

Appeal of Denial of NRI/FSD No. 20240850

October 31, 2024
Hearing



Maryland

Department of the Environment

Wes Moore, Governor
Aruna Miller, Lt. Governor

Serena McIlwain, Secretary
Suzanne E. Dorsey, Deputy Secretary

January 5, 2024

Hamid Shirazi
9810 Newhall Road
Potomac, MD 20854

Project: Pre-application site visit/Proposed subdivision
AI #: 180316
SUBJECT: MDE Waterways Site Visit Comments

Mr. Shirazi:

The Maryland Department of the Environment (MDE) visited the above site on December 21, 2023 and January 5, 2024 to determine whether any state regulated waters are present within the area of proposed subdivision. A culvert which appears to carry only stormwater runs under Newhall Road onto the property. There is a small depression where an additional drainage pipe enters. Flow from the culvert and drainage pipe enter another drainage pipe which runs the remaining length of the property. A small amount of flow was present on December 21. A review of precipitation records indicated that there had been rainfall during the days leading up to this visit. A subsequent visit on January 5 confirmed that there was no flow from the drainage pipe, therefore indicating that the flow seen on December 21 was likely due to precipitation rather than groundwater influence. Based on these observed field conditions, MDE does not consider the drainage pipe a Water of the State. See sketch on Page 2. It was determined that no authorization is required from the Department's Waterway Construction Division for work within the property since no regulated resources are present.

Shirazi
Page 2



Approximate location
of storm drain culvert
outfall

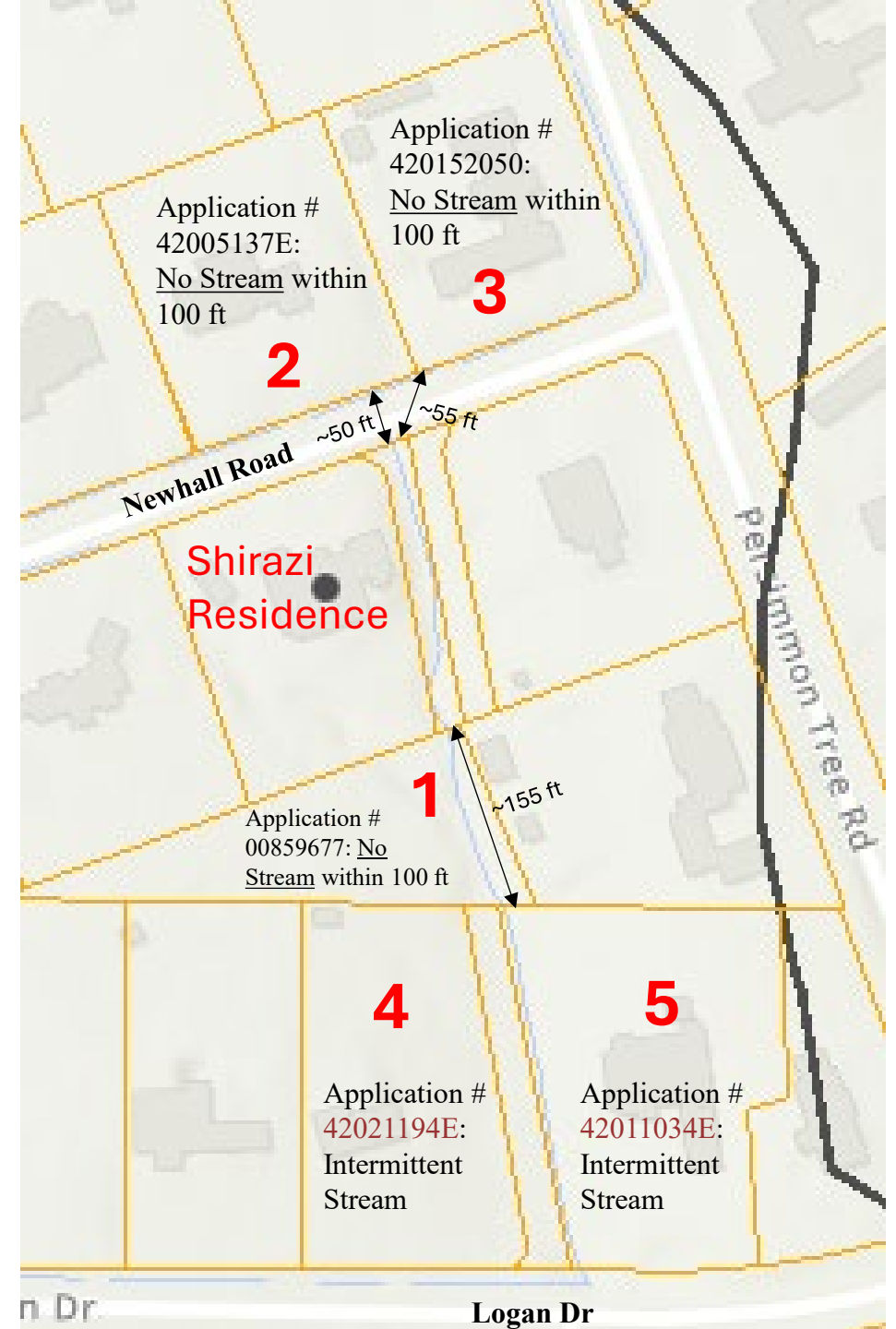
Approximate location of drainage
pipe outfall into stormwater only
drainage feature (non-
jurisdictional for MDE)

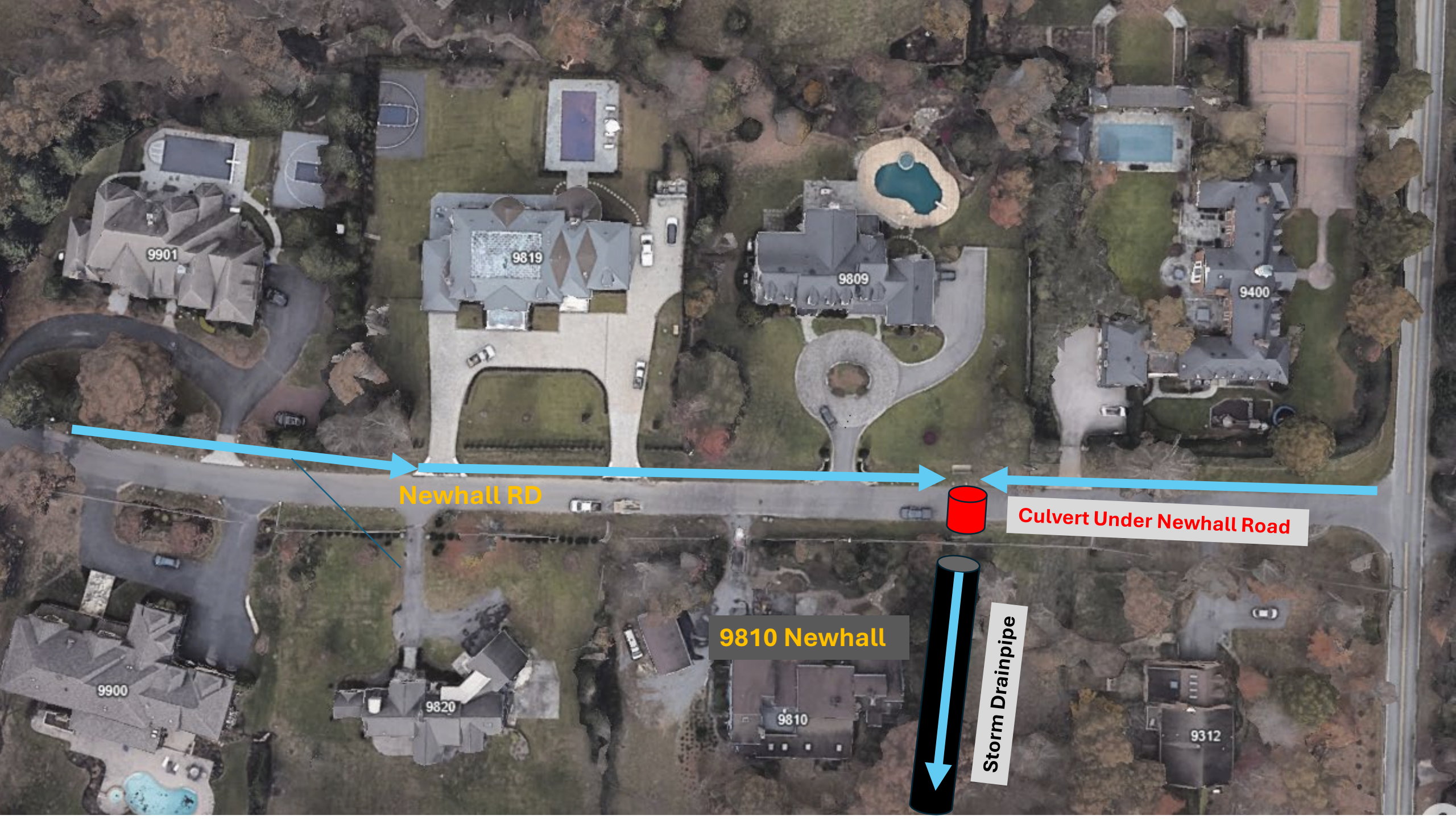
Should you have any questions or comments regarding this determination, please feel free to contact me at (410) 218-7451 or via email at melissa.knapp@maryland.gov.

Sincerely,

Melissa Knapp
Regulatory and Compliance Engineer
Waterway Construction Division

- ✓ The County Guidelines state “*previously approved NRI/FSDs may provide useful information on land features, including streams, that exist on or near the subject site.*”





9901

9819

9809

9400

Newhall RD

Culvert Under Newhall Road

9810 Newhall

Storm Drainpipe

9900

9820

9810

9312

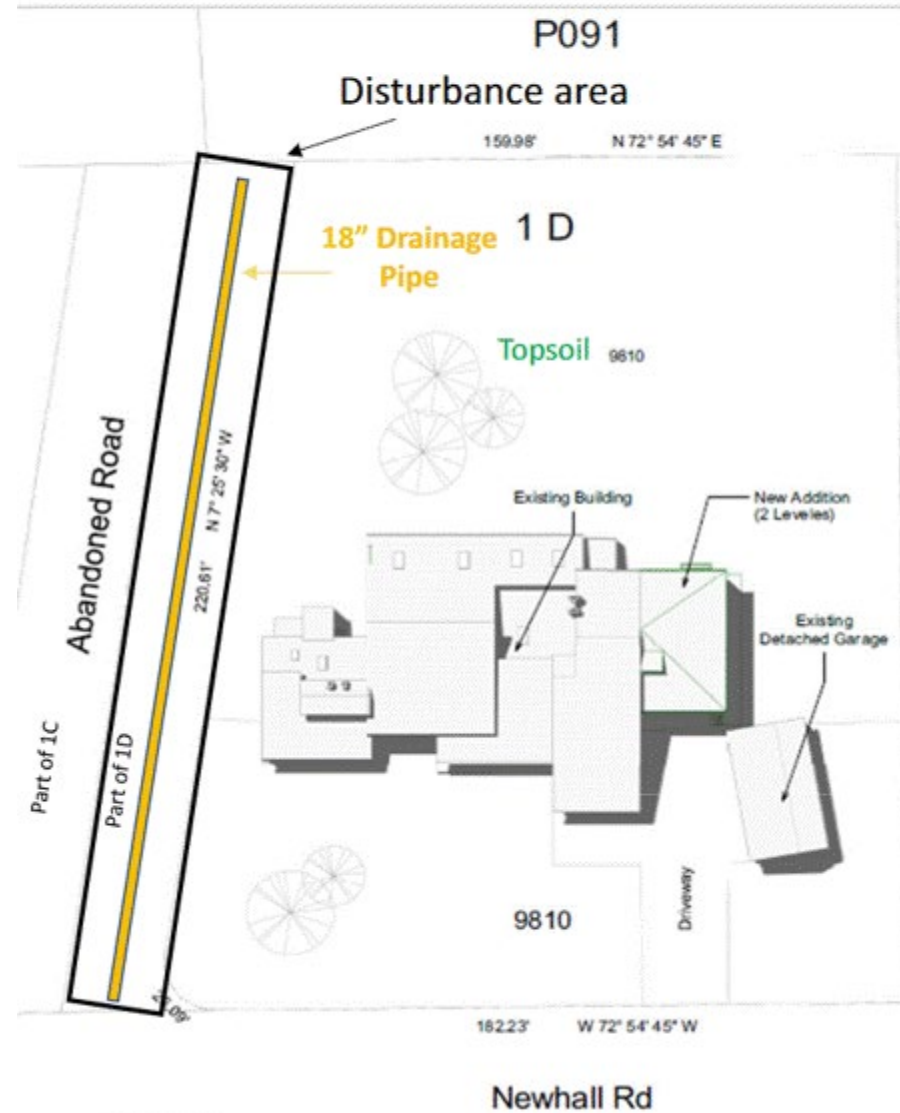


Newhall RD

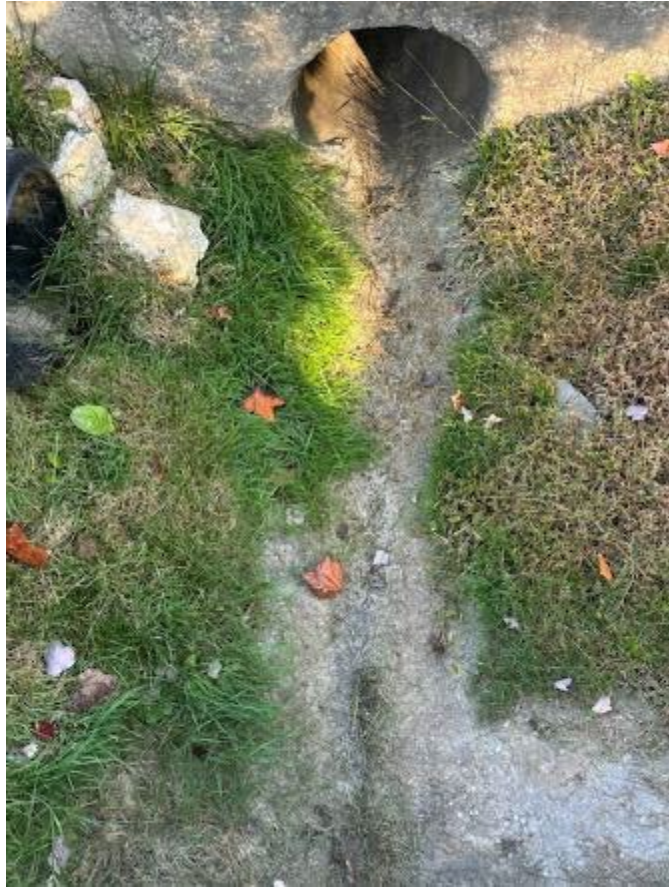
9810 Newhall

Culvert Under Newhall Road

Storm Drainpipe



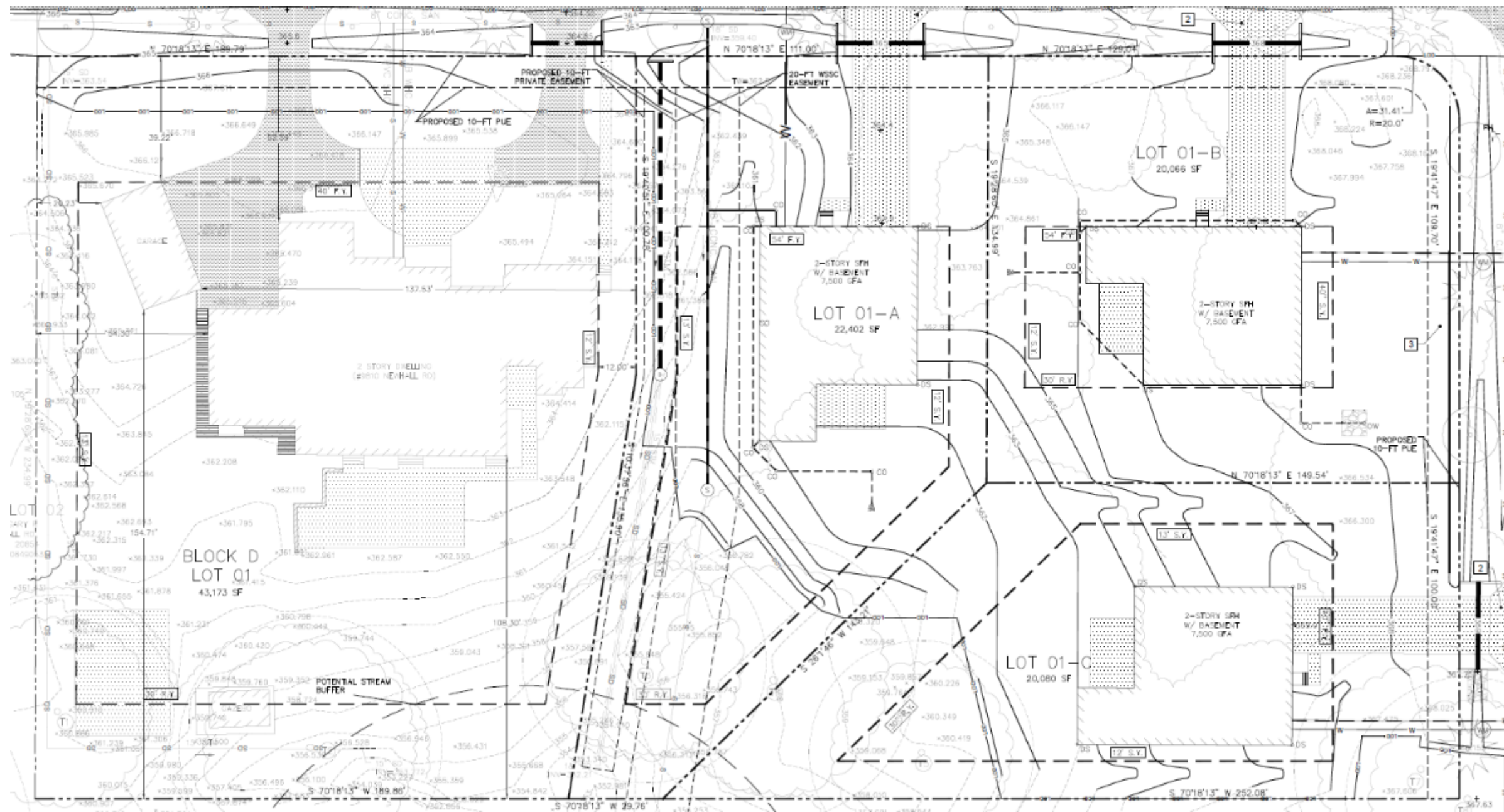
Site Condition on April 25, 2024



Apr 25, 2024 at 2:52:36 PM

PVC Pipe Connecting Sump Pumps to Drainage Pipe





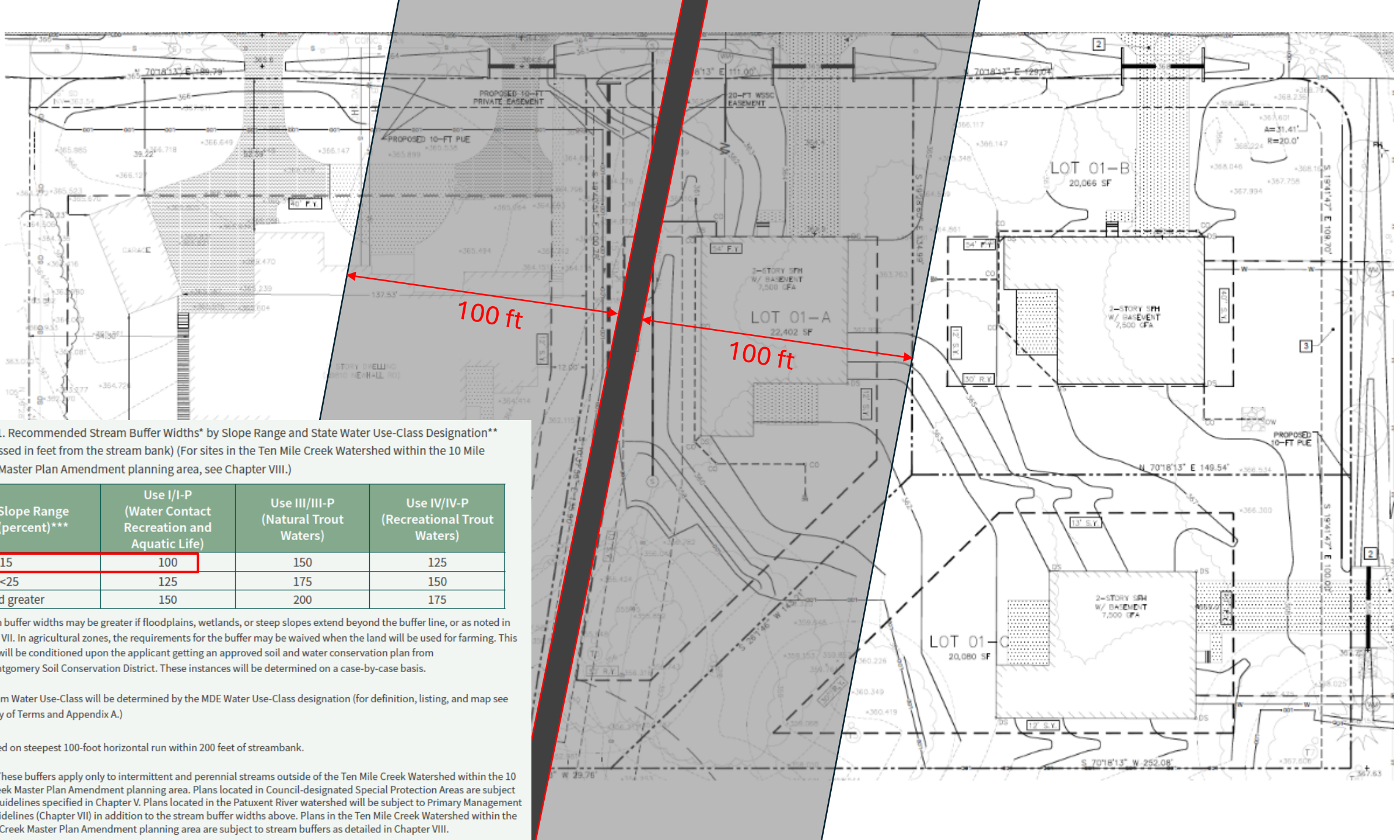


Table 1. Recommended Stream Buffer Widths* by Slope Range and State Water Use-Class Designation** (expressed in feet from the stream bank) (For sites in the Ten Mile Creek Watershed within the 10 Mile Creek Master Plan Amendment planning area, see Chapter VIII.)

Slope Range (percent)***	Use I/I-P (Water Contact Recreation and Aquatic Life)	Use III/III-P (Natural Trout Waters)	Use IV/IV-P (Recreational Trout Waters)
0 to <15	100	150	125
15 to <25	125	175	150
25 and greater	150	200	175

*Stream buffer widths may be greater if floodplains, wetlands, or steep slopes extend beyond the buffer line, or as noted in Section VII. In agricultural zones, the requirements for the buffer may be waived when the land will be used for farming. This waiver will be conditioned upon the applicant getting an approved soil and water conservation plan from the Montgomery Soil Conservation District. These instances will be determined on a case-by-case basis.

** Stream Water Use-Class will be determined by the MDE Water Use-Class designation (for definition, listing, and map see Glossary of Terms and Appendix A.)

*** Based on steepest 100-foot horizontal run within 200 feet of streambank.

NOTE: These buffers apply only to intermittent and perennial streams outside of the Ten Mile Creek Watershed within the 10 Mile Creek Master Plan Amendment planning area. Plans located in Council-designated Special Protection Areas are subject to the guidelines specified in Chapter V. Plans located in the Patuxent River watershed will be subject to Primary Management Area guidelines (Chapter VII) in addition to the stream buffer widths above. Plans in the Ten Mile Creek Watershed within the 10 Mile Creek Master Plan Amendment planning area are subject to stream buffers as detailed in Chapter VIII.



Mike Klebasko

Manager –
Maryland
Environmental
Science



Ephemeral Streams are defined in the Environmental Guidelines as:

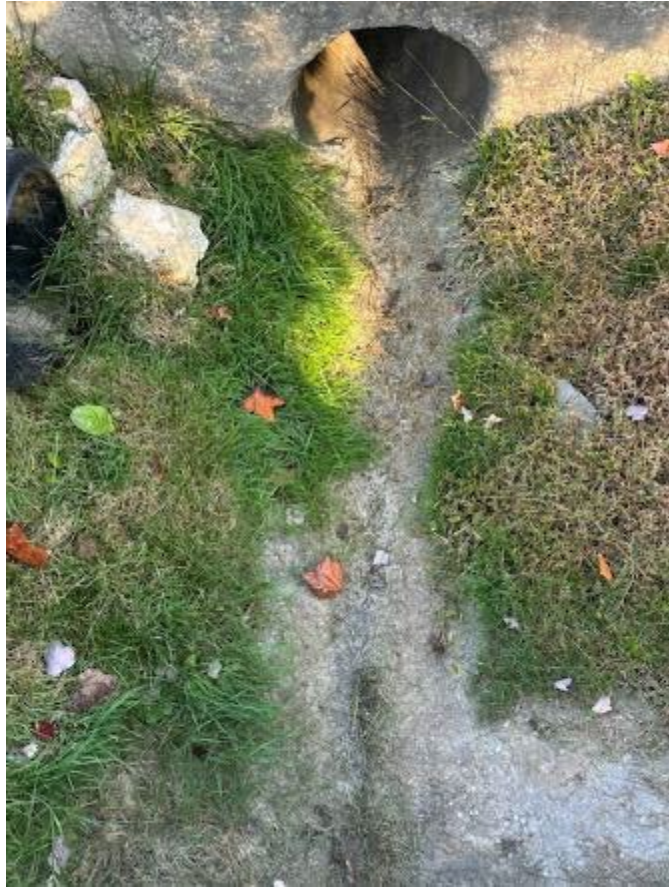
Streams that are above the groundwater table and convey flow only during and for a short duration after (generally less than 48 hours), and in direct response to, a precipitation event.

Typical Ephemeral Stream Characteristics:

- No stream flow except for short duration (≤ 48 hours) after storm events
- Lack of groundwater baseflow
- Poorly-developed sinuosity
- Lack of hydric soils
- Lack of obligate wetland vegetation along or in channel
- Lack of frequent-flow marks, algae covered or water stained or lined rocks
- Presence of fibrous roots in channel

**Staff Claims Base Flow was
Observed.**

Site Condition on April 25, 2024



Apr 25, 2024 at 2:52:36 PM



Dry, ephemeral channel looking upslope toward subject property on 03-20-24. No base flow in channel or evidence of groundwater.

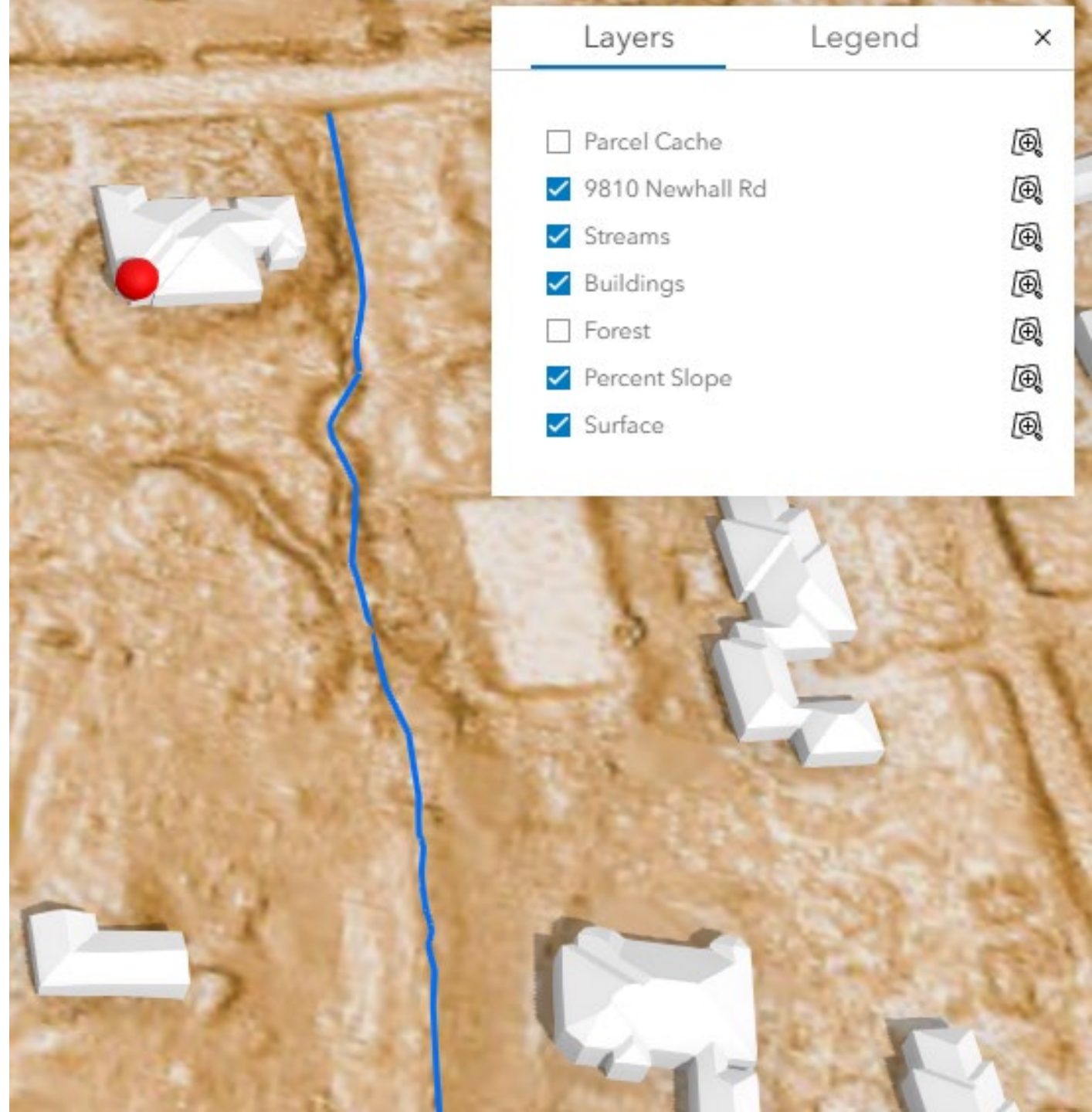


Dry ephemeral channel on subject property looking downslope on 03-20-24. Note lack of Baseflow in channel bed.

Staff Claims Stream on Property was Sinuous

According to the Environmental Guidelines, ephemeral streams typically have poorly-developed sinuosity.

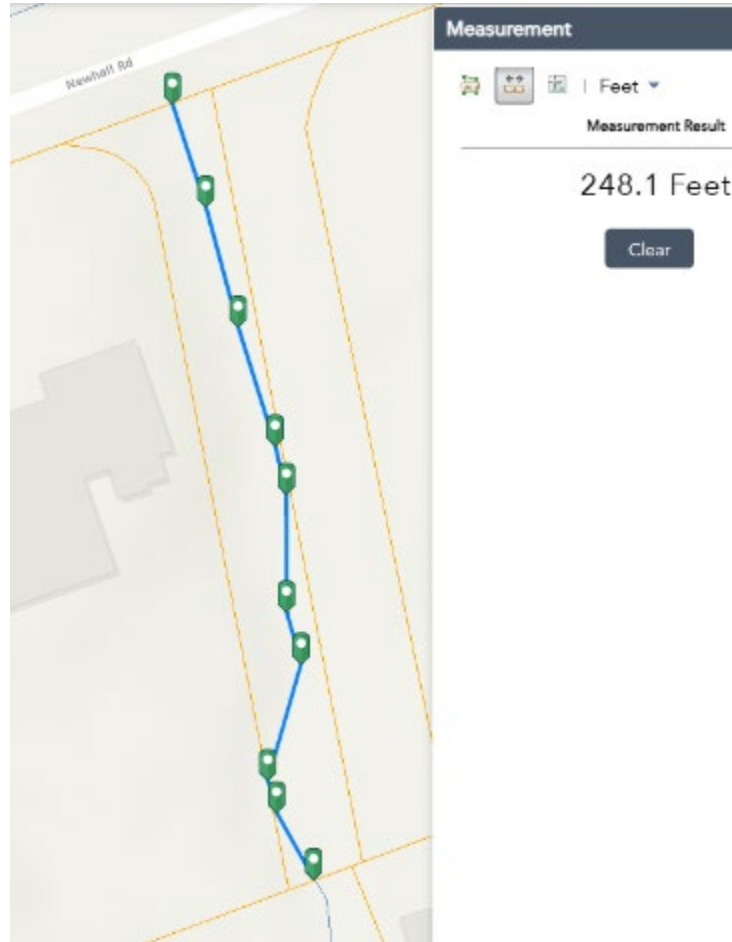
Staff Stream Model



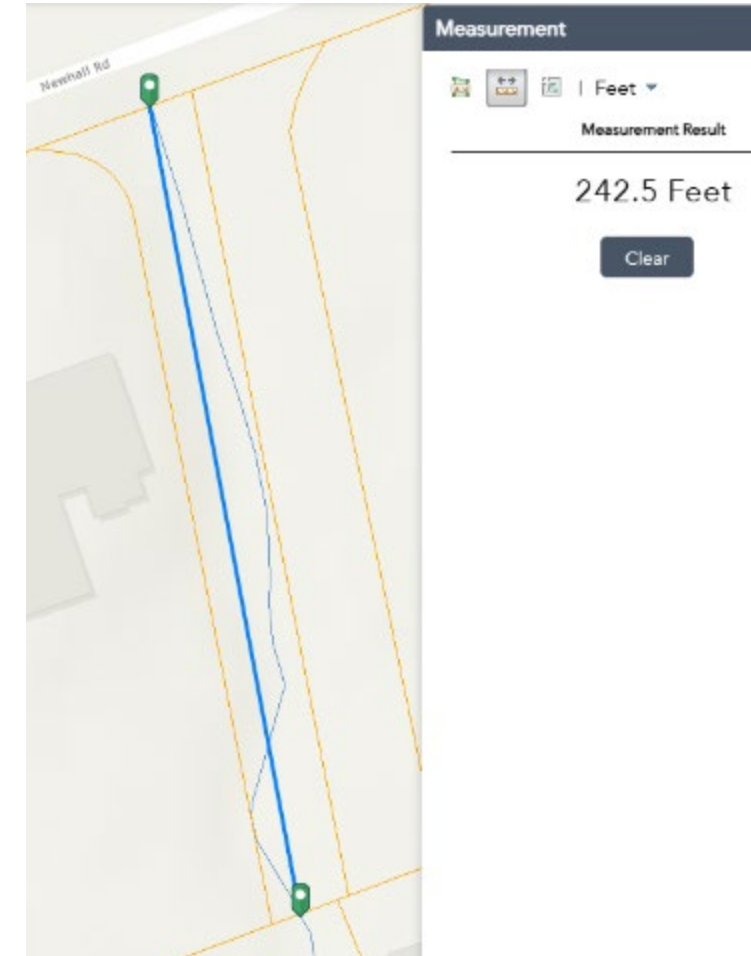
County Atlas



Stream Length

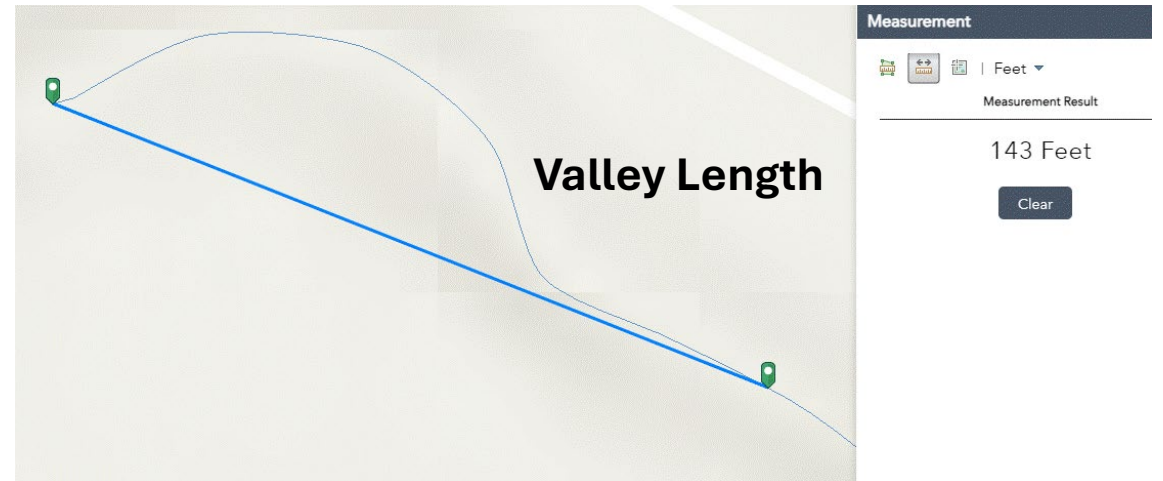
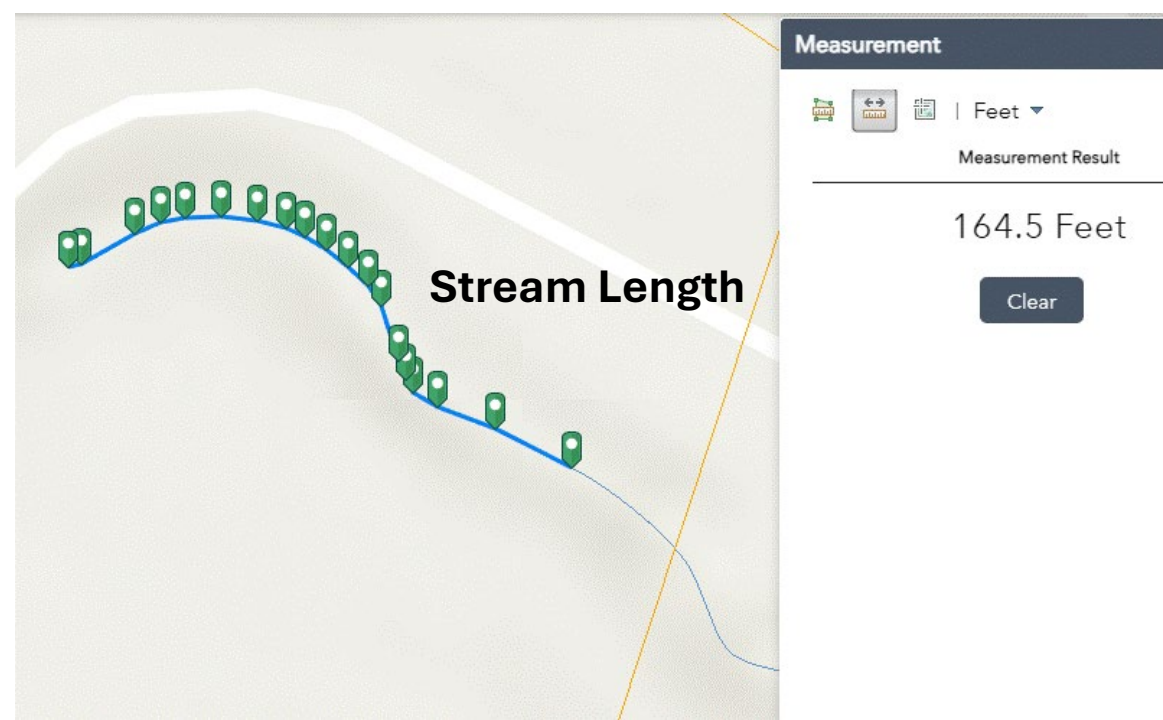


Valley Length



$$\text{Sinuosity} = \frac{\text{Stream Length}}{\text{Valley Length}} = \frac{248.1}{242.5} = 1.02$$

Streams with sinuosity of 1.15 have been approved as ephemeral in County.



$$\text{Sinuosity} = \frac{\text{Stream Length}}{\text{Valley Length}} = \frac{164.5}{143.0} = 1.15$$

Recently Approved Ephemeral Channel



Sinuosity Example - Downstream below Avenel Farm Drive





**Staff
claims
presence
of hydric
soil**

Non-hydric
soil in
bottom
of channel.

03-20-24

Staff Claims there is “*Potential Presence of Wetland or Hydrophytic Vegetation*”.



Staff claims presence of Algae



20a. Filamentous algae, Source:
www.duluthstreams.org

20b. Filamentous algae Source:
www.aquafiber.com

Figure 20: Algae



Many
fibrous
roots in
channel

03-20-24

EXHIBIT 3

NC Division of Water Quality –Methodology for Identification of Intermittent and Perennial Streams and Their Origins v. 4.11

NC DWQ Stream Identification Form Version 4.11

Date: 03/20/24	Project/Site: 9810 Newhall Road	Latitude:
Evaluator: Michael J. Klebasko, P.W.S.	County: Montgomery County	Longitude:
Total Points: <i>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30*</i>	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other <i>e.g. Quad Name:</i>

13 (Ephemeral)

A. Geomorphology (Subtotal = 7.5)	Absent	Weak	Moderate	Strong
1 ^a . Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	3
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3
4. Particle size of stream substrate	0	1	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	2	3
8. Headcuts	0	1	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	1	1.5
11. Second or greater order channel	No = 0		Yes = 3	

^a artificial ditches are not rated; see discussions in manual

B. Hydrology (Subtotal = 2.5)	Absent	Weak	Moderate	Strong
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
15. Sediment on plants or debris	0	0.5	1	1.5
16. Organic debris lines or piles	0	0.5	1	1.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3	

C. Biology (Subtotal = 3)	Absent	Weak	Moderate	Strong
18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macroinvertebrates (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed	FACW = 0.75; OBL = 1.5 Other = 0			

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

NC Methodology Stream Assessment Form

Scoring:

<19 Ephemeral

19-30 Intermittent

30+ Perennial

Since this portion of the channel immediately downslope of the outfall pipes is unquestionably ephemeral, any stream previously upslope of this segment would have also been ephemeral.

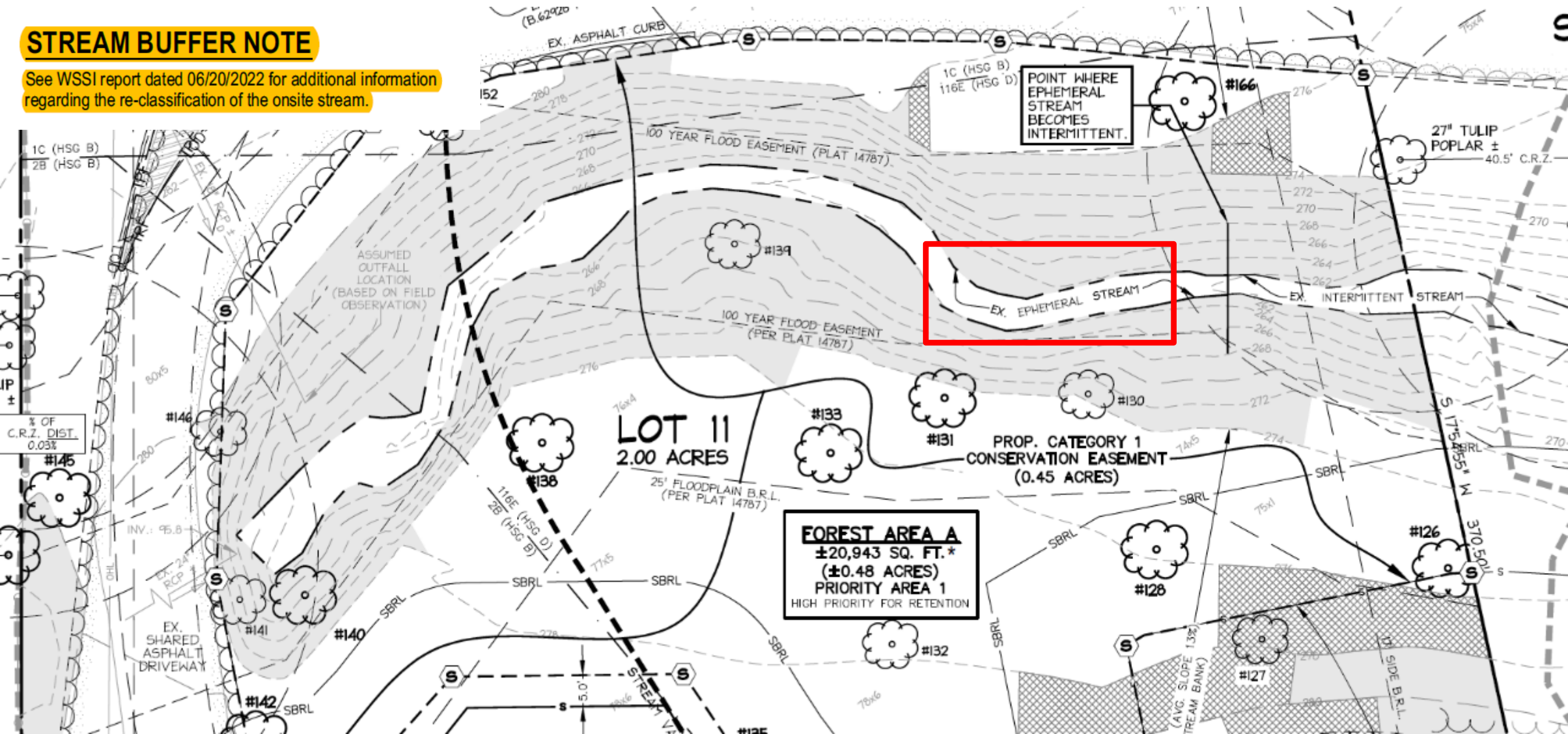
**Staff Claims the North Carolina Stream
Classification Methodology “Differs” from
County Guidelines, and Consultants Did Not
Use County Approved Guidelines.**

FCP#SC2022001 Approved on 01/20/2023

Revises stream to ephemeral

STREAM BUFFER NOTE

See WSSI report dated 06/20/2022 for additional information regarding the re-classification of the onsite stream.





Bob Zarzecki

**S&
EC**

Soil & Environmental Consultants, Inc.

8412 Falls of Neuse Road, Suite 104, Raleigh, NC 27615 • Phone (919) 846-5900 • Fax (919) 846-9467
sandec.com

ROY COOPER

Governor

ELIZABETH S. BISER

Secretary

RICHARD E. ROGERS, JR.

Director

NORTH CAROLINA
Environmental Quality

July 27, 2023

DWR Project 23-087
Wake County

Raleigh Durham International
Attn: Michael Landguth, Raleigh Durham Airport Authority
1000 Trade Drive
PO Box 80001
RDU Airport, NC 27623
(via email michael.landguth@rdi.com)

Subject: On-Site Determination for Applicability to the Neuse Buffer Rules (15A NCAC 02B .0714)

Project Name: RDU Runway 5L/23R Replacement Project

Site Address / Location: RDU Airport, Wake County, NC

Dear Michael Landguth:

On February 22, 2023, February 23, 2023, and March 16, 2023, Zach Thomas and Stephanie Goss (DWR) conducted an on-site review of features located on the subject property with Bob Zarzecki (S&EC) & Hannah Blaylock and Kate Lindekugel (RS&H) to determine the applicability of the above-noted state regulations.

The Division of Water Resources has determined that streams listed in the table below and identified on the attached maps are shown on either the most recently *published* NRCS Soil Survey of Wake County and/or the USGS National Map at a scale that incorporates the National Hydrography Dataset High Resolution data at 1:24,000 scale. Streams that are listed as "Subject" on the below table have been located on the ground at the site and possess characteristics that qualify them to be at least intermittent streams in accordance with the NC Stream Identification Manual v.4.11 and therefore subject to the Neuse River Buffer Rules.

Please be aware that features identified as "not subject" may be considered jurisdictional according to the US Army Corps of Engineers and subject to the Clean Water Act.

DWR 23-087
RDU Runway 5L/23R Replacement Project
Wake County
Page 3 of 7

Feature ID	E/I/P/NP Other*	Subject to Buffer Rules	Start @	Stop @	Depicted on Soil Survey	Depicted on USGS Topo
S35 (JD Intermittent)	E	No	n/a	n/a	Yes	No
S37	I	Yes	Jurisdictional Start (w/n fenced area)	P8	Yes	No
S39	I	Yes	Jurisdictional Start (near fence/VSR pipe)	P8	Yes	No
	P	Yes	Outlet of P8	Little Brier Creek	Yes	Yes
S40 (See NBRRO #19-106 Reach 2A)	P	Yes	DWQ 19-106 Start Flag	S41	Yes	No
S41 (See NBRRO #19-106 Reach 2 & 3)	I/P (per JD)	Yes	DWQ 19-106 Start Flag (pipe south of Lumley Rd)	Outside Project Area	Yes	No
S42 (See NBRRO #19-106 Reach A)	I	Yes	DWQ 2019 Start Flag (pipe below fill slope)	Outside Project Area	Yes	No
S43a (See NBRRO #19-106 Reach 5/JD Int)	E	No	n/a (not subject northwest of Lumley Road)	n/a	Yes	No
S43b			Since southeast side of			



THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
THE MONTGOMERY COUNTY PLANNING DEPARTMENT
JULY 2021

APPROVED BY THE MONTGOMERY COUNTY PLANNING BOARD

ENVIRONMENTAL GUIDELINES

GUIDELINES FOR ENVIRONMENTAL MANAGEMENT OF DEVELOPMENT IN MONTGOMERY COUNTY

Montgomery Planning

North Carolina
Division of Water Quality

Methodology for Identification of Intermittent and Perennial Streams and Their Origins

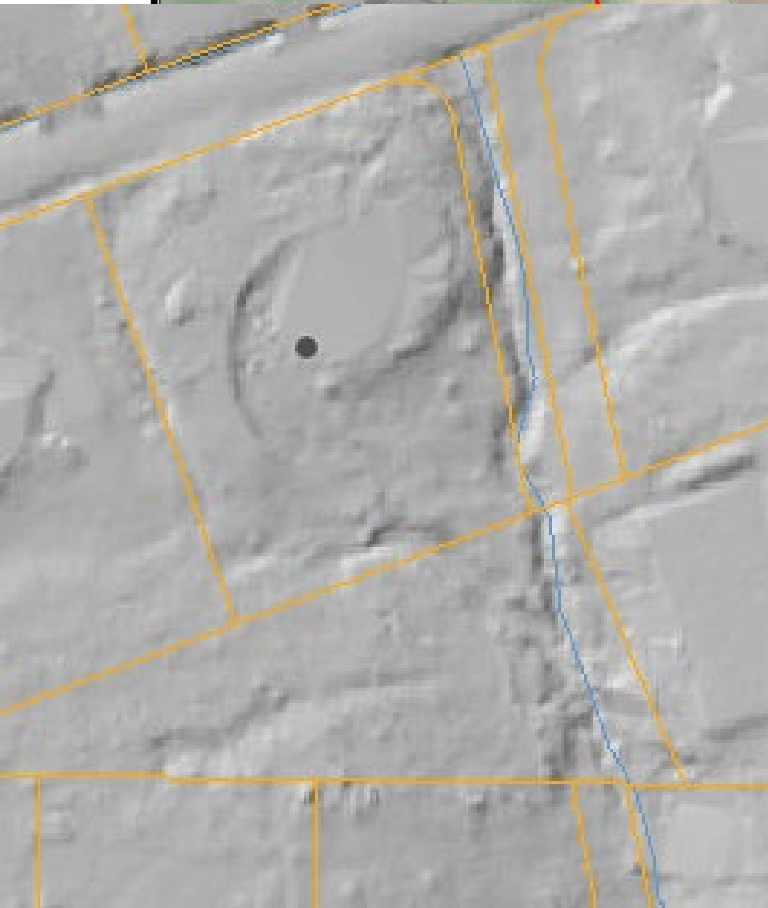
Version 4.11
Effective Date: September 1, 2010



Photo 2: Feature A (Reach A) – Facing North



Photo 7: Feature A (Reach B) – Facing South



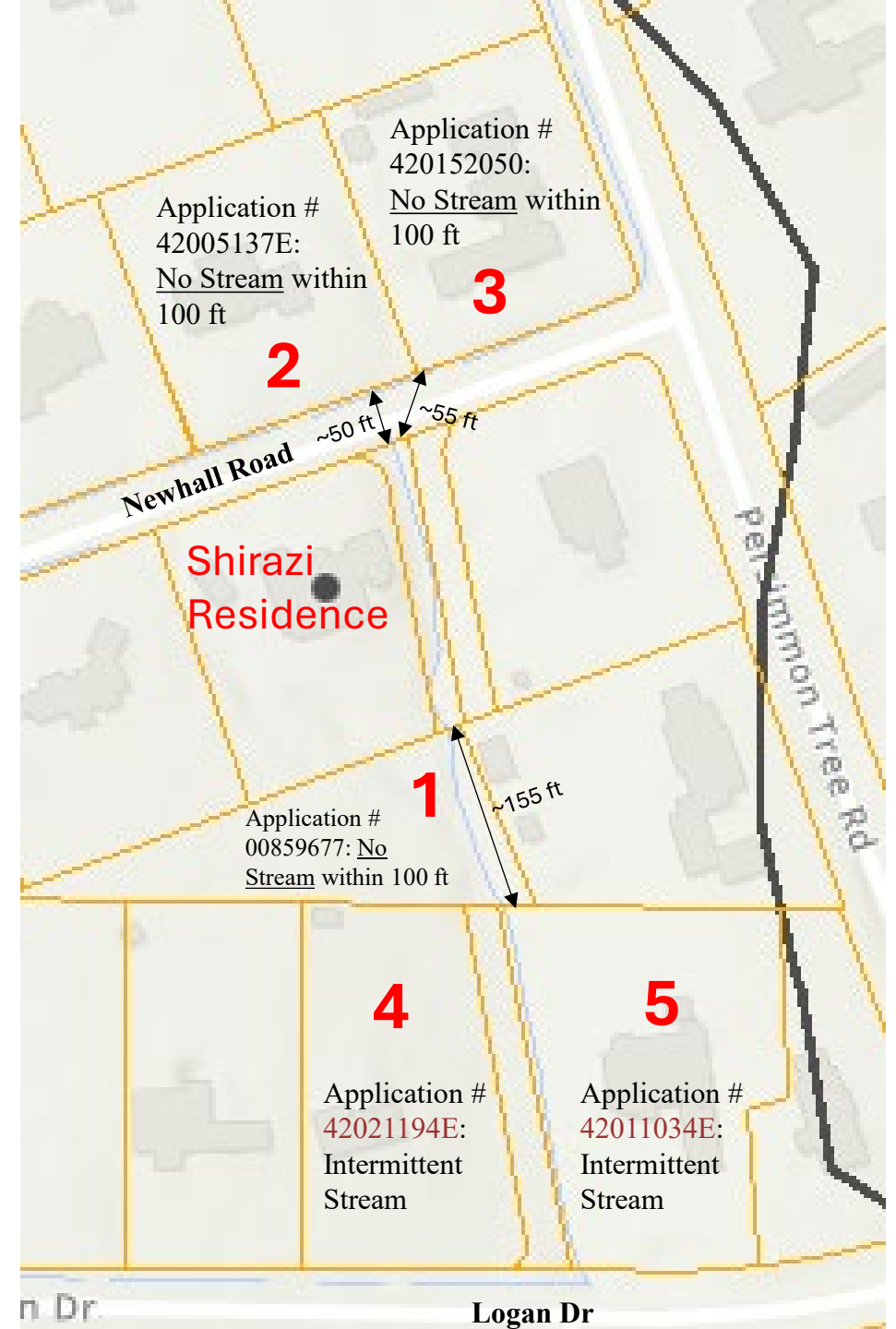
- ✓ The County Guidelines state “*previously approved NRI/FSDs may provide useful information on land features, including streams, that exist on or near the subject site.*”

Sites 2 and 3

[9809 Newhall Rd - Google Maps](#)

Sites 4 and 5

[9899 Logan Dr - Google Maps](#)



Aerial Image from 1970s

Disturbed Abandoned ROW

WILLIAMSBURG ESTATES
BLOCKS A, B, C, D & E
MONTGOMERY CO. MARYLAND

SCALE: 1"= 100' DATE: NOVEMBER, 1950



RIVER ROAD ESTATES
MONTGOMERY COUNTY
MARYLAND
SCALE 1"=200' OCT. 1945
MADDOX & HOPKINS
ENGINEERS



Stream Form 1 - Reach A

NC DWQ Stream Identification Form Version 4.11

Date: 03/19/2024	Project/Site: 9810 Newhall Road	Latitude: 39.009428
Evaluator: S&EC - Bob Zarzecki & Joshua Harvey	County: Montgomery, MD	Longitude: -77.202387
Total Points: Stream is at least intermittent if ≥ 19 or perennial if $\geq 30^*$ 12	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other e.g. Quad Name:

A. Geomorphology (Subtotal = 4.5)	Absent	Weak	Moderate	Strong
1 ^a Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	3
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3
4. Particle size of stream substrate	0	1	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	2	3
8. Headcuts	0	1	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	1	1.5
11. Second or greater order channel	No = 0		Yes = 3	

^a artificial ditches are not rated; see discussions in manual

B. Hydrology (Subtotal = 5.5)	Absent	Weak	Moderate	Strong
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
15. Sediment on plants or debris	0	0.5	1	1.5
16. Organic debris lines or piles	0	0.5	1	1.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3	

C. Biology (Subtotal = 2)	Absent	Weak	Moderate	Strong
18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macroinvertebrates (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed	FACW = 0.75; OBL = 1.5 Other = 0			

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Stream Form 2 - Reach B

NC DWQ Stream Identification Form Version 4.11

Date: 03/19/2024	Project/Site: 9810 Newhall Road	Latitude: 39.009273
Evaluator: S&EC - Bob Zarzecki & Joshua Harvey	County: Montgomery, MD	Longitude: -77.202345
Total Points: Stream is at least intermittent if ≥ 19 or perennial if $\geq 30^*$ 18.5	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other e.g. Quad Name:

A. Geomorphology (Subtotal = 8.5)	Absent	Weak	Moderate	Strong
1 ^a Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	3
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3
4. Particle size of stream substrate	0	1	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	2	3
8. Headcuts	0	1	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	1	1.5
11. Second or greater order channel	No = 0		Yes = 3	

^a artificial ditches are not rated; see discussions in manual

B. Hydrology (Subtotal = 4)	Absent	Weak	Moderate	Strong
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
15. Sediment on plants or debris	0	0.5	1	1.5
16. Organic debris lines or piles	0	0.5	1	1.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3	

C. Biology (Subtotal = 6)	Absent	Weak	Moderate	Strong
18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macroinvertebrates (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed	FACW = 0.75; OBL = 1.5 Other = 0			

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Appendix E of Montgomery County Environmental Guidelines, Ephemeral Streams Characteristics	Closest Related Item in NC Methodology	Related Item in NC Methodology Description	NC Assessment Criteria	Reach A (from pipes to ~80 ft south of pipes)	Reach B (from 80 ft to 155 ft south of pipes)
Typically Present in Ephemeral Streams					
Poorly-developed sinuosity	2	Sinuosity of channel along thalweg	Sinuosity less than 1.2 is weak. Property's sinuosity is measured at 1.02 measuring the entire feature (both Reach A & B) using LiDAR mapping. So not "absent", but "weak" using NC description or "poorly-developed" using the County Guidelines description. Reviewing each Reach individually, S&EC found the sinuosity to be "absent".	Sinuosity is absent	Sinuosity is absent
Evidence of leaf litter or small debris jams in flow areas	14 / 16	Leaf litter / Organic debris lines or piles	Moderate – Leaf litter is present throughout most of the stream's reach with some accumulation beginning on the upstream side of obstructions and in pools. Between 25% and 80% of the active channel bottom is covered with leaves and portions of the thalweg is visible.	Leaf Litter = Moderate / Debris Lines = Moderate	Leaf Litter = Moderate / Debris Lines = Moderate
Poorly-sorted sediments	4	Particle size of stream substrate	Weak – The channel is poorly developed through the soil profile. Some coarse sediment is present in the streambed but is discontinuous. Particle size differs little between the stream substrate and adjacent land. Moderate – There is a well-developed channel but it is not deeply incised through the soil profile. Some coarse sediment is present in the streambed in a continuous layer. Particle size differs considerably between the stream substrate and	Sediments are sorted weakly	Sediments are moderately sorted
Poorly-developed removal of vegetation litter	14 / 16	Leaf litter / Organic debris lines or piles	Moderate – Leaf litter is present throughout most of the stream's reach with some accumulation beginning on the upstream side of obstructions and in pools. Between 25% and 80% of the active channel bottom is covered with leaves and portions of the thalweg is visible.	Leaf Litter = Moderate / Debris Lines = Moderate	Leaf Litter = Moderate / Debris Lines = Moderate
Poorly-developed vegetation drift lines					
Fibrous roots in channel	18	Fibrous roots in streambed	Moderate – A discontinuous network of fibrous roots is present in the stream thalweg and surrounding area.	Fibrous roots are moderately present in the channel	Fibrous roots are absent in the channel
Side slope soils with characteristics typical of the surrounding landscape	None	None	--	Side slope soils have characteristics typical of the surrounding landscape	Side slope soils have the characteristics typical of the surrounding landscape

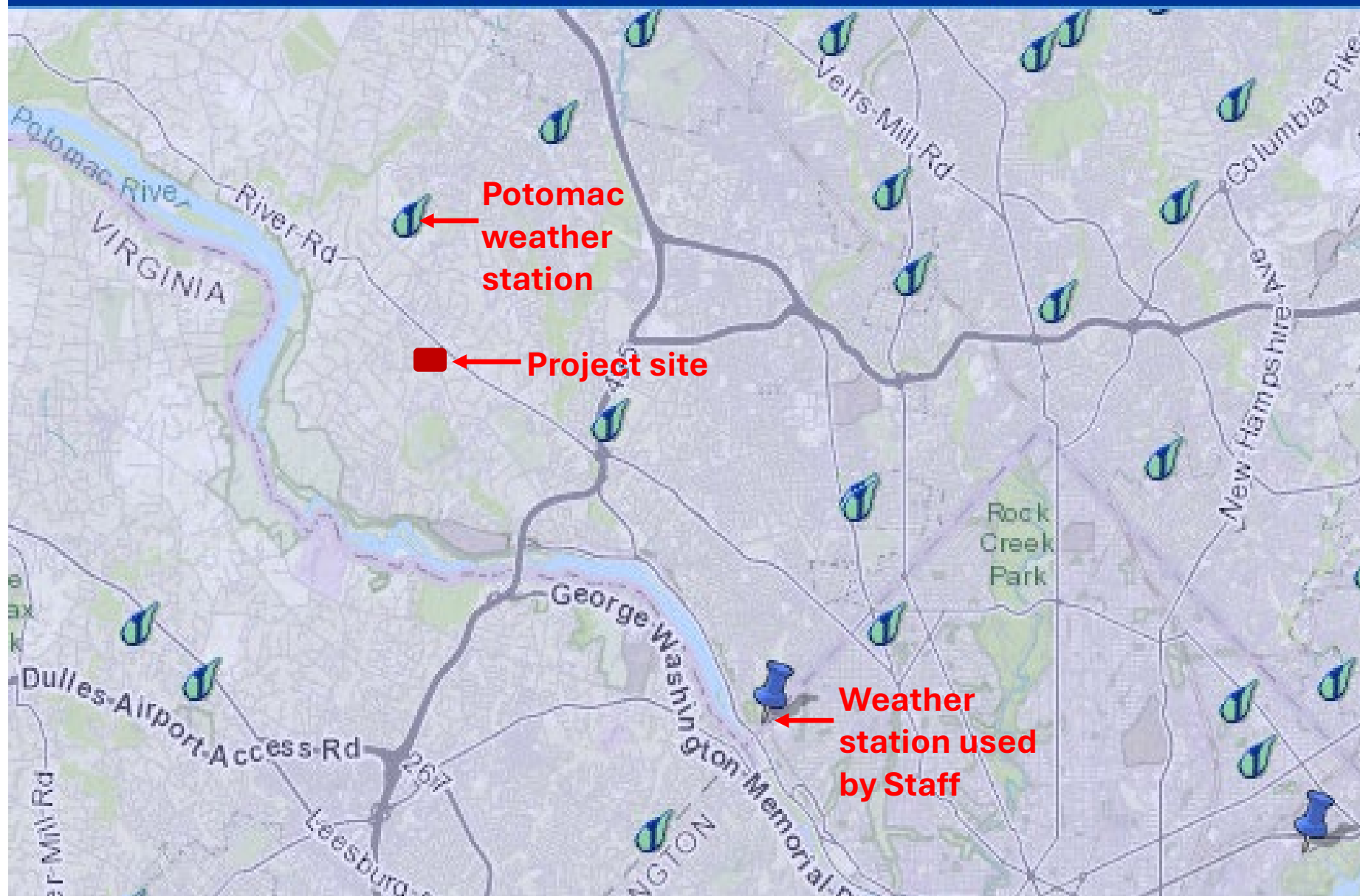
**Staff Claims “work being executed found
seeps, springs, or wetland areas”**

✓ **From Staff Report:**

The National Weather Service records for the area show **zero precipitation in the two days before the DPS site visit.**



NOWData - NOAA Online Weather Data



Staff
claims
evidence
of scouring



**Staff claims evidence of
transient leaf litter**



Staff claims presence of hydric soil indicators

Soil sample from Property



Example
hydric
soil



**Staff
claims
presence
of ground
water**

