

NOTES:

1. Wetland Studies and Solutions, Inc. (WSSI) conducted a habitat evaluation for Endangered and Threatened Species (ETS), defined as those species formally listed as Endangered or Threatened on the state or federal level, on a portion of the Colvin Run Watershed. Additionally an assessment for the potential occurrence of non-listed Natural Heritage Resources (NHRs), "special concern" species and natural communities that are considered rare and whose occurrences are tracked by Virginia Department of Conservation and Recreation, Division of Natural Heritage (DCR) was performed. This evaluation included all areas within the study area. Fieldwork was conducted by Jennifer D. Feese, PWS, PWD, Sean D. Sipple, CT, PWS, PWD, Lynn Straughan, PWS, PWD, and Beth Clements between March 18 and April 24, 2009 and by Sean D. Sipple, Jennifer D. Feese Caitlin Kelliher, and Chelsea Trant on August 19, 2009 and between December 4 and 11, 2009. Additional fieldwork was conducted by Sean D. Sipple on December 21, 2010.
 2. Topographic information from Air Survey Corp. and Fairfax County Digital Data, and study area and Spring 2004 Color Infrared Imagery 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. The boundaries of jurisdictional wetlands and other waters of the U.S. located within the study area were delineated and survey-located by WSSI as described in a report entitled "Waters of the U.S. Delineation, Northern Virginia Stream Restoration Bank, A Portion of the Colvin Run Watershed (4,312 acres)". WSSI has received a confirmation letter (# 2007-2482) from the U.S. Army Corps of Engineers dated May 31, 2007, approving the delineation. This delineation was revised on January 14, 2010 to include several additional areas. A jurisdictional determination from the COE was issued on September 29, 2010 (#2010-0397). The waters of the U.S. are shown on this exhibit because the state-threatened wood turtle (*Glyptemys insculpta*) is associated with streams and wetlands.
 5. The state-listed threatened wood turtle and two state listed species of special concern, including the barn owl (*Tyto alba*) and brown creeper (*Certhia americana*) have been documented within a 3-mile radius of the project area, as described in the accompanying report. In WSSI's opinion, marginal and some optimal aquatic winter-phase and terrestrial wood turtle habitat is present. However, a low potential for occurrence within study area is due primarily to marginal habitat, negative search results, and distance to a viable population. Also, it is WSSI's opinion that no appropriate barn owl nesting habitat is present within the study area and Fairfax County is outside the normal breeding distribution of the brown creeper. Therefore, the stream restoration efforts within the study area will have no direct effect on these bird species during the breeding season or wintering months as they will be capable of seeking refuge and foraging habitat in adjacent forested areas. These bird species however, may occur as a migrant or winter visitor in forested habitats within the study area due to their widespread geographic distribution. The special concern status is not an official legal status, and therefore the designated birds under this status are not formally protected by state or federal endangered species laws.
- Other ETS, state-rare species, or rare plant communities that occur in Northern Virginia such as the small whorled pogonia (*Isoetes macrospora*), American ginseng (*Panax quinquefolium*), bald eagle (*Haliaeetus leucocephalus*), peregrine falcon (*Falco peregrinus*, including *F. p. tundrius*), upland sandpiper (*Barrtrania longicauda*), lodgepole pine (*Pinus contorta*), Virginia bluebird (*Sialia sialis*), Maryland yellow throat vireo (*Vireo flavifrons*), state-rare diatomic plants, upland depression swamps, and northern hardpan basic oak-hickory forests were not mentioned in the information provided by the DCR and DGIF and in our opinion these species/communities are not present within the study area.
- Furthermore, no ETS, rare species, or rare plant communities were observed within the study area, and due to the lack of potential habitat, water quality, and distance to know populations, it is WSSI's opinion that there is low probability that these resources occur within the study area.
6. This study has been revised to include additional area within the Lake Anne West study area. Fieldwork within the additional area was conducted on December 21, 2010 by Sean D. Sipple. The revised study area is depicted on Sheet 3, as well as on the index to sheets.

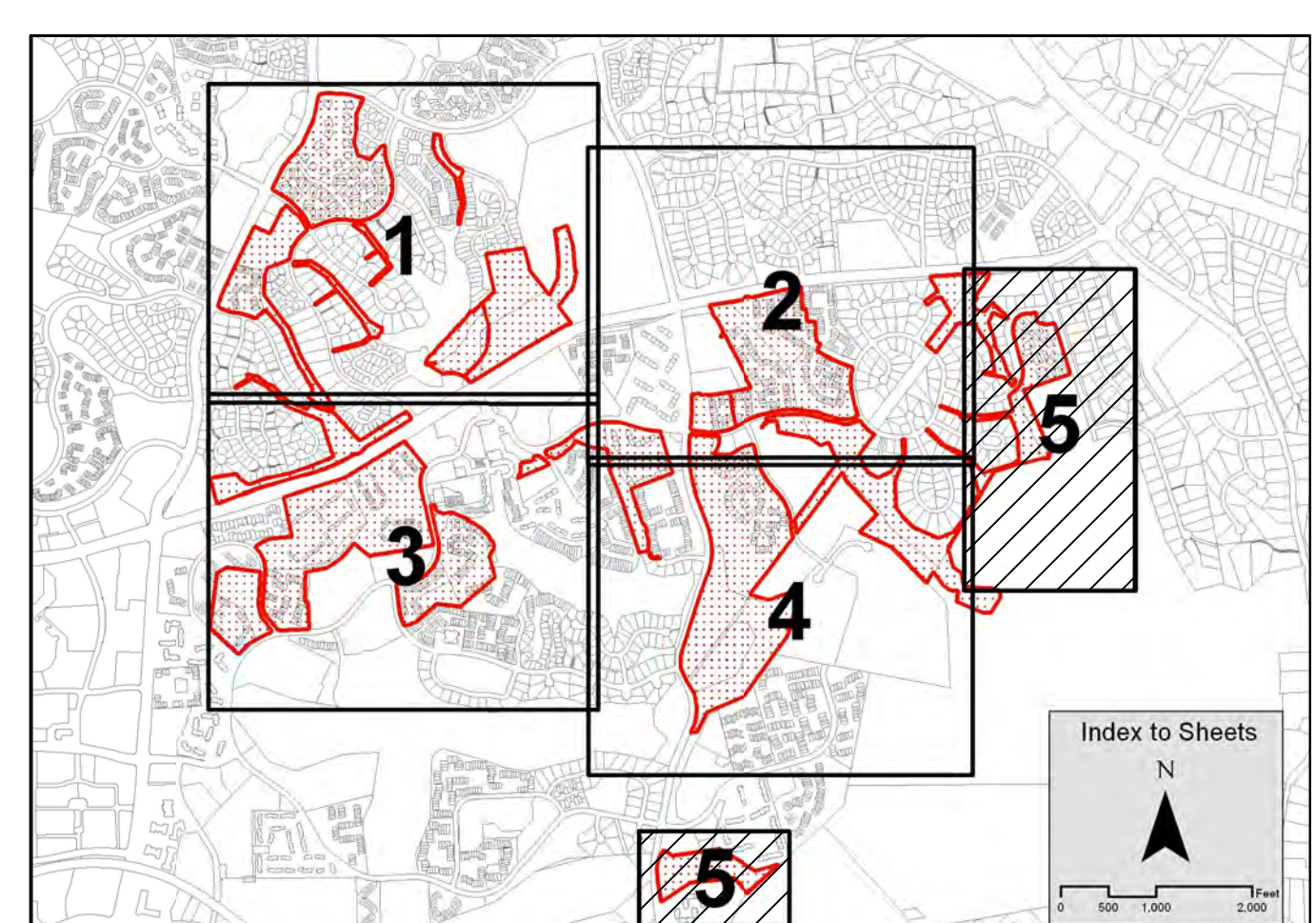


Table 1: Wood Turtle Overwintering Habitat Features

MAPPED DATA SITES = 20	In-stream Habitat Feature Type						TOTAL
	Root Wad	Undercut Bank	Log or Log Jam	Leaf Packs	Tree Fall/ Snag	Hole	
# FEATURES OBSERVED	12	13	3	0	9	0	37
PERCENT	33	35	8	0	24	0	100
	Number of Sites With Multiple Habitat Features (MHF)						13
	Percent of Observed Sites With MHF						65

LEGEND

- STUDY AREA BOUNDARY
- PERENNIAL STREAM (PER FAIRFAX COUNTY RPA MAP)
- NON-PERENNIAL STREAM (PER FAIRFAX COUNTY RPA MAP)
- PALUSTRINE OPEN WATER (POND)
- JURISDICTIONAL WETLAND AREAS
- NON-JURISDICTIONAL FEATURES
- POTENTIAL WOOD TURTLE IN-STREAM HABITAT FEATURES



NORTHERN VIRGINIA STREAM RESTORATION BANK
A PORTION OF THE COLVIN RUN WATERSHED
 Fairfax County, Virginia

ATTACHMENT I:
ENDANGERED AND THREATENED SPECIES HABITAT EVALUATION AND SURVEY MAP

Wetland Studies and Solutions, Inc. 5300 Williamsburg Branch Drive, Suite 100 - Commerceville, VA 20155 Phone: 703.679.5500 • Fax: 703.679.5501 www.wetland.com				
No.	Date	Description	App. By	Rev. By
1	1/20/11	Revised Lake Anne West Study Area	SDS	JDF
DATE: JANUARY 2011 SCALE: 1" = 100'				
Horizontal Datum: VCS NAD83				
Vertical Datum: NGVD29				
Boundary and Topo Source: Fairfax County Air Survey				
Completed File Name: ETSmapp.dwg	Design: SDS	Draft: SDS	Approved: MH/MSR	Sheet #: 5 of 5

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