



## WILDLIFE HABITAT FEATURE INVENTORY

NORTHERN VIRGINIA STREAM RESTORATION BANK

*THE GLADE – REACH 1 and 1A*

FAIRFAX COUNTY, VIRGINIA

Prepared For:

Northern Virginia Stream Restoration, L.C.  
c/o Wetland Studies and Solutions, Inc.  
5300 Wellington Branch Drive, Suite 100  
Gainesville, Virginia 20155

WSSI Project #20030

JANUARY 12, 2009

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## Wildlife Habitat Feature Inventory

The Glade – Reach 1 and 1A  
Fairfax County, Virginia  
WSSI #20030

January 12, 2009

### Executive Summary

On Monday, December 8, 2008, Wetland Studies and Solutions, Inc. (WSSI), assisted by Reston Association Staff and William Sipple, conducted a Wildlife Habitat Feature Inventory within a study area along design Reach 1 and 1A of The Glade portion of the Northern Virginia Stream Restoration Bank (NVS RB). This study was conducted to determine the location of active, inactive, and potential wildlife denning and nesting features within a study area along Reach 1 and 1A of The Glade.

In summary, several wildlife habitat features were found, including stick nests, squirrel nests, cavities and sub surface runs, within the study area of design Reach 1 and 1A of The Glade. The results of this inventory will be used by project engineers to minimize the stream restoration project's impact on local wildlife.

### Introduction

As set forth in NVSRB Banking Instrument, dated February 17, 2006 and prepared by WSSI, the Northern Virginia Stream Restoration, L.C. will restore approximately 14 miles of streams and upland buffers, within portions of the Snakeden Branch, Colvin Run, and The Glade watersheds in Reston, Virginia. In response to resident concerns about the potential effects of restoration activities on resident wildlife populations within The Glade, WSSI inventoried the location of active, inactive, and potential wildlife denning and nesting features within The Glade portion of the NVSRB. This report identifies the location of these features found within design Reach 1 and 1A of The Glade. The location of these features in other portions of The Glade will be documented in separate inventory reports.

### Project Area

The study area includes approximately 1,940 linear feet of stream along Reach 1 and 1A of The Glade, as well as the adjacent riparian corridor. The study area is located between the Hunters Woods Pool and Colt's Neck Road. Exhibit 1 is a vicinity map that depicts the approximate location of the study area.

The study area is covered mostly by mixed-deciduous forest, as depicted in the February 23, 2004 Natural Color Imagery from Air Survey aerial photograph of the study area Exhibit 2. The unnamed tributaries of The Glade flow in a southeasterly direction through the central portion of the study area. Both an asphalt recreational trail and an unpaved horse trail, which cross The Glade multiple times, are located parallel to the stream. The study area is gently to moderately sloping. The topography can be seen in the excerpt from the Vienna, Virginia-Maryland 1994 USGS topographical quadrangle map included as Exhibit 3.

The boundaries of jurisdictional wetlands and other waters of the U.S. (WOUS) located within the study area were delineated and survey-located by WSSI as described in The Glade delineation report, dated October 9, 2008.

### Methodology

On December 8, 2008, wildlife biologist Roy Van Houten, AWB, CWCP<sup>1</sup>, environmental scientist Eric Calladine, ISA Certified Arborist<sup>2</sup>, Nicki Foremsky<sup>3</sup>, Claudia Thompson-Deahl<sup>4</sup> and ecologist William S. Sipple<sup>5</sup> examined the entire study area, including both aquatic and terrestrial habitats. Aquatic and terrestrial areas were inspected to identify and map specific wildlife habitat features within the study area to classify them according to type. Only representative wildlife habitat features (or lack of) were photographed, as depicted in Exhibit 4. Any wildlife species directly observed or animal signs such as tracks and scat were noted during the fieldwork. For the purpose of this report, WSSI has defined the wildlife habitat features as follows:

**A. Nest** – A nest is defined as a place of refuge to hold an animal's eggs and/or provide a place to raise their offspring. Nests are usually made of sticks and leaves. Nest were subsequently categorized in Table 1 as:

- 1) Stick Nest
- 2) Squirrel Nest
- 3) Songbird nest

**B. Cavity** – A cavity is defined as a hollowed out feature in a standing tree which can provide an animal with refuge and a place to raise their offspring. Cavities were subsequently categorized in Table 1 as:

- 1) Snag
- 2) Live Tree

**C. Den** – A den is defined as a hollowed out feature, either in a deadfall, tree hollow, or ground hollow. Dens were subsequently categorized in Table 1 as:

- 1) Deadfall
- 2) Tree Hollow
- 3) Ground Hollow

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<sup>1</sup> WSSI - Associate Wildlife Biologist through The Wildlife Society; Certified Wildlife Control Professional through National Wildlife Control Operators Association.  
<sup>2</sup> WSSI - International Society of Arboriculture (ISA) Certified Arborist  
<sup>3</sup> Reston Association- Watershed Manager  
<sup>4</sup> Reston Association-Environmental Resource Manager  
<sup>5</sup> Principal of William S. Sipple Wetland and Environmental Training and Consulting.



**D. Subsurface Erosional Feature** – A subsurface erosional feature is defined as a naturally-occurring subterranean hollow, usually associated with a drainage feature and may be used as a wildlife travel corridor. These features are not likely to be utilized as den sites due to their high probability of flooding during runoff-producing events. Subsurface erosional features were subsequently categorized in Table 1 as:

- 1) Inactive
- 2) Active

**E. Snags** - A snag refers to a standing, partly or completely dead tree, often missing a top or most of the smaller branches, and greater than or equal to 20 inches diameter breast height. These features were identified regardless of evidence of known wildlife usage.

### Results and Conclusions

Several wildlife habitat features were located in design Reach 1 and 1A of The Glade during this inventory, including stick and squirrel nests, cavities, snags, and subsurface erosional features. The location of these features is depicted on the Wildlife Habitat Feature Location Map (Exhibit 5) and is summarized in Table 1 below. The results of this inventory will be used by project engineers to further limit the stream restoration project's impact on local wildlife habitat features.

<b>Table 1. List of Wildlife Habitat Features Observed Within Design Reach 1 and 1A of The Glade.</b>		
<b>FEATURE</b>	<b>LOCATION</b>	<b>DESCRIPTION</b>
A1	Tree #10289	Inactive unknown stick nest
A1	Tree #10303	Inactive red-shouldered hawk stick nest
A1	Tree #10309	Inactive red-shouldered hawk stick nest
A1	Tree #10313	Inactive red-shouldered hawk stick nest
A1	Tree #15763	Inactive preliminary stick nest
A2	Tree #10248	Squirrel leaf nest
A2	Tree #10267	Squirrel leaf nest
A2	Tree #10278	Squirrel leaf nest
A2	Tree #14171	Squirrel leaf nest
A2	Tree #15608	Squirrel leaf nest
A2	Tree #15665	Squirrel leaf nest
A2	Tree #15672	Squirrel leaf nest
A2	Tree #15713	Squirrel leaf nest
A2	Tree #15716	Squirrel leaf nest
A2	Tree #15766	Squirrel leaf nest
A2	Tree #30935	Squirrel leaf nest
B1	Tree #15562	Active unknown cavity in snag
B1	Tree #31200	Active unknown woodpecker cavity in snag
B1	Tree #10277	Active unknown woodpecker cavity in snag
B1	Tree #15595	Active unknown woodpecker cavity in snag
B2	Tree #10285	Inactive unknown cavity in live tree
B2	Tree #10373	Inactive unknown cavity in live tree

**Table 1. List of Wildlife Habitat Features Observed Within Design Reach 1 and 1A of The Glade.**

FEATURE	LOCATION	DESCRIPTION
B2	Tree #10374	Inactive unknown cavity in live tree
B2	Tree #14039	Inactive unknown cavity in live tree
B2	Tree #31199	Active unknown cavity in live tree
D2	Tree #14191	Active subsurface erosional feature used by fox
E	Tree #14034	Snag
E	Tree # N/A	Snag located 3ft East of Tree #14049
E	Tree # N/A	Snag located 10ft NE of Tree #14064
E	Tree #14180	Snag
E	Tree #15538	Snag
E	Tree #15539	Snag
E	Tree #15541	Snag
E	Tree #15571	Snag
E	Tree #15596	Snag
E	Tree #15726	Snag

### Limitations

This study is based on examination of the conditions on the study site at the time of our review and does not address conditions in the future. Such conditions change over time. Therefore, our conclusions may vary from future observations. Our wildlife habitat feature inventory report has been prepared in accordance with generally accepted guidelines for the conduct of such evaluations. We make no other warranties, either expressed or implied that other wildlife species will not be observed in the project site during future wildlife surveys.

If you have any questions regarding this report, please contact me at (703) 679-5631 or [rvanhouten@wetlandstudies.com](mailto:rvanhouten@wetlandstudies.com).

WETLAND STUDIES AND SOLUTIONS, INC.



Roy Van Houten, AWB, CWCP  
Wildlife Biologist





Copyright ADC The Map People  
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**Vicinity Map**  
**Glade Reach 1 and 1A**  
**WSSI #20030**  
**Scale: 1" = 2000'**





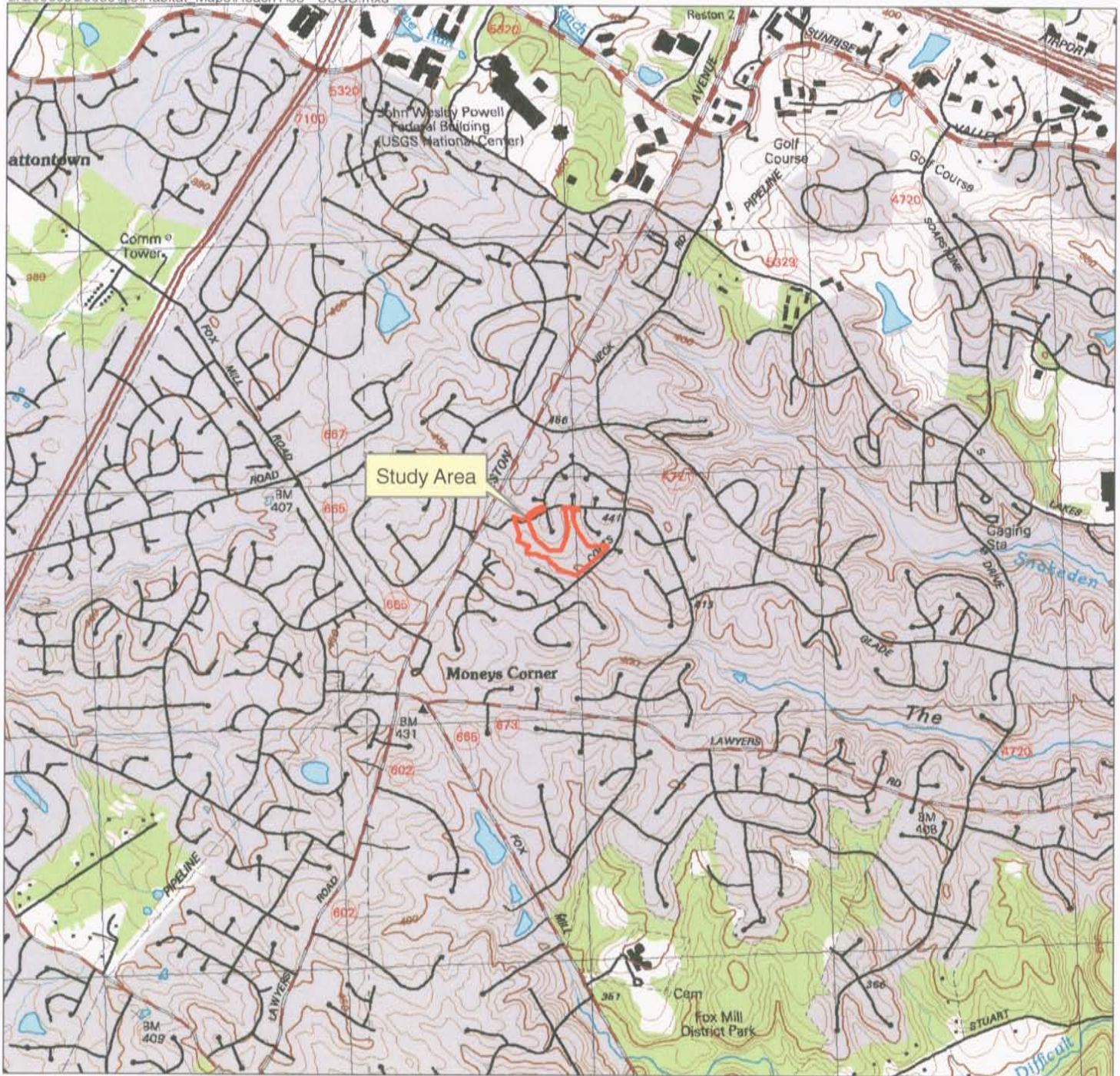


February 2004 Natural Color Imagery  
Glade Reach 1 and 1A  
WSSI #20030  
Scale: 1" = 200'



Photo Source: Air Survey





**USGS Quad Map**  
**Vienna, VA-MD 1994**  
**Glade Reach 1 and 1A**  
**WSSI #20030**  
**Scale: 1" = 2000'**

Latitude: 38°55'49" N  
 Longitude: 77°21'56" W  
 Hydrologic Unit Code (HUC): 020700081004  
 Stream Class: III  
 Name of Watershed: The Glade





**REACH 1 and 1A – THE GLADE  
WILDLIFE HABITAT FEATURE INVENTORY – DECEMBER 8, 2008  
PHOTOS TAKEN BY ROY VAN HOUTEN**



**1. Inactive unidentified stick nest in tree #10289.**



**2. Unoccupied red shouldered hawk nests in trees #10303, #10309 and #10313.**

**REACH 1 and 1A – THE GLADE  
WILDLIFE HABITAT FEATURE INVENTORY – DECEMBER 8, 2008  
PHOTOS TAKEN BY ROY VAN HOUTEN**



**3. Squirrel nest in tree #10248.**



**4. Inactive unknown cavity in live tree #14039.**

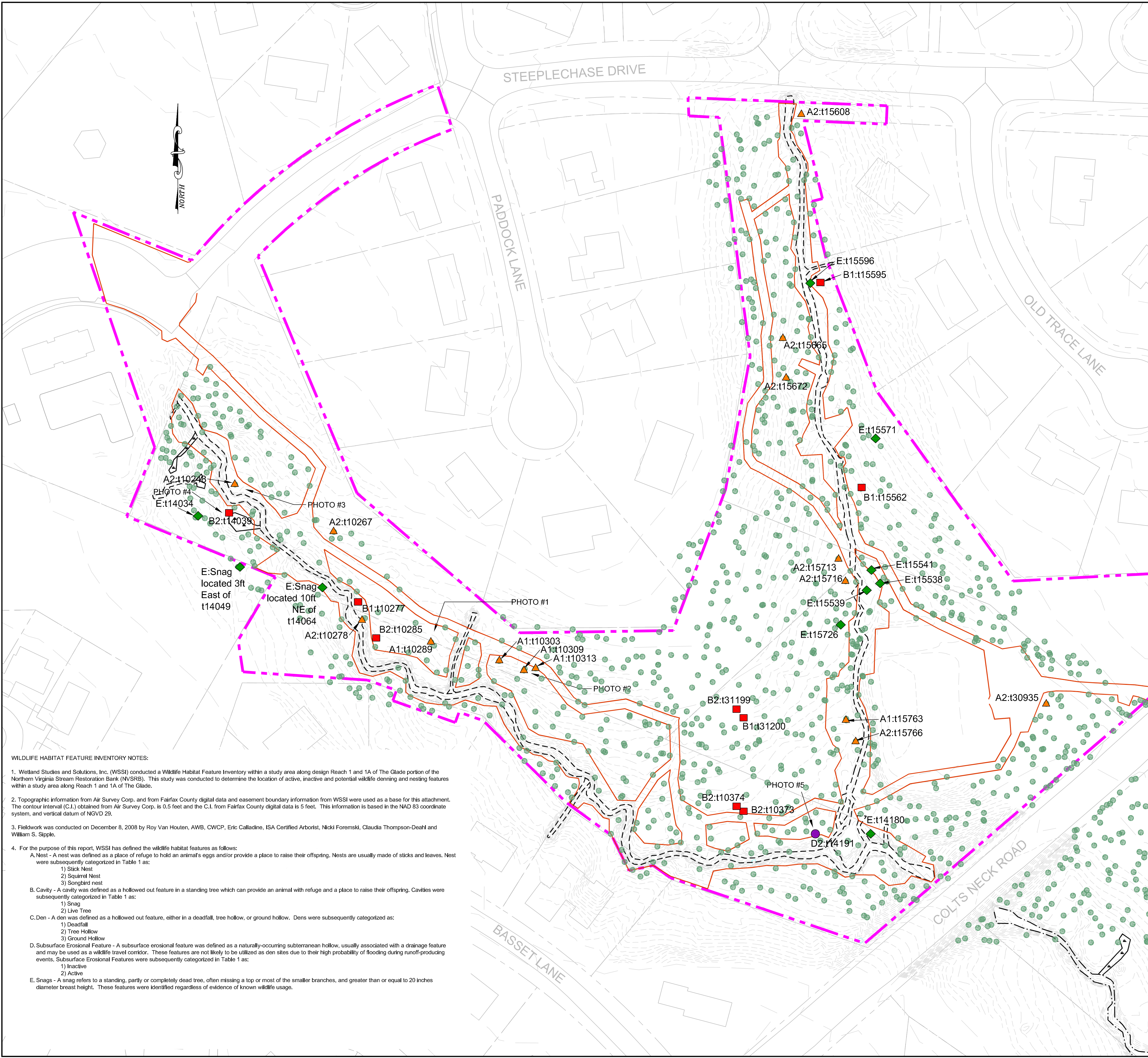


**REACH 1 and 1A – THE GLADE  
WILDLIFE HABITAT FEATURE INVENTORY – DECEMBER 8, 2008  
PHOTOS TAKEN BY ROY VAN HOUTEN**



5. Active subsurface erosional feature used by fox at tree #14191.





LEGEND

EASEMENT BOUNDARY

LIMITS OF CLEARING

PERENNIAL STREAM  
(BASED ON FAIRFAX COUNTY RPA MAPS)

NON-PERENNIAL STREAM (BASED ON FAIRFAX COUNTY  
RPA MAPS AND WSSI'S SITE OBSERVATIONS)

JURISDICTIONAL WETLAND AREAS

NEST

CAVITY

SUBSURFACE EROSIONAL FEATURE

SNAG

SURVEY-LOCATED TREE

WILDLIFE HABITAT FEATURE INVENTORY NOTES:

1. Wetland Studies and Solutions, Inc. (WSSI) conducted a Wildlife Habitat Feature Inventory within a study area along design Reach 1 and 1A of The Glade portion of the Northern Virginia Stream Restoration Bank (NVSRB). This study was conducted to determine the location of active, inactive and potential wildlife denning and nesting features within a study area along Reach 1 and 1A of The Glade.

2. Topographic information from Air Survey Corp. and from Fairfax County digital data and easement boundary information from WSSI were used as a base for this attachment. The contour interval (C.I.) obtained from Air Survey Corp. is 0.5 feet and the C.I. from Fairfax County digital data is 5 feet. This information is based in the NAD 83 coordinate system, and vertical datum of NGVD 29.

3. Fieldwork was conducted on December 8, 2008 by Roy Van Houten, AWS, CWCP, Eric Calladine, ISA Certified Arborist, Nicki Foremski, Claudia Thompson-Deahl and William S. Sipple.

4. For the purpose of this report, WSSI has defined the wildlife habitat features as follows:

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E	Tree #15571	Snag
E	Tree #15596	Snag
E	Tree #15726	Snag

Wetland  
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Exhibit 5:  
Wildlife Habitat Feature Location Map

Prepared For: Northern Virginia Stream Restoration, L.C.  
The Glade - Reach 1 and 1A  
Fairfax County, Virginia

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REVISIONS

No.	Date	Description	Rev. By	App. By

Horizontal Datum: VCS NAD83  
Vertical Datum: NGVD 29  
Boundary and Topo Source: Fairfax County Digital Data

Design	Draft	Approved
SDS	SDS	MSR

Sheet #  
1 of 1

Computer File Name:  
I:\2008\2008\GIS\Habitat\_Map\Reach1\Reach1\_HabitatMap20081214.dwg

DATE: December 2008  
SCALE: 1" = 50'