

Written Testimony – Pulte’s Development, Creekside at Cabin Branch
Site Plan No. 820200160

Date: September 9, 2021

To: Chair, Casey Anderson & Montgomery County Planning Board Commissioners

From: Roberta G. (rg) Steinman, Friends of Ten Mile Creek and Little Seneca Reservoir Board Member

Subject: Creekside at Cabin Branch: Site Plan No. 820200160

CONCLUSION AND RECOMMENDATION:

Based on the impervious analysis of Pulte’s proposed residential development, Creekside at Cabin Branch, going forward with this development plan would **irreparably harm** two of the highest quality streams in Montgomery County, LSTMs 110 and 111, tributaries of Ten Mile Creek. Approval of this development plan would be contrary to both the intent and the recommendations of the Amended Master Plan to “**protect existing stream conditions in the high quality headwater subwatersheds LSTM 110 (King Spring) and LSTM 111.**” Therefore, **the Planning Board must deny approval of the Creekside at Cabin Branch development as currently proposed.**

TEN MILE CREEK BACKGROUND

“Ten Mile Creek is one of the highest quality watersheds remaining in the County and one that is known to be particularly sensitive to disturbance.”¹ The streams flowing from the Ten Mile Creek Watershed provide the cleanest source of water for the Little Seneca Lake Reservoir, the closest, back-up emergency drinking water supply to the Potomac for over 4 million people in the Washington DC region.² “As a result of its unique characteristics, Ten Mile Creek warrants extraordinary protection.”³

In particular, Ten Mile Creek’s high quality reflects the “**excellent condition**” of two of the highest quality streams in Montgomery County, LSTM110 and 111.⁴ The 2014 Ten Mile Creek Area Limited Amendment to the Clarksburg Master Plan (hereafter referred to as ‘Master Plan’) and the accompanying Environmental Analysis describe these two sub-watersheds, LSTM 110 and 111, as “**the most sensitive and highest quality streams,**” with “existing low levels of imperviousness,” and supportive of many “sensitive species.” According to the Master Plan, “any development of these properties will have a negative impact on stream quality.”⁵ **Yet it is precisely these two streams that the Pulte development would irreparably harm.**

ANALYSIS OF IMPERVIOUS IMPACT OF PULTE’S PROPOSED DEVELOPMENT ON LSTMs 110 & 111: IMPERVIOUS LEVELS WOULD SIGNIFICANTLY EXCEED MASTER PLAN RECOMMENDATIONS AND UNDERMINE THE MASTER PLAN’S INTENT

Pulte’s Site Drainage Plan submission contains the impervious acreage impacts of the proposed development on LSTM 110 and LSTM 111.⁶ The development would add 11.19 impervious acres into the LSTM 110 subwatershed and 12.08 impervious acres into the LSTM 111 subwatershed. The total impervious acreage that would be added to these two subwatersheds is 23.27 impervious acres.

The following table shows the impervious impacts that would result from locating the 23.27 impervious acres of the Creekside at Cabin Branch development entirely within the LSTM 110 and 111 subwatersheds. (See Table 1)

¹ Ten Mile Creek Amendment, Appendix 9, March 4, 2014, County Council Worksession: Staff Report and Supporting Materials, p. 19. https://www.montgomeryplanning.org/community/plan_areas/1270_corridor/clarksburg/documents/appendix_9_materials_for_county_council.pdf.

² In the event of a drought, Little Seneca Lake Reservoir alone could sufficiently augment the flow of the Potomac until water released from another, larger reservoir reached intakes in the river. (Master Plan, p.14; App. 9, pdf p. 57)

³ M-NCPPC. (2014). *Ten Mile Creek Area Limited Amendment Clarksburg Master Plan and Hyattstown Special Study Area. Approved and Adopted.* Montgomery County Planning Department, p.14.

https://www.montgomeryplanning.org/community/plan_areas/1270_corridor/clarksburg/documents/ten_mile_creek_approved.pdf

⁴ Appendix 9, at fn 1, p. 70.

⁵ Master Plan, at fn 3, p.41. Also see Op. Cit. (App. 9) at fn 1, pdf p. 70.

⁶ Site Drainage Plan Overview, <https://eplans.montgomeryplanning.org/UFS/31679/89774/12-WQP-820200160-002.pdf/12-WQP-820200160-002.pdf>

Written Testimony – Pulte’s Development, Creekside at Cabin Branch
 Site Plan No. 820200160

Table 1. Impervious Impact of Pulte’s Development on Subwatersheds LSTM 110 and LSTM 111

Subwatersheds of Ten Mile Creek	Acres in sub-watershed ¹	Subwatershed Pre-existing % imperviousness	Impervious acres Pulte development would add to sub-watershed ²	Pulte % addition to imperviousness in sub-watershed	Total Impervious impact to sub-watershed due to Pulte ³	% imperviousness of sub-watershed at build-out (Pulte + King)
LSTM 110	211	1.6%	11.19	5.3%	6.9%	9.7% ⁴
LSTM 111	104	1.2%	12.08	11.6%	12.8%	12.8%

Table Notes:

¹Acres in subwatershed from Ten Mile Creek Amendment, Appendix 3, Environmental Analysis, pdf pp. 18 & 20, https://www.montgomeryplanning.org/community/plan_areas/1270_corridor/clarksburg/documents/Appendix%203%20TMC_Env_Analysis_Final_Report_070313.pdf

²Sub-watershed acreage data from Site Drainage Plan Overview. Work completed, April 2020; plan submitted on May 12, 2021. Points North=LSTM110; points South=LSTM111. <https://eplans.montgomeryplanning.org/UFS/31679/89774/12-WQP-820200160-002.pdf/12-WQP-820200160-002.pdf>

³Calculations: 11.19/211=5.3%; 5.3%+1.6%=6.9%; 12.08/104=11.6%; 11.6%+1.2%=12.8%.

⁴Calculation of % imperviousness of LSTM110 subwatershed at build-out: King property is ~ 140 acres; approximately 70% of King’s development would be located in the LSTM110 subwatershed=98 acres; 6% impervious cap = 5.9 impervious acres added (.06*98=5.9); King adds 2.8% imperviousness to LSTM 110 subwatershed (5.9/211=2.8%). Percent imperviousness of LSTM110 subwatershed at build-out (Pulte+King) is 2.8%+6.9%=9.7%.

EXPLANATION OF IMPERVIOUS IMPACT ON LSTM 110

The existing imperviousness of LSTM 110 is 1.6%. The impervious acreage portion of the Pulte development that would occur in the 110 subwatershed – 11.19 impervious acres, or 48% of the total 23.27 impervious acres of this development – would raise this subwatershed’s impervious cover from **1.6% to 6.9%**. At full build-out, which includes the King development (~70% of the King development would occur in the LSTM 110 subwatershed) the combined impact of these two developments would raise the impervious cover from **1.6% to 9.7%** – a **sixfold increase in imperviousness!**

EXPLANATION OF IMPERVIOUS IMPACT ON LSTM 111

The existing imperviousness of subwatershed LSTM 111 is 1.2%. The impervious acreage portion of the Pulte development that would occur in the LSTM 111 subwatershed – 12.08 impervious acres, or 52% of the total 23.27 impervious acres of this development – would raise this subwatershed’s impervious cover from **1.2% to 12.8%**. That is more than a **tenfold increase in imperviousness** compared to the pre-existing impervious level!

“Recent studies (see Appendix 9, Attachment 18) have shown that impervious cover levels as low as 5 percent are correlated with significant degradation in water quality.”⁷ The impervious impacts of the proposed Pulte development on Ten Mile Creek are well beyond the 5% threshold required to keep the good to excellent rating of the stream, as stated in the Master Plan.

THE IMPERVIOUS OUTCOMES OF PULTE’S PROPOSED DEVELOPMENT ARE CONTRARY TO THE LANGUAGE AND INTENT OF THE MASTER PLAN

The Master Plan recommends **“a six percent impervious surface cap for new development in the most sensitive subwatersheds to minimize risk as much as possible.”**⁸ And explicitly states: **“In particular, protect existing stream conditions in the high quality headwater subwatersheds LSTM 110 (King Spring) and LSTM 111.”**⁹ The Master Plan states as well that, **“Even small changes in imperviousness will likely affect these sub-watersheds, but if imperviousness is kept as near to five**

⁷ Master Plan, at fn 3, p.17.

⁸ Master Plan, at fn 3, p.17.

⁹ Master Plan) at fn 3, pp. 18-19.

Written Testimony – Pulte’s Development, Creekside at Cabin Branch

Site Plan No. 820200160

percent as possible, stream conditions can be maintained in the good to excellent range, based on the majority opinion of environmental experts.”¹⁰

The Master Plan’s directive for a **6% impervious cap in the most sensitive subwatersheds** means that development must not exceed the 6% impervious cap in either LSTM 110 or in LSTM 111, which are the subwatersheds that the Master Plan refers to as “the most sensitive subwatersheds.”¹¹ In fact, **LSTM 110 and 111 are the only subwatersheds referred to in the Master Plan as “the most sensitive.”** There are 5 other subwatersheds in the plan area West of I-270 - LSTMs 112, 201, 202/206, 203, and 204. The Master Plan does not apply that language, “sensitive,” to any of these other subwatersheds.

THE COUNCIL’S INTENT IN APPROVING THE 2014 AMENDED MASTER PLAN WAS TO PROTECT TEN MILE CREEK’S SENSITIVE RESOURCES: THE OUTCOME OF THIS PROPOSED DEVELOPMENT IS CONTRARY TO THE LANGUAGE AND INTENT OF THE MASTER PLAN

The Master Plan concluded that “the proposed levels of development in the 1994 Plan would create a significant risk to stream quality in these sensitive subwatersheds.”¹² This is precisely why the Montgomery County Council, in October 2012, directed the Planning Board to undertake a Limited Amendment of the 1994 Clarksburg Master Plan: “...because environmental analyses showed continued uncertainty about the ability to protect sensitive resources in Ten Mile Creek if full development occurred under the original Plan [1994] recommendations.”¹³ (See Table 2)

Under the approved 2014 Master Plan, the Council recommended a 6% cap on imperviousness for the watershed area west of I-270. This was in strong contrast to the imperviousness outcomes that had been proposed in the 2013 Planning Board draft – 10.1% for LSTM 110 and 13.8% for LSTM 111 – under a watershed cap of 10%,¹⁴ which the Council rejected in adopting the new 2014 Master Plan.

Yet, as Table 2 shows, the **levels of imperviousness for LSTM 111 and LSTM 110 under the current Pulte plan are closer to what the 2013 Planning Board draft proposed, which was rejected by the Council in adopting the new 2014 Master Plan.**

Table 2. Pre-existing Impervious Cover & Impervious Estimates by Subwatershed: Comparison of the 1994 Master Plan and 2013 Planning Board Draft with the Imperviousness Result of Pulte’s Creekside at Cabin Branch Development Proposal

	Subwatershed pre-existing % imperviousness¹	Imperviousness estimates, 1994 Master Plan²	Imperviousness estimates, 2013 Planning Board Draft²	Imperviousness resulting from Pulte’s development, Creekside at Cabin Branch¹
LSTM 110	1.6%	15.1%	10.1%	6.9% (9.7% with King buildout)
LSTM 111	1.2%	14.1%	13.8%	12.8%

¹ Refer to Table 1 for ‘pre-existing imperviousness’ column and ‘Pulte’s proposed development’ column.

² Ten Mile Creek Amendment, Appendix 9, March 4, 2014, County Council Worksession: Staff Report and Supporting Materials, ‘Assumptions for Imperviousness Analysis’ tables on pp. 8-9.

https://www.montgomeryplanning.org/community/plan_areas/1270_corridor/clarksburg/documents/appendix_9_materials_for_county_council.pdf

¹⁰ Master Plan, at fn 3, p.41. Impervious levels above 5% are consistently associated with stream degradation. See Appendix 3, pdf p. 244, DEP graph showing “Relationship Between Stream Condition and Impervious Cover in Montgomery County Streams,”

¹¹ Master Plan, at fn 3, p.41.

¹² Master Plan, at fn 3, p.41.

¹³ Master Plan, at fn 3, pp. 5 & 8.

¹⁴ Appendix 9, at fn 1, ‘Assumptions for Imperviousness Analysis’ table on pp. 8-9.

rg, FINAL-Creekside at Cabin Branch testimony, Sep 9, 2021

Written Testimony – Pulte’s Development, Creekside at Cabin Branch
Site Plan No. 820200160

As shown in Table 2, impervious cover for LSTM 110 in Pulte’s currently proposed development exceeds the Master Plan’s 6% recommendation and increases pre-existing imperviousness by more than 300 percent. The increase in impervious cover in LSTM 111 is staggering; it would rise astronomically from 1.2% to 12.8% – increasing the pre-existing imperviousness by more than 10 times, or nearly 1,000 percent. **Clearly, these outcomes are contrary to the intent and recommendations of the 2014 Master Plan, amended specifically to protect these sensitive and high quality subwatershed resources.**

AS CURRENTLY PROPOSED, PULTE’S CREEKSIDE AT CABIN BRANCH DEVELOPMENT CANNOT BOTH ADHERE TO THE OVERLAY ZONE AND SATISFY THE INTENT AND RECOMMENDATIONS OF THE MASTER PLAN

The Pulte development relies only on the 6% impervious limit in the Clarksburg West Environmental Overlay Zone (EOZ)¹⁵ as the standard, while simultaneously ignoring the explicit recommendation in the Master Plan to limit imperviousness to 6% in the sensitive subwatersheds. Under this misapplication of the Master Plan, the 6% EOZ impervious limit is met by overwhelming the sensitive subwatersheds with impervious acreage.

The 6% EOZ maximum limit that is applied to Pulte’s 400-acre tract yields 24 impervious acres. As previously shown in Table 1, according to the applicant’s documents, 11.19 of the 24 impervious acres would be located in LSTM 110 and 12.08 acres would be located in LSTM 111.¹⁶ Imposing 12.08 impervious acres, more than half of Pulte’s impervious acreage, into the 104-acre LSTM 111 subwatershed, totally overwhelms this tributary, raising the LSTM 111 impervious cover from **1.2% to 12.8%**. This is more than a **tenfold increase in imperviousness** compared to the pre-existing impervious level! The same goes for the 211-acre subwatershed LSTM 110, which would see more than a fourfold rise in imperviousness, from 1.6% to 6.9%.

Rather than ignoring one standard (the Master Plan) and applying the other (EOZ), the Planning Board should read both impervious limits together so that neither is rendered meaningless. In applying the EOZ impervious limit, the Planning Board should ensure that the distribution of the impervious surface is not concentrated within the two most sensitive subwatersheds, such that it violates the Master Plan’s recommendation to limit imperviousness to 6% in these sensitive subwatersheds.

The Environmental Overlay Zone must not be implemented in such a way as to thwart the language and intent of the Master Plan.

NEARLY 25 PERCENT OF THE COMBINED LAND AREA OF THE TWO MOST SENSITIVE SUB-WATERSHEDS, LSTM 110 & 111, WOULD BE GRADED, BULLDOZED, AND SEVERELY DEGRADED: 40% OF LSTM 110 WOULD BE HARMED

Ten Mile Creek headwater system is comprised of small, spring-fed streams located within an area of thin, rocky soils. As the 1994 Clarksburg Master Plan noted, "the Ten Mile Creek watershed has the greatest constraints for development" and further, "[o]f the Little Seneca sub-basins, Ten Mile Creek is the most prone to environmental degradation from development."¹⁷ In commenting on their stream monitoring program, DEP (Department of Environmental Protection) states: "Changes to the natural landscape, in addition to increased impervious cover, will significantly affect the health of streams."¹⁸

Though the bulk of Pulte’s 400-acre property is located in subwatersheds LSTMs 110, 111, and 112, Pulte’s plan wholly concentrates their proposed development entirely in the two most sensitive

¹⁵ https://www.montgomerycountymd.gov/COUNCIL/Resources/Files/zta/2014/zta_14-03.pdf, p.7.

¹⁶ In this case, 23.27 acres would be located in LSTMs 110 & 111. The remainder would be allocated to the 10-acre park, driveway access to the Delaney property, and to the historic Cephas house – all of which are in LSTM 112.

¹⁷ Appendix 9, at fn 1, p. 63.

¹⁸ Appendix. 9, at fn 1, p. 64.

Written Testimony – Pulte’s Development, Creekside at Cabin Branch

Site Plan No. 820200160

subwatersheds that the Master Plan explicitly singled out for protection, LSTM 110 and 111.¹⁹ According to Pulte’s site plan submission, they plan to bulldoze, regrade, fill, and otherwise disturb 34.98 acres in the LSTM 110 subwatershed and 41.07 acres in the LSTM 111 subwatershed for a total of 76.05 acres.²⁰ The total disturbance of 76 acres would impact **24% of the combined land area, 315 acres, of these two subwatersheds.** (See Table 3).

Table 3. Land Disturbance Impact of Proposed Development on Subwatersheds LSTMs 110 & 111

	Subwatershed acreage ¹	Acres of disturbance in subwatershed ²	Percentage of subwatershed disturbed due to development ³	Percentage of disturbance in the two subwatersheds combined ⁴
LSTM 110	211	34.98	16.6%	
LSTM 111	104	41.07	39.5%	
Total Acreage	315	76.05		24.1%

Table Notes:

¹Acres in subwatershed from Ten Mile Creek Amendment, Appendix 3, Environmental Analysis, pdf pp. 18 & 20, https://www.montgomeryplanning.org/community/plan_areas/1270_corridor/clarksborg/documents/Appendix%203%20TMC_En_v_Analysis_Final_Report_070313.pdf

²See fn 20 for subwatershed acreage disturbance data.

³Calculations: 34.98/211=16.6%; 41.07/104=39.5%

⁴Calculation: 76.05/315=24.1%.

As shown in Table 3, nearly one-quarter of the land area, 24.1%, of these highly sensitive subwatersheds would be degraded, contrary to the 2014 Master Plan’s recommendation to “**protect existing stream conditions in the high quality headwater subwatersheds LSTM 110 (King Spring) and LSTM 111.**”²¹ The harm done to LSTM 111 would be even greater. **Nearly 40% of the land area of LSTM 111 would be subject to degradation.** (See Table 3).

The land disturbance due to this development would entail bulldozing, cut and fill, grading, soil compaction, and impervious cover. The impacts to the soils, hydrology, topography and landscape as a result of this massive land disturbance would be severe. The consequences of land disturbance include loss of soil integrity leading to erosion, increased pollution and sedimentation; hydrological impacts with deleterious impacts to the area’s many seeps, springs and wetlands; sedimentation; loss of aquatic diversity; and degradation of Ten Mile Creek – “**one of the highest quality watersheds remaining in the County and one that is known to be particularly sensitive to disturbance.**”²²

The amount of land area disturbance being proposed is alarming and unacceptable, and contradicts the Master Plan recommendation to “**protect existing stream conditions in the high quality headwater subwatersheds LSTM 110 (King Spring) and LSTM 111.**”²³

In their discussion of impervious cover in relation to LSTMs 110 and 111, DEP notes, “Once an excellent quality stream is degraded, it is very difficult to recover even with extensive (expensive) restoration efforts. DEP is not aware of any instance of a once-excellent stream recovering to original conditions following development disturbance.”²⁴

¹⁹ LSTM 112 is 228 acres – much larger than LSTM 111 (104 acres) and LSTM 110 (211 acres).

²⁰ See Site Drainage Pattern submitted by Pulte, <https://eplans.montgomeryplanning.org/UFS/31679/89774/12-WQP-820200160-002.pdf/12-WQP-820200160-002.pdf>. LOD, North, 34.98 acres is the LSTM 110 Subwatershed; LOD, South, 41.07 acres is the LSTM 111 Subwatershed, where LOD is the Limits of Disturbance.

²¹ Master Plan, at fn 3, pp. 17-18.

²² Appendix 9, at fn 1, p. 19.

²³ Master Plan, at fn 3, pp. 17-18.

²⁴ Appendix 9, at footnote 1, p. 70.

Written Testimony – Pulte’s Development, Creekside at Cabin Branch
Site Plan No. 820200160

TEN MILE CREEK CANNOT SURVIVE THE ASSAULT OF THE FOUR DEVELOPMENTS PROPOSED IN THE WATERSHED

Pulte’s Creekside at Cabin Branch proposed development is one of 3 developments in the pipeline (Pulte, Miles-Coppola, and Egan) and a 4th (King) yet to come. Taken together, these developments spell the certain demise of the Ten Mile Creek main stem. Pulte’s development would destroy the two highest quality streams in the Ten Mile Creek Watershed. But all the other developments combined, through their impact on the other tributaries to the Ten Mile Creek main stem, would devastate the clear flowing waters of Ten Mile Creek.

It is disingenuous to study the impacts on Ten Mile Creek only from the Pulte development. A piecemeal approach time and again proves true the maxim, “Death by a thousand cuts.”

TEN MILE CREEK IS A COMPLETE AND FUNCTIONING WATERSHED AND ECOSYSTEM

What makes Ten Mile Creek watershed a complete and well-functioning ecosystem is the health of all of its parts – each subwatershed, with its seeps, springs, wetlands, and forests is important. But Ten Mile Creek is also a fragile and sensitive watershed. It is only as healthy as the sum of its parts – each tributary is important, and a disturbance in one disturbs the balance of all.²⁵

If we are really serious about protecting water quality and stream habitats, if we are really serious about responding to the ongoing challenges of climate change (and greenhouse gas emissions), then we must protect the natural areas, suffer no additional loss of forest trees, and severely limit impervious cover. Further intrusions into the watershed are simply not acceptable if we are to prevent further decline and degradation of the Ten Mile Creek watershed. Not destroying a natural habitat is immensely better than trying to restore it afterwards.

Conclusion: The Planning Board must Deny Approval of Site Plan No. 820200160

Respectfully,
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²⁵ Appendix 9, at fn 1, p. 63.
rg, FINAL-Creekside at Cabin Branch testimony, Sep 9, 2021