



APPENDIX F

VDCR CORRESPONDENCE AND FEDERAL-AND STATE-LISTED SPECIES DATA Matthew S. Wells

Andrew W. Smith Chief Deputy Director



Frank N. Stovall Deputy Director for Operations

Durryl Glover Deputy Director for Dum Safety, Floodplain Management and Soil and Water Conservation

Laura Ellis Deputy Director for Administration and Finance

October 28, 2024

Madison Adams ERM 222 South 9th Street, Suite 2900 Minneapolis, MN 55402

Re: 0726778, Culpeper

Dear Ms. Adams:

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

Terrestrial Resources

Trichostema setaceum

According to the information in our files, the Southern Culpeper Diabase Flatwoods and the Mount Pony Conservation Sites are located within the Culpeper project site. Conservation sites are tools for representing key areas of the landscape that warrant further review for possible conservation action because of the natural heritage resources and habitat they support. Conservation sites are polygons built around one or more rare plant, animal, or natural community designed to include the element and, where possible, its associated habitat, and buffer or other adjacent land thought necessary for the element's conservation. Conservation sites are given a biodiversity significance ranking (B-rank) based on the rarity, quality, and number of element occurrences they contain; on a scale of 1-5, 1 being most significant. The Southern Culpeper Diabase Flatwoods Conservation Site has been assigned a B-rank of B2, which represents a site of very high significance. The natural heritage resources associated with this site are:

Piedmont Mafic Barren G1/S1/NL/NL
Phlox pilosa Downy Phlox G5/S1/NL/NL

The Mount Pony Conservation Site has been assigned a B-rank of B2, which represents a site of very high significance. The natural heritage resources associated with this site are:

Northern Hardpan Basic Oak - Hickory Forest G2/S2/NL/NL
Piedmont Mafic Barren G1/S1/NL/NL
Narrow-leaf blue curls G5/S2/NL/NL

DCB recommends sociding both commention sites and the consciented documented comments of natural

DCR recommends avoiding both conservation sites and the associated documented occurrences of natural heritage resources when determining transmission line routes.

According to DCR's predicted suitable habitat modeling and review by a DCR biologist, there is a potential for breeding populations of the Loggerhead Shrike (Lanius Indovicianus, G4/S1B,S2N/NL/LT) to occur in the Culpeper site if suitable habitat exists on site.

The Loggerhead Shrike breeds throughout most of the United States and southern Canada, through Mexico and into Central America (NatureServe, 2009). In Virginia, there are records throughout most of the state; however, its current strong hold seems to be the Shenandoah Valley. It usually nests, forages, and perches in open fields and pastures where there are scattered trees for nesting and telephone wires or fences for perching (Hamel, 1992). Essential habitat requirements include open country with scattered trees or shrubs and conspicuous perches. A thorny shrub, such as hawthorn, is a favored nesting site. Loggerhead shrikes sometimes impale their food on thorny shrubs, barbed-wire fences, and other suitable objects to be eaten later or to feed to their young. Please note that the Loggerhead shrike is currently classified as threatened by the Virginia Department of Wildlife Resources (VDWR).

Threats to the Loggerhead shrike include loss of open habitats through reforestation and conversion to cropland, and the removal of hedgerows (Fraser, 1991). They may experience negative impacts from insecticide use and predation (NatureServe, 2009).

Additionally, according to the diabase screening layer and a review by a DCR biologist, several rare plants which are typically associated with prairie vegetation and inhabit semi-open diabase glades in Virginia, may occur within all three sites if suitable habitat is present.

Diabase glades are characterized by historically fire-dominated grassland vegetation on relatively nutrient-rich soils underlain by Triassic bedrock. Diabase flatrock, a hard, dark-colored volcanic rock, is found primarily in northern Virginia counties and is located within the geologic formation known as the Triassic Basin. Where the bedrock is exposed, a distinctive community type of drought-tolerant plants occurs. Diabase flatrocks are extremely rare natural communities that are threatened by activities such as quarrying and road construction (Rawinski, 1995).

In Northern Virginia, diabase supports occurrences of several global and state rare plant species: Earleaf False foxglove (Agalinis auriculata, G3/S1/NL/NL), American bluehearts (Buchnera americana, G5?/S1S2/NL/NL), Downy phlox (Phlox pilosa, G5/S1/NL/NL), Torrey's Mountain-mint (Pycnanthemum torreyi, G2/S2/SOC/LT), Stiff goldenrod (Solidago rigida var. rigida, G5T5/S2/NL/NL), and Hairy hedgenettle (Stachys arenicola, G4?/S1/NL/NL).

Please note that Torrey's Mountain-mint is listed as threatened by the Virginia Department of Agriculture and Consumer Services (VDACS). Torrey's Mountain-mint is also listed as a Species of Concern (SOC) by United States Fish and Wildlife Service (USFWS); however, this is not a legal designation.

Due to the potential for this site to support populations of natural heritage resources, DCR recommends an inventory for rare plants associated with diabase soils in all three project sites (Culpeper, Oak Green and Remington) and an inventory for breeding loggerhead shrikes in the Culpeper site. With the survey results we can more accurately evaluate potential impacts to natural heritage resources and offer specific protection recommendations for minimizing impacts to the documented resources.

DCR-Division of Natural Heritage biologists are qualified to conduct inventories for rare, threatened, and endangered species. Please contact Anne Chazal, Natural Heritage Chief Biologist, at anne.chazal@der.virginia.gov or 804-786-9014 to discuss availability and rates for field work.

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the DCR, DCR represents VDACS in comments regarding potential impacts on statelisted threatened and endangered plant and insect species. Survey results should be coordinated with DCR-DNH. Upon review of the results, if it is determined the species is present, and there is a likelihood of a negative impact on the species, DCR-DNH will recommend coordination with VDACS to ensure compliance with Virginia's Endangered Plant and Insect Species Act.

Due to the legal status of the Loggerhead shrike, DCR recommends coordination with Virginia's regulatory authority for the management and protection of this species, the VDWR, to ensure compliance with the Virginia Endangered Species Act (VA ST §§ 29.1-563 – 570).

Aquatic Resources

According to the information in our files, the Sumerduck Run Stream Conservation Site (SCS) is located within the Culpeper project site. SCSs encompass stream/river reaches, waterbodies, and terrestrial contributing areas containing or associated with aquatic or semi-aquatic resources, including upstream and downstream reaches and tributaries up to 3-km stream distance from the aquatic resources. The size and dimensions of an SCS are based on the hydrology of the waterway and surrounding landscape, taking into consideration dam locations and whether the waterway is tidal. SCSs are also given a biodiversity significance ranking (B-rank) based on the rarity, quality, and number of element occurrences they contain. The Sumerduck Run SCS has been given a B-rank of B3 which represents a site of high significance. The natural heritage resource associated with this SCS is:

Aquatic Natural Community

NP-Rapidan-Upper Rappahannock

G2G3/S2S3/NL/NL

Second Order Stream

The Rapidan River at Rt. 522 Stream Conservation Site (SCS) is located within the **Oak Green** project site. The Rapidan River at Rt. 522 SCS has been given a B-rank of B3, which represents a site of high significance. The natural heritage resources associated with this SCS are:

Aquatic Natural Community NP-Rapidan-Upper Rappahannock G2/S2/NL/NL

Fifth Order Stream

Elliptio lanceolata Yellow Lance G2/S2/LT/LT

Tthe Rappahannock River - Hubbard Run Stream Conservation Site (SCS) is located within the Remington project site. The Rappahannock River - Hubbard Run SCS has been given a B-rank of B3, which represents a site of high significance. The natural heritage resource associated with this SCS is:

Elliptio lanceolata Yellow Lance G2/S2/LT/LT

The documented Aquatic Natural Communities are based on Virginia Commonwealth University's INSTAR (Interactive Stream Assessment Resource) database which includes over 2,000 aquatic (stream and river) collections statewide for fish and macroinvertebrate. These data represent fish and macroinvertebrate assemblages, instream habitat, and stream health assessments. The associated Aquatic Natural Community is significant on multiple levels. Frist both stream are a grade B per the VCU-Center for Environmental Sciences (CES), indicating its relative regional significance, considering its aquatic community composition and the present-day conditions of other streams in the region. Both stream reaches also holds a "Healthy" stream designation per the INSTAR Virtual Stream Assessment (VSS) score. This score assesses the similarity of this stream to ideal stream conditions of biology and habitat for this region. Lastly, these streams contribute to high Biological Integrity at the watershed level (6th order) based on number of native/non-native, pollution-tolerant/intolerant and rare, threatened or endangered fish and macroinvertebrate species present.

Threats to the significant Aquatic Natural Community and the surrounding watershed include water quality degradation related to point and non-point pollution, water withdrawal and introduction of non-native species.

The Yellow Lance occurs in mid-sized rivers and second and third order streams. To survive, it needs a silt-free, stable streambed and well-oxygenated water that is free of pollutants. This species has been the subject of taxonomic debate in recent years (NatureServe, 2009). Currently in Virginia, the Yellow lance is recognized from populations in the Chowan, James, York, and Rappahannock drainages. Its range also extends into Neuse-Tar river system in North Carolina. In recent years, significant population declines have been noted across its range (NatureServe, 2009). Please note that this species is currently classified as threatened by the United States Fish and Wildlife Service (USFWS) and the Virginia Department of Wildlife Resources (VDWR).

Considered good indicators of the health of aquatic ecosystems, freshwater mussels are dependent on good water quality, good physical habitat conditions, and an environment that will support populations of host fish species (Williams et al., 1993). Because mussels are sedentary organisms, they are sensitive to water quality degradation related to increased sedimentation and pollution. They are also sensitive to habitat destruction through dam construction, channelization, and dredging, and the invasion of exotic mollusk species. The Yellow lance may be particularly sensitive to chemical pollutants and exposure to fine sediments from erosion (NatureServe, 2009).

In addition, the Rapidan River (Oak Green) has been designated by the VDWR as a "Threatened and Endangered Species Water" for the Green Floater (Lasmigona subviridis, G2G3/S2/PT/LT).

To minimize adverse impacts to the aquatic ecosystem as a result of the proposed activities, DCR recommends the implementation of and strict adherence to applicable state and local erosion and sediment control/storm water management laws and regulations, establishment/enhancement of riparian buffers with native plant species and maintaining natural stream flow.

Due to the legal status of the Yellow Lance and Green Floater, DCR recommends coordination with the VDWR, Virginia's regulatory authority for the management and protection of these species to ensure compliance with the Virginia Endangered Species Act (VA ST §§ 29.1-563 – 570). Due to the legal status of the Yellow Lance, DCR also recommends coordination with the US Fish and Wildlife Service (USFWS) and the VDWR, Virginia's regulatory authority for the management and protection of this species to ensure compliance with protected species legislation.

Karst Resources

The Culpeper and Oak Green sites have intersected the karst bedrock screening layer. Encountering undocumented caves, sinkholes or other sensitive karst features in this area is possible. During every phase of the project, DCR recommends stabilization of the soil around the site. Minimizing surface disturbance, strict use of E&S control measures appropriate for the location and adherence to best management practices appropriate for karst will help to reduce any potential impact to the karst, groundwater and surface water resources as well as any associated fauna and flora.

If karst features such as sinkholes, caves, disappearing streams, and large springs are encountered during the project, please coordinate with Wil Orndorff (540-230-5960, Wil Orndorff a der virginia gov) the Virginia DCR, Division of Natural Heritage Karst Protection Coordinator, to document and minimize adverse impacts. Activities such as discharge of runoff to sinkholes or sinking streams, filling of sinkholes, and alteration of cave entrances can lead to environmental impacts including surface collapse, flooding, erosion and sedimentation, contamination of groundwater and springs, and degradation of subterranean habitat for natural heritage resources (e.g. cave adapted invertebrates, bats). These potential impacts are not necessarily limited to the immediate project area, as karst systems can transport water and associated contaminants rapidly over relatively long distances, depending on the nature of the local karst system. If the project involves filling or "improvement" of sinkholes or cave openings, DCR would like detailed location information and copies of the design specifications. In cases where sinkhole improvement is for storm water discharge, copies of VDOT Form EQ-120 will suffice.

Additional Comments

The proposed project will impact multiple Ecological Cores (Culpeper: C2 & C5 and Oak Green: C4) as identified in the Virginia Natural Landscape Assessment (https://www.der.virginia.gov/natural-heritage/vaconvisvnla). Mapped cores in the project area can be viewed via the Virginia Natural Heritage Data Explorer, available here: http://vanhde.org/content/map.

Ecological Cores are areas of at least 100 acres of continuous interior, natural cover that provide habitat for a wide range of species, from interior-dependent forest species to habitat generalists, as well as species that utilize marsh, dune, and beach habitats. Interior core areas begin 100 meters inside core edges and continue to the deepest parts of cores. Cores also provide the natural, economic, and quality of life benefits of open space, recreation, thermal moderation, water quality (including drinking water recharge and protection, and erosion prevention), and air quality (including sequestration of carbon, absorption of gaseous pollutants, and production of oxygen). Cores are ranked from C1 to C5 (C5 being the least significant) using nine prioritization criteria, including the habitats of natural heritage resources they contain.

Impacts to cores occur when their natural cover is partially or completely converted permanently to developed land uses. Habitat conversion to development causes reductions in ecosystem processes, native biodiversity, and habitat quality due to habitat loss; less viable plant and animal populations; increased predation; and increased introduction and establishment of invasive species.

DCR recommends avoidance of impacts to cores. When avoidance cannot be achieved, DCR recommends minimizing the area of impacts overall and concentrating the impacted area at the edges of cores, so that the most interior remains intact.

The Culpeper Site will impact a core with very high ecological integrity. Further investigation of these impacts is recommended and DCR-DNH can conduct a formal impact analysis upon request. This analysis would estimate direct impacts to cores and habitat fragments and indirect impacts to cores. The final products of this analysis would include an estimate of the total impact of the project in terms of acres. For more information about the analysis and service charges, please contact Joe Weber, DCR Chief of Biodiversity Information and Conservation Tools at Joseph. Weber@dcr.virginia.gov.

Additionally, DCR recommends the development and implementation of an invasive species plan to be included as part of the maintenance practices for the right-of-way (ROW). The invasive species plan should include an invasive species inventory for the project area based on the current DCR Invasive Species List (https://www.dcr.virginia.gov/natural-heritage/document/nh-invasive-plant-list-2023.pdf) and methods for treating the invasives. DCR also recommends the ROW restoration and maintenance practices planned include appropriate revegetation using native species in a mix of grasses and forbs, robust monitoring and an adaptive management plan to provide guidance if initial revegetation efforts are unsuccessful or if invasive species outbreaks occur.

There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

New and updated information is continually added to Biotics. Please re-submit a completed order form and project map for an update on this natural heritage information if the scope of the project changes and/or six months has passed before it is utilized.

A fee of \$1,000.00 has been assessed for the service of providing this information. Please find attached an invoice for that amount. Please return one copy of the invoice along with your remittance made payable to the Treasurer of Virginia, DCR Finance, 600 East Main Street, 24th Floor, Richmond, VA 23219. Payment is due within thirty days of the invoice date. Please note late payment may result in the suspension of project review service for future projects.

The U.S. Fish and Wildlife Service (USFWS) utilizes an online project review process (https://www.fws.gov/office/virginia-ecological-services/virginia-field-office-online-review-process) to facilitate compliance with the Endangered Species Act (16 U.S.C. 1531-1544, 87 Stat. 884) (ESA), as amended. The process enables users to 1) follow step-by-step guidance; 2) access information that will allow them to identify threatened and endangered species, designated critical habitat, and other Federal trust resources that may be affected by their project; and 3) accurately reach determinations regarding the potential effects of their project on these resources as required under the ESA. If you have questions regarding the online review process, please contact Jackie Luu at jackie luu@fws.gov.

The Virginia Department of Wildlife Resources (VDWR) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed https://services.dwr.virginia.gov/fwis/ or contact Hannah Schul https://services.dwr.virginia.gov/fwis/ or contact Hannah Schul https://services.dwr.virginia.gov/fwis/ or contact

Should you have any questions or concerns, feel free to contact me at 804-625-3979. Thank you for the opportunity to comment on this project.

Sincerely.

Nicki Gustafson

Natural Heritage Project Review Assistant

Cc: Hannah Schul, VDWR, Wil Orndorff, DCR- Karst

Literature Cited

Rawinski, T.J. 1995. Natural communities and ecosystems: Conservation priorities for the future. Unpublished report for DCR-DNH.

Fraser, J. D. 1991. Loggerhead Shrike. In Virginia's Endangered Species: Proceedings of a Symposium. K. Terwilliger ed. The McDonald and Woodward Publishing Company, Blacksburg, Virginia. Hamel, P. B. 1992. Land Manager's Guide to the Birds of the South. The Nature Conservancy. Chapel Hill, North Carolina.

NatureServe. 2009. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1.
NatureServe, Arlington, Virginia. Available http://www.natureserve.org/explorer. (Accessed: June 24, 2010).

Williams, J.D., M.L. Warren, Jr., K.S. Cummings, J.L. Harris, and R.J. Neves. 1993. Conservation status of freshwater mussels of the United States and Canada. Fisheries 18: 6-9.

10/17/24, 4:17 PM VAFWIS Seach Report Tech Zone Area

VaFWIS Search Report Compiled on 10/17/2024, 5:17:22 PM

Help

Known or likely to occur within a 2 mile buffer around polygon; center 38.4300500 -77.9995199 in 047 Culpeper County, 137 Orange County, VA

View Map of Site Location

431 Known or Likely Species ordered by Status Concern for Conservation (displaying first 20) (18 species with Status* or Tier I** or Tier II**)

BOVA Code	Status*	Tier**	Common Name	Scientific Name	Confirmed	Database(s)
050022	FEST	Ia	Bat, northern long- eared	Myotis septentrionalis		BOVA
060003	FESE	Ia	Wedgemussel, dwarf	Alasmidonta heterodon		BOVA
060029	FTST	IIa	Lance, yellow	Elliptio lanceolata	Yes	BOVA,SppObs,HU6
050020	SE	Ia	Bat, little brown	Myotis lucifugus		BOVA
050027	FPSE	la	Bat, tri-colored	Perimyotis subflavus		BOVA
040293	ST	Ia	Shrike, loggerhead	Lanius ludovicianus	Yes	BOVA,BBA,SppObs,HU6
060081	FPST	Πa	Floater, green	Lasmigona subviridis		BOVA
040292	ST		Shrike, migrant loggerhead	Lanius ludovicianus migrans		BOVA
100079	FC	IIIa	Butterfly, monarch	Danaus plexippus		BOVA
030063	CC	IIIa	Turtle, spotted	Clemmys guttata		BOVA
030012	СС	IVa	Rattlesnake, timber	Crotalus horridus		BOVA
010077		Ia	Shiner, bridle	Notropis bifrenatus		BOVA
100248		Ia	Fritillary, regal	Speyeria idalia idalia		BOVA,HU6
040052		IIa	Duck, American black	Anas rubripes		BOVA,HU6
040320		IIa	Warbler, cerulean	Setophaga cerulea		BOVA,HU6
040140		IIa	Woodcock, American	Scolopax minor		BOVA,HU6
040203		ПЬ	Cuckoo, black- billed	Coccyzus erythropthalmus		BOVA
040105		Пь	Rail, king	Rallus elegans		BOVA
010131		IIIa	Eel, American	Anguilla rostrata	Yes	BOVA,SppObs,HU6
030068		IIIa	Turtle, woodland box	Terrapene carolina carolina		BOVA,HU6

To view All 431 species View 431

*FE=Federal Endangered; FT=Federal Threatened; SE=State Endangered; ST=State Threatened; FP=Federal Proposed; FC=Federal Candidate; CC=Collection Concern

**I=VA Wildlife Action Plan - Tier II - Critical Conservation Need; III=VA Wildlife Action Plan - Tier II - Very High Conservation Need; III=VA Wildlife Action Plan - Tier IV - Moderate Conservation Need Virginia Wildlife Action Plan Conservation Opportunity Ranking:

a - On the ground management strategies/actions exist and can be feasibly implemented.; b -

On the ground actions or research needs have been identified but cannot feasibly be implemented at this time.; c -

No on the ground actions or research needs have been identified or all identified conservation opportunities have been exhausted.

View Map of All Query Results from All Observation Tables

Bat Colonies or Hibernacula: Not Known

Anadromous Fish Use Streams (1 records)

View Map of All Anadromous Fish Use Streams

Stream ID	a. N			omous Fish S		
	Stream Name	Reach Status	Different Species	Highest TE*	Highest Tier**	View Map
P186	Rapidan river	Potential	0			Yes

Impediments to Fish Passage (3 records)

View Map of All Fish Impediments

ID	Name	River	View Map
124	LAKE PELHAM DAM	MOUNTAIN RUN	Yes
16	MILLER PLACE DAM	BROOK RUN	Yes
8	MOUNTAIN RUN DAM #18	BALDS RUN	Yes

Colonial Water Bird Survey

N/A

Threatened and Endangered Waters

N/A

Managed Trout Streams

N/A

Bald Eagle Concentration Areas and Roosts

N/A

Bald Eagle Nests

N/A

Species Observations

(80 records - displaying first 20, 2 Observations with Threatened or Endangered species) View Map of All Query Results Species Observations

					N Species	i i	
obsID	class	Date Observed	Observer	Different Species	Highest TE*	Highest Tier**	View Map
6135	SppObs	Aug 10 1992	Sue A. Bruenderman, VDGIF	4	FTST	п	Yes
95002	SppObs	Jul 3 2000	Kim Venne	im Venne 1 ST 1		I	Yes
620670	SppObs	Sep 27 2013	Rick; Browder Gabriel; Darkwah Meghan; Bandura Dan; F	5		III	Yes
620268	SppObs	Jun 25 2013	Rick; Browder Gabriel; Darkwah Meghan; Bandura Dan; F	5		Ш	Yes
620960	SppObs	Jun 18 2013	Rick; Browder Gabriel; Darkwah Meghan; Bandura Dan; F	ick; Browder Gabriel; Darkwah		III	Yes
604958	SppObs	Sep 18 2009	Katelyn; Shank Derek; Wheaton			ш	Yes
603298	SppObs	Jul 16 2009	ason; Hill Drew; Miller 27		III	Yes	
350541	SppObs	Jun 28 2007	David Hogg	vid Hogg 11		Ш	Yes
350544	SppObs	Jun 28 2007	David Hogg 11		III	Yes	
350543	SppObs	Jun 28 2007	David Hogg	11		III	Yes
350555	SppObs	Jun 10 2007	Jay Keller	14		III	Yes
350567	SppObs	Jun 10 2007	Jay Keller	13		III	Yes
350576	SppObs	Jun 10 2007	Jay Keller	13		Ш	Yes
350571	SppObs	Jun 10 2007	Jay Keller	18		III	Yes
350558	SppObs	Jun 10 2007	Jay Keller	12		Ш	Yes
350581	SppObs	Jun 10 2007	Jay Keller	19		III	Yes
425778	SppObs	Oct 19 2006	VCU - INSTAR	13		ш	Yes
316474	SppObs	Jun 16 2006	Rick Browder	7		III	Yes

58204	SppObs	Jun 25 1999	Ryan W. Boggs and Louis Seivard (principle permittee), Dept. of Environmental Quality	3	ш	Yes
425794	SppObs	Aug 11 1998	VCU - INSTAR	18	III	Yes

Displayed 20 Species Observations

Selected 80 Observations View all 80 Species Observations

Habitat Predicted for Aquatic WAP Tier I & II Species

N/A

Habitat Predicted for Terrestrial WAP Tier I & II Species

N/A

Virginia Breeding Bird Atlas Blocks (11 records)

View Map of All Query Results Virginia Breeding Bird Atlas Blocks

		Breedin			
BBA ID	Atlas Quadrangle Block Name	Different Species	Highest TE*	Highest Tier**	View Map
47176	Brandy Station, SE	68		III	Yes
47175	Brandy Station, SW	13		IV	Yes
46176	Castleton, SE	69		III	Yes
47164	Culpeper East, CE	15		IV	Yes
47163	Culpeper East, CW	1			Yes
47162	Culpeper East, NE	7		III	Yes
47161	Culpeper East, NW	1			Yes
47166	Culpeper East, SE	64		III	Yes
46164	Culpeper West, CE	37		Ш	Yes
46162	Culpeper West, NE	58	ST	I	Yes
46166	Culpeper West, SE	86		Ш	Yes

Public Holdings:

N/A

Summary of BOVA Species Associated with Cities and Counties of the Commonwealth of Virginia:

FIPS Code	City and County Name	Different Species	Highest TE	Highest Tier
047	Culpeper	349	FESE	I
137	Orange	349	FESE	I

USGS 7.5' Quadrangles:

Culpeper West
Castleton
Unionville
Culpeper East
Brandy Station
Germanna Bridge

USGS NRCS Watersheds in Virginia:

N/A

USGS National 6th Order Watersheds Summary of Wildlife Action Plan Tier I, II, III, and IV Species:

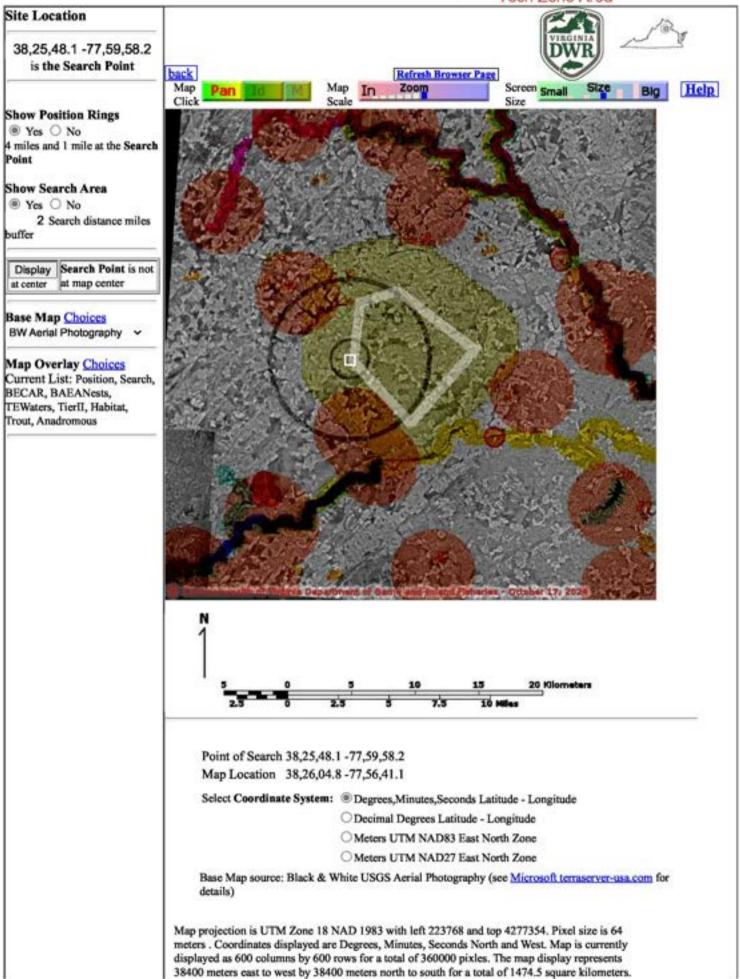
HU6 Code	USGS 6th Order Hydrologic Unit	Different Species	Highest TE	Highest Tier
RA19	Mountain Run-Hiders Branch	50	ST	I
RA20	Jonas Run	47		II
RA21	Mountain Run-Flat Run	50	FTST	П
RA38	Cedar Run	46	FTST	П
RA39	Rapidan River-Potato Run	55	FTST	I

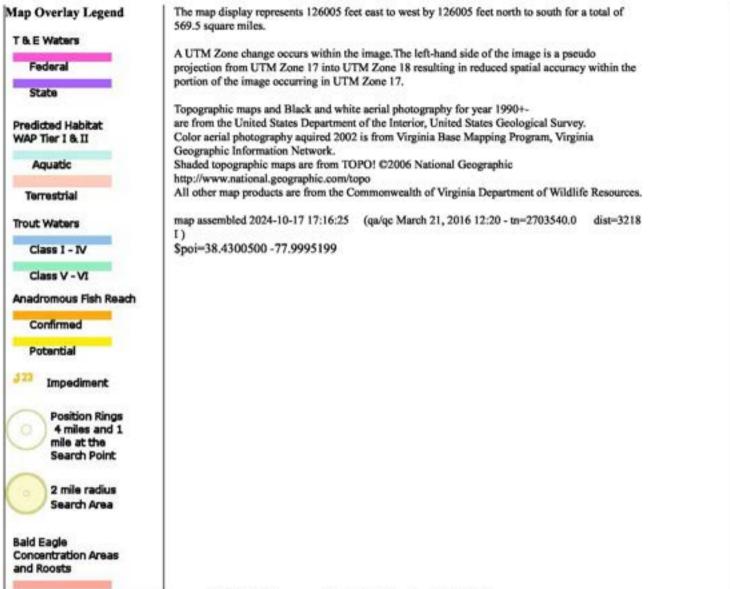
Compiled on 10/17/2024, 5:17:22 PM 12703540.0 report-oil searchType- P dist-3218 poi-38.4300500-77.9995199 siteDD-38.4300540-77.9995208;38.4728410-77.9995308;38.4821130-77.9995208

PixelSizer-64; Anadromous=0.024521; BBA=0.048042; BECAR=0.024377; Buts=0.020301; Buffer=0.361476; County=0.062854; HU5=0.0708029999999999; Impediments=0.022935; Init=0.402746; PublicLands=0.030814; Quad=0.041636; SppCbs=0.378153; TEWaters=0.022628; TierReaches=0.025547; TierTerrential=0.065313; Total=1.50459; Tracking_BOVA=0.187862; Troot=0.028369; Jura=0.043603

10/17/24, 4:16 PM VaFWIS Map

Tech Zone Area





© 1998-2024 Commonwealth of Virginia Department of Wildlife Resources
| DWR | Credits | Disclaimer | Contact | Web Policy |

VaFWIS Search Report Compiled on 10/17/2024, 5:43:04 PM

Help

Known or likely to occur within a 2 mile buffer around polygon; center 38.3345500 -77.9530399 in 047 Culpeper County, 137 Orange County, VA

Oak Green Area

View Map of Site Location

430 Known or Likely Species ordered by Status Concern for Conservation (displaying first 20) (19 species with Status* or Tier I** or Tier II**)

BOVA Code	Status*	Tier**	Common Name	Scientific Name	Confirmed	Database(s)
050022	FEST	Ia	Bat, northern long-eared	Myotis septentrionalis		BOVA
060003	FESE	Ia	Wedgemussel, dwarf	Alasmidonta heterodon		BOVA
060029	FTST	IIa	Lance, yellow	Elliptio lanceolata	Yes	BOVA,SppObs,HU6
050020	SE	Ia	Bat, little brown	Myotis lucifugus		BOVA
050027	FPSE	Ia	Bat, tri-colored	Perimyotis subflavus		BOVA
040293	ST	Ia	Shrike, loggerhead	Lanius ludovicianus	Yes	BOVA,SppObs
060081	FPST	IIa	Floater, green	Lasmigona subviridis	Yes	BOVA,TEWaters,Habitat,HU6
040292	ST		Shrike, migrant loggerhead	Lanius ludovicianus migrans		BOVA
100079	FC	IIIa	Butterfly, monarch	Danaus plexippus		BOVA
030063	CC	IIIa	Turtle, spotted	Clemmys guttata	i i	BOVA
030012	СС	ΓVa	Rattlesnake, timber	Crotalus horridus		BOVA
010077		Ia	Shiner, bridle	Notropis bifrenatus		BOVA
100248		Ia	Fritillary, regal	Speyeria idalia idalia		BOVA,HU6
040052		IIa	Duck, American black	Anas rubripes		BOVA,HU6
040320		IIa	Warbler, cerulean	Setophaga cerulea		BOVA,HU6
040140		IIa	Woodcock, American	Scolopax minor		BOVA,HU6
040203		ПЬ	Cuckoo, black- billed	Coccyzus erythropthalmus		BOVA
040105	1	IIb	Rail, king	Rallus elegans	i i	BOVA

060019	IIc	Pebblesnail, panhandle	Somatogyrus virginicus		HU6	
010131	IIIa	Eel, American	Anguilla rostrata	Yes	BOVA,SppObs,HU6	

To view All 430 species View 430

*FE-Federal Endangered; FT-Federal Threatened; SE-State Endangered; ST-State Threatened; FP-Federal Proposed; FC-Federal Candidate; CC-Collection Concern

a - On the ground management strategies/actions exist and can be feasibly implemented.; b -

On the ground actions or research needs have been identified but cannot feasibly be implemented at this time.; c -

No on the ground actions or research needs have been identified or all identified conservation opportunities have been exhausted.

View Map of All Query Results from All Observation Tables

Bat Colonies or Hibernacula: Not Known

Anadromous Fish Use Streams (1 records)

View Map of All Anadromous Fish Use Streams

Stream ID				mous Fish S		
	Stream Name	Reach Status	Different Species	Highest TE*	Highest Tier**	View Map
P186	Rapidan river	Potential	0			Yes

Impediments to Fish Passage

N/A

Colonial Water Bird Survey

N/A

Threatened and Endangered Waters (8 Reaches)

View Map of All Threatened and Endangered Waters

	T&E Waters Species						
Stream Name	Highest TE*	BOVA C	ode, Stat	tus*, 7	Γier ^{**} , Com	mon & Scientific Name	View Map
Rapidan River (060620)	FPST	060081	FPST	IIa	Floater, green	Lasmigona subviridis	Yes
Rapidan River (064572_)	FPST	060081	FPST	IIa	Floater, green	Lasmigona subviridis	Yes

^{**}I=VA Wildlife Action Plan - Tier II - Critical Conservation Need; III=VA Wildlife Action Plan - Tier II - Very High Conservation Need; III=VA Wildlife Action Plan - Tier IV - Moderate Conservation Need Virginia Widlife Action Plan Conservation Opportunity Ranking;

Rapidan River (064608)	FPST	060081	FPST	IIa	Floater, green	Lasmigona subviridis	Yes
Rapidan River (067775_)	FPST	060081	FPST	IIa	Floater, green	Lasmigona subviridis	Yes
Rapidan River (068083_)	FPST	060081	FPST	IIa	Floater, green	Lasmigona subviridis	Yes
Rapidan River (069560_)	FPST	060081	FPST	IIa	Floater, green	Lasmigona subviridis	Yes
Rapidan River (072087_)	FPST	060081	FPST	Ha	Floater, green	Lasmigona subviridis	Yes
Rapidan River (072180_)	FPST	060081	FPST	IIa	Floater, green	Lasmigona subviridis	Yes

Managed Trout Streams

N/A

Bald Eagle Concentration Areas and Roosts

N/A

Bald Eagle Nests

N/A

Species Observations

(41 records - displaying first 20, 2 Observations with Threatened or Endangered species) View Map of All Query Results Species Observations

		22 93			N Species			
obsID	obsID class Date Observed Ol		Observer	Different Species	Highest TE*	Highest Tier**	View Map	
6135	SppObs	Aug 10 1992	Sue A. Bruenderman, VDGIF	4	FTST	п	Yes	
95002	SppObs	Jul 3 2000	Kim Venne	1	ST	I	Yes	
608075	SppObs	Sep 14 2009	Katelyn; Shank Werner; Wieland Andrew; Hogan	14		Ш	Yes	
425827	SppObs	Nov 29 2007	VCU - INSTAR	21		Ш	Yes	
350520	SppObs	Jun 14 2007	David Hogg	13		III	Yes	

21, 11101		T 11000		- I		1
350522	SppObs	Jun 14 2007	David Hogg	10	Ш	Yes
1604	SppObs	Jul 31 1990	ANGERMEIER ET AL	24	III	Yes
543713	SppObs	May 27 2022	Brett Ostby; Caitlin Carey; Emory Hagemeyer	2	IV	Yes
537149	SppObs		Brett Ostby; Caitlin Carey; Emory Hagemeyer	2	īv	Yes
548030	SppObs	Sep 28 2021	Emory Hagemeyer; T Mitchell; Brian Watson	2	IV	Yes
548031	SppObs	Sep 28 2021	Emory Hagemeyer; T Mitchell; Brian Watson	2	IV	Yes
548015	SppObs	Sep 9 2021	Brett Ostby; Emory Hagemeyer	1	IV	Yes
548014	SppObs	Sep 9 2021	Brett Ostby; Emory Hagemeyer	2	īv	Yes
548009	SppObs	Aug 3 2021	Emory Hagemeyer; Zack Taylor; Caitlin Carey; Vance Ne	2	īv	Yes
647260	SppObs	Jun 25 2018	Kristopher McGinley	1	IV	Yes
547259	SppObs	Jun 22 2018	Kristopher McGinley	1	īv	Yes
350528	SppObs	Jun 28 2007	David Hogg	10	IV	Yes
350523	SppObs	Jun 28 2007	David Hogg	10	IV	Yes
350526	SppObs	Jun 28 2007	David Hogg	8	IV	Yes
375081	Aquatics	Jun 20 2007	B. T. Watson, M. B. Stine	7	īv	Yes
	L		l II			11

Displayed 20 Species Observations

Selected 41 Observations View all 41 Species Observations

Habitat Predicted for Aquatic WAP Tier I & II Species (1 Reach)

View Map Combined Reaches from Below of Habitat Predicted for WAP Tier I & II Aquatic Species

	Tier Species							
Stream Name	Highest TE*	BOVA Code, Status*, Tier**, Common & Scientific Name						
Rapidan River (20801031)	FPST	060081	FPST	IIa	Floater, green	Lasmigona subviridis	Yes	
Rapidan River (20801031)	FPST	060081	FPST	IIa	Floater, green	Lasmigona subviridis	Yes	

Habitat Predicted for Terrestrial WAP Tier I & II Species

N/A

Virginia Breeding Bird Atlas Blocks (2 records)

<u>View Map of All Query Results</u> <u>Virginia Breeding Bird Atlas Blocks</u>

		Breedin				
BBA ID	Atlas Quadrangle Block Name	Different Species	Highest TE*	Highest Tier**	View Map	
46166	Culpeper West, SE	86		Ш	Yes	
46154	Rapidan, CE	1		Ш	Yes	

Public Holdings:

N/A

Summary of BOVA Species Associated with Cities and Counties of the Commonwealth of Virginia:

FIPS Code	City and County Name	Different Species	Highest TE	Highest Tier
047	Culpeper	349	FESE	I
137	Orange	349	FESE	I

USGS 7.5' Quadrangles:

Rapidan Culpeper West Unionville Culpeper East

USGS NRCS Watersheds in Virginia:

N/A

USGS National 6th Order Watersheds Summary of Wildlife Action Plan Tier I, II, III, and IV Species:

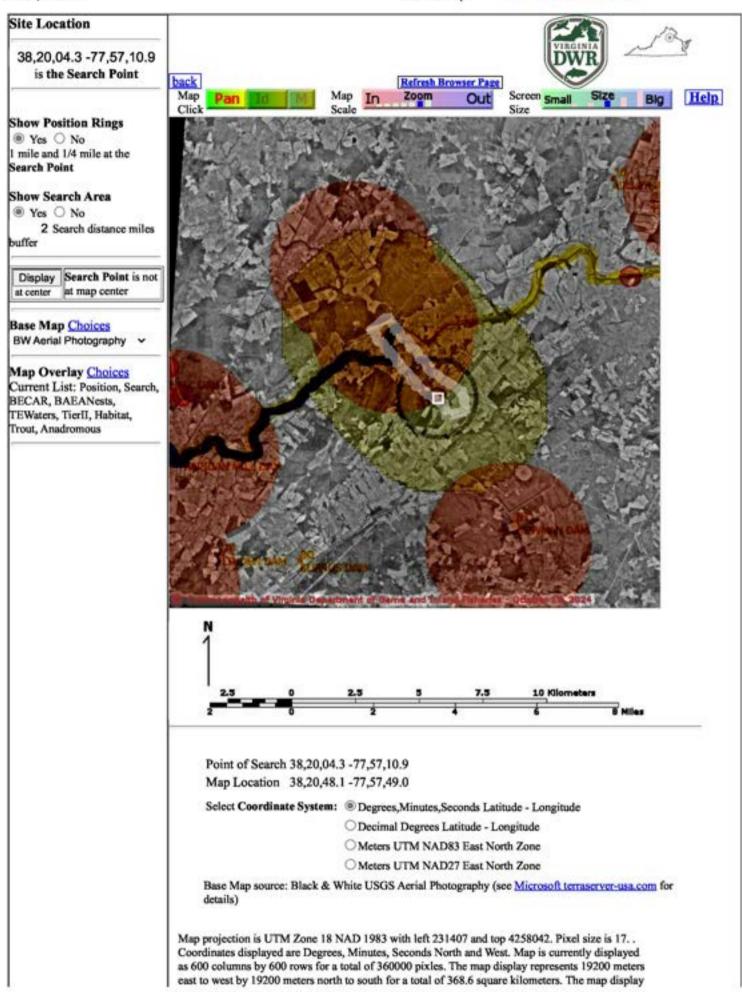
HU6 Code	USGS 6th Order Hydrologic Unit	Different Species	Highest TE	Highest Tier
RA37	Rapidan River-Rapidan	58	FTST	I
RA38	Cedar Run	46	FTST	II
RA39	Rapidan River-Potato Run	55	FTST	I
RA40	Mountain Run-Mill Run	43		I
RA41	Mine Run	42	FTST	I

Compiled on 10/17/2024, 5-83-58 PM 12702547.0 report-all searchTyper-P dist- 32/18 poi- 38.3345500 -77.9530399 siteDO- 38.3345530 -77.9530468;38.3357610 -77.9534578;38.3357930 -77.9534578;38.3357930 -77.9534578;38.3357930 -77.9534578;38.3357930 -77.9534578;38.3357930 -77.9534578;38.3357930 -77.9534578;38.3357930 -77.9534578;38.3357930 -77.9534578;38.3457150 -77.9534578;38.3457150 -77.9705458;38.345530 -77.9715789;38.3457150 -77.97054785;38.3457150 -77.97054785;38.3457150 -77.97054785;38.3457150 -77.97054785;38.3457150 -77.97054785;38.3457150 -77.97054785;38.3457150 -77.97054785;38.3457150 -77.97054785;38.3457150 -77.97054785;38.3457150 -77.97054785;38.3457150 -77.97054785;38.3457150 -77.97054785;38.3457150 -77.97054785;38.3457150 -77.97054785;38.3457150 -77.97054785;38.3457150 -77.97054785;38.3457150 -77.97054785;38.3457150 -77.97054785;38.3457150 -77.97054785;38.3457150 -77.97054785;38.3457150 -77.99054785;38.3457150 -77.99054785;38.3457150 -77.99054785;38.3457150 -77.99054785;38.3457150 -77.99054785;38.3457150 -77.99054785;38.3457150 -77.99054785;38.3457150 -77.99054785;38.3457150 -77.99054785;38.3457150 -77.99054785;38.3457150 -77.99054785;38.3457150 -77.99054785;38.3457150

-77.9517978;38.3340810 -77.9521168;38.3345530 -77.9530468

PixelSize=64; Anadromous=0.020403; BBA=0.03473; BECAR=0.017465; Bate=0.01694; Buffer=0.15368; County=0.046253; BU6=0.055658; Impediments=0.017356; Init=0.199275; PublicLands=0.02336; Quad=0.02968; SppCbs=0.263674; TEWsiters=0.024636; TierResches=0.036496; TierTerrestrial=0.042215; Total=1.073713; Tracking, BOVA=0.183558; Trout=0.021071; have=0.032478

10/17/24, 4:43 PM



10/17/24, 4:43 PM VaFWIS Map

Map Overlay Legend represents 63002 feet east to west by 63002 feet north to south for a total of 142.3 square miles. A UTM Zone change occurs within the image. The left-hand side of the image is a pseudo T & E Waters projection from UTM Zone 17 into UTM Zone 18 resulting in reduced spatial accuracy within the Federal portion of the image occurring in UTM Zone 17. State Topographic maps and Black and white aerial photography for year 1990+are from the United States Department of the Interior, United States Geological Survey. Color aerial photography aquired 2002 is from Virginia Base Mapping Program, Virginia Predicted Habitat Geographic Information Network. WAP Tier I & II Shaded topographic maps are from TOPO! ©2006 National Geographic Aquatic http://www.national.geographic.com/topo All other map products are from the Commonwealth of Virginia Department of Wildlife Resources. Terrestrial map assembled 2024-10-17 17:43:28 (qa/qc March 21, 2016 12:20 - tn=2703547.0 dist=3218 **Trout Waters** \$poi=38.3345500 -77.9530399 Class I - IV Class V - VI Anadromous Fish Reach Confirmed Potential Impediment Position Rings 1 mile and 1/4 mile at the Search Point 2 mile radius Search Area **Baid Eagle** Concentration Areas and Roosts

© 1998-2024 Commonwealth of Virginia Department of Wildlife Resources
| DWR | Credits | Disclaimer | Contact | Web Policy |

VaFWIS Search Report Compiled on 10/17/2024, 5:33:14 PM

Help

Known or likely to occur within a 2 mile buffer around polygon; center 38.5429800 -77.7797099 in 047 Culpeper County, 061 Fauquier County, VA

View Map of Site Location

476 Known or Likely Species ordered by Status Concern for Conservation (displaying first 22) (22 species with Status* or Tier I** or Tier II**)

BOVA Code	Status*	Tier**	Common Name	Scientific Name	Confirmed	Database(s)
050022	FEST	Ia	Bat, northern long-eared	Myotis septentrionalis		BOVA
060003	FESE	Ia	Wedgemussel, dwarf	Alasmidonta heterodon		BOVA
101005	FE	Ia	Bee, rusty patched bumble	Bombus affinis		BOVA
060029	FTST	IIa	Lance, yellow	Elliptio lanceolata	Yes	BOVA,TEWaters,HU6
050020	SE	Ia	Bat, little brown	Myotis lucifugus		BOVA
050027	FPSE	Ia	Bat, tri-colored	Perimyotis subflavus		BOVA
040293	ST	Ia	Shrike, loggerhead	Lanius ludovicianus		BOVA
040379	ST	Ia	Sparrow, Henslow's	Centronyx henslowii		BOVA
060081	FPST	IIa	Floater, green	Lasmigona subviridis	Yes	BOVA,TEWaters,Habitat,HU6
040292	ST		Shrike, migrant loggerhead	Lanius ludovicianus migrans		BOVA
100079	FC	IIIa	Butterfly, monarch	Danaus plexippus		BOVA
030063	CC	IIIa	Turtle, spotted	Clemmys guttata		BOVA
030012	сс	ΓVa	Rattlesnake, timber	Crotalus horridus		BOVA
040092		Ia	Eagle, golden	Aquila chrysaetos	Ĭ.	BOVA
040306		Ia	Warbler, golden- winged	Vermivora chrysoptera		BOVA
100248		Ia	Fritillary, regal	Speyeria idalia idalia		BOVA,HU6
040213		Ic	Owl, northern saw-whet	Aegolius acadicus		BOVA,HU6
040052		IIa	Duck, American black	Anas rubripes		BOVA,HU6

040320	IIa	Warbler, cerulean	Setophaga cerulea		BOVA,HU6
040140	IIa	Woodcock, American	Scolopax minor	Potential	BOVA,BBA,HU6
040203	IIb	Cuckoo, black- billed	Coccyzus erythropthalmus		BOVA
040105	IIb	Rail, king.	Rallus elegans		BOVA

To view All 476 species View 476

- *FE=Federal Endangered; FT=Federal Threatened; SE=State Endangered; ST=State Threatened; FP=Federal Proposed; FC=Federal Candidate; CC=Collection Concern
- **I=VA Wildlife Action Plan Tier II Critical Conservation Need; III=VA Wildlife Action Plan Tier III High Conservation Need; IV=VA Wildlife Action Plan Tier IV Moderate Conservation Need Virginia Wildlife Action Plan Conservation Opportunity Ranking;
- a On the ground management strategies/actions exist and can be feasibly implemented .; b -
- On the ground actions or research needs have been identified but cannot feasibly be implemented at this time.; c-

No on the ground actions or research needs have been identified or all identified conservation opportunities have been exhausted.

View Map of All Query Results from All Observation Tables

Bat Colonies or Hibernacula: Not Known

Anadromous Fish Use Streams (1 records)

View Map of All Anadromous Fish Use Streams

020000000			Anadr	Anadromous Fish Species			
Stream ID	Stream Name	Reach Status	Different Species	Highest TE*	Highest Tier**	View Map	
P183	Rappanannock river 3	Potential	0			Yes	

Impediments to Fish Passage (1 records)

View Map of All Fish Impediments

ID	Name	River	View Map
38	THORN DAM	TR-RAPPAHANNOCK RIVER	Yes

Colonial Water Bird Survey

N/A

Threatened and Endangered Waters (17 Reaches)

View Map of All Threatened and Endangered Waters

		T&E Waters Species	
Stream Name	Highest	BOVA Code, Status*, Tier**,	View
	TE*	Common & Scientific Name	Map

Rappahannock River (085512.)	FPST	060081	FPST	IIa	Floater, green	Lasmigona subviridis	Yes
Rappahannock River	FTST	060029	FTST	IIa	Lance, yellow	Elliptio lanceolata	Ver
(050653_)	FISI	060081	FPST	IIa	Floater, green	Lasmigona subviridis	Yes
Rappahannock River (061451)	FTST	060029	FTST	IIa	Lance, yellow	Elliptio lanceolata	Ver
	FISI	060081	FPST	IIa	Floater, green	Lasmigona subviridis	Yes
Rappahannock River (061979_)	PTOT	060029	FTST	IIa	Lance, yellow	Elliptio lanceolata	V
	FTST	060081	FPST	IIa	Floater, green	Lasmigona subviridis	Yes
Rappahannock River (070234)	PETOT	060029	FTST	IIa	Lance, yellow	Elliptio lanceolata	
	FTST	060081	FPST	IIa	Floater, green	Lasmigona subviridis	Yes
Rappahannock River (074718_)	FTST	060029	FTST	IIa	Lance, yellow	Elliptio lanceolata	Yes
		060081	FPST	IIa	Floater, green	Lasmigona subviridis	
Rappahannock River	FTST	060029	FTST	IIa	Lance, yellow	Elliptio lanceolata	Yes
(083027_)		060081	FPST	IIa	Floater, green	Lasmigona subviridis	
Rappahannock River	FTST	060029	FTST	IIa	Lance, yellow	Elliptio lanceolata	Yes
(084115.)		060081	FPST	IIa	Floater, green	Lasmigona subviridis	
Rappahannock River	FTST	060029	FTST	IIa	Lance, yellow	Elliptio lanceolata	1 1 1 N
(084804_)		060081	FPST	IIa	Floater, green	Lasmigona subviridis	Yes
Rappahannock River	Percent	060029	FTST	IIa	Lance, yellow	Elliptio lanceolata	Yes
(088510_)	FTST	060081	FPST	IIa	Floater, green	Lasmigona subviridis	
Rappahannock River (088638_)	FTST	060029	FTST	IIa	Lance, yellow	Elliptio lanceolata	Yes

E4, 4300 F III	THE SECURITY						
		060081	FPST	IIa	Floater, green	Lasmigona subviridis	
Rappahannock River	DARRESSES	060029	FTST	IIa	Lance, yellow	Elliptio lanceolata	Yes
(091066_)	FTST	060081	FPST	IIa	Floater, green	Lasmigona subviridis	
Rappahannock River	FTST	060029	FTST	IIa	Lance, yellow	Elliptio lanceolata	Yes
(091141_)	FISI	060081	FPST	IIa	Floater, green	Lasmigona subviridis	
Rappahannock River (094217)	FTST	060029	FTST	IIa	Lance, yellow	Elliptio lanceolata	Yes
		060081	FPST	IIa	Floater, green	Lasmigona subviridis	
Rappahannock River	FTST	060029	FTST	IIa	Lance, yellow	Elliptio lanceolata	Yes
(094880_)		060081	FPST	IIa	Floater, green	Lasmigona subviridis	
Rappahannock River	FTST	060029	FTST	IIa	Lance, yellow	Elliptio lanceolata	Yes
(096858_)		060081	FPST	IIa	Floater, green	Lasmigona subviridis	
Rappahannock River (099602_)	pror	060029	FTST	IIa	Lance, yellow	Elliptio lanceolata	V
	060081	FPST	IIa	Floater, green	Lasmigona subviridis	Yes	

Managed Trout Streams

N/A

Bald Eagle Concentration Areas and Roosts

N/A

Bald Eagle Nests (1 records)

View Map of All Query Results Bald Eagle Nests

Nest	N Obs	Latest Date	DGIF Nest Status	View Map
CU0401	6	Jan 1 2007	UNKNOWN	Yes

Species Observations (32 records - displaying first 20)

View Map of All Query Results Species Observations

obsID class		3,39,3000			. 772550411		
		Date Observed	Observer	Different Species	N Species Highest TE*	Highest Tier**	View Map
613184	SppObs	May 30 2011	Mark; Causey	1		Ш	Yes
606361	SppObs	Jun 27 2009	Mark; Causey	1		Ш	Yes
603973	SppObs	May 28 2009	Mark; Causey	1		Ш	Yes
425777	SppObs	Aug 24 2004	VCU - INSTAR	17		Ш	Yes
303376	SppObs	May 24 2002	Wade Lanning	1		Ш	Yes
331532	SppObs	Jan 1 1947	EAL-LACHNER	15		III	Yes
648018	O18 SppObs Sep 11 2021 Brett Ostby		Brett Ostby; Emory Hagemeyer	3		IV	Yes
648017	SppObs	Sep 11 2021	Brett Ostby; Emory Hagemeyer	4		IV	Yes
634432	SppObs	Sep 19 2020	Brett Ostby; Braven Beaty	5		IV	Yes
350608	SppObs	May 26 2007	Jay Keller	22		IV	Yes
350614	SppObs	May 26 2007	Jay Keller	20		IV	Yes
350613	SppObs	May 26 2007	Jay Keller	16		IV	Yes
350610	SppObs	May 26 2007	Jay Keller	19		IV	Yes
350612	SppObs	May 26 2007	Jay Keller	14		IV	Yes
350611	SppObs	May 26 2007	Jay Keller	12		IV	Yes
350609	SppObs	May 26 2007	Jay Keller	15		IV	Yes
350615	SppObs	May 26 2007	Jay Keller	12		IV	Yes
350606	SppObs	May 26 2007	Jay Keller	19		IV	Yes
95081	SppObs	May 21 2004	MIke Boatwright	1			Yes
95065	SppObs	May 2 2004	George Harris	1			Yes

Displayed 20 Species Observations

Selected 32 Observations View all 32 Species Observations

Habitat Predicted for Aquatic WAP Tier I & II Species (1 Reach)

View Map Combined Reaches from Below of Habitat Predicted for WAP Tier I & II Aquatic Species

	Tier Species						
Stream Name	Highest TE*		View Map				
Rappahannock River (20801031)	FPST	060081	FPST	IIa	Floater, green	Lasmigona subviridis	Yes
Rappahannock River (20801031)	FPST	060081	FPST	IIa	Floater, green	Lasmigona subviridis	Yes

Habitat Predicted for Terrestrial WAP Tier I & II Species

N/A

Virginia Breeding Bird Atlas Blocks (5 records)

View Map of All Query Results Virginia Breeding Bird Atlas Blocks

BBA ID		Breedin			
	Atlas Quadrangle Block Name	Different Species	Highest TE*	Highest Tier**	View Map
49173	Midland, CW	1			Yes
48174	Remington, CE	45		III	Yes
48173	Remington, CW	37		III	Yes
48176	Remington, SE	69		II	Yes
48175	Remington, SW	41		Ш	Yes

Public Holdings:

N/A

Summary of BOVA Species Associated with Cities and Counties of the Commonwealth of Virginia:

FIPS Code	City and County Name	Different Species	Highest TE	Highest Tier
047	Culpeper	349	FESE	I
061	Fauquier	416	FESE	I

USGS 7.5' Quadrangles:

Remington Midland

USGS NRCS Watersheds in Virginia:

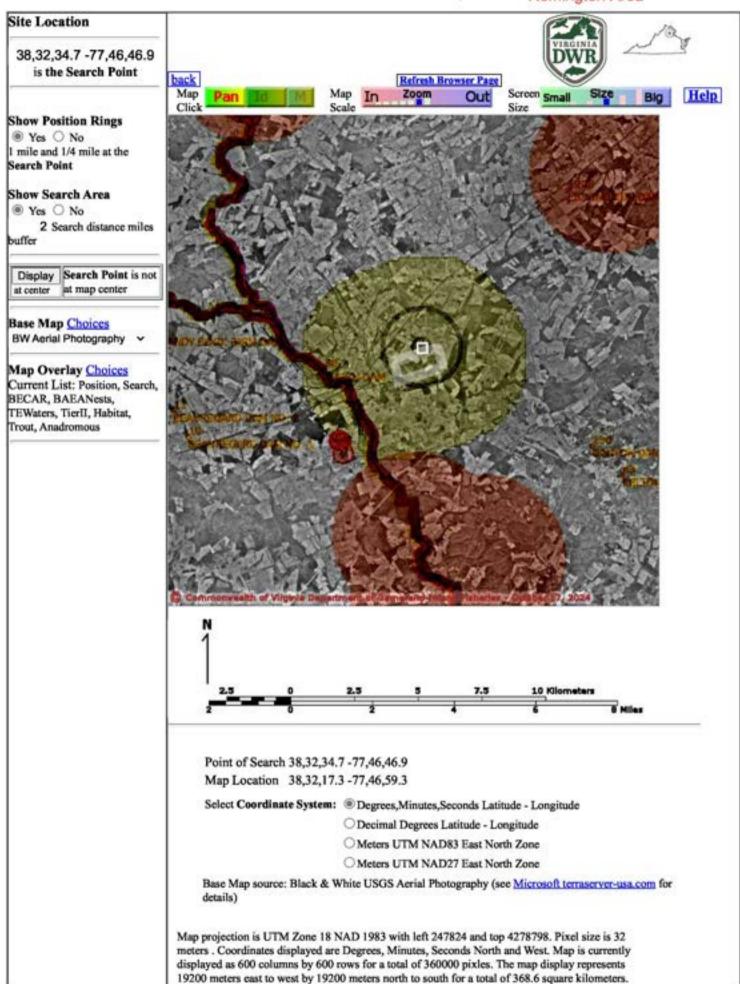
N/A

USGS National 6th Order Watersheds Summary of Wildlife Action Plan Tier I, II, III, and IV Species:

HU6 Code	USGS 6th Order Hydrologic Unit	Different Species	Highest TE	Highest Tier
RA17	Marsh Run	54	FTST	I
RA18	Rappahannock River-Ruffans Run	59	FTST	I

Compiled on 10/17/2024, 5:33:14 PM 12703543.0 report-all searchType- P dist-3218 poi-38.5429800 -77.7797099 siteOO-38.5429840 -77.7797138;38.5431100 -77.7792818;38.5431770 -77.779038;38.54463-40 -77.7749358;38.5417830 -77.773958;38.540590 -77.7730708;38.5333300 -77.7738038;38.533330 -77.773818;38.5334460 -77.7790498;38.5341590 -77.7784358;38.531540 -77.778438;38.533140 -77.781628;38.533140 -77.781628;38.533140 -77.781628;38.533140 -77.781628;38.542420 -77.781628;38.5

PixelSize=64; Anadromous=0.020327; BBA=0.031598; BBCAR=0.020568; Bats=0.016549; Buffer=0.098345; County=0.049964; BU6=0.045618; Impediments=0.017992; Init=0.134858; PublicLands=0.021938; Quad=0.023569; SppCbs=0.260802; TEWaters=0.024671; TierReaches=0.039064; TierTerrestrial=0.034297; Total=0.992383; Tracking_BOVA=0.301035; Trout=0.020735; have=0.023349



Map Overlay Legend	The map display represents 63002 feet square miles.	east to west by 63002 feet north to south for a to	tal of 142.3		
T & E Waters	2 4 7 0 3 3 4 4 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
	Topographic maps and Black and whit				
Federal		of the Interior, United States Geological Survey			
State		is from Virginia Base Mapping Program, Virgin	ia		
50406	Geographic Information Network, Shaded topographic maps are from TO	DOL COOK National Communities			
B #	http://www.national.geographic.com/to				
Predicted Habitat WAP Tier I & II		All other map products are from the Commonwealth of Virginia Department of Wildlife Resources.			
WAP HEFT & H	An outer map products are from the Co	ommonwealth of virginia Department of within	Resources.		
Aquatic	map assembled 2024-10-17 17:32:43	(qa/qc March 21, 2016 12:20 - tn=2703543.0	dist=3218		
	1)	(4-1			
Terrestrial	Spoi=38.5429800 -77.7797099				
1011030101	(a) Rec. (c)				
Trout Waters					
Class I - IV					
The second second					
Class V - VI					
Anadromous Fish Reach					
Confirmed					
The second second					
Potential					
4.00					
323 Impediment					
Position Rings					
1 mile and 1/4					
mile at the					
Search Point					
2 mile radius					
Search Area					
nutrate.					
Baid Eagle					
Concentration Areas and Roosts					
and roots					

© 1998-2024 Commonwealth of Virginia Department of Wildlife Resources
| DWR | Credits | Disclaimer | Contact | Web Policy |



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Virginia Ecological Services Field Office 6669 Short Lane Gloucester, VA 23061-4410 Phone: (804) 693-6694

In Reply Refer To: 10/17/2024 20:42:06 UTC

Project Code: 2025-0007821 Project Name: Culpeper

Subject: List of threatened and endangered species that may occur in your proposed project

location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

Project code: 2025-0007821

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultationhandbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: Responsibilities of Federal Agencies to Protect Migratory Birds, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Project Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- · Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- · Migratory Birds

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Virginia Ecological Services Field Office 6669 Short Lane Gloucester, VA 23061-4410 (804) 693-6694

PROJECT SUMMARY

Project code: 2025-0007821

Project Code: 2025-0007821 Project Name: Culpeper

Project Type: Transmission Line - New Constr - Above Ground

Project Description: New overhead powerline routes.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@38.434922650000004,-77.9482759715485,14z



Counties: Culpeper, Fauquier, and Orange counties, Virginia

ENDANGERED SPECIES ACT SPECIES

Project code: 2025-0007821

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an
office of the National Oceanic and Atmospheric Administration within the Department of
Commerce.

Threatened

Candidate

MAMMALS

NAME STATUS

Tricolored Bat Perimyotis subflavus Proposed
No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/10515

CLAMS

NAME STATUS

Dwarf Wedgemussel Alasmidonta heterodon Endangered

No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/784

Green Floater Lasmigona subviridis

There is proposed critical habitat for this species. Your location does not overlap the critical

Threatened

nabitat.

Species profile: https://ecos.fws.gov/ecp/species/7541

Yellow Lance Elliptio lanceolata

There is final critical habitat for this species. Your location does not overlap the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/4511

INSECTS

NAME STATUS

Monarch Butterfly Danaus plexippus

No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the <u>National Wildlife Refuge</u> system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

DEFERMAN

BALD & GOLDEN EAGLES

Project code: 2025-0007821

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

- 1. The Bald and Golden Eagle Protection Act of 1940.
- 2. The Migratory Birds Treaty Act of 1918.
- 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to Bald Eagle Nesting and Sensitivity to Human Activity

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	SEASON
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
Golden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities, https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (III)

Project code: 2025-0007821

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (*)

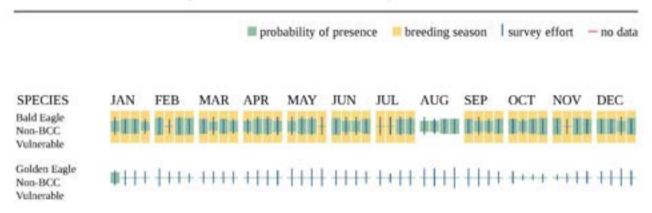
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (1)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider

BREEDING

Project code: 2025-0007821

implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

- The Migratory Birds Treaty Act of 1918.
- 2. The Bald and Golden Eagle Protection Act of 1940.
- 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	SEASON
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
Black-billed Cuckoo Coccyzus erythropthalmus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Chimney Swift Chaetura pelagica This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will Antrostomus vociferus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10678	Breeds May 1 to Aug 20
Golden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere
Grasshopper Sparrow Ammodramus savannarum perpallidus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8329	Breeds Jun 1 to Aug 20
Kentucky Warbler Geothlypis formosa This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9443	Breeds Apr 20 to Aug 20

NAME	BREEDING SEASON
King Rail Rallus elegans This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8936	Breeds May 1 to Sep 5
Prairie Warbler Setophaga discolor This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9513	Breeds May 1 to Jul 31
Prothonotary Warbler Protonotaria citrea This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9439	Breeds Apr 1 to Jul 31
Red-headed Woodpecker Melanerpes erythrocephalus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Rusty Blackbird Euphagus carolinus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Wood Thrush Hylocichla mustelina This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (III)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (**)

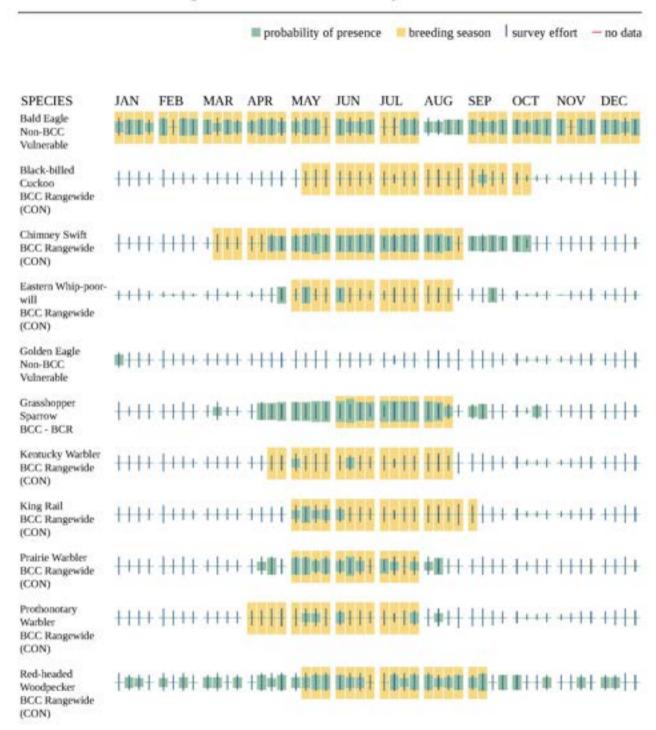
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (1)

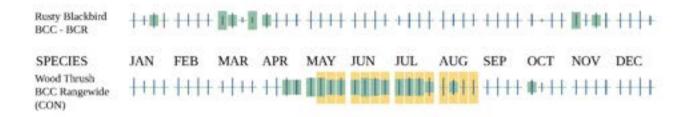
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.



Project code: 2025-0007821



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

Project code: 2025-0007821 10/17/2024 20:42:06 UTC

IPAC USER CONTACT INFORMATION

Agency: Private Entity Name: Madison Adams

Address: 222 South 9th Street, Suite 2900

City: Minneapolis

State: MN Zip: 55402

Email madisonkadams16@gmail.com

Phone: 2188397343



CCB Mapping Portal



Layers: VA Eagle Nest Locator

Map Center [longitude, latitude]: [-77.77221679687499, 38.407060899899484]

Map Link:

 $\frac{\text{https://ccbbirds.org/maps/\#layer=VA+Eagle+Nest+Locator\&zoom=11\&lat=38.407060899899484\&lng=-77.77221}{679687499\&legend=legend_tab_7c321b7e-e523-11e4-aaa0-0e0c41326911\&base=Street+Map+%28OSM%2FCarto%29}$

Report Generated On: 10/17/2024

The Center for Conservation Biology (CCB) provides certain data online as a free service to the public and the regulatory sector. CCB encourages the use of its data sets in wildlife conservation and management applications. These data are protected by intellectual property laws. All users are reminded to view the <u>Data Use Agreement</u> to ensure compliance with our data use policies. For additional data access questions, view our <u>Data Distribution Policy</u>, or contact our Data Manager, Marie Pitts, at mlpitts@wm.edu or 757-221-7503.

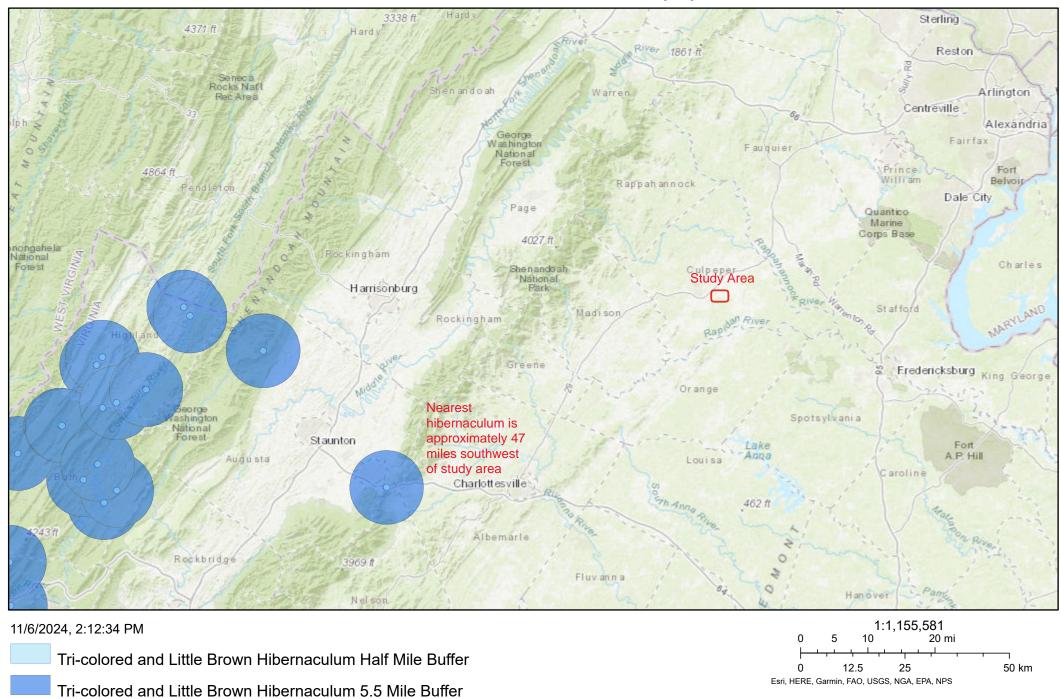
Report generated by <u>The Center for Conservation Biology Mapping Portal</u>.

To learn more about CCB visit ccbbirds.org or contact us at info@ccbbirds.org

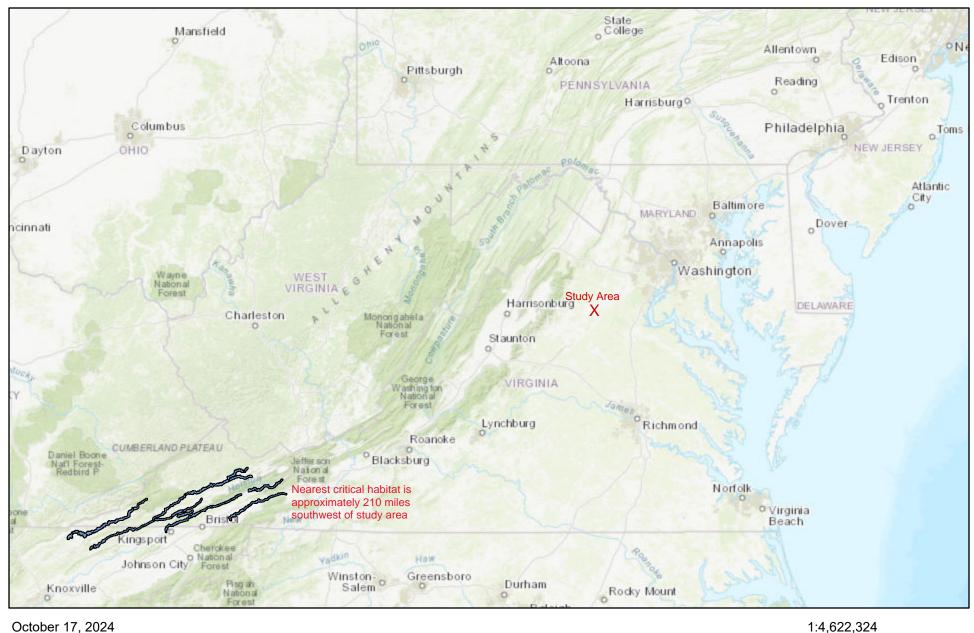
NLEB Locations and Roost Trees - Culpeper Tech Zone



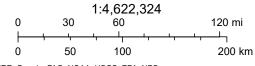
MYLU PESU Hibernacula - Culpeper



Critical Habitat in Virginia - Culpeper



Virginia Critical Habitat (published)



Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS

From: nhreview (DCR)
To: Briana Cooney

Cc: Hypes, Rene (DCR): Weber, Joseph (DCR)

 Subject:
 Re: 0642267, Golden-Mars

 Date:
 Thursday, May 23, 2024 9:58:13 AM

Attachments: image002.png

image.png image.png image.png

EXTERNAL MESSAGE

Briana,

Thanks for your patience with this. I've reiterated your questions in blue, with answers below.

I was reviewing the SCS shapefile you all sent, and I noticed that there are pieces of the SCS that are now developed. Have there been any studies of this area recently? Are you able to tell me when this SCS area was created or last modified?

- Our Chief of Biodiversity Information and Conservation Tools said that there does seem to be areas of the SCS that were developed since it was created. Much of the SCS is still intact, however, and perhaps even more important for maintaining water quality for NHR.
- It looks like the SCS was last modified 7/6/2023. Stream Conservation Sites do not represent
 protected areas, but waterways and terrestrial areas that contribute to the habitat quality of
 the documented resource. These areas will affect the water quality of the Yellow lampmussel
 habitat regardless of their current land use.

I also noticed that the natural heritage resource associated with this SCS is the Yellow lampmussel; however, in my database searches, I haven't seen a documented occurrence of this species within the SCS or study area. Do you have additional information on the presence of this species?

- Generally we do not share the location of our documented resources, only the associated SCS or Conservation Site. Looking at my data, the Yellow lampmussel is documented within the SCS. The documented locations are in Broad Run, the main branch of the SCS in the northern portion. The other stream areas included in the SCS are upstream of documented occurrences and changes to the water quality within the SCS will impact the documented resource.
- I can't really comment on the lack of the Yellow lampmussel in the databases without knowing which ones you used. It would not be found in DWR or USFWS databases as it is not a listed species. NHDE (Natural Heritage Database Explorer) only shows documented occurrences to Tier 3 users, which is only available to our conservation partners.

I've also noticed in this project and previous projects that some ecological cores identified are less than 100 acres, and the VDCR letter states: "Ecological Cores are areas of at least 100 acres of continuous interior..." Should we continue to study cores that are under 100 acres?

- The cores are found in <u>Virginia Natural Landscape Assessment</u> Ecological Cores and Habitat
 Fragments data layer. It looks like the feature in question is a habitat fragment, the link above
 can give you some more information about Cores and Habitat Fragments.
- From our Chief of Biodiversity Information and Conservation Tools: "Smaller areas of continuous interior cover (i.e., 10 to 99 acres) called Habitat Fragments support Ecological

Cores and provide similar functions and values. Both feature types are discussed on the website.

- Ecological Cores and Habitat Fragments are ranked by Ecological Integrity based on variables including rare species habitats, habitat diversity, resilience, and water quality, to reflect the wide range of important benefits and ecosystem services they provide. Brief descriptions of Ecological Integrity rankings are:
- C1 Outstanding: These cores tend to be large in area, of deepest interior, of greatest
 water quality protections, highest in habitat diversity and rich in rare species,
 including species listed as threatened or endangered. Of all Ecological Cores in the
 Commonwealth 1% are ranked as C1.
- C2 Very High: These cores have all or many of the same characteristics and values as C1 cores, though to a lesser extent. About 2.5% of all cores in the Commonwealth are ranked C2.
- C3 High, C4 Moderate, and C5 General: These cores, as well as habitat fragments, have some of the same quantifiable values and characteristics as higherranked cores, though much reduced due to their having substantially less interior area and smaller area overall.
- There are no Habitat Fragments ranked above C3.
- Due to Habitat Fragments ability to provide important ecological functions and values, we do still recommend avoiding impacts and when impacts can not be avoided to keep them to the edge of the fragment/core. We only recommend a formal impact analysis for C1 and C2 Cores, which never include fragments.

Hopefully this information is helpful. I have Cc'd Joe Weber our Chief of Biodiversity Information and Conservation Tools and Rene' Hypes our Project Review Coordinator. Let me know if you have anymore questions or if any of the information here needs clarification.

Thank you,

Nicki Gustafson (she/her) Project Review Assistant

Division of Natural Heritage
Virginia Department of Conservation and Recreation
600 E. Main Street, 24th Floor
Richmond, VA 23219
804-625-3979 | nicki.gustafson@dcr.virginia.gov



