



## 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:

07/11/2025 18:52:22 UTC

Project Code: 2025-0120790

Project Name: 19067-E-PointOne Richmond Campus-Update

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.

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-consultation-handbook.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 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>.

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

## **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: 2025-0120790  
Project Name: 19067-E-PointOne Richmond Campus-Update  
Project Type: Acquisition of Lands  
Project Description: Due diligence for propose data center development  
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@37.448117350000004,-77.15699681992443,14z>



Counties: Charles City County, Virginia

## ENDANGERED SPECIES ACT SPECIES

There is a total of 3 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 Fisheries<sup>1</sup>, 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.

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1. [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.

## MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a>	Proposed Endangered

## INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is <b>proposed</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Proposed Threatened

## 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 [National Wildlife Refuge](#) 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.

## **IPAC USER CONTACT INFORMATION**

Agency: Private Entity  
Name: Dana Spontak  
Address: 804 Professional Place West  
City: Chesapeake  
State: VA  
Zip: 23320  
Email: dspontak@ecslimited.com  
Phone: 7575035991

# Stream Assessment Form (Form 1)

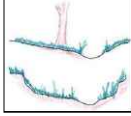
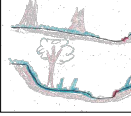
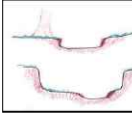
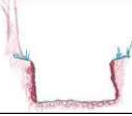
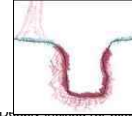
Unified Stream Methodology for use in Virginia

For use in wadeable channels classified as intermittent or perennial

Project #	Project Name	Locality	Cowardin Class.	HUC	Date	SAR #	Impact/SAR length	Impact Factor
19067-F	PointOne Richmond Campus	Charles City	R4	02080206	3/13/25	1	69	1

Name(s) of Evaluator(s)	Stream Name and Information
FMF, KAK	Stream H, Stream Impact 1

## 1. Channel Condition: Assess the cross-section of the stream and prevailing condition (erosion, aggradation)

	Conditional Category					
	Optimal	Suboptimal	Marginal	Poor	Severe	
<b>Channel Condition</b>						
	Very little incision or active erosion; 80-100% stable banks. Vegetative surface protection or natural rock, prominent (80-100%). AND/OR Stable point bars/bankfull benches are present. Access to their original floodplain or fully developed wide bankfull benches. Mid-channel bars, and transverse bars few. Transient sediment deposition covers less than 10% of bottom.	Slightly incised, few areas of active erosion or unprotected banks. Majority of banks are stable (60-80%). Vegetative protection or natural rock prominent (60-80%) AND/OR Depositional features contribute to stability. The bankfull and low flow channels are well defined. Stream likely has access to bankfull benches, or newly developed floodplains along portions of the reach. Transient sediment covers 10-40% of the stream bottom.	Often incised, but less than Severe or Poor. Banks more stable than Severe or Poor due to lower bank slopes. Erosion may be present on 40-60% of both banks. Vegetative protection on 40-60% of banks. Streambanks may be vertical or undercut. AND/OR 40-60% of stream is covered by sediment. Sediment may be temporary/transient, contribute instability. Deposition that contribute to stability, may be forming/present. AND/OR V-shaped channels have vegetative protection on > 40% of the banks and depositional features which	Overwidened/incised. Vertically/laterally unstable. Likely to widen further. Majority of both banks are near vertical. Erosion present on 60-80% of banks. Vegetative protection present on 20-40% of banks, and is insufficient to prevent erosion. AND/OR 60-80% of the stream is covered by sediment. Sediment is temporary/transient in nature, and contributing to instability. AND/OR V-shaped channels have vegetative protection is present on > 40% of the banks and stable sediment deposition is absent.	Overwidened/incised, vertically/lateral instability. Severe incision, flow contained within the banks. Streambed below average rooting depth, majority of banks vertical/undercut. Vegetative protection present on less than 20% of banks, is not preventing erosion. Obvious bank sloughing present. Erosion/raw banks on 80-100%. AND/OR Aggrading channel. Greater than 80% of stream bed is covered by deposition, contributing to instability. Multiple thread channels and/or subterranean flow.	<b>CI</b>
<b>Score</b>	<b>3</b>	<b>2.4</b>	<b>2</b>	<b>1.6</b>	<b>1</b>	<b>2.4</b>
<b>NOTES&gt;&gt;</b>						

## 2. RIPARIAN BUFFERS: Assess both bank's 100 foot riparian areas along the entire SAR. (rough measurements of length & width may be acceptable)

	Conditional Category							
	Optimal	Suboptimal	Marginal	Poor				
<b>Riparian Buffers</b>	Tree stratum (dbh > 3 inches) present, with > 60% tree canopy cover and a non-maintained understory. Wetlands located within the riparian areas.	<b>High Suboptimal:</b> Riparian areas with tree stratum (dbh > 3 inches) present, with 30% to 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory.	<b>Low Suboptimal:</b> Riparian areas with tree stratum (dbh > 3 inches) present, with > 30% tree canopy cover and a maintained understory. Recent cutover (dense vegetation).	<b>High Marginal:</b> Non-maintained, dense herbaceous vegetation with either a shrub layer or a tree layer (dbh > 3 inches) present, with <30% tree canopy cover.	<b>Low Marginal:</b> Non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, hay production, ponds, open water. If present, tree stratum (dbh > 3 inches) present, with <30% tree canopy cover with maintained understory.	<b>High Poor:</b> Lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, or recently seeded and stabilized, or other comparable condition.	<b>Low Poor:</b> Impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, trails, or other comparable conditions.	
<b>Condition Scores</b>	<b>1.5</b>	<b>High</b>	<b>Low</b>	<b>High</b>	<b>Low</b>	<b>High</b>	<b>Low</b>	

- Delineate riparian areas along each stream bank into Condition Categories and Condition Scores using the descriptors.
- Determine square footage for each by measuring or estimating length and width. Calculators are provided for you below.
- Enter the % Riparian Area and Score for each riparian category in the blocks below.

	% Riparian Area>	100%						100%
<b>Right Bank</b>	Score >	1.1						
								<small>CI= (Sum % RA * Scores*0.01)/2</small>
<b>Left Bank</b>	% Riparian Area>	100%						100%
	Score >	1.1						1.10
								1.10

## 3. INSTREAM HABITAT: Varied substrate sizes, water velocity and depths; woody and leafy debris; stable substrate; low embededness; shade; undercut banks; root mats; SAV; riffle poole complexes, stable features.

	Conditional Category				
	Optimal	Suboptimal	Marginal	Poor	
<b>Instream Habitat/ Available Cover</b>	Habitat elements are typically present in greater than 50% of the reach.	Stable habitat elements are typically present in 30-50% of the reach and are adequate for maintenance of populations.	Stable habitat elements are typically present in 10-30% of the reach and are adequate for maintenance of populations.	Habitat elements listed above are lacking or are unstable. Habitat elements are typically present in less than 10% of the reach.	
<b>Score</b>	<b>1.5</b>	<b>1.2</b>	<b>0.9</b>	<b>0.5</b>	<b>0.90</b>

# Stream Impact Assessment Form Page 2

Project #	Applicant	Locality	Cowardin Class.	HUC	Date	Data Point	SAR length	Impact Factor
							500	1
<b>4. CHANNEL ALTERATION:</b> Stream crossings, riprap, concrete, gabions, or concrete blocks, straightening of channel, channelization, embankments, spoil piles, constrictions, livestock							<b>NOTES&gt;&gt;</b>	
<b>Conditional Category</b>								
<b>Channel Alteration</b>	<b>Negligible</b>	<b>Minor</b>		<b>Moderate</b>		<b>Severe</b>		
	Channelization, dredging, alteration, or hardening absent. Stream has an unaltered pattern or has naturalized.	Less than 20% of the stream reach is disrupted by any of the channel alterations listed in the parameter guidelines.	20-40% of the stream reach is disrupted by any of the channel alterations listed in the parameter guidelines.	40 - 60% of reach is disrupted by any of the channel alterations listed in the parameter guidelines. If stream has been channelized, normal stable stream meander pattern has not recovered.	60 - 80% of reach is disrupted by any of the channel alterations listed in the parameter guidelines. If stream has been channelized, normal stable stream meander pattern has not recovered.	Greater than 80% of reach is disrupted by any of the channel alterations listed in the parameter guidelines AND/OR 80% of banks shored with gabion, riprap, or cement.		
<b>SCORE</b>	<b>1.5</b>	<b>1.3</b>	<b>1.1</b>	<b>0.9</b>	<b>0.7</b>	<b>0.5</b>	<b>1.50</b>	

### REACH CONDITION INDEX and STREAM CONDITION UNITS FOR THIS REACH

NOTE: The CIs and RCI should be rounded to 2 decimal places. The CR should be rounded to a whole number.

<b>THE REACH CONDITION INDEX (RCI) &gt;&gt;</b>	<b>1.18</b>
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RCI= (Sum of all CIs)/5

<b>COMPENSATION REQUIREMENT (CR) &gt;&gt;</b>	<b>81</b>
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CR = RCI X LF X IF

**INSERT PHOTOS:**



**DESCRIBE PROPOSED IMPACT:**

road/culvert crossing

# Stream Assessment Form (Form 1)

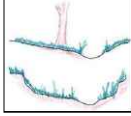
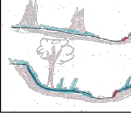
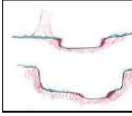
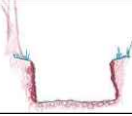
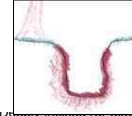
Unified Stream Methodology for use in Virginia

For use in wadeable channels classified as intermittent or perennial

Project #	Project Name	Locality	Cowardin Class.	HUC	Date	SAR #	Impact/SAR length	Impact Factor
19067-F	PointOne Richmond Campus	Charles City	R4	02080206	3/13/25	2	71	1

Name(s) of Evaluator(s)	Stream Name and Information
FMF, KAK	Stream H, Stream Impact 2

## 1. Channel Condition: Assess the cross-section of the stream and prevailing condition (erosion, aggradation)

	Conditional Category					
	Optimal	Suboptimal	Marginal	Poor	Severe	
<b>Channel Condition</b>						
	Very little incision or active erosion; 80-100% stable banks. Vegetative surface protection or natural rock, prominent (80-100%). AND/OR Stable point bars/bankfull benches are present. Access to their original floodplain or fully developed wide bankfull benches. Mid-channel bars, and transverse bars few. Transient sediment deposition covers less than 10% of bottom.	Slightly incised, few areas of active erosion or unprotected banks. Majority of banks are stable (60-80%). Vegetative protection or natural rock prominent (60-80%) AND/OR Depositional features contribute to stability. The bankfull and low flow channels are well defined. Stream likely has access to bankfull benches, or newly developed floodplains along portions of the reach. Transient sediment covers 10-40% of the stream bottom.	Often incised, but less than Severe or Poor. Banks more stable than Severe or Poor due to lower bank slopes. Erosion may be present on 40-60% of both banks. Vegetative protection on 40-60% of banks. Streambanks may be vertical or undercut. AND/OR 40-60% of stream is covered by sediment. Sediment may be temporary/transient, contribute instability. Deposition that contribute to stability, may be forming/present. AND/OR V-shaped channels have vegetative protection on > 40% of the banks and depositional features which	Overwidened/incised. Vertically/laterally unstable. Likely to widen further. Majority of both banks are near vertical. Erosion present on 60-80% of banks. Vegetative protection present on 20-40% of banks, and is insufficient to prevent erosion. AND/OR 60-80% of the stream is covered by sediment. Sediment is temporary/transient in nature, and contributing to instability. AND/OR V-shaped channels have vegetative protection is present on > 40% of the banks and stable sediment deposition is absent.	Overwidened/incised, vertically/lateral instability. Severe incision, flow contained within the banks. Streambed below average rooting depth, majority of banks vertical/undercut. Vegetative protection present on less than 20% of banks, is not preventing erosion. Obvious bank sloughing present. Erosion/raw banks on 80-100%. AND/OR Aggrading channel. Greater than 80% of stream bed is covered by deposition, contributing to instability. Multiple thread channels and/or subterranean flow.	<b>CI</b>
<b>Score</b>	<b>3</b>	<b>2.4</b>	<b>2</b>	<b>1.6</b>	<b>1</b>	<b>2.4</b>
<b>NOTES&gt;&gt;</b>						

## 2. RIPARIAN BUFFERS: Assess both bank's 100 foot riparian areas along the entire SAR. (rough measurements of length & width may be acceptable)

	Conditional Category							
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<b>Condition Scores</b>	<b>1.5</b>	<b>High</b>	<b>Low</b>	<b>High</b>	<b>Low</b>	<b>High</b>	<b>Low</b>	

1. Delineate riparian areas along each stream bank into Condition Categories and Condition Scores using the descriptors.
2. Determine square footage for each by measuring or estimating length and width. Calculators are provided for you below.
3. Enter the % Riparian Area and Score for each riparian category in the blocks below.

<b>Right Bank</b>	% Riparian Area>	100%						100%
	Score >	1.1						
CI= (Sum % RA * Scores*0.01)/2								
<b>Left Bank</b>	% Riparian Area>	100%						100%
	Score >	1.1						1.10
								1.10

## 3. INSTREAM HABITAT: Varied substrate sizes, water velocity and depths; woody and leafy debris; stable substrate; low embeddedness; shade; undercut banks; root mats; SAV; riffle poole complexes, stable features.

	Conditional Category				
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<b>Instream Habitat/ Available Cover</b>	Habitat elements are typically present in greater than 50% of the reach.	Stable habitat elements are typically present in 30-50% of the reach and are adequate for maintenance of populations.	Stable habitat elements are typically present in 10-30% of the reach and are adequate for maintenance of populations.	Habitat elements listed above are lacking or are unstable. Habitat elements are typically present in less than 10% of the reach.	<b>CI</b>
<b>Score</b>	<b>1.5</b>	<b>1.2</b>	<b>0.9</b>	<b>0.5</b>	<b>0.90</b>

# Stream Impact Assessment Form Page 2

Project #	Applicant	Locality	Cowardin Class.	HUC	Date	Data Point	SAR length	Impact Factor
							500	1
<b>4. CHANNEL ALTERATION:</b> Stream crossings, riprap, concrete, gabions, or concrete blocks, straightening of channel, channelization, embankments, spoil piles, constrictions, livestock							<b>NOTES&gt;&gt;</b>	
<b>Conditional Category</b>								
<b>Channel Alteration</b>	<b>Negligible</b>	<b>Minor</b>		<b>Moderate</b>		<b>Severe</b>		
	Channelization, dredging, alteration, or hardening absent. Stream has an unaltered pattern or has naturalized.	Less than 20% of the stream reach is disrupted by any of the channel alterations listed in the parameter guidelines.	20-40% of the stream reach is disrupted by any of the channel alterations listed in the parameter guidelines.	40 - 60% of reach is disrupted by any of the channel alterations listed in the parameter guidelines. If stream has been channelized, normal stable stream meander pattern has not recovered.	60 - 80% of reach is disrupted by any of the channel alterations listed in the parameter guidelines. If stream has been channelized, normal stable stream meander pattern has not recovered.	Greater than 80% of reach is disrupted by any of the channel alterations listed in the parameter guidelines AND/OR 80% of banks shored with gabion, riprap, or cement.		
<b>SCORE</b>	<b>1.5</b>	<b>1.3</b>	<b>1.1</b>	<b>0.9</b>	<b>0.7</b>	<b>0.5</b>	<b>1.50</b>	

### REACH CONDITION INDEX and STREAM CONDITION UNITS FOR THIS REACH

NOTE: The CIs and RCI should be rounded to 2 decimal places. The CR should be rounded to a whole number.

<b>THE REACH CONDITION INDEX (RCI) &gt;&gt;</b>	<b>1.18</b>
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RCI= (Sum of all CI's)/5

<b>COMPENSATION REQUIREMENT (CR) &gt;&gt;</b>	<b>84</b>
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CR = RCI X LF X IF

**INSERT PHOTOS:**



**DESCRIBE PROPOSED IMPACT:**

road/culvert crossing



## Stream Impact Assessment Form Page 2

Project #	Applicant	Locality	Cowardin Class.	HUC	Date	Data Point	SAR length	Impact Factor
							500	1
<b>4. CHANNEL ALTERATION:</b> Stream crossings, riprap, concrete, gabions, or concrete blocks, straightening of channel, channelization, embankments, spoil piles, constrictions, livestock							<b>NOTES&gt;&gt;</b>	
<b>Conditional Category</b>								
<b>Channel Alteration</b>	<b>Negligible</b>	<b>Minor</b>		<b>Moderate</b>	<b>Severe</b>			
	Channelization, dredging, alteration, or hardening absent. Stream has an unaltered pattern or has naturalized.	Less than 20% of the stream reach is disrupted by any of the channel alterations listed in the parameter guidelines.	20-40% of the stream reach is disrupted by any of the channel alterations listed in the parameter guidelines.	40 - 60% of reach is disrupted by any of the channel alterations listed in the parameter guidelines. If stream has been channelized, normal stable stream meander pattern has not recovered.	60 - 80% of reach is disrupted by any of the channel alterations listed in the parameter guidelines. If stream has been channelized, normal stable stream meander pattern has not recovered.	Greater than 80% of reach is disrupted by any of the channel alterations listed in the parameter guidelines AND/OR 80% of banks shored with gabion, riprap, or cement.		
<b>SCORE</b>	<b>1.5</b>	<b>1.3</b>	<b>1.1</b>	<b>0.9</b>	<b>0.7</b>	<b>0.5</b>	<b>1.50</b>	

### REACH CONDITION INDEX and STREAM CONDITION UNITS FOR THIS REACH

NOTE: The CIs and RCI should be rounded to 2 decimal places. The CR should be rounded to a whole number.

**THE REACH CONDITION INDEX (RCI) >>** **1.12**

RCI= (Sum of all CIs)/5

**COMPENSATION REQUIREMENT (CR) >>** **319**

CR = RCI X LF X IF

**INSERT PHOTOS:**



**DESCRIBE PROPOSED IMPACT:**

road/culvert crossing



**DESCRIBE PROPOSED IMPACT:**

Utility corridor/associated culvert

# Stream Assessment Form (Form 1)

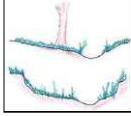
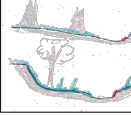
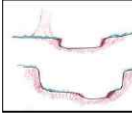
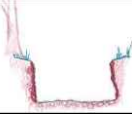
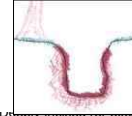
Unified Stream Methodology for use in Virginia

For use in wadeable channels classified as intermittent or perennial

Project #	Project Name	Locality	Cowardin Class.	HUC	Date	SAR #	Impact/SAR length	Impact Factor
19067-F	PointOne Richmond Campus	Charles City	R4	02080206	3/7/25	5	94	1

Name(s) of Evaluator(s)	Stream Name and Information
DS, KD	Stream N, Stream Impact 5

## 1. Channel Condition: Assess the cross-section of the stream and prevailing condition (erosion, aggradation)

Channel Condition	Conditional Category					Score
	Optimal	Suboptimal	Marginal	Poor	Severe	
						
	Very little incision or active erosion; 80-100% stable banks. Vegetative surface protection or natural rock, prominent (80-100%). AND/OR Stable point bars/bankfull benches are present. Access to their original floodplain or fully developed wide bankfull benches. Mid-channel bars, and transverse bars few. Transient sediment deposition covers less than 10% of bottom.	Slightly incised, few areas of active erosion or unprotected banks. Majority of banks are stable (60-80%). Vegetative protection or natural rock prominent (60-80%) AND/OR Depositional features contribute to stability. The bankfull and low flow channels are well defined. Stream likely has access to bankfull benches, or newly developed floodplains along portions of the reach. Transient sediment covers 10-40% of the stream bottom.	Often incised, but less than Severe or Poor. Banks more stable than Severe or Poor due to lower bank slopes. Erosion may be present on 40-60% of both banks. Vegetative protection on 40-60% of banks. Streambanks may be vertical or undercut. AND/OR 40-60% of stream is covered by sediment. Sediment may be temporary/transient, contribute instability. Deposition that contribute to stability, may be forming/present. AND/OR V-shaped channels have vegetative protection on > 40% of the banks and depositional features which	Overwidened/incised. Vertically/laterally unstable. Likely to widen further. Majority of both banks are near vertical. Erosion present on 60-80% of banks. Vegetative protection present on 20-40% of banks, and is insufficient to prevent erosion. AND/OR 60-80% of the stream is covered by sediment. Sediment is temporary/transient in nature, and contributing to instability. AND/OR V-shaped channels have vegetative protection is present on > 40% of the banks and stable sediment deposition is absent.	Overwidened/incised, vertically/lateral instability. Severe incision, flow contained within the banks. Streambed below average rooting depth, majority of banks vertical/undercut. Vegetative protection present on less than 20% of banks, is not preventing erosion. Obvious bank sloughing present. Erosion/raw banks on 80-100%. AND/OR Aggrading channel. Greater than 80% of stream bed is covered by deposition, contributing to instability. Multiple thread channels and/or subterranean flow.	2.4
Score	3	2.4	2	1.6	1	2.4
NOTES>>						

## 2. RIPARIAN BUFFERS: Assess both bank's 100 foot riparian areas along the entire SAR. (rough measurements of length & width may be acceptable)

Riparian Buffers	Conditional Category						NOTES>>		
	Optimal	Suboptimal	Marginal	Poor					
	Tree stratum (dbh > 3 inches) present, with > 60% tree canopy cover and a non-maintained understory. Wetlands located within the riparian areas.	<b>High Suboptimal:</b> Riparian areas with tree stratum (dbh > 3 inches) present, with 30% to 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory.	<b>Low Suboptimal:</b> Riparian areas with tree stratum (dbh > 3 inches) present, with > 30% tree canopy cover and a maintained understory. Recent cutover (dense vegetation).	<b>High Marginal:</b> Non-maintained, dense herbaceous vegetation with either a shrub layer or a tree layer (dbh > 3 inches) present, with <30% tree canopy cover.	<b>Low Marginal:</b> Non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, hay production, ponds, open water. If present, tree stratum (dbh > 3 inches) present, with <30% tree canopy cover with maintained understory.	<b>High Poor:</b> Lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, or recently seeded and stabilized, or other comparable condition.	<b>Low Poor:</b> Impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, trails, or other comparable conditions.		
Condition Scores	1.5	High 1.2	Low 1.1	High 0.85	Low 0.75	High 0.6	Low 0.5		
1. Delineate riparian areas along each stream bank into Condition Categories and Condition Scores using the descriptors. 2. Determine square footage for each by measuring or estimating length and width. Calculators are provided for you below. 3. Enter the % Riparian Area and Score for each riparian category in the blocks below.						Ensure the sums of % Riparian Blocks equal 100			
Right Bank	% Riparian Area>	80%	20%				100%		
	Score >	1.2	0.75						
Left Bank	% Riparian Area>	100%					100%		
	Score >	1.2							
							CI= (Sum % RA * Scores*0.01)/2		
							Rt Bank CI >	1.11	CI
							Lt Bank CI >	1.20	1.16

## 3. INSTREAM HABITAT: Varied substrate sizes, water velocity and depths; woody and leafy debris; stable substrate; low embededness; shade; undercut banks; root mats; SAV; riffle poole complexes, stable features.

Instream Habitat/ Available Cover	Conditional Category				Score
	Optimal	Suboptimal	Marginal	Poor	
	Habitat elements are typically present in greater than 50% of the reach.	Stable habitat elements are typically present in 30-50% of the reach and are adequate for maintenance of populations.	Stable habitat elements are typically present in 10-30% of the reach and are adequate for maintenance of populations.	Habitat elements listed above are lacking or are unstable. Habitat elements are typically present in less than 10% of the reach.	0.90
Score	1.5	1.2	0.9	0.5	0.90
NOTES>>					CI

## Stream Impact Assessment Form Page 2

Project #	Applicant	Locality	Cowardin Class.	HUC	Date	Data Point	SAR length	Impact Factor	
							500	1	
<b>4. CHANNEL ALTERATION:</b> Stream crossings, riprap, concrete, gabions, or concrete blocks, straightening of channel, channelization, embankments, spoil piles, constrictions, livestock							<b>NOTES&gt;&gt;</b>		
<b>Conditional Category</b>									
<b>Channel Alteration</b>	<b>Negligible</b>	<b>Minor</b>		<b>Moderate</b>		<b>Severe</b>			
	Channelization, dredging, alteration, or hardening absent. Stream has an unaltered pattern or has naturalized.	Less than 20% of the stream reach is disrupted by any of the channel alterations listed in the parameter guidelines.	20-40% of the stream reach is disrupted by any of the channel alterations listed in the parameter guidelines.	40 - 60% of reach is disrupted by any of the channel alterations listed in the parameter guidelines. If stream has been channelized, normal stable stream meander pattern has not recovered.	60 - 80% of reach is disrupted by any of the channel alterations listed in the parameter guidelines. If stream has been channelized, normal stable stream meander pattern has not recovered.	Greater than 80% of reach is disrupted by any of the channel alterations listed in the parameter guidelines AND/OR 80% of banks shored with gabion, riprap, or cement.			
<b>SCORE</b>	<b>1.5</b>	<b>1.3</b>	<b>1.1</b>	<b>0.9</b>	<b>0.7</b>	<b>0.5</b>		<b>1.50</b>	

### REACH CONDITION INDEX and STREAM CONDITION UNITS FOR THIS REACH

NOTE: The CIs and RCI should be rounded to 2 decimal places. The CR should be rounded to a whole number.

**THE REACH CONDITION INDEX (RCI) >> 1.19**

RCI= (Sum of all CI's)/5

**COMPENSATION REQUIREMENT (CR) >> 112**

CR = RCI X LF X IF

**INSERT PHOTOS:**



**DESCRIBE PROPOSED IMPACT:**

road/culvert crossing

# Stream Assessment Form (Form 1)

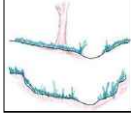
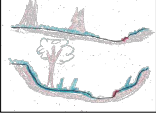
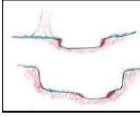
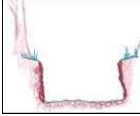
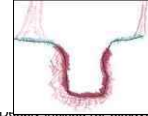
Unified Stream Methodology for use in Virginia

For use in wadeable channels classified as intermittent or perennial

Project #	Project Name	Locality	Cowardin Class.	HUC	Date	SAR #	Impact/SAR length	Impact Factor
19067-F	PointOne Richmond Campus	Charles City	R4	02080206	3/7/25	6	77	1

Name(s) of Evaluator(s)	Stream Name and Information
RKO, ED	Stream L, Stream Impact 6

### 1. Channel Condition: Assess the cross-section of the stream and prevailing condition (erosion, aggradation)

	Conditional Category					
	Optimal	Suboptimal	Marginal	Poor	Severe	
<b>Channel Condition</b>						
	Very little incision or active erosion; 80-100% stable banks. Vegetative surface protection or natural rock, prominent (80-100%). AND/OR Stable point bars/bankfull benches are present. Access to their original floodplain or fully developed wide bankfull benches. Mid-channel bars, and transverse bars few. Transient sediment deposition covers less than 10% of bottom.	Slightly incised, few areas of active erosion or unprotected banks. Majority of banks are stable (60-80%). Vegetative protection or natural rock prominent (60-80%) AND/OR Depositional features contribute to stability. The bankfull and low flow channels are well defined. Stream likely has access to bankfull benches, or newly developed floodplains along portions of the reach. Transient sediment covers 10-40% of the stream bottom.	Often incised, but less than Severe or Poor. Banks more stable than Severe or Poor due to lower bank slopes. Erosion may be present on 40-60% of both banks. Vegetative protection on 40-60% of banks. Streambanks may be vertical or undercut. AND/OR 40-60% of stream is covered by sediment. Sediment may be temporary/transient, contribute instability. Deposition that contribute to stability, may be forming/present. AND/OR V-shaped channels have vegetative protection on > 40% of the banks and depositional features which	Overwidened/incised. Vertically/laterally unstable. Likely to widen further. Majority of both banks are near vertical. Erosion present on 60-80% of banks. Vegetative protection present on 20-40% of banks, and is insufficient to prevent erosion. AND/OR 60-80% of the stream is covered by sediment. Sediment is temporary/transient in nature, and contributing to instability. AND/OR V-shaped channels have vegetative protection is present on > 40% of the banks and stable sediment deposition is absent.	Overwidened/incised, vertically/lateral instability. Severe incision, flow contained within the banks. Streambed below average rooting depth, majority of banks vertical/undercut. Vegetative protection present on less than 20% of banks, is not preventing erosion. Obvious bank sloughing present. Erosion/raw banks on 80-100%. AND/OR Aggrading channel. Greater than 80% of stream bed is covered by deposition, contributing to instability. Multiple thread channels and/or subterranean flow.	<b>CI</b>
<b>Score</b>	<b>3</b>	<b>2.4</b>	<b>2</b>	<b>1.6</b>	<b>1</b>	<b>2.4</b>
<b>NOTES&gt;&gt;</b>						

### 2. RIPARIAN BUFFERS: Assess both bank's 100 foot riparian areas along the entire SAR. (rough measurements of length & width may be acceptable)

	Conditional Category							
	Optimal	Suboptimal	Marginal	Poor				
<b>Riparian Buffers</b>	Tree stratum (dbh > 3 inches) present, with > 60% tree canopy cover and a non-maintained understory. Wetlands located within the riparian areas.	<b>High Suboptimal:</b> Riparian areas with tree stratum (dbh > 3 inches) present, with 30% to 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory.	<b>Low Suboptimal:</b> Riparian areas with tree stratum (dbh > 3 inches) present, with > 30% tree canopy cover and a maintained understory. Recent cutover (dense vegetation).	<b>High Marginal:</b> Non-maintained, dense herbaceous vegetation with either a shrub layer or a tree layer (dbh > 3 inches) present, with <30% tree canopy cover.	<b>Low Marginal:</b> Non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum, hay production, ponds, open water. If present, tree stratum (dbh > 3 inches) present, with <30% tree canopy cover with maintained understory.	<b>High Poor:</b> Lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, or recently seeded and stabilized, or other comparable condition.	<b>Low Poor:</b> Impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, trails, or other comparable conditions.	<b>NOTES&gt;&gt;</b>
<b>Condition Scores</b>	<b>1.5</b>	<b>High</b> <b>1.2</b>	<b>Low</b> <b>1.1</b>	<b>High</b> <b>0.85</b>	<b>Low</b> <b>0.75</b>	<b>High</b> <b>0.6</b>	<b>Low</b> <b>0.5</b>	
	1. Delineate riparian areas along each stream bank into Condition Categories and Condition Scores using the descriptors. 2. Determine square footage for each by measuring or estimating length and width. Calculators are provided for you below. 3. Enter the % Riparian Area and Score for each riparian category in the blocks below.						Ensure the sums of % Riparian Blocks equal 100	
<b>Right Bank</b>	% Riparian Area>	<b>100%</b>					<b>100%</b>	
	Score >	<b>1.1</b>						
<b>Left Bank</b>	% Riparian Area>	<b>60%</b>	<b>40%</b>				<b>100%</b>	<b>CI</b>
	Score >	<b>1.1</b>	<b>0.6</b>					<b>1.00</b>

### 3. INSTREAM HABITAT: Varied substrate sizes, water velocity and depths; woody and leafy debris; stable substrate; low embedment; shade; undercut banks; root mats; SAV; riffle poole complexes, stable features.

	Conditional Category				
	Optimal	Suboptimal	Marginal	Poor	
<b>Instream Habitat/ Available Cover</b>	Habitat elements are typically present in greater than 50% of the reach.	Stable habitat elements are typically present in 30-50% of the reach and are adequate for maintenance of populations.	Stable habitat elements are typically present in 10-30% of the reach and are adequate for maintenance of populations.	Habitat elements listed above are lacking or are unstable. Habitat elements are typically present in less than 10% of the reach.	<b>CI</b>
<b>Score</b>	<b>1.5</b>	<b>1.2</b>	<b>0.9</b>	<b>0.5</b>	<b>0.90</b>

# Stream Impact Assessment Form Page 2

Project #	Applicant	Locality	Cowardin Class.	HUC	Date	Data Point	SAR length	Impact Factor
							500	1
<b>4. CHANNEL ALTERATION:</b> Stream crossings, riprap, concrete, gabions, or concrete blocks, straightening of channel, channelization, embankments, spoil piles, constrictions, livestock							<b>NOTES&gt;&gt;</b>	
<b>Conditional Category</b>								
<b>Channel Alteration</b>	<b>Negligible</b>	<b>Minor</b>		<b>Moderate</b>		<b>Severe</b>		
	Channelization, dredging, alteration, or hardening absent. Stream has an unaltered pattern or has naturalized.	Less than 20% of the stream reach is disrupted by any of the channel alterations listed in the parameter guidelines.	20-40% of the stream reach is disrupted by any of the channel alterations listed in the parameter guidelines.	40 - 60% of reach is disrupted by any of the channel alterations listed in the parameter guidelines. If stream has been channelized, normal stable stream meander pattern has not recovered.	60 - 80% of reach is disrupted by any of the channel alterations listed in the parameter guidelines. If stream has been channelized, normal stable stream meander pattern has not recovered.	Greater than 80% of reach is disrupted by any of the channel alterations listed in the parameter guidelines AND/OR 80% of banks shored with gabion, riprap, or cement.		
<b>SCORE</b>	<b>1.5</b>	<b>1.3</b>	<b>1.1</b>	<b>0.9</b>	<b>0.7</b>	<b>0.5</b>	<b>1.50</b>	

### REACH CONDITION INDEX and STREAM CONDITION UNITS FOR THIS REACH

NOTE: The CIs and RCI should be rounded to 2 decimal places. The CR should be rounded to a whole number.

<b>THE REACH CONDITION INDEX (RCI) &gt;&gt;</b>	<b>1.16</b>
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RCI= (Sum of all CI's)/5

<b>COMPENSATION REQUIREMENT (CR) &gt;&gt;</b>	<b>89</b>
---	-----------

CR = RCI X LF X IF

#### INSERT PHOTOS:



#### DESCRIBE PROPOSED IMPACT:

grading for road



## Virginia Department of Wildlife Resources

Search VA DWR  [Home](#) » [By Map](#) » VaFWIS GeographicSelect Options[Fish and Wildlife Information Service](#)[Options](#)[Species Information](#)[By Name](#)[By Land Management](#)[References](#)[Geographic Search](#)[By Map](#)[By Coordinates](#)[By Place Name](#)[Database Search](#)[Help](#)[Logout](#)[Show This Page as Printer Friendly](#)**VaFWIS Search Report** Compiled on 7/11/2025, 2:45:46 PMKnown or likely to occur within a **2 mile radius around point 37,26,47.1 -77,09,25.6**  
in **036 Charles City County, 127 New Kent County, VA**[View Map of Site Location](#)516 Known or Likely Species ordered by Status Concern for Conservation  
(displaying first 26) (26 species with Status\* or Tier I\*\* or Tier II\*\*)

<a href="#">BOVA Code</a>	<a href="#">Status*</a>	<a href="#">Tier**</a>	<a href="#">Common Name</a>	<a href="#">Scientific Name</a>	<a href="#">Confirmed</a>	<a href="#">Database(s)</a>
050022	FESE	Ia	<a href="#">Bat, Northern Long-eared</a>	Myotis septentrionalis		BOVA
010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus		BOVA
040110	FTSE	Ia	<a href="#">Rail, eastern black</a>	Laterallus jamaicensis jamaicensis		BOVA
050020	SE	Ia	<a href="#">Bat, little brown</a>	Myotis lucifugus		BOVA
050034	SE	Ia	<a href="#">Bat, Rafinesque's eastern big-eared</a>	Corynorhinus rafinesquii macrotis		BOVA,HU6
050027	FPSE	Ia	<a href="#">Bat, Tricolored</a>	Perimyotis subflavus		BOVA
040096	ST	Ia	<a href="#">Falcon, peregrine</a>	Falco peregrinus		BOVA
040293	ST	Ia	<a href="#">Shrike, loggerhead</a>	Lanius ludovicianus		BOVA
040379	ST	Ia	<a href="#">Sparrow, Henslow's</a>	Centronyx henslowii		BOVA
040292	ST		<a href="#">Shrike, migrant loggerhead</a>	Lanius ludovicianus migrans		BOVA
100079	FP	IIIa	<a href="#">Butterfly, Monarch</a>	Danaus plexippus		BOVA
030067	CC	IIa	<a href="#">Terrapin, northern diamond-backed</a>	Malaclemys terrapin terrapin		BOVA,HU6
030063	CC	IIIa	<a href="#">Turtle, spotted</a>	Clemmys guttata	Yes	BOVA,SppObs,HU6
030031	CC	IIIc	<a href="#">Kingsnake, scarlet</a>	Lampropeltis elapsoides		BOVA
010077		Ia	<a href="#">Shiner, bridle</a>	Notropis bifrenatus		BOVA

040213		Ic	<a href="#">Owl, northern saw-whet</a>	Aegolius acadicus		BOVA
040052		Ila	<a href="#">Duck, American black</a>	Anas rubripes		BOVA,HU6
040029		Ila	<a href="#">Heron, little blue</a>	Egretta caerulea caerulea		BOVA
040036		Ila	<a href="#">Night-heron, yellow-crowned</a>	Nyctanassa violacea violacea		BOVA
040181		Ila	<a href="#">Tern, common</a>	Sterna hirundo		HU6
040320		Ila	<a href="#">Warbler, cerulean</a>	Setophaga cerulea		BOVA,HU6
040140		Ila	<a href="#">Woodcock, American</a>	Scolopax minor		BOVA,HU6
040203		IIb	<a href="#">Cuckoo, black-billed</a>	Coccyzus erythrophthalmus		BOVA
040105		IIb	<a href="#">Rail, king</a>	Rallus elegans		BOVA,HU6
080336		IIc	<a href="#">Beetle, Gammon's stenelmis riffle</a>	Stenelmis gammoni		BOVA
100003		IIc	<a href="#">Skipper, rare</a>	Problema bulenta		BOVA

To view **All 516 species** [View 516](#)

\*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 I - Critical Conservation Need; II=VA Wildlife Action Plan - Tier II - Very High 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 conserva

[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	Stream Name	Reach Status	Anadromous Fish Species			View Map
			Different Species	Highest TE *	Highest Tier **	
C120	<a href="#">Chickahominy River</a>	Confirmed	1		IV	<a href="#">Yes</a>

**Impediments to Fish Passage**

N/A

**Colonial Water Bird Survey** ( 1 records )

[View Map of All Query Results Colonial Water Bird Survey](#)

Colony_Name	N Obs	Latest Date	N Species			View Map
			Different Species	Highest TE *	Highest Tier **	
<a href="#">Western Shore, Roxbury, Charles City</a>	1	May 5 2013	2			<a href="#">Yes</a>

Displayed 1 Colonial Water Bird Survey

**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** ( 29 records - displaying first 20 , [View Map of All Query Results](#)  
 1 Observation with Threatened or Endangered species ) [Species Observations](#)

obsID	class	Date Observed	Observer	N Species			View Map
				Different Species	Highest TE *	Highest Tier **	
<a href="#">650319</a>	SppObs	May 23 2024	Mamie Gaspard	1	CC	III	<a href="#">Yes</a>
<a href="#">426654</a>	SppObs	Nov 10 2006	VCU - INSTAR	13		III	<a href="#">Yes</a>
<a href="#">65160</a>	SppObs	May 5 2000	JOSEPH C. MITCHELL (PRINCIPLE PERMITTEE), DEPT. BIOLOGY UNIV. RICHMOND	6		III	<a href="#">Yes</a>
<a href="#">426660</a>	SppObs	Jun 8 1995	VCU - INSTAR	12		III	<a href="#">Yes</a>
<a href="#">339859</a>	SppObs	Jun 8 1995	ADAMS. GONZALES	12		III	<a href="#">Yes</a>
<a href="#">339873</a>	SppObs	Jun 7 1995	GONZALES, ADAMS	6		III	<a href="#">Yes</a>
<a href="#">426669</a>	SppObs	Jun 7 1995	VCU - INSTAR	6		III	<a href="#">Yes</a>
<a href="#">339869</a>	SppObs	May 31 1995	ADAMS, GONZALES	13		III	<a href="#">Yes</a>
<a href="#">426668</a>	SppObs	May 31 1995	VCU - INSTAR	13		III	<a href="#">Yes</a>
<a href="#">339851</a>	SppObs	May 31 1995	ADAMS, GONZALES	4		IV	<a href="#">Yes</a>
<a href="#">624855</a>	SppObs	Jun 4 2015	Brian; Munford	1			<a href="#">Yes</a>
<a href="#">635211</a>	SppObs	Mar 14 2015	Brian Munford	1			<a href="#">Yes</a>
<a href="#">635212</a>	SppObs	Mar 14 2015	Brian Munford	1			<a href="#">Yes</a>
<a href="#">426655</a>	SppObs	Nov 21 2006	VCU - INSTAR	7			<a href="#">Yes</a>
<a href="#">67275</a>	SppObs	Apr 1 2000	DANIEL CRISTOL (PRINCIPLE PERMITTEE), BIOLOGY DEPT. COLLEGE OF WILLIAM AND MARY	1			<a href="#">Yes</a>
<a href="#">67274</a>	SppObs	Jan 20 2000	DANIEL CRISTOL (PRINCIPLE PERMITTEE), BIOLOGY DEPT. COLLEGE OF WILLIAM AND MARY	1			<a href="#">Yes</a>
<a href="#">55060</a>	SppObs	Apr 5 1997	DANIEL S. DROMBOWSKI, VIRGINIA COMMONWEALTH UNIVERSITY	2			<a href="#">Yes</a>
<a href="#">55059</a>	SppObs	Apr 4 1997	DANIEL S. DROMBOWSKI, VIRGINIA COMMONWEALTH UNIVERSITY	1			<a href="#">Yes</a>
<a href="#">55055</a>	SppObs	Mar 26 1997	DANIEL S. DROMBOWSKI, VIRGINIA COMMONWEALTH UNIVERSITY	1			<a href="#">Yes</a>
<a href="#">55036</a>	SppObs	Aug 31 1996	DANIEL S. DOMBROWSKI, GRADUATE STUDENT, VIRGINIA COMMONWEALTH UNIVERSITY	1			<a href="#">Yes</a>

Displayed 20 Species Observations

**Selected 29 Observations** [View all 29 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** ( 3 records )

[View Map of All Query Results](#)  
[Virginia Breeding Bird Atlas Blocks](#)

BBA ID	Atlas Quadrangle Block Name	Breeding Bird Atlas Species			View Map
		Different Species	Highest TE*	Highest Tier**	
53082	<a href="#">Roxbury_NE</a>	4			<a href="#">Yes</a>
53081	<a href="#">Roxbury_NW</a>	36		III	<a href="#">Yes</a>
53086	<a href="#">Roxbury_SE</a>	44		III	<a href="#">Yes</a>

**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
036	<a href="#">Charles City</a>	394	FESE	I
127	<a href="#">New Kent</a>	413	FESE	I

**USGS 7.5' Quadrangles:**

Roxbury  
 Providence Forge

**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
JL05	<a href="#">Turkey Island Creek</a>	66	SE	I
JL09	<a href="#">Herring Creek</a>	59	SE	I
JL21	<a href="#">White Oak Swamp</a>	66	SE	I
JL22	<a href="#">Chickahominy River-Toe Ink Swamp</a>	72	SE	I
JL23	<a href="#">Chickahominy River-Rumley Marsh</a>	69	SE	I

Compiled on 7/11/2025, 2:45:46 PM 13861458.0 report=all searchType=R dist= 3218.688 poi= 37.2647.1 -77.0925.6  
 PixelSize=64; Anadromous=0.034095; BBA=0.05189; BECAR=0.029636; Bats=0.027724; Buffer=0.131341; County=0.113634; HU6=0.09661; Impediments=0.032105; Init=0.205527; PublicLands=0.042726; Quad=0.057261; SppObs=0.355622; TEWaters=0.033032; TierReaches=0.033952; TierTerrestrial=0.096906; Total=1.739504; Tracking\_BOVA=0.476331; Trout=0.033228; huva=0.053237

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 I 3861458

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**Site Location**

37,26,47.1 -77,09,25.6  
is the Search Point

**Show Position Rings**

Yes  No

1 mile and 1/4 mile at the  
Search Point

**Show Search Area**

Yes  No

2 Search distance miles  
radius

Search Point is at  
map center

**Base Map Choices**

Topography

**Map Overlay Choices**

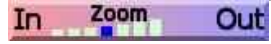
Current List: Position, Search,  
BECAR, BAEANests,  
TEWaters, TierII, Habitat,  
Trout, Anadromous

[back](#)

Map  
Click



Map  
Scale

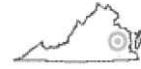


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Size



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Map Overlay Legend

T & E Waters

Federal

State

Predicted Habitat  
WAP Tier I & II

Aquatic

Terrestrial

Trout Waters

Class I - IV

Class V - VI

Anadromous Fish Reach

Confirmed

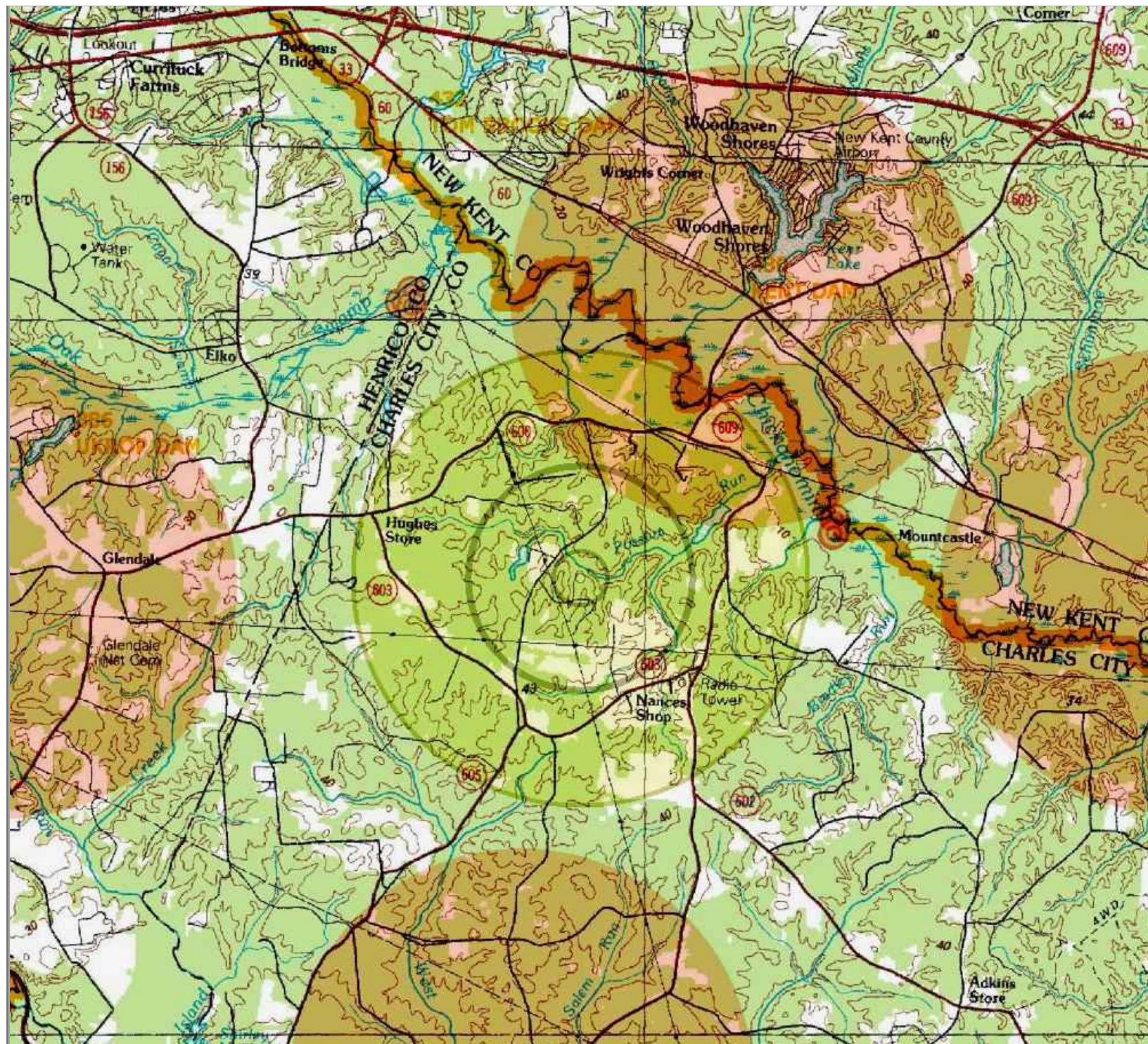
Potential

Impediment

Position Rings  
1 mile and 1/4  
mile at the  
Search Point

2 mile radius  
Search Area

Bald Eagle  
Concentration Areas  
and Roosts





Point of Search 37,26,47.1 -77,09,25.6

Map Location 37,26,47.1 -77,09,25.6

Select **Coordinate System:**  Degrees,Minutes,Seconds Latitude - Longitude

Decimal Degrees Latitude - Longitude

Meters UTM NAD83 East North Zone

Meters UTM NAD27 East North Zone

Base Map source: USGS 1:100,000 topographic maps (see [Microsoft terraserver-usa.com](http://Microsoft.terraserver-usa.com) for details)

Map projection is UTM Zone 18 NAD 1983 with left 301187 and top 4154581. Pixel size is 16 meters. Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 1000 columns by 1000 rows for a total of 1000000 pixels. The map display represents 16000 meters east to west by 16000 meters north to south for a total of 256.0 square kilometers. The map display represents 52502 feet east to west by 52502 feet north to south for a total of 98.8 square miles.

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 Geographic Information Network.

Shaded topographic maps are from TOPO! ©2006 National Geographic

<http://www.national.geographic.com/topo>

All other map products are from the Commonwealth of Virginia Department of Wildlife Resources.

map assembled 2025-07-11 14:46:22 (qa/qc March 21, 2016 12:20 - tn=3861458.0

dist=3218.688 I)

\$poi=37.4464167 -77.1571111

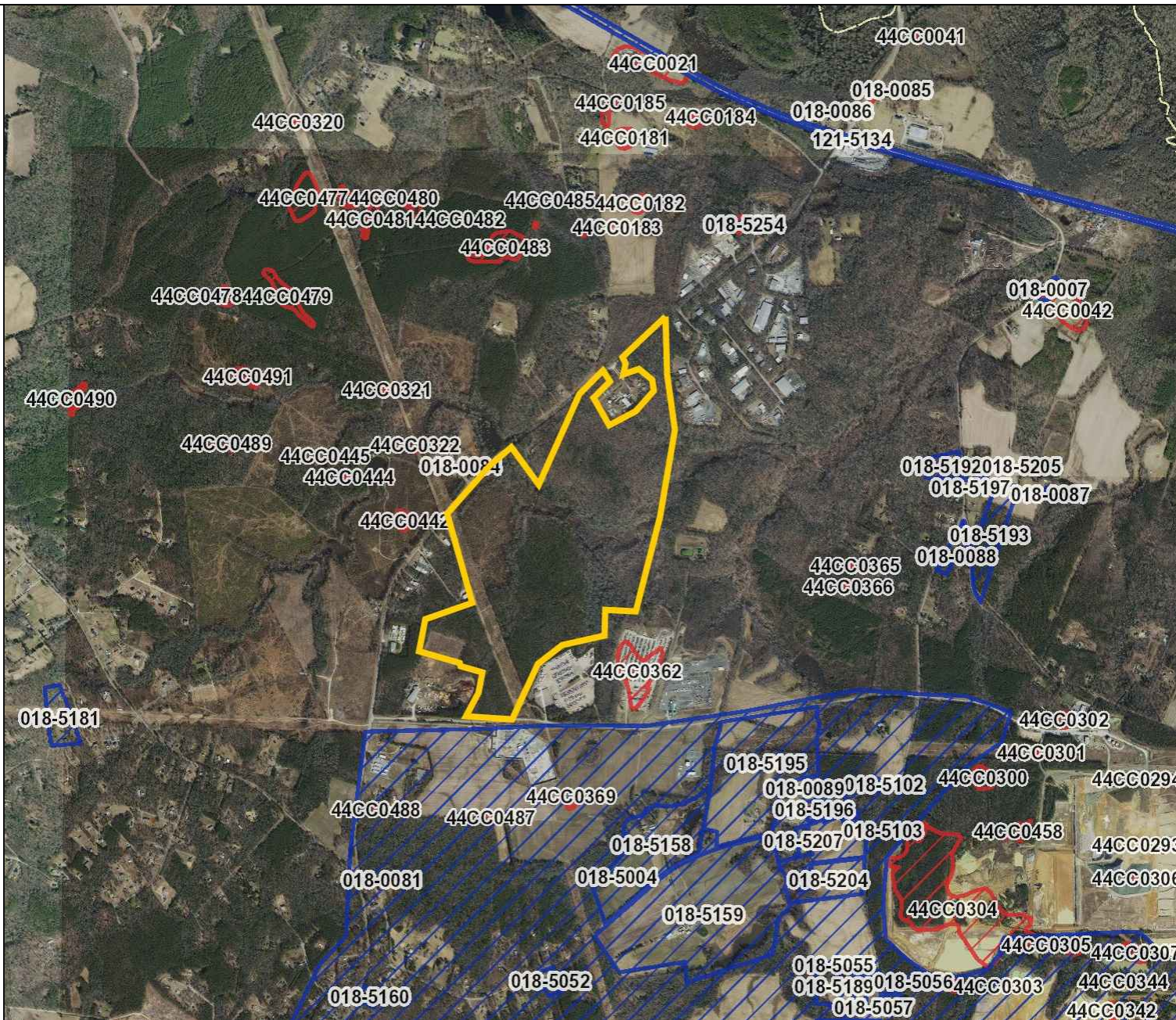
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**Legend**

- Architecture Resources
- Architecture Labels
- Individual Historic District Properties
- Archaeological Resources
- Archaeology Labels
- DHR Easements
- County Boundaries



Feet



1:36,112 / 1"=3,009 Feet

**Title:**

**Date: 7/11/2025**

*DISCLAIMER: Records of the Virginia Department of Historic Resources (DHR) have been gathered over many years from a variety of sources and the representation depicted is a cumulative view of field observations over time and may not reflect current ground conditions. The map is for general information purposes and is not intended for engineering, legal or other site-specific uses. Map may contain errors and is provided "as-is". More information is available in the DHR Archives located at DHR's Richmond office.*

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