003  
 Applicant/Owner: Winchester Homes Inc. County: Fairfax  
 Investigators: Laura Giese, Benjamin Rosner State: Virginia Plot ID: 4

**SOILS**

Map Unit Name (Series and Phase): Calverton loam 2 - 7% slopes, accum Mapped Hydric Inclusion? CROTON  
 Map Symbol: T0 B+ Drainage Class: mod well - smwt poorly Field Observations Confirm Mapped Type? Yes  No  
 Taxonomy (Subgroup): Aquic Fragludolls

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Color (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc
0-4	A	10YR4/2	10YR4/6	Few Distinct	Clay loam
4-10	E	2.5YR6/1	2.5Y5/3	Faint	Clay
10-18	B	10YR6/1	2.5Y6/6	Common Distinct	Clay

Hydric Soil Indicators:  
 NO Histosol  
 NO Histic Epipedon  
 NO Sulfidic Odor  
 NO Aquic Moisture Regime  
 NO Reducing Conditions  
 YES Gleyed or Low Chroma Colors

NO Concretions  
 NO High Organic Content in Surface Layer in Sandy Soils  
 NO Organic Streaking in Sandy Soils  
 NO Listed on Local Hydric Soils List  
 NO Listed on National Hydric Soils List  
 NO Other (Explain in Remarks)

Remarks: The low-chroma matrix with high-chroma mottles at a depth of 10" below the surface indicates that the soil is hydric.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?  Yes  No Is the Sampling Point within the Wetland?  Yes  No  
 Wetland Hydrology Present?  Yes  No  
 Hydric Soils Present?  Yes  No

Remarks: Two of the three wetland criteria were satisfied at this data point, which characterizes the depressional area adjacent to a perennial stream in the eastern portion of the site.

**DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetlands Delineation Manual)**

Project/Site: Harlow Project No: 5432F Date: 15-May-2003  
 Applicant/Owner: Winchester Homes Inc. County: Fairfax  
 Investigators: L. Giese State: Virginia Plot ID: 5

**SOILS**

Map Unit Name (Series and Phase): Rowland silt loam Mapped Hydric Inclusion? BOWMANVILLE  
 Map Symbol: 12 Drainage Class: well drained Field Observations Confirm Mapped Type? Yes  No  
 Taxonomy (Subgroup): Fluventic Dystrachrepts

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Color (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc
0-4	A	7.5YR4/2	N/A	N/A	Loam
4-12	B	7.5YR4/2	7.5YR5/2	Few Faint	Loam
12-20	B	7.5YR4/3	N/A	N/A	Sandy loam

Hydric Soil Indicators:  
 NO Histosol  
 NO Histic Epipedon  
 NO Sulfidic Odor  
 NO Aquic Moisture Regime  
 NO Reducing Conditions  
 YES Gleyed or Low Chroma Colors

NO Concretions  
 NO High Organic Content in Surface Layer in Sandy Soils  
 NO Organic Streaking in Sandy Soils  
 NO Listed on Local Hydric Soils List  
 NO Listed on National Hydric Soils List  
 NO Other (Explain in Remarks)

Remarks: The low-chroma matrix (including chroma 3 for the 7.5YR red parent material soil) with high-chroma mottles within 10" of the surface indicates that the soil is hydric.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?  Yes  No Is the Sampling Point within the Wetland?  Yes  No  
 Wetland Hydrology Present?  Yes  No  
 Hydric Soils Present?  Yes  No

Remarks: Two of the three wetland criteria were satisfied at this data point, which characterizes the open fields/wetland in the northeastern part of the site.

**DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetlands Delineation Manual)**

Project/Site: Harlow Project No: 5432F Date: 15-May-2003  
 Applicant/Owner: Winchester Homes Inc. County: Fairfax  
 Investigators: L. Giese State: Virginia Plot ID: 6

**SOILS**

Map Unit Name (Series and Phase): Rowland silt loam Mapped Hydric Inclusion? BOWMANVILLE  
 Map Symbol: 12 Drainage Class: well drained Field Observations Confirm Mapped Type? Yes  No  
 Taxonomy (Subgroup): Fluventic Dystrachrepts

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Color (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc
0-8	A	10YR4/2	10YR4/6	Common Distinct	Loam
8-18	B	10YR4/2	10YR4/6	Many Prominent	Clay loam

Hydric Soil Indicators:  
 NO Histosol  
 NO Histic Epipedon  
 NO Sulfidic Odor  
 NO Aquic Moisture Regime  
 NO Reducing Conditions  
 YES Gleyed or Low Chroma Colors

NO Concretions  
 NO High Organic Content in Surface Layer in Sandy Soils  
 NO Organic Streaking in Sandy Soils  
 NO Listed on Local Hydric Soils List  
 NO Listed on National Hydric Soils List  
 NO Other (Explain in Remarks)

Remarks: The low-chroma matrix with high-chroma mottles in the layer immediately below the A horizon indicates that the soil is hydric.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?  Yes  No Is the Sampling Point within the Wetland?  Yes  No  
 Wetland Hydrology Present?  Yes  No  
 Hydric Soils Present?  Yes  No

Remarks: All three wetland criteria were satisfied at this data point, which characterizes the palustrine emergent wetland at the base of the earthen dam in the northeastern part of the site.

**Wetland**  
Studies and Solutions, Inc.

14008 N Sullyfield Circle, Chantilly, Virginia 20151  
 Phone 703.631.5800 Fax 703.631.5804  
 www.wetlandstudies.com

THOMPSON ROAD ASSEMBLAGE  
PRESERVATION AREA PLAN  
FAIRFAX COUNTY, VIRGINIA

WETLAND DELINEATION DATA SHEETS

Copyright © 2003 Wetland Studies and Solutions, Inc.

REVISIONS

No.	Date	Description	Rev. By	App. By

DATE: SEPTEMBER 2003 SCALE: N/A

Horizontal Datum: N/A  
 Vertical Datum: N/A  
 Boundary and Topo Source: N/A


Design	Draft	Approved
BMW	BMW	JTK

Sheet #  
9 of 11

Computer File Name:  
L:\5432\Cadd\RPAPlan\dwg\IRPA Plans

**U.S. ARMY CORPS OF ENGINEERS  
 JURISDICTIONAL DETERMINATION  
 (JD# 03-N0204)  
 THOMPSON ROAD ASSEMBLADGE  
 (WETLAND DELINEATION #1)**

#5432  
 March 20, 2003



U.S. Army Corps of Engineers  
 Norfolk District

Project Number: 03-N0204      Waterway: Flatlick Branch

1. Participant:  
 Winchester Homes, Inc.  
 Attn: Peter Johnson  
 6905 Rockledge Drive, Suite 800  
 Bethesda, Maryland 20817

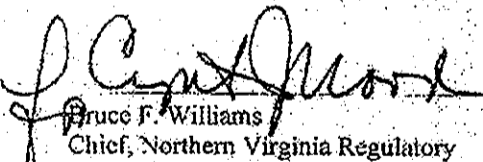
2. Authorized Agent:  
 Wetland Studies & Solutions, Inc.  
 14088-M Sullyfield Circle  
 Chantilly, Virginia 20151  
 Attn: Mr. Mark Heady

3. Address of Job Site:  
 The site is located on the north side of Thompson road approximately 2000 feet southeast of its intersection with Tuckaway Drive in Fairfax County, Virginia.

4. Project Description:  
 The project consists of a jurisdictional determination for the 37-acre Thompson Road Assemblage.

5. Findings  
 An on-site jurisdictional determination has found waters and/or wetlands regulated under Section 404 of the Clean Water Act (33 U.S.C. 1344) exist on the project site listed above. This letter shall serve to confirm the wetlands delineation submitted by letter dated March 14, 2003 by Wetland Studies & Solutions, Inc. and as shown on the map titled, "Wetland Location Delineation Map - Thompson Road Assemblage" dated March 2003.  
 Our basis for this determination is the application of the Corps' 1987 Wetland Delineation Manual and the positive indicators of wetland hydrology, hydric soils, and hydrophytic vegetation. The wetland is a water of the United States and is part of a tributary system to interstate waters (33 CFR 328.3(a)). These waters meet the Corps' definition of waters of the United States, are part of a tributary system to interstate waters (33 CFR 328.3 (a)) and have an ordinary high water mark.  
 Prior to commencing work you must obtain the proper authorization to perform work in wetlands and/or waters of the U.S. Please note that performing the proposed work without proper authorization would be in violation of the Clean Water Act. Your proposed work may also require a Virginia Water Protection Permit from the Virginia Department of Environmental Quality (DEQ) and/or a permit from the Virginia Marine Resources Commission (VMRC). Please obtain all required permits before starting work in the delineated waters/wetland areas.  
 This confirmation is valid for a period of five years from the date of this letter unless new information warrants revision before the expiration date. If you have any questions, please call your Corps contact at the phone number noted below. Thank you.


6. Corps Contact: Cynthia J. Wood at (703) 221-6967

  
 Bruce F. Williams  
 Chief, Northern Virginia Regulatory

NAO FL 13 REVISED DEC 90

**U.S. ARMY CORPS OF ENGINEERS  
 JURISDICTIONAL DETERMINATION  
 (JD# 03-N0243)  
 HARLOW PROPERTY  
 (WETLAND DELINEATION #2)**

#5432.F  
 May 27, 2003



U.S. Army Corps of Engineers  
 Norfolk District

Project Number: 03-N0243      Waterway: Flatlick Branch

1. Participant:  
 Winchester Homes  
 Attn: Peter Johnson  
 6905 Rockledge Drive, Suite 800  
 Bethesda, Maryland 20817

2. Authorized Agent:  
 Wetland Studies & Solutions, Inc.  
 14088-M Sullyfield Circle  
 Chantilly, Virginia 20151  
 Attn: Mr. Mark Heady

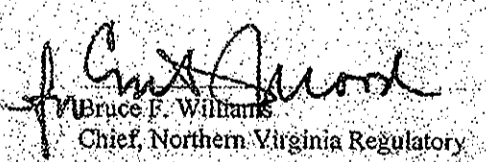
3. Address of Job Site:  
 The site is located within the Thompson Road Assemblage site on the north side of Thompson Road, approximately 2500 feet southeast of its intersection with Tuckaway Drive, in Fairfax County, Virginia.

4. Project Description:  
 The project consists of the verification of a jurisdictional determination for the 5-acre Harlow Property.

5. Findings  
 An on-site jurisdictional determination has found wetlands and waters regulated under Section 404 of the Clean Water Act (33 U.S.C. 1344) exist on the project site listed above. This letter shall serve to confirm the wetlands delineation submitted by letter dated May 20, 2003 by Wetland Studies & Solutions, Inc. and as shown on the map titled, "Wetland Delineation Sketch - Harlow Property Parcel F1 - Thompson Road Assemblage" dated May 2003.  
 Our basis for this wetland determination is the application of the Corps' 1987 Wetland Delineation Manual and the positive indicators of wetland hydrology, hydric soils, and hydrophytic vegetation. The wetland is a water of the United States and is part of a tributary system to interstate waters (33 CFR 328.3(a)).  
 Prior to commencing work you must obtain the proper authorization to perform work in wetlands and/or waters of the U.S. Please note that performing the proposed work without proper authorization would be in violation of the Clean Water Act. Your proposed work may also require a Virginia Water Protection Permit from the Virginia Department of Environmental Quality (DEQ) and/or a permit from the Virginia Marine Resources Commission (VMRC). Please obtain all required permits before starting work in the delineated waters/wetland areas.  
 This confirmation is valid for a period of five years from the date of this letter unless new information warrants revision before the expiration date. If you have any questions, please call your Corps contact at the phone number noted below. Thank you.

Note: Attached are a "Notification of Administrative Appeal Options and Process Request for Appeal" form and a "Supplemental Preapplication Information" form.

6. Corps Contact: Cynthia J. Wood at (703) 221-6967

  
 Cynthia J. Wood  
 Chief, Northern Virginia Regulatory

NAO FL 13 REVISED DEC 90

**Wetland  
 Studies and Solutions, Inc.**


14088-M Sullyfield Circle, Chantilly, Virginia 20151  
 Phone 703.631.5800 Fax 703.631.5804  
 www.wetlandstudies.com

**THOMPSON ROAD ASSEMBLADGE  
 PRESERVATION AREA PLAN**

FAIRFAX COUNTY, VIRGINIA

**COE JURISDICTIONAL DETERMINATION SHEETS**

Copyright © 2003 Wetland Studies and Solutions, Inc.



No.	Date	Description	App. By		Rev. By	
			By	Date	By	Date

DATE: SEPTEMBER 2003      SCALE: N/A

Horizontal Datum: N/A  
 Vertical Datum: N/A  
 Boundary and Topo Source: N/A

Design	Draft	Approved
BMW	BMW	JTK

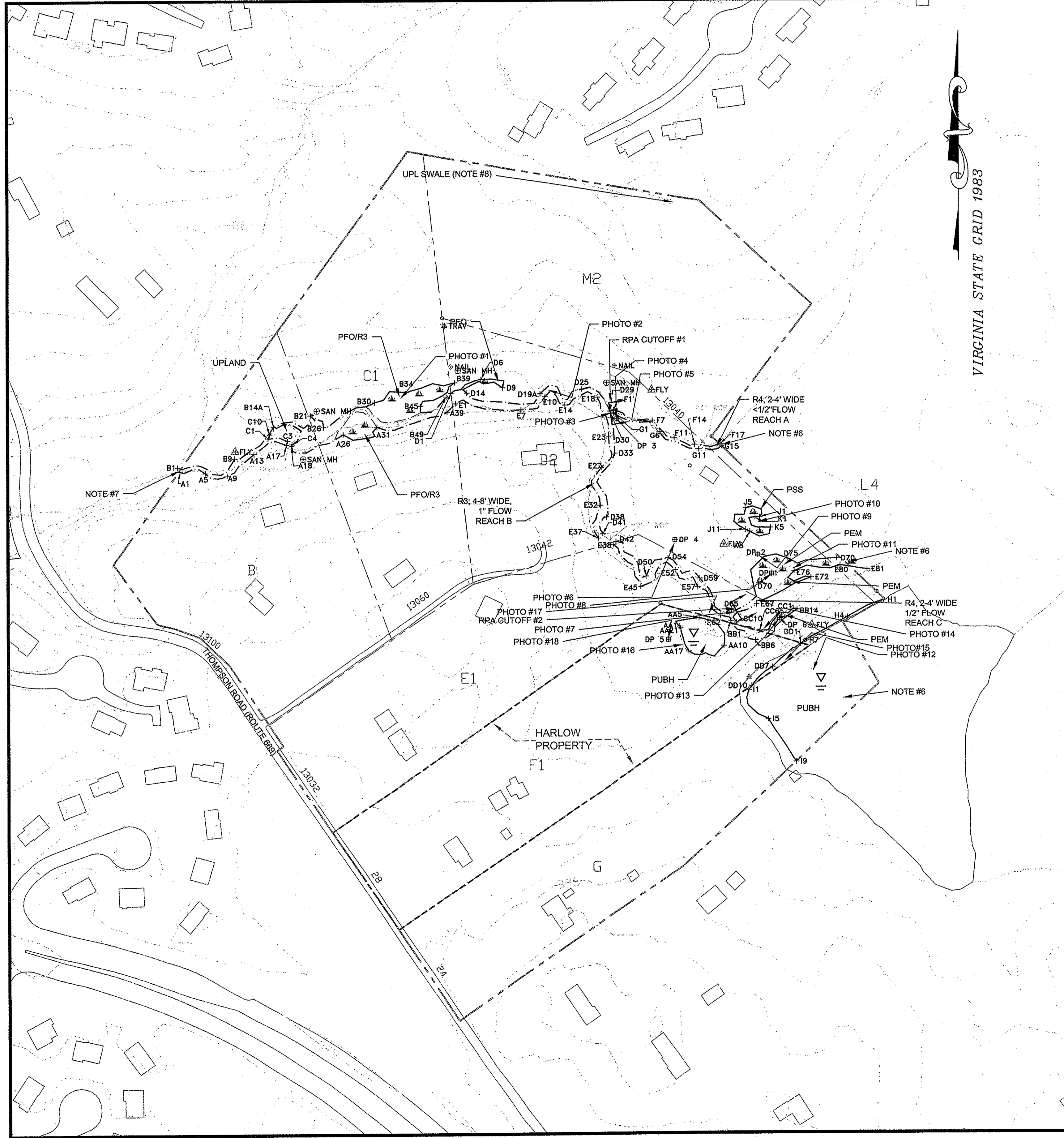
Sheet #  
 10 of 11

Computer File Name:  
 L:\5432\Cadd\RPAPlan\dwg\RPAPlan

# FOR WETLAND DELINEATION INFORMATION PURPOSES ONLY THIS SHEET IS NOT MEANT TO DEPICT RPA

**NOTE:**

1. FOR PRESENTATION ON THIS SHEET, THE WETLANDS DELINEATION SKETCH WAS REDUCED TO 83 % OF ITS ORIGINAL SIZE (FROM A SCALE OF 1"=100' TO 1"=120').
2. PLEASE NOTE THAT ALTHOUGH THE SMALL POND LOCATED WITHIN THE HARLOW PROPERTY IS DRAWN WITH THE SAME LINETYPE AS THE JURISDICTIONAL LARGER POND TO THE EAST, THE POND WAS DESCRIBED WITHIN THE DELINEATION REPORT (SHEET 3, PAGE 3 OF 7, FINDINGS SECTION F) AS A NON-JURISDICTIONAL FEATURE. THIS FINDING WAS CONFIRMED BY THE U.S. ARMY CORPS OF ENGINEERS.



### LEGEND

- SITE BOUNDARY (THOMPSON ROAD ASSEMBLAGE)
- SITE BOUNDARY (HARLOW PROPERTY)
- PERENNIAL STREAM (Per WSSI field investigation)
- INTERMITTENT STREAM (Per WSSI field investigation)
- JURISDICTIONAL WETLAND AREAS
- FAIRFAX COUNTY MAPPED RPA
- FIELD-VERIFIED RPA
- RPA CUTOFF LOCATION
- DP #
- D6 +
- RCP
- CMP
- Δ
- Δ
- 
- 
- 

### COWARDIN CLASSIFICATION

PFO	PALUSTRINE FORESTED WETLAND
PSS	PALUSTRINE SCRUB/SHRUB
PEM	PALUSTRINE EMERGENT WETLAND
PUBH	PALUSTRINE UNCONSOLIDATED BOTTOM
R3	RIVERINE PERENNIAL
R4	RIVERINE INTERMITTENT

**SURVEY NOTES:**

1. This map has been oriented to NAD 83 Virginia State Plane Coordinate System, North Zone using real time DGPS. Wetland and other Water of the U.S. (i.e. streams) flags, data points, and the monumentation shown were located in the field using conventional survey methods. Accuracy of field locations of wetlands meets or exceeds the standards set by the U. S. Army Corps of Engineers Memo CENAO-CO-R, dated September 30, 1998. Field locations were completed on March 13, 2003. Field locations for Parcel F1 were completed on May 16, 2003.
2. The boundary line information shown hereon is for information purposes only and does not constitute a boundary survey by WSSI. Monumentation, including traverse stations and fly points, shown on this drawing should be used to orient wetland locations to any future boundary, topographical, or location survey.

14088-M Sullyfield Circle, Chantilly, Virginia 20151  
Phone: 703.631.5800 Fax: 703.631.5804  
www.wetlandstudies.com

### Attachment I: WETLAND LOCATION DELINEATION MAP HARLOW-PARCEL F1

Prepared For: Winchester Homes  
THOMPSON ROAD ASSEMBLAGE  
FAIRFAX COUNTY, VIRGINIA

Copyright © 2003 Wetland Studies and Solutions, Inc.

REVISIONS		No.	Date	Description	Rev. By	App. By
1	5-16-03	ADD DELINEATION FOR HARLOW PARCEL(F1) LG				
1	5-16-03	INCLUDING FLAGS A41, A42, B1, B14, CL				
		CC1, CC2, DP, D6, DP, C, P, P, DATA POINTS & E				

DATE: MAY 2003      SCALE: 1"=120'

Horizontal Datum: NAD 83
Vertical Datum: NGVD 29
Boundary and Topo Source: Fairfax County Land Records (Eнды) Fairfax County Digital Data (Topo)
Design: BNR      Draft: JRM      Approved: MH
Sheet # 1 of 1
Computer File Name: L:\5432\CADD\RPA\lan\dwg\UDELIN

14088-M Sullyfield Circle, Chantilly, Virginia 20151  
Phone 703.631.5800 Fax 703.631.5804  
www.wetlandstudies.com

## THOMPSON ROAD ASSEMBLAGE PRESERVATION AREA PLAN

FAIRFAX COUNTY, VIRGINIA

### WETLAND DELINEATION SKETCH

Copyright © 2003 Wetland Studies and Solutions, Inc.

No.	Date	Description	Rev. By	App. By

DATE: SEPTEMBER 2003      SCALE: AS NOTED

Design	Draft	Approved
BNR	JRM	MH
Sheet # 11 of 11		
Computer File Name: L:\5432\CADD\RPA\lan\dwg\UDELIN		