



Staff Draft July 2013
10 Mile Creek Area
Limited Amendment
Clarksburg Master Plan and Hyattstown Special Study Area

Montgomery County Planning Department
M-NCPPC
MontgomeryPlanning.org

Clarksburg Limited Master Plan
Public Hearing Draft
Planning Board Worksession #2
October 10, 2013

Schedule

- ✓ 7/22- Planning Board Tour
- ✓ 7/22 Community Meeting to review Staff Draft Recommendations
- ✓ 7/25 – Planning Board review of Staff Draft Plan
- ✓ 9/10 – Public Hearing
- ✓ 9/26 – Planning Board Worksession #1
- 10/10 – Planning Board Worksession #2
- 10/24 Transmit Planning Board draft to County Executive and County Council
- December –Council Public Hearing
- January-February – County Council Worksessions, Council approval
- February-April – Commission Adoption, Sectional Map amendment



Topics

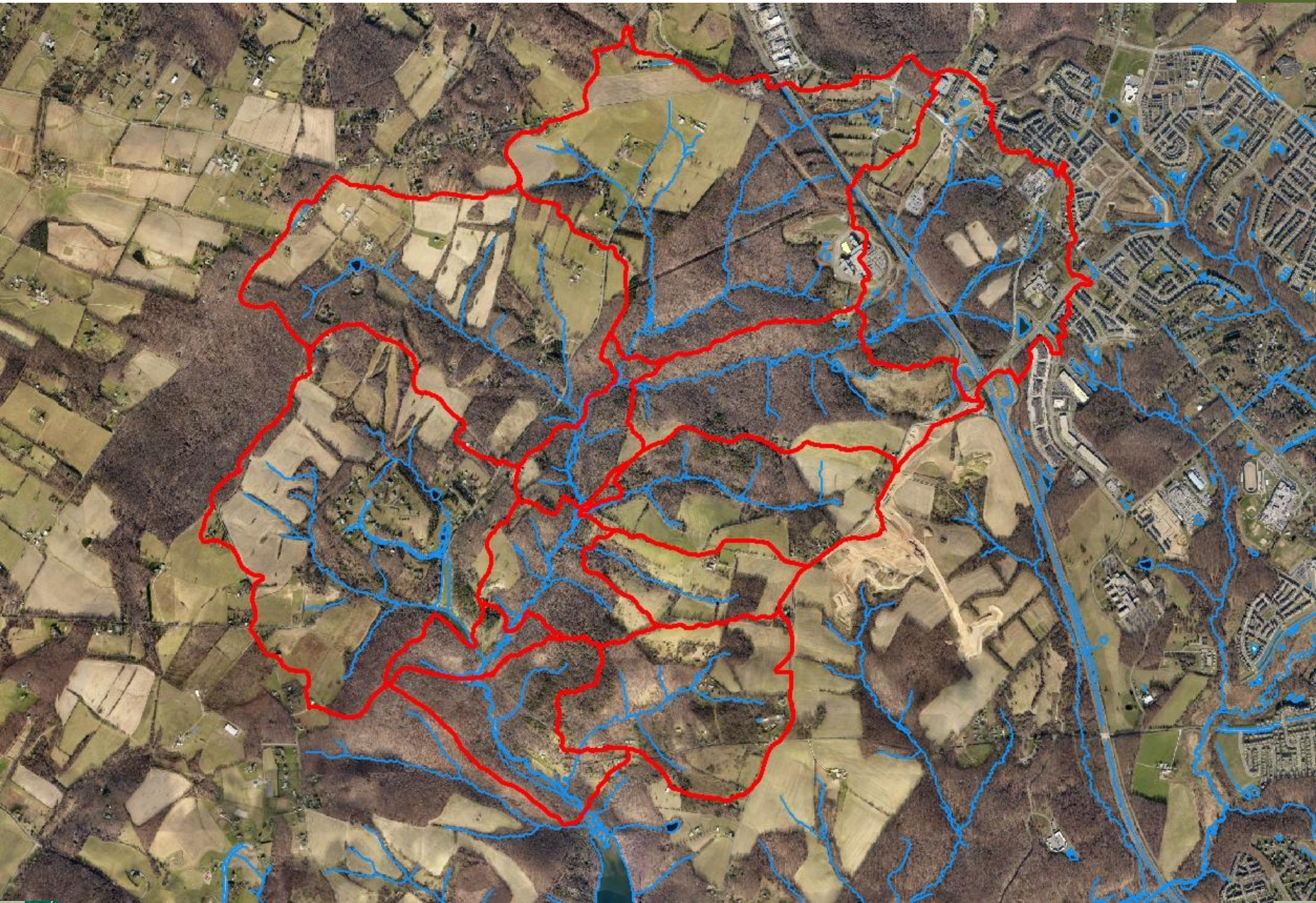
- Recap of Worksession #1
- Land Use Options
 - West of I-270
 - East of I-270
 - Historic District
- Transportation Issues
- Remaining Environmental Issues
- Parks Recommendations
- Implementation



Recap of Worksession #1

- Based on the fact that Ten Mile Creek is a very high quality reference stream in Montgomery County, it warrants protection through the application of impervious caps in conjunction with other measures, including ESD
- The methodology used to prepare a planning level analysis was properly vetted with multiple County, State and Federal agencies, including the EPA and determined appropriate
- To provide protection, an imperviousness level of approximately 8% should be maintained for the watershed
- Little Seneca reservoir is not a direct drinking water source, however, development that maintains good water quality in Ten Mile Creek will protect the reservoir as part of the WSSC system





Additional Alternative Assessment

- Board asked us to look at increasing density on the Pulte property with a possible change in the mix of unit types, still achieving the 8% overall watershed imperviousness
- Established criteria for protection
 - Maintain 8% overall watershed imperviousness
 - 175 foot environmental buffers expanded per the Environmental Guidelines
 - All forest as determined in the NRI/FSD
 - 50-foot buffer on ephemeral streams outside regular environmental buffer
 - 10% maximum imperviousness
 - 65% minimum undeveloped open space

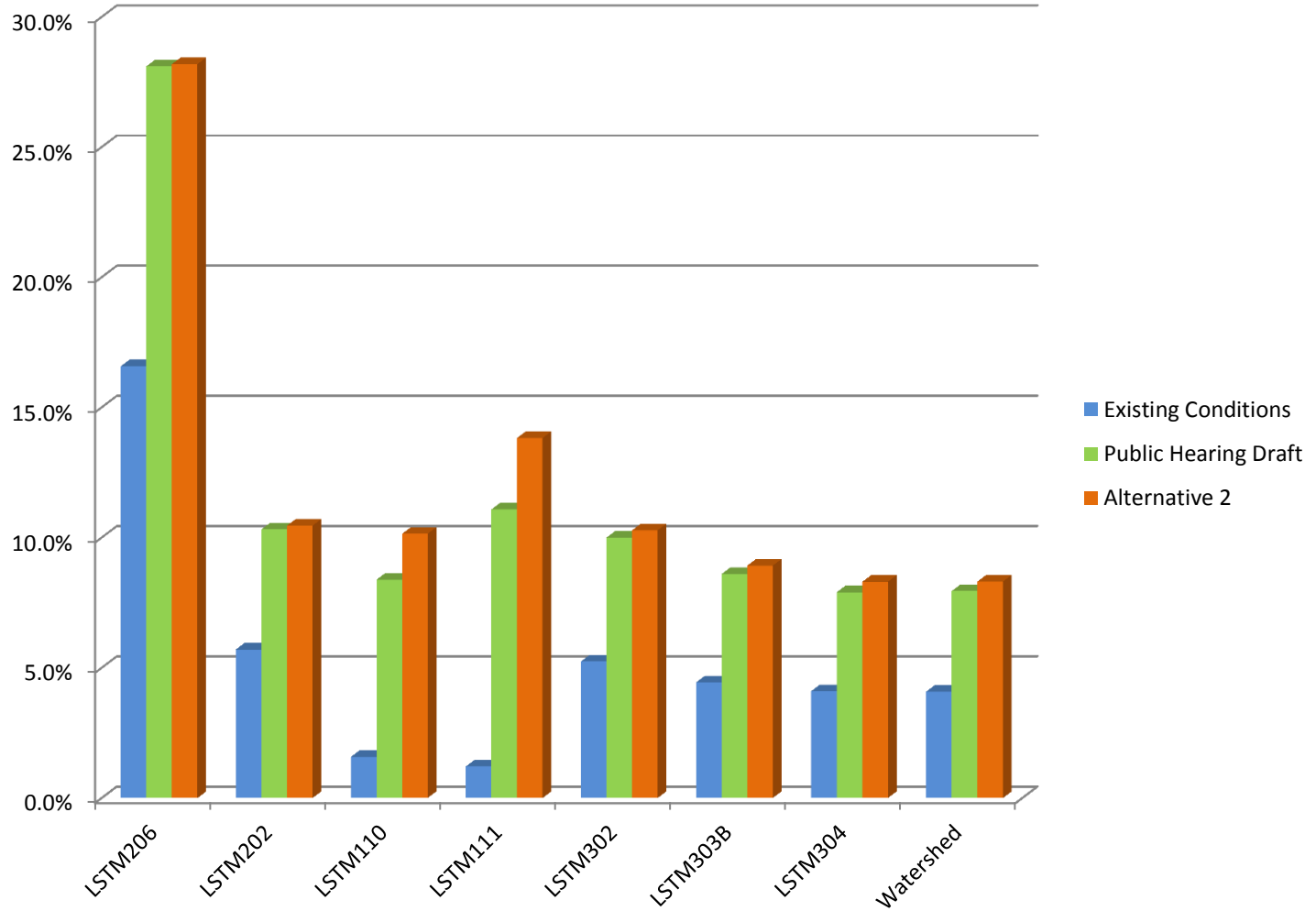


Options Summary

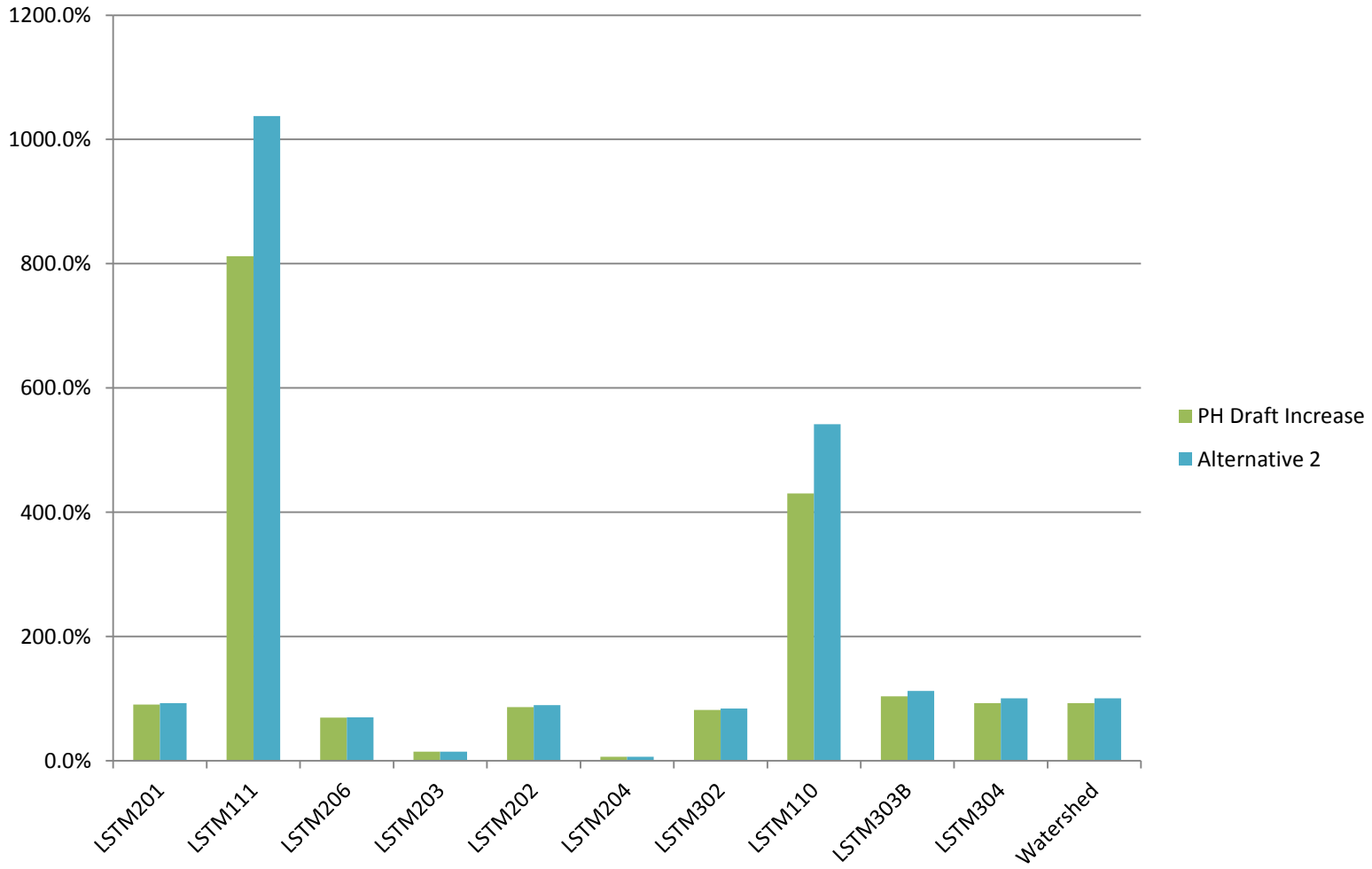
	No Build	6% Spread	6% Concentrated	PH Draft	Alternative 2	Developers Requests
Egan	Park	RC	RC	R200	R200	R200
Miles/Coppola	Park	RC	CR	CR	CR	CR
Fire Station	Build	Build	Build	Build	Build	Build
Historic Dist.	Build	Build	Build	Build	Build	Build
Bypass	No	No	Build	Build	Build	Build
Clarkwood	No Dev	No Dev	No Dev	No Dev	No Dev	No Dev
Public Sewer HD	County	County	Developer	Developer	Developer	Developer
County Depot	5%	6.5%	6.5%	8%	RNC	RNC
County Detention	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
Pulte	RDT	RC	RDT	RNC (8% cap)	RNC (10% cap)	RE1/TDR
Impervious in LSTM110 , 111	1.6%, 1.2%	6.4%. 6.4%	5%, 5.5%	8.4%, 11.1%	10.1, 13.8%	17%
Overall Imp.	4+%	6+%	6+%	7.6%	8.0%	10.6%



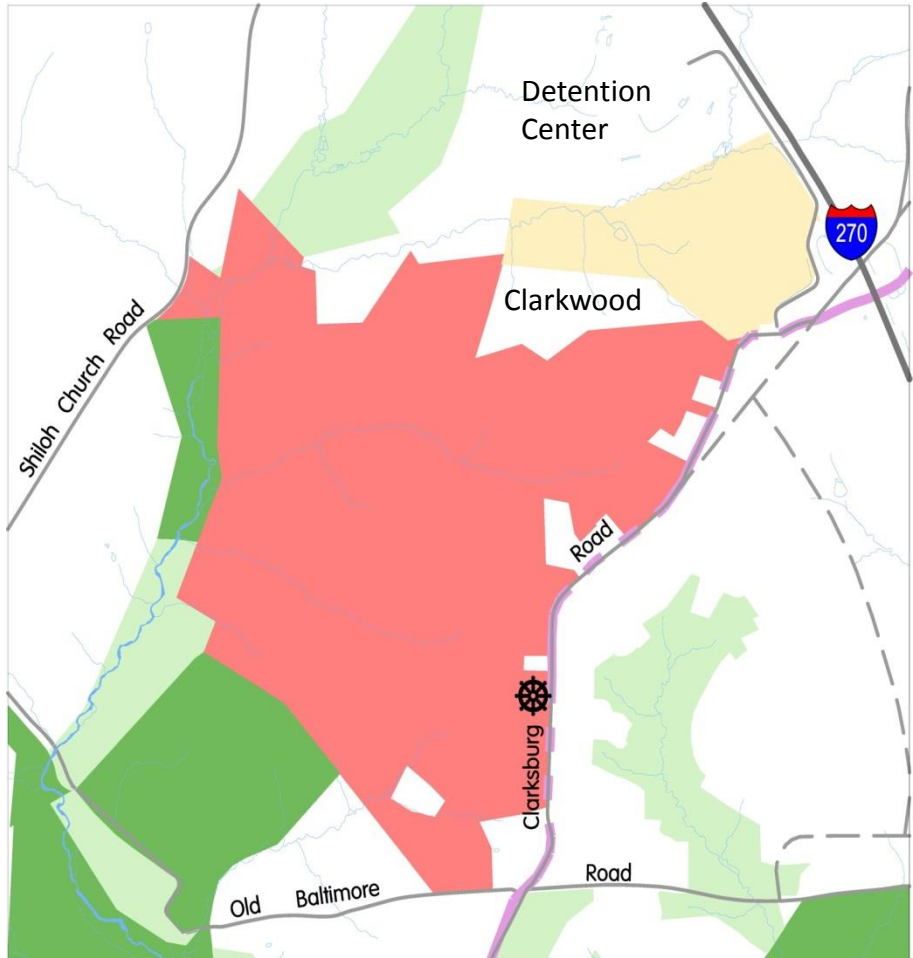
Impervious Percent by Subwatershed



Increase over Existing Imperviousness



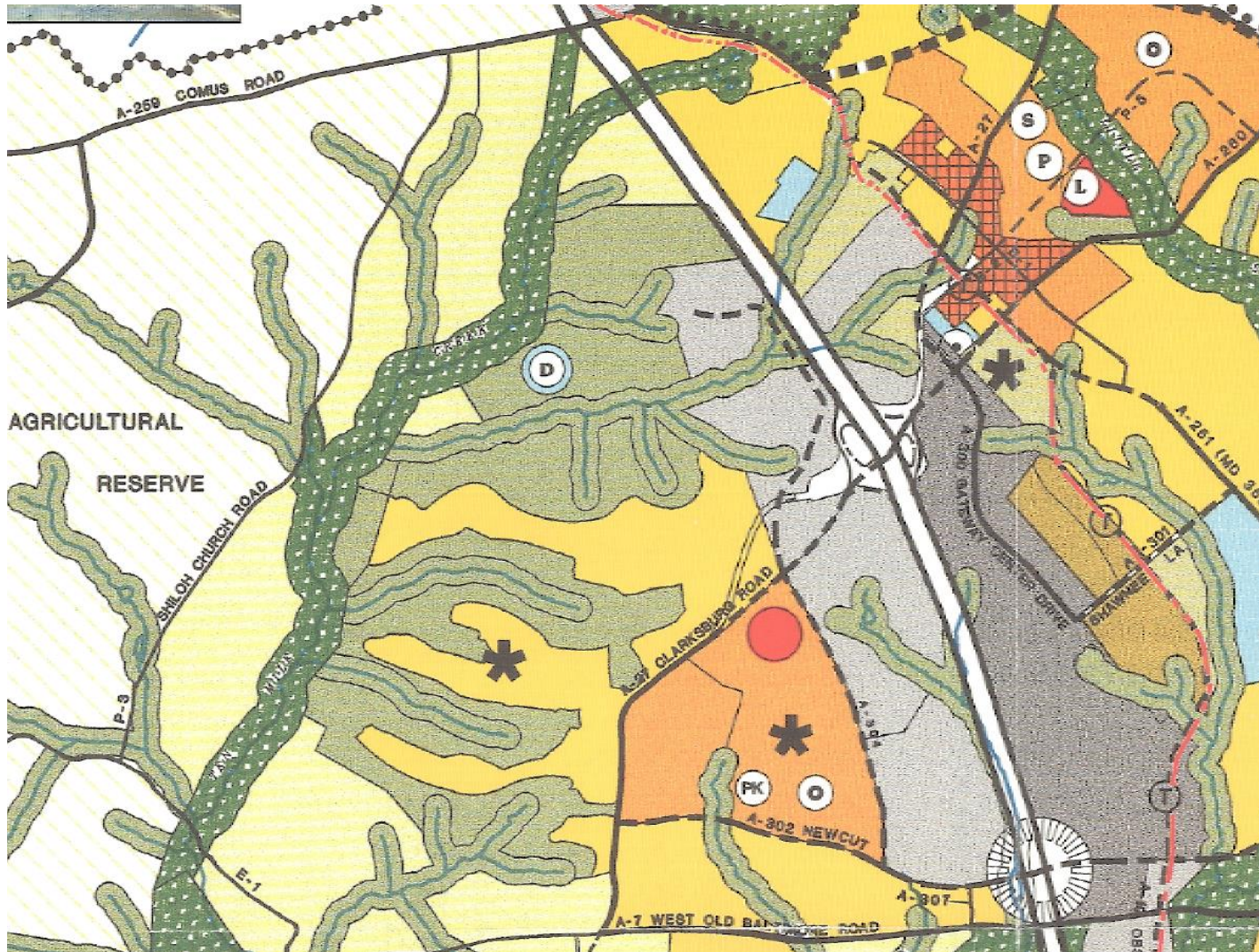
West of I270 - Property Locations



- Master Plan Boundary
- Master Plan Proposed Roads
- Cephass-Summers House
- Existing Parks
- Proposed Parks
- Pulte and King Properties
- Montgomery County Properties



1994 Plan with Conservation Areas

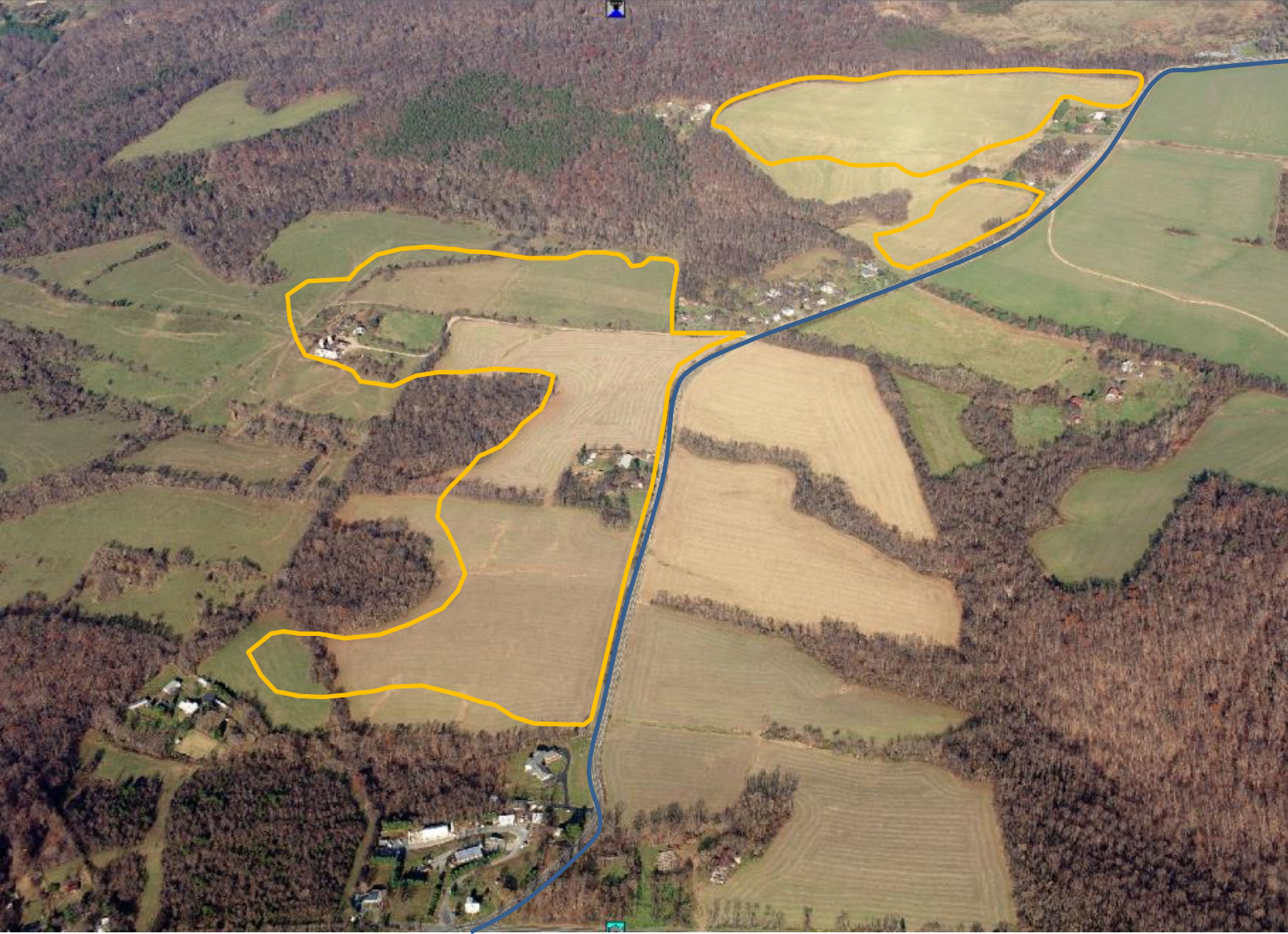




CLANESBURG ROAD
(MD RT 121)

WEST OLD BAYMORE ROAD

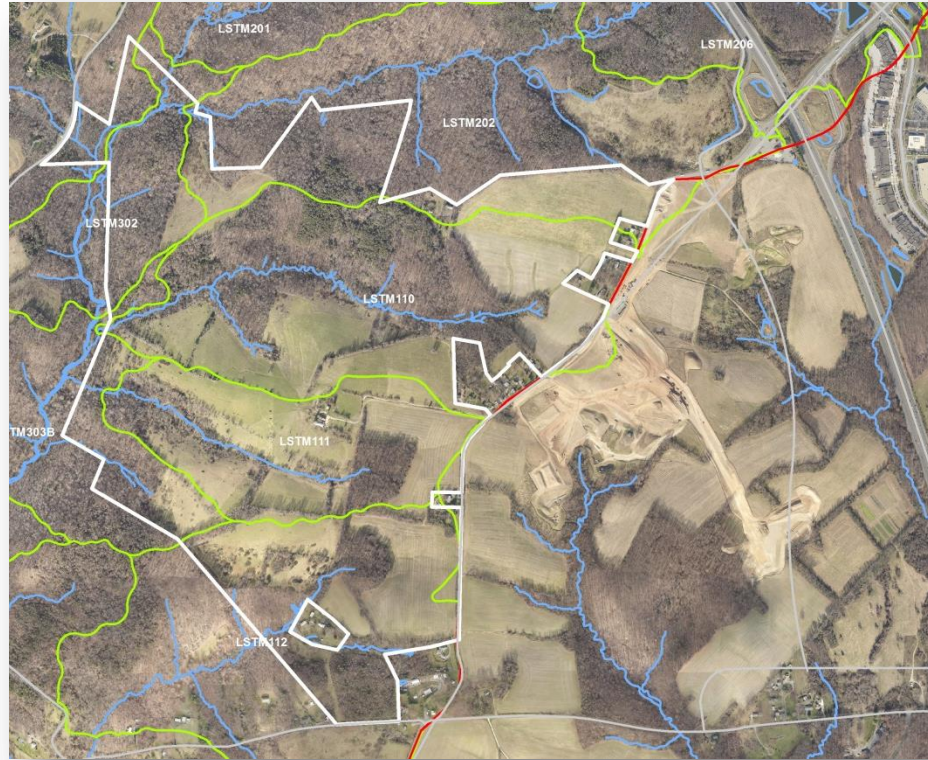
WEST OLD BAYMORE ROAD



West of I-270—Pulte-King Properties

PH recommendation reduces densities and uses zone requiring substantial open space

- Recommendation adheres to 94 Plan objectives for housing, TDRs and transition
- Recommendation proposes substantial Legacy Open Space designation



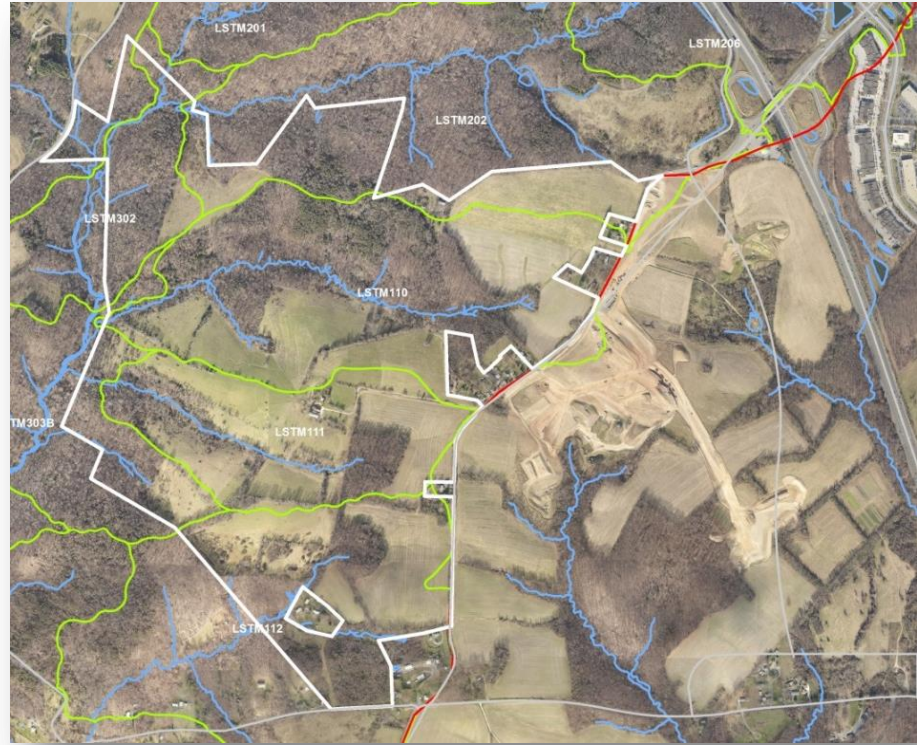
PH Recommendation: RNCR 0.4 du/acre

PH recommendation creates TDR receiving area

West of I-270—Pulte-King Properties

Option 2

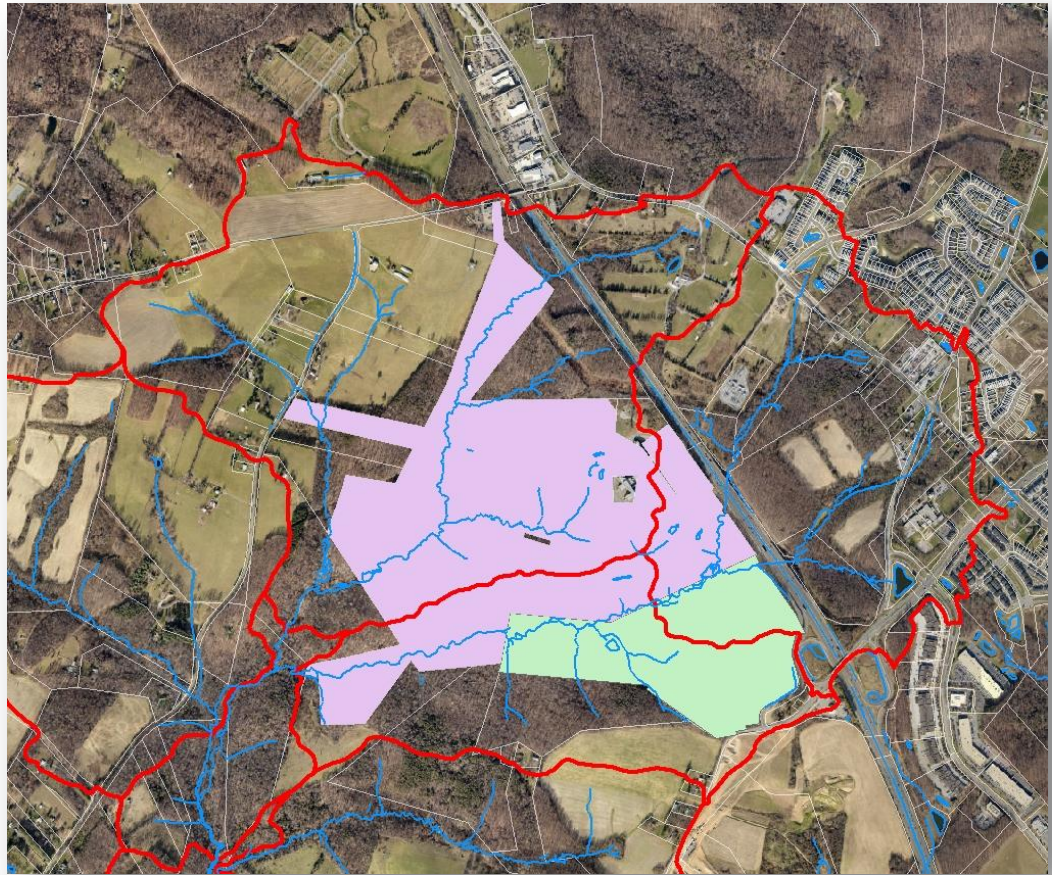
- Maximum 10 percent imperviousness on properties; 8 percent for overall watershed
- RNC Zone with up to 1.22 du/acre with maximum MPDUs
- Minimum of 65 percent rural open space, including
 - 175-foot buffers
 - Preservation of all forest
 - Slopes in accordance with Environmental Guidelines
 - Ephemeral streams
- RNC guidelines to minimize size of footprint and consolidate development



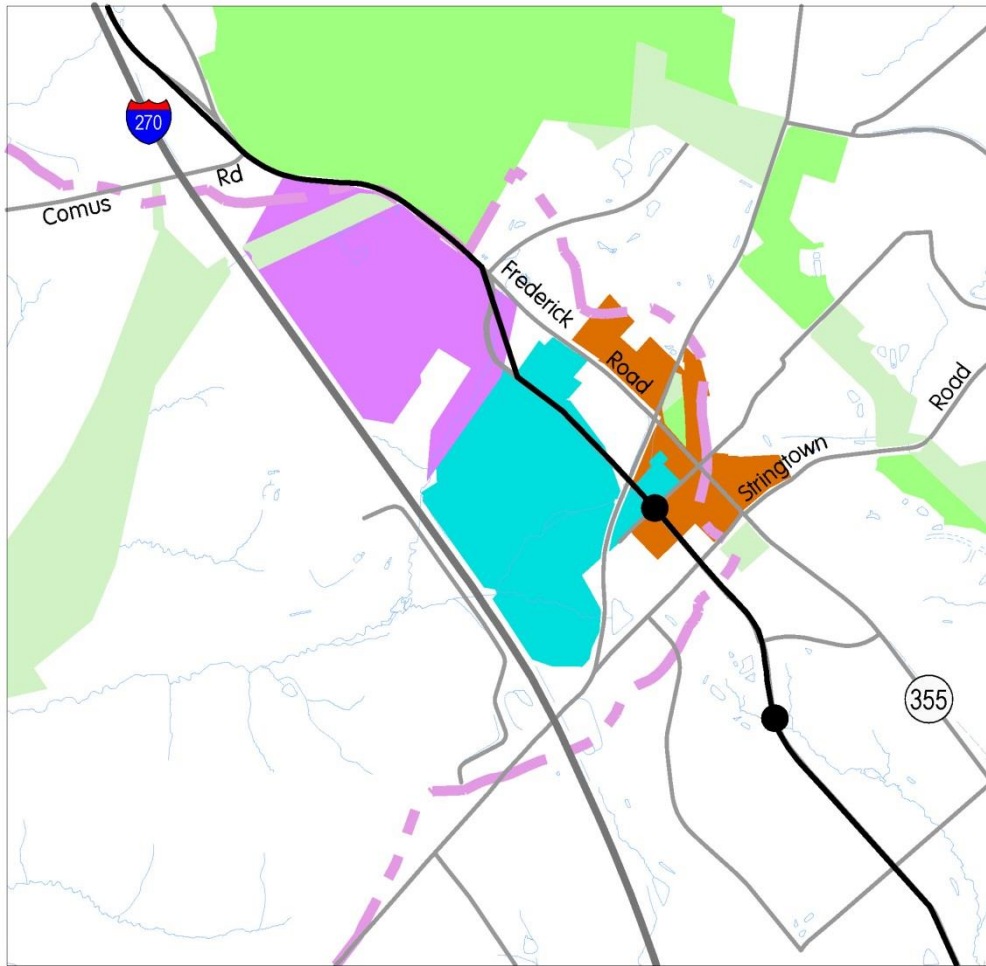
Option 2 Recommendation: RNC 1.0 du/acre

West of I-270—County Properties

- Allow planned expansion of Detention Facility resulting in 4.5% imperviousness
- Limit imperviousness on former Depot site properties to 8%



East of I270 - Property Locations



- Master Plan Boundary
- CCT
- CCT Station
- Existing Parks
- Proposed Parks (1994 Master Plan)
- Miles-Coppola Properties
- Mattlyn (Egan) Property
- Historic District



East of I 270—Employment

94 Plan recommends significant amounts of space for employment uses

- Great Seneca Science Corridor and Germantown Employment Area plans propose space for R&D, biotech and office activities
- Evidence suggests that businesses are requiring less physical space in buildings
- Broader mix of uses, including residential, destination retail and office, may be appropriate



East of I 270—Employment

Proposed language

Public Hearing Draft Page 32, third paragraph

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 is 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 Life Sciences Center. This, combined with a weakened regional office market and more attractive and available locations elsewhere, suggests that 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.~~

The broad mix of uses recommended for these properties can create a vibrant neighborhood 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. Comparison retail uses in these areas do not conflict with development in the Town Center, which is recommended for civic, neighborhood and local activities. These uses can support Clarksburg's development by attracting people to the area, supporting other employment and providing amenities.



East of I 270—Town Center



**PH Recommendation: CR 0.5 C 0.25 R 0.25
H 75 (option 1); Townhouse Floating Zone
(option 2)**

*Public Hearing Draft
recommendations further 94
Plan objectives*

- Historic District and Miles-Coppola recommendations complement Town Center development
- No endorsement of outlet mall; mix of retail, office employment and housing
- Option 2 focuses on residential uses in mix
- Language emphasizing timely construction of bypass, sewer and civic buildings



East of I 270—Town Center



Both Miles-Coppola options further plan objectives

- Option one at the optional method density of 0.75 FAR makes public benefits more likely, but adds significant square footage
- Building heights can be set in increments of five feet; while more than 75 feet may be appropriate, 10 story buildings may conflict with town scale and character

East of I 270—Town Center

Egan-Mattlyn property

- Existing environmental approvals are associated with existing use
- New residential development would require new environmental submissions
- Environmental mitigation may require structural, in addition to planting, solutions
- Remove language regarding a conservation plan



PH recommendation: Residential cluster development in R-200 Zone

East of I-270—Historic District

Town Center is area's civic focus

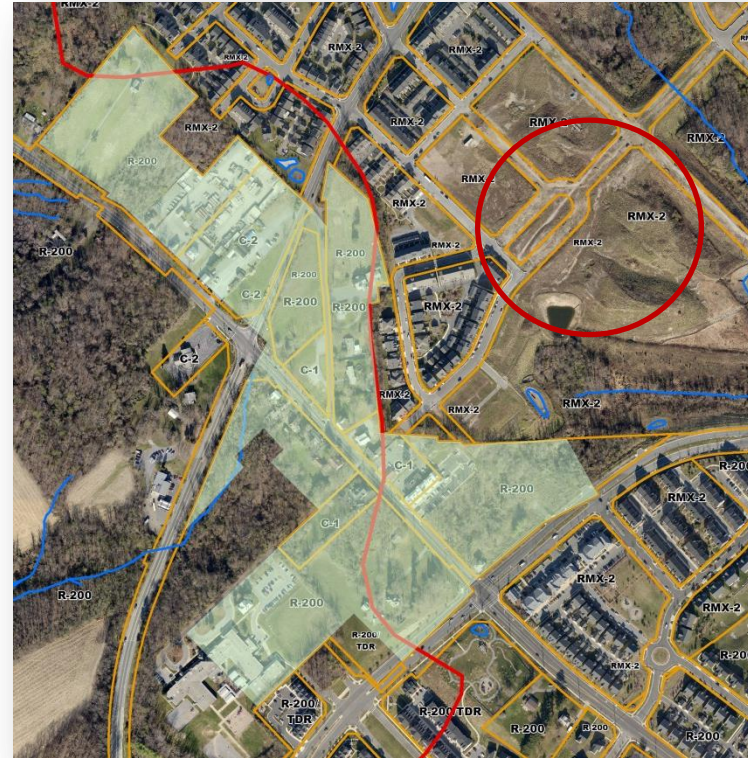
- Retail center is east of district
- 94 Plan proposes infill development in historic district

94 Plan design guidelines focus on renovation of existing buildings

- Limited new construction that respects district scale

CRN Zone allows mix of uses that enables residential or commercial rehab

- More limited CRN “menu” is consistent with proposed Town Center to the east



**PH Recommendation: CRN 0.25
C 0.25 R 0.25 H 35**

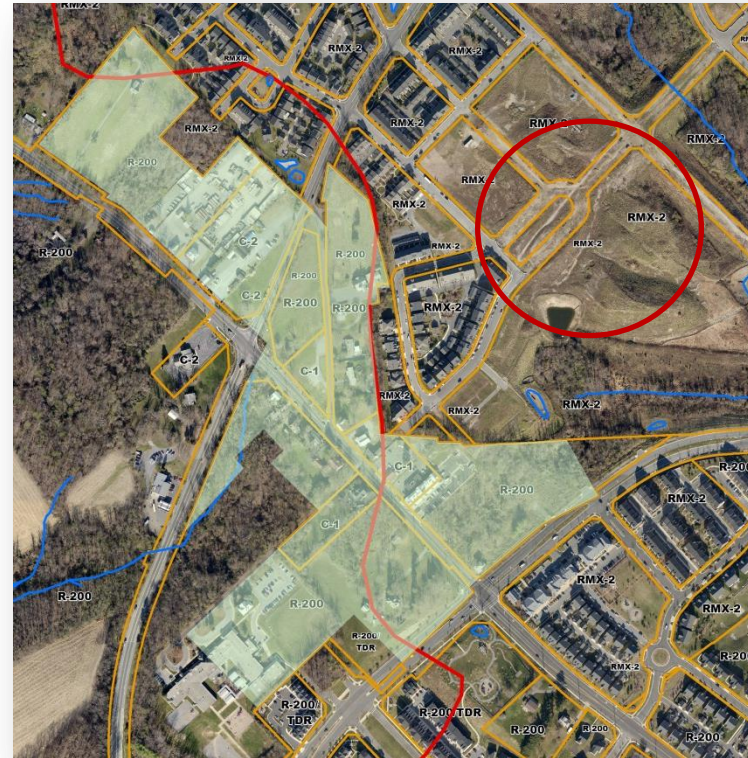
East of I-270—Historic District

Proposed 0.25 FAR allows more development than contemplated in 1994

- Design guidelines and desirability of some residential uses likely to reduce commercial far somewhat

Retaining C-1 zone is not consistent with zoning revisions now underway

- Comprehensive evaluation is important to make sure proper mixed use zone is applied and Limited Amendment offers opportunity



Additional Public Hearing Testimony

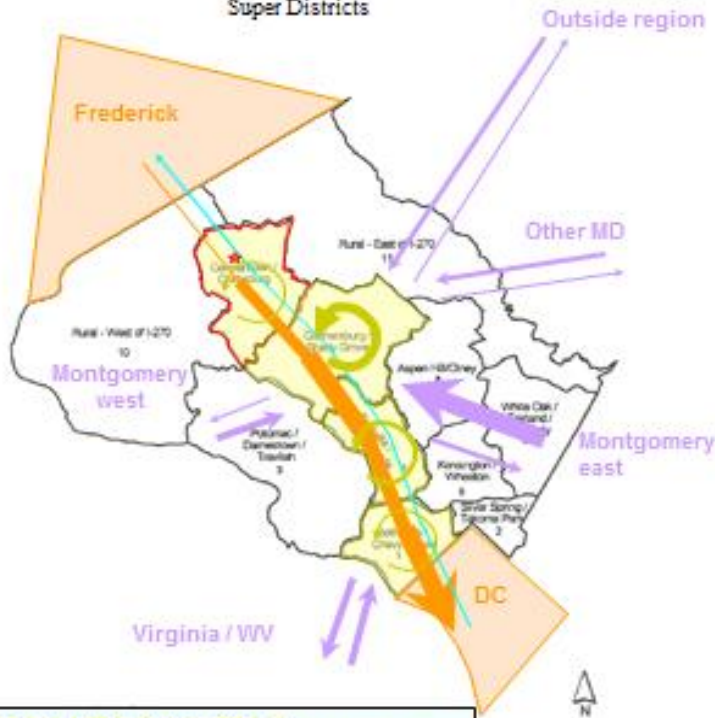
- Transportation
 - Current roads cannot support current traffic
 - Current conditions dangerous
 - Additional traffic will overwhelm system
- Environmental
 - Ephemeral Streams
 - Groundwater
 - Water and sewer service damage to streams
 - Climate change
 - Effective Impervious Cover
 - Treatment trains



Transportation Framework

2010 Journey-to-Work

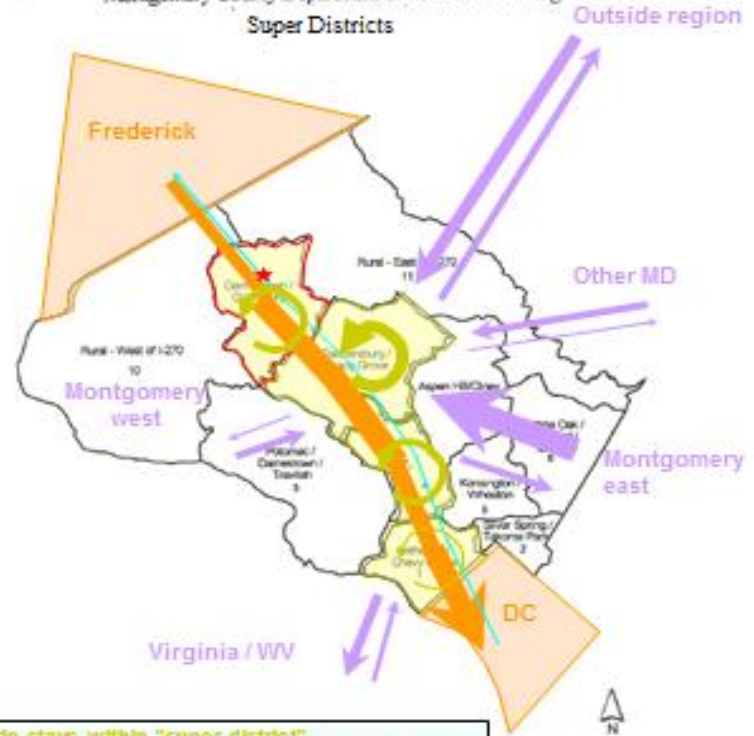
Montgomery County Department of Park and Planning
Super Districts



Local = trip stays within "super district"
 Peak = journey to work is southbound in the corridor
 Reverse = journey to work is northbound in the corridor
 Other = journey to work enters or leaves the corridor
 ★ = Ten Mile Creek Master Area

2040 Journey-to-Work

Montgomery County Department of Park and Planning
Super Districts

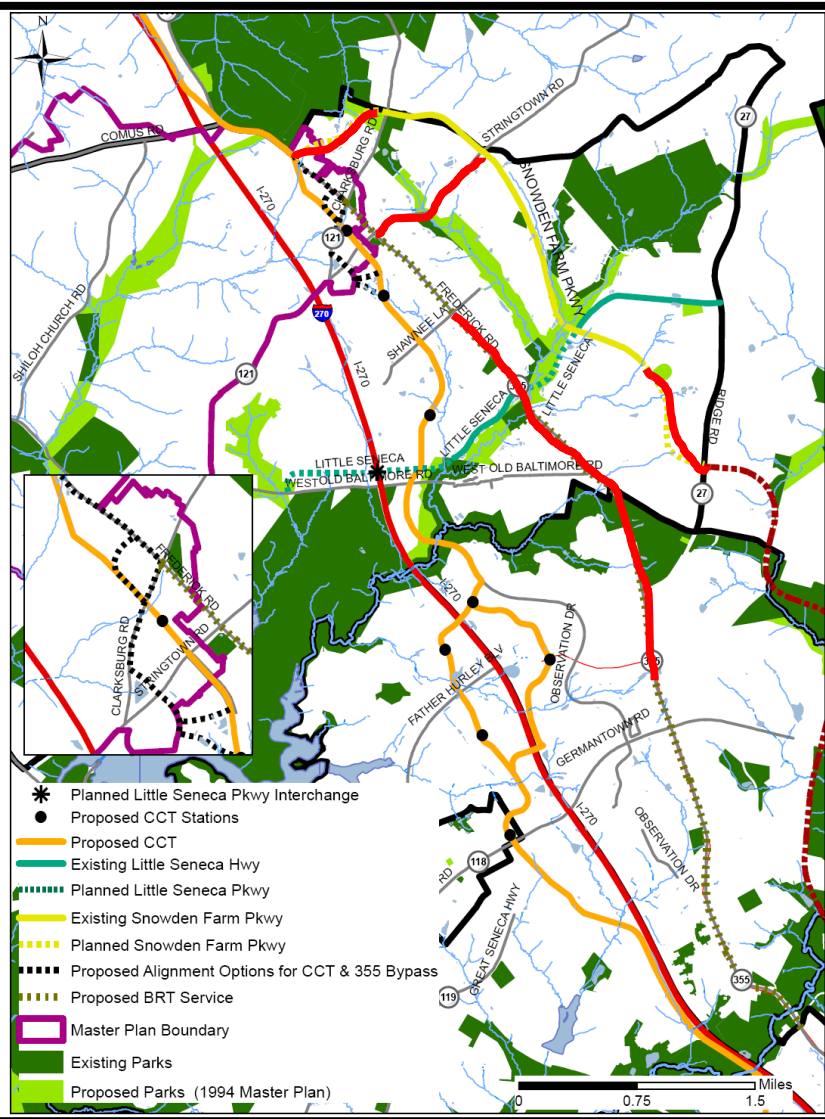


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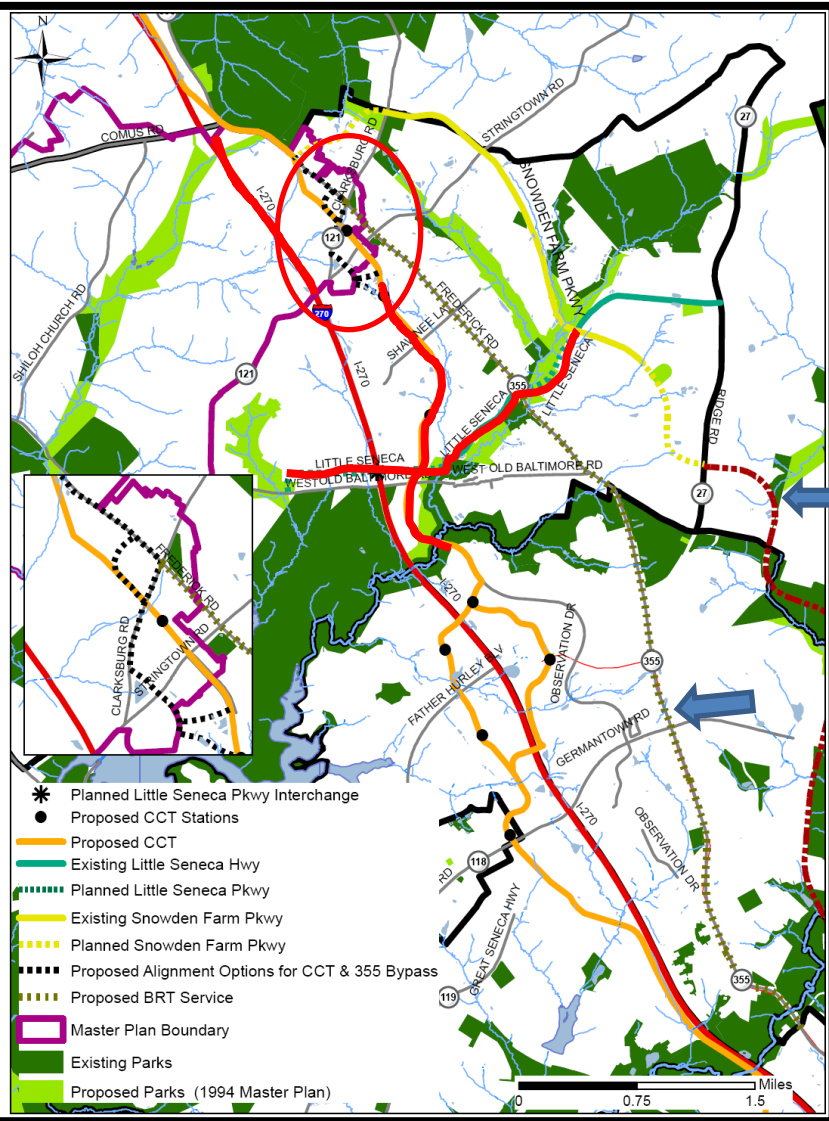
Transportation Network

Existing Deficiencies

- Complete Snowden Farm Parkway
- Stringtown Road Improvements
- Programmed Improvements to MD 355



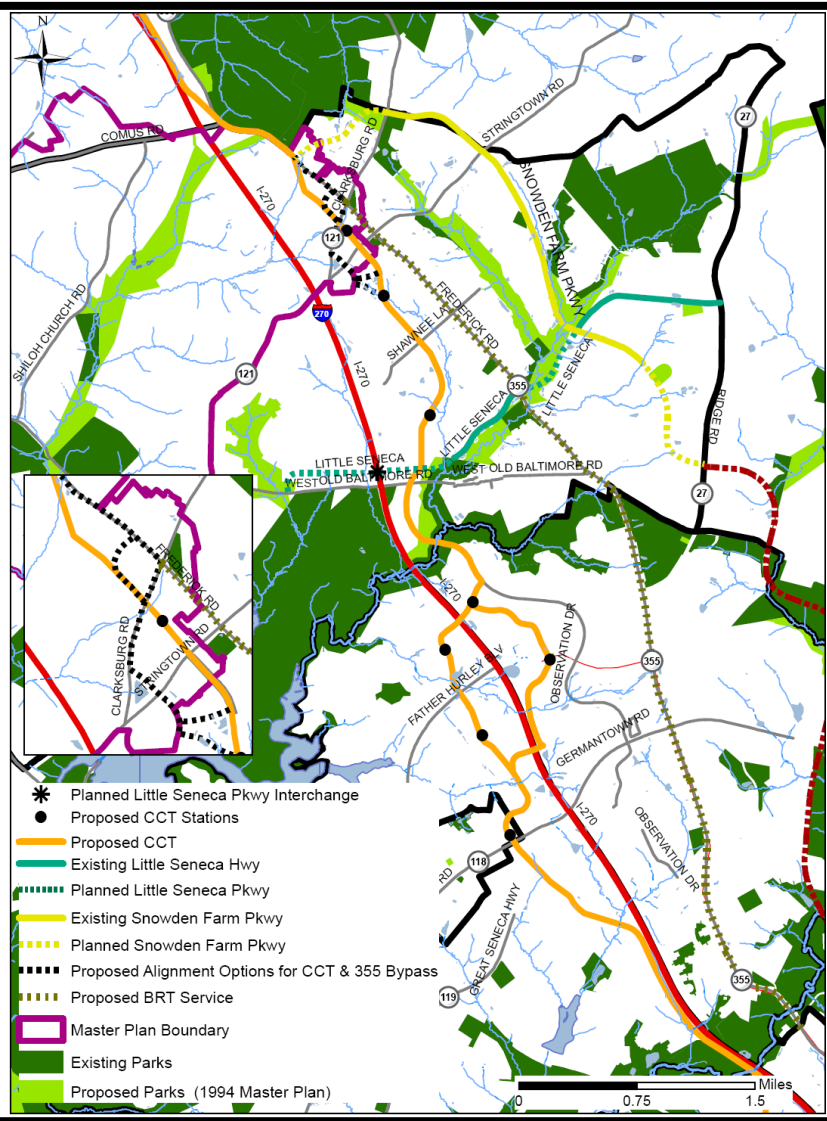
Transportation Network



Proposed Network Improvements

- Midcounty Highway Alternatives
- MD 355 Bypass
- Observation Drive Extension
- I-270/Little Seneca Parkway Interchange
- I-270 HOV lanes
- CCT
- Proposed BRT

Transportation Network



Proposed Network Improvements

- Midcounty Highway Alternatives
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- Proposed BRT

Key Regional Modeling Assumptions

Land Use

- 2040 Round 8.1 Forecast
- Maximum Proposed Development: Cabin Branch, Miles-Coppola & Pulte

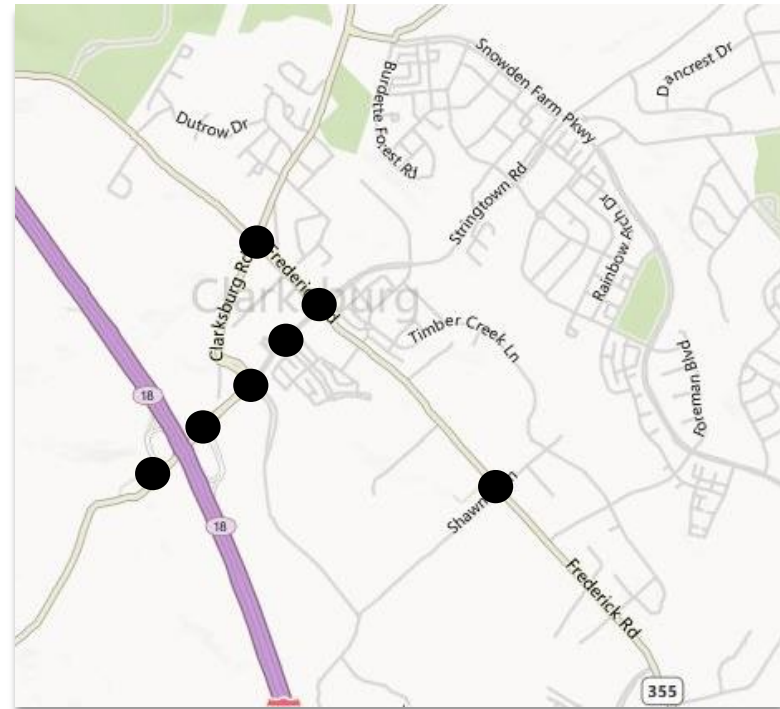
Transportation Network

- Midcounty Highway Master Plan Alignment
- Completion of Snowden Farm Parkway
- Stringtown Road & MD 355 Improvements
- MD 355 Bypass
- Observation Drive Extension
- I-270/Little Seneca Parkway Interchange
- I-270 HOV lanes
- CCT
- No BRT



Clarksburg Traffic Analysis

- Focused on Seven Key Intersections
- Interchange ramp terminals for I-270 and Clarksburg Road (MD 121) for both the eastern and western side of the interchange
- Clarksburg Road (MD 121) & Frederick Road (MD 355)
- Shawnee Lane & Frederick Road (MD 355);
- Stringtown Road (MD 121A) & Frederick Road (MD 355)
- Gateway Center Drive & Clarksburg Road (MD 121)/Stringtown Road
- New By-pass Road/Observation Drive & Stringtown Road (MD 121A)



Critical Lane Volume Results

Table 1 - Summary of Preliminary Intersection Analysis Level of Service and Critical Lane Volumes

Intersection	2040 No Bypass				2040 with Bypass				2040 HI No Bypass				2040 HI with Bypass			
	AM		PM		AM		PM		AM		PM		AM		PM	
MD 121 & I-270 Western Intersection	B	1125	A	675	B	1125	A	675	B	1125	A	675	B	1125	A	700
I-270 & MD 121 Eastern Intersection	C	1213	D	1325	C	1200	D	1325	D	1306	D	1325	D	1306	D	1350
MD 355 & MD 121	D	1425	F	1850	A	875	F	1800	E	1525	F	1850	A	950	F	1800
MD 355 & Shawnee Lane	B	1083	B	1117	B	1096	B	1142	C	1183	B	1100	C	1196	C	1225
MD 355 & Stringtown Road	F	1719	F	2431	B	1073	E	1522	F	1970	F	2431	C	1210	F	1657
Gateway Center Dr. & Stringtown Road	D	1397	D	1325	E	1540	E	1468	F	1721	D	1325	F	1802	F	1870
Observation Drive & Stringtown Road					D	1386	F	1616					D	1445	F	1801

Traffic Summary

- With the added development by the year 2040 there will be a need for added capacity for travel north and south in the Clarksburg area.
- Frederick Road (MD 355) with a two lane cross section provides limited capacity for trips traveling north and south.
- The additional by-pass facility provides added capacity for north and south travel along the corridor.
- Overall improvements could be made at the key intersections that would address the traffic and result in acceptable levels of service.
- The improvements resulted in LOS “D” or better compared to the previous LOS “F” at those key intersection.
- The ability to build the new by-pass would provide an opportunity to construct a more complete street including the ability to serve non-motorized travel modes.
- It would be a hard to construct these types of facilities on MD 355 given the restrictions in the historical district.



CLV & HCM Summary

- Overall Comparable Results
- Issues with I-270 Ramp Junctions
- CLV Focus at Center of Intersections
- HCM Evaluate Approach to Intersections
- Arterial Streets Conclusions Consistent



Transportation

- Retain the 355 Bypass, but realign to connect via a T intersection with MD 355 close to the proposed location of the fire station.
- Provide additional turn lanes to achieve acceptable conditions
- Retain the CCT designation for potential future study.
- Consider relocation of the transit station to 121/355 intersection
- Extend the BRT to the Town Center
- Provide additional express bus service to specific destinations



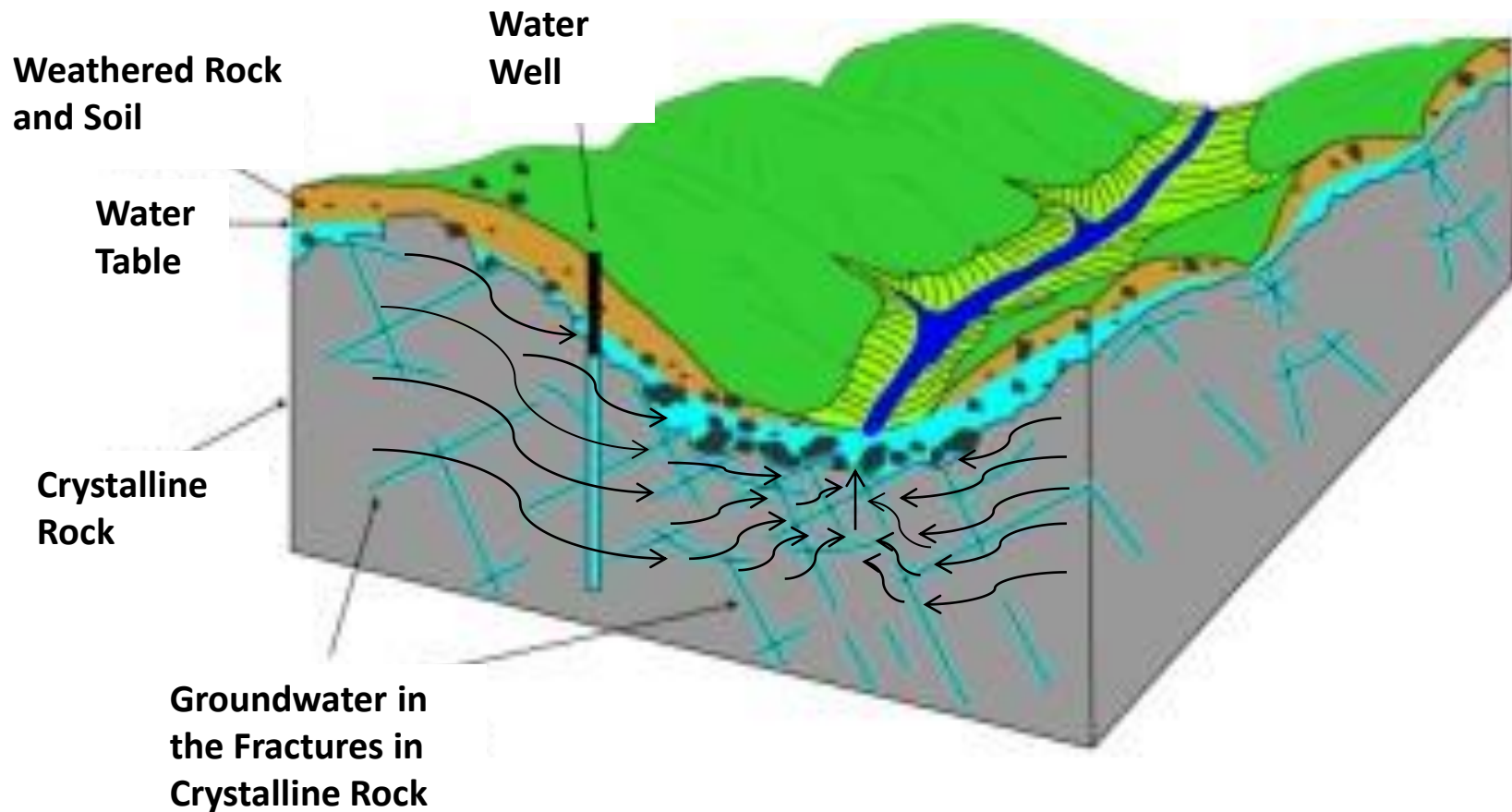
Groundwater Concerns

- Groundwater flows mimic surface water flow patterns and watersheds
- Groundwater flows and ESD infiltration on the east side of TMC will not affect wells on the west side
- The rest of the Piedmont Sole Source Aquifer is mostly geohydrologically separate from TMC
- Use of ESD will infiltrate most stormwater to the ground, so groundwater flows to TMC and the reservoir will not be significantly reduced



Groundwater in the Maryland Piedmont Province

- Groundwater flows mimic surface water flows and watersheds



Water and Sewer Service Damage to Streams

- Groundwater pollution from septic systems is greater on balance than from sewer lines
- New development in TMC will remove most existing septic system on the east side
- Stream valley impacts from sewer lines will be limited because sewage will be pumped to the Cabin Branch sewer system



Climate Change

- Future storms and droughts may increase in intensity and frequency
- Climate science is not yet well understood, making predictions difficult
- Hydrologic modeling so far indicates no significant flow reductions to TMC and the reservoir
- If regional climate change is severe enough to have an adverse effect on TMC and the reservoir, the impacts would be similar under existing conditions



Effective Imperviousness (EIA)

- EIA does not consider the total impact on stream health
- Where EIA is considered it is generally used for retrofitting impervious cover in already degraded watersheds
- Allowing more development in exchange for better infiltration (or lowered EIA) is not a recommended policy in sensitive watersheds



Ephemeral Streams

- Ephemeral streams can be important in watersheds with thin soils, in maintaining wetlands and stream baseflows
- County Environmental Guidelines recommend protecting ephemeral streams but do not require it
- The Army Corps of Engineers in infrequent local cases can regulate some ephemeral streams
- Local jurisdictions can be more stringent than the Corps, especially to protect high-quality waters
- Because of the unusually sensitive, high-quality nature of TMC, staff recommendations to protect ephemeral streams are appropriate



Treatment Trains

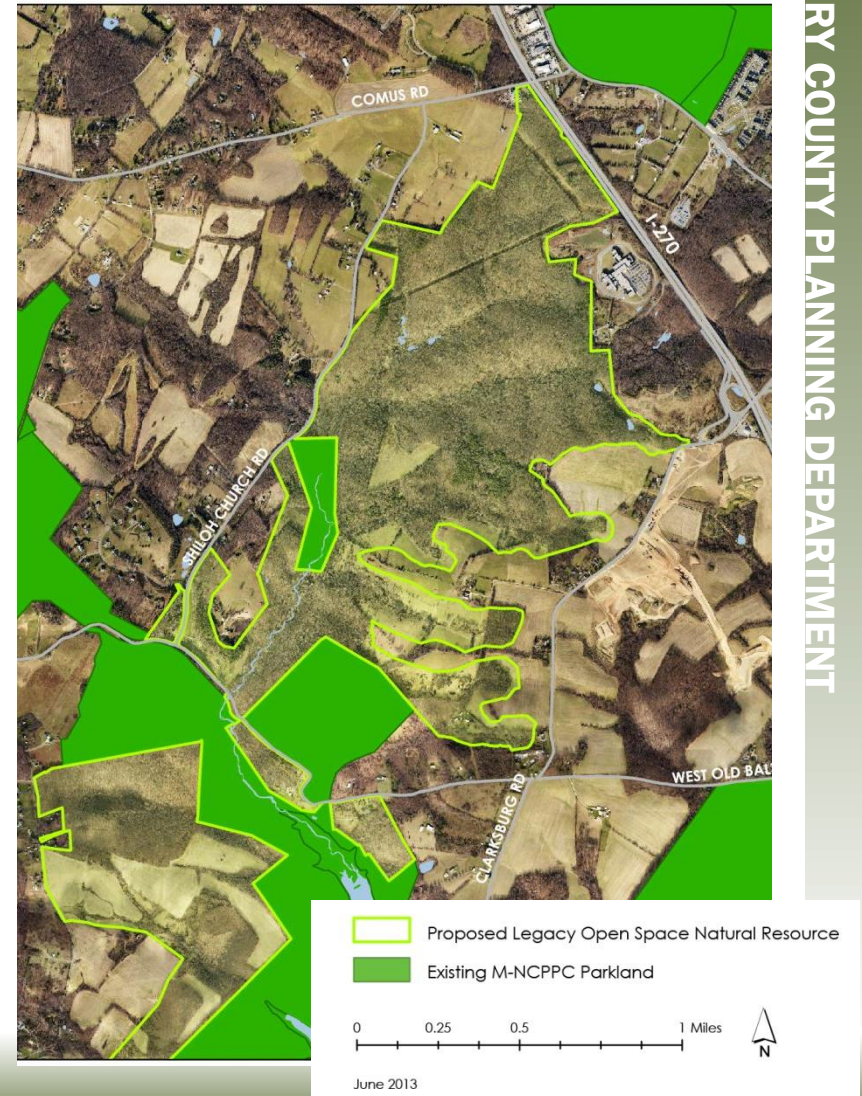
- DPS staff opinion is that treatment trains are not a part of ESD, as required by the State, and therefore will not improve the effectiveness of ESD
- ESD practices are micro-scale structures that are designed to control and treat the runoff to regulatory standards from small drainage areas
- This strategy does not lend itself to the treatment train approach, which was sometimes used with the larger-scale stormwater practices of the past.



Parks

Legacy Open Space

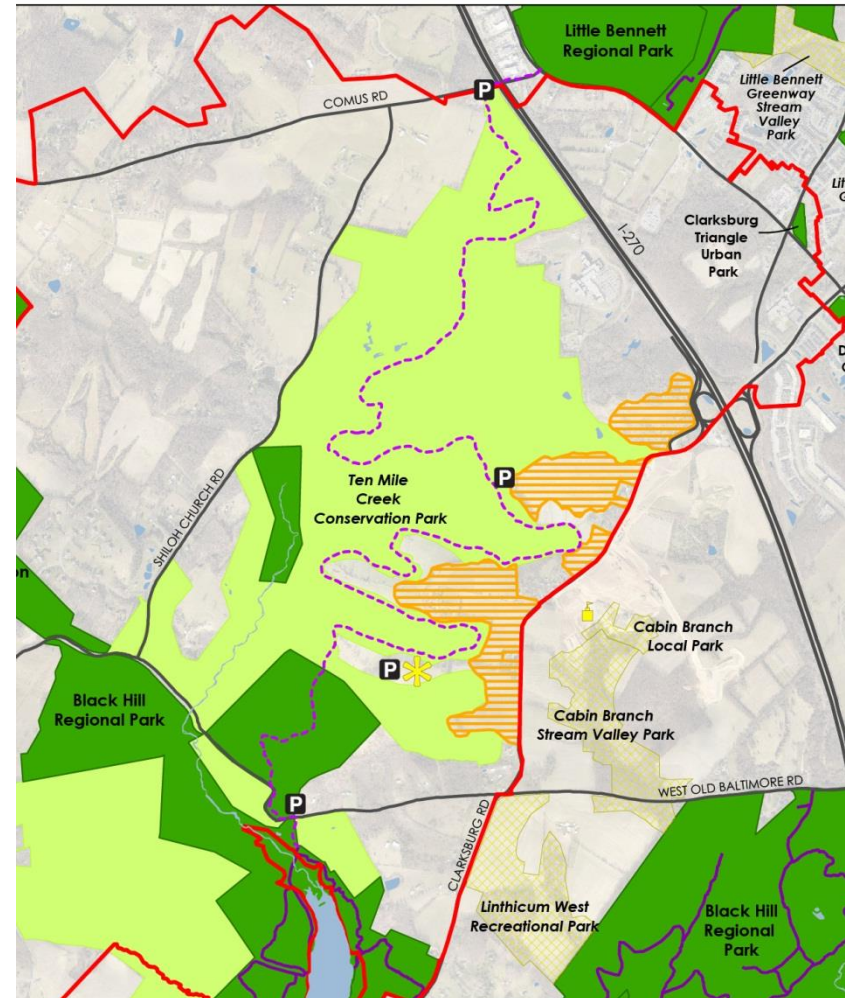
- Designate the high quality, critical forest and open habitats as a Legacy Open Space Natural Resource site
- Protect the designated Natural Resource on an individual property basis using a variety of tools



Preliminary Master Plan Recommendations

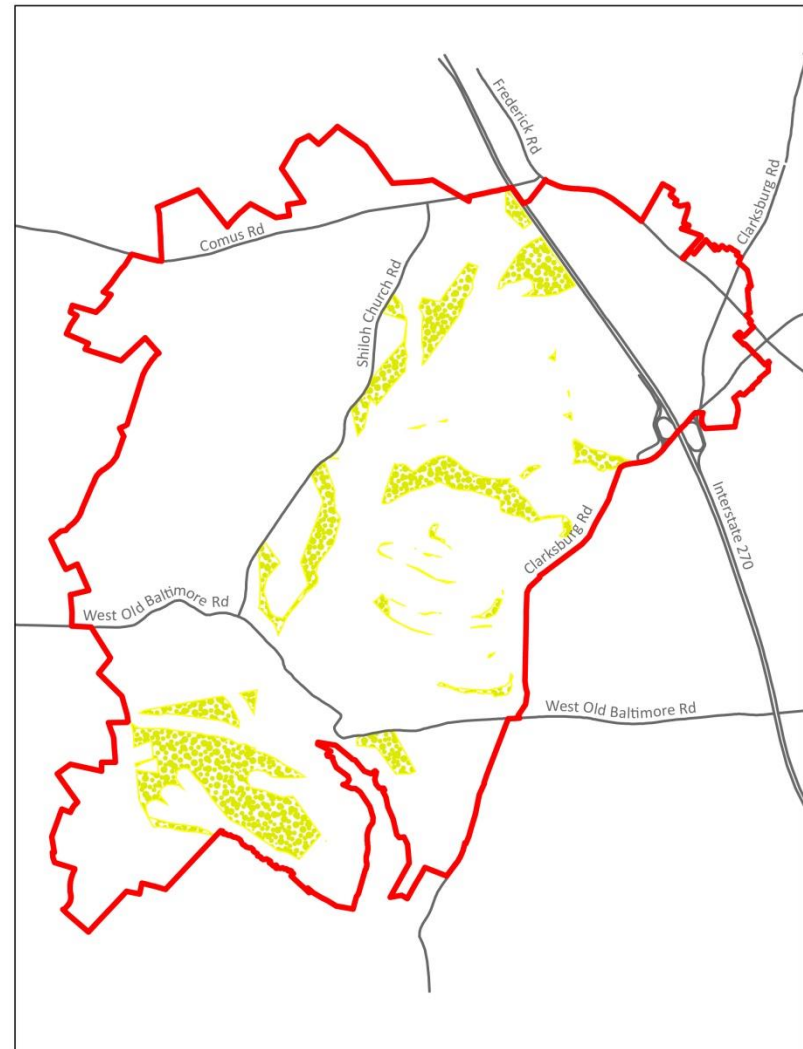
Parks and Trails

- Provide a countywide natural surface trail linking Little Bennett Regional Park and Black Hill Regional Park
- Provide five trailheads for access to the Ten Mile Creek trail
- Provide a new natural resource-based Neighborhood Park of at least 10 acres



Comparison of Parks and Private Conservation Areas in 1994 Plan and Public Hearing Draft Plan

	1994 Plan (acres)	2013 PH Draft Plan (acres)
Total LMP Area	1950	2087
East of I-270	103	101
West of I-270	974	1082
Pulte	322	353



Implementation

- Sewer service for Historic District should not be dependent on Stage 4 development
- Additional facility planning for sewer service should be continued as development plans are moved forward
- Facility planning for the 355 Bypass should begin in order to determine best alignment, location of transit stop(s) and need for school relocation
- Examine forest banking program for incentives in sensitive watersheds





Options

- No Build 4% imperviousness
 - Ag Reserve on West Side including County property
 - Parkland on East side
 - No Bypass
 - Keep Fire Station and Historic District development
 - Retrofit existing untreated areas at public cost
 - Requires public extension of sewer to HD
 - No development on any County Property

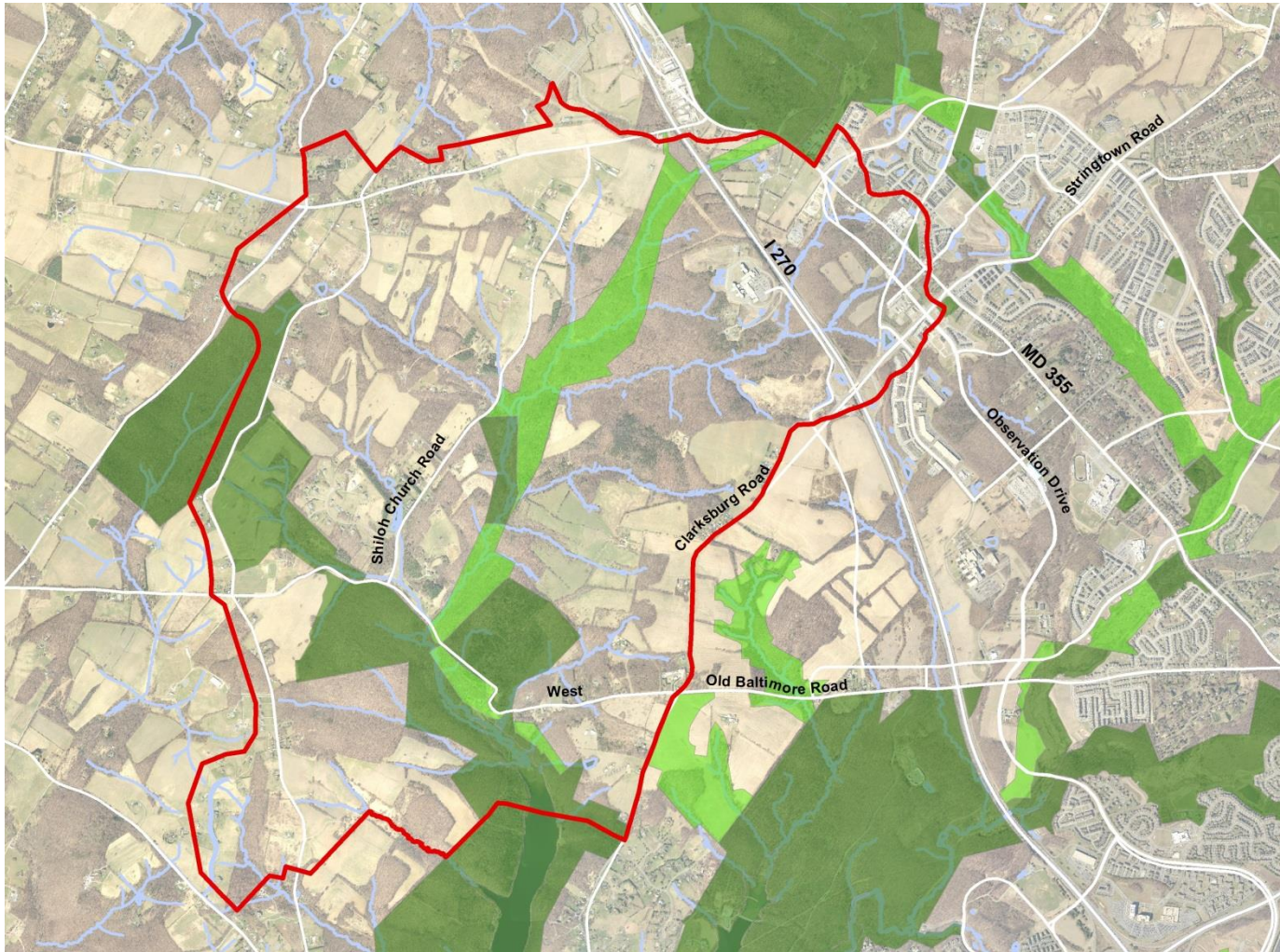


Options

- Low Build 6% imperviousness
 - All developable properties = RC
 - No Bypass
 - Keep Fire Station and Historic District development
 - Requires public extension of sewer to HD
 - County property Detention Center- Limit expansion to existing disturbed area



Orientation



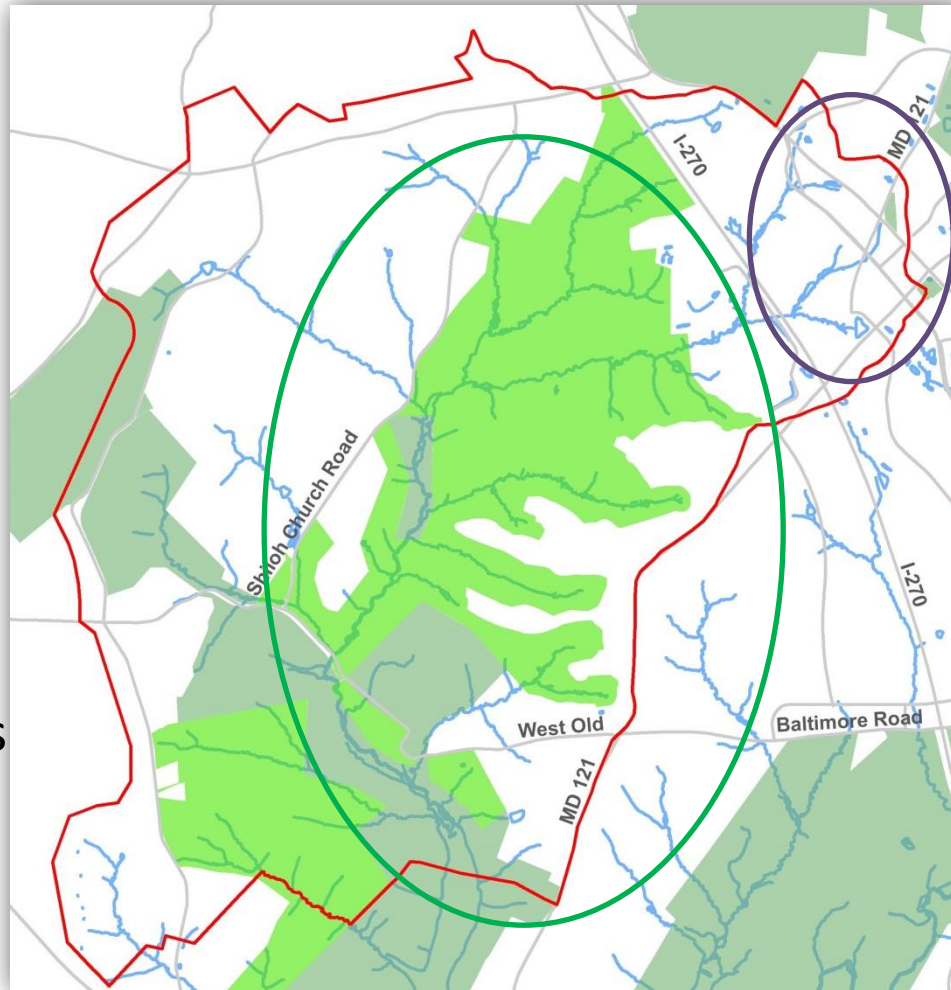
Sub Watersheds



Public Hearing Draft Concept

Emphasize Environmental Protection

- Preserve natural resources
- Maximize undeveloped open space
- Minimize imperviousness
- Retain housing



Emphasize Community Building

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

Biological Condition Gradient: Benthic Macroinvertebrates

