

PHED/T&E COMMITTEE #1
July 27, 2009

Briefing

M E M O R A N D U M

July 23, 2009

TO: Planning, Housing and Economic Development Committee
Transportation, Infrastructure, Energy and Environment Committee

FROM: Keith Levchenko, Senior Legislative Analyst *KLTP*
Marlene Michaelson, Senior Legislative Analyst *MM*

SUBJECT: **Briefing:** Interagency Workgroup on Clarksburg Stage 4

The following officials and staff are expected to participate in this briefing:

Royce Hansen, Planning Board Chairman
Rollin Stanley, Planning Director
Mary Dolan, Planning Board Staff
Ron Cashion, Planning Board Staff
David Dise, Director, Department of General Services (DGS)
Robert Hoyt, Director, Department of Environmental Protection (DEP)

Attachments to this memorandum include:

- Interagency Working Group Presentation slides (©1-16)
- Letter of July 16, 2009 from the Planning Board Chairman to the Council President (©17-19)
- Planning Board Staff Summary Report to the Planning Board (©20-26)
Note: The Interagency Working Group's Analysis (i.e., Attachment #1) is available for download at:
http://www.montgomeryplanningboard.org/agenda/2009/documents/20090709_attachment1-analysis_clarksburg_stage4.pdf
- Clarksburg Master Plan Excerpt (©27-28)

Background

On January 26 the County Executive released the 2007 Special Protection Area (SPA) Annual Report.¹ On February 2, the T&E Committee discussed the findings of this report with Department of

¹ The 2007 Special Protection Area Program Annual Report is available for download at the DEP website at: <http://www.montgomerycountymd.gov/deptmpl.asp?url=/content/dep/SPA/home.asp>. There are four special protection areas (SPAs): Clarksburg, Piney Branch, Upper Paint Branch, and Upper Rock Creek. The goal of the program is to protect or maintain high quality or sensitive water resources and other environmental features where proposed land uses threaten those

Environmental Protection (DEP) staff, especially with regard to the implications for planned development in the Stage 4 area of Clarksburg.

In light of the results of the SPA Annual Report, the T&E Committee agreed that an interagency working group (composed of representatives from DEP, the Department of Permitting Services (DPS), and Planning Board staff) should review the report and recommend next steps to the T&E and PHED Committees with regard to how to address Stage 4 planned development in Clarksburg.

Planning Board staff briefed the Planning Board on July 9 on the findings of the Interagency Working Group and recommended the following:

- Defer action on category changes in the Stage 4 area;
- The Department of General Services (DGS) should conduct a new site selection for the North County Maintenance Depot;
- Add a Clarksburg Master Plan amendment to the Planning Board's work program; and
- Provide additional in-house and consultant resources to develop the master plan amendment recommendations.

The Planning Board also heard testimony from citizens, environmental interest groups, and property owners. As noted in its letter to the Council (see ©17-19), the Planning Board concurs with the Planning Board staff's recommendations.

Although County Executive officials and staff participated in the Interagency Working Group analysis of the issue which formed the basis for the Planning Board Staff's recommendations to the Planning Board, the County Executive has not formally provided his position on the issue.

Clarksburg SPA and Master Plan Staging Triggers

The Clarksburg Master Plan (1994) established 4 stages of development with triggers required before development could proceed to the next stage. An excerpt of the Master Plan with the Stage 4 triggers is attached on ©27-28. With the completion of the 2007 SPA Report, DEP concluded that all of the required triggers have been met. The interagency working group has also affirmed that all triggers have been met.

As was done when the Stage 3 triggers were met, the next step in the process is for the Council to consider category changes in the Stage 4 area. However, unique to the Stage 4 consideration is specific master plan language noting that the Council is to evaluate the water quality results of best management practices (BMPs) in the area and in similar watersheds in assessing how to move forward. The Master Plan lays out a number of choices (see ©28) based on this review, ranging from approving

resources. Certain types of land development projects in these areas are subject to increased development review requirements, imperviousness limits, and the implementation, maintenance, and monitoring of best management practices.

category changes without conditions to deferral for further study and/or consideration of other land use actions.

SPA Report Findings for Clarksburg

The development of Clarksburg has provided a unique opportunity for a “before, during, and after” study of the effectiveness of stormwater management BMPs.² DEP is part of a larger monitoring effort with a number of State, Federal, and academic partners.

The goal of BMPs is to mitigate the impacts of imperviousness on stream quality. The report notes that there are a number of studies documenting the effects of imperviousness which have found that an impervious cover of between 5 and 15 percent produces significant declines in water quality. There is also evidence that compacted areas, such as residential lawns (which would not be counted in an impervious area calculation) act similarly to impervious area.

A regression model by DEP predicts that aquatic insect IBIs (index of biotic integrity) decline to the “fair” category when imperviousness exceeds 8 percent and to the “poor” category when imperviousness exceeds 21 percent.

The imperviousness predictions on water quality appear to be borne out, in that Clarksburg had “good to excellent” water quality from 1995 to 2002 (prior to the recent period of large scale development). Subsequently, streams in the developing areas dropped to a “fair” condition, while streams in areas not yet developed dropped as well but remained in “good” condition. This coincides with imperviousness levels in the Newcut Road and Town Center areas increasing to more than 25%.

The challenge in Clarksburg is that the impervious cover of the planned development for the Ten-Mile Creek area would range from 15% (in the Whelan Lane I-3 area, which is subject to an imperviousness cap) to over 25% for the area east of I-270 and west of Frederick Road.

Discussion of the Planning Board Recommendations

Master Plan Amendment

The Planning Board’s recommendations entail a comprehensive revisiting of the decisions in the Stage 4 area of the Clarksburg Master Plan, via a master plan amendment. The Clarksburg Master Plan is 15 years old and the recommendations associated with the Stage 4 development were the most controversial aspect of the Master Plan. The Planning Board suggests that a master plan amendment provides the best means to ensure a complete review that can involve all stakeholders and incorporate new thinking in areas such as environmentally sensitive design (ESD) and low impact development (LID). **In light of the results noted in the 2007 SPA Report and the Interagency Working Group’s analysis of the environmental issues in the Stage 4 area under current assumptions, Council Staff concurs with the Planning Board.**

² BMPs include structural devices such as sand filters, detention ponds, and bio-retention cells. BMPs are required during construction and then post-construction. The SPA report notes that BMP monitoring focuses on the ability of a BMP to remove contaminants with a focus on sediment.

If the PHED and T&E Committees agree with the master plan amendment approach, the Council will need to consider the implications of the master plan amendment process on the Planning Board's workplan and budget. The Council will review the Planning Board's workplan this October.

The master plan amendment approach is not without impacts. As envisioned by the Planning Board, this approach would be a two year process that would delay development in the Stage 4 area and result in a substantial rethinking of how environmental issues are to be addressed. **If the Council ultimately disagrees with the master plan amendment approach, then the Council will need to direct the Interagency Working Group and/or the Planning Board to consider other strategies for addressing the environmental issues identified.**

Given the SPA report findings (see next section) and the additional analysis by the Interagency Working Group, Council Staff recommends that the joint T&E/PHED Committee should explicitly reject Master Plan option #1 (see ©28) of moving forward with water and sewer category changes in the Stage 4 area without placing limiting conditions upon property owners. When the environmental issues in Stage 4 are addressed (through whatever process the Council supports), then an area-wide category change process for Stage 4 can be considered.

Budget Implications

The Planning Board recommends \$1.0 million over the next two years for both in-house and consultant support to move forward with a master plan amendment in order to avoid affecting the schedule of other priorities in the workplan. However, given the County's difficult fiscal situation, **Council Staff believes the Council should first consider where this master plan amendment fits in the context of the other workplan priorities. Can some, most, or all of the \$1.0 million in cost be avoided if other workplan priorities are deferred?**

Apart from the timing of the master plan amendment, Council Staff is concerned about the additional \$400,000 over two years recommended for consultant services related to environmentally sensitive design (ESD), low impact development (LID), and additional analysis for Ten Mile Creek. Given the work already done by DEP and by the interagency working group, is the additional consultant support needed, or can this work be accomplished with existing interagency resources?

North County Maintenance Depot

With regard to the North County Maintenance Depot project, the Council should hear from DGS as to the expected timing of the new site selection study. If the site selection study does not result in another site being selected, the Planning Board recommends that the Council consider a category change to allow this project to move forward on the current site.

Attachments

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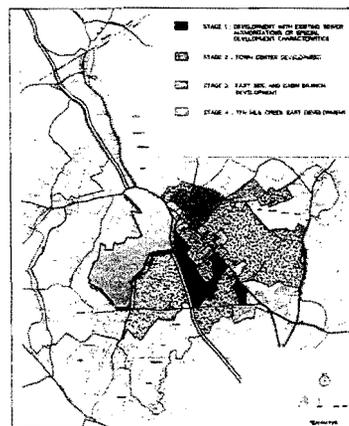
Clarksburg Stage 4

Next steps

What is Clarksburg Stage 4?

- ◎ Stages 1-3 mostly approved
- ◎ Considerable unbuilt capacity
- ◎ Stage 4 triggers met
- ◎ Requires protection of Ten Mile Creek
- ◎ Requires new sewer system
- ◎ Intended for future development

Clarksburg: Staging of Development



Clarksburg Master Plan and Hyattstown Special Study Area
© 2000 Howard County, MD

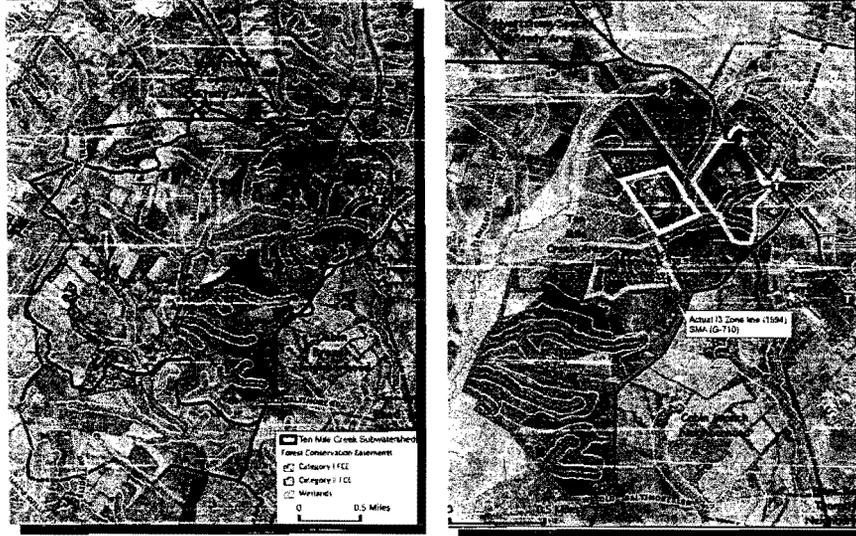
Purpose of this Analysis

- ⊙ Pause to consider, recommend to Council
 - Interagency Working Group recommendations
 - Met with environmental groups and property owners
- ⊙ Determine the sufficiency of protection
- ⊙ Then decide:
 - Protection is good, go ahead
 - Protection can be improved, revise and go ahead
 - We need to know more, wait
 - We need to consider other land use actions, study and recommend

Outcome = A new paradigm: community + environment

- ⊙ Involvement of all stakeholders
- ⊙ Continued growth
- ⊙ Corridor Cities Transitway planning
- ⊙ Evaluation of Best Management Practices
- ⊙ Environmental Site Design
- ⊙ Integrate planning and development
- ⊙ Infrastructure priorities
- ⊙ Design Guidelines

Planning Area Geographies



Planning Area Geographies



- Analysis areas split Stage 4 in two parts
- Densities and capacities set by analysis area

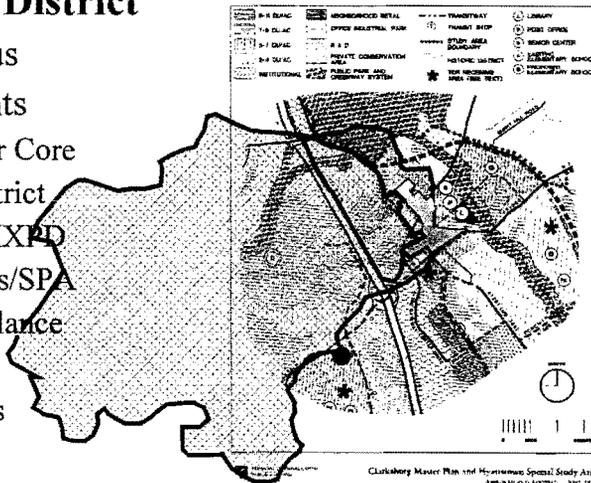
What Does the Master Plan Say?

Town Center District

- Central focus
- 3 components
 - Town Center Core
 - Historic District
 - PD 4 and MXPD
 - Headwaters/SPA
 - Density balance
 - Assets
 - Constraints

Town Center District Land Use Plan

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Clarkburg Master Plan and Hyattsville Special Study Area
Approved by Council June 1994

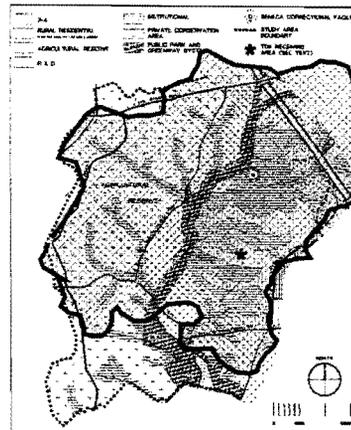
What Does the Master Plan Say?

Ten Mile Creek Area

- Employment in I-3 areas
- SPA 15% imperviousness
- Low density RE1/TDR2 - 900 units for 600 acres
- Low density residential - Rural (1unit/5 acres)
- Private conservation and Park areas
- Agricultural Reserve - RDT

Ten Mile Creek Area Land Use Plan

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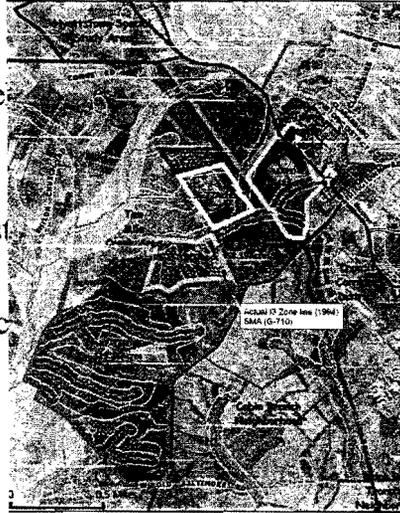


Clarkburg Master Plan and Hyattsville Special Study Area
Approved by Council June 1994

What Does the Master Plan Say?

◎ Stage 4

- 960 acres in Ten Mile Creek Watershed
- 220 in Town Center
- 740 in Ten Mile Creek East
- Special Protection Area
- Water and Sewer by Council



Density Study



◎ Staff estimate

- Determine if enough developable area
- How much area would be used
- Resulting imperviousness 35% or more

Density Study

Planning Subarea	Acres (Approx.)	Residential Dwelling Units	Employment and Retail (sq. ft.)
Town Center District Total	635	2,600	770,000
Development Approved		1,213	194,720
Development Potential Remaining		1,387	575,280
Concept Study for Potential Buildout in Headwaters Areas			
MXPD Area	101	314	575,280
PD-4 Area	122	429	---
Density Allocations with Concept Study		743	575,280
Impact Summary – Remaining Development			
	223	644 Units remaining	No Employment area remaining

Development Considerations

- ◎ Smarter, lower impact development
- ◎ Impervious levels
- ◎ Land assembly potential
- ◎ Roadway and transit access/timing
- ◎ Significant environmental constraints
- ◎ Need to balance density with buffers
- ◎ Parking and open space requirements
- ◎ Building heights
- ◎ Constrained land areas

Why is Ten Mile Creek At Risk?

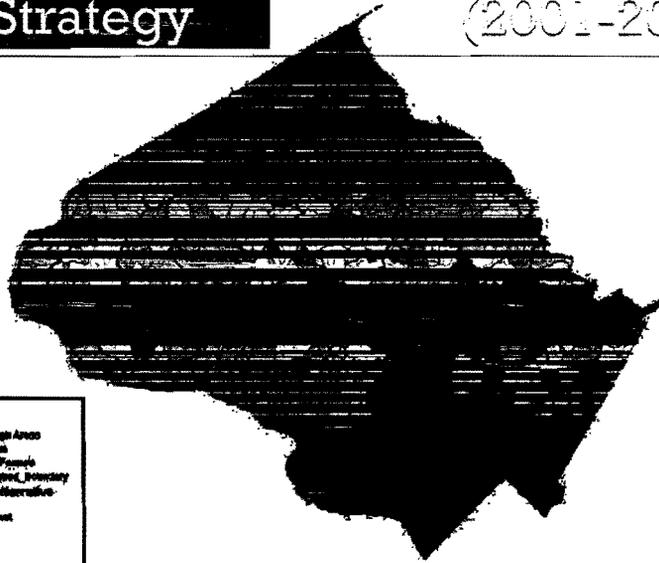
- ◉ Good stream conditions
- ◉ Wide forested environmental buffers
- ◉ Springs, wetlands and vernal pools
- ◉ Thin soils, fractured rock underneath
- ◉ Steep topography
- ◉ Small amount of development showing effects

Countywide Stream Protection Strategy (2003)

Condition	Monitored Stream Miles	Percent Monitored Stream Miles
Excellent	84	7
Good	694	55
Fair	362	28
Poor	131	10
Total monitored	1,272	100
Not Monitored	226 stream miles	
Total in County	1,498 stream miles	

Biological monitoring produced an ecological assessment of all county streams compared to reference streams.

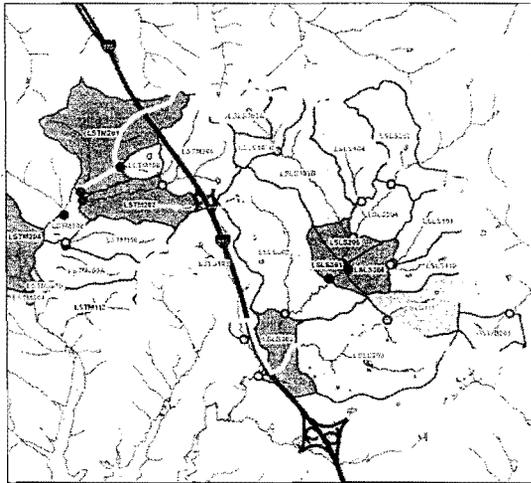
Countywide Stream Protection Strategy (2001-2005)



- Legend
- Drainage Areas
 - Stream Channels
 - ▭ Watershed Perimeter
 - ▭ Watershed Boundary
 - ▭ Watershed Subdivisions

Stream Conditions 1994-1998

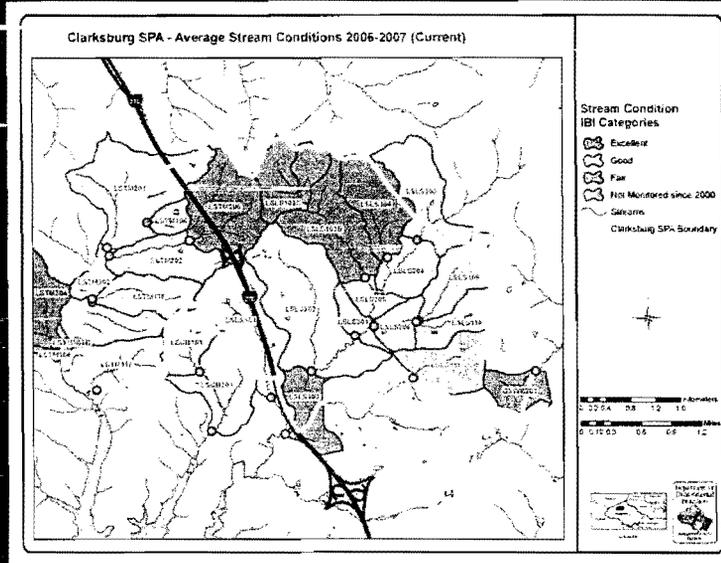
Clarksburg SPA - Average Stream Conditions 1994-1998 (Pre-Development)



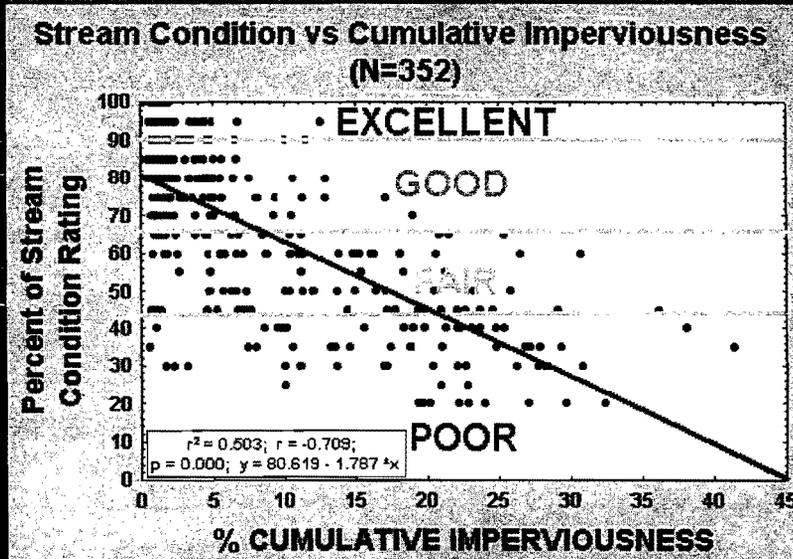
- Stream Condition IBI Categories
- ▨ Excellent
 - ▩ Good
 - ▬ Fair
 - Not Monitored until 1999
 - Streams
 - ▭ Clarksburg SPA Boundary

0 3 6 9 12 15 Kilometers
0 3 6 9 12 Miles

Stream Conditions 2006-2007



Imperviousness



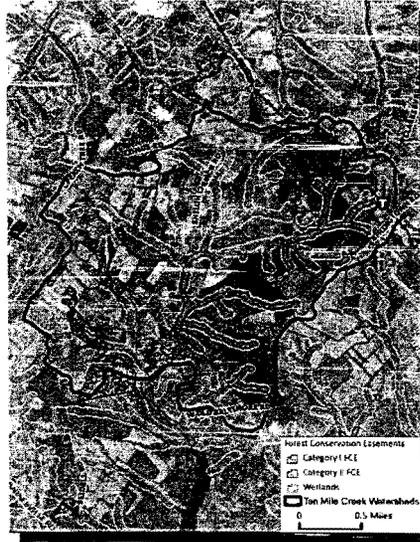


Ten Mile Creek landscape



Natural Resources

- Wide stream buffers
- Wetlands, springs
- Rolling topography
- Substantial forest
- Thin soils
- Edge of the Ag Reserve

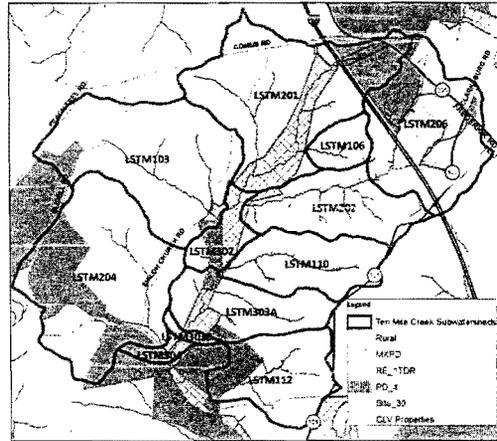






Imperviousness Analysis

Ten Mile Creek Subwatersheds
and Stage 4 Properties



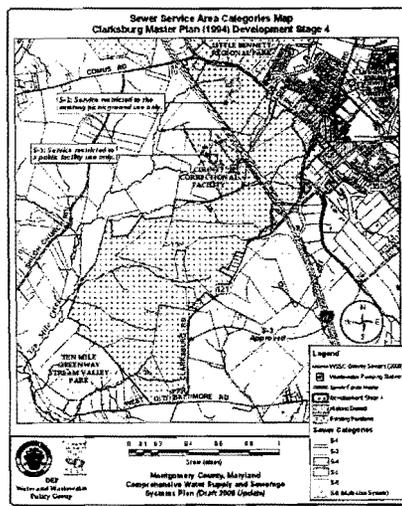
Imperviousness Assumptions

Property	Acres	1994 Plan	15% Cap	25% Limit in Headwaters + RNC	25% Limit in Headwaters
MXPD	107	35	15	25	25
PD-4	121	35	15	25	25
Site 30	295	15	15	15	15
NCMD Proposal	129	15	15	15	15
RE-1/TDR2	563	26	15	9	26
Rural	451	6	6	6	6
Rural Density Transfer and Parkland	1375	2	2	2	2
Proposed Transportation Improvements	15	15	15	15	15

Projected Imperviousness Estimates

Drainage Area	Current Imperviousness	1994 Plan	15% Cap	25% Limit in Headwaters + RNC	25% Limit in Headwaters
LSTM201	2.6%	11.0%	8.9%	8.4%	8.4%
LSTM206	12.6%	22.1%	16.6%	19.3%	19.3%
LSTM106	7.6%	11.7%	11.7%	11.7%	11.7%
LSTM202	1.4%	14.7%	12.6%	11.5%	14.7%
LSTM110	1.0%	26.3%	15.5%	9.7%	25.6%
LSTM103	2.0%	2.2%	2.2%	2.2%	2.2%
LSTM302	0.1%	3.5%	2.6%	2.1%	3.5%
LSTM204	2.2%	2.6%	2.6%	2.6%	2.6%
LSTM303A	0.5%	16.5%	9.7%	5.6%	16.5%
LSTM303B	1.7%	4.7%	4.7%	4.7%	4.7%
LSTM304	1.2%	3.1%	3.1%	3.1%	3.1%
LSTM112	1.0%	12.1%	7.0%	4.2%	12.1%
Total TMC Imperviousness	3.3%	11.0%	8.1%	7.4%	10.1%

Sewer Service Categories



Recommendations

- ◎ Defer action on category changes
- ◎ DGS to conduct new site selection for Depot
 - 9 months from consultant selection
 - Coordinated with Planning Department
 - If no other site found, Council to consider water and sewer category change

Recommendations

- ◎ Add a master plan amendment to Department work program
- ◎ Accelerate with additional resources
- ◎ Two years from start, \$500k per year
 - 3 staff workyears per year
 - \$200k per year for consultant services to provide:
 - Specialized expertise and focus on ESD and LID
 - Focus on comprehensive analysis for Ten Mile Creek
 - Facilitate interagency effort



MONTGOMERY COUNTY PLANNING BOARD
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

July 16, 2009

The Honorable Phil Andrews
President
Montgomery County Council
100 Maryland Avenue
Rockville, Maryland 20850

Ref: Clarksburg Implementation Stage 4
Recommended Plan Amendment

Dear Council President Andrews:

On July 9, 2009, the Planning Board considered the status of Stage 4 development in accordance with the 1994 Clarksburg Master Plan. Planning Department staff and County Executive staff worked jointly on the findings and recommendations presented to the Planning Board. This working group held meetings with environmental and community interests as well as with property owners before forming their recommendations.

The Board, with the general concurrence of the County Executive, found that the amount and location of development originally planned for the Ten Mile Creek watershed threatens the health of the creek based on water quality monitoring and experience in this and other watersheds. The sensitivity and importance of protecting the Ten Mile Creek watershed were essential goals of the 1994 Plan.

In addition, the staff findings and recommendations addressed the proposed County location of the North County Maintenance Depot within the Ten Mile Creek Watershed. The report to the Board reiterated the Planning Department's view that the Depot use, in part of the Creek's headwaters and in the Special Protection Area, is a poor choice for this facility. A new site selection process for the Depot is recommended with the goal of finding a better location outside of the Stage 4 and Special Protection Areas. The Executive agreed to undertake a new site selection process, but will continue with detailed site investigations on the Ten Mile Creek site in the event that no other site is found.

After hearing the Department's staff presentation, accompanied by County representatives, and hearing three panels of public testimony that included citizens, environmental interests and property owners, Board members discussed the report findings and

recommendations and voted 4-0 (with Commissioner Alfandre absent) in favor of the recommendations.

As summarized from the report, The Planning Board recommends:

1. The **County Council defer action on water and sewer category changes pending a master plan amendment** that provides adequate protection for Ten Mile Creek;
2. The County Council **add a new master plan amendment for Clarksburg Stage 4 and the associated Ten Mile Creek watershed to the Planning Department work program**. The goal of the master plan amendment is to:
 - a. determine how state-of -the-art Environmental Site Design and Low Impact Development can be used in the Ten Mile Creek watershed to best achieve sustainability and the original master plan environmental protection and community building goals;
 - b. involve all stakeholders in assessing the lessons learned from what has been approved and what still needs to be done; and
 - c. incorporate current county policy initiatives and new environmental approaches for smarter growth.
3. The **work program is for a two-year period** starting on the date of the Council approval, and that **funds totaling \$500,000 for each year** be assigned. This \$1,000,000 would include \$600,000 for Departmental staff time as well as \$400,000 for consultant services; and
4. The **Department of General Services should contract with a site selection consultant** using funds from the current design budget to assist in determining if there is an alternative site outside of the Clarksburg Special Protection Area; and
5. The **selection process for an alternative site should be coordinated with the Planning Department and occur within a nine month period** from the date a site selection consultant is chosen. If, at the end of that period, an alternative site has not been located then the Council shall determine:
 - a. if the North County Maintenance Depot should proceed ahead of the completion of the master plan amendment, and
 - b. whether they would consider water and sewer category changes for the North County Maintenance Depot.

The Honorable Phil Andrews
July 16, 2009
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The Planning Board looks forward to the opportunity to discuss this with the County Council. Please let us know when it can be scheduled. I have attached the Planning Board packet with the Summary Memo and Attachment 1 which gives the detailed analysis prepared by Planning Department staff.

Sincerely,



Royce Hanson
Chairman

RH:MP:ss

Attachments

Planning Department Staff Memo

Attachment 1: Analysis of Current Conditions and Projected Development in Clarksburg
Stage 4

cc Mary Dolan
Marlene Michaelson
Jennifer Hughes
Robert Hoyt
David Dice
James Stiles



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

MCPB
 Item # 7
 7/9/09

MEMORANDUM

TO: The Montgomery County Planning Board

VIA: Rollin Stanley, Director *RS*

Mark Pfefferle, Acting Chief *MP*
 Green/Environmental Planning Division

Glenn Kreger, Acting Chief *GK*
 Community Based Planning Division

FROM: Mary Dolan, Master Planner Supervisor (301-495-4552) *MD*
 Green/ Environmental Planning Division

Ronald Cashion, RA, AICP, Planner Coordinator, Urban Designer *RC*
 North Central Transit Corridor Team
 Vision/ Community Based Planning Division

SUBJECT: Next Steps for Clarksburg Development Stage 4 - Recommendation to County Council

RECOMMENDATIONS: Staff recommends that:

1. The County Council defer action on water and sewer category changes pending a master plan amendment that provides adequate protection for Ten Mile Creek;
2. The County Council add a new master plan amendment for Clarksburg Stage 4 and the associated Ten Mile Creek watershed to the Planning Department work program. The goal of the master plan amendment is to:
 - a. determine how state-of -the-art Environmental Site Design and Low Impact Development can be used in the Ten Mile Creek watershed to best achieve sustainability and the original master plan environmental protection and community building goals;
 - b. involve all stakeholders in assessing the lessons learned from what has been approved and what still needs to be done; and
 - c. incorporate current county policy initiatives and new environmental approaches for smarter growth.
3. The work program is for a two-year period starting on the date of the Council approval, and that funds totaling \$500,000 for each year be assigned. This \$1,000,000 would include \$600,000 for Departmental staff time as well as \$400,000 for consultant services; and
4. The Department of General Services should contract with a site selection consultant using funds from the current design budget to assist in determining if there is an alternative site outside of the Clarksburg Special Protection Area; and

5. **The selection process for an alternative site should be coordinated with the Planning Department and occur within a nine month period** from the date a site selection consultant is chosen. If, at the end of that period, an alternative site has not been located then the Council shall determine:
 - a. if the North County Maintenance Depot should proceed ahead of the completion of the master plan amendment, and
 - b. whether they would consider water and sewer category changes for the North County Maintenance Depot.

Context for Decision

The 1994 *Clarksburg Master Plan* was adopted with a specific staging plan, “to address fiscal concerns and to be responsive to community building and environmental protection objectives.” Key among these was environmental concern for the Ten Mile Creek watershed. Development in Ten Mile Creek is the last stage of the master plan (Stage 4). The staging triggers have been met to consider whether to allow development to go ahead in Stage 4, and the County Council must make a determination to grant water and sewer category changes for this area (with or without special conditions), or to delay those actions pending further study or land use actions.

The Ten Mile Creek watershed (a tributary of the Little Seneca watershed) was identified in the 1994 master plan as having the greatest constraints for development of the Little Seneca’s tributaries and the most prone to environmental degradation by development. Sampling data collected in the process of preparing the master plan indicated that Ten Mile Creek had good water quality that supported a diverse environmental community. The master plan identified the combination of relatively healthy streams, existing wetlands, significant woodland and diverse land cover as providing valuable habitats, while at the same time, steep slopes and poor soils limited opportunities for development. These conditions led planners and the County Council to delay development in this watershed until the last stage of implementation. That consideration was to be held until sufficient information was available to determine that the creek’s special qualities could be protected, considering the impact of development in other portions of the Little Seneca watershed (as well as other monitoring in similar watersheds). **The time for this decision has arrived.**

Interagency Working Group

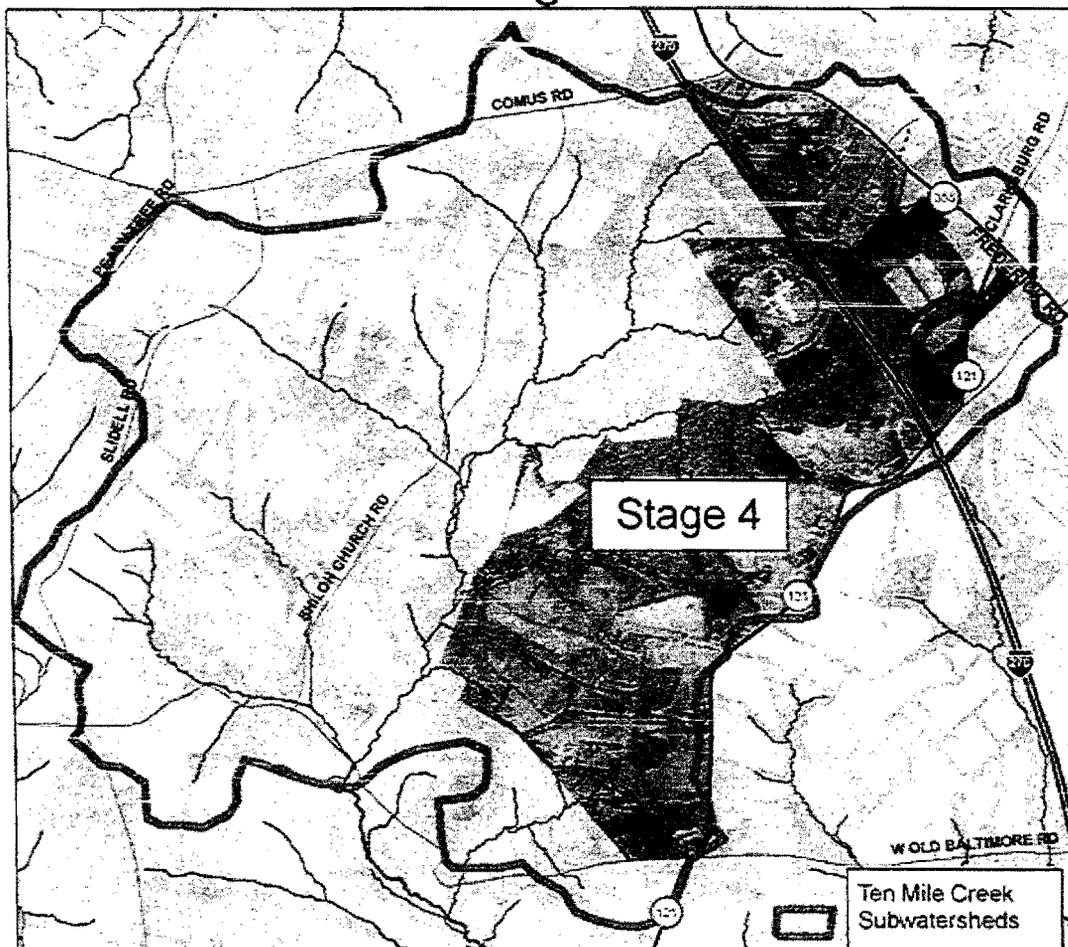
In February, the Executive presented the results of monitoring in the Clarksburg Special Protection Area, the last implementation trigger for Stage 4. In consultation with County Council staff in March, an interagency working group (including County and Commission staff) led by the Department of Environmental Protection and the Planning Department was convened to prepare information and form recommendations for actions related to the Clarksburg Stage 4 Ten Mile Creek East area. **The findings listed below were prepared by this group.**

Findings

Detail and background information on these findings are provided in **Attachment 1: Analysis of Current Conditions and Projected Development in Clarksburg Stage 4**. The Planning Department Staff and the County Executive staff find that:

- **The staging triggers** for consideration of Stage 4 in Clarksburg (with the exception of the provision of sewer and water infrastructure in the first 4 years of the CIP) **have been met.**
- **Ten Mile Creek retains its environmental value and sensitivity**, but it is already feeling the effects of development in its watershed.

Ten Mile Creek Subwatersheds and Stage 4 Area

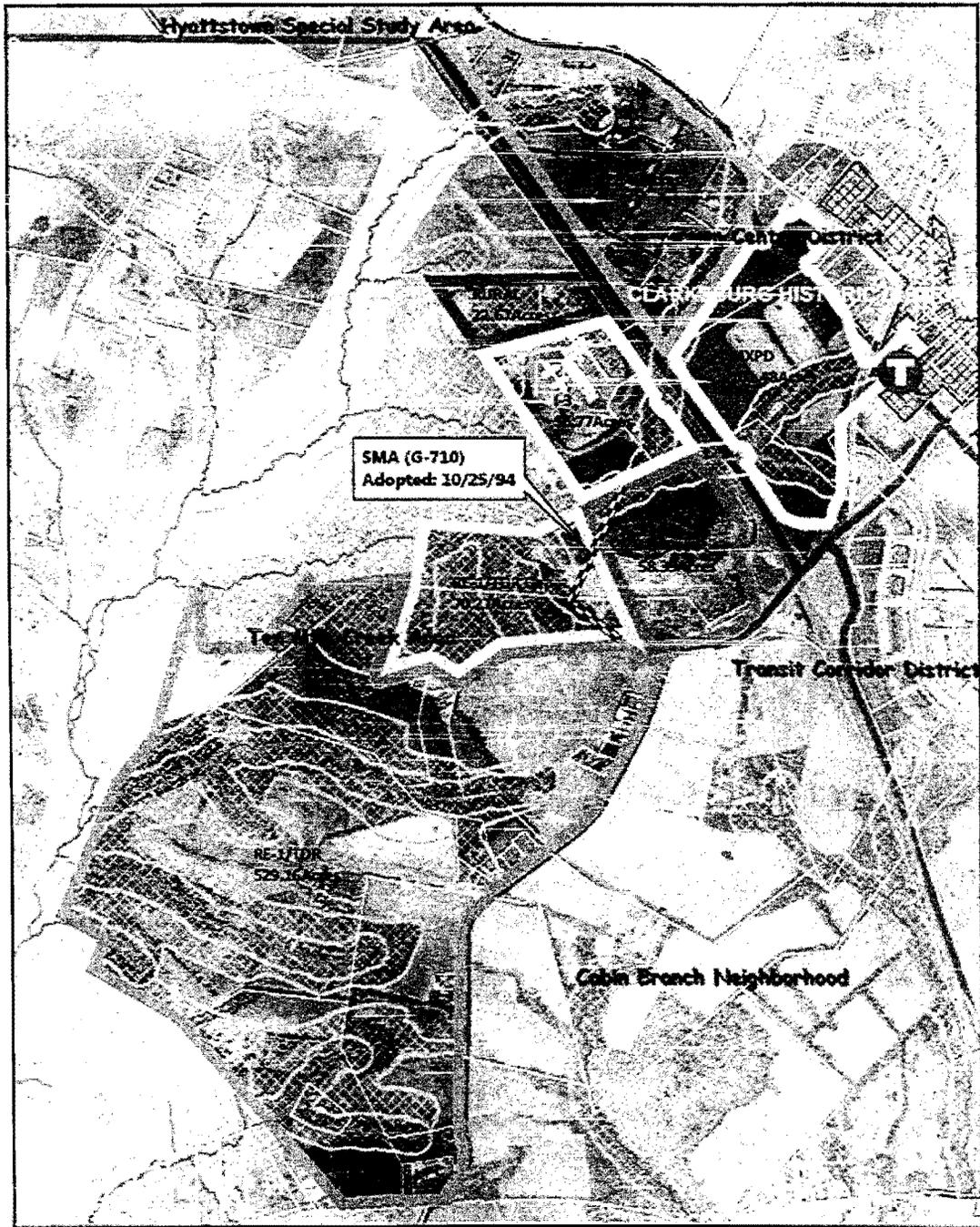


- There is **significant residential, employment and retail development capacity remaining in the Town Center** that has not been approved and **very little land area outside Stage 4** that has **not already been approved for development** in the Town Center. The Stage 4 Town Center headwaters properties, currently zoned R-200, **will require re-zoning to MXPB and PD-4** (as designated in the master plan) before they can achieve densities approaching the remaining development capacity.
- There is **sufficient developable land area** to potentially accommodate all the remaining employment and retail and half of the remaining residential capacity planned for the Town Center **on the Stage 4 properties**.
- West of I-270, the **existing Detention Center** occupies one of the two sites designated for employment, office and Research and Development uses. This site is **limited to 15% imperviousness**.

- The **North County Maintenance Depot** is proposed to occupy the other R&D site. A facility of this type is necessary to support expanded transit service in the county and smart growth policies. The R&D site is **limited to 15% imperviousness**. The CIP allocates \$9.7 million for planning, design and supervision of this project.
- West of I-270, the **developable land area of the RE1/TDR2 properties can accommodate to the limit of 900 units**, with the potential for up to **25% imperviousness** (based on imperviousness of residential development of a similar density). These properties **do not require re-zoning**.
- **Available monitoring data** for Stages 1-3 of Clarksburg and other sensitive watersheds **demonstrated the ineffectiveness of current stormwater management practices** in protecting stream quality in subwatersheds **with high imperviousness levels**. This is because:
 - The development process creates significant changes to the landscape and hydrology.
 - Most projects have yet to convert from sediment and erosion control to stormwater management control.
 - Projects that have converted have done so recently, so the resulting record is limited.
 - Stormwater management techniques have advanced since these projects were approved.
- **No sewer is currently available** for any of the properties in Stage 4 (with the Exception of the County Correctional Center), as well as parts of the Historic District that are outside Stage 4, but drain to Ten Mile Creek. Some homes have failing septic systems and would need to be served by a **public sewer system that would be built by developers** in Stage 4.

Issues

- If all the development capacity in the Stage 4 headwaters area is built, **the imperviousness levels will be above 25% in parts of the headwaters**, resulting in poor water quality where it is most critical to protect. Most of the **tributaries in the remaining portions of Stage 4 will likely exceed 15% imperviousness**.
- There is **no definitive evidence of success in sustaining good water quality** in sensitive watersheds with high levels of imperviousness in and near the headwaters as evidenced by the monitoring of Stages 1-3 of Clarksburg in Little Seneca Creek and other Special Protection Areas.
- **Levels of imperviousness that were predicted for development under the 1994 plan were underestimated** due to a proffer at the time for a voluntary limit of 15% imperviousness on the RE1/TDR2 properties (the properties have since changed hands) and additional transportation improvements will add to the totals.
- Scientific evidence now indicates that **watershed imperviousness must be lower than was assumed in 1994 to maintain stream quality**.
- **Property owners voluntary measures are limited** to recommendations for Environmental Site Design practices (soon to be required by County ordinance), but some property owners have also **agreed to consider other measures** such as staging of development, stream restoration, forest planting or modified agricultural practices in the Ten Mile Creek watershed to protect water quality.



Choices

The 1994 Clarksburg Master Plan gives the County Council four options for moving ahead with Stage 4 of development in Clarksburg:

Council Options in Considering Stage 4

1. Grant water and sewer changes without placing limiting conditions.
2. Grant water and sewer changes, subject to property owners' commitments to take additional water quality measures.
3. Defer action on water and sewer category changes pending further study or actions.
4. Consider such other land use actions as are deemed necessary.

If Option 1 or 2 is chosen, it will be very difficult to achieve levels of imperviousness and other measures that would assure the health of Ten Mile Creek. The Planning Board (and County Council for those that require rezoning) would have to review each plan and evaluate proposed levels of development, assessing how much imperviousness may be allowed without an overlay zone or specific regulatory guidance. Development decisions on a case-by-case basis would have the potential for perceived or actual inequities between property owners. Also, because development is not examined comprehensively, it is very likely that the cumulative impacts from each development would **result in unacceptable degradation of Ten Mile Creek.**

The Planning Staff recommends a combination of Options 3 and 4. Depending on County Council priorities for master planning, we recommend that a master plan amendment with additional land use and environmental studies and guidelines be prepared as soon as possible for the Ten Mile Creek watershed, including parts of the Town Center District and all of the Ten Mile Creek Area. This would involve approximately 1100 acres of the 10,200 –acre Clarksburg Master Plan area. If the Planning Board and County Council wish to **accelerate the completion of this plan, additional resources must be allocated** or other master plans postponed to accommodate the additional workload. This would include the Planning Department retaining consultant services to analyze the best combination of Environmental Site Design, urban design guidelines, zoning and land use while working with the Executive staff and all the stakeholders.

A Master Plan Amendment will allow the Planning Board and County Council to take a fresh look at the 1994 plan. The plan is now 15 years old and there is a need to involve all stakeholders in assessing the lessons learned from what has been approved and what still needs to be done **to achieve the original environmental protection and community building goals.** Current county policy initiatives and new environmental planning guidelines for smarter growth need to be incorporated as well. Focusing the master plan amendment on the Stage 4 area will stabilize and encourage the already-approved areas of the Town Center **and will not delay improvements sought by the residents of Clarksburg.**

The desired outcomes of a master plan amendment will include:

- Providing an opportunity to create a new paradigm for **the best balance between community building priorities and the protection of fragile and valuable environmental assets, implementing the extensive provisions of the 1994 master plan for the Ten Mile Creek watershed;**
- Use of **a full public process to involve all stakeholders,** including residents, businesses, landowners and their development teams, environmental groups, and County agencies;
- **Allowing the Town Center approved development outside the Ten Mile Creek watershed to stabilize and public facilities and amenities to be completed;**

- **Allowing County study of the Clarksburg Town Center CCT station and establish the alignment** for the extension of Observation Drive north of Clarksburg Road;
- **Evaluating methods, facilities, and practices for water quality protection** currently being used in Clarksburg and elsewhere in the County and State;
- **Identifying and evaluating rapidly evolving best management practices** including Environmental Site Design (ESD) and Low Impact Development (LID);
- **Considering master plan provisions** together with existing and approved development levels and **with current private and public development plans;**
- **Planning for infrastructure** priorities including water and sewer, and roadways to serve the planned development.

Staff recommends that the **County undertake a new site selection process** for the North County Maintenance Depot to determine if there is an alternative site outside of the Clarksburg Special Protection Area. This work **should be coordinated with the Planning Department**. If another site cannot be found through this effort, the County Council should consider whether a water and sewer category change is appropriate for the currently proposed site.

Timeline and Costs

The master plan process would require approximately two years from the start approved by the County Council for the Planning Department work program. Intensive stakeholder involvement, close interagency staff coordination and specialized consultant expertise and experience in ESD and LID will be required. Approximately 3 Planning Department workyears per year and \$200,000 per year for consultant services would be required.

Stage 4

Table 21

(This stage's triggers and implementing mechanisms are described in detail in the Plan's text. This table summarizes these detailed recommendations.)

Description

This stage allows the remaining areas of Clarksburg (i.e., those properties that drain into the Ten Mile Creek watershed) to proceed with development. (See Figure 54.)

Staging Triggers¹

- 1-2) Same triggers as for Stage 3.
 - 3) Wastewater treatment and conveyance facilities, sufficient to serve all approved development in Germantown and the Stage 4 area of Clarksburg, are 100 percent funded in the first four years of the CIP.
 - 4) **Baseline Monitoring:** Baseline biological assessment of the aquatic ecosystems of the Little Seneca Creek and Ten Mile Creek watersheds has taken place for a minimum of three years.
 - 5) **Community Building:** At least 2,000 building permits have been issued for housing units in the Newcut Road and Town Center sub-areas of Clarksburg.
 - 6) **Eastside BMP's Monitored and Evaluated:** The first Annual Report on the Water Quality Review Process following the release of 2,000 building permits in the Newcut Road and Town Center sub-areas is completed. This report will have evaluated the water quality best management practices (BMP's) and other mitigation techniques associated with Town Center/Newcut Road development and other similar developments in similar watersheds where BMP's have been monitored.
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Implementing Mechanisms²

- 1) Once all of the above conditions have been met, the County Council will consider Water and Sewer Plan amendments that would permit the extension of public facilities to the Ten Mile Creek area. (See text for further discussion of these mechanisms.)
- 2) Ongoing water quality and BMP monitoring by DEP in accordance with the WQRP.
- 3) Properties in this stage are subject to AGP and APFO approval by the Planning Board.
- 4) One or several development districts (or alternative financing mechanisms) that can provide infrastructure facilities in accordance with the APFO and additional local determinations by the County Council are implemented.

¹ All staging triggers must be met to initiate this stage of development.

² Individual developments within this stage can proceed once public agencies and the developer have complied with all of the implementing mechanisms.

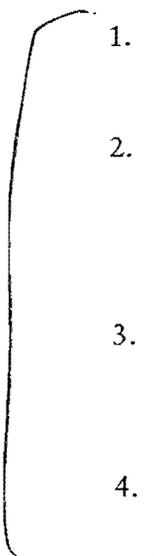


Eastside BMPs Monitored and Evaluated: The first Annual Report on the Water Quality Review Process (WQRP) following the release of 2,000 building permits in the Newcut Road and Town Center sub-areas is completed by the Department of Environmental Protection. This report will have evaluated the water quality best management practices (BMPs) and other mitigation techniques associated with the Town Center/Newcut Road development and other similar developments in substantially similar watersheds where BMP's have been monitored.

Once the above events occur, County Council will consider water and sewer category changes that would permit the extension of public facilities to the Ten Mile Creek area. As part of their deliberations, the Council will:

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- Review the demands on the Capital Improvements Program for necessary infrastructure improvements.
 - Evaluate the water quality results associated with Newcut Road and Town Center development and other similar developments in substantially similar watersheds where BMP's have been monitored and evaluated. In undertaking this evaluation, the Council shall draw upon the standards established by federal, state, and County laws and regulations and determine if the methods, facilities, and practices then being utilized by applicants as part of the water quality review process then in place are sufficient to protect Ten Mile Creek.
 - Assess voluntary measures taken by property owners in the Stage 4 area to protect water quality in the environmentally fragile Ten Mile Creek watershed. Such measures might include stream restoration, afforestation/reforestation, and modified agricultural practices.

After conducting these assessments, the County Council may:

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1. Grant water and sewer category changes, without placing limiting conditions upon property owners.
 2. Grant water and sewer category changes, subject to property owner commitments to take additional water quality measures, such as staging of development, to protect the environmentally fragile Ten Mile Creek watershed.
 3. Defer action on a Water and Sewer Plan category change, pending further study or consideration as deemed necessary and appropriate by the Council.
 4. Consider such other land use actions as are deemed necessary.