



Approved and Adopted

July 2014

10 Mile Creek Area Limited Amendment

Clarksburg Master Plan and Hyattstown Special Study Area



Montgomery County Planning Department
M-NCPPC

MontgomeryPlanning.org

APPROVED AND ADOPTED

10 MILE CREEK AREA LIMITED AMENDMENT

Clarksburg Master Plan and Hyattstown Special Study Area

Abstract

This document is a Limited Amendment to the 1994 Clarksburg Master Plan and Hyattstown Special Study Area for the Ten Mile Creek Watershed. It retains the 1994 Master Plan vision, but refines 1994 Plan recommendations to better achieve two important objectives: the creation of a well-defined corridor town that provides jobs, homes, and commercial activities; and the preservation of natural resources critical to the County's well-being. The Amendment contains land use, zoning, transportation, parks, and historic resources recommendations for the portions of the Planning Area in the Ten Mile Creek Watershed.

Source of Copies

The Maryland-National Capital Park and Planning Commission

8787 Georgia Avenue

Silver Spring, MD 20910

Online: www.MontgomeryPlanning.org/community/plan_areas/1270_corridor/clarksburg/clarksburg_lim_amendment.shtm

Notice to Readers

An area master plan, after approval by the District Council and adoption by the Maryland-National Capital Park and Planning Commission, constitutes an amendment to The General Plan (On Wedges and Corridors) for Montgomery County. Each area master plan reflects a vision of future development that responds to the unique character of the local community within the context of a Countywide perspective. Area master plans are intended to convey land use policy for defined geographic areas and should be interpreted together with relevant Countywide functional master plans.

Master plans generally look ahead about 20 years from the date of adoption. As communities evolve, the specifics of a master plan may become less relevant over time. Generally, sketches or drawings in an adopted master plan are for illustrative purposes only; they are intended to convey a general character rather than a specific commitment to a particular detailed design.

Master plans do not specify all development possibilities for a particular property or area. In order to understand the full range of development options, the reader should be aware of additional land uses and development potential available through permitted conditional uses; variances; transferrable development rights (TDRs); moderately priced dwelling units (MPDUs); rezoning by local map amendments; public projects and mandatory referral process; and municipal annexations.

The Maryland-National Capital Park and Planning Commission

The Maryland-National Capital Park and Planning Commission is a bi-county agency created by the General Assembly of Maryland in 1927. The Commission's geographic authority extends to the great majority of Montgomery and Prince George's Counties; the Maryland-Washington Regional District (M-NCPPC planning jurisdiction) comprises 1,001 square miles, while the Metropolitan District (parks) comprises 919 square miles in the two counties.

The Commission is charged with preparing, adopting and amending or extending the General Plan (On Wedges and Corridors) for the Physical Development of the Maryland-Washington Regional District in Montgomery and Prince George's Counties.

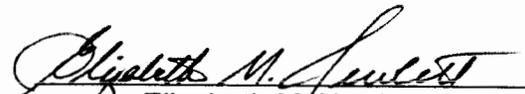
The Commission operates in each county through a Planning Board appointed by and responsible to the County government. All local plans, recommendations on zoning amendments, administration of subdivision regulations and general administration of parks are responsibilities of the Planning Boards.

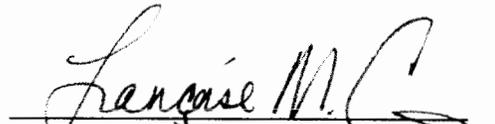
CERTIFICATION OF APPROVAL AND ADOPTION

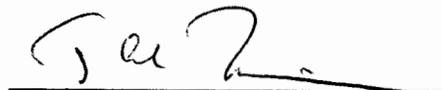
10 Mile Creek Limited Amendment Clarksburg Master Plan and Hyattstown Special Study Area

This Limited Amendment to the approved and adopted 1994 *Clarksburg Master Plan and Hyattstown Special Study Area*, as amended; being also an amendment to the *General Plan (On Wedges and Corridors) for the Physical Development of the Maryland-Washington Regional District in Montgomery and Prince George's Counties*, as amended; the *Master Plan of Highways and Transitways within Montgomery County*, as amended; the *Countywide Bikeways Functional Master Plan*, as amended; and the *Legacy Open Space Functional Master Plan* as amended, has been approved by the Montgomery County Council, sitting as the District Council, by Resolution No. 17-1048 on April 1, 2014, and corrected by the District Council by Resolution 17-1167 on July 15, 2014, has been adopted by the Maryland-National Capital Park and Planning Commission by Resolution No. 14-13 on May 16, 2012, and readopted by Resolution No. 14-27 after a duly advertised public hearing as required by Article 28 of the Annotated Code of Maryland.

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION


Elizabeth M. Hewlett
Chair


Françoise M. Carrier
Vice Chair


Joseph Zimmerman
Secretary-Treasurer



THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
6611 Kenilworth Avenue • Riverdale, Maryland 20737

MCPB NO. 14-23
M-NCPPC NO. 14-13

RESOLUTION

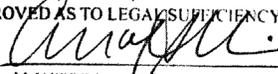
WHEREAS, The Maryland-National Capital Park and Planning Commission, by virtue of Division II of the Land Use Article of the Annotated Code of Maryland, is authorized and empowered, from time to time, to make and adopt, amend, extend and add to the *General Plan (On Wedges and Corridors) for the Physical Development of the Maryland-Washington Regional District Within Montgomery and Prince George's Counties*; and

WHEREAS, the Montgomery County Planning Board of The Maryland-National Capital Park and Planning Commission, pursuant to procedures set forth in the Montgomery County Code, Chapter 33A, held a duly advertised public hearing on Tuesday September 10, 2013 on the Public Hearing Draft *10 Mile Creek Area Limited Amendment, Clarksburg Master Plan and Hyattstown Special Study Area*, being also an amendment to the *General Plan (On Wedges and Corridors) for the Physical Development of the Maryland-Washington Regional District in Montgomery and Prince George's Counties*, as amended; the *Clarksburg Master Plan and Hyattstown Special Study Area*, as amended; the *Master Plan of Highways and Transitways within Montgomery County*, as amended; the *Countywide Bikeways Functional Master Plan*, as amended; and the *Legacy Open Space Functional Master Plan*, as amended; and

WHEREAS, the Montgomery County Planning Board, after said public hearing and due deliberation and consideration, on October 24, 2013, approved the Planning Board Draft *10 Mile Creek Area Limited Amendment, Clarksburg Master Plan and Hyattstown Special Study Area*, recommended that it be approved by the District Council, and on October 25, 2013 forwarded it to the County Executive for recommendations and analysis; and

WHEREAS, the Montgomery County Executive reviewed and made recommendations on the Planning Board Draft *10 Mile Creek Area Limited Amendment, Clarksburg Master Plan and Hyattstown Special Study Area*, and forwarded those recommendations and analysis to the District Council on December 20, 2013; and

APPROVED AS TO LEGAL SUFFICIENCY


M-NCPPC Legal Department

Date 9/12/14

WHEREAS, the Montgomery County Council sitting as the District Council for the portion of the Maryland-Washington Regional District lying within Montgomery County, held a public hearing on December 3, 2013 and December 5, 2013, wherein testimony was received concerning the Planning Board Draft *10 Mile Creek Area Limited Amendment, Clarksburg Master Plan and Hyattstown Special Study Area*; and

WHEREAS, the District Council, on April 1, 2014, approved the Planning Board Draft *10 Mile Creek Area Limited Amendment, Clarksburg Master Plan and Hyattstown Special Study Area* subject to the modifications and revisions set forth in Resolution No. 17-1048.

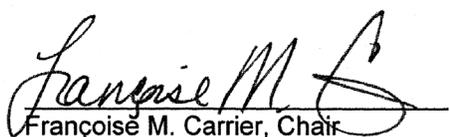
NOW, THEREFORE BE IT RESOLVED, that the Montgomery County Planning Board and The Maryland-National Capital Park and Planning Commission do hereby adopt the said, *10 Mile Creek Area Limited Amendment, Clarksburg Master Plan and Hyattstown Special Study Area* together with the *General Plan (On Wedges and Corridors) for the Physical Development of the Maryland-Washington Regional District in Montgomery and Prince George's Counties*, as amended; the *Clarksburg Master Plan and Hyattstown Special Study Area*, as amended; the *Master Plan of Highways and Transitways within Montgomery County*, as amended; and the *Legacy Open Space Functional Master Plan*, as amended; and as approved by the District Council in the attached Resolution No. 17-1048; and

BE IT FURTHER RESOLVED, that copies of said Amendment must be certified by The Maryland-National Capital Park and Planning Commission and filed with the Clerk of the Circuit Court of each of Montgomery and Prince George's Counties, as required by law.

CERTIFICATION

This is to certify that the foregoing is a true and correct copy of a resolution adopted by the Montgomery County Planning Board of the Maryland-National Capital Park and Planning Commission on motion of Commissioner Anderson, seconded by

Commissioner Dreyfuss, with Chair Carrier, and Commissioners Anderson and Dreyfuss present and voting in favor of the motion, and Vice Chair Wells-Harley and Commissioner Presley absent, at its regular meeting held on Thursday, April 24, 2014, in Silver Spring, Maryland.


Françoise M. Carrier, Chair
Montgomery County Planning Board



Approved and Adopted

July 2014

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INTRODUCTION

In October 2012, the Montgomery County Council directed the Planning Board to undertake a Limited Amendment of the 1994 Clarksburg Master Plan (the 1994 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 recommendations. This Amendment includes the watershed of Ten Mile Creek, which is a high quality stream within the Plan area boundaries.

Ten Mile Creek drains from portions of Clarksburg west of Interstate-270, as well as part of the Clarksburg Town Center, approximately between I-270 and MD 355, which is now the main route through Clarksburg (see Map 1). The Amendment also includes the entire Clarksburg Historic District, even though a portion of the District is outside of the Ten Mile Creek Watershed.

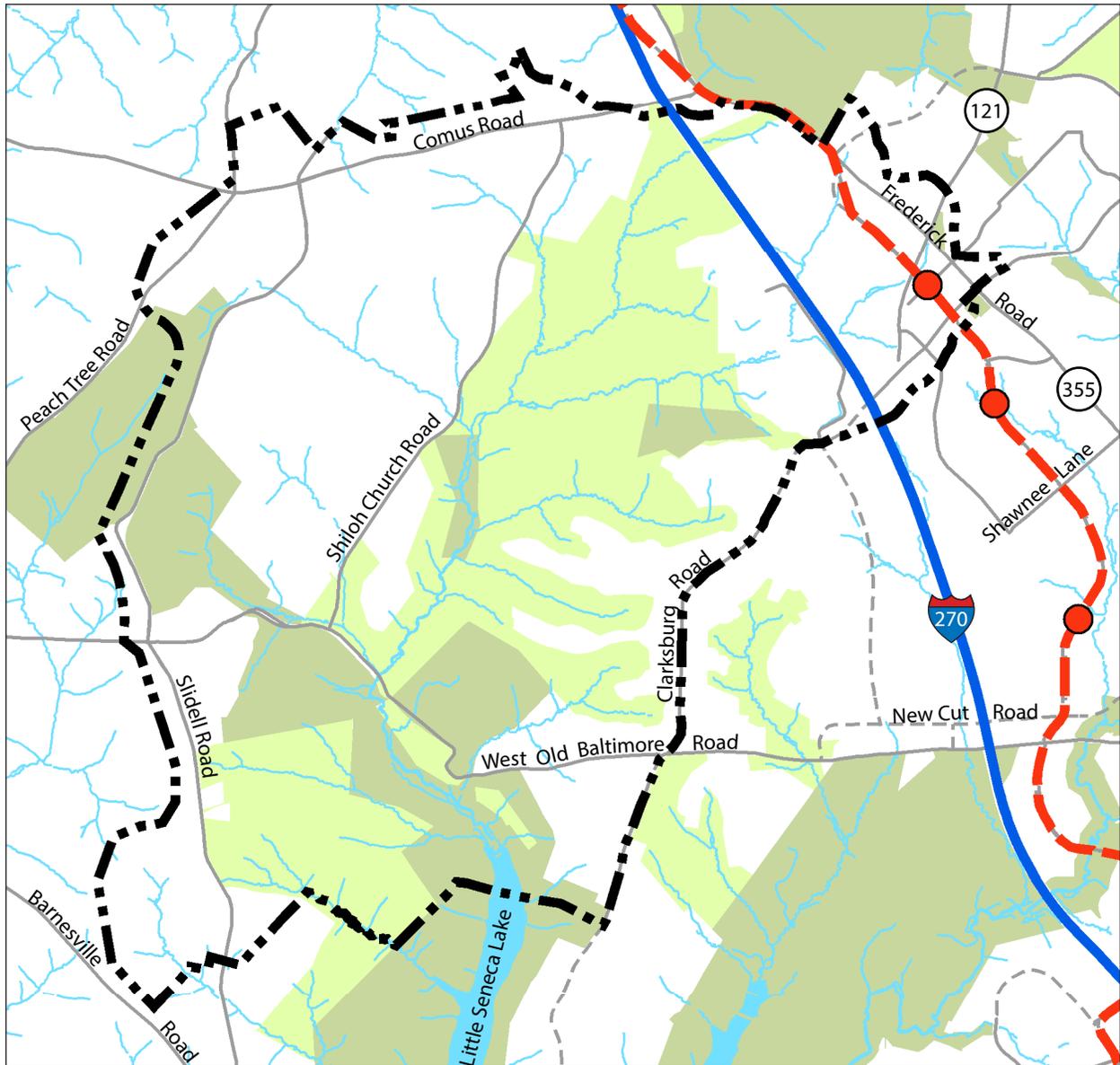
This Amendment includes recommendations for achieving the desired community elements envisioned for Clarksburg in the 1994 Plan, while protecting the quality of Ten Mile Creek. These objectives required studying the extent to which land uses could help protect natural resources and environmental site design could combine to maintain high water quality in the watershed. Various transportation and land use alternatives were also examined for their effect on traffic and transit services, and the balance of jobs and housing.

This Amendment retains the core of the 1994 Plan's vision, refining the 1994 Plan's recommendations to better achieve two important objectives: the creation of a complete, well-defined corridor town that provides jobs, homes, and commercial activities; and the preservation of natural resources critical to the County's well-being. This Limited Amendment covers only the Ten Mile Creek Watershed and portions of the Historic District outside the watershed; the 1994 Plan, as amended in 2012, continues to guide land use development in the rest of Clarksburg. Where this Limited Amendment revises or alters the underlying vision of the 1994 Plan, the text makes note of those changes.

The Amendment draws on the expertise of independent environmental consultants who studied the effects of several development scenarios on Ten Mile Creek's water quality and transportation; consultants who evaluated land use changes on Clarksburg's existing and planned road network and plans for transit service; and economic consultants who assessed the potential effects of land use change. These consultant reports and additional staff analysis are available in the Appendices.

The recommendations in this Amendment are designed to further the completion of Clarksburg, following the main policies of the 1994 Plan, while taking advantage of increased knowledge about environmental protection, innovations in environmental mitigation techniques, and new zones created since approval of the 1994 Plan.

Map 1: Plan Area Boundary



- Master Plan Boundary
- Master Plan Proposed Roads
- - - Proposed CCT 1994
- Proposed CCT Station 1994
- Existing Parks
- Proposed Parks



PLANNING CONTEXT

1994 Plan Vision

The Clarksburg Master Plan manages Clarksburg's evolution from a rural crossroads to a vibrant corridor town surrounded by open space (see Appendix 1 for relevant excerpts from the 1994 Plan). A number of policies guide that process.

Policy 1, Town Scale of Development, proposes that Clarksburg develop at "a larger scale than proposed in the 1968 Clarksburg Master Plan but smaller than a corridor city such as Germantown" (page 16). The Plan implements this policy by:

- Including the Clarksburg Historic District as an important component of the Town Center.
- Making land use recommendations that balance the need to protect sensitive environmental resources with the desirability of somewhat higher densities that can support transit service.
- Keeping intact the concept of a technology corridor centered on I-270, while reducing its scale.
- Organizing future development into defined neighborhoods that include broad mixes of housing.

From these four components, the Plan derives other important guiding policies. The Town Center (Policy 6) describes a mixed-use, transit-oriented central area that concentrates Clarksburg's civic resources to define it clearly as the focus of public life in Clarksburg and creates a "Main Street" on MD 355 through the Historic District.

Plan recommendations also recognize the importance of environmental protection (Policy 2, Natural Environment) by:

- Recognizing the Countywide significance of the Ten Mile Creek Watershed.
- Recommending public acquisition of stream valleys that in turn can support a Greenway Network (Policy 3).
- Offering development guidelines for stream systems likely to experience substantial impacts, including refinements to the water quality review process required for Clarksburg's existing Special Protection Area (SPA) prior to development in Ten Mile Creek.

At the same time, the Plan recommendations are premised on a comprehensive Transit System (Policy 4) that reduces auto dependence and targets higher densities to areas near the proposed transit line. In the Town Center, these recommendations include high technology Employment centers (Policy 8) at the interstate interchange and higher residential densities near transit stations. This Limited Amendment reevaluates and, through its recommendations, revises this policy.

The Plan proposes creating seven neighborhoods in Clarksburg that would be oriented toward pedestrians and would maintain connections to the transit network (Policy 7). These neighborhoods would contain a mix of uses and a diversity of housing types. They would also incorporate a Hierarchy of Roads and Streets (Policy 5) that would allow through traffic

to bypass the developed areas in the Town Center’s Historic District, connect streets within neighborhoods for improved local movements, and include pedestrian-friendly designs for streets that link neighborhoods to through-routes.

The thrust of these policies is to create a clearly defined community that would include land uses ranging from agriculture, which would contribute to Farmland Preservation (Policy 9) in the western parts of Clarksburg, to employment along the proposed Corridor Cities Transitway. Civic activities in the Town Center would draw residents from the neighborhoods, whose retail nodes would include grocery shopping and other routine retail needs.

Community building would be managed by a Staging plan (Policy 10) that would balance the provision of needed civic infrastructure with the pace of development. The plan would focus on early development of the Town Center and the need to undertake significant environmental monitoring before allowing development in the Ten Mile Creek Watershed.

1994 Plan Recommendations for Ten Mile Creek Watershed

The Ten Mile Creek Watershed is the principal focus of this Limited Amendment. The Amendment’s recommendations reflect a re-balancing of the 1994 Plan’s original visions in light of an evolving understanding of the impacts of development on sensitive natural resources like Ten Mile Creek. This section summarizes the 1994 Plan recommendations for the Ten Mile Creek District.

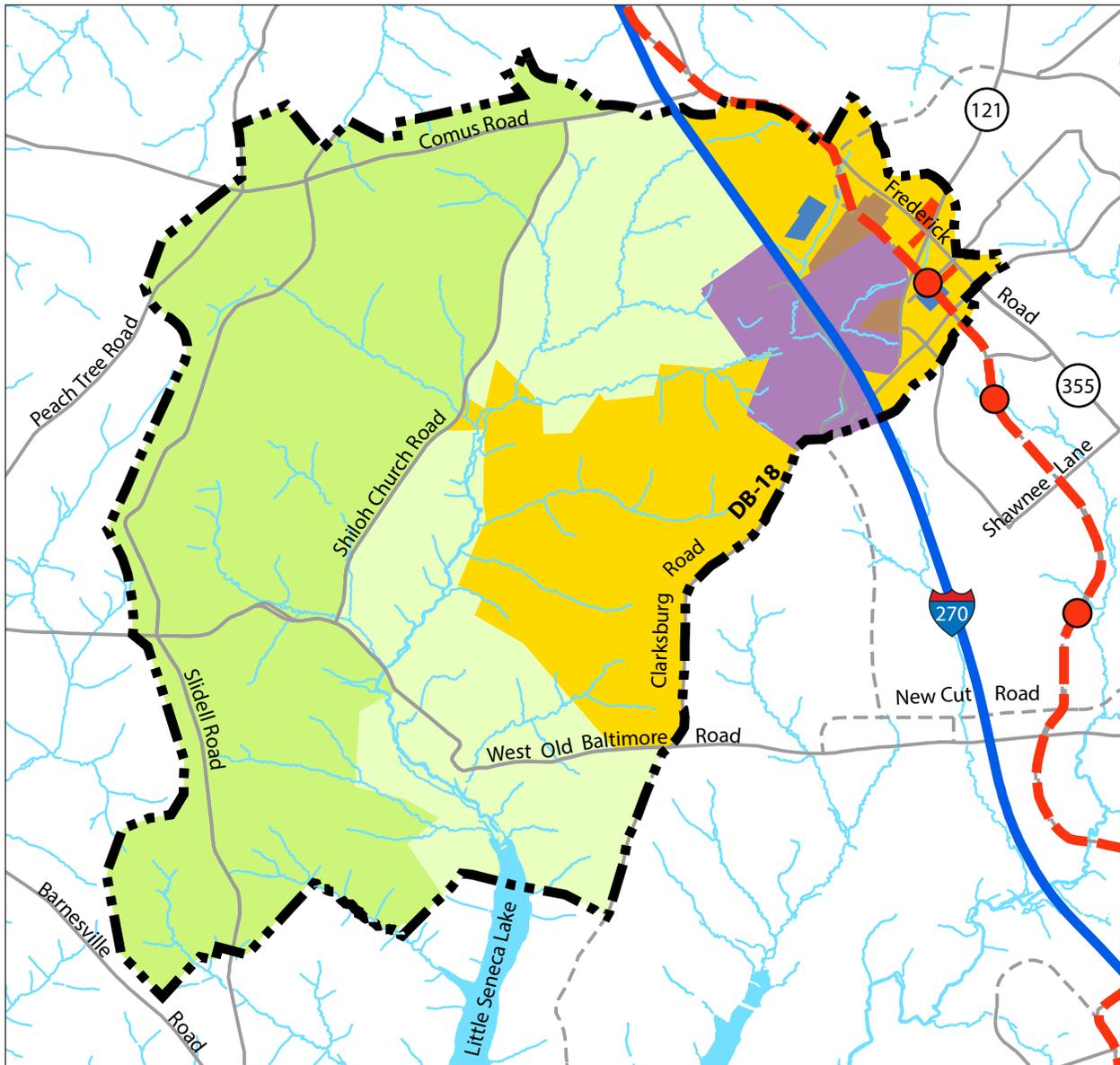
The 1994 Master Plan’s recommendations for Ten Mile Creek were based on the Plan’s policy for protecting the natural environment. The Plan relied on agricultural activities and low-density residential development—with environmental best management practices—to limit impacts to water quality in the western part of the watershed.

Elsewhere, the Plan recommends a series of mitigation strategies, including expanded green buffers, impervious caps on key properties, and park dedication to reduce environmental impacts. These protections allowed the Plan to recommend a broad array of land uses, including relatively high-density uses in the headwaters and medium-density residential uses between the creek and MD 121 (see Map 2).

East of I-270

- Encouraging joint development of residential and employment uses, and allowing detailed analysis of proposals for conformance with Plan policies through the Planned Development and Mixed-Use Planned Development Zones (floating zones) to create:
 - Residential development at two to four units per acre in the Planned Development Zone on the Egan property near Comus Road;
 - Approximately 470,000 square feet of employment activities on the Miles-Coppola properties at I-270.

Map 2: 1994 Land Use Plan



- | | | |
|----------------------------------|-------------------------------------|-------------------------|
| --- Master Plan Boundary | Light Green Agricultural | Orange Commercial |
| - - - Master Plan Proposed Roads | Yellow Residential (1 Unit/2 Acres) | Blue Institutional |
| - - - Proposed CCT 1994 | Brown Residential (7-9 Units/Acre) | Purple Light Industrial |
| ● Proposed CCT Station 1994 | Pale Green Rural Residential | |



West of I-270

- Adding 1,800 acres west of the main stem of Ten Mile Creek to the Agricultural Reserve, creating a transition from more intense uses in the corridor town of Clarksburg to the productive agricultural lands in the western county.
- Fulfilling a countywide need for single-family housing with residential development east of the creek, between Shiloh Church and Clarksburg Roads, and incorporating significant amounts of parkland and open space to preserve resources:
 - Rural development (one unit per five acres) on about 800 acres between the creek's main stem and Shiloh Church Road;
 - Although the zone would allow up to two units per acre on about 600 acres between the creek's main stem and MD 121, the Master Plan capped development at 900 units with the purchase of transferable development rights possible when and if environmental and housing mix guidelines are met.
- Encouraging employment, including institutional uses, along I-270 and providing maximum allowable imperviousness of 15 percent and no more than 400,000 square feet of floor area on each of the two County sites to preserve natural resources. (One site has since been used for the Montgomery County Correctional Facility.)

The property owners have not applied for the recommended floating zones.

1994 Plan Staging and Implementation

The Clarksburg Plan staged development to match specific targets for the provision of infrastructure needed to support it. The Plan also provided for the evaluation of environmental protection techniques to ensure they were sufficient. The Montgomery County Department of Environmental Protection has been monitoring conditions in the Clarksburg Special Protection Area (SPA) since 1994, which includes the Stage 4 portion of Ten Mile Creek.

Staging was the Plan's primary implementation strategy and the Ten Mile Creek Watershed was included in the last stage—Stage 4. Approval to move ahead with Stage 4 was based on two benchmarks: substantial residential development in the Clarksburg Town Center and Newcut Road Districts to support retail and transit, and an evaluation of water quality impacts associated with development, which could help anticipate potential effects on Ten Mile Creek.

The required biological evaluation of stream conditions to determine if measures in use were sufficient to ensure protection of Ten Mile Creek was triggered to occur after the 2,000th building permit in the Town Center and Newcut Road Districts. The Plan stated that once the evaluation was complete, the County Council could allow Stage 4 development to move ahead or determine whether additional land use actions were necessary.

The 2009 publication of the County's annual report on Special Protection Area monitoring for the year 2007 constituted the required environmental evaluation. This report documented deteriorating stream conditions in the Clarksburg SPA and offered recommendations for remedial efforts. The report further concluded that new development in the Town Center District, west of MD 121 and east of MD 355, as well as ongoing construction activity at the

correctional facility, had resulted in a decline of Ten Mile Creek's stream conditions from good to fair between 1998 and 2007. Conditions in the Little Seneca watershed portion of the SPA also declined during the period, from good/excellent to fair.

Several factors contributed to declining water quality. External events, such as the unexpected housing crisis, resulted in construction delays during which only sediment and erosion control structures were in place to protect water quality. These events, in conjunction with large areas of disturbed land and with a delay in implementing full stormwater management, resulted in altered stream hydrology and impacts to stream biology.

The 2007 report recommended stormwater management improvements in the SPA and proposed that environmental site design (ESD) be integrated into overall project design for new development. It also recommended improvements to sediment and erosion controls and limits to the amount of land being graded at any given time during construction. The report recognized, however, that stormwater management structures and facilities could not completely offset inevitable increases in impervious surfaces that accompany development.

Subsequent annual monitoring reports showed continued improvement in Little Seneca Creek subwatersheds as development in Clarksburg stabilized and full stormwater controls were implemented. However, the portion of the Ten Mile Creek Watershed that has been most affected by development, LSTM 206, remains in fair condition as measured with the County's Benthic Index of Biotic Integrity, and none of the monitored streams in the Town Center or Newcut Road Districts have returned to pre-development conditions.

Consequently, in 2012, the County Council determined that a limited plan amendment was necessary to refine 1994 Plan recommendations given stream monitoring findings, changes to environmental regulations, and the potential need for further safeguards to protect Ten Mile Creek, while balancing community building goals.

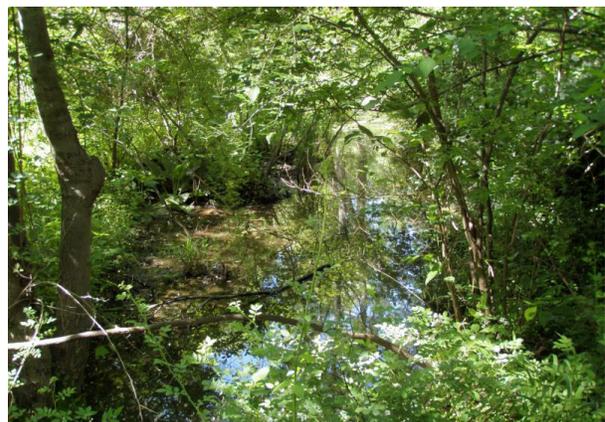
LIMITED AMENDMENT PLAN CONCEPT

This Limited Amendment retains the overall vision of the 1994 Plan, but recognizes that additional environmental protection is needed to allow development to move ahead. It emphasizes environmental protection west of I-270 and provides more flexibility in achieving the community building goals east of I-270 (see Map 3). Its recommendations also acknowledge that market conditions no longer support the goal that large amounts of land in Clarksburg should be devoted to office and employment activities, which was a major vision of the 1994 Plan.

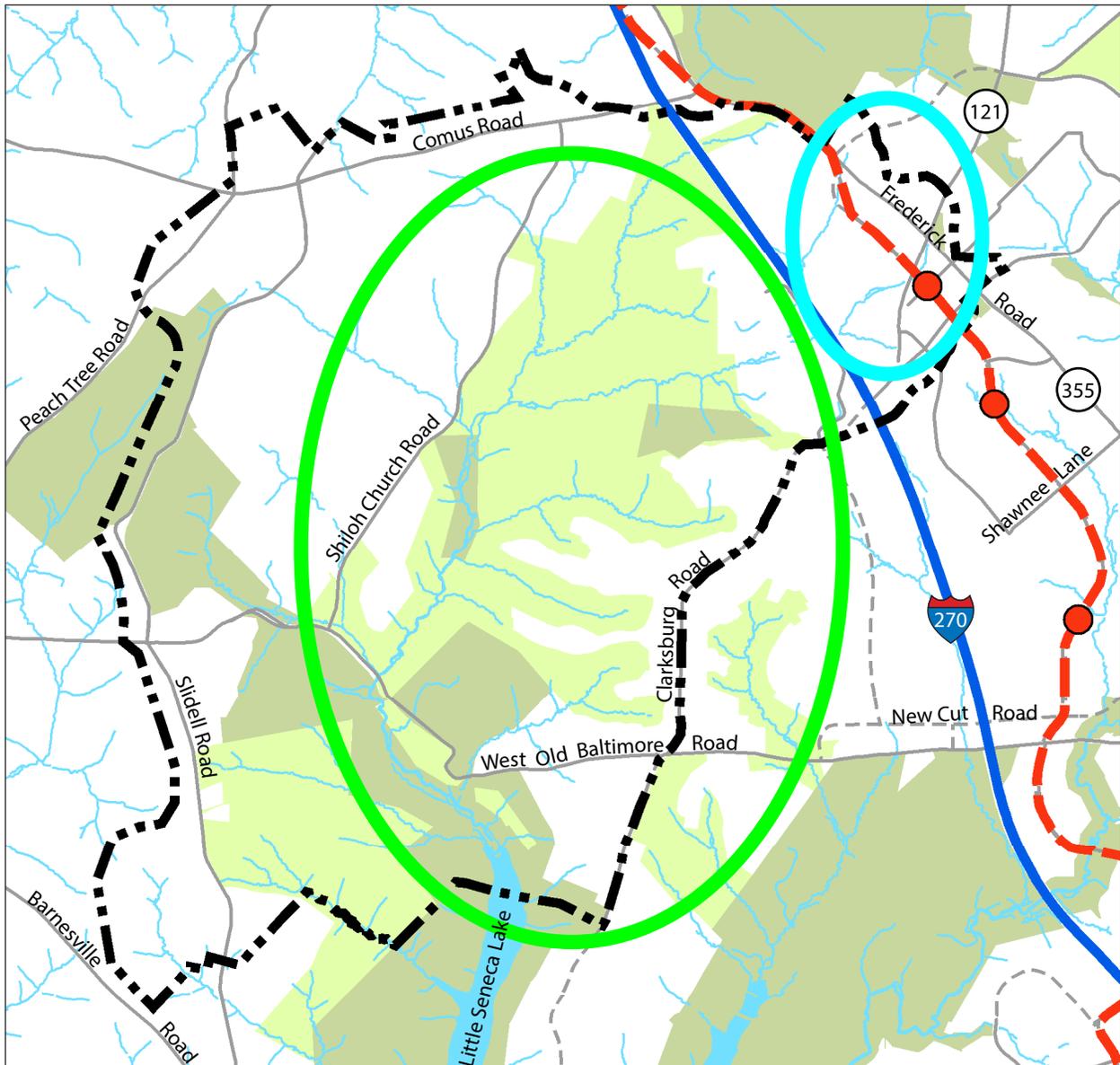
Additional information about environmental conditions emerged during development of this Amendment. Information used in the development of the Plan was received from independent consultants retained by M-NCPPC; verbal and written public testimony; and federal, state, and local government staff advice at Committee and Council work sessions. As a result, the Plan's recommendations include substantial open space requirements and environmental buffers throughout the watershed. These recommendations will extend the maximum protection practicable to Ten Mile Creek and its tributaries while responding to the goal for Clarksburg to be a "complete" community.

On the east side of I-270, proximity to the interstate and the Town Center commercial area, as well as the impact of previous development in the headwaters, offer opportunities to accommodate modest levels of residential and mixed-use development that are complementary to the Town Center District, and help to support enhanced transit and roadway improvements, while strengthening protection for environmental resources.

In the western portion of the Plan area, the presence of significant, sensitive tributaries requires limiting development to tightly-clustered residential uses that contribute to Clarksburg's community-building needs by providing options for housing choices. In addition, a large, new conservation park and a nature-oriented neighborhood park will create a focus for a new green neighborhood, connecting Clarksburg residents to this important natural resource and providing recreation opportunities in natural settings, including hiking, nature appreciation, picnicking, nature play, and community gardening.



Map 3: Limited Amendment Concept



--- Master Plan Boundary

--- Master Plan Proposed Roads

--- Proposed CCT 1994

● Proposed CCT Station 1994

Existing Parks

Proposed Parks

Emphasize Environmental Protection

- Preserve Natural Resources
- Maximize Undeveloped Open Space
- Minimize Imperviousness
- Retain Housing Resources

Emphasize Community Building

- Complement Approved Town Center
- Strengthen Historic District
- Balance Mixed-Use
- Improve Transportation

0 3200 feet



ENVIRONMENT

Ten Mile Creek originates just north of MD 335 (Frederick Road) and flows into Little Seneca Lake, which then flows into the Potomac River via Seneca Creek. Little Seneca Lake serves as a reservoir that provides additional water flow to the Potomac River, a public water supply, during drought periods. The portion of the watershed east of the Ten Mile Creek main stem and north of West Old Baltimore Road is located within the Clarksburg Master Plan Special Protection Area (SPA).

The Ten Mile Creek Watershed within the Plan area includes approximately 3,000 acres, 12 subwatersheds, and more than 22 miles of streams (see Map 4). This Plan views this area as a complete and functioning watershed and ecosystem, including the watershed and all contributing tributaries and their drainage areas.

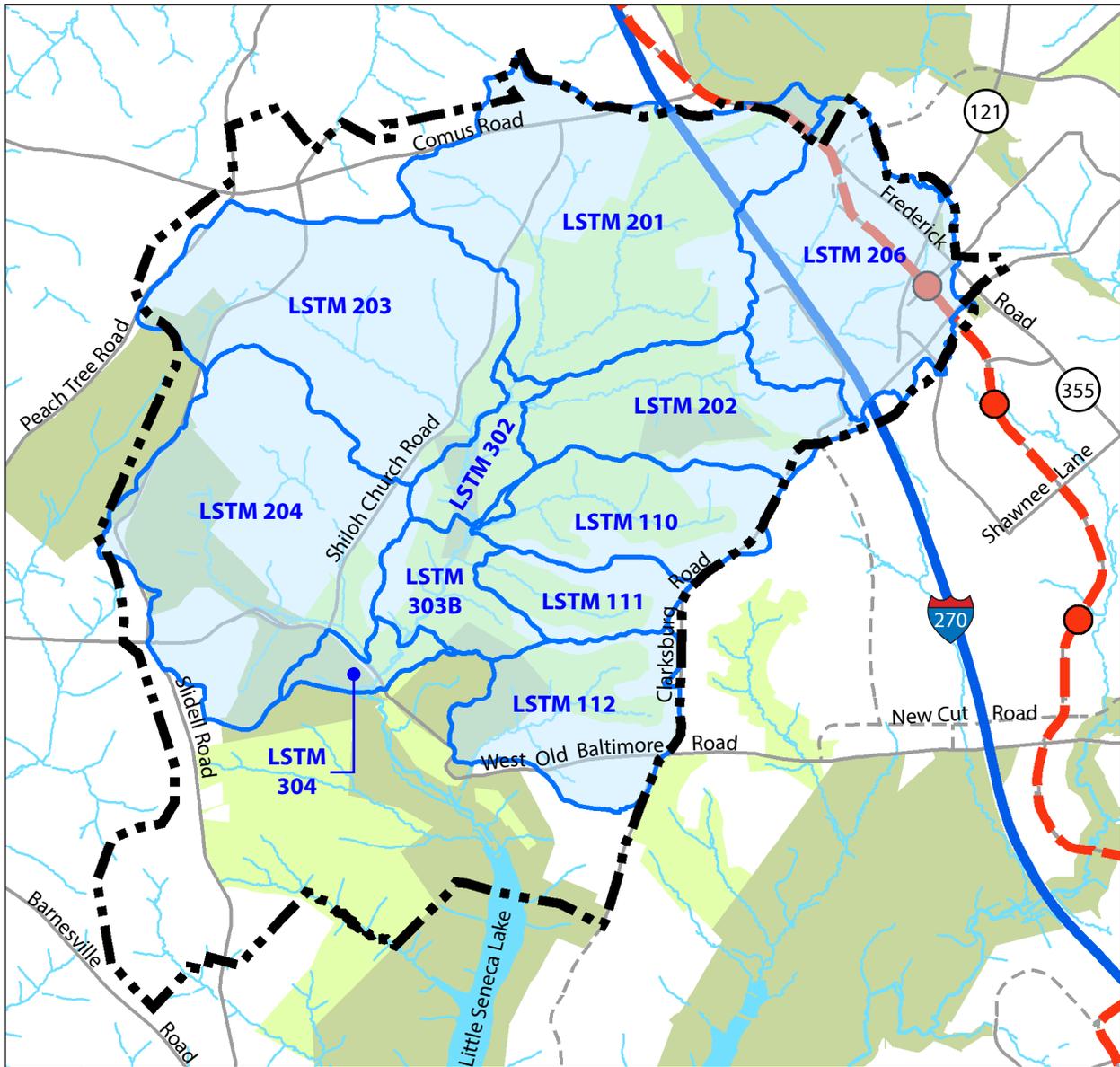
Ten Mile Creek and its tributaries are designated as a Use I-P stream by the state of Maryland, defined as protection of water contact recreation, aquatic life, and drinking water supply. Except for the headwater area subwatershed (LSTM206 on Map 4), which has already been affected by development, Ten Mile Creek is in good to excellent condition based on stream biology (see Appendix 3 for a full report on existing conditions and environmental analyses). This condition is primarily due to a combination of agricultural and low-density residential development balanced by a very high proportion of dense forests and a wealth of springs and wetlands. LSTM 110 (King Spring Tributary) is considered one of the highest quality streams in Montgomery County, as measured by the DEP countywide stream monitoring program and in an assessment by the US Environmental Protection Agency using the Biological Conditions Gradient (See Appendix 9, Attachment 18).

Ten Mile Creek is a reference stream in Montgomery County, serving as high quality benchmark against which other streams are compared. Long-term monitoring indicates overall biological conditions to be healthy and diverse. Sensitive indicator organisms that occur in few other areas within the County are found here. Ten Mile Creek is part of a small group of high quality watersheds still remaining within the County (e.g., many Patuxent River tributaries, Bennett Creek, and Little Bennett Creek). As a result of its unique characteristics, Ten Mile Creek warrants extraordinary protection.

The majority of the streams within the Ten Mile Creek Watershed are small and spring fed with cool, clean groundwater. The main stem is characterized by high concentrations of interior forest and wetlands. There is no evidence of widespread and long-term channel instability. In addition, the stream bed material is ideal to support a benthic macroinvertebrate community.

The dominant land use/land cover is forest (48 percent), followed by agriculture (38 percent), with the remainder in institutional, residential, and commercial uses. Existing imperviousness is approximately 4.1 percent. Slopes are steep and soils are generally rocky, with shallow to moderate depth to bedrock.

Map 4: Ten Mile Creek Subwatersheds



- Master Plan Boundary
- Master Plan Proposed Roads
- Proposed CCT 1994
- Proposed CCT Station 1994
- Existing Parks
- Proposed Parks
- Subwatershed Boundaries
- LSTM 112 Subwatershed Identification (Little Seneca Ten Mile)



Methods to help protect water quality have changed significantly since 1994 and monitoring has been underway continuously since that time. The County Department of Environmental Protection reports annually on the results of monitoring in all the Special Protection Areas. These reports state that environmental protection measures, as applied to date in Clarksburg, have not prevented deterioration in the quality of Ten Mile Creek. Environmental Site Design (ESD) represents the state of the practice for site planning and post-construction stormwater runoff management, and is now required throughout Maryland.

However, rigorous and comprehensive implementation of ESD across or within watersheds has not occurred, nor has the practice been monitored either in the County or elsewhere, at a scale large enough to establish likely expectations of post-development stream conditions. Impervious cover continues to be widely accepted as an indicator of the complex impacts that are difficult to model sufficiently, including pollutants such as oil, gasoline, and salt associated with roads and parking areas, and impacts to groundwater quality and quantity, as well as heat island effects and the effects of more severe storms.¹

Gaining watershed-based knowledge on the efficacy of ESD for its ecological effects beyond hydrology will be valuable. But given the current lack of corroborating studies at a comparable scale, it remains prudent to include safeguards in addition to ESD to help ensure that the high quality watershed will continue to be able to sustain sensitive species and achieve high quality stream conditions over most of the watershed.

Environmental analyses of various development scenarios studied for this Plan included hydrology (stream flow volumes), effects on specific natural resources, pollutant loadings and effects on the imperviousness on each subwatershed. An analysis (see Appendices 3 and 4) of building out the 1994 Plan showed the following impacts:

- The potential for significant increases in the total volumes of stream flow (Hydrologic Analysis).
- Substantial impacts to specific natural resources (Impacts on Resources).
- The limited nutrient and sediment loading analysis showed that post development impacts of residential uses would be similar to existing agricultural uses. Stream bank erosion, a significant source sediment, was not accounted for in the analysis (Pollutant Loading Analysis).
- Increases of up to 10 times in imperviousness in the most sensitive subwatersheds (LSTM 110 and LSTM 111) (Imperviousness Analysis).

The degree of modeled impacts on stream flow volumes, the amount of imperviousness, and the impacts to natural resources in the most sensitive watersheds indicate the importance of recommending limits as part of this Plan Amendment to ensure that imperviousness does not increase above that which is protective of this very good quality stream system. It is not necessarily the impervious cover per se that causes observed degradation. While

¹ Many studies have confirmed and expanded the work of a nationally-recognized expert on imperviousness, stormwater, and water quality, Tom Schueler, and others. This information is summarized in Dr. Matthew Baker's letter (with references) in Appendix 9, Attachment 18.

imperviousness has a direct impact, it is also the strongest, most detectable indicator available for the many correlated and contributing factors associated with urbanization.²

High quality subwatersheds with very low impervious cover, such as LSTM 110 (1.6 percent) and LSTM 111 (1.2 percent), are more sensitive to changes in impervious cover than watersheds like LSTM 206 (16.6 percent) and LSTM 202 (11 percent), which already have a significant amount of existing impervious cover and are showing signs of degradation. 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.

This Plan recommends a six percent impervious surface cap for new development in the most sensitive subwatersheds to minimize risk as much as possible. While it is not possible to keep all the subwatersheds at this low level without unreasonably restricting development, this Plan provides a combination of imperviousness limits and required open space protection that would keep the overall watershed imperviousness level at slightly more than six percent, if all planned development occurs.

The highest levels of imperviousness allowed in this Amendment for new development (15 percent) are permitted in the Town Center District (LSTM 206 and portions of LSTM 201), where existing imperviousness levels are already high. Various alternatives were analyzed, and the vast majority of environmental experts indicated that the impervious cover increases in this area would have a smaller environmental impact than in the subwatersheds with the most sensitive and highest quality streams and existing low levels of imperviousness (LSTM 110 and LSTM 111).

The lowest levels of impervious cover for new development are allowed in the subwatersheds west of I-270, because the tributaries to Ten Mile Creek in this area are unique and among the highest quality streams in the County. Restricting imperviousness, combined with ESD and development at or near ridgelines and away from stream channels, provides the best chance of protecting these streams. In addition, this Plan recommends expanding the environmental buffers around sensitive areas and protecting additional forest to preserve natural resources. The Plan also protects the natural ability to buffer areas to mitigate impacts, and reduces the total amount of area disturbed.

Significant protection is also afforded by forest cover within the watershed. Currently about 46 percent of the watershed is in forest cover, including approximately 400 acres capable of supporting forest interior dwelling species (according to the Maryland Department of Natural Resources criteria). This is one of the largest interior forests in the County and it could be substantially expanded by filling some key gaps in LSTM 202 and LSTM 302.

Maintaining and expanding the forest cover is essential to protection of water quality and habitat. Overall forest cover could be expanded to approximately 50 percent of the watershed if

² See Appendix 9, Attachment 18.

all planned open space within key developable properties is reforested. Additional forest cover could be achieved if developed properties and properties in the rural and RDT zones increased their forest cover. While this measure cannot be required, incentives should be developed to encourage voluntary planting with a goal of increasing forest cover in the watershed to 65 percent.

This Plan Amendment recommends a significant increase in required open space to protect sensitive resources, and limits on impervious cover to ensure, in combination with Environmental Site Design, that environmental impacts are minimized in Ten Mile Creek and its particularly sensitive tributaries (see Appendices 3 and 4 for details of the environmental analysis). Sustaining Ten Mile Creek's ecological health and water quality requires a combination of actions: protecting the largest possible area of undisturbed natural vegetation, improving conditions in areas already developed or planned to remain in agricultural use, and instituting the highest standards of protection for future development areas.

Imperviousness is an important factor in watershed health and affects both the water quality and many other factors. This Plan is designed to achieve an overall imperviousness goal of slightly more than six percent for the entire Ten Mile Creek Watershed (as shown on Map 4) and limit the development footprint to preserve sensitive natural resources. (If measured for the portion of the watershed that drains to the DEP monitoring station at West Old Baltimore Road, the potential watershed imperviousness would be approximately 6.7 percent.)

Limiting imperviousness within the development footprint is important to achieve this overall goal while still allowing flexibility in the numbers, types and sizes of structures and accompanying roads and parking areas. The Amendment sets different imperviousness levels for major properties on each side of I-270 to address the unique environmental conditions in the different subwatersheds and supports the Plan's land use objectives of allowing development that will support the Town Center.

Recommendations

East of I-270

- Limit imperviousness levels to 15 percent for new development on properties that are recommended for the proposed Clarksburg East Environmental Overlay Zone. Details of the proposed overlay zones are found in the Implementation chapter of this Plan Amendment.
- Forest Conservation Plans for properties in the Ten Mile Creek Watershed should protect the forest on the Miles/Coppola properties, which is bounded by the two northernmost environmental buffer areas on the north and south, I-270 on the west, and the existing agricultural fields on the east.
- Work with the Maryland State Highway Administration to provide stormwater retrofits for any expansion or modification of I-270.

West of I-270

- Reduce the development footprint and impervious cover, emphasizing reduced impacts to upland forested areas and steep slopes. In particular, protect existing

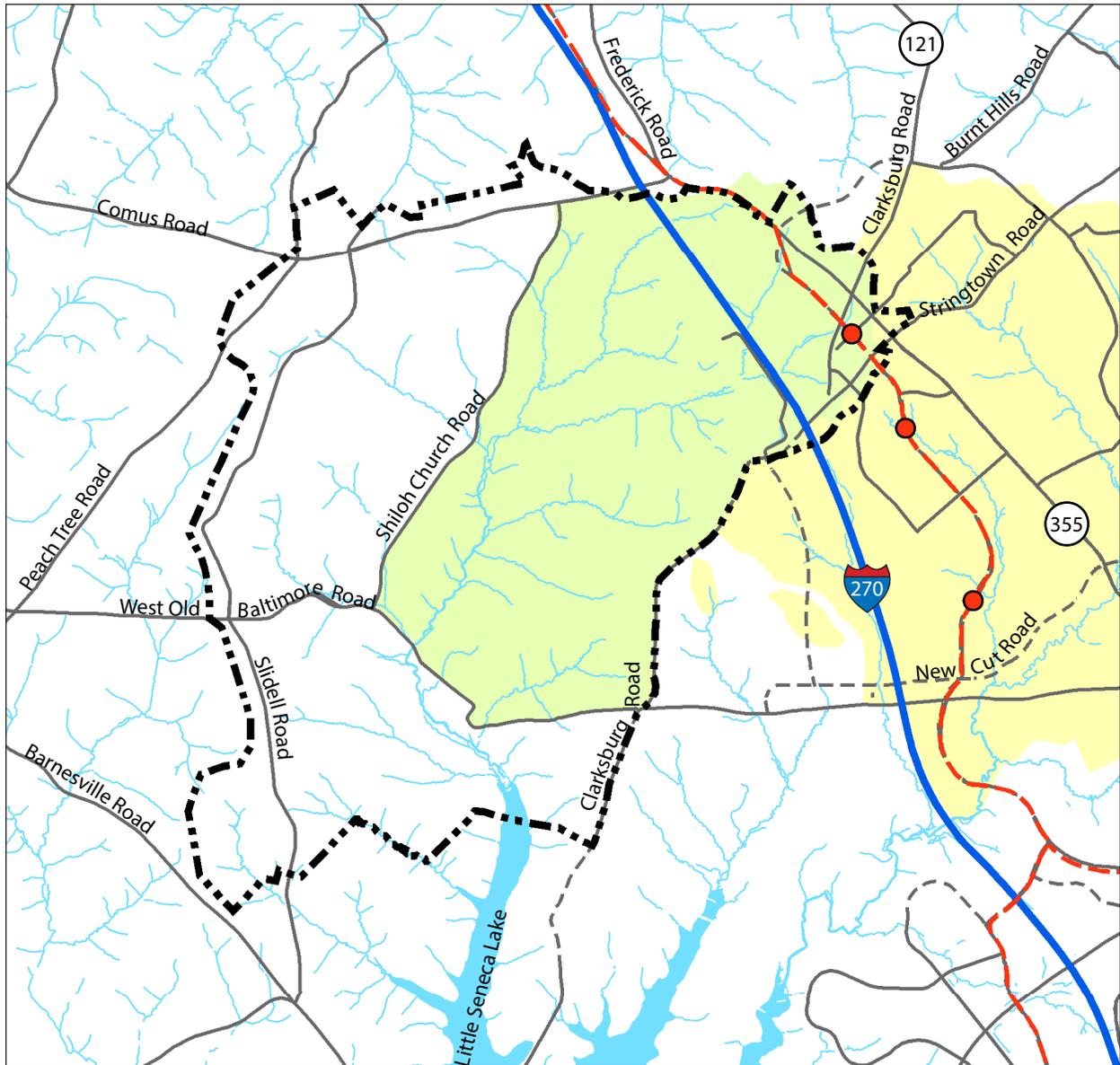
stream conditions in the high quality headwater subwatersheds LSTM 110 (King Spring) and LSTM 111.

- Limit imperviousness to six percent of new development on properties recommended for the RNC zone.
- No additional impervious cover is recommended for the County-owned properties, except that the impervious surface overlay zone may be amended in the future to allow for a less than one acre expansion of the Correctional Facility.
- Require development of the Pulte/King properties to include a conservation management plan for areas outside the limits of disturbance that are not either dedicated to M-NCPPC for parkland or placed in a rural open space easement, if such areas are included in a development plan. This Plan should be coordinated with the Planning Department and Department of Parks to address management of natural resources, preservation of pervious land cover, and compatibility with all adjacent land uses (both parks and development area). This conservation management plan must be approved as part of the preliminary plan or site plan for the site.

Throughout Ten Mile Creek

- Environmental buffers must be consistent with all regulations and guidelines. In addition, in all areas in Ten Mile Creek other than the Historic District, on both sides of perennial and intermittent streams, and adjacent to springs and seeps, buffers must be a minimum of 200 feet, and must be expanded to include:
 - All erodible soils (listed in the Planning Board's Environmental Guidelines for Development, as amended);
 - Wetlands that extend beyond the buffer must have a minimum 50-foot wetland buffer;
 - All ephemeral streams, not including roadside drainage ditches, plus a 50-foot buffer;
 - All slopes 15 percent or greater that begin within the buffers described above.
- Amend the Clarksburg Special Protection Area to include an additional area east of I-270 (see Map 5).
- Establish environmental overlay zones to apply the Plan's limits on imperviousness for new development and reduce development footprints to protect sensitive resources.
- Minimize disturbance of natural resources throughout the Ten Mile Creek Watershed, especially forests in the headwater areas. Forest Conservation Plans for properties in the Ten Mile Creek Watershed should protect:
 - All forest required by the Forest Conservation Law and Regulations (includes environmental buffers as previously described and minimum retention requirements), as well as areas defined in this Master Plan;
 - All interior forest (as defined by the Maryland Department of Natural Resources);
 - On the Miles-Coppola properties, the forest bounded by the two northernmost environmental buffer areas on the north and south, I-270 on the west, and the existing agricultural fields on the east;
 - On the Pulte/King properties, all forest adjacent to environmental buffers;
 - All forest on County-owned properties.

Map 5: Ten Mile Creek Special Protection Areas



- Master Plan Boundary
- Master Plan Proposed Roads
- Proposed CCT 1994
- Proposed CCT Station 1994
- 10 Mile Creek Special Protection Area
- Clarksburg Special Protection Area



- All off-site forest planting for new development should be located in the Ten Mile Creek Watershed as a first priority.
- Explore ways to create incentives for additional voluntary forest planting (using forest banks or other strategies) on rural or RDT-zoned properties in the Ten Mile Creek Watershed to help reach a watershed goal of 65 percent forest cover.

Although additional development in Ten Mile Creek will adversely affect stream biology, the desire is to retain as much stream biodiversity and overall health as possible. Because of the unusual quality and sensitivity of Ten Mile Creek, a higher level of protection than that already provided under SPA regulations is required to help achieve this goal.

Water Quality Plans for development in the Ten Mile Creek Watershed must comply with the most current water quality regulations that include ESD outfall and overflow management strategies, such as:

- Avoiding overflow discharges onto steep slopes.
- Ensuring that any overflow occurs as sheet flow to the floodplain and/or receiving streams.
- Managing discharges from stormwater outfalls using step-pool storm drainage conveyance systems or comparable designs, as appropriate.
- Minimizing environmental buffer impacts associated with ESD overflow outfalls.
- Minimizing the need to convey stormwater across steep slopes and forested areas, and ensuring such conveyance is done in a nonerosive manner.

In addition to current SPA requirements, Water Quality Plans for development in the Ten Mile Creek Watershed must demonstrate the application of the following principles and strategies:

- Minimize disturbance of natural resources throughout the Ten Mile Creek Watershed, especially forest cover in the headwater areas.
- Minimize direct impacts associated with new infrastructure, such as the MD 355 bypass and the sanitary sewer extension on natural resources.
- Minimize grading the thin and rocky soils in Ten Mile Creek, which helps sustain groundwater flows to the many springs and seeps.
- Indicate the importance of limiting grading and soil compaction as much as possible through creative site design and development staging.
- New development must employ planning and zoning options and design techniques that minimize impervious cover, including:
 - Cluster development with smaller building footprints on smaller lots with shorter driveways;
 - Place houses near the front of a building envelope to reduce driveway length, and provide shared driveways, where feasible;
 - Design narrower streets with limited sidewalks;
 - Use vegetated swales to guide runoff toward ESD facilities or pervious areas

- instead of curbs and gutters on secondary streets unless they conflict with other requirements;
- Limit impervious cover for cul-de-sacs by reducing curve radii and having a green space in the turn-around area;
 - Preserve land with a high infiltration capacity to be used for storm water infiltration or natural recharge area.
- Maintain natural drainage patterns, especially around zero order streams by:
 - Preserving and designing around ephemeral streams within the limits of disturbance, as much as possible;
 - Maintaining existing natural topography and vegetation within 50 feet of ephemeral streams;
 - De-compacting and amending soils within the limits of disturbance (LODs) with organic matter to a greater depth than currently required (this measure would be determined by the Department of Permitting Services as part of development plan approvals).
 - Environmental Site Design (ESD)
 - As a first step, apply appropriate ESD site planning techniques within proposed development areas to maximize environmental benefits;
 - Site planning and design must be guided by and integrated with the selection and appropriate location of ESD practices to achieve the greatest watershed benefits based on an evaluation of specific site and subwatershed considerations;
 - To the extent feasible, ESD practices should minimize the concentration of flows through sheet flow and dispersion and must ensure any such conveyance is done in a non-erosive manner.
 - Require restoration of streams and wetlands adversely affected by existing uses after all development is completed in the drainage area so as to allow the hydrology to adjust to the new landscape.



TRANSPORTATION

Transportation is an ongoing issue in Clarksburg primarily because the transit network proposed in the 1994 Plan to reduce auto dependence has not yet been implemented. Recommendations included a transitway along the MD 355 bypass (Observation Drive) and a number of bikeways. Interconnected neighborhood bus loops and park-and-ride lots were further proposed as part of this system.

The 1994 Plan also contained recommendations for roadway classifications and rights-of-way. Changes to these are not recommended in this Plan. However, the completion of many key arterials will depend on completing various development projects. Furthermore, some key links will require expensive bridges, which are waiting for funding through the County's Capital Improvements Program.

Area-wide analysis using the Transportation Policy Area Review (TPAR) method indicates most of the Clarksburg Policy Area's major roads are projected to operate at a B or high C level of service (LOS) at the time horizon of this Plan. MD 27 (Ridge Road) is projected to operate at an F level, bringing down the average for the Policy Area to a C level of service (see Appendix 6 for additional transportation modeling information).

All of the intersections in the Plan area also function at adequate levels of service under existing conditions. Although the intersection of Clarksburg Road (MD 121) and Frederick Road (MD 355) has the lowest level of service, LOS C in both the morning and evening peak hours, traffic volumes are similar to those at Stringtown Road and Frederick Road (MD 355). Stringtown Road has more lanes, which result in greater intersection capacity (LOS A and B).

Table 1: Clarksburg Critical Lane Volumes

Intersection	Existing			
	AM		PM	
MD 121 and I-270 western intersection	A	365	A	250
I-270 and MD 121 eastern intersection	A	609	A	480
MD 355 and MD 121	C	1,225	C	1,150
MD 355 and Shawnee Lane	A	750	A	875
MD 355 and Stringtown Road	A	914	B	1,068
Gateway Center Drive and Stringtown Road	A	667	A	846

The following describe current transportation conditions:

- Transit service is limited to two routes and the Clarksburg Policy Area does not yet have adequate transit service in terms of two of the measures of adequacy in TPAR, coverage, and peak headways. Current transit is just adequate in terms of the span of service (the total number of hours/day that transit service is provided).
- Most travel in the area is north-south, with the east-west movements generally providing access to north-south travel routes.
- I-270 is heavily used and the directional split (the percent of traffic going either northbound or southbound) during peak hours reflects this. Typically, 60 percent of the traffic goes in the peak direction, while 40 percent goes in the non-peak direction.
- MD 355 has a much higher peak to daily traffic ratio, an indication that morning trips are commuters and evening peak hour trips are a combination of commuter and local trips.

The 1994 Plan recommended a bypass to avoid significantly widening MD 355 (“Old Frederick” Road) through the Clarksburg Historic District and to provide an alternate route when emergencies cause full or partial closures on I-270 or MD 355. It would also accommodate future access to the Miles-Coppola properties and the Corridor Cities Transitway (CCT), as it transitions from Observation Drive and then continues onto the bypass. The Plan further proposed a transit station at the intersection of the bypass and Redgrave Place.

While pedestrian and bicycle connectivity are essential to promote community cohesion and provide access to both transit and community amenities, the difficult topography, numerous stream crossings, and major roadways hinder the integration of land uses. Providing appropriate transit service for Clarksburg’s residents and businesses will require a different approach than that used in other areas of the County, which are closer to employment, have higher development densities, and are better connected. Consequently, the relatively small number of potential transit users and the distances to key destinations will require an approach that relies on express and limited stop bus service to achieve reasonable travel times.

Testing future development scenarios under the Transportation Policy Area Analysis for both the 1994 master-planned land uses and land use options with the highest intensity of retail development continues to show levels of service that do not exceed the suburban area standard. Analyses of potential intersection congestion associated with Plan options that have the highest combination of retail uses (with the highest traffic generation rates) indicate that four intersections could exceed the standard for congestion in the study area:

- MD 355 and MD 121;
- MD 355 and Stringtown Road;
- Gateway Center Drive and Stringtown Road;
- Observation Drive and Stringtown Road.

The intersection of a reconfigured bypass alignment and existing MD 355, north of Clarksburg Road, could also exceed the standard, but it could be designed as a roundabout, should proposed development result in congestion at this proposed intersection. Improvements could address congestion at the other listed intersections if determined necessary at the time of development.

Recommendations

All transportation recommendations in the 1994 Master Plan are continued, except as indicated by the following refinements to improve the transportation system (see Maps 5 and 6):

- The following intersection improvements are necessary to accommodate the master planned development in Ten Mile Creek:
 - MD 355 and MD 121: add an eastbound through lane on MD 121 through the intersection;
 - MD 355 and Stringtown Road: add an eastbound and a westbound through lane on Stringtown Road through the intersection;
 - Gateway Center Drive and Stringtown Road: create double left turn lanes on both the eastbound and westbound approaches of Stringtown Road; add double right turn lanes from southbound Gateway Center Drive to westbound Stringtown Road;
 - Observation Drive and Stringtown Road: add an eastbound and a westbound through-lane on Stringtown Road through the intersection; create double left turn lanes and free right turn lanes on each of the approaches to Stringtown Road.

- Retain the MD 355 bypass, but realign it as a T-intersection with 0.3 miles south of Snowden Farm Parkway. Reduce the number of through lanes on the Bypass segment north of Clarksburg Road to two lanes, plus the Corridor Cities Transitway, within a 130-foot right-of-way. This will avoid significant wetland impacts, while still providing access to developable properties. The Plan shows the original alignment as it crosses Redgrave Place.
- Two alternative alignments should also be studied as part of a facility planning study when the Miles-Coppola properties develop (see Map 6). The facility planning study should determine the appropriate right-of-way south of Clarksburg Road for the bypass, considering potential modifications to the design of the Corridor Cities Transitway. If an alternative alignment is chosen, the transit station location should retain a pedestrian connection to Redgrave Place and fulfill the intent of the 1994 Plan to extend Redgrave Place to the east so as to create a connection between the new Town Center development, the Historic District, and the transit station. Set the minimum right-of-way of MD 355 from Redgrave Place to Roberts Tavern Drive at 50 feet.
- Provide additional transit service to achieve acceptable conditions at key intersections.
- Accommodate bus rapid transit in mixed traffic along MD 355, south from the Town Center Transit station within the Clarksburg Policy Area, and retain the CCT designation for the MD 355 bypass.

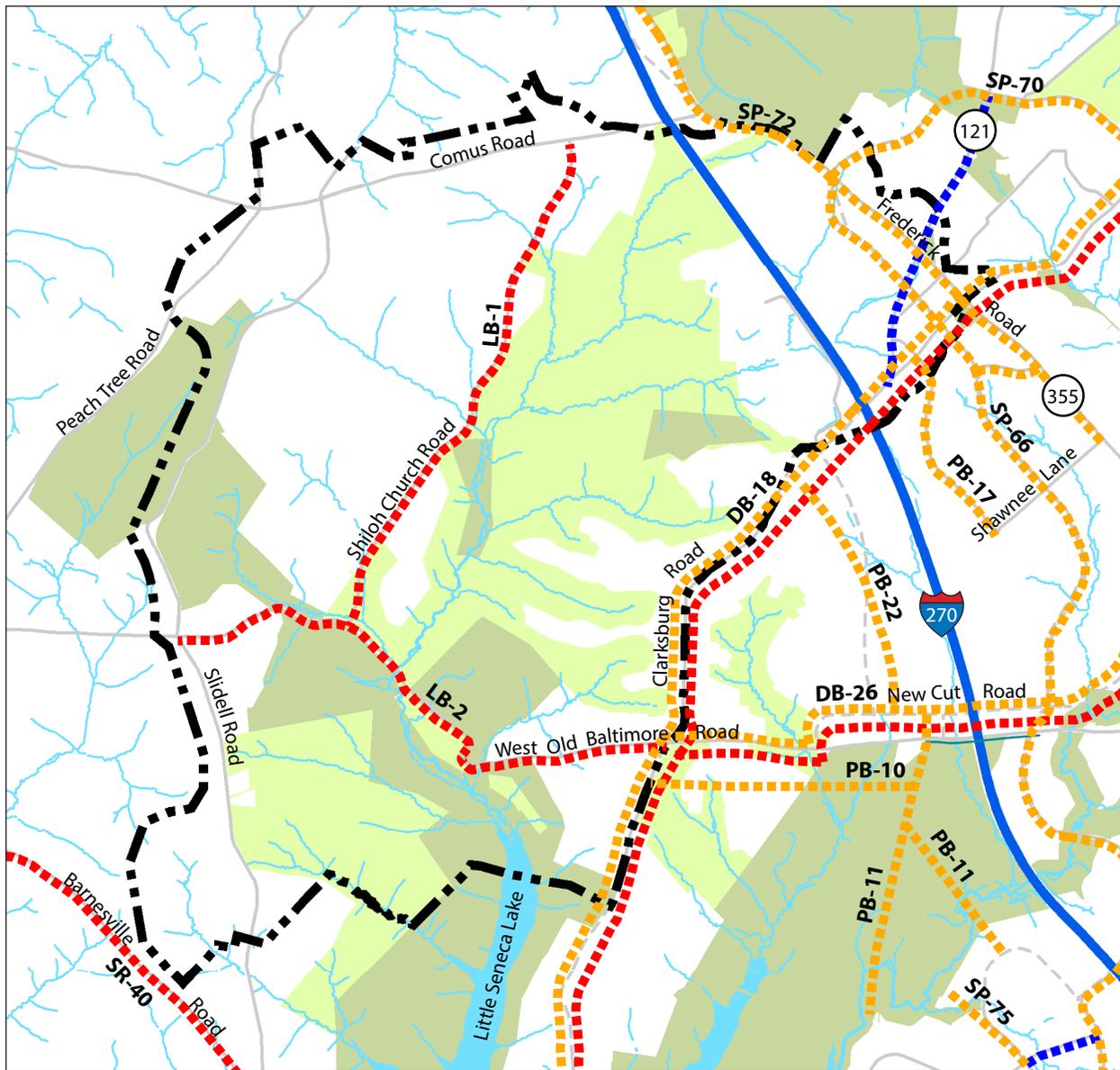
Map 6: Proposed Roads and Transit



- Master Plan Boundary
- - - Master Plan Proposed Roads
- - - Proposed CCT 1994
- Proposed CCT Station 1994
- Existing Parks
- Proposed Parks
- Proposed Alignment Options for CCT & 355 Bypass
- Proposed BRT Service
- Proposed BRT and CCT Station



Map 7: Bikeways



- | | |
|--|---|
| <ul style="list-style-type: none"> --- Master Plan Boundary --- Master Plan Proposed Roads --- Proposed CCT 1994 ● Proposed CCT Station 1994 Existing Parks Proposed Parks | <p>Proposed</p> <ul style="list-style-type: none"> Single Shared Roadway Shared Use Path Bike Lanes |
|--|---|



Table 2: Street and Highway Classifications for Roads within the Ten Mile Creek Watershed³

Master Plan Roadway Designation	Name	Limits	Number of Travel Lanes ⁴	
			Maximum Recommended	Minimum Right-of-Way Width ⁵
Freeway				
F-1	Washington National Pike (I-270)	Southern Study Area Boundary to MD 121	8 lanes	350 feet
		MD 121 to Comus Road	6 lanes	250 feet
Arterial				
A-7	West Old Baltimore Road	MD 355 to MD 121	2 lanes	80 feet
A-251	Fredrick Road (MD 355)	Newcut Road Extended to Roberts Tavern Drive	4 lanes divided	120 feet
	Roberts Tavern Drive (MD 355 Bypass ⁶)	Frederick Road (MD 355) to Observation Drive	4 lanes divided	120 feet
	Observation Drive (MD 355 Bypass ⁷)	Roberts Tavern Drive to Clarksburg Road	4 lanes divided w/transitway	150 feet
	Observation Drive	Clarksburg Road to Frederick Road (MD 355)	2 lanes w/transitway	130 feet
A-259	Comus Road	MD 355 to Western Study Area Boundary	2 lanes	80 feet
		Observation Drive to Comus Road	2 lanes w/transitway	130 feet
Business Street				
B-1	“Old Frederick” Road ⁸	MD 121 to Roberts Tavern Drive	2 lanes	50 feet
B-2	Redgrave Place	Little Seneca Creek to A-260	2 lanes w/no parking inside	70 feet
Primary Residential Street				
P-5	Redgrave Place	Little Seneca Creek to A-260	2 lanes	70 feet
Rustic Road				
E-1	West Old Baltimore Road	Clarksburg Road (MD 121) to Western Study Area Boundary	N/A	80 feet
R-8	Slidell Road	Northern to Southern Study Area Boundary	2 lanes	80 feet
Country Road				
CR-1	Shiloh Church Road	West Old Baltimore Road to Comus Road	2 lanes	70 feet

³ Text highlighted indicate changes relative to the Adopted 1994 Clarksburg Master Plan.

⁴ These are the number of planned through-travel lanes for each segment, not including lanes for turning, parking, acceleration, deceleration, or other purposes auxiliary to through travel.

⁵ This minimum may be increased at time of subdivision on the basis of more detailed engineering studies.

⁶ See Plan text (pages 26) for description of proposed alternative alignment options.

⁷ See Plan text (pages 26) for description of proposed alternative alignment options.

⁸ See Plan text (page 25) for discussion of this road.

- Provide facilities for peak period, frequent (20 minutes or less) express non-stop bus service from the Clarksburg Town Center to:
 - Shady Grove Red Line Metrorail Station via I-270 (estimated 30-35 minute travel time);
 - Germantown Town Center/Germantown MARC via I-270 (estimated 15-20 minute one-way travel time).
- Provide facilities for peak period, limited stop, Ride On service from the Clarksburg Town Center to:
 - Milestone (and future CCT stop) via MD 355 (estimated 15-20 minute travel time);
 - Lakeforest/Gaithersburg MARC via MD 355 (estimated 30-35 minute travel time).
- Provide an internal Clarksburg bus circulator, which connects activity centers east and west of I-270 with the Town Center and the CCT COMSAT station until such time that the CCT is extended to the Town Center area.
- Add bike accommodation on Comus Road between Shiloh Church Road and on Clarksburg Road between Snowden Farm Parkway and Stringtown Road. Land Use and Zoning

LAND USE AND ZONING

The most effective way to protect the unique environmental resources in the Ten Mile Creek Watershed is to combine the advanced stormwater management techniques of Environmental Site Design with actions to significantly reduce the amount of land disturbed by development. To achieve this goal, the Amendment recommends a zoning pattern that encourages innovative site design as a means to limit disturbance and imperviousness.

Consequently, recommended maximum dwelling units per acre are higher than impervious limits would typically accommodate using traditional site design and forms of development. Property owners are provided a great deal of flexibility regarding unit types and, where appropriate, building heights, to allow them to achieve development objectives, if impervious caps can be met. Higher densities may encourage new forms of development as a means of achieving increased development potential. Full density allowed by a recommended zone may only be achieved if it does not exceed the applicable impervious surface cap in the proposed overlay zones.

East of I-270, the relationship between development in the headwaters areas and overall stream quality magnifies the tension among three important elements of the 1994 Plan's vision for Clarksburg: timely development at an appropriate scale in the Town Center, provision of employment land uses, and resource protection. The elements are not exclusive—some development can occur while reasonably protecting natural resources, but shifting development toward uses that reduce imperviousness and have less disturbance in the part of the Town Center District that drains to Ten Mile Creek would provide additional safeguards.

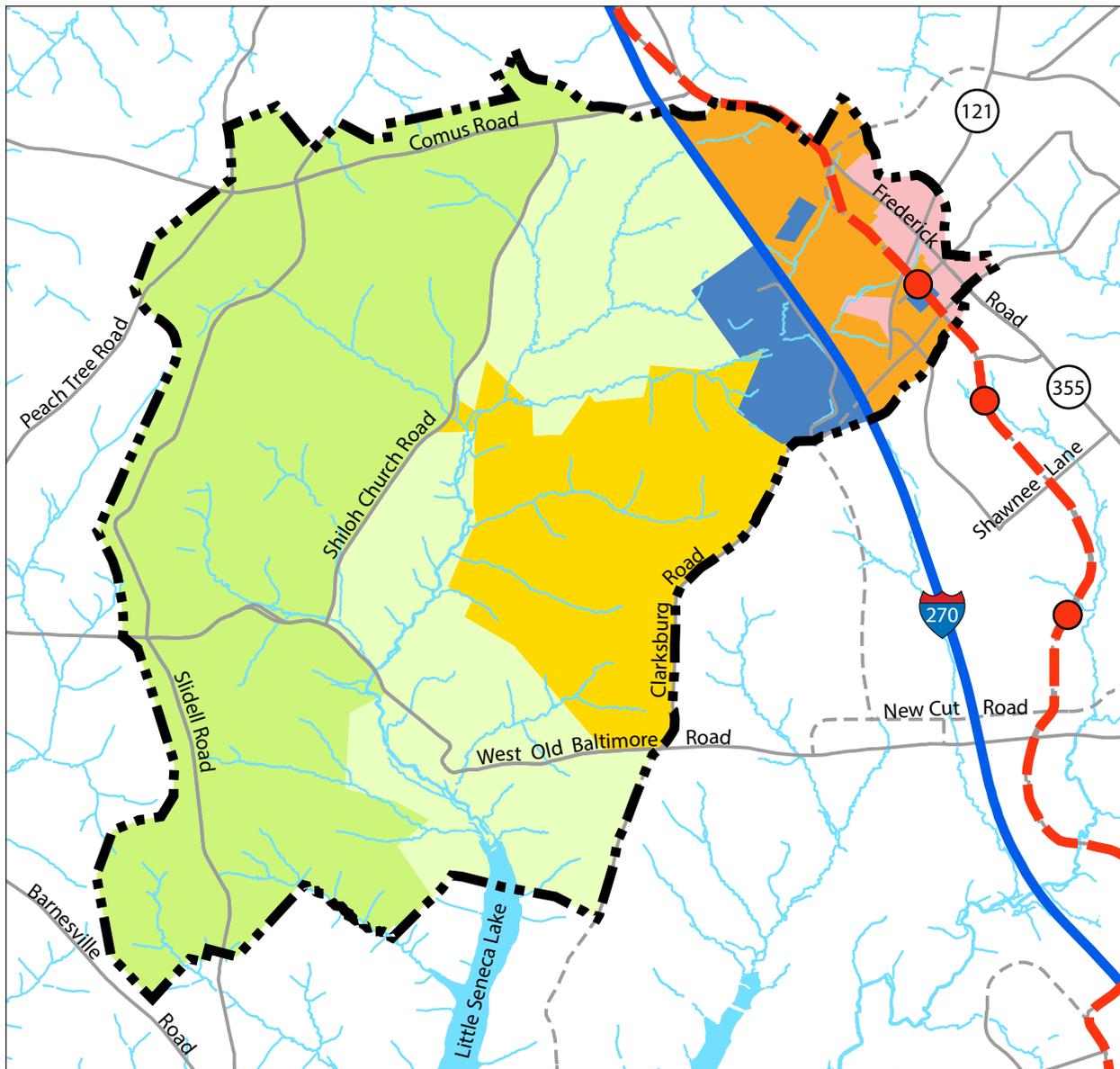
More generally, a broad mix of uses in parts of Clarksburg can create vibrant neighborhoods that are attractive to employers, workers, and residents by providing jobs, amenities, gathering places, and entertainment. Areas along I-270 now designated exclusively for employment are appropriate for such mixed-use development, including retail uses, that reflects changes in the demand for exclusively office uses. Mixed-use activities can support Clarksburg's development by attracting people to the area, supporting other employment, and providing amenities.

West of I-270, preserving more undeveloped and forested land means reducing the development footprint—the amount of land that is disturbed by development. This involves a series of potential choices that include:

- Limiting the development footprint while reducing development densities recommended by the 1994 Plan. This would mitigate changes to the dwelling unit mix and higher net densities to accommodate the number of units recommended in the Plan Amendment on less land.
- Retaining the single-family housing emphasis, while reducing the development footprint. This emphasis would significantly reduce overall development density and the number of units.

This Plan adopts the first choice as the most reasonable means to balance the need to protect the environment with achieving important land use goals for the Clarksburg Plan, while at the same time maximizing the development potential for the area West of I-270.

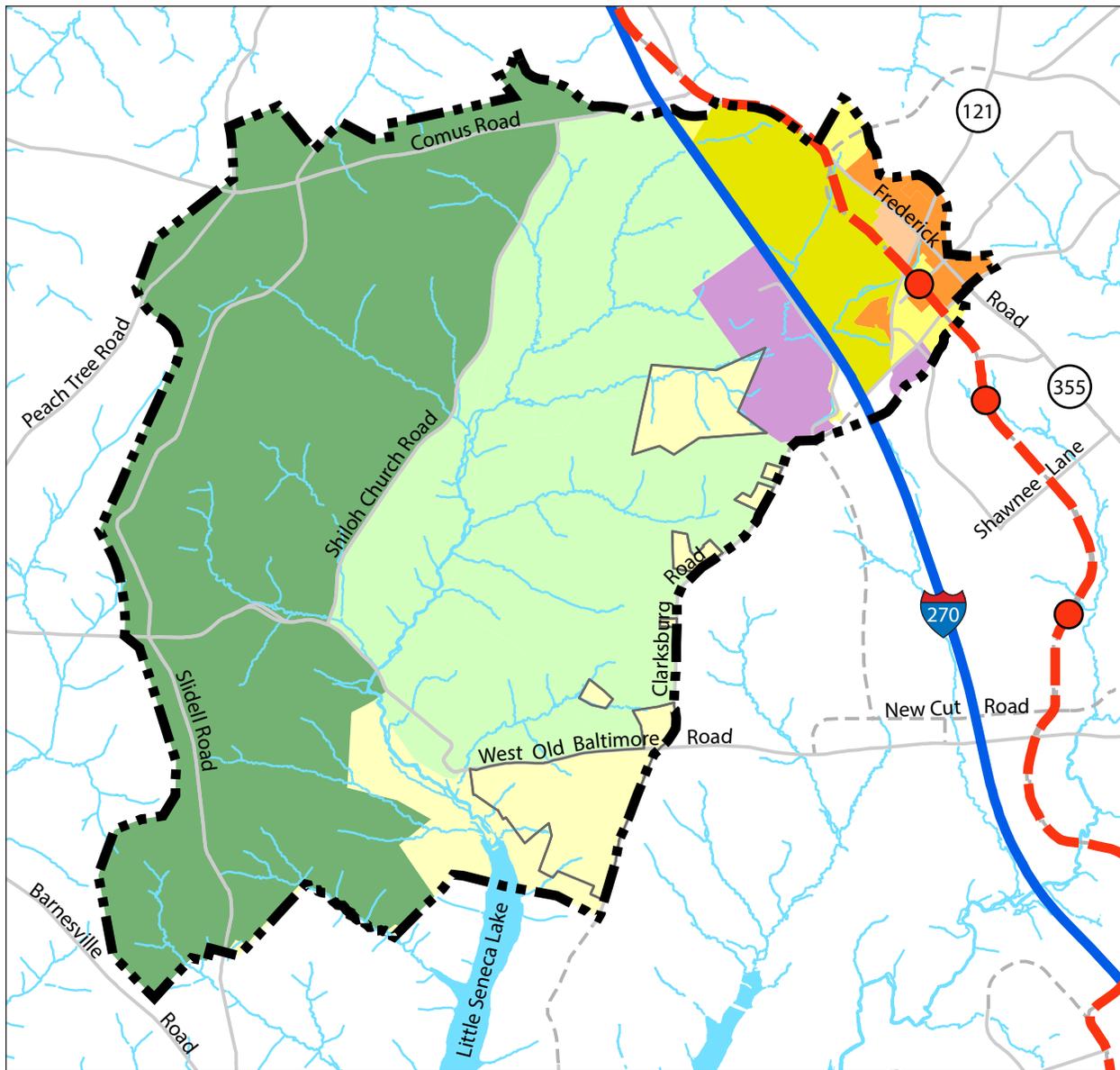
Map 8: Proposed Land Use



- | | | |
|--------------------------------|-------------------------------------|-------------------------|
| --- Master Plan Boundary | Light Green Agricultural | Pink Mixed-Use |
| --- Master Plan Proposed Roads | Yellow Residential (1 Unit/2 Acres) | Blue Institutional |
| - - - Proposed CCT 1994 | Orange Residential (2-4 Units/Acre) | Purple Light Industrial |
| ● Proposed CCT Station 1994 | Pale Green Rural Residential | |



Map 9: Proposed Zoning



- | | | |
|----------------------------------|-------|-------------------|
| --- Master Plan Boundary | AR | R-40, R-60 & R-90 |
| - - - Master Plan Proposed Roads | Rural | CRN |
| - - - Proposed CCT 1994 | RE-2 | CRT |
| ● Proposed CCT Station 1994 | RE-1 | Office |
| | R-200 | |



Recommendations for the three large, privately owned undeveloped properties in the watershed have the following aims:

- For all properties, particularly those that fall within the portion of the Town Center in the Ten Mile Creek headwaters, determining their roles in fulfilling Master Plan objectives.
- Determining the size and location of protection and open space areas that would remain undeveloped and managed for conservation purposes.
- Reducing impervious areas devoted to development in the watershed, thereby reducing impacts to overall stream quality.

East of I-270

This area lies within the headwaters of Ten Mile Creek east of I-270 and within the Town Center District of Clarksburg, comprising the western portion of that District. It includes the Egan/Mattlyn Enterprises and Miles-Coppola properties along with the Historic District, and some additional properties (see Map 10). The properties outside the Historic District total approximately 240 acres and most are zoned R 200. The 1994 Master Plan recommended planned development floating zones for the properties—Planned Development (PD) for the Egan/Mattlyn Enterprises property and Mixed-use Planned Development (MXPDP) for the Miles-Coppola properties.

The Plan did not discuss the Egan/Mattlyn property in detail, but its land use plan shows the property with a density of two to four units per acre. The 1994 Plan made no explicit density recommendation for the Miles-Coppola properties, stating instead that the property be designated an employment site suitable for as much as 470,000 square feet of space. This size reflects its location along I-270 and proximity to a future stop along the Corridor Cities Transitway. The Land Use Plan showed approximately equal parts of the property as residential (at seven to nine units to the acre) and research and development (research and development) uses.

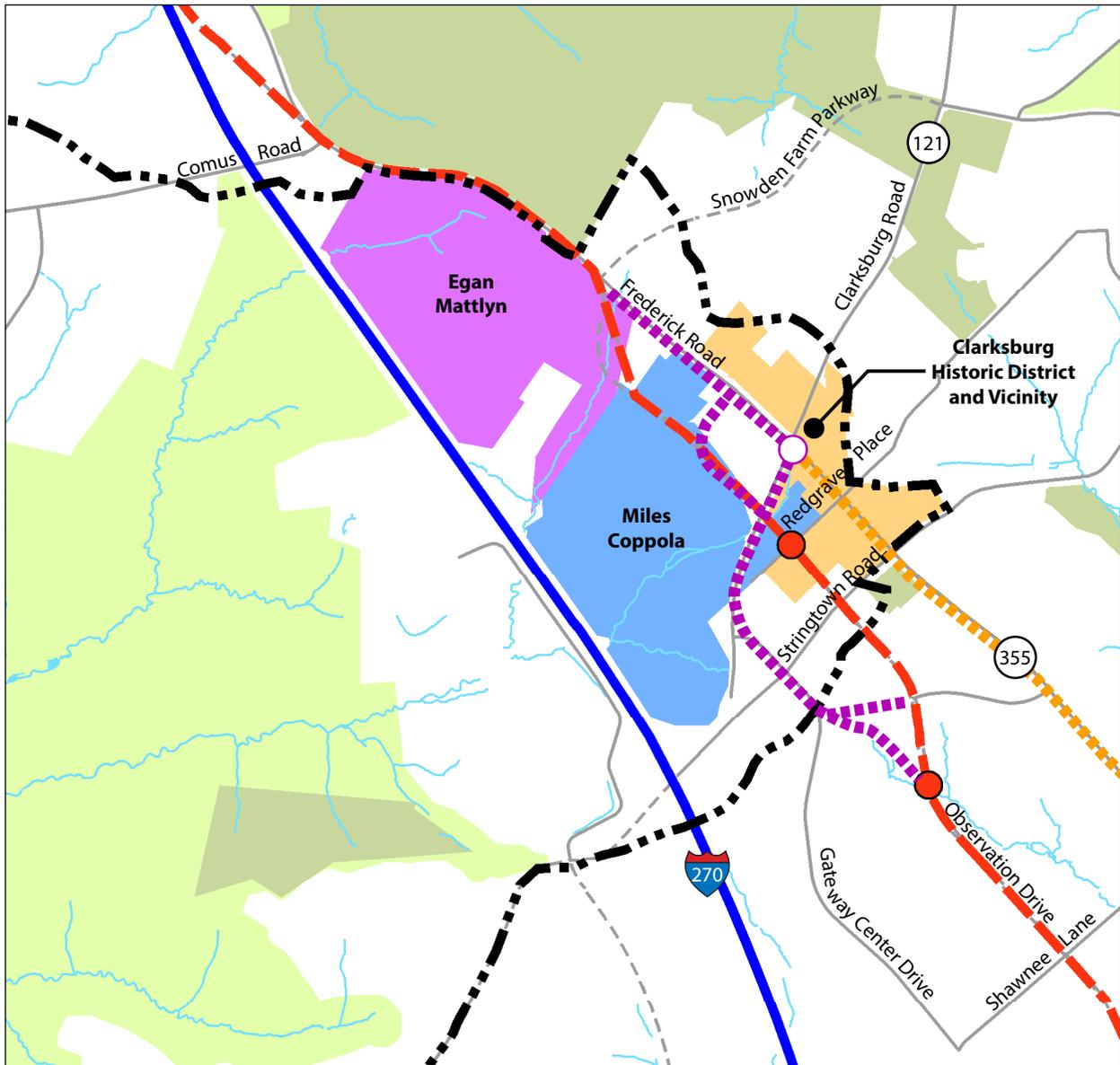
The water quality of the streams that drain this area, particularly in the southern portion, is already compromised by the existing development associated with the roadways, elementary school, power substation, Historic District, and Clarksburg Heights. Limiting additional imperviousness in this area and, to the extent reasonable, protecting most of the existing forest, is essential to keeping the downstream effects to a minimum while still supporting the Town Center District. Reducing imperviousness below the recommended limits would not significantly change the resulting water quality in the subwatershed.

East of I-270 Recommendations

Egan/Mattlyn Enterprises LLC Property

The northernmost headwaters tributary of Ten Mile Creek runs through the approximately 100-acre Egan/Mattlyn property. A second tributary traverses the eastern portion of the property. The two tributaries are in different subwatersheds of Ten Mile Creek. The property is largely open, with sparsely wooded areas in the stream valleys and most of the property is in turf or meadow. Its owners currently operate a catering

Map 10: Properties East of I-270



- Master Plan Boundary
- - - Master Plan Proposed Roads
- - - Proposed CCT 1994
- Proposed CCT Station 1994
- Existing Parks
- Proposed Parks
- Proposed Alignment Options for CCT & 355 Bypass
- Proposed BRT Service
- Proposed BRT and CCT Station



and entertainment venue for outings and other special events. Main and support buildings are located along the ridge that separates the two subwatersheds. Topography slopes to the northwest and southeast, toward I-270. Removing the floating zone option could reduce the imperviousness that would have resulted from implementing the 1994 Plan recommendations.

The 1994 Plan recommended residential development for the property largely because of its distance from the Town Center and the transit station. Retaining that recommendation while allowing up to three units per acre, restricted by an impervious cap and substantial open space requirements, will reduce the potential impact on stream quality while maximizing development potential. Design techniques that reduce lot sizes; cluster development; or flexibility in unit types can reduce the amount of land disturbance. Such a development pattern permits a broader array of housing types, while protecting sensitive resources and maintaining fair stream conditions.

Recommendations are as follows:

- Include this property in proposed Clarksburg East Environmental Overlay Zone with a 15 percent imperviousness limit and an 80 percent open space requirement.
- Rezone properties to R-90, with a maximum density of three units per acre (approximately a 297 unit limit), or up to 3.66 units per acre with a moderately priced dwelling unit (MPDU) bonus and flexibility regarding unit types and building heights via the overlay zone.
- Use the overlay zone to permit varied unit types, including single-family attached, single-family detached, and multi-family. This Plan recommends that maximum development yields may only be realized with units that achieve higher densities within the smaller developable area established by the imperviousness limit and open space requirement.

Miles-Coppola Properties

Two branches of a headwaters tributary run through the Miles-Coppola properties and the western part drains to a second tributary. The heavily wooded stream valleys are steep and there is a significant drop in elevation across the properties from MD 355 to I-270. Topography, forest, and steep slopes create three separate developable areas that constitute about 50 percent—50 acres—of the properties, which total about 98 acres. This size assumes that the MD 355 bypass would consume a portion of the property along the northeastern edge.

These environmental and man-made constraints make it difficult to achieve the 1994 Plan's goal of promoting "a better relationship between this property and portions of the Town Center east of MD 355." The most direct route from the largest development area to the transit station location proposed in the 1994 Plan requires crossing both a stream and Clarksburg Road. The distance from the center of that development area to the core of the Town Center is more than three quarters of a mile. While the central development area may be close to Redgrave Place, topography on both sides of Clarksburg Road will make the walk challenging for pedestrians.

Physical constraints, combined with the future roadway and transit network, suggest that the area should function independently, but in a way that supports the Town Center. While an employment focus might be desirable to achieve the goal of increasing opportunities to live and work in Clarksburg, there are significant amounts of available and yet to be developed land to the south in Germantown and the Life Sciences Center. This land, combined with a weakened regional office market and more attractive and available locations elsewhere, suggests that a zone that would focus exclusively on employment for the Miles-Coppola properties would mean significantly delaying development of these properties.

Development of these properties could help support important commercial activity in the Town Center, if it is complementary. A five-acre area close to MD 121 and the Town Center is recommended for zoning that could result in residential or commercial uses, or a mix of uses. The remaining developable area on the property is recommended for residential uses that can provide homes to support retail in Clarksburg's Town Center. Such a pattern could provide more variety in higher density residential uses, shopping, restaurants, and other business opportunities desired by Clarksburg residents. This Amendment recommends:

- Including the Miles-Coppola properties in the proposed Clarksburg East Environmental Overlay zone with a 15 percent imperviousness limit and an 80 percent open space requirement.
- Directing development to two potential development areas. The southern area, located near Clarksburg Road, benefits from access to Clarksburg Road and the Town Center and, therefore, is appropriate for more intense development. The Plan Amendment recommends CRT zoning (CRT 2.0, C 2.0, R 2.0, H 120) for this area, with a residential zone (R-90) on the remainder of the Miles-Coppola property, to concentrate density and imperviousness on the southern developable area near major roads and within proximity of the Historic District and Town Center.
- Allowing housing or commercial uses on the southern developable area that complement, but do not compete with, the core Town Center. High density residential housing, lodging, or office development would support the Town Center.
- Orienting residential development on the northern developable area toward the MD 355 bypass to take advantage of proximity to future transit and to enable residents to reach businesses or activities in the Town Center using an integrated network of roads, trails, and sidewalks.
- Concentrating and integrating development to allow more of the existing forest and natural terrain to remain undisturbed, reduce imperviousness, and contribute to improved water quality.
- Permitting varied unit types via the overlay zone, including single-family attached, single-family detached, and multi-family, with flexibility regarding building heights.
- Permitting a maximum density of three units per acre (approximately a 279 unit limit), or 3.66 units per acre with an MPDU density bonus on the portion of the property to be zoned R-90.

- Recognizing that maximum development yields may only be realized with unit types that achieve higher densities within the smaller developable areas created by the imperviousness limit and open space requirement.

Clarksburg Historic District and Vicinity

The majority of Clarksburg’s Historic District lies within the Ten Mile Creek Watershed (see Map 10). The District straddles MD 355 from its intersection with Stringtown Road to west of its intersection with Clarksburg Road. The 1994 Plan identified the Historic District as a focal point of the Town Center, encouraging sensitive and appropriate infill development in the District as an important component of the Plan’s objective for the Town Center.

The Plan includes a series of design guidelines that are designed to retain the identity of the Historic District by reinforcing building scale and historic building patterns—structures close to the road, deep backyards, and expanses of nearby green space—that characterized the original settlement. The 1994 Plan recommended renovations of existing buildings that would allow both residential and smaller scale commercial activities, like shops and offices. To protect the District, the Plan recommended reduced building heights and residential zones in the immediately adjacent areas, and recommended relocation of MD 355 to carry through-trips away from the Historic District.

The existing zones in the District—convenience and general commercial (C-1 and C-2) and one-family residential (R-200)—are inadequate to accomplish the 1994 Plan’s goals, particularly the idea of accommodating residential and light commercial uses across the entire District. The Commercial Residential Town (CRT) zone allows densities and building heights that will encourage infill development in the District and will allow new uses to be introduced that may help to invigorate the District. It allows property owners the flexibility to rehabilitate properties for a variety of potential uses, making renovation more attractive.

The area between the Miles-Coppola properties and existing MD 355 is appropriate for the CRN Zone as a transition between the CRT zone in the Historic District and the R-90 zone on this portion of the Miles-Coppola property. This area—nine parcels totaling about 10.5 acres—is in the C-2 and R-200 zones. The County may build a new Clarksburg Fire Station on two of the parcels, and the remaining parcels are vacant, or improved with small homes or businesses. The CRN zone would allow redevelopment that would complement Historic District development across MD 355.

- Rezone properties within the Historic District to CRT 0.5, C 0.5, R 0.5, H 45.
- For new development and redevelopment within the Historic District, support Historic Preservation Commission (HPC) decisions that guide protection of Clarksburg’s historic character. This support may result in limits on density or height less than the maximum allowed by the zone.
- Exclude the Historic District from the Clarksburg East Environmental Overlay Zone

and the Environmental Buffer requirements in this Plan that exceed standard regulatory requirements, but encourage future development and redevelopment to minimize impervious surface area to the extent feasible.

- The following guidelines, for use by the Historic Preservation Commission when reviewing historic area work permits, are intended to assure that infill development in the Clarksburg Historic District is supportive of the District's development patterns and consistent with the character of the Historic District. These guidelines supersede the applicable guidelines in the 1994 Clarksburg Master Plan.
 - Orient buildings to the street with parking behind the buildings;
 - Retain existing paving widths, locate street trees close to the pavement edge (but in a manner that allows views of significant historic resources) and provide sidewalks (particularly along both sides of Old Frederick Road), lighting, and signage appropriate to the District;
 - Road improvements and pedestrian and bicycle linkages to and through the District should be appropriate to the scale and character of the District;
 - Match the setback of existing buildings, particularly along Old Frederick Road;
 - Encourage the rehabilitation of existing buildings;
 - Encourage compatible new construction that highlights and respects historic resources around it;
 - Move historic resources only as a last resort if necessary for public capital improvements and relocate them within the Historic District, to the extent feasible;
 - The prominence of Hammer Hill, the Clarksburg Methodist Episcopal Church, and the open space in front of the Clarksburg Methodist Church, must not be diminished by development of adjacent properties;
 - Encourage the maintenance of existing trees and major landscaping features;
 - Encourage gateways at both north and south entrances to the District.

This Plan Amendment recommends CRN 0.25, C 0.25, R 0.25 H 35 for the area between the Miles Coppola properties and existing MD 355.

Transit Station

The 1994 Plan shows a transit station where the MD 355 bypass intersects Redgrave Place. The Plan recommends residential uses near the station at a scale sympathetic to the adjacent Historic District, enabling local residents to walk to the transit stop. Clarksburg Elementary School is currently located in the area proposed for the station and the Plan recognizes that the school would remain for a number of years before its eventual relocation or replacement. It is important that the transit station maintain a strong pedestrian connection to the Town Center via Redgrave Place.

- Maintain the transitway to Clarksburg in the vicinity of the Miles-Coppola properties, where it could serve uses in the Town Center District.
- Two alternative alignments for the bypass are also shown and should be studied as part of a facility plan when the Miles-Coppola properties develop (see Map 9). The facility plan should study the appropriate right-of-way for the bypass,

considering potential modifications to the design of the Corridor Cities Transitway. If an alternative alignment is chosen, the transit station location should retain a pedestrian connection to Redgrave Place and fulfill the intent of the 1994 Plan to connect the Town Center with the Historic District.

Fire Station

Montgomery County has acquired a vacant, forested property within the Ten Mile Creek Watershed to build a fire station. The site is directly outside the Historic District, between MD 355 and the Miles-Coppola properties. If developed as currently planned and approved, the fire station would result in 37 percent of the property with impervious cover.

Given this property's location at the headwaters of Ten Mile Creek, every effort should be made to explore other possible sites, either outside the Ten Mile Creek Watershed, or on land within the Planning Area that is already developed with impervious surfaces. Leaving the current fire station site undeveloped would not only reduce overall subwatershed imperviousness, but also would provide greater flexibility in the alignment of the planned bypass. While an extensive search for an alternate location should be conducted, if another one is not found, a fire station at the current location should not be ruled out.

- Consider other locations for a fire station, either outside the Ten Mile Creek Watershed, or on already developed land within the watershed where building the fire station would result in reducing existing imperviousness. If no other site is found, allow station development on the current site, but redesign the station to reduce imperviousness, to the extent feasible.

Remaining Properties

Portions of the Ten Mile Creek tributaries drain from several additional residential and institutional properties. The 1994 Land Use Plan showed three properties at the intersection of MD 355 and Comus Road as suitable for the Planned Development (PD) zone. These properties would have qualified for the PD zone, but only as part of a single development plan with the Egan-Mattlyn property.

Because this Amendment recommends the Egan-Mattlyn property for the R-90 zone only, this Amendment eliminates the potential to use a PD zone for those properties and recommends retaining the existing R-200 zoning. Five other properties, located between the Egan-Mattlyn and Miles-Coppola properties, but in separate ownership, are recommended for the R-90 zone (as are the properties that surround them) within the overlay zone.

- Confirm the existing zoning for properties to the north of the Egan-Mattlyn property and rezone properties located between the Miles-Coppola and Egan-Mattlyn properties to the R-90 zone. The Clarksburg East Environmental Overlay Zone would apply to the portions of these properties located within the Ten Mile Creek Watershed.

- Rezone the one-acre Wright property (between the Miles-Coppola property and Clarksburg Road near Gateway Commons Drive) to CRT 2.0, C 2.0, R 2.0, H 120 to allow for the possibility of joint development with the portion of the Miles-Coppola property also zoned CRT.

West of I-270

Pulte and King Properties

These unique properties comprise almost 540 acres west of I-270 and between Shiloh Church and Clarksburg Roads (see Map 11). Three major Ten Mile Creek tributaries originate on the properties and two are contained almost entirely within them. The properties are a mix of woodlands and farm fields with forest covering much of the stream valleys.

The 1994 Plan recommended the properties (and two other parcels to the north) for residential development, with a number of guidelines for environmental protection and housing unit mix. The Plan designated 600 acres as a receiving area for transferable development rights, with a maximum of up to 900 units. The entire area is in the RE-1/TDR Zone. The 1994 Plan also included a staging element. The Plan required further review of the effectiveness of stormwater practices and the monitoring of results from development elsewhere in Clarksburg, but in similar stream systems, before any development could be approved in this sensitive area.

The Council reserved its authority to consider other land use actions, as appropriate, based on the results of this further review. This review has now been completed, and the analysis indicates that the proposed levels of development in the 1994 Plan would create a significant risk to stream quality in these sensitive subwatersheds.

The subwatersheds that would be affected by building out these properties are largely undeveloped, have high overall stream quality, and support many sensitive species. Any development of these properties will have a negative impact on stream quality.⁹ It is on these properties that preserving more undeveloped and forested open space, along with Environmental Site Design, will most effectively reduce the impact of development on water quality.

This area includes the most sensitive subwatersheds, LSTM 110 and 111 (see Map 4) and the monitoring stations for the reference stream reach. The very low existing imperviousness and long-term agricultural uses have resulted in excellent stream conditions that have been maintained since monitoring began in 1994. Even small changes in imperviousness will likely affect these subwatersheds, but if imperviousness is kept as near to five percent as possible, stream conditions can be maintained in the good to excellent range, based on the majority opinion of environmental experts.

⁹ See Appendix 9, Attachment 18.

The stream impacts should be minimized by making preservation and protection of natural resources a clear priority; maintaining natural drainage routes and patterns; minimizing imperviousness; clustering development; planting all stream buffers in forest; and minimizing grading, soil disturbance and soil compaction.

The combination of reduced densities and cluster development could increase undeveloped open space using privately owned conservation areas in addition to parkland. The Rural Neighborhood Cluster (RNC) zone would allow a more precise percentage of open space to be required on the properties. The RNC zone requires a significant portion of the open space to be undisturbed and contiguous. It provides an optional method of development on public water and sewer service with a range of allowable development densities up to a maximum of one dwelling unit per acre, and allows master plans to make density recommendations, enabling a more precise density designation appropriate to the properties. It also provides a standard method of development without sewer service at one dwelling unit for every five acres, should that be determined more appropriate.

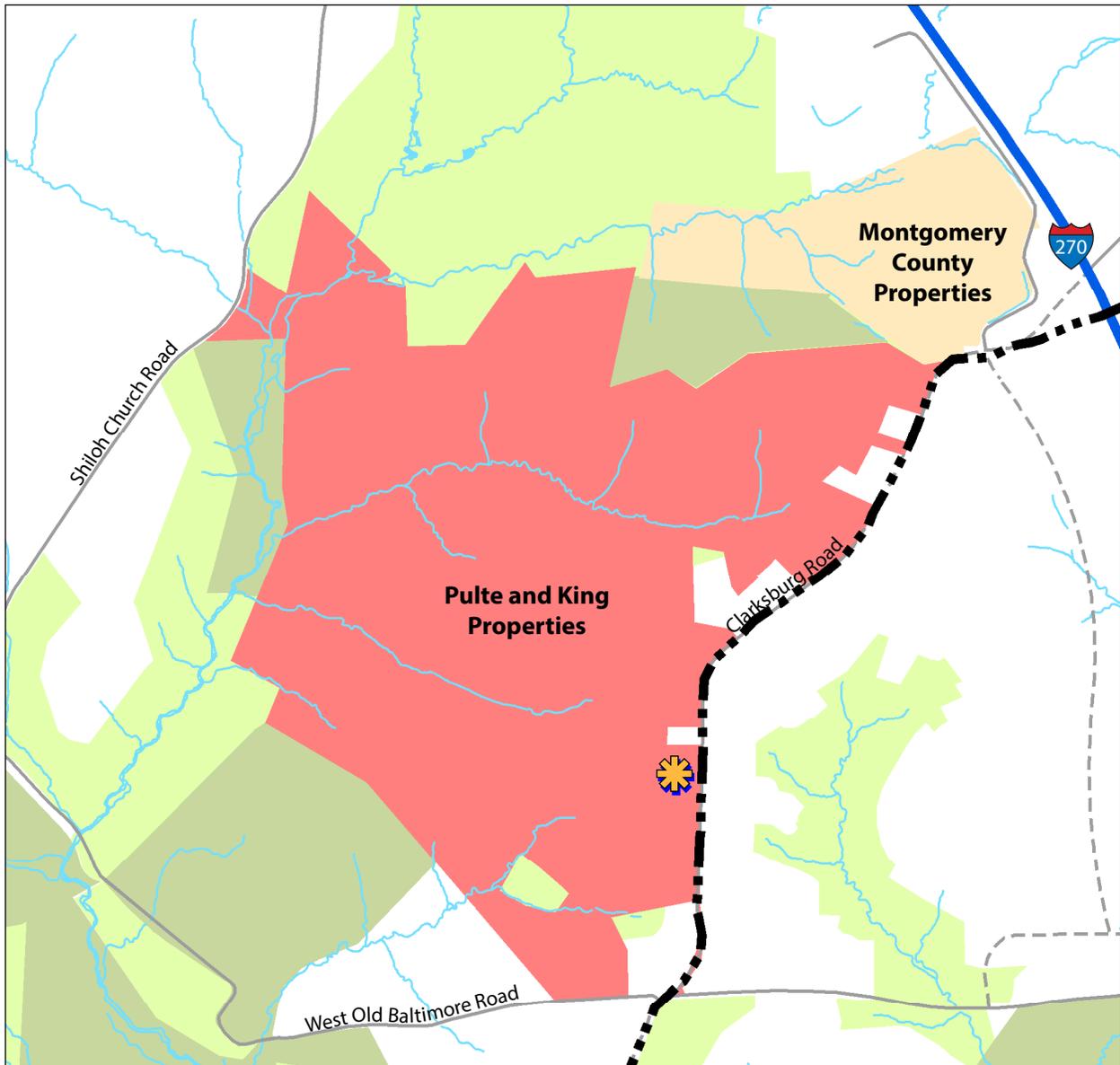
The Cephas-Summers House, a locally-designated historic resource, is located on the property proposed for development along Clarksburg Road. The current environmental setting includes the whole property, but could be reduced to approximately five acres as part of the proposed development. The house should be restored and become part of the adjacent development.

- Include these properties in the proposed Clarksburg West Environmental Overlay Zone, with a six percent imperviousness limit and an 80 percent open space requirement.
- Allow optional method development in the RNC Zone with public sewer at a permitted density of one unit per acre. Moderately priced dwelling units beyond the minimum 12.5 percent would be in addition to the recommended density, in accord with Chapter 25A of the Montgomery County code, if the development does not exceed the impervious surface cap.
- Provide flexibility in the mix of housing types; allow either a blend of single-family lots and attached units, or exclusively attached units as a means of achieving maximum development yields.

Rural Open Space Requirements

- Include all land meeting the Environmental Buffer requirements, as well as forest protection, listed on page 19;
- The neighborhood park recommended for this portion of the watershed may be wholly or partially within the rural open space;
- Dedicate most of the rural open space as parkland (see recommendations for Legacy Open Space).

Map 11: Properties West of I-270



- Master Plan Boundary
- Master Plan Proposed Roads
- Proposed CCT 1994
- Proposed CCT Station 1994
- Existing Parks
- Proposed Parks

Cephas-Summers House



The following should be addressed when implementing the Rural Open Space Design Guidelines as part of the development review process for these properties:

- Concentrate cluster development in unforested upland areas; wooded stream valleys should be left intact, undeveloped, and in their natural states as rural open space;
- Reduce environmental impacts and imperviousness during development by applying ESD techniques;
- Require a conservation management plan for areas outside the limits of disturbance that are not dedicated to M-NCPPC for parkland or placed in a rural open space easement, if such areas are located in a development plan. The conservation management plan should be coordinated with the Planning Department, the Department of Parks, and the Department of Environmental Protection to address management of natural resources, preservation of pervious land cover, and compatibility with adjacent land uses (both Parks and development area). This conservation management plan must be approved as part of the preliminary plan for the site.
- Direct new sewers away from Ten Mile Creek, utilizing proposed and existing roads; pump stations may be required to make connections to sewer lines in Cabin Branch;
- Size and locate lots to preserve rural views from Clarksburg Road and ensure an environmental setting of five acres for the historic Cephas-Summers house. Include restoration of the Cephas-Summers house in a development plan;
- Incorporate open space into the clustered community to provide residents with recreational opportunities;
- Provide access from public roads within a development to the proposed Ten Mile Creek Conservation Park to facilitate the creation of trailheads for natural surface trails and allow park maintenance access.

Montgomery County Properties

Montgomery County owns more than 380 acres in the upper reaches of the Ten Mile Creek Watershed (see Map 10). The majority of this land, known in the 1994 Plan as Site 30, now houses the Montgomery County Correctional Facility. The majority of the property is heavily wooded and the County has no development plans beyond a planned expansion of the correctional facility. The Department of Parks has identified most of this wooded area as a Legacy Open Space Natural Resource that is suitable for transfer to Parks as a key part of the Ten Mile Creek Conservation Park .

Two parcels totaling about 94 acres are located at the I-270 interchange with Clarksburg Road. The headwater branches that originate on the Miles-Coppola properties join on one of the County properties to form a headwater tributary. Several smaller streams feed the tributary on these properties and the steeply sloped stream valleys are heavily forested.

The County has considered the site for its North County bus maintenance and storage facility, but has no current plans for the properties. Montgomery County government commits to keeping this site fully pervious with no development. The Department of

Parks has identified areas of this site as a suitable Legacy Open Space Natural Resource. It would be appropriate to have its management transferred to Parks as part of Ten Mile Creek Conservation Park.

The remaining County property surrounding the Correctional Facility is planned for only a small expansion of the existing facility. This Plan intends to accommodate the planned expansion, but limits further development on the site.

- Include this area in the Clarksburg West Environmental Overlay Zone with no additional imperviousness permitted. Minimal development of this property would help contribute to water quality in this portion of the watershed. Forested areas should remain undisturbed and the designated portion protected under the Legacy Open Space Program.
- No additional impervious cover would be permitted on County owned land west of I-270. However, the Clarksburg West Environmental Overlay Zone may need to be amended at some point to allow a minimal amount of imperviousness associated with an expansion of the Correctional Facility of less than one acre.
- Transfer management of areas designated as Legacy Open Space and other appropriate open space in County ownership to the Parks Department to create the northern portion of the Ten Mile Creek Conservation Park.

Rural Properties and Agricultural Reserve

The rurally-zoned properties and the Agricultural Reserve are not proposed for change in this limited Master Plan Amendment. The rural zoning allows up to one unit per five acres on properties between the main stem of Ten Mile Creek and Shiloh Church Road. The Agricultural Reserve Rural Density Transfer Zone allows only one unit per 25 acres. There are currently portions of stream buffers on properties in both areas that are not maintained in forest that could benefit from a voluntary forest banking program. Protection and restoration of these buffers at the discretion of the property owners would help in the overall health of the Ten Mile Creek Watershed. Some portions of the rural properties should be protected through the Legacy Open Space program if development is proposed.

- Retain the existing zoning in these areas.
- Include the Rural-zoned properties in the Clarksburg West Environmental Overlay Zone to limit imperviousness associated with special exceptions and institutional uses.
- Explore incentive programs to encourage voluntary forest planting, particularly in unforested stream buffers.

Water and Sewer Service

The 1994 Master Plan recommended public water and sewer service in the Stage 4 area of Clarksburg based on its initial zoning recommendations. This Plan Amendment continues to recommend community water and sewer service to support the development planned for Stage 4. Specifically, public water and sewer service is

recommended for the area identified as “Future Service Area C” in the 1994 Plan, which includes Stage 4, to support planned development densities, including recommended cluster development.

The provision of public sewer service will help to reduce the potential for existing and future septic systems to impact the watershed. Public and individual water supply and wastewater disposal service in the Master Plan area are recommended to be provided in a manner consistent with the service policies included in the County’s Comprehensive Water Supply and Sewerage Systems Plan.

Properties within the Plan Area not already receiving public service or recommended for public service are expected to use individual, on-site water supply and/or sewerage systems (wells and septic systems).

The Ten Mile Creek Watershed has no receiving sewers downstream of the Stage 4 area. Wastewater flow from the majority of Stage 4/Future Service Area C will need to be pumped out of the watershed into sewerage systems serving adjacent Stage 3 development. The Clarksburg Stage 3 and 4 Area Facility Plan, prepared for the Washington Suburban Sanitary Commission (WSSC), anticipated the need for planned Stage 3 area sewerage facilities to accept and handle pumped wastewater flows from Stage 4.

Environmental concerns and competing development interests within Stage 4 could result in individual proposals for several wastewater pumping facilities scattered throughout the sewer service area. To minimize infrastructure operation and maintenance needs, and to create a logical, efficient, and environmentally responsible sewerage system for Stage 4, this Amendment recommends WSSC’s coordination of a comprehensive Stage 4 sewerage facility plan, with the participation of all major Stage 4 development interests. If necessary, this requirement should be incorporated into service area category change approvals for the Stage 4 sites.

The lack of public sewer service, needed to replace aging septic systems, has hampered improvement and redevelopment of the Clarksburg Historic District; an integral part of the Town Center. The County is investigating the design and construction of a public sewerage system to serve the Historic District. If this sewerage system is constructed ahead of other Ten Mile Creek development, it would include a small, interim pumping station and force main tying into the Town Center system.

This interim station and force main would be removed from service when gravity sewer service becomes available from the Miles-Coppola property. Planning and development of the Miles-Coppola project sewerage system will need to include, at a minimum, a gravity main extension to accept wastewater flows from the Historic District.

The Council received a substantial amount of public hearing testimony and correspondence regarding the potential impacts development in the Ten Mile Creek Watershed could have on the Little Seneca Reservoir and drinking water in general. In

response to these concerns, the Council heard from WSSC staff, County Department of Environmental Protection (DEP) staff, and the Executive Director of the Interstate Commission on the Potomac River Basin (ICPRB).

Both DEP and WSSC staff stated that, based on the environmental consultants' analyses, planned development under consideration in the Ten Mile Creek Watershed would not have a significant impact on the Little Seneca Reservoir or on drinking water quality. However, DEP staff did note that a study of the long-term health of the reservoir (taking into account all of the watersheds draining into the reservoir) would be worthwhile.

- Approve a comprehensive category change amendment to the County's Ten-Year Comprehensive Water Supply and Sewerage Systems Plan to support the extension of public water and sewer service to all of the properties in the Ten Mile Creek Watershed that are recommended to be zoned R-90, R-200, CRT, CRN, and RNC. A comprehensive category change amendment is consistent with the 1994 Master Plan, which recommended that future Water and Sewer Plan amendments be of a comprehensive or area-wide nature only. Include as a condition of the approval of the amendment, a requirement for a comprehensive sewerage system facility plan to serve recommended service areas in Ten Mile Creek. WSSC service and financing policies will require construction of needed water and sewer facilities by the property owner as part of the development process.
- Locate sewer main alignments and pumping station sites to minimize, as feasible, disturbance of environmental buffers and forested areas.
- The 1994 Master Plan includes the Clarksburg Historic District within the proposed sewer service area. This Amendment continues to support this recommendation.
- While approval of water and sewer service to nearby properties (as recommended by the Ten Mile Creek Area Limited Amendment) may make sewer service more economically feasible for the Clarksburg Historic District, it is uncertain when such extensions would occur and the costs to extend sewer may still be prohibitively expensive for property owners. Given the immediate concerns of property owners in the Clarksburg Historic District, and that public sewer service is needed to realize the County's land use goals for the area, the County should work with WSSC on a project to extend public sewer to the Clarksburg Historic District as soon as possible and in a manner which is affordable to property owners.
- This Plan supports a study of the long-term health of the Little Seneca Reservoir (encompassing the land use impacts from all watersheds draining into the reservoir). The details of such a study, such as the scope, and who would lead and pay for the study, should be discussed by the Reservoir's regional partners (WSSC, Fairfax County Water Authority, Washington Aqueduct, and the Interstate Commission on the Potomac River Basin) and Montgomery County.

PARKS

Legacy Open Space Recommendations

Montgomery County preserves its most significant undeveloped open space through its Legacy Open Space program. The 2001 Legacy Open Space Functional Master Plan identifies natural resources, open space, farmland, and historic places that can be conserved through a variety of protection tools, including easements, protection through the regulatory process and, when appropriate, acquisition. The Plan includes the Special Protection Area of the Ten Mile Creek Watershed as a Natural Resource site that meets Legacy Open Space criteria, but needs further study to select specific properties.

Evaluation of the Ten Mile Creek Watershed concluded that the 600 acres of forested headwaters met six of the eight criteria for inclusion in the Legacy Open Space program. The forest conforms to the following statements from the program:

- “has particular countywide, regional or national significance” for its potential ability to support rare, threatened or endangered species, aquatic communities, and its varied habitats;
- “is critical to the successful implementation of public policy such as protection of the Agricultural Reserve and public water supply;”
- “is part of a ‘critical mass’ of like resources that perform an important environmental or heritage function;”
- “provides human or ecological connectivity between significant park, natural or historic areas and/or corridors;”
- “helps to buffer and thereby protect other significant resources;”
- “represents an opportunity for broadening interpretation and public understanding of natural and heritage resources.”

Recommendations are as follows:

- Designate the high quality, critical forest and open habitats that protect the quality of the Ten Mile Creek headwaters as a Legacy Open Space Natural Resource site (Class II). Approximately 1,230 acres are proposed for designation (see Map 11).
- Protect the designated Natural Resource on an individual property basis using a variety of tools, which may include easements, dedication through the development review process, and fee simple acquisition.
- To create the core of the Ten Mile Creek Conservation Park, dedicate the Rural Open Space outside of the development envelope on the Pulte and King properties to the Department of Parks as a condition of the development review process. Land unavailable through dedication during the development review process may be acquired by the Department of Parks.

Parks and Trails Recommendations

The 1994 Plan created a park and open space system that designated general locations for new local parks serving Clarksburg’s developing neighborhoods and were closely integrated with proposed development. Importantly, the Plan also made provisions for connections between

these local parks and the greenway network as prominent components of its overall vision. However, since park planners did not anticipate the significant development west of I-270 that was ultimately approved as part of the 1994 Plan, no local park was included in the Ten Mile Creek Watershed.

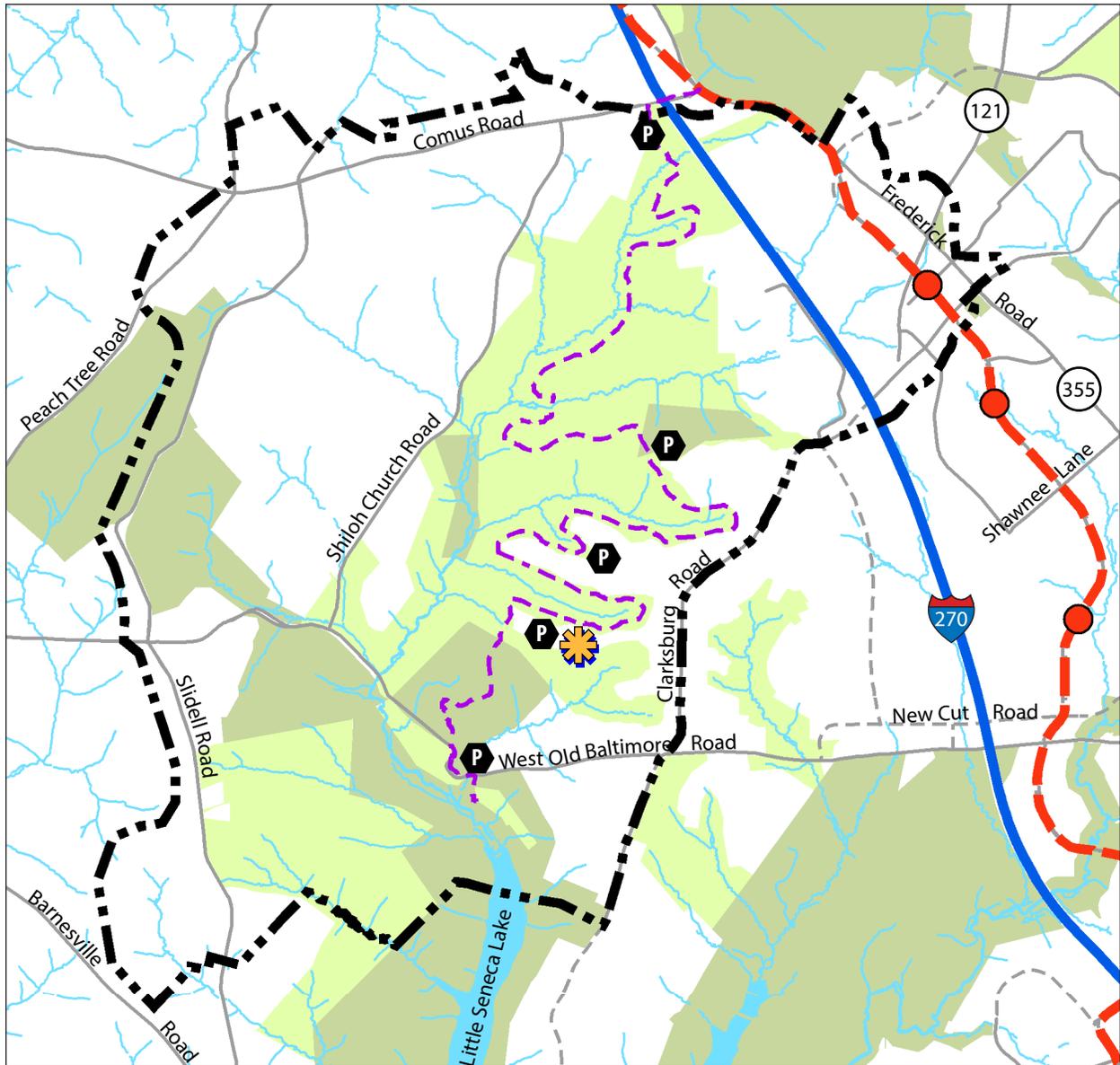
Since approval of the 1994 Plan, park planners have recognized the emerging importance of natural resource areas as a form of recreation. Bicycling, hiking, and horseback riding, as well as activities such as wildlife and bird watching or nature photography, all depend on the availability of large amounts of undisturbed forests and other natural areas. The substantial forests, steep stream valleys, and high ridges of the Ten Mile Creek Watershed west of I-270 can be used for such purposes and be reached using sensitively located trails through the already proposed conservation park and greenway system (see Map 12).

Also, since approval of the 1994 Plan, the Legacy Open Space Functional Master Plan (2001) designated the Clarksburg Triangle Civic Green as an urban open space and it was acquired by the Department of Parks. The site is located in the heart of the Historic District on the east corner of Clarksburg Road and MD 355. Planning and implementation of this central civic space within the Town Center District will need to be coordinated with other public infrastructure planning for Clarksburg, including the CCT, water and sewer systems, and road and bikeway improvements.

Recommendations are as follows:

- Provide a countywide natural surface trail, designed to M-NCPPC Montgomery Parks standards, in the Ten Mile Creek area linking Little Bennett Regional Park and Black Hill Regional Park per the Countywide Park Trails Plan (2008) and the 1994 Clarksburg Master Plan.
- Provide five trailheads, designed to M-NCPPC Montgomery Parks standards, to access the Ten Mile Creek natural surface trail and nearby natural areas for park users and operations staff.
- Provide a new natural resource-based Neighborhood Park of at least 10 developable acres for close-to-home recreation for the Ten Mile Creek area, designed to M-NCPPC Montgomery Parks standards. The park, located outside of environmentally sensitive areas, is recommended as a platform for walkable, close-to-home facilities and to serve as a trailhead for the Ten Mile Creek natural surface trail. The park should have a natural resource theme and should be located adjacent to conservation parkland. The proposed Preliminary Program of Requirements for the Neighborhood Park is as follows:
 - Access to the Conservation Park for trail users and operations, maintenance and police functions from the planned development;
 - A trailhead with a small gravel parking area (6-8 spaces), with access through adjacent development;
 - Picnic area;
 - Natural play area;
 - Community garden;

Map 12: Proposed Legacy Open Space and Parks



- Master Plan Boundary
- Master Plan Proposed Roads
- Proposed CCT 1994
- Proposed CCT Station 1994
- Existing Parks
- Proposed Parks
- ⬠ P Proposed Natural Surface Trail
- Proposed Trailhead
- ★ Proposed Neighborhood Conservation Park



- Community open space large enough for community festivals and pickup sports, of at least 15,000 square feet;
- Adequate space to provide for Environmental Site Design, Stormwater Management, Forest Conservation, and other regulatory requirements. Ensure that public infrastructure planning for Clarksburg is fully coordinated with planning and implementation efforts for Clarksburg Triangle Civic Green.

Appendix 7 includes additional information in support of these recommendations.

IMPLEMENTATION

Although this Amendment is limited in scope and geography, its implementation nonetheless requires cooperative efforts by a number of private and public actors. This chapter indicates follow-up efforts that are needed once the Plan is adopted.

Overlay Zones

This Amendment recommends limiting imperviousness, establishing open space requirements for new development, both east and west of I-270, and changing some development standards of the underlying zones in order to maximize development flexibility and protect sensitive natural resources. This Amendment recommends creation of overlay zones to establish a 15 percent imperviousness limit on new development in the Town Center portion of the watershed, a six percent limit on the Pulte-King properties, and no additional imperviousness on County-owned land. Very small properties should be exempt from imperviousness limits in the overlay zones.

The purpose of these zones is to preserve and protect sensitive natural resources in the watershed by reducing the amount of land disturbed for development. Limiting impervious surfaces enables natural filtering of water runoff and creates undeveloped open space that can be forested. This can help support cooler water temperatures and a diverse stream population of insects and invertebrates.

Overlay Zone Boundaries

Each proposed overlay zone covers a large area, rather than only the key properties discussed in the Amendment. While some of the other properties are likely to develop at less than the limits in the overlay zone, including them within its boundaries will reduce/limit development that could result in significantly more imperviousness. For example, development in the Rural Zone west of I-270 could result in individual homes with less than six percent imperviousness, but if an institution or special exception use were to purchase the property, the imperviousness could be significantly greater than six percent.

On the east side of I-270, all properties in Ten Mile Creek, except those in the Historic District, would be within an overlay zone, with exemptions for State and County roads and bikeways. Park property within the Ten Mile Creek Watershed that was not within the Master Plan boundaries will also not be in the overlay zone, but the Department should nevertheless do everything feasible to limit additional imperviousness.

On the west side, all land draining to Ten Mile Creek not zoned Rural Density Transfer (RDT) would be included. In both zones, small properties existing at the time of this Amendment that develop without combining into larger developments would be exempted from the restrictions of the zone.

The Clarksburg East Environmental Overlay Zone

Details regarding the overlay zone are addressed in the overlay zone for the east side of I-270. The major elements are as follows:

- Impervious surface area limit of 15 percent for the area within a development application (with a grandfathering provision for properties already exceeding the cap);
- 80 percent open space (which should include all environmental buffers and sensitive areas identified in the Master Plan);
- All base zones other than R-90 will adhere to the standards of the underlying zones;
- For properties with a base zoning of R-90, the requirements of the R-90 zone will be modified by the overlay as follows:
 - Density limited to three units per acre, or 3.66 units per acre with the maximum MPDU bonus;
 - Any unit type with no unit mix percentage requirements should be allowed;
 - Building height limits increased to 35 feet for single-family detached, 50 feet for townhouses, and 65 feet for multi-family;
 - Site plan approval should be required;
 - Setbacks and minimum lot size requirements should be eliminated;
- Exempt small properties from some or all provisions of the overlay zone;
- Consider limited exemptions for some public facilities, such as State and County roads and park facilities associated with conservation parks (e.g., small parking lots).

The Clarksburg West Environmental Overlay Zone

The major elements in the overlay zone proposed for the west side of I-270 are as follows:

- Will follow all standards and requirements of the RNC zone (which are designed to encourage clustering to protect environmental resources), except those relating to diversity of lot size and unit type;
- Impervious surface area limit of six percent of the area within a development application; specific properties to be limited to zero percent (mostly government-owned or with easements, with a grandfathering provision for properties already exceeding the recommended impervious surface limit);
- 80 percent open space (which should include all environmental buffers and sensitive areas identified in the Master Plan);
- Exempt small properties from some or all provisions of the overlay zone;
- Consider limited potential exemptions for public facilities, such as State and County roads and park facilities associated with conservation parks (e.g., small parking lots).
- It is possible that the overlay zone may be amended in the future to accommodate a proposed expansion of the County Correctional Facility that is envisioned to be less than one acre.

Sewer and Water Implementation Actions

The 1994 Clarksburg Master plan stated that “Subsequent Water and Sewer Plan amendments be of a comprehensive or area wide nature only...” Accordingly, the Amendment reconfirms this for the Ten Mile Creek Area. These water and sewer amendments will require County

Council approval consistent with the policies of the Comprehensive Water Supply and Sewerage Systems Plan and the Comprehensive Sewerage System Study called for in this Master Plan Amendment.

Of particular importance to development of the Town Center District generally and the Clarksburg Historic District in particular is the timely provision of sewer service. Infill development and rehabilitation of existing historic buildings for residential, commercial, or mixed-use activities cannot occur until sewer service is available to properties along MD 355.

Although planning for interim solutions for service to the Historic District is underway, a permanent solution is critically needed. This Amendment recommends inclusion of facility planning funds for sewer infrastructure to the Historic District at the earliest possible date. Should the Miles-Coppola properties develop in ways that facilitate an earlier provision of sewer service, private sector involvement in facility planning and implementation is welcomed.

Other Implementation Actions East of I-270

This Amendment includes recommendations for the MD 355 bypass and for a transit station along the bypass that would serve bus rapid transit riders. The Plan shows alternative alignments for the bypass and suggests considering alternative locations for the transit station that could reduce impervious surfaces in this part of the watershed, as well as support connections among the Town Center, the Historic District, and the Miles-Coppola properties.

This Amendment recommends a facility plan for the bypass to address these issues and to evaluate a potential relocation of both the historic Clarksburg School and the existing Clarksburg Elementary School, which lie in its path. The proposed facility plan should also consider appropriate rights-of-way for Observation Drive (A-19), which will include the transit alignment. Right-of-way widths should be reconsidered in light of the shift in mode from light rail to bus rapid transit. Any change to the right-of-way alignment or width should be incorporated into an amendment of the Master Plan of Highways. Design guidelines should also be developed for facility planning for the bypass.

Other Implementation Actions West of I-270

This Plan recommends locating a natural resource-based neighborhood park for this part of the watershed. Designation of an appropriate place for the park will occur through the regulatory review process. It may be accomplished through dedication as part of development review or fee simple acquisition.

As part of its forest conservation programs, Montgomery County has established forest banks, which can be used to support voluntary planting of trees in areas—particularly stream buffers—that are currently unforested. Development projects take advantage of these banks to offset other forest conservation requirements. This Amendment recommends creating a program to provide incentives for property owners in the Rural and Rural Density Transfer zones to plant new forests on their properties, particularly in currently unforested buffer areas.

APPENDICES

- Appendix 1:** 1994 Clarksburg Master Plan Excerpts
- Appendix 2:** Description of Modeling Scenarios and Assumptions
- Appendix 3:** Ten Mile Creek Watershed Environmental Analysis
- Appendix 4:** Countywide Stream Protection Strategy Score Change Estimate (CSCE) Model: Description and Results
- Appendix 5:** Additional Environmental Reference List
- Appendix 6:** Transportation Modeling
- Appendix 7:** Department of Parks Analysis and Recommendations
- Appendix 8:** Carbon Footprint Analysis
- Appendix 9:** March 4, 2014, County Council Worksession: Staff Report and Supporting Materials

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George Leventhal, Vice President
Phil Andrews
Roger Berliner
Cherri Branson
Marc Elrich
Nancy Floreen
Nancy Navarro
Hans Riemer

County Executive

Isiah Leggett

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Resolution No.: 17-1167
Introduced: July 15, 2014
Adopted: July 15, 2014

**COUNTY COUNCIL FOR MONTGOMERY COUNTY, MARYLAND
SITTING AS THE DISTRICT COUNCIL FOR THAT PORTION
OF THE MARYLAND-WASHINGTON REGIONAL DISTRICT
WITHIN MONTGOMERY COUNTY, MARYLAND**

By: County Council

SUBJECT: Correction to Resolution 17-1048, Approval of Planning Board Draft 10 Mile Creek Area Limited Amendment to the Clarksburg Master Plan and Hyattstown Special Study Area

Background

1. On March 4, 2014, the Council approved by straw vote the following text for inclusion in the 10 Mile Creek Area Limited Amendment to the Clarksburg Master Plan and Hyattstown Special Study Area (the Plan):

Unless a greater amount is required under the Planning Board's *Environmental Guidelines for Development*, environmental buffers (protected through the development review process) should include:

- 200 feet on both sides of perennial and intermittent streams and springs and seeps at a minimum, expanded to include:
 - All slopes 15 percent or greater that begin within the 200 foot buffer
 - All erodible soils (with a erodibility factor of 8 or greater as identified by the NRCS)
 - A minimum buffer of 50 feet from all wetlands. Buffer will be expanded to include all slopes 15 percent or greater that begin within the wetland buffer.
 - All ephemeral streams, not including roadside drainage ditches, plus an additional 50 feet. Buffer will be expanded to include all slopes 15 percent or greater that begin within 50 feet of the ephemeral stream.
2. During the week of March 21, 2014, Staff circulated a draft resolution with the purpose of conforming the proposed Plan to Council's straw votes. That draft was circulated among Council offices to determine if any changes were necessary.
 3. The March 21 draft included an undiscovered error; "wetlands" was added to the list of natural resources that required a 200 foot buffer.

4. Resolution 17-1048 did not delete the word “wetlands” from the list of natural resources that required a 200 foot buffer, even though the Council straw vote did not include all wetlands in the natural features that required a 200 foot buffer.
5. Resolution 17-1048 approved the Planning Board Draft 10 Mile Creek Area Limited Amendment to the Clarksburg Master Plan and Hyattstown Special Study Area, which amended the Approved and Adopted 1994 Clarksburg Master Plan and Hyattstown Special Study Area, as amended. The Plan also amended the General Plan (on Wedges and Corridors) for the Physical Development of the Maryland-Washington Regional District in Montgomery and Prince George’s Counties, as amended; the Master Plan of Highways and Transitways within Montgomery County, as amended; the Countywide Bikeways Functional Master Plan, as amended; and the Legacy Open Space Functional Master Plan, as amended.
6. On April 1, 2014, the Council approved Resolution 17-1048 with the unintended addition of the word “wetland” in the 200 foot buffer requirement, which created an inconsistency; in one line, the Plan recommended wetlands have a 200 foot environmental buffer for wetlands, and in a separate bullet, the Plan recommended a 50 foot buffer for wetlands.
7. The Council wants to correct the error and potential conflict to avoid unintended consequences.

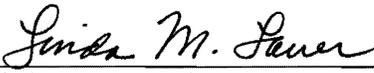
Action

The County Council for Montgomery County, Maryland, sitting as the District Council for that portion of the Maryland-Washington Regional District in Montgomery County, Maryland, approves the following resolution:

Resolution 17-1048, page 11, under “Throughout Ten Mile Creek:”, the first bullet, line 3 is corrected nunc pro tunc April 1, 2014 to read as follows:

streams and adjacent to springs and seeps, buffers must be a minimum of 200 feet, and

This is a correct copy of Council action.


Linda M. Lauer, Clerk of the Council

Clerk's Note: See Resolution 17-1167 for corrections adopted by Council on July 15, 2014.

Resolution No.:	<u>17-1048</u>
Introduced:	<u>April 1, 2014</u>
Adopted:	<u>April 1, 2014</u>

**COUNTY COUNCIL FOR MONTGOMERY COUNTY, MARYLAND
SITTING AS THE DISTRICT COUNCIL FOR THAT PORTION
OF THE MARYLAND-WASHINGTON REGIONAL DISTRICT
WITHIN MONTGOMERY COUNTY, MARYLAND**

By: County Council

SUBJECT: Approval of Planning Board Draft 10 Mile Creek Area Limited Amendment to the Clarksburg Master Plan and Hyattstown Special Study Area

1. On October 25, 2013, the Montgomery County Planning Board transmitted to the County Executive and the County Council the Planning Board Draft 10 Mile Creek Area Limited Amendment to the Clarksburg Master Plan and Hyattstown Special Study Area.
2. The Planning Board Draft 10 Mile Creek Area Limited Amendment to the Clarksburg Master Plan and Hyattstown Special Study Area amends the Approved and Adopted 1994 Clarksburg Master Plan and Hyattstown Special Study Area, as amended. It also amends the General Plan (on Wedges and Corridors) for the Physical Development of the Maryland-Washington Regional District in Montgomery and Prince George's Counties, as amended; the Master Plan of Highways and Transitways within Montgomery County, as amended; the Countywide Bikeways Functional Master Plan, as amended; and the Legacy Open Space Functional Master Plan, as amended.
3. On December 20, 2013, the County Executive transmitted to the County Council his fiscal impact analysis for the 10 Mile Creek Area Limited Amendment to the Clarksburg Master Plan and Hyattstown Special Study Area.
4. On December 3 and 5, 2013, the County Council held a public hearing regarding the Planning Board Draft 10 Mile Creek Area Limited Amendment to the Clarksburg Master Plan and Hyattstown Special Study Area. The Plan was referred to the Planning, Housing, and Economic Development Committee for review and recommendation.
5. On January 28, 2014, the County Council held an additional public hearing for the sole purpose of determining whether the Council should expand the boundaries of the Master Plan Amendment area to include the entire Historic District, even though a small portion of it is outside the Ten Mile Creek Watershed.

the Planning Board Draft 10 Mile Creek Area Limited Amendment to the Clarksburg Master Plan and Hyattstown Special Study Area.

7. On March 4, 2014, the County Council reviewed the Planning Board Draft 10 Mile Creek Area Limited Amendment to the Clarksburg Master Plan and Hyattstown Special Study Area and the recommendations of the Planning, Housing, and Economic Development Committee.

Action

The County Council for Montgomery County, Maryland, sitting as the District Council for that portion of the Maryland-Washington Regional District in Montgomery County, Maryland, approves the following resolution:

The Planning Board Draft 10 Mile Creek Area Limited Amendment to the Clarksburg Master Plan and Hyattstown Special Study Area, dated October 2013, is approved with revisions. County Council revisions to the Planning Board Draft 10 Mile Creek Area Limited Amendment to the Clarksburg Master Plan and Hyattstown Special Study Area are identified below. Deletions to the text of the Plan are indicated by [brackets], additions by underscoring.

Introduction

In October 2012, the Montgomery County Council directed the Planning Board to undertake a limited amendment of the 1994 Clarksburg Master Plan (the 1994 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] Plan recommendations. This [amendment] Amendment includes the watershed of Ten Mile Creek, which is a high quality stream within the Plan area boundaries. Ten Mile Creek drains portions of Clarksburg west of I-270, as well as part of the Town Center, approximately between I-270 and MD 355, which is now the main route through Clarksburg (see Map 1). The Amendment also includes the entire Clarksburg Historic District, even though a portion of the District is outside of the Ten Mile Creek watershed.

This [amendment] Amendment includes recommendations for achieving the desired community elements envisioned for Clarksburg in the 1994 [plan] Plan, while protecting the quality of Ten Mile Creek. These objectives required studying the extent to which land use and environmental site design could combine to help protect natural resources and maintain high water quality in the watershed. Various transportation and land use alternatives were also examined for their effect on traffic and transit services and the balance of jobs and housing.

[While this amendment] This Amendment retains the core of the 1994 Plan's vision, [it refines] refining the 1994 Plan's recommendations to better achieve two important objectives: the creation of a complete, well-defined corridor town that provides jobs, homes, and commercial activities; and the preservation of natural resources critical to the County's well-being. This Limited Amendment covers only the Ten Mile Creek watershed and portions of the Historic District outside the watershed; the 1994 Plan, as amended in 2012, continues to guide land use development in the rest of Clarksburg. Where this Limited Amendment revises or alters the underlying vision of the 1994 Plan, the text makes note of those changes.

The [amendment] Amendment further draws on the expertise of independent environmental consultants who studied the effects of several development scenarios on Ten Mile Creek’s water quality, [and] transportation consultants who evaluated the effect of land use changes on Clarksburg’s existing and planned road network and plans for transit service, and economic consultants who assessed the potential effects of land use change. These consultant reports and additional staff analysis are available in the Appendix.

The recommendations in this Amendment are designed to further the completion of Clarksburg, following the [tenets] main policies of the 1994 Plan, while taking advantage of increased knowledge about environmental protection, innovations in environmental mitigation techniques, and new zones created since approval of the 1994 Plan.

Map 1 Plan Area Boundary: Revise to reflect Council decision to expand the boundary to include the entire Historic District.

Planning Context

1994 Plan Vision

The Clarksburg Master Plan manages Clarksburg’s evolution from a rural crossroads to a vibrant corridor town surrounded by open space (see Appendix 1 for relevant excerpts from the 1994 Plan). A number of policies guide that process.

Policy 1, *Town Scale of Development*, proposes that Clarksburg develop at “a larger scale than proposed in the 1968 Clarksburg Master Plan but smaller than a corridor city such as Germantown” (page 16). The Plan implements this policy by:

- including the Clarksburg Historic District as an important component of the Town Center
- making land use recommendations that balance the need to protect sensitive environmental resources with the desirability of somewhat higher densities that can support transit service
- keeping intact the concept of a technology corridor centered on I-270, while reducing its scale
- organizing future development into defined neighborhoods that include broad mixes of housing.

From these four components, the Plan derives other important guiding policies. The *Town Center* (Policy 6) describes a mixed-use, transit-oriented central area that concentrates Clarksburg’s civic resources to define it clearly as the focus of public life in Clarksburg and creates a “Main Street” on MD 355 through the [historic district] Historic District.

Plan recommendations also recognize the importance of environmental protection (Policy 2, *Natural Environment*) by:

- recognizing the Countywide significance of the Ten Mile Creek watershed
- recommending public acquisition of stream valleys that in turn can support a *Greenway Network* (Policy 3)

- offering development guidelines for stream systems likely to experience substantial impacts, including refinements to the water quality review process required for Clarksburg's existing Special Protection Area (SPA) prior to development in Ten Mile Creek.

At the same time, Plan recommendations are premised on a comprehensive *Transit System* (Policy 4) that reduces auto dependence and targets higher densities to areas near the proposed transit line. In the Town Center, these recommendations include high technology *Employment* centers (Policy 8) at the interstate interchange and higher residential densities near transit stations. This Limited Amendment reevaluates and, through its recommendations, revises this policy.

The Plan proposes creating seven neighborhoods in Clarksburg that would be oriented toward *pedestrians* and would maintain *connections to the transit network* (Policy 7). These neighborhoods would contain a mix of uses and a diversity of housing types. They would also incorporate a *Hierarchy of Roads and Streets* (Policy 5) that would allow through traffic to bypass the developed areas in the Town Center's [historic district] Historic District, connect streets within neighborhoods for improved local movements, and include pedestrian-friendly designs for streets that link neighborhoods to through routes.

The thrust of these policies is to create a clearly defined community that would include land uses ranging from agriculture, which would contribute to *Farmland Preservation* (Policy 9) in the western parts of Clarksburg, to employment along the proposed Corridor Cities Transitway. Civic activities in the Town Center would draw residents from the neighborhoods, whose retail nodes would include grocery shopping and other routine retail needs. Community building would be managed by a *Staging Plan* (Policy 10) that would balance the provision of needed civic infrastructure with the pace of development, with a particular focus on early development of the Town Center and the need to undertake significant environmental monitoring before allowing development in the Ten Mile Creek watershed.

1994 Plan Recommendations for Ten Mile Creek

The Ten Mile Creek watershed is the principal focus of this Limited Amendment. The Amendment's recommendations reflect a re-balancing of the 1994 Plan's original visions in light of an evolving understanding of the impacts of development on sensitive natural resources like Ten Mile Creek. This section summarizes the 1994 Plan recommendations for the Ten Mile Creek District.

The 1994 Master Plan's recommendations for Ten Mile Creek [are] were based on the Plan's policy for protecting the natural environment. The 1994 Plan [takes a balance approach, relying] relied on agricultural activities and low-density residential development—with environmental best management practices—to limit impacts on water quality in the western part of the watershed. Elsewhere, the Plan recommends a series of mitigation strategies, including expanded green buffers, impervious caps on key properties, and park dedication to reduce environmental impacts. These protections allowed the Plan to recommend a broad array of land uses, including relatively high-density uses in the headwaters and medium-density residential uses between the creek and MD 121 (see Map 2).

West of I-270, the 1994 Plan [recommends] recommended:

- adding 1,800 acres west of the main stem of Ten Mile Creek to the Agricultural Reserve, creating a transition from more intense uses in the corridor town of Clarksburg to the productive agricultural lands in the western county

- residential development east of the creek, between Shiloh Church and Clarksburg Roads, fulfilling a longer-term countywide need for single-family housing and incorporating significant amounts of parkland and open space to preserve resources:
 - rural development (one unit per five acres) on about 800 acres between the creek’s mainstem and Shiloh Church Road
 - although the zone would allow up to two units per acre on about 600 acres between the creek’s mainstem and MD 121, [including lands currently owned or controlled by the Pulte Corporation, with up to] the Master Plan capped development at 900 [of those] units [possible] (one and one-half units per acre), if developed with the purchase of transferable development rights available [when] and if environmental and housing mix guidelines are met
- employment, including institutional uses, along I-270, with maximum allowable imperviousness of 15 percent and no more than 400,000 square feet of floor area on each of the two County sites to preserve natural resources. (One site has since been used for the Montgomery County Correctional Facility.)

East of I-270, the 1994 Plan [recommends] recommended:

- floating zones—the Planned Development and Mixed-Use Planned Development Zones—to encourage joint development of residential and employment uses and allow detailed analysis of proposals for conformance with Plan policies:
 - residential development at two to four units per acre in the Planned Development Zone on the Egan property near Comus Road
 - approximately 470,000 square feet of employment activities on the Miles-Coppola properties at I-270.

The property owners have not applied for the recommended floating zones.

Map 2 1994 Land Use Plan: Revise to reflect Council decisions on the Master Plan Amendment.

1994 Plan Staging and Implementation

The 1994 Plan staged development to match specific targets for the provision of infrastructure needed to support it. The Plan also provided for the evaluation of environmental protection techniques to ensure they were sufficient. The Montgomery County Department of Environmental Protection has been monitoring conditions in the Clarksburg Special Protection Area (SPA) since 1994, which includes the Stage 4 portion of Ten Mile Creek.

Staging was the Plan’s primary implementation strategy, and the Ten Mile Creek watershed was included in the last stage—Stage 4. Approval to move ahead with Stage 4 was based on two benchmarks: substantial residential development in the Town Center and Newcut Road Districts to support retail and transit, and an evaluation of water quality impacts associated with development, which could help anticipate potential effects on Ten Mile Creek.

The required biological evaluation of stream conditions to determine if measures in use were sufficient to ensure protection of Ten Mile Creek was triggered to occur after the 2,000th building permit in the Town Center and Newcut Road Districts. The Plan [indicated] stated that, once the evaluation was

complete, the County Council could allow Stage 4 development to move ahead or determine whether additional land use actions were necessary.

The 2009 publication of the County's annual report on Special Protection Area (SPA) monitoring for the year 2007 constituted the required environmental evaluation. This report documented deteriorating stream conditions in the Clarksburg SPA and offered recommendations for remedial efforts. The report further concluded that new development in the Town Center [district] District, west of MD 121 and east of MD 355, as well as ongoing construction activity at the correctional facility, had resulted in a decline [in] of Ten Mile Creek's stream conditions from good to fair between 1998 and 2007. Conditions in the Little Seneca watershed portion of the SPA also declined during the period, from good/excellent to fair.

Several factors contributed to declining water quality. External events, such as the unexpected housing crisis, resulted in construction delays, during which only sediment and erosion control structures were in place to protect water quality. This, in conjunction with large areas of disturbed land and a delay in implementing full stormwater management, resulted in altered stream hydrology and impacts to stream biology.

The 2007 report recommended stormwater management improvements in the SPA and proposed that environmental site design (ESD) be integrated into overall project design for new development. It also recommended improvements to sediment and erosion controls and limits to the amount of land being graded at any given time during construction. The report recognized, however, that stormwater management structures and facilities could not completely offset inevitable increases in impervious surfaces that accompany development.

Subsequent annual monitoring reports showed continued improvement in Little Seneca Creek subwatersheds as development in Clarksburg stabilized and full stormwater controls were implemented. However, the portion[s] of the Ten Mile Creek [sub]watershed that [have] has been most affected by development LSTM 206 remains in fair condition as measured with the County's Benthic Index of Biotic Integrity, and none of the monitored streams in the Town Center or Newcut Road Districts has returned to pre-development conditions. Consequently, in 2012, the County Council determined that a limited plan amendment was necessary to consider refining 1994 Plan recommendations [to achieve the original stated goals,] given stream monitoring findings, changes to environmental regulations, and the potential need for further safeguards to protect Ten Mile Creek while balancing [with] community building goals.

Limited Amendment Concept

This [limited amendment] Limited Amendment retains the overall vision of the 1994 Plan, but recognizes that additional environmental protection is needed to allow development to move ahead. It emphasizes environmental protection west of I-270 and provides more flexibility in achieving the community building goals east of I-270 (see Map 3). Its recommendations also acknowledge that market conditions no longer support the goal that large amounts of land in Clarksburg should be devoted to office and employment activities, which was a major vision of the 1994 Plan.

Considerable additional information about environmental conditions emerged during development of this Amendment. Information used in the development of the Plan was received from independent

consultants retained by M-NCPPC; verbal and written public testimony; and federal, state, and local government staff advice at Committee and Council worksessions. As a result, the Plan's recommendations include substantial open space requirements and environmental buffers throughout the watershed. These recommendations will extend the maximum protection practicable to Ten Mile Creek and its tributaries while responding to the goal for Clarksburg to be a "complete" community.

On the east side of I-270, proximity to the interstate and the Town Center commercial area, as well as the impact of previous development in the headwaters, offer opportunities to accommodate modest levels of residential and mixed-use development that [is] are complementary to the Town Center [district] District, and help[s] to support enhanced transit and roadway improvements while strengthening protection for environmental resources.

In the western portion of the Plan Area, the presence of significant, sensitive tributaries requires [substantially larger conservation areas, with more] limiting development to tightly-clustered residential uses that contribute to Clarksburg's community-building needs by providing options for [clustering and a greater range of] housing [types. A] choice. In addition, a large, new conservation park and a nature-oriented neighborhood park will create a focus for a new green neighborhood, connecting Clarksburg residents to this important natural resource and providing recreation opportunities [to incorporate substantial community gardens] in natural settings, including hiking, nature appreciation, picnicking, nature play, and community gardening.

Map 3 Limited Amendment Concept: Revise to reflect Council decisions on the Master Plan Amendment.

Environment

Ten Mile Creek originates just north of MD 355 (Frederick Road) and flows into Little Seneca Lake, which then flows into the Potomac River via Seneca Creek. Little Seneca Lake serves as a reservoir that provides additional water flow to the Potomac River, a public water supply, during drought periods. The portion of the watershed east of the Ten Mile Creek mainstem and north of West Old Baltimore Road is located within the Clarksburg Master Plan Special Protection Area (SPA). The Ten Mile Creek watershed within the Plan area includes approximately 3,200 acres, [11] 12 subwatersheds, and over 22 miles of streams (see Map 4). [It is important to view] This Plan views Ten Mile Creek as a complete and functioning watershed and ecosystem, including the watershed and all contributing [subwatersheds] tributaries and their drainage areas], and not just consider the potential effects to the mainstem].

Ten Mile Creek and its tributaries are designated as a Use I-P stream[—] by the state of Maryland, defined as protection of water contact recreation, aquatic life, and drinking water supply. Except for the headwater area subwatershed[s] (LSTM_206 [and LSTM202] on Map 4), which has [have] already been affected by development, Ten Mile Creek is in good to excellent condition based on stream biology (see Appendix 3 for a full report on existing conditions and environmental analyses). This is primarily due to existing conditions, which include a combination of agricultural and low-density residential development balanced by a very high proportion of dense forests and a wealth of springs and wetlands. LSTM 110 (King Spring Tributary) is considered one of the highest quality streams in

Montgomery County, as measured by the DEP Countywide stream monitoring program and in an assessment by EPA using the Biological Conditions Gradient (See Appendix 9, Attachment R).

Ten Mile Creek is a reference stream in Montgomery County, serving as a high quality benchmark against which other streams are compared. Long-term monitoring indicates overall biological conditions to be healthy and diverse. Sensitive indicator organisms that occur in few other areas within the County are found here. Ten Mile Creek is part of a small group of high quality watersheds still remaining within the County (e.g., many Patuxent River tributaries, Bennett Creek, and Little Bennett Creek). As a result of its unique characteristics, Ten Mile Creek warrants extraordinary protection.

The majority of the streams within the Ten Mile Creek watershed are small and spring fed with cool, clean groundwater. The mainstem is characterized by high concentrations of interior forest and wetlands. There is no evidence of widespread and long-term channel instability. In addition, the stream bed material is ideal to support a benthic macroinvertebrate community.

The dominant land use/land cover is forest (48 percent), followed by agriculture (38 percent), with the remainder in institutional, residential, and commercial uses. Existing imperviousness is approximately 4.1 percent. Slopes are steep and soils are generally rocky, with shallow to moderate depth to bedrock.

Methods to help protect water quality have changed significantly since 1994 and monitoring has been underway continuously since that time. The County Department of Environmental Protection reports annually on the results of monitoring in all the Special Protection Areas. These reports state that environmental protection measures, as applied to date in Clarksburg, have not prevented a deterioration in the quality of Ten Mile Creek. Environmental Site Design (ESD) represents the state of the practice for site planning and post-construction stormwater runoff management. It is also now required [in Montgomery County] throughout Maryland. However, rigorous and comprehensive implementation of ESD across or within watersheds has not occurred, nor has the practice been monitored, either in the County or elsewhere, at a scale large enough to establish likely expectations of post-development stream conditions. Impervious cover continues to be widely accepted as an indicator of the complex impacts that are difficult to model sufficiently, including pollutants such as oil, gasoline, and salt associated with roads and parking areas, and impacts to groundwater quality and quantity, as well as heat island effects and the effects of more severe storms.¹

While gaining watershed-based knowledge on the efficacy of ESD for its ecological effects beyond hydrology will be valuable, given the current lack of corroborating studies at a comparable scale, it remains prudent to include safeguards in addition to ESD to help ensure that the [good] high quality Ten Mile Creek watershed will continue to be able to sustain sensitive species and achieve [good] high quality stream conditions over most of the watershed.

Environmental analyses of various development scenarios studied for this Plan Amendment included [pollutant loadings,] hydrology (stream flow volumes), effects on specific natural resources, pollutant loadings and effects on the imperviousness in each subwatershed. An analysis (see Appendices 3 and 4) of building out the 1994 Plan showed the following impacts:

- the potential for significant increases in the total volumes of stream flow[,] (Hydrologic Analysis)

¹ Many studies have confirmed and expanded upon the work of nationally-recognized expert on imperviousness, stormwater, and water quality, Tom Schueler, and others. This information is summarized in Dr. Matthew Baker's Letter (with references) in Appendix 9, Attachment R.

- substantial impacts to specific natural resources [and] (Impacts on Resources)
- the limited nutrient and sediment loading analysis showed that post development impacts of residential uses would be similar to existing agricultural uses. Stream bank erosion, a significant source sediment, was not accounted for in the analysis (Pollutant Loading Analysis)
- [extremely large] increases of up to 10 times in imperviousness in the most sensitive subwatersheds ([LSTM202,] LSTM_110 and LSTM_111) (Imperviousness Analysis). [However, pollutant loading analysis indicated that the differences between the existing agricultural uses and proposed land uses (regardless of the scenario) would be minimal.]

The degree of modeled impacts on stream flow volumes, the amount of imperviousness, and the impacts to natural resources in the most sensitive watersheds demonstrates the importance of recommending limits [in] as part of this Plan Amendment to ensure that imperviousness does not increase above that which is [typical] protective of this very good quality stream system. It is not necessarily the impervious cover *per se* that causes observed degradation—while imperviousness has a direct impact, it is also the strongest, most detectable indicator available for [comparable land uses] the many correlated and contributing factors associated with urbanization.²

High quality subwatersheds with very low impervious cover, such as LSTM 110 (1.6 percent) and LSTM 111 (1.2 percent), are more sensitive to changes in impervious cover than watersheds like LSTM 206 (16.6 percent) and LSTM 202 (11 percent), which already have a significant amount of existing impervious cover and are showing signs of degradation. Recent studies (see Appendix 9, Attachment R) have shown that impervious cover levels as low as 5 percent are correlated with significant degradation in water quality. This Plan recommends a 6 percent impervious surface cap for new development in the most sensitive subwatersheds to minimize risk as much as possible. While it is not possible to keep all the subwatersheds at this low level without unreasonably restricting development, this Plan provides a combination of imperviousness limits and required open space protection that would keep the overall watershed imperviousness level at slightly more than 6 percent if all planned development occurs. The highest levels of imperviousness allowed in this Amendment for new development (15 percent) are permitted in the Town Center District (LSTM 206 and portions of LSTM 201), where existing imperviousness levels are already high. Various alternatives were analyzed, and the vast majority of environmental experts indicated that the impervious cover increases in this area would have a smaller environmental impact than in the subwatersheds with the most sensitive and highest quality streams and existing low levels of imperviousness (LSTM 110 and LSTM 111). The lowest levels of impervious cover for new development are allowed in the subwatersheds west of I-270, because the tributaries to Ten Mile Creek in this area are unique and among the highest quality streams in the County. Restricting imperviousness, (combined with ESD and development at or near ridgelines and away from stream channels), provides the best chance of protecting these streams. In addition, this Plan recommends expanding the environmental buffers around sensitive areas and protecting additional forest to preserve natural resources. The Plan also protects the natural ability to buffer areas to mitigate impacts, and reduces the total amount of area disturbed.

Significant protection is also afforded by the forest cover within the watershed. Maintaining and expanding the forest cover is essential to protection of water quality and habitat in the watershed. About 46% of the watershed is in forest cover, including approximately 400 acres of forest capable of supporting forest interior dwelling species (according to the Maryland Department of Natural

² See Appendix 9, Attachment R.

Resources criteria). This is one of the largest interior forest areas in the County and it could be substantially expanded by filling some key gaps in LSTM 202 and LSTM 302. The overall forest cover could be expanded to cover approximately 50% of the watershed if all the planned open space on the key developable properties is planted in forest. Additional forest cover could be achieved if developed properties and properties in the rural and RDT zones increase forest cover. While this cannot be required, incentives should be developed to encourage voluntary plantings with a goal of increasing forest cover in the watershed to 65%.

[Consequently, this] This Plan [amendment] Amendment recommends a significant increase in required [conservation areas] open space to protect sensitive resources and limits on impervious cover to ensure, in combination with Environmental Site Design, that environmental impacts are minimized in Ten Mile Creek and particularly sensitive tributaries (see Appendices 3 and 4 for details of the environmental analysis). Sustaining Ten Mile Creek's ecological [heath] health and water quality requires a combination of [efforts] actions: protecting the largest possible area of undisturbed natural vegetation, improving conditions in areas already developed or planned to remain in agricultural use, and instituting the highest standards of protection for future development areas.

Map 4 Ten Mile Creek Subwatersheds: Revise to reflect Council decisions on the Master Plan Amendment.

Imperviousness is an important factor in watershed health and affects both the water quality and many other factors. This Plan Amendment is designed to achieve an overall imperviousness goal of [approximately eight] slightly more than six percent for the entire Ten Mile Creek watershed (as shown on Map 4) and limit the development footprint to preserve sensitive natural resources. (If measured for the portion of the watershed that drains to the DEP monitoring station at West Old Baltimore Road, the potential watershed imperviousness would be approximately 6.7 percent.) Limiting imperviousness within the development footprint is important to achieving this overall goal while still allowing flexibility in the numbers, types and sizes of structures and accompanying roads and parking areas. The Amendment sets different imperviousness levels for major properties on each side of I-270 to address the unique environmental conditions in the different subwatersheds and support the Plan's land use objectives of allowing development that will support Town Center [that accommodate the proposed land use recommendations].

Recommendations

East of I-270

- [Retain the Special Protection Area for the Stage 4 area of Ten Mile Creek and establish an environmental overlay zone to limit imperviousness associated with new development.] Limit imperviousness levels to 15 percent for new development on properties [in excess of five acres in subwatersheds LSTM206 and LSTM201 to 25 percent. In LSTM202, LSTM110, LSTM111, and LSTM112 limit imperviousness for new development on properties in excess of five acres to ten percent imperviousness except for the County properties, which have different imperviousness limits] that are recommended for the proposed Clarksburg East Environmental Overlay Zone. Details of the proposed overlay zones are found in the Implementation chapter of this Plan Amendment.

- Forest Conservation Plans prepared for properties in the Ten Mile Creek watershed should protect the forest on the Miles/Coppola properties bounded by the two northernmost environmental buffer areas on the north and south, I-270 on the west, and the existing agricultural fields on the east.
- Work with the Maryland State Highway Administration to provide stormwater retrofits for any expansion or modification of I-270.

West of I-270

- Reduce the development footprint and impervious cover [west of I-270], emphasizing reduced impacts to upland forested areas and steep slopes. In particular, protect existing stream conditions in the high quality headwater subwatersheds LSTM 110 (King Spring) and LSTM 111. [In LSTM 202, reduce the extent of development on County-owned property so that existing forest is not disturbed. The recommended conservation area is shown on the land use plan (see Map 7).]
- Limit imperviousness to six percent for new development on properties recommended for the RNC zone.
- No additional impervious cover is recommended for the County-owned properties, except that the impervious surface overlay zone may be amended in the future to allow for a less than one acre expansion of the Correctional Facility.
- Require development of the Pulte/King properties to include a conservation management plan for areas outside the limits of disturbance [(but) that are not either dedicated to [the Department of Parks)] M-NCPPC for parkland or placed in a rural open space easement, if such areas are located in a development plan. This [plan] Plan should be coordinated with the Planning Department and Department of Parks to [determine the optimal mix of meadow and forest habitat and to guarantee perpetual] address management of [rural open space not dedicated to Parks. It would] natural resources, preservation of pervious land cover, and compatibility with adjacent land uses (both Parks and development area). This conservation management plan must be approved as part of [a] the preliminary or site plan for the site.
- [Require at least 175-foot wide buffers on both sides of streams. They should be expanded as required by the Planning Board's most recently amended *Environmental Guidelines for Development* to protect floodplains, wetlands, and steep slopes that extend beyond the 175 feet and to maintain natural topography and vegetation within 50 feet of zero order streams (ephemeral streams not currently regulated).]

Throughout Ten Mile Creek:

- Environmental buffers must be consistent with all regulations and guidelines. In addition, in all areas in Ten Mile Creek other than the Historic District, on both sides of perennial and intermittent streams and adjacent to wetlands, springs and seeps, buffers must be a minimum of 200 feet, and must be expanded to include:
 - All erodible soils (listed in the Planning Board's *Environmental Guidelines for Development*)
 - Wetlands that extend beyond the buffer must have a minimum 50 foot wetland buffer
 - All ephemeral streams, not including roadside drainage ditches, plus a 50 foot buffer
 - All slopes 15 percent or greater that begin within the buffers described above.
- Amend the Clarksburg Special Protection Area to include additional area east of I-270 (see Map X).
- Establish environmental overlay zones to apply the Plan's limits on imperviousness for new development and reduce development footprints to protect sensitive resources.

- Minimize disturbance of natural resources throughout the Ten Mile Creek watershed, especially forests in the headwater areas. Forest Conservation Plans prepared for properties in the Ten Mile Creek watershed should protect:
 - All forest required by the Forest Conservation Law and Regulations (includes Environmental Buffers as previously described and minimum retention requirements), as well as areas defined in this Master Plan:
 - ❖ All interior forest (as defined by the Maryland Department of Natural Resources)
 - ❖ On the Miles-Coppola properties, the forest bounded by the two northernmost environmental buffer areas on the north and south, I-270 on the west, and the existing agricultural fields on the east
 - ❖ On the Pulte/King properties, all forest adjacent to environmental buffers
 - ❖ All forest on County-owned properties.
- [Establish a forest banking program that would give additional credit for rural or RDT zoned properties in Ten Mile Creek to voluntarily establish banks for forest planting in unforested stream buffers.]
- All off-site forest planting for [Stage 4] new development should be [achieved within] located in the Ten Mile Creek watershed as a first priority.
- Explore ways to incentivize additional voluntary forest planting (via forest banks or other strategies) on rural or RDT zoned properties in the Ten Mile Creek watershed to help in reaching a watershed goal of 65% forest cover.
- [Work with the Maryland State Highway Administration to provide stormwater retrofits for any expansion or modification of I-270.]

Although additional development in Ten Mile Creek will adversely affect stream biology, it is important to retain as much stream biodiversity and overall health as possible. Because of the unusual quality and sensitivity of Ten Mile Creek, a higher level of protection than that already provided under SPA regulations is [recommended] required to help achieve this goal.

Water Quality Plans for development in the Ten Mile Creek watershed [should] must comply with the most current water quality regulations, which include ESD outfall and overflow management strategies such as:

- avoiding overflow discharges onto steep slopes
- ensuring that any overflow is safely conveyed and occurs as sheet flow to the floodplain and/or receiving streams
- managing discharges from stormwater outfalls using step-pool storm drainage conveyance systems or comparable designs, as appropriate
- minimizing environmental buffer impacts associated with ESD overflow outfalls
- minimizing the need to convey stormwater across steep slopes and forested areas and ensure any such conveyance is done in a nonerosive manner.

In addition to current SPA requirements, Water Quality Plans for development in the Ten Mile Creek watershed [should] must demonstrate the application of the following principles and strategies:

- Minimize disturbance of natural resources throughout the Ten Mile Creek watershed, especially forest cover in the headwater areas.
- Minimize direct impacts associated with new infrastructure, such as the MD 355 Bypass and sanitary sewer extensions on natural resources.

- Minimize grading the thin and rocky soils in Ten Mile Creek, which help sustain groundwater flows to the many springs and seeps, and indicate the importance of limiting grading and soil compaction as much as possible through creative site design and development staging.
- New development [should] must employ planning and zoning options and design techniques[,] which minimize impervious cover, including:
 - cluster development with smaller building footprints on smaller lots with shorter driveways
 - place houses near the front of a building envelope to reduce driveway length, and provide shared driveways, where feasible
 - design narrower streets with limited sidewalks
 - use vegetated swales to guide runoff toward ESD facilities or pervious areas instead of curbs and gutters on secondary streets, unless it conflicts with other requirements
 - limit impervious cover for cul-de-sacs by reducing curve radii and having a green space in the turn-around area
 - preserve land with a high infiltration capacity to be used for storm water infiltration or natural recharge area.
- Maintain natural drainage patterns, especially around ephemeral (zero order) streams, by:
 - preserving and designing around ephemeral streams within the limits of disturbance
 - maintaining existing natural topography and vegetation within 50 feet of ephemeral streams
 - [decompacting] de-compacting and amending soils within the limits of disturbance (LODs) with organic matter to a greater depth than currently required (this would be determined by the Department of Permitting Services as part of development plan approvals).
- Environmental Site Design (ESD).
 - As a first step, apply appropriate ESD site planning techniques within proposed development areas to maximize environmental benefits.
 - Site planning and design [should] must be guided by and integrated with the selection and appropriate location of ESD [facilities] practices to achieve the greatest watershed benefits based on an evaluation of specific site and subwatershed considerations.
 - To the extent feasible, ESD practices should minimize the [need for clearing conveyances across steep slopes and through forested areas or stream buffers] concentration of flows through sheet flow and dispersion and must ensure any such conveyance is done in a nonerosive manner.
- Require restoration of streams and wetlands adversely affected by existing uses after all development is completed in the drainage area so as to allow the hydrology to adjust to the new landscape.

Transportation

Transportation is an ongoing issue in Clarksburg, primarily because the transit network proposed in the 1994 Plan to reduce auto dependence has not yet been implemented. Recommendations included a transitway along the MD 355 Bypass (Observation Drive) and a number of bikeways. Interconnected neighborhood bus loops and park-and-ride lots were further proposed as part of this system.

The 1994 Plan also contained recommendations for roadway classifications and rights-of-way. Changes to these are not recommended in this Plan Amendment. However, the completion of many key arterials will depend on completing various development projects. Furthermore, some key links

will require expensive bridges, which are waiting for funding through the County’s Capital Improvement Program.

Area-wide analysis using the Transportation Policy Area Review (TPAR) method indicates most of the Clarksburg Policy Area’s major roads [currently] are projected to operate at [an A] a B or [B] high C level of service (LOS) at the time horizon of this Plan. MD 27 (Ridge Road) [operates] is projected to operate at [a “D”] an F level, bringing down the average for the Policy Area to a [“C”] C level of service. [However, most roads are currently underused and provide a high level of service] (see Appendix 6 for additional transportation modeling information).

All of the intersections in the Plan area [also] function at adequate levels of service under existing conditions. Although the intersection of Clarksburg Road (MD 121) and Frederick Road (MD 355) has the lowest level of service, LOS [“C”] C in both the morning and evening peak hours, traffic volumes are similar to those at Stringtown Road and Frederick Road (MD 355). Stringtown Road has more lanes, which results in greater intersection capacity (LOS [“A”] A and [“B”] B).

The following describe current transportation conditions:

- Transit service is limited to two routes and the Clarksburg Policy Area does not yet have adequate transit service in terms of two of the measures of adequacy in TPAR, coverage and peak headways. Current transit is just adequate in terms of a third measure, the span of service (the total number of hours/day that transit service is provided).
- Most travel in the area is north-south, with the east-west movements generally providing access to north-south travel routes.
- I-270 is heavily used and the directional split (the percent of traffic going either northbound or southbound) during peak hours reflects this. Typically 60 percent of the traffic goes in the peak direction, while 40 percent goes in the non-peak direction.
- MD 355 has a much higher peak to daily traffic ratio, an indication that morning trips are commuters and evening peak hour trips are a combination of commuter and local trips.

Table 1 Clarksburg Critical Lane Volumes

Intersection	Existing			
	AM		PM	
MD 121 and I-270 western intersection	A	365	A	250
I-270 and MD 121 eastern intersection	A	609	A	480
MD 355 and MD 121	C	1,225	C	1,150
MD 355 and Shawnee Lane	A	750	A	875
MD 355 and Stringtown Road	A	914	B	1,068
Gateway Center Drive and Stringtown Road	A	667	A	846

The 1994 Plan recommended a bypass to avoid significantly widening MD 355 (“Old Frederick” Road) through the Clarksburg Historic District and to provide an alternate route when emergencies cause full or partial closures on I-270 or MD 355. It would also accommodate future access to the Miles-Coppola properties and the Corridor Cities Transitway (CCT), as it transitions from Observation

Drive and then continues onto the bypass. The Plan further proposed a transit station at the intersection of the bypass and Redgrave Place.

While pedestrian and bicycle connectivity are essential to promote community cohesion and provide access to both transit and community amenities, the difficult topography, numerous stream crossings, and major roadways hinder the integration of land uses. Providing appropriate transit service for Clarksburg's residents and businesses will require a different approach than that used in other areas of the County, which are closer to employment, have higher development densities, and are better connected. Consequently, the relatively small number of potential transit users and the distances to key destinations will require an approach that relies on express and limited stop bus service to achieve reasonable travel times.

Testing future development scenarios under the Transportation Policy Area Analysis for both the 1994 master-planned land uses and land use options with the highest intensity of retail development continues to show levels of service that do not exceed the suburban policy area standard for roadway adequacy. Analyses of potential intersection congestion associated with [plan] Plan options that have the highest combination of retail uses (with the highest traffic generation rates) indicate that four intersections could exceed the standard for congestion in the study area:

- MD 355 and MD 121
- MD 355 and Stringtown Road
- Gateway Center Drive and Stringtown Road
- Observation Drive and Stringtown Road.

The intersection of a reconfigured bypass alignment and existing MD 355, north of Clarksburg Road [(MD121)], could also exceed the standard, but it could be designed as a roundabout, should proposed development result in congestion at this proposed intersection. Improvements could address congestion at the other listed intersections if determined necessary at the time of development.

Recommendations

All transportation recommendations in the 1994 Master Plan are continued, except as indicated by the following refinements to improve the transportation system (see Table 2 and Maps 5 and 6):

- The following intersection improvements are necessary to accommodate the master planned development in Ten Mile Creek:
 - MD 355 & MD 121: add an eastbound through lane on MD 121 through the intersection.
 - MD 355 & Stringtown Road: add an eastbound and a westbound through lane on Stringtown Road through the intersection.
 - Gateway Center Drive & Stringtown Road: create double left turn lanes on both the eastbound and westbound approaches of Stringtown Road; add double right turn lanes from southbound Gateway Center Drive to westbound Stringtown Road.
 - Observation Drive & Stringtown Road: add an eastbound and a westbound through lane on Stringtown Road through the intersection; create double left turn lanes and free right turn lanes on each of Stringtown Road's approaches.
- Retain the MD 355 bypass, but realign it as a T-intersection [with MD 355 near the proposed fire station] 0.3 miles south of Snowden Farm Parkway. Reduce the number of through lanes on the Bypass segment north of Clarksburg Road to 2 lanes, plus the CCT, within a 130'-wide right-of-way. This will avoid significant wetland impacts, while still providing access to [the fire station and the Miles-Coppola] developable properties. The [plan] Plan shows the original alignment as it crosses Redgrave Place. Two alternative alignments are also shown and should be studied as part

of a facility [plan] planning study when the Miles-Coppola properties develop (see Map 5). The facility [plan] planning study should [study the need for the full 150-foot ROW] determine the appropriate right-of-way south of Clarksburg Road for the bypass, considering potential modifications to the design of the Corridor Cities Transitway. If an alternative alignment is chosen, the transit station location should retain a pedestrian connection to Redgrave Place and fulfill the intent of the 1994 Plan to [connect the] extend Redgrave Place to the east so as to create a connection between the new Town Center development, [to] the Historic District, and the transit station. Set the minimum right-of-way of MD 355 from Redgrave Place to Roberts Tavern Drive at 50 feet.

- Provide additional [turn lanes or] transit service to help achieve acceptable traffic operating conditions at key intersections.
- Accommodate bus rapid transit in mixed traffic along MD 355, south from the Town Center Transit station within the Clarksburg Policy Area, and retain the CCT designation for the MD 355 Bypass.
- Provide facilities for peak period, frequent (20 minutes or less) express non-stop bus service from the Clarksburg Town Center to:
 - Shady Grove Red Line Metrorail Station via I-270 (estimated 30-35 minute travel time).
 - Germantown Town Center/Germantown MARC via I-270 (estimated 15-20 minute one-way travel time).
- Provide facilities for peak period, limited stop, Ride On service from the Clarksburg Town Center to:
 - Milestone (and future CCT stop) via MD 355 (estimated 15-20 minute travel time).
 - Lakeforest/Gaithersburg MARC via MD 355 (estimated 30-35 minute travel time).
- Provide an internal Clarksburg bus circulator, which connects activity centers east and west of I-270 with the Town Center and the CCT COMSAT station until such time that the CCT is extended to the Town Center area.
- Add bike accommodation on Comus Road between Shiloh Church Road and on Clarksburg Road between Snowden Farm Parkway and Stringtown Road.

Table 2 Street and Highway Classifications for Roads within the Ten Mile Creek Watershed³

Master Plan Roadway Designation	Name	Limits	Number of Travel Lanes ⁴ Maximum Recommended	Minimum Right-of-way Width ⁵
Freeway				
F-1	Washington National Pike (I-270)	Southern Study Area Boundary to MD 121	8 lanes	350'
		MD 121 to Comus Road	6 lanes	250'
Arterial Highways				
A-7	West Old Baltimore Road	MD 355 to MD 121	2 lanes	80'
A-251	Frederick Road (MD 355)	[A-19 to B-1 (MD 355 Bypass ⁶) Newcut Road Extended to Roberts Tavern Drive	4 lanes Divided	120'
	Roberts Tavern Drive (MD 355 Bypass ⁶)	Frederick Road (MD 355) to Observation Drive	4 lanes Divided	120'
	Observation Drive (MD 355 Bypass ⁷)	Roberts Tavern Drive to Clarksburg Road	4 lanes Divided w/transitway	150'
	Observation Drive	Clarksburg Road to Frederick Road (MD 355)	2 lanes w/transitway	130'
	Frederick Road (MD 355)	[B-1] Observation Drive to Comus Road	2 lanes w/transitway	130'
A-258	Slidell Road	Northern to Southern Study Area Boundary	2 lanes	80'
A-259	Comus Road	MD 355 to Western Study Area Boundary	2 lanes	80'
Business Streets				
B-1	"Old Frederick" Road ⁸	[Through Town Center Area] MD 121 to Roberts Tavern Drive	2 lanes	50'
B-2	Redgrave Place	Little Seneca Creek to A-260	2 lanes w/no parking inside [historic district] Historic District	70'
Primary Residential Streets				
P-3	Shiloh Church Road	West Old Baltimore Road to Comus Road	2 lanes	70'
P-5	Redgrave Place	Little Seneca Creek to A-260	2 lanes	70'
Rustic Roads				
E-1	West Old Baltimore Road	Clarksburg Road (MD 121) to Western Study Area Boundary	N/A	80'

Map 5 Proposed Roads and Transit: Revise to reflect Council decisions on the Master Plan Amendment.

³ Text highlighted indicate changes relative to the Adopted 1994 Clarksburg Master Plan.

⁴ These are the number of planned through travel lanes for each segment, not including lanes for turning, parking, acceleration, deceleration, or other purposes auxiliary to through travel.

⁵ This minimum may be increased at time of subdivision on the basis of more detailed engineering studies.

⁶ See Plan text (pages ***) for description of proposed alternative alignment options.

⁷ See Plan text (pages ***) for description of proposed alternative alignment options.

⁸ See Plan text (page **) for discussion of this road.

Map 6 Bikeways: Revise to reflect Council decisions on the Master Plan Amendment.

Land Use and Zoning

The most [appropriate] effective way to protect the unique environmental resources in the Ten Mile Creek watershed is to combine the advanced stormwater management techniques of Environmental Site Design with [efforts] actions to significantly reduce the amount of land disturbed by development. To achieve this goal, the Plan Amendment recommends a zoning pattern that encourages innovative site design as a means to limit disturbance and imperviousness. Consequently, recommended maximum dwelling units per acre are higher than impervious limits would typically accommodate using traditional site design and forms of development. Property owners are provided a great deal of flexibility regarding unit type and, where appropriate, building height, to allow them to achieve development objectives, if impervious caps can be met. Higher densities may encourage new forms of development as a means of achieving increased development potential. Full density allowed by a recommended zone may only be achieved if it does not exceed the applicable impervious surface cap in the proposed overlay zones.

East of I-270, the relationship between development in the headwaters areas and overall stream quality magnifies the tension among three important elements of the 1994 Plan's vision for Clarksburg: timely development at an appropriate scale in the Town Center, provision of employment land uses, and resource protection. The elements are not exclusive—some development can occur while reasonably protecting natural resources—but shifting development toward uses that reduce imperviousness and have less disturbance in the part of the Town Center [district] District that drains to Ten Mile Creek would provide additional safeguards.

More generally, a broad mix of uses in parts of Clarksburg can create vibrant neighborhoods that are attractive to employers, workers and residents[,] by providing jobs, amenities, gathering places and entertainment. Areas along I-270 now designated exclusively for employment are appropriate for such mixed-use development, including retail uses, which reflects changes in the demand for exclusively office uses. Mixed-use activities can support Clarksburg's development by attracting people to the area, supporting other employment and providing amenities.

West of I-270, keeping more undeveloped and forested land means reducing the development footprint—the amount of land that is disturbed by development. This [means] involves a series of potential choices that include:

- [reducing] limiting the development footprint while [maintaining] reducing development densities recommended by the 1994 Plan. This would [require] be mitigated by changes to the dwelling unit mix and higher net densities per acre to accommodate the [recommended] number of units[,but] recommended in the Plan Amendment on less land.
- retaining the generally single-family housing emphasis, while reducing the development footprint, which would significantly reduce overall development density and the number of units.

This Plan adopts the first choice as the most reasonable means to balance the need to protect the environment with achieving important land use goals for the Clarksburg Plan, while at the same time maximizing the development potential for the area West of I-270.

Recommendations for the three large, privately owned undeveloped properties in the watershed have two [objectives] aims:

- for [the] all properties, but particularly those that fall within the portion of the Town Center in the Ten Mile Creek headwaters, determining their roles in fulfilling [master plan] Master Plan objectives
- determining the size and location of protection and open space areas that should remain undeveloped, to be managed for conservation purposes and to reduce impervious areas devoted to development in the watershed, thereby reducing impacts to overall stream quality.

Map 7 Proposed Land Use: Revise to reflect Council decisions on the Master Plan Amendment.

Map 8 Proposed Zoning: Revise to reflect Council decisions on the Master Plan Amendment.

East of I-270

[The] This area lies within the headwaters of Ten Mile Creek east of I-270 and within the Town Center District of Clarksburg, comprising the western portion of that District. It includes the Egan/Mattlyn Enterprises and Miles-Coppola properties [lie in the headwaters of Ten Mile Creek, between I-270 and MD 355] along with the Historic District, and some additional properties (see Map 9). The properties outside the Historic District total [nearly 200] approximately 240 acres and [both] most are zoned R-200. The 1994 Master Plan recommended planned development floating zones for the properties—Planned Development (PD) for the Egan/Mattlyn Enterprises property and Mixed-use [planned development] Planned Development (MXP) for the Miles-Coppola properties.

The Plan did not discuss the Egan/Mattlyn property in detail, but [the] its Land Use Plan does show the property with a density of two to four units per acre. The 1994 Plan made no explicit density recommendation for the Miles-Coppola properties, stating instead that the property be designated an employment site suitable for as much as 470,000 square feet of space. This reflects its location along I-270 and proximity to a future stop along the Corridor Cities Transitway. The Land Use Plan showed approximately equal parts of the property as residential (at seven to nine units to the acre) and research and development (R&D) uses.

The water quality in the streams that drain this area, particularly in the southern portion, is already compromised by the existing development associated with the roadways, elementary school, power substation, Historic District and Clarksburg Heights. Limiting additional imperviousness in this area and, to the extent reasonable, protecting most of the existing forest, is essential to keeping the downstream effects to a minimum while supporting the Town Center District. Reducing imperviousness below the recommended limits would not significantly change the resulting water quality in the subwatershed.

Egan/Mattlyn Enterprises LLC Property

The northernmost headwaters tributary of Ten Mile Creek runs through the approximately 100-acre Egan/Mattlyn property. A second tributary traverses the eastern portion of the property. The two tributaries are in different subwatersheds of Ten Mile Creek. The property is largely open, with

sparsely wooded areas in the stream valleys, and most of the property is in turf or meadow. Its owners currently operate a catering and entertainment venue for outings and other special events. Main and support buildings are located along the ridge that separates the two subwatersheds. Topography slopes to the northwest and southeast, toward I-270. Removing the floating zone option could reduce the imperviousness that would have resulted from implementing the 1994 Plan recommendations.

The 1994 Plan [recommends] recommended residential development for the property largely because of its distance from the Town Center and the transit station. Retaining that recommendation while [limiting development] allowing up to [two] three units per [acres could reduce water quality impacts by reducing imperviousness and providing] acre, restricted by an impervious cap and substantial open space], either through master plan guidelines for a floating zone development plan or as a recommendation for] requirements, will reduce the potential impact on stream quality while maximizing development potential. Design techniques that reduce lot sizes; cluster development [in the R-200 Zone]; or flexibility in unit types can reduce the amount of land disturbance. Such a development [could also permit] pattern permits a broader array of housing types, while [including Environmental Site Design. Design techniques that reduce lot sizes or cluster development could reduce imperviousness as well] protecting sensitive resources and maintaining fair stream conditions.

Recommendations

- [Retain current recommendations for residential uses by applying residential cluster development used] Include this property in the [R-200 Zone. Establish an environmental overlay] proposed Clarksburg East Environmental Overlay zone [to limit] with a 15 percent imperviousness [of new development greater than five acres to 25 percent] limit and an 80 percent open space requirement.
- Rezone properties to R-90, with a maximum density of three units per acre (approximately a 297 unit limit), or up to 3.66 units per acre with a Moderately Priced Dwelling Unit (MPDU) bonus and flexibility regarding unit types and building heights via the overlay zone.
- Use the overlay zone to permit varied unit types, including single-family attached, single-family detached, and multi-family. This Plan recommends that maximum development yields may only be realized with units that achieve higher densities within the smaller developable area established by the imperviousness limit and open space requirement.

Map 9 Properties East of I-270: Revise to reflect Council decisions on the Master Plan Amendment.

Miles-Coppola Properties

Two branches of a headwaters tributary run through the Miles-Coppola properties and the western part drains to a second tributary. The heavily wooded stream valleys are steep and there is a significant drop in elevation across the properties from MD 355 to I-270. Topography, forest, and steep slopes create three separate developable areas that constitute about 50 percent—50 acres—of the properties, which total about 98 acres. This assumes that the MD 355 Bypass would consume a portion of the property along the northeastern edge.

These environmental and man-made constraints make it difficult to achieve the 1994 Plan's goal of promoting "a better relationship between this property and portions of the Town Center east of MD 355." The most direct route from the largest development area to the transit station location proposed in the 1994 Plan requires crossing both a stream and [MD 121] Clarksburg Road. The

distance from the center of that development area to the core of the Town Center is more than three quarters of a mile. While the central development area may be close to Redgrave Place, topography on both sides of [MD 121] Clarksburg Road will make the walk challenging for pedestrians.

Physical constraints, combined with the future roadway and transit network, suggest that the area should function independently, but in a way that supports the Town Center. While an employment focus might be desirable to achieve the goal of increasing opportunities to live and work in Clarksburg, there are significant amounts of available and yet to be developed space to the south in Germantown and the Great Seneca Science Corridor. This, combined with a weakened regional office market and more attractive and available locations elsewhere, suggests that a zone that would focus exclusively on [retaining the] employment [recommendation] for the Miles-Coppola properties would mean significantly delaying development of these properties. [Moreover, the recommended level of development and market conditions may not be able to support tall buildings with smaller footprints and parking structures that would reduce imperviousness and enhance the effect of Environmental Site Design.]

Recommendations

[Earlier development] Development of these properties could help support important commercial activity in the Town Center, [provided] if it is complementary. A five acre area close to MD 121 and the Town Center is recommended for zoning that could result in [A mix of commercial and] residential or commercial uses [could further] or a mix of uses. The remaining developable area on the property is recommended for residential uses that can provide homes to support retail in Clarksburg's Town Center. Such a pattern could provide [the types of services that today require travel outside Clarksburg. They could also provide] more variety in higher density residential uses, shopping, restaurants, and other business opportunities desired by Clarksburg residents. This [amendment proposes a flexible, but integrated mix of retail, office, and housing uses on the Miles-Coppola properties. It] Amendment recommends:

- [Commercial uses that complement, but do not compete with or encroach on the core Town Center. Retail development that requires a broader market, and amenities like restaurants and entertainment venues, could help create a separate attraction on these properties for Clarksburg residents to enjoy.]
- Including these properties in the proposed Clarksburg East Environmental Overlay zone with a 15 percent imperviousness limit and an 80 percent open space requirement.
- Directing development to two potential development areas. The southern area, located near Clarksburg Road, benefits from access to Clarksburg Road and the Town Center and, therefore, is appropriate for more intense development. The Plan Amendment recommends CRT zoning (CRT 2.0, C 2, R 2, H 120) for this area, with a residential zone (R-90) on the remainder of the Miles-Coppola property, to concentrate density and imperviousness on the southern developable area near major roads and within proximity of the Historic District and Town Center.
- Allowing housing or commercial uses on the southern developable area that complement, but do not compete with, the core Town Center. High density residential housing, lodging, or office development would all support Town Center.
- Orienting residential development on the northern developable area toward the MD 355 Bypass to take advantage of proximity to future transit and to enable residents to reach businesses or activities in the Town Center using an integrated network of roads, trails, and sidewalks.

- Concentrating and integrating development to allow more of the existing forest and natural terrain to remain undisturbed, [reducing] reduce imperviousness, and [contributing] contribute to improved water quality.
- [Establishing an imperviousness cap of 25 percent of the total tract area on properties in excess of five acres]
- [The Commercial Residential Zones off an opportunity to balance a mix of uses for each development area, while providing significant amounts of housing and commercial uses that would help implement the 1994 Plan's vision for a complete corridor town. Development on the properties should nonetheless employ Environmental Site Design techniques and preserve undeveloped open space to reduce imperviousness. Should optional method development occur, construction of the MD 355 Bypass should be considered a priority as a major public benefit.]
- [This Plan Amendment recommends CR 0.75, C 0.5, R 0.5 H 85 for these properties. Maximum building heights of 85 feet are appropriate in the portion of the properties nearer I-270, and in areas along Md 121 closest to the I-270 interchange, where buildings will be less visible from the Historic District, but not exceed 45 feet. There should also be a transition in heights on the Miles/Coppola properties, from the areas designated for lower building heights to those where taller buildings are envisioned.]
- Permitting varied unit types via the overlay zone, including single-family attached, single-family detached, and multi-family, with flexibility regarding building heights.
- Permitting a maximum density of three units per acre (approximately a 279 unit limit), or 3.66 units per acre with an MPDU density bonus on the portion of the property to be zoned R-90.
- Recognizing that maximum development yields may only be realized with unit types that achieve higher densities within the smaller developable areas created by the imperviousness limit and open space requirement.

Clarksburg Historic District and Vicinity

The majority of Clarksburg's Historic District lies within the Ten Mile Creek watershed (see Map 9). The [district] District straddles MD 355 from its intersection with Stringtown Road to west of its intersection with [MD 121] Clarksburg Road. The 1994 Plan identified the [historic district] Historic District as a focal point of the Town Center, encouraging sensitive and appropriate infill development in the [district] District as an important component of the Plan's objectives for the Town Center. The Plan includes a series of design guidelines that are designed to retain the identity of the [historic district] Historic District by reinforcing building scale and historic building patterns—structures close to the road, deep back yards, and expanses of nearby green space—that characterized the original settlement. The 1994 Plan recommended renovations of existing buildings that would allow both residential and smaller scale commercial activities, like shops and offices. To protect the [district] District, the Plan recommended reduced building heights and residential zones in the immediately adjacent areas, and recommended relocation of MD 355 to carry through trips away from the Historic District.

The existing zones in the [district] District—convenience and general commercial (C-1 and C-2) and one-family residential (R-200)—are not adequate to accomplish the 1994 Plan's [historic preservation] goals, particularly the idea of accommodating residential and light commercial uses across the entire [district] District. The Commercial Residential [Neighborhood (CRN)] Town (CRT) Zone allows densities and building heights that will encourage infill development in [tailored more precisely to] the District and will allow [Plan's land use objectives for] new uses to be introduced that may help to invigorate the [district, while supporting the Plan's recommendation to protect the scale and character

of the historic district] District. It [also] allows property owners the flexibility to rehabilitate properties for a variety of potential uses, making renovation more attractive.

[Although it is not in the Historic District, t]The area between the Miles-Coppola properties and existing MD 355 is [also] appropriate for the CRN Zone as a transition between the CRT in the Historic District and the R-90 zoning on this portion of the Miles-Coppola property. This area—nine parcels totaling about 10.5 acres—is in the C-2 and R-200 zones. The County [plans to] may build a new Clarksburg Fire Station on two of the parcels, and the remaining parcels are vacant, or improved with small homes or businesses. The CRN Zone would allow redevelopment that would complement Historic District development across MD 355 [and create a consistent physical setting along the road].

Recommendations

- Rezone properties within the Historic District to CRT 0.5, C 0.5, R 0.5, H 45.
- For new development and redevelopment within the Historic District, support Historic Preservation Commission (HPC) decisions that guide protection of Clarksburg’s historic character. This may result in limits on density or height less than the maximum allowed by the zone.
- Exclude the Historic District from the Clarksburg East Environmental Overlay Zone and the Environmental Buffer requirements in this Plan that exceed standard regulatory requirements, but encourage future development and redevelopment to minimize impervious surface area to the extent feasible.
- [This Plan Amendment recommends CRN 0.25, C 0.25, R 0.25 H 35 for the portion of the historic district within the Amendment boundary. It should be noted that the proposed revision of the Zoning Ordinance includes language exempting from density calculations those historic resources that are recommended for preservation and reuse in the applicable master plan. Contributing resources in the Clarksburg Historic District shown on the Master Plan for Historic Resources would be eligible for the exemption.]
- [Design guidelines set out for the Historic District in the 1994 Plan remain in place and should be used to direct infill development. In addition, infill or new development must adhere to district-specific guidelines found in the Master Plan for Historic Preservation.]
- The following guidelines, for use by the Historic Preservation Commission when reviewing historic area work permits, are intended to assure that infill development in the Clarksburg Historic District is supportive of the District’s development patterns and consistent with the character of the Historic District. These guidelines supersede the guidelines in the 1994 Clarksburg Master Plan.
 - Orient buildings to the street with parking behind the buildings.
 - Retain existing paving widths, locate street trees close to the pavement edge (but in a manner that allows views of significant historic resources) and provide sidewalks (particularly along both sides of Old Frederick Road), lighting, and signage appropriate to the District.
 - Road improvements and pedestrian and bicycle linkages to and through the District should be appropriate to the scale and character of the District.
 - Match the setback of existing buildings, particularly along Old Frederick Road.
 - Encourage the rehabilitation of existing buildings.
 - Encourage compatible new construction that highlights and respects historic resources around it.
 - Move historic resources only as a last resort if necessary for public capital improvements and relocate within the Historic District to the extent feasible.
 - The prominence of Hammer Hill, and the Clarksburg Methodist Episcopal Church and the open space in front of the Clarksburg Methodist Church, must not be diminished by any surrounding development.

- Encourage the maintenance of existing trees and major landscaping features.
- Encourage gateways at both north and south entrances to the District.

[This Plan Amendment recommends CRN 0.25, C 0.25, R 0.25 H 35 for the area between the Miles Coppola properties and existing MD 355.] This Plan Amendment recommends CRN 0.25, C 0.25, R 0.25 H 35 for the area between the Miles Coppola properties and existing MD 355.

Transit Station

The 1994 Plan shows a transit station where the MD 355 Bypass intersects Redgrave Place. The Plan recommends residential uses near the station at a scale sympathetic to the adjacent [historic district] Historic District, enabling local residents to walk to the transit stop. Clarksburg Elementary School is currently located in the area proposed for the station and the Plan recognizes that the school would remain for a number of years before its eventual relocation or replacement. It is important that the transit station maintain a strong pedestrian connection to the Town Center via Redgrave Place.

Recommendations

- Maintain the transitway to Clarksburg [and] in the vicinity of the Miles-Coppola properties, where it could serve [primarily residential and employment uses, as well as development east of MD 355 and west of MD 121] uses in the Town Center District.
- Two alternative alignments for the Bypass are also shown and should be studied as part of a facility plan when the Miles-Coppola properties develop (see Map 9). The facility plan should study the appropriate [need for the full 150-foot] ROW for the bypass, considering potential modifications to the design of the Corridor Cities Transitway. If an alternative alignment is chosen, the transit station location should retain a pedestrian connection to Redgrave Place and fulfill the intent of the 1994 Plan to connect the Town Center with the Historic District.

Fire station

Montgomery County has acquired a vacant, forested property within the Ten Mile Creek watershed to build a fire station. The site is directly outside the Historic District, between MD 355 and the Miles-Coppola properties. If developed as currently planned and approved, the fire station would result in 37 percent of the property with impervious cover.

Given its location at the headwaters of Ten Mile Creek, every effort should be made to explore other possible sites, either outside the Ten Mile Creek watershed or on land within the Planning Area that is already developed with impervious surfaces. Leaving the current fire station site undeveloped would not only reduce overall subwatershed imperviousness, but also would provide greater flexibility in the alignment of the planned bypass. While an extensive search for an alternate location should be conducted, if another one is not found, a fire station at the current location should not be ruled out.

Recommendation

Consider other options for a fire station, either outside the Ten Mile Creek watershed or on already developed land where building the fire station would result in a reduced amount of imperviousness. If no other site is found, allow development on the current site, but redesign the station to reduce imperviousness to the extent feasible.

Remaining Properties

Portions of the Ten Mile Creek tributaries drain several residential and institutional developments. The 1994 Land Use Plan showed three properties at the intersection of MD 355 and Comus Road as suitable for the PD Zone. These properties would have qualified for the PD Zone only as part of a single development plan with the Egan-Mattlyn property. Because this Amendment recommends the Egan-Mattlyn property for the R-90 Zone only, this Amendment eliminates the potential to use a Planned Development zone for those properties and recommends retaining the existing R-200 zoning. Five other properties, between the Egan-Mattlyn and Miles-Coppola properties (but in separate ownership), are recommended to be rezoned to the R-90 zone (as are the properties that surround them) within the overlay zone.

Recommendations

- Confirm the existing zoning for properties to the north of the Egan-Mattlyn property and rezone properties between the Miles-Coppola and Egan-Mattlyn properties to the R-90 zone. The Clarksburg East Environmental Overlay zone would apply to the portion of these properties within the Ten Mile Creek watershed.
- Rezone the one-acre Wright property (between the Miles-Coppola property and Clarksburg Road near Gateway Commons Drive) to CRT 2.0, C 2.0, R 2.0, H 120 to allow for the possibility of joint development with the portion of the Miles-Coppola property also zoned CRT.

West of I-270

Pulte and King Properties

These unique properties comprise [The Pulte Corporation owns or controls] almost 540 acres west of I-270 and between Shiloh Church and Clarksburg Roads (see Map 10). Three major Ten Mile Creek tributaries originate on the properties and two are contained almost entirely within them. The properties are a mix of woodlands and farm fields, with forest covering much of the stream valleys. The 1994 Plan recommended the properties (and two other parcels to the north [of the Pulte holdings] totaling about 65 acres) for residential development, with a number of guidelines for environmental protection and housing unit mix. The Plan designated the 600 acres as a receiving area for Transferable Development Rights, with a maximum of up to 900 units. The entire area is in the RE-1/TDR Zone. The 1994 Plan also included a staging element. The Plan required further review of the effectiveness of stormwater practices and monitoring of results from development elsewhere in Clarksburg and in similar stream systems before any development was approved in this sensitive area. The Council reserved its authority to consider other land use actions, as appropriate, based upon the results of this further review. This review has now been completed, and the analysis indicates that the proposed levels of development in the 1994 Plan would create a significant risk to stream quality in these sensitive subwatersheds.

The subwatersheds that would be affected by building out these properties are largely undeveloped, have high overall stream quality, and support many sensitive species. Any development of these properties will have a negative impact on stream quality.⁹ It is on these properties that preserving more

⁹ See Appendix 9, Attachment R.

undeveloped and forested open space [can], along with Environmental Site Design, [limit] will most effectively reduce the impact of development on water quality.

This area includes the most sensitive subwatersheds (LSTM 110 and 111) and the monitoring stations for the reference stream reach. The very low existing imperviousness and long-term agricultural uses have resulted in excellent stream conditions that have been maintained since monitoring began in 1994. Even small changes in imperviousness will likely affect the stream, but if imperviousness is kept as near 5 percent as possible, stream conditions can be maintained in the good to excellent range, based on the majority opinion of environmental experts. The stream impacts [will] should be minimized by making preservation and protection of natural resources a clear priority; maintaining natural drainage routes and patterns; minimizing imperviousness; clustering development; planting all stream buffers in forest; and minimizing grading, soil disturbance, and soil compaction.

The combination of reduced densities and cluster development could increase undeveloped open space using privately owned conservation areas in addition to parkland. The Rural Neighborhood Cluster (RNC) Zone would allow a more precise percentage of open space [—as much as 85 percent of the gross acreage—] to be required on the properties. The RNC Zone requires a significant portion of the open space to be undisturbed and contiguous. It provides an optional method of development on public water and sewer service with a range of allowable development densities up to a maximum of one dwelling unit [to the] per acre, and allows master plans to make density recommendations, enabling a more precise density designation appropriate to the properties. It also provides a standard method of development without sewer service at one dwelling unit for every five acres, should that be determined more appropriate. [The RNC Zone can be used with TDRs, retaining an important policy in support of agriculture.]

The Cephas-Summers House, a locally-designated historic resource, is located on the property proposed for development along Clarksburg Road. The current environmental setting includes the whole property, but it could be reduced to approximately five acres as part of the proposed development. The house should be restored and become part of the adjacent development.

Map 10 Properties West of I-270: Revise to reflect Council decisions on the Master Plan Amendment.

Recommendations

- Include these properties in the proposed Clarksburg West Environmental Overlay zone, with a 6 percent imperviousness limit and an 80 percent open space requirement.
- Allow optional method development [on] in the RNC Zone with public sewer, at [in the RNC/Zone for these properties, with] a [recommended] permitted density of one unit [to the] per acre], if recommended amounts of open space are provided]. Moderately priced dwelling units beyond the minimum 12.5 percent [can] would be [added] in addition to the recommended density, in accord with Chapter 25A of the Montgomery County Code, if the development does not exceed the impervious surface cap.
- Provide flexibility in the mix of housing types; allow either a blend of single-family lots and attached units or exclusively attached units as a means of achieving maximum development yields.

- Rural open space requirements:
 - Include all land meeting the Environmental Buffer requirements, as well as forest protection, listed on page X.
 - The neighborhood park recommended for this portion of the watershed may be wholly or partially within the rural open space.
 - Dedicate most of the rural open space as parkland (see recommendations for Legacy Open Space).

The following should be addressed when implementing the Rural Open Space Design Guidelines as part of the development review process for these properties:

- Concentrate cluster development in unforested upland areas; wooded stream valleys should be left intact, undeveloped, and in their natural states as rural open space.
- Reduce environmental impacts and imperviousness during development by applying ESD techniques.
- Require a conservation management plan for areas outside the limits of disturbance that are not either dedicated to M-NCPPC for parkland or placed in a rural open space easement, if such areas are located in a development plan. This conservation management plan should be coordinated with the Planning Department, the Department of Parks, and the Department of Environmental Protection to address management of natural resources, preservation of pervious land cover, and compatibility with adjacent land uses (both Parks and development area). This conservation management plan must be approved as part of the preliminary plan for the site. Direct new sewers away from Ten Mile Creek, utilizing proposed and existing roads; pump stations may be required to make connections to sewer lines in Cabin Branch.
- [Provide substantial variations in lot sizes, as required by the RNC Zone's development standards.]
- Size and locate lots to preserve rural views from Clarksburg Road and ensure an environmental setting of five acres for the historic Cephas-Summers house. Include restoration of the Cephas-Summers house in a development plan.
- Incorporate open space into the clustered community to provide neighborhood residents with recreational opportunities.
- Provide [connections] access from public roads within the development to the proposed Ten Mile Creek Conservation [Park's] Park to facilitate the creation of trailheads for natural surface [trail system] trails and allow park maintenance access.
- [Allow forest planting in buffers (required by Special Protection Area regulations) in excess of the forest conservation threshold to be used as a forest bank. The credits could be used for development projects or sold.]

Montgomery County Properties

Montgomery County owns more than 380 acres in the upper reaches of the Ten Mile Creek watershed (see Map 10). The majority of this land, known in the 1994 Plan as Site 30, now houses a County correctional facility. The majority of the property is heavily wooded, and the County has no development plans beyond a planned expansion of the correctional facility. The Parks Department has identified [almost all] most of this wooded area as a [suitable for acquisition through the] Legacy Open Space [program] Natural Resource that is suitable for transfer to Parks as a key part of the Ten Mile Creek Conservation Park.

Two parcels totaling about 94 acres are located at the I-270 interchange with [MD 121] Clarksburg Road. The headwater branches that originate on the Miles-Coppola properties combine on one of the

County properties to form a headwater tributary. Several smaller streams feed the tributary on these properties and the steeply sloped stream valleys are heavily forested.

[The 1994 Plan identified these properties as an employment site, recommending them for no more than 400,000 square feet of space and applying a 15 percent imperviousness cap. They are in the Technology and Business Park (I-3) Zone.]

The County has considered the site for its north county bus maintenance and storage facility, but has no current plans for the properties. Montgomery County government commits to keeping this site fully pervious with no development. The Parks Department has identified [the wooded stream valleys for acquisition under the] areas of this site as a suitable Legacy Open Space [Program, which] Natural Resource. It would [reduce imperviousness and enhance water quality] be appropriate to have its management transferred to Parks as part of Ten Mile Creek Conservation Park.

The remaining County property surrounding the Detention Center is planned for only a small expansion of the existing facility. This plan intends to accommodate the planned expansion, but limits further development on the site.

Recommendations

- Include this area in the Clarksburg West Environmental Overlay Zone with no additional imperviousness permitted. Minimal development of this property would help contribute to water quality in this portion of the watershed. Forested areas should remain undisturbed and the designated [western] portion protected [via] under the Legacy Open Space Program.
- No additional impervious cover would be permitted on County owned land west of I-270. However, the Clarksburg West Environmental Overlay Zone may need to be amended at some point to allow a minimal amount of imperviousness associated with an expansion of the Correctional Facility of less than one acre.
- Transfer management of areas designated as Legacy Open Space and other appropriate open space in County ownership to the Parks Department to create the northern portion of the Ten Mile Creek Conservation Park.
- [If the County chooses to develop the land, limit imperviousness to eight percent on the former depot site.]
- [Imperviousness on the remaining County properties is limited to 4.5 percent.]

The Rural Properties and the Agricultural Reserve

The rurally-zoned properties and the Agricultural Reserve are not proposed for change in this limited [master plan] Master Plan. The rural zoning allows up to one unit per five acres on properties between the mainstem of Ten Mile Creek and Shiloh Church Road. The Agricultural Reserve Rural Density Transfer Zone allows only one unit per 25 acres. There are currently portions of stream buffers on properties in both areas that are not maintained in forest that could benefit from a voluntary forest banking program. Protection and restoration of these buffers at the discretion of the property owners would help in the overall health of the Ten Mile Creek watershed. Some portions of the rural properties should be protected through the Legacy Open Space Program if development is proposed.

Recommendation

- Retain the existing zoning in these areas.

- Include the Rural-zoned properties in the Clarksburg West Environmental Overlay Zone to limit imperviousness associated with special exceptions and institutional uses.
- [Establish a forest banking program that would give additional credit for rural or RDT-zoned properties in Ten Mile Creek to voluntarily establish banks for forest planting in unforested stream buffers.]
- Explore incentive programs to encourage voluntary forest planting, particularly in unforested stream buffers.

Water and Sewer Service

The 1994 Master Plan recommended the provision of public water and sewer service in the Stage 4 area of Clarksburg based on its initial zoning recommendations. This Plan Amendment continues to recommend public services to support the planned development for Stage 4. Specifically, public water and sewer service is recommended for the area identified as “Future Service Area C” in the 1994 Plan, which includes Stage 4, to support planned development densities, including recommended cluster development. The provision of public sewer service will help to reduce the potential for existing and future septic systems to impact the watershed. Public and individual water supply and wastewater disposal service in the master plan area is recommended to be provided in a manner consistent with the service policies included in the County’s *Comprehensive Water Supply and Sewerage Systems Plan*.

Properties within the Plan Area not already receiving public service or recommended for public service are expected to use individual, on-site water supply and/or sewerage systems (wells and septic systems).

The Ten Mile Creek watershed has no receiving sewers downstream of the Stage 4 area. Wastewater flow from the majority of Stage 4/Future Service Area C will need to be pumped out of the watershed into sewerage systems serving adjacent Stage 3 development. The *Clarksburg Stage 3 and 4 Area Facility Plan*, prepared for the Washington Suburban Sanitary Commission (WSSC), anticipated the need for planned Stage 3 area sewerage facilities to accept and handle pumped wastewater flows from Stage 4. Environmental concerns and competing development interests within Stage 4 could result in individual proposals for several wastewater pumping facilities scattered throughout the sewer service area. To minimize infrastructure operation and maintenance needs, and to create a logical, efficient, and environmentally responsible sewerage system for Stage 4, this amendment recommends WSSC’s coordination of a comprehensive Stage 4 sewerage facility plan, with the participation of all major Stage 4 development interests. If necessary, this requirement should be incorporated into service area category change approvals for the Stage 4 sites.

The lack of public sewer service, needed to replace aging septic systems, has hampered improvement and redevelopment of the Clarksburg Historic District, an integral part of the Town Center. The County is investigating the design and construction of a public sewerage system to serve the historic district. If this sewerage system is constructed ahead of other Ten Mile Creek development, it would include a small, interim pumping station and force main tying into the Town Center system. This interim station and force main would be removed from service when gravity sewer service becomes available from the Miles-Coppola property. Planning and development of the Miles-Coppola project sewerage system will need to include, at a minimum, a gravity main extension to accept wastewater flows from the historic district.

The Council received a substantial amount of public hearing testimony and correspondence regarding the potential impact development in the Ten Mile Creek watershed could have on the Little Seneca Reservoir and drinking water in general. In response to these concerns, the Council heard from WSSC staff, DEP staff, and the Executive Director of the Interstate Commission on the Potomac River Basin (ICPRB).

Both DEP and WSSC staff stated that based on the environmental consultants' analyses, the development under consideration in the Ten Mile Creek watershed would not have a significant impact on the Little Seneca Reservoir or on drinking water quality. However, DEP staff did note that a study of the long-term health of the reservoir (taking into account all of the watersheds draining into the reservoir) would be worthwhile.

Recommendations

- [Approve amendments for public water and sewer service for the Stage 4 area (Future Service Area C) of Ten Mile Creek in the County's Water and Sewer Plan. Include a requirement for a comprehensive Stage 4 sewerage system facility plan. WSSC service and financing policies will require construction of needed water and sewer facilities as part of the development process by the property owner.]
- Approve a comprehensive category change amendment to the County's Ten-Year Comprehensive Water Supply and Sewerage Systems Plan to support the extension of public water and sewer service to all of the properties in the Ten Mile Creek Area Limited Amendment which are recommended to be zoned R-90, R-200, CRT, CRN, and RNC. A comprehensive category change amendment is consistent with the 1994 Master Plan which recommended that future Water and Sewer Plan amendments be of a comprehensive or area-wide nature only. Include as a condition of the approval of the amendment, a requirement for a comprehensive sewerage system facility plan to serve recommended service areas in Ten Mile Creek. WSSC service and financing policies will require construction of needed water and sewer facilities by the property owner as part of the development process.
- Locate sewer main alignments and pumping station sites to minimize, as feasible, disturbance of environmental buffers and forested areas.
- The 1994 Master Plan includes the Clarksburg Historic District within the proposed sewer service area. The Limited Master Plan Amendment continues to support this recommendation.
- While approval of water and sewer service to nearby properties (as recommended by the Ten Mile Creek Area Limited Amendment) may make sewer service more economically feasible in the Clarksburg Historic District, it is uncertain when such extensions would occur and the costs to extend sewer may still be prohibitively expensive for property owners in the Historic District. Given the immediate concerns of property owners in the Clarksburg Historic District, and that public sewer service is needed to realize the County's land use goals in the area, the County should work with WSSC on a project to extend public sewer to properties in the Clarksburg Historic District as soon as possible and in a manner which is affordable to property owners.
- This Plan supports a study of the long-term health of the Little Seneca Reservoir (encompassing the land use impacts from all of the watersheds draining into the Reservoir). The details of such a study, such as the scope and who would lead and pay for the study, should be discussed by the Reservoir's regional partners (WSSC, Fairfax County Water Authority, Washington Aqueduct, and the Interstate Commission on the Potomac River Basin) and Montgomery County.
- [Provide sewer service to the Historic District as part of the Stage 4 development, including at a minimum, the removal of interim wastewater pumping facilities in favor of gravity sewer service.]

Parks

Legacy Open Space

Montgomery County preserves its most significant undeveloped open space through its Legacy Open Space program. The 2001 *Legacy Open Space Functional Master Plan* identifies natural resources, open space, farmland, and historic places that can then be conserved through a variety of protection tools, including easements, protection through the regulatory process and, when appropriate, acquisition. The Plan includes the Special Protection Area of the Ten Mile Creek watershed as a Natural Resource site that meets Legacy Open Space criteria, but needs further study to select specific properties.

Evaluation of the Ten Mile Creek watershed concluded that the 600 acres of forested headwaters met six of the eight criteria for inclusion in the Legacy Open Space program. The forest:

- “has particular countywide, regional or national significance” for its potential ability to support rare, threatened or endangered species, aquatic communities, and its varied habitats;
- “is critical to the successful implementation of public policy such as protection of the Agricultural Reserve and public water supply;”
- “is part of a ‘critical mass’ of like resources that perform an important environmental or heritage function;”
- “provides human or ecological connectivity between significant park, natural or historic areas and/or corridors;”
- “helps to buffer and thereby protect other significant resources;”
- “represents an opportunity for broadening interpretation and public understanding of natural and heritage resources.”

Recommendations

- Designate the high quality, critical forest and open habitats that protect the quality of the Ten Mile Creek headwaters as a Legacy Open Space Natural Resource site (Class II). Approximately 1,230 acres are proposed for designation (see Map 11).
- Protect the designated Natural Resource on an individual property basis using a variety of tools, which may include easements, dedication through the development review process, and fee simple acquisition.
- To create the core of the Ten Mile Creek Conservation Park, [convey] dedicate to Parks the Rural Open Space outside of the development envelope on the Pulte and King properties as a condition of the development review process. Land not available through dedication during the development review process may be acquired by the Department of Parks.

Map 11 Proposed Legacy Open Space and Parks: Revise to reflect Council decisions on the Master Plan Amendment.

Parks and Trails

The 1994 Plan created a park and open space system that designated general locations for new local parks serving Clarksburg's developing neighborhoods and were closely integrated with proposed development. Importantly, the Plan also made provisions for connections between these local parks and the greenway network as a prominent component of its overall vision. However, since park planners did not anticipate the significant development west of I-270 that was ultimately approved as part of the 1994 Plan, no local park was included in the Ten Mile Creek watershed.

Since approval of the 1994 Plan, park planners have recognized the emerging importance of natural resource areas as a form of recreation. Bicycling, hiking, and horseback riding, as well as activities such as wildlife and bird watching or nature photography, all depend on the availability of large amounts of undisturbed forests and other natural areas. The substantial forests, steep stream valleys, and high ridges of the Ten Mile Creek watershed west of I-270 can be used for such purposes and be reached using sensitively located trails through the already proposed conservation park and greenway system (see Map 12).

Also, since approval of the 1994 Plan, the *Legacy Open Space Functional Master Plan (2001)* designated and the Parks Department acquired Clarksburg Triangle Civic Green as an urban open space. The site is located in the heart of the Historic District on the east corner of Clarksburg Road and MD 355. Planning and implementation for this central civic space within the Town Center District will need to be coordinated with other public infrastructure planning for Clarksburg, including the CCT, water and sewer provision, and road and bikeway improvements.

Recommendations

- Provide a countywide natural surface trail, designed to M-NCPPC Montgomery Parks standards, in the Ten Mile Creek area linking Little Bennett Regional Park and Black Hill Regional Park, per the *Countywide Park Trails Plan (2008)* and the 1994 Clarksburg Master Plan.
- Provide five trailheads, designed to M-NCPPC Montgomery Parks standards, to access the Ten Mile Creek natural surface trail and nearby natural areas for park users and operations staff.
- Provide a new natural resource-based Neighborhood Park of at least ten developable acres for close-to-home recreation for the Ten Mile Creek area, designed to M-NCPPC Montgomery Parks standards. The park, located outside of environmentally sensitive areas, is recommended as a platform for walkable, close-to-home facilities and to serve as a trailhead for the Ten Mile Creek natural surface trail. The park should have a natural resource theme and should be located adjacent to conservation parkland. The proposed Preliminary Program of Requirements for the Neighborhood Park is as follows:
 - Access to the Conservation Park to the west for trail users and operations, maintenance and police functions from the development
 - Trailhead with small gravel parking area (6-8 spaces), with access through adjacent development
 - Picnic area
 - Natural play area
 - Community garden
 - Community open space large enough for community festivals and pickup sports, at least 15,000 square feet
 - Adequate space to provide for Environmental Site Design, Stormwater Management, Forest Conservation, and other regulatory requirements. Ensure that public infrastructure planning for

Clarksburg is fully coordinated with planning and implementation efforts for Clarksburg Triangle Civic Green.

Appendix 7 includes additional information in support of these recommendations.

Implementation

Although this Amendment is limited in scope and geography, its implementation nonetheless requires cooperative efforts by a number of private and public actors. This chapter indicates follow-up efforts that are needed once the Plan is adopted.

[Areawide] Overlay Zones

This Amendment recommends limiting imperviousness, establishing open space requirements for new development both east and west of I-270[. Previous efforts to impose such caps in the Upper Paint Branch] and changing some development standards of the underlying zones in order to maximize development flexibility and protect sensitive natural resources [Upper Rock Creek watersheds have used environmental overlay zones to apply the caps]. This Amendment recommends creation of [similar] overlay zones to [impose] establish a [25] 15 percent imperviousness limit on new development in the Town Center portion of the watershed, a [ten] six percent limit on the Pulte-King properties, and no additional imperviousness [limits of 4.5 percent and eight percent] on County-owned land. [Properties of less than five acres] Very small properties will be exempt from imperviousness limits in the [Town Center under the] overlay zones.

The purpose of these zones is to preserve and protect sensitive natural resources in the watershed by reducing the amount of land disturbed for development. Limiting impervious surfaces enables natural filtering of water runoff[,] and creates undeveloped open space that can be forested, which can help support cooler water temperatures and a diverse population of insects and invertebrates within streams.

Overlay Zone Boundaries

Each overlay zone covers a large area, rather than only the key properties identified in the Master Plan. While some of the other properties are likely to develop at less than the limits in the overlay zone, including them within its boundaries will reduce/limit development that could result in significantly more imperviousness. For example, development in the rural zone west of I-270 could result in individual homes that have an imperviousness of less than 6 percent, but if an institution or special exception use were to purchase the property, the imperviousness could be significantly greater than 6 percent. On the east side of I-270, all properties in Ten Mile Creek, except those in the Historic District, would be within the boundary with exemptions for State and County roads and bikeways. Park property within the Ten Mile Creek Watershed that was not within the Master Plan boundaries will also not be in the overlay zone, but the Department should do everything feasible to limit additional imperviousness. On the west side, all land draining to Ten Mile Creek not zoned Rural Density Transfer (RDT) would be included. In both zones, small properties existing at the time of this Amendment that develop without combining into larger developments would be exempted from the restrictions of the zone.

The Clarksburg East Environmental Overlay Zone

Details regarding the overlay zone are addressed in the overlay zone for the east side of I-270. The major elements are as follows:

- Impervious surface area limit of 15 percent of the area within a development application (with a grandfathering provision for properties already exceeding the cap)
- 80 percent open space (which should include all environmental buffers and sensitive areas identified in the Master Plan)
- All base zones other than R-90 will adhere to the standards of the underlying zones.
- For properties with a base zoning of R-90, the requirements of the R-90 zone will be modified by the overlay as follows:
 - Density limited to 3 units per acre or 3.66 units per acre with the maximum MPDU bonus
 - Any unit type with no requirements for any minimum percentages of unit type should be allowed
 - Building height limits increased to 35 for single-family detached, 50 for townhouses, and 65 for multi-family
 - Site plan approval should be required
 - Setbacks and minimum lot size requirements should be eliminated
- Exempt small properties from some or all provisions of the overlay zone.
- Consider limited potential exemptions for limited public facilities, such as state and County roads and park facilities.

The Clarksburg West Environmental Overlay Zone

The major elements in the overlay zone proposed for the west side of I-270 are as follows:

- Will follow all standards and requirements of the RNC zone (which are designed to encourage clustering to protect environmental resources), except those relating to diversity of lot size and unit type
- Impervious Surface Area limit of 6 percent of the area within a development application; specific properties to be limited to 0 percent (mostly government-owned or with easements, with a grandfathering provision for properties already exceeding the recommended impervious surface limit)
- 80 percent open space (which should include all environmental buffers and sensitive areas identified in the Master Plan)
- Exempt small properties from some or all provisions of the overlay zone.
- Consider limited potential exemptions for public facilities, such as state and County roads and park facilities associated with conservation parks (e.g., small parking lots).

It is possible that the overlay zone may be amended at a future time to accommodate less than 1 acre of Correctional Facility expansion.

Sewer and Water Implementation Actions

The 1994 Clarksburg Master plan stated that “Subsequent Water and Sewer Plan amendments be of a comprehensive or area wide nature only...” Accordingly, this Master Plan Amendment reconfirms this intent for the Ten Mile Creek Area. These amendments will require Council approval consistent with

the policies of the Comprehensive Water Supply and Sewerage Systems Plan and the Comprehensive Sewerage System Study called for in this Master Plan Amendment.”

[East of I-270]

Of particular importance to development in the Town Center [district] District generally, and the Clarksburg Historic District in particular, is the timely provision of sewer service. Infill development and rehabilitation of existing historic buildings for residential, commercial or mixed-use activities cannot occur until sewer service is available to properties along MD 355. Although planning for interim solutions for service to the Historic District is underway, a permanent solution is critically needed. This Amendment recommends inclusion of facility planning funds for sewer infrastructure to the Historic District at the earliest possible date. Should the Miles-Coppola properties develop in ways that facilitate an earlier provision of sewer service, private sector involvement in facility planning and implementation is welcome.

Other Implementation Actions East of I-270

This Amendment includes recommendations for the MD 355 bypass and for a transit station along the bypass that would serve bus rapid transit riders. The Plan shows alternative alignments for the bypass and suggests consideration of alternative locations for the transit station that could reduce impervious surfaces in this part of the watershed, as well as support connections among the Town Center, the Historic District, and the Miles-Coppola properties. This Amendment recommends a facility plan for the bypass to address these issues and to evaluate potential relocation of both the historic Clarksburg School and the existing Clarksburg Elementary School, which lie in its path. The proposed facility plan should also consider appropriate rights-of-way for Observation Drive (A-19), which will include the transit alignment. Right-of-way widths should be reconsidered in light of the shift in mode from light rail to bus rapid transit. Any change to the right-of-way alignment or width can be incorporated into an amendment of the Master Plan of Highways. Design guidelines should be developed for facility planning for the bypass.

[Given changes in land use assumptions in support of community building goals, this plan also recommends a fresh look at the currently approved fire station plan:

- Consider an approach that better integrates the station and its design into the context of future development.
- Consider including other co-located public uses and functions.]

Other Implementation Actions West of I-270

This Plan recommends locating a natural resource-based neighborhood park for this part of the watershed. Designation of an appropriate place for the park will occur through the regulatory review process. It may be accomplished through dedication during the development review process or fee simple acquisition.

As part of its forest conservation programs, Montgomery County has established forest banks, which can be used to support voluntary planting of trees in areas—particularly stream buffers—that are currently unforested. Development projects take advantage of these banks to offset other forest conservation requirements. This Amendment recommends [creation of a forest banking program that would give credit to] creating a program to provide incentives for property owners in the Rural and Rural Density Transfer zones [who] to plant new forests on their properties, particularly in currently

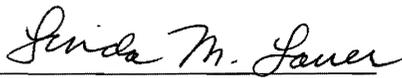
unforested buffer areas [on their properties. The credits could be used for development projects or sold].

General

All illustrations and tables included in the Plan are to be revised to reflect District Council changes to the October 2013 Planning Board Draft Plan. The text and graphics are to be revised as necessary to achieve clarity and consistency, to update factual information, and to convey the actions of the District Council. All identifying references pertain to the Planning Board Draft.

The Planning Department should work with Executive Branch Departments, including the Department of Environmental Protection and Department of Permitting Services, to take all actions necessary to implement the recommendations in this Master Plan (such as a comprehensive sewer and water category change). In addition, these agencies should identify any changes in regulation or law necessary to implement the Master Plan recommendations.

This is a correct copy of Council action.



Linda Lauer, Clerk of the Council

Approved and Adopted

July 2014

10 Mile Creek Area Limited Amendment

Clarksburg Master Plan and Hyattstown Special Study Area



032000003



Montgomery County Planning Department
M-NCPPC

MontgomeryPlanning.org