

Mayor and Council Work Session December 3, 2019 Agenda

"The City of Hagerstown will promote a diverse, business-friendly, and sustainable community with clean, safe, and strong neighborhoods."

"The City of Hagerstown shall be the model provider of the most efficient and highest quality customer services to be known as the municipal location of choice for all"

"Wherever you go, no matter the weather, always bring your own sunshine." - Anthony J. D'Angelo

4:00 PM WORK SESSION

- 4:00 PM** 1. Street Tree Survey - *Rodney Tissue, City Engineer, and Logan Hine, Eagle Scout*
- 4:15 PM** 2. Stormwater Utility Phase II Final Report - *Rodney Tissue, City Engineer*
- 4:55 PM** 3. Comprehensive Plan Amendments – *Kathleen Maher, Director of Planning and Code Administration, and Megan Flick, Planner*

CITY ADMINISTRATOR'S COMMENTS

MAYOR AND COUNCIL COMMENTS

ADJOURN

**REQUIRED MOTION
MAYOR AND CITY COUNCIL
HAGERSTOWN, MARYLAND**

Topic:

Street Tree Survey - *Rodney Tissue, City Engineer, and Logan Hine, Eagle Scout*

Mayor and City Council Action Required:

Discussion:

Financial Impact:

Recommendation:

Motion:

Action Dates:

ATTACHMENTS:

File Name

Street_tree_survey.pdf

Description

Street Tree Survey



CITY OF HAGERSTOWN, MARYLAND

Department of Parks and Engineering

December 3, 2019

TO: Scott Nicewarner, City Administrator

FROM: Rodney Tissue, Director Parks and Engineering 

RE: **Street Tree Survey**

I request time on the December 3rd Work Session for Logan Hine, a local Eagle Scout in Troop 64 in Maugansville, to present a short PowerPoint presentation on his recent street tree survey for the City.

Logan and the team he organized collected data on over 979 street trees (trees between the curb and sidewalk or in the sidewalk). This is the first time this data has ever been collected and the data will be used as follows:

- Management of our street tree assets including canopy cover, maintenance, etc.
- The State of Maryland recently required such databases be established before we can receive any additional "forest conservation" funds to plant trees so his work will be instrumental in allowing additional trees to be planted in the City of Hagerstown.
- Trees need to be planted to help fulfill our MS4 stormwater permit requirements that the State and EPA mandate to communities.
- Data will be used to obtain these recognitions:
 - *Tree City USA* and *Growth Award* recognition from the National Arbor Day Foundation.
 - The highest level (green) of the *People Loving and Nurturing Trees Program* (PLANT).
The City must maintain standards for both of these programs each and every year.

His ability to organize and to encourage other volunteers to be part of this project is what I am most impressed by. Often times, volunteer hours are minimal; however, Logan had a significant number of volunteers helping him complete this project in our community over several weekends.

Staff will attempt to complete all the data collection for the rest of the City this winter and maintain the database as required by State law.

Attachments: Map

c: Logan Hine
Susan Simonson
Tim Young
Jeff Swan
Eric Deike
Cathy Beach

Parks and Recreation Division

351 North Cleveland Avenue • Hagerstown, MD 21740
Ph: 301.739.8577 Ext. 169 • Fax: 301.790.0171

Engineering Division

1 East Franklin Street • Hagerstown, MD 21740-4817
Ph: 301.739.8577 Ext. 125 • Fax: 301.733.2214

Identify



Identify from:

<Top-most layer>

Tree Survey 2019

RANDOLPH



Location:

1,111,230.882 721,052.129 Feet

Field	Value
FID	866
Shape	Point
Zone	1
StreetName	RANDOLPH
ID	0
GPS_Lat	39.6443
GPS_Lon	-77.7141
SpCode	SYRE
Common_Nam	Japanese Tree Lilac
Notes	
Address	
DBH	6.7
Approx_Hei	20
E_Pit	N
WireConfl	N
SwDamg	N
SwLift	N
Condition	GOOD
MtncRec	
DATASRCE	LOGAN HINE SURVEY
DatPlntd	<null>



Identified 1 feature





Hagerstown Tree Inventory 2019



Legend

Tree Survey 2019

Source

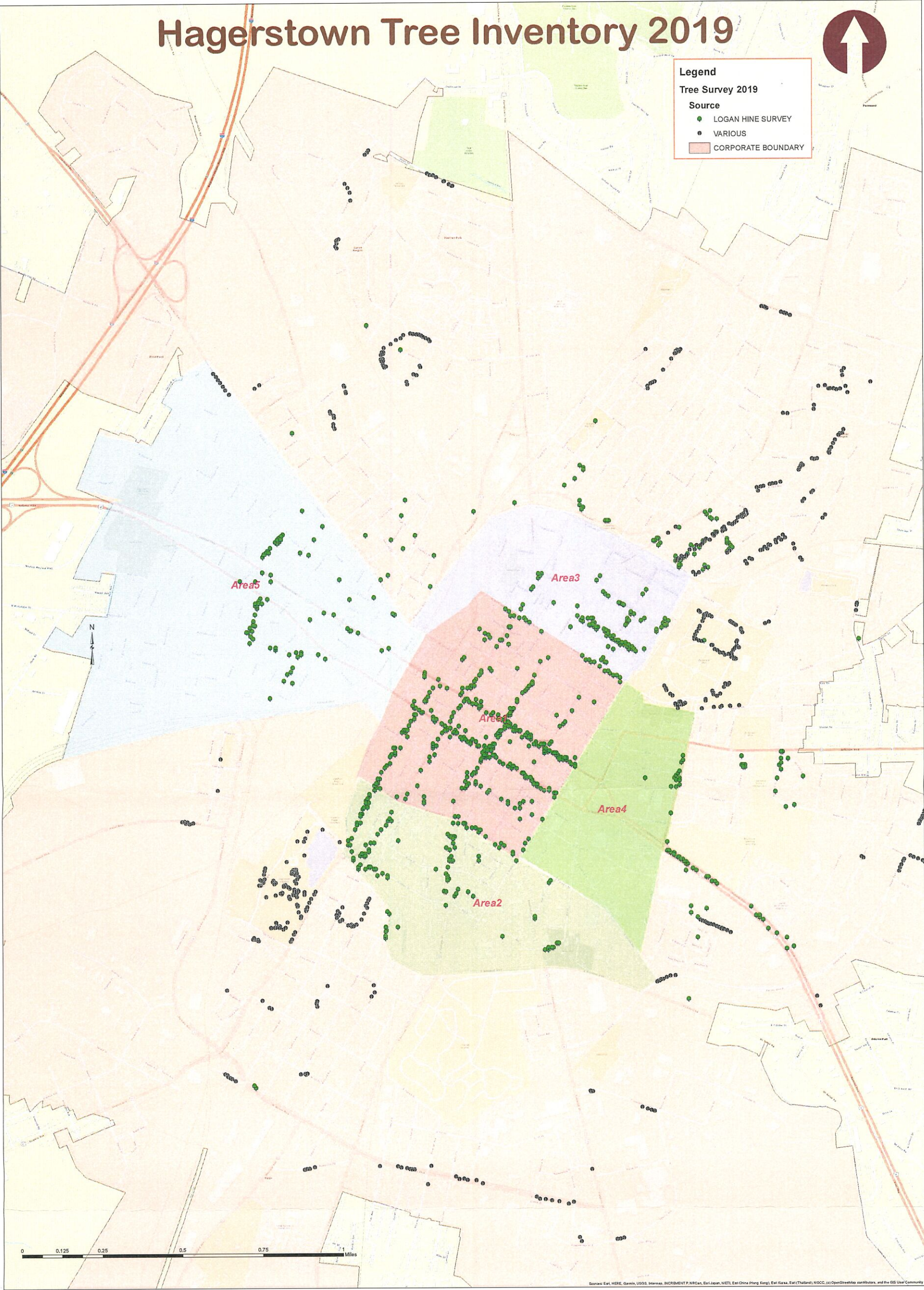
●

 LOGAN HINE SURVEY

●

 VARIOUS

CORPORATE BOUNDARY



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

**REQUIRED MOTION
MAYOR AND CITY COUNCIL
HAGERSTOWN, MARYLAND**

Topic:

Stormwater Utility Phase II Final Report - *Rodney Tissue, City Engineer*

Mayor and City Council Action Required:

Discussion:

Financial Impact:

Recommendation:

Motion:

Action Dates:

ATTACHMENTS:

File Name

Stormwater_Utility_Phase_II_Final_Report_1.pdf

Stormwater_2.pdf

Description

Stormwater Utility Final
Report Documents Part 1

Stormwater Utility Final
Report Documents Part 2



CITY OF HAGERSTOWN, MARYLAND

Department of Parks and Engineering

December 3, 2019

TO: Scott Nicewarner, City Administrator
FROM: Rodney Tissue, City Engineer *Reo*
RE: **Stormwater Utility – Phase II Final Report**

Background:

Since the spring of 2018, City staff have worked with consultants from *Wood Environment & Infrastructure Solutions (Wood)* and the appointed Stormwater Advisory Committee to examine the City's current stormwater program, and to explore ways to fund the expansion of this program to meet regulatory requirements. Phase I of this effort was completed in November 2018, and a report summarizing the work to date was presented to the Council. The Council authorized the continuation of this work in Phase II, with the goals of finalizing the scope and cost of the new program, refining the City's impervious area mapping data, and finalizing proposed Utility Fee rate structures and credit policies. The purpose of this memo is to describe the work completed in Phase II and to present numerous recommendations (including the rate amount), from the Stormwater Advisory Committee on next steps should the Council wish to proceed to Phase III.

Mayor and Council Action Requested:

David Bulova from *Wood*, along with City staff, will present the Phase II Final Report. After reviewing this information, staff requests that the Council give direction on whether to proceed with Phase III of program implementation. If Council authorizes Phase III, City staff will work with *Wood* and the City Attorney to draft the required ordinances to enable the Stormwater Utility Fee, and to develop the necessary administrative systems to calculate and bill the fees.

Discussion:

As the Phase I report presented to the Council explained, the City faces increasing challenges in managing its existing stormwater program, and expanding it to meet more stringent regulatory requirements. These challenges were highlighted in a video that staff prepared; the video is posted on the City's webpage, and can also be found at this link: <https://youtu.be/Mmu5XbMqVJg>

After eighteen months of analyzing, discussing and debating the merits of a Stormwater Utility Fee, WOOD, staff and the Advisory Committee reached the consensus that the City should move ahead with the expansion of its stormwater program. The group's Phase II work resulted in some major program refinements including:

- Overall program cost *reduction* from \$27,000,000 to \$17,880,000
- Confirmed with Maryland Department of the Environment that we could use credits from our wastewater treatment plant to extend our deadline to 2030 and thereby reduce the fee
- Develop incentive programs and credit programs.
- Recommend starting the program July 1, 2020

Parks and Recreation Division

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Attached you will find the Phase II report for your review. The Executive Summary is pages 1 thru 7.

Upon reviewing the report, staff suggests five key reasons for implementing the fee and expanding the program as follows:

1. Management of our nearly 110 miles of underground storm drainage piping system, and creating a source of funds to be able to both inspect (for the first time ever) and construct storm drain as needed to address issues.
2. Improving storm water quality both locally and downstream
3. MS4 Permit compliance
4. Removing curb and sidewalk maintenance responsibilities from individual homeowners
5. General Fund savings (page 25) and diversified revenue source

If the Council elects to move forward with Phase III of the stormwater program development, the next steps (discussed on pages 27 and 28 of the Phase II report) will include:

- Introduce an Ordinance in early 2020 to create the Stormwater Utility Enterprise Fund and enable the City to impose a Stormwater Utility Fee and address numerous details of the program (see page 28 of the report).
- Continue public education efforts
- Authorize *Wood* to complete final implementation (a budgeted expense estimated at \$35,000) which includes additional public education, master account file development and integration, staff training and customer service training.
- Continued refinement of the City's impervious area database, which will be the basis for calculation of the fee for each developed parcel in the City.

Staff and *Wood* will be present on Tuesday to discuss.

Attachments: Phase II Report, 11/26/19

cc: Stormwater Advisory Committee members
David Bulova, *Wood*
Michelle Hepburn
Nancy Hausrath
Eric Deike
Jason Morton

City of Hagerstown

Stormwater Utility Fee Study – Phase II Report to City Council



City of Hagerstown
Department of Parks and Engineering
City Hall, 1 East Franklin Street
Hagerstown, Maryland, 21740

Prepared with assistance by:
Wood Environment & Infrastructure Solutions
Chantilly, Virginia



wood.

Draft – November 26, 2019

City of Hagerstown

Stormwater Utility Fee Study – Phase II

REPORT TO CITY COUNCIL

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City of Hagerstown

Stormwater Utility Fee Study – Phase II

REPORT TO CITY COUNCIL



Draft – November 26, 2019

Executive Summary

This report is Phase II of a three phase Stormwater Utility Fee Study to evaluate methods for funding the City's growing stormwater infrastructure needs as well as new state water quality mandates. A key consideration is whether the City should adopt a user fee (also known as a stormwater utility fee) approach to generating revenue to fund the City's stormwater program.

The City's existing program is primarily supported by the General Fund, which draws most of its revenue from the real property tax. While the real property tax is based on a property's value, a user fee is based on how developed property creates a demand for the construction and operation of public drainage infrastructure and a publicly-managed stormwater program. Higher levels of impervious area, such as rooftops, driveways, and parking lots, correlate with increased flooding and lower water quality. A user fee approach uses impervious area on a parcel as the "meter" to allocate the cost of stormwater management to individual properties.

City Council initiated Phase I in January 2018 and engaged Wood Environment & Infrastructure Solutions (Wood) to assist with the study. A Stormwater Advisory Committee (SAC) was appointed to involve community stakeholders in the evaluation process. At the conclusion of Phase I, the SAC endorsed a stormwater utility approach to fund the City's stormwater program. The SAC's findings were presented to City Council on November 20, 2018. City Council subsequently authorized work on Phase II.

The scope of Phase II includes the following:

- Finalize the proposed stormwater program and cost.
- Perform a quality review of the City's impervious area mapping data.

City of Hagerstown – Stormwater Utility Fee Study – Phase II Report to City Council

- Finalize rate structure and credit policies.
- Develop final cash flow and rate models.
- Present final rate scenarios to City Council for consideration.

City staff and the consultant continued to engage the SAC in the decision-making process and provided additional opportunities for the public to provide feedback.

Program Change Drivers

Key challenges driving the need for increased investment in the City's stormwater program include the following:

- ***Impervious Area Treatment Requirement*** – The City's Municipal Separate Storm Sewer System (MS4) permit requires the City to treat 20% of untreated impervious area by the end of FY25 as part of Maryland's efforts to restore local streams and the Chesapeake Bay.
- ***Maintenance of Stormwater Management Structures*** – The City faces a number of additional MS4 permit requirements, including the need to inspect and ensure maintenance of a growing inventory of public and private stormwater quality management structures.
- ***Operation and Maintenance of Drainage Infrastructure*** – Much of the City's stormwater management system is now over 100 years old and showing signs of deterioration. The current maintenance program is reactionary. A more proactive approach has the potential to avoid short-term costs (such as road closures and property damage) and to be more cost-effective in the long-term.

Program Opportunities

The SAC also recommended the following enhancements to improve the City's stormwater management program:

- ***Roadway Curb Maintenance*** – Roadway curb maintenance is currently a private landowner responsibility. This can result in the imposition of a significant cost burden on individual property owners. The SAC recommends that curb maintenance be covered under any stormwater utility fee since it is a component of the public drainage system. The cost of sidewalk maintenance should be covered under the General Fund.
- ***Water Quality Incentive Program*** – Hagerstown has limited public property to install stormwater practices. An incentive program aimed at creating public-private partnerships is essential to meeting the City's 20% treatment requirement. It can also be used to improve local water quality and increase public engagement in the City's stormwater efforts.

Funding Options

The following is an overview of typical considerations when assessing whether to shift from a real property tax to a user fee approach to funding stormwater management:

Real Property Tax	User Fee
Property value based.	Property impact based.
Can be accounted for separately but is not legally segregated.	Legally separate enterprise fund can only be used for stormwater program.
Does not generate revenue from tax exempt properties.	All properties contribute, including federal and state properties if the City pays.
Credit (fee reduction) not possible for on-site stormwater structures.	Credit required for on-site stormwater structures.
No additional billing infrastructure needed for implementation.	Requires maintenance of impervious area maps and additional billing preparation.

Three user fee methodologies were evaluated for comparison against the real property tax:

- **Single Factor – Impervious Area:** All properties are charged based on a fixed unit of impervious area times the rate set by City Council.
- **Equivalent Residential Unit (ERU):** All single family detached residential (SFDR) properties are charged one billing unit times the rate set by City Council. The billing unit for all other properties is the median value of SFDR impervious area – known as an ERU.
- **Tiered Residential:** SFDR properties are assigned to tiers, with all other property types charged based on a billing unit times the rate set by City Council.

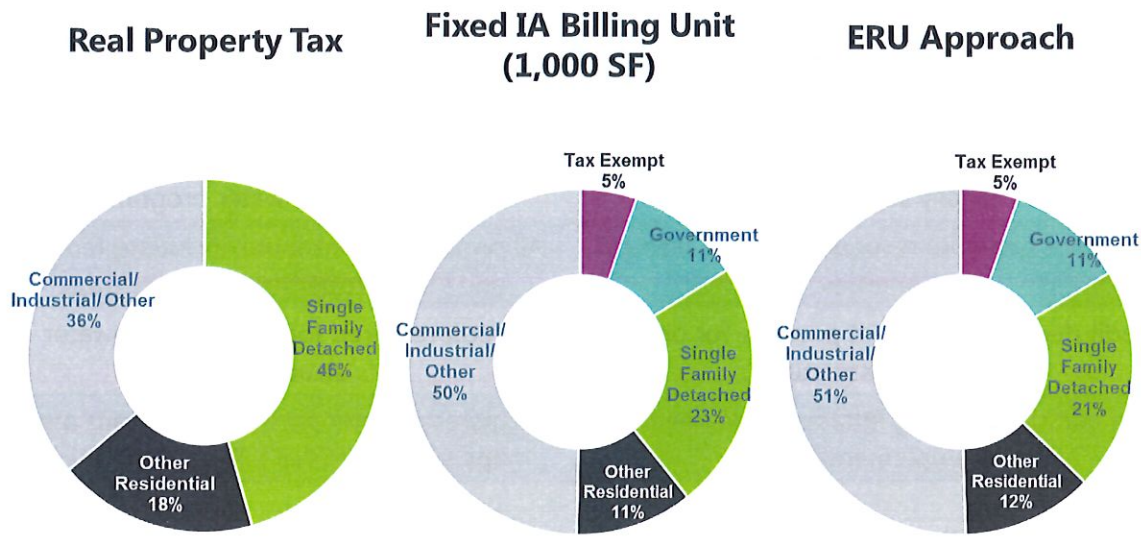
The advantage of the ERU and tiered residential approaches is that they are simplified concepts that reduce the effort to maintain the City's impervious area map. The disadvantage of these approaches is that they can result in perceived inequity in the distribution of costs.

Comparison of Funding Options

The primary consideration when comparing funding options is how each approach shifts the revenue generating burden among land use categories. These shifts are demonstrated in the following figure. Generally, moving from a real property tax to a user fee shifts the cost burden from SFDR properties to non-SFDR properties. Some of the cost burden is also shifted to tax exempt and government properties.

Funding Recommendation

At the conclusion of Phase I, the SAC found that a user fee is the more equitable approach to generating revenue for the stormwater program. They further recommended the use of a billing unit of 1,000 square feet of impervious area based on the City's mapping capabilities.



Refined Program Cost and Compliance Approach

A major task during Phase II was to refine the program cost and approach to complying with the 20% treatment requirement. The following highlights key considerations:

- Reduced Cost Estimate for 20% Treatment Requirement** – City staff conducted a detailed review of impervious area requiring treatment and existing and planned stormwater practices for which credit could be taken. These include street sweeping, implemented and planned stream restoration, stormwater retrofit projects, downspout disconnects, and impervious area removal. The analysis resulted in 298 impervious acres left to be treated at an estimate capital cost of \$17,880,000. This is compared to an initial estimate of 450 impervious acres at a cost of ~\$27 million.
- Use of Wastewater Credits to Manage Compliance Schedule** – A major concern from Phase I was the feasibility of achieving the 20% treatment requirement by FY25. The City confirmed with Maryland Department of the Environment (MDE) that credit from the City's wastewater treatment operations can be used to extend the stormwater CIP from FY25 to FY30. This should not affect plant capacity since credits are certified annually and reflect the amount of pollution reduction under permit limits from the previous year.
- Water Quality Incentive Program Structure and Cost** – The water quality incentive program is proposed to have two components. Larger-scale incentives will be used to leverage private investment to meet the 20% treatment requirement. \$250,000 per year is proposed to be earmarked from the capital program for these projects. Staff envisions up to a 50% match depending on project benefits. Smaller-scale incentives will be used to improve local water quality and engage residents and businesses in the program. \$30,000 per year is proposed for this program. Washington County Soil Conservation District (WCSCD) has developed a proposal for a pilot program that will be initiated in FY21.

- **Establish Drainage Improvement Fund** – Once the City assesses the condition of its drainage infrastructure, funding will be required for rehabilitation and replacement. Initial funding is proposed at \$250,000 annually, but will need to be readjusted once a more complete picture of the system condition is established using CCTV.

The following table presents the total proposed stormwater program cost. For comparison purposes, FY20 represents the current stormwater program.

Activity Area	FY20	FY21	FY22	FY23	FY24	FY25
Personnel	\$602,435	\$727,040	\$748,101	\$766,178	\$784,708	\$803,700
Direct Operating	\$399,491	\$563,376	\$553,627	\$563,438	\$636,042	\$589,848
Capital Total	\$560,000	\$2,428,000	\$2,888,000	\$2,368,000	\$2,493,000	\$2,368,000
Program Total	\$1,561,926	\$3,718,416	\$4,189,728	\$3,697,616	\$3,913,750	\$3,761,548

Stormwater Utility Fee Analysis

Technical and policy issues were finalized during Phase II in order to support development of the cash flow and rate models. The following is summary of primary decision points and recommendations.

- **Billing Mechanism** – Billing options include the real property tax bill, an existing utility bill, or a stand-alone bill. City staff recommends the use of the water/sewer utility bill.
- **Bonding Policy** – Long-term financing of capital improvements was evaluated. Benefits to bonding include sharing the cost of improvements with future users, leveling the cash demand from year to year, and ensuring significant cash flow is available to begin implementation of projects in a timely manner. City staff recommends \$1 million in bonds issued annually for the first seven years, reduced to \$500,000 by year 10.
- **Impervious Area Analysis/Billing Units** – Wood conducted a review of the City's impervious area layer in GIS. City staff then made refinements through October 31, 2019. The impervious area and resulting billing units are used in the rate estimation.
- **Minimum Billing Threshold** – Billing units are rounded to a whole number. City staff recommends the use of natural rounding (rounding to the nearest whole number). This means that a parcel with less than 500 square feet of impervious area is assigned zero billing units.

User Fee Credit Policy

A credit is a reduction in a property owner's fee that recognizes an investment targeted to ultimately reduce the cost of publicly provided stormwater services. However, a credit is also an expense against the stormwater utility. As a result, any credit granted to one property owner shifts the cost burden to all other property owners. The SAC worked with City staff to develop a draft credit policy. Key concepts of the draft credit policy include:

- **Credit Amount** – While all stormwater structures built and maintained in accordance with the City's Stormwater Management Ordinance should receive credit, increased credit should be provided for higher water quality treatment and when the structure can be used to achieve the 20% treatment requirement.
- **Credit for County/SHA Properties** – The SAC discussed whether credit should be provided to County/SHA properties located in the City that are excluded from the City's 20% restoration requirement. The SAC considered this an equity issue and that County/SHA properties should not be treated differently from neighboring properties.

Proposed credit levels are provided below. Note that the credit applies to the impervious area draining to the structure, and not the entire property.

Structure Type		Standard	Credit
Condition of Development	Control of New Impervious Cover	Pre-2000 Design Manual	15%
		2000 Design Manual	20%
		2000 Design Manual, 2009 Version (Environmental Site Design)	25%
	Control of Existing Impervious Cover	Post-2000 Design Manual	40%
Voluntary		2000 Design Manual, 2009 Version	60%

Rate Estimation

Wood conducted two rate scenarios for the City. The first is based on the program and recommendations from City staff and the SAC. The second shows the impact on the rate estimation if the City Council decides to provide credit to County/SHA properties (assumed at 60% for the purpose of the analysis). All rates are for billing units of 1,000 square feet of impervious area.

Rate Scenario	FY21	FY25	FY30
	Per 1,000 SF Impervious Area		
Scenario Recommended by the SAC	\$32	\$38	\$50
Including 60% Credit for County/SHA Properties	\$35	\$41	\$53

The median impervious area for a single family detached residential (SFDR) property in the City is 1,861 SF, which means the median bill would be \$64 per year in FY21 ($1,861/1,000 = 1.861$ rounded to two billing units using natural rounding). The median impervious area for non-SFDR is 2,039 SF, which means the median bill would also be \$64 per year in FY21 ($2,039/1,000 = 2.039$ rounded to two billing units).

Impact on General Fund

The estimated rate is based on the assumption that all stormwater program elements currently funded through the General Fund are shifted to the stormwater utility. This allows for the more efficient management of stormwater program funds. As a result, the real property tax is relieved of the burden of supporting the stormwater management program.

The total amount of relief for FY21 is \$1,275,571. In addition to the shift of program elements to the utility, this accounts for City payment of the fee for City-owned properties and the proposal for sidewalk maintenance to be covered by the General Fund.

Public Outreach and Feedback

The City hosted two public meetings on August 8, 2019. The meetings consisted of an open house discussion with presentation boards, a video produced by the City with an overview of the Stormwater Utility Fee Study, a PowerPoint presentation, and a question and answer period.

Advisory Committee Findings

At its November 12, 2019 meeting, the SAC reaffirmed its finding from Phase I that a user fee is the more equitable approach to funding the City's current and future stormwater infrastructure needs, improving local water quality and aquatic habitats, and meeting state stormwater treatment mandates.

In addition, the SAC made the following additional findings:

- Maintenance and rehabilitation of stormwater infrastructure is a core responsibility of the City and is important to protecting the health, safety, and welfare of City residents.
- Support the use of wastewater treatment credit to spread the cost of new stormwater quality treatment infrastructure over a longer period of time.
- Support the proposed water quality incentive program to leverage private investment and engage the public in water quality improvements.
- Support the proposed credit policy. The policy increases the amount of user fee credit based on the benefit of private investment to the City's stormwater program.
- City residents should not be unfairly impacted if Washington County decides to rely on real property taxes to meet their MS4 permit stormwater treatment requirements. Any increase in the proportion of real property taxes going to new stormwater programs in the County should result in an adjustment to the City's differential tax rate.
- Support moving forward with implementation of a stormwater utility fee, to be effective July 1, 2020.

City of Hagerstown Stormwater Utility Fee Study – Phase II

REPORT TO CITY COUNCIL

Draft – November 26, 2019

1. Introduction

This report is Phase II of a three phase Stormwater Utility Fee Study to evaluate methods for funding the City's growing stormwater infrastructure needs as well as new state water quality mandates. A key consideration is whether the City should adopt a user fee (also known as a stormwater utility fee) approach to generating revenue to fund the City's stormwater program.

The City's existing stormwater program is primarily supported by the General Fund, which draws most of its revenue from the real property tax. While the real property tax is based on a property's value, a user fee is based on how developed property creates a demand for the construction and operation of public drainage infrastructure and a publicly-managed stormwater program. Higher levels of impervious area, such as rooftops, driveways, and parking lots, correlate with increased flooding and lower water quality. A user fee approach uses impervious area on a parcel as the "meter" to allocate the cost of stormwater management to individual properties.

City Council initiated Phase I in January 2018 and engaged Wood Environment & Infrastructure Solutions (Wood) to assist with the study. A Stormwater Advisory Committee (SAC) was appointed to involve community stakeholders in the evaluation process (see Appendix A). The SAC met eight times and provided informed feedback on current services, the challenges faced by the City, strategies for addressing these challenges, and the methods for funding the stormwater program. At the conclusion of Phase I, the SAC endorsed the framework of an enhanced stormwater management program and the creation of a stormwater utility to fund the program – including both existing and new program elements.

The SAC's findings, along with preliminary user fee rates, were presented to City Council on November 20, 2018. City Council subsequently authorized work on Phase II. The scope of Phase II includes the following:

- Finalize the proposed stormwater program and cost.
- Perform a quality review of the City's impervious area mapping data.
- Finalize rate structure and credit policies.
- Develop final cash flow and rate models.
- Present final rate scenarios to City Council for consideration.

During Phase II, City staff and the consultant continued to engage the SAC in the decision-making process and provided additional opportunities for the public to provide feedback. This included public meetings designed to foster public engagement and help residents and businesses understand why the City is considering a stormwater user fee.

Phase III, if approved by City Council, involves implementation of the stormwater utility fee.

2. Summary of Phase I Report

The following summarizes Phase I and significant discussion points. Additional detail can be found in the full Phase I report submitted to City Council.

2.1. Program Change Drivers

City staff and the SAC identified several key program change drivers. These include state regulatory mandates as well as the City's fiduciary and public safety responsibility to adequately maintain stormwater infrastructure.

MS4 Permit Impervious Area Treatment Requirement

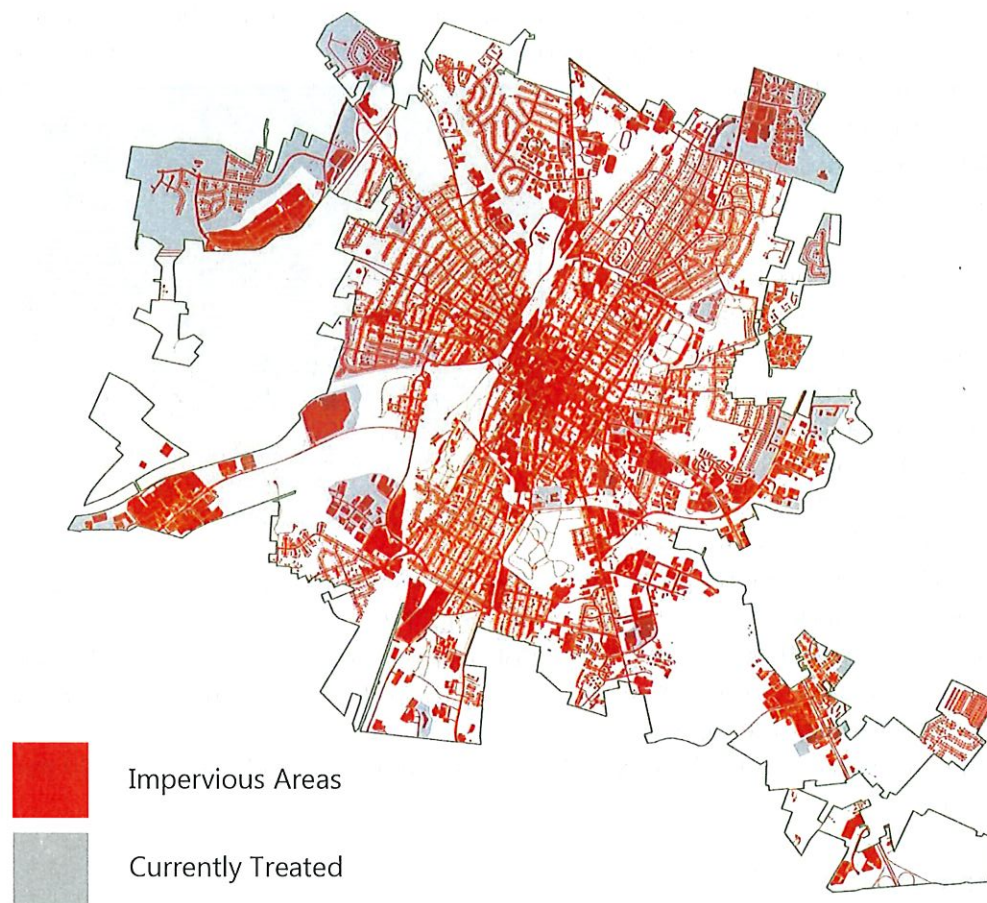
The immediate driver requiring action by City Council is a mandate to provide stormwater quality treatment for 20% of the City's untreated impervious area. That is, the City must determine the number of acres not currently served by adequate stormwater quality treatment and then implement practices sufficient to control 20% of that area.¹ The mandate is part of Maryland's commitment to restoring the Chesapeake Bay in accordance with the U.S. EPA mandated Chesapeake Bay Total Maximum Daily Load (TMDL). A TMDL identifies the maximum amount of specific pollutants that can enter a water body while maintaining water quality standards. The City's current Municipal Separate Storm Sewer (MS4) permit, issued by the Maryland Department of the Environment (MDE) effective October 31, 2018, requires practices to be in place to meet the target no later than 2025.

City staff initially estimated that 450 acres of impervious area would need to be treated to meet the permit requirement. Figure 1 shows impervious areas of the City identified as treated and untreated. The cost per acre to achieve compliance is highly variable and depends on a number of factors. For planning purposes City staff is assuming a conservative cost of \$60,000 per impervious acre treated. This resulted in an initial estimated cost of compliance of \$27 million.

¹ Full treatment is defined as meeting the design standards contained in the "2000 Maryland Stormwater Design Manual" as updated and amended. Partial credit may be granted for practices installed using previous design standards.

By comparison, the City's FY19 capital budget for stormwater was \$1.1 million, which assumed significant funding from grants and other outside sources.

Figure 1 – Impervious Areas of the City Treated for Stormwater Quality



Hagerstown is not alone in having to meet the new MS4 permit requirements. All MS4 permit holders in Maryland are faced with similar challenges. This includes Washington County and more than 90 other local, state, and federal government agencies. Municipalities in Virginia, West Virginia, and Pennsylvania face similar pollutant reduction requirements.

Maintenance and Inspection of Stormwater Management Structures

The City's Stormwater Management Ordinance (Chapter 213), along with City-implemented voluntary retrofit projects, has resulted in 276 stormwater management structures on 192 properties as of FY19. Thirty-six of these are publicly maintained, 240 are privately maintained. State law and the MS4 permit require the City to ensure that these structures are adequately maintained. Approximately 10 new structures are anticipated to be added each year. The increase

in stormwater structures is expected to exceed the ability of existing City staff to engage in effective inspections and enforcement, starting FY21.

Operation and Maintenance of Drainage Infrastructure

Aging stormwater infrastructure is a growing concern nation-wide and has been identified as a significant issue in Hagerstown. The City manages approximately 106 miles of stormwater pipe and 4,000 storm drain inlets. Much of this infrastructure is over 100 years old. The City's current maintenance program is largely reactionary after a failure has occurred.

In addition to avoiding short-term problems for residents and businesses (road closures, flooding, safety issues, property damage, etc.), a more proactive approach to maintenance and rehabilitation can save money in the long-term. Data from other localities indicates that the cost of replacing infrastructure after failure can be several times higher than proactive rehabilitation. However, a more proactive approach means having a better understanding of the condition of the City's stormwater infrastructure. This requires investing in an inspection of the pipe system using closed-circuit television (CCTV). City staff estimates that this would cost \$12,000 per mile using a contractor.



Figure 2 – Collapsing Pipe Discovered Using CCTV

Collapsing terra cotta pipe found in Hagerstown through the use of closed-circuit

television (CCTV). City staff estimates that this would cost \$12,000 per mile using a contractor.

2.2. Program Opportunities

In addition to state mandates and long-term stormwater asset management, City staff and the SAC identified opportunities to make positive enhancements to the City's stormwater program.

City Maintenance of Roadway Curb and Gutter

Roadway curb and sidewalk maintenance is currently a private landowner responsibility. This policy can impose a significant monetary burden on an individual property owner even though curb and sidewalk is generally treated as a public resource. The SAC recommended that curb maintenance should be covered under any stormwater utility fee since it is a component of the public drainage system. Staff estimates the cost at \$100,000 per year. Taking on this responsibility is not anticipated to generate the need for additional staff. The cost of roadway sidewalk maintenance, also estimated at \$100,000 per year, would be covered under the General Fund.

Water Quality Incentive Program

The SAC recommended the creation of an incentive program as part of any stormwater utility fee. The purpose of the program would be two-fold. First, City staff considers such a program as essential to meeting the 20% stormwater treatment requirement. Hagerstown has limited public property available to install stormwater practices. An incentive program would enable the City to partner with private property owners to install practices where they will have the most impact. Second, the incentive program can be used to incrementally improve local water quality and educate the public about the importance of the City's stormwater management efforts.

2.3. Proposed Stormwater Program

Table 1 summarizes the new stormwater program elements recommended to City Council by the SAC. While meeting permit requirements is non-discretionary, the cost of compliance represents a considerable investment. City staff and the SAC identified the need to refine estimates and identify cost-efficiencies as a major priority for Phase II.

Table 1 – New Stormwater Program Elements

Program Element	Description
MS4 Permit Impervious Area Treatment Requirement	Significantly increase CIP funding to meet the 20% water quality treatment requirement. Hire an additional engineer (or engage a consulting engineer) starting FY21 to oversee design and contract management.
Maintenance and Inspection of Stormwater Management Structures	Provide additional funding to assist with the timely inspection of stormwater management structures beginning in FY21.
Operation and Maintenance of Drainage Infrastructure	Provide funding to implement CCTV in the oldest areas of the system from FY21 through FY25. This will provide the basis for shifting to a more proactive approach to drainage system management.
City Maintenance of Roadway Curb and Gutter	Shift the cost of maintaining roadway curb and gutter from individual property owners to the City. Maintenance of sidewalks is proposed to be covered by the General Fund.
Water Quality Incentive Program	Establish a water quality incentive program, to include funding for large scale projects aimed at meeting the 20% treatment requirement and small-scale projects designed to incrementally improve water quality and engage City residents and businesses.

2.4. Funding Options Evaluated

The SAC spent considerable time discussing and analyzing options for funding the stormwater program. While grants and developer fees can be used to supplement revenue, they do not on their own generate revenue sufficient to fund a comprehensive stormwater program. The SAC focused on two options – continued use of the real property tax and establishment of a stormwater utility fee.

Real Property Tax

This approach involves dedicating an amount of the real property tax (either through raising the rate or shifting how revenue is applied) sufficient to pay for the changes in the level of service for the stormwater program. The revenue generated from the real property tax can be accounted for separately to ensure it is used for stormwater purposes, but segregation is not legally binding on the City. An important factor when considering the use of the real property tax is that it does not generate revenue from tax exempt properties.

User Fee Approaches

Enabling authority for the City to enact a stormwater utility is contained in §4-204(d) of the Environment Article of the Annotated Code of Maryland. Because a user fee is a fee for service, tax exempt properties are charged the fee. Similarly, state and federal government properties can be charged and must pay the fee so long as the City also pays the fee for its properties.² Three user fee approaches were evaluated:

- *Single Factor – Impervious Area:* All properties are charged based on a fixed unit of impervious area. The higher the confidence in mapping accuracy, the smaller the billing unit can be. The impervious area on a property is divided by the billing unit and the fraction is rounded to a whole number. The result is then multiplied by a rate set by City Council.
- *Equivalent Residential Unit (ERU):* All single family detached residential (SFDR) properties are charged one billing unit times the rate set by City Council.³ The billing unit for all other properties is the median value of SFDR impervious area – known as the ERU. The ERU for Hagerstown is 1,861 square feet based on a preliminary analysis by Wood. The advantage to this approach is that it requires less work tracking impervious area on SFDR properties.

² Public Law 111-378, signed January 4, 2011, requires federal properties to pay any reasonable, non-discriminatory fee that is based on a fair approximation of a property's contribution to stormwater pollution and is used to reimburse the costs associated with a stormwater management program.

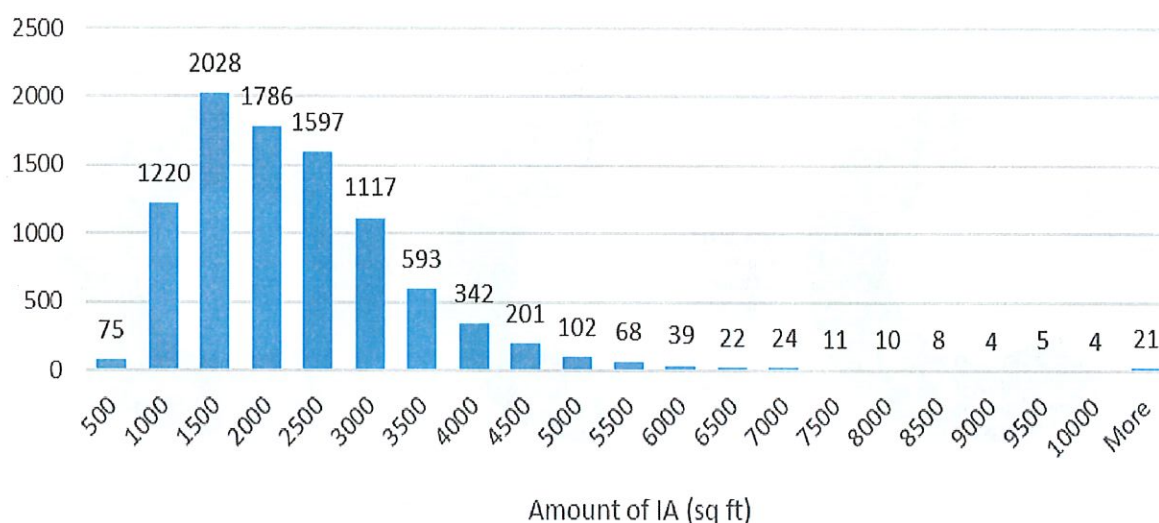
³ Note that rowhouses not part of a townhouse common area of development are considered to be SFDR properties.

The disadvantage is that it can result in perceived inequity in the distribution of costs (that is, all SFDR properties are charged the same, regardless of impervious area).

- *Tiered Residential:* SFDR properties are assigned to tiers, with all other property types charged based on a billing unit times the rate set by City Council. Tiers can be selected in several different ways, such as looking for natural break-points in the distribution of impervious areas. The approach addresses some of the equity issues of the ERU approach. However, inequity still exists since the charge to larger properties is artificially capped.

Figure 3 demonstrates the distribution of impervious area among SFDR parcels in the City. The bell-curve nature of the SFDR distribution shows how the ERU and tiered residential approaches result in perceived inequities for properties with smaller or larger amounts of impervious area.

Figure 3 – Distribution of SFDR Parcels Based on Impervious Area



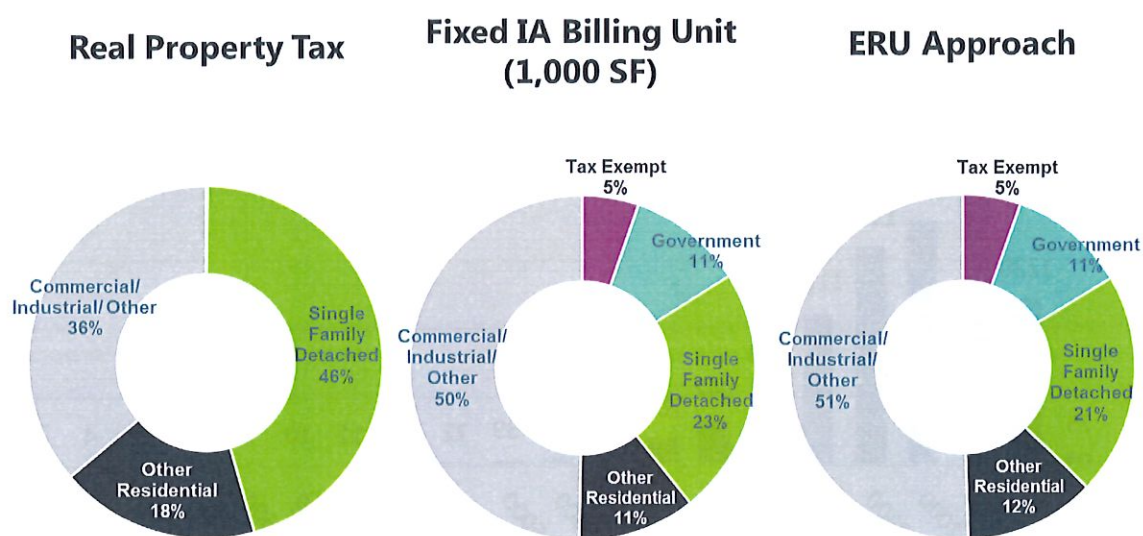
User Fee Credit

An advantage of a stormwater utility is the ability to establish a system of fee credits. A credit is a reduction to a property owner's stormwater user fee and is typically based on private investments in stormwater practices or specific stormwater activities that may ultimately reduce the cost of publicly provided stormwater services. In Maryland, a municipality that implements a stormwater utility is required to adopt a system of credits (Section 4-202.1(f) of the Annotated Code of Maryland). However, the locality maintains the discretion for how to structure the credit program and whether to provide full or partial credits. It is important to note that a fee credit serves to shift the burden of program costs to other rate payers. The total amount of revenue needed to support the program in the short-term does not change.

Comparison of Funding Options

Wood developed comparative rate estimations based on the preliminary program and policy assumptions. These preliminary rate estimations can be found in the Phase I report. However, the primary consideration is how each approach shifts the revenue generating burden among land use types within the City. These shifts are demonstrated in Figure 4. Generally, moving from a real property tax to a user fee shifts the cost burden from SFDR properties to non-SFDR properties. Note that City properties are proposed to pay the user fee, which enables the City to charge other governmental agencies. Statutorily tax exempt properties also pay the fee.

Figure 4 – Shift in Costs by Property Type and Funding Option



2.5. Examples of User Fees Adopted in Maryland

Since Tacoma Park adopted Maryland's first stormwater utility fee in 1996, several Maryland localities have taken this approach in response to increased state and federal mandates and the need to invest in storm drainage infrastructure. Table 2 provides examples of the variety of user fee structures developed by other Maryland localities.

Table 2 – User Fee Structures Adopted by Other Maryland Localities

Locality	Description	Typical Residential ⁴
City of Frederick, MD	\$16.50 per 1,000 SF IA annually	Example of "typical" ¼ acre lot = \$53.91/year
Chambersburg, PA	\$4 per sanitary sewer connection monthly Considering moving to an IA based system	\$48/year
Greencastle, PA ⁵	\$5.36 per 100 SF IA annually (\$53.60 per 1,000 SF IA annually)	Average (not median) = \$172/year
Gettysburg, PA	\$50 <1,249 SF IA annually \$100 for 1,250 to 3,749 SF IA annually Larger properties billed \$100 per 2,500 SF IA	\$50 or \$100/year
Berkeley County, WV	\$3.50 per month for sewer and water customers \$21 semi-annually for other residents	\$42/year
Rockville, MD	\$127.70 flat fee per SFDR annually	\$127.70/year
Gaithersburg, MD	\$22.44 per 500 SF IA annually Median SFDR is \$2,479 SF IA	\$112.20/year
Howard County, MD	\$15 annually for townhomes/condos \$45 annually for SFDR <quarter acre \$90 annually for SFDR >quarter acre	\$15/year \$45/year \$90/year

2.6. Phase I SAC Findings

While recognizing the need to refine costs and achieve efficiencies in Phase II, the SAC made the following findings to City Council:

- The City needs to plan for a revenue source that is sufficient to meet long-term program needs, including the 20% stormwater treatment mandate.
- Equity and fairness in the funding approach are very important.
- A user fee that is based on the square footage of impervious cover on a property (e.g., based on 1,000 square feet of impervious area billing units) is perceived as the more equitable approach to generating revenue for the stormwater program.

⁴ Figures represent what a typical residence may pay based on information from the locality. Because rate structures differ, it is not possible to have a one-to-one comparison with Hagerstown.

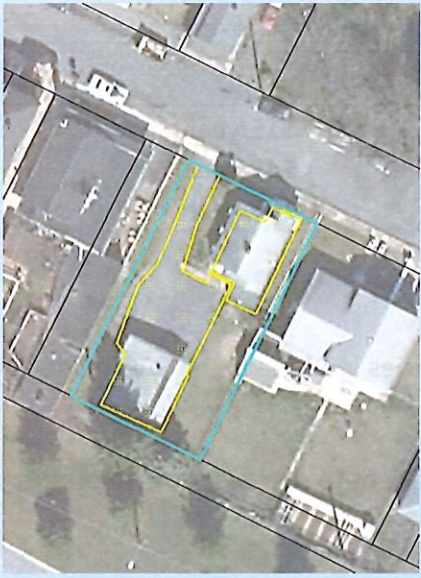
⁵ Greencastle recently suspended collection of the January 2020 fee.

- All properties with impervious cover should be part of the solution regardless of their property tax status.
- The City should pay for City-owned public properties (not including public road rights-of-way, which are considered part of the drainage system). This provides the City with the ability to charge other governmental units.
- The City should adopt a robust, yet simple, credit policy. All stormwater structures must be eligible for credit. However, the policy should encourage voluntary private investment and redevelopment that will directly meet the 20% reduction requirement.

2.7. Recommended User Fee Methodology

Table 3 demonstrates the single-factor user fee recommended by the SAC and presented to City Council. The calculation is based on a billing unit of 1,000 square feet of impervious area and the use of natural rounding of billing unit fractions. Phase II of the study is based on this approach.

Table 3 – Sample Fee Calculation Based on Single Factor Billing Unit

Sample Property	Factor	Unit
	Impervious Area	3,345 SF
	Billing Unit	1,000 SF
	Number of Billing Units on Property	$3,345/1,000 = 3.34$
	Rounding	3 Billing Units
	User Fee	$= 3 * \text{Rate Set by City Council}$

3. Refined Program Cost and Compliance Approach

A priority for City staff and the SAC was to refine the cost of the stormwater program. This effort focused on: (1) refining the capital cost for complying with the 20% treatment requirement and establishing an achievable compliance schedule; (2) developing the scope and cost of the proposed water quality incentive program; and, (3) establishing an initial funding level to implement drainage improvements identified as a result of CCTV of the City's drainage system. Other program assumptions, including initial operating and capital cost estimates, were confirmed or minimally adjusted.

3.1. Capital Program Cost

Refining the capital program cost involved a detailed examination of acres subject to the 20% treatment requirement. It also included a more detailed accounting of existing and already planned stormwater practices for which credit could be taken. The previously estimated \$60,000 cost per acre treated was re-affirmed.

Baseline Impervious Area

Based on further review of available data, City staff established a baseline of approximately 400 acres of impervious cover subject to the 20% treatment requirement. This figure was derived by identifying all impervious area using GIS and removing areas in accordance with the following:

- Areas treated in accordance with *2000 Maryland Stormwater Design Manual* standards using the methodology in the MS4 permit (Appendix B, Section III).
- Properties subject to separate NPDES industrial stormwater permits.
- Properties under State Highway Administration (SHA) jurisdiction.
- Washington County properties within the City where the County confirmed that the properties were included in their baseline impervious area.

Street Sweeping

The City has two vacuum-assisted street sweepers that operate on a daily basis. The program is year-round except during adverse weather conditions. The downtown area is swept twice a week. The remainder of the streets are swept once every two weeks on average. Overall, the City sweeps approximately 110 centerline miles, or 220 curb miles. Each curb mile



Figure 5 – City Street Sweeper

The street sweeping program generates credit toward the 20% treatment requirement.

equals one impervious acre.⁶ Based on the sweeping technology and frequency, the City can take credit for acres swept multiplied by 0.13 based on Table B.4 of the MS4 permit. This equals 28 acres of credit.

Implemented and Planned Stream Restoration

The City has completed two stream restoration projects (Valley Road and Kiwanis Park) totaling 950 linear feet. In addition, the City plans to restore 600 linear feet of stream at Longmeadow Park. The Longmeadow Park stream restoration was planned independently of the 20% treatment requirement and is accounted for separately in the City's CIP. In accordance with MDE guidance, the credit for impervious acres treated can be calculated by multiplying linear feet restored by 0.03. This equals 46.5 acres of credit.

Stormwater Retrofit Projects

The City has completed four structural stormwater quality retrofit projects since 2006. These include three bioretention and one bioswale structures at Clean Water Circle and Hager Park that together treat 21 impervious acres.

Downspout Disconnects

Downspouts that are "disconnected" from the conveyance system can reduce the 20% treatment area if: (1) lot size is greater than 6,000 SF; (2), the length of the disconnect is greater than 75 feet; (3) the average slope is 5% or less; and, (4) flow is continuous through a vegetated channel, swale, or filter strip to the property line or a stormwater management structure. A report was developed for Washington County⁷ using modeling/GIS to determine the potential for downspout disconnection. Based on a review of the report methodology and verification using sample properties, City staff concluded that few properties in Hagerstown would qualify. The City is conservatively assuming it can remove three impervious acres as a result of downspout disconnect.



Figure 6 – Stormwater Retrofit Projects
Bioswale installed at Hager Park.

⁶ "Recommendations of the Expert Panel to Define Removal Rates for Street and Storm Drain Cleaning," Final Report, September 18, 2015.

⁷ "Rooftop Runoff Disconnection Analysis and Methodology," prepared for Washington County by Wallace Montgomery & Associates, July 2019.

Impervious Area Removal

The removal of impervious area results in a direct reduction in treatment requirements. Washington Hospital relocated from its downtown location to a new site outside City limits. The old hospital and other buildings were demolished and various parking lots were removed. As such, the City can reduce its treatment area by 3.5 impervious acres.

Revised Capital Program Assumptions and Costs

Table 4 shows revised capital program assumptions and related costs. This represents a reduction from the original estimate of \$27 million and the figure of \$23.6 million presented to the City Council at a meeting on July 23, 2019. Not all of this reduction translates to a reduction in estimated rates. For instance, the initial rate estimation was based on an assumption that the capital program would be 100% bond funded. At the request of Finance staff, the amount of bonding was reduced considerably. As a result, more cash is needed upfront to capitalize the stormwater program. In addition, the cost of stormwater fee credits is higher than originally anticipated. See Section 4 for details.

Table 4 – Revised Capital Program Assumptions and Cost

Treatment Calculation	Impervious Acres
Total IA in the City (2017)	2,673
Remove IA with Post-2000 Stormwater Controls	-369
Remove IA under County MS4	-130
Remove IA under SHA Jurisdiction	-77
Remove IA under Industrial Permits	-112
Total Untreated IA	1,985
Apply 20% Treatment Requirement	397
Round to Account for Technical Errors	400
Implemented and Planned Treatment	Impervious Acres
Street Sweeping	28
Stormwater Retrofit Projects	21
Valley Road and Kiwanis Park Stream Restorations	28.5
Longmeadow Park Stream Restoration	18
Downspout Disconnects	3
Washington Hospital IA Removal	3.5
Total Treatment	102
Areas Remaining to be Treated	298
Cost Per Acre	\$60,000
Total New Revenue Required	\$17,880,000

3.2. Compliance Schedule and Wastewater Credits

One of the concerns expressed in the Phase I report was the feasibility of achieving the 20% treatment requirement by FY25 – both from cost and staffing standpoints. The City examined the potential use of credit from the City's wastewater treatment operations to extend the stormwater CIP from FY25 to FY30. Since Hagerstown's wastewater treatment process results in achievement of lower annual discharge of pollutants identified in the permit for legal discharge limits, the net difference can be sold as credits under Maryland's new credit trading program. Using these net reductions in discharge from the wastewater plant would allow the City to spread stormwater treatment costs over a longer period of time.

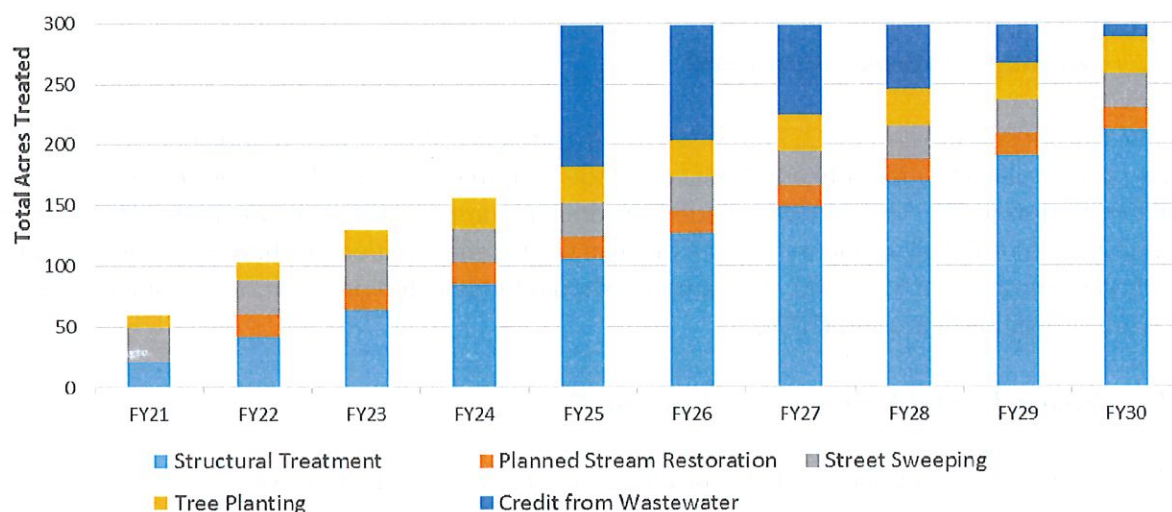
The City met with MDE on July 22, 2019 to discuss the use of wastewater treatment credit. MDE stated that it will utilize a maximum extent practicable (MEP) approach to determining the length of time that wastewater treatment credit may be used in lieu of physical treatment of stormwater. Based on conversations with MDE:

- While credit must be certified and placed on the registry, credit may be transferred from Hagerstown wastewater to stormwater without offering them on the open market.
- MDE is not involved in setting the credit price. If the City wants to transfer credit internally, that is at the City's discretion.
- MDE's expectation is that credit will be used to manage change. They are not a long-term replacement for investment in stormwater infrastructure to treat impervious area.

City staff proposes an approach that combines wastewater treatment credit and investment in stormwater infrastructure so that all stormwater infrastructure required to meet the 20% treatment requirement is in place by the end of FY30. The City would use credit from wastewater operations to fill the treatment "gap" starting FY25, with smaller amounts of credit used each year until FY30. While aggressive, this approach will allow the City to meet its treatment targets in a more fiscally responsible and cost-effective manner. The City Director of Utilities has indicated support for the feasibility of this approach. Figure 7 demonstrate the City's proposed approach. MDE noted that Anne Arundel County has implemented a similar program.

Questions were raised about whether this approach would limit growth or reduce plant capacity. Wastewater treatment credits are certified annually and reflect the amount of pollutant reduction under permit limits from the previous year. Thus, the treatment credits are already achieved when certified. Based on an analysis conducted by City staff, there is sufficient credit generated to cover the needs of the stormwater program without affecting future wastewater capacity needs. The primary risk factor is if MDE requires the wastewater treatment plant to meet more stringent pollutant reduction controls than it is already meeting. While MDE could not guarantee that the requirements will not shift, they stated that this is not their current vision.

Figure 7 – Example CIP Using Wastewater Credit to Achieve 20% Treatment



3.3. Water Quality Incentive Program

City staff and the SAC identified the need for a water quality incentive program. As noted, the program has a dual purpose. Larger-scale incentives would be used to leverage private investment to meet the 20% treatment requirement. An amount of \$250,000 per year is proposed to be earmarked from the capital program for these projects. If the funds are not utilized, they will be rolled over to the next year's capital program. City staff envisions up to a 50% match with an open application process (that is, applications may be received at any time). Review and decisions would be made quarterly or semi-annually based on specific prioritization criteria. Prioritization criteria may include, but are not limited to:

- Higher amounts of private match.
- Owner agrees to maintain the structure.
- Cost effectiveness (cost per acre treated).
- Readiness to proceed.
- Likelihood of success (maintenance requirements of the proposed structure, etc.).

Smaller-scale incentives would be offered to residents and businesses to incrementally improve water quality and to help educate them about the importance of the City's program. The program would provide incentives for installation of Green Infrastructure Conservation Practices (GICPs) such as rain barrels, rain gardens, conservation landscaping, removal of impervious surfaces, fertilizer reduction, etc. The WCSCD has developed a proposal for a pilot program (see Appendix B). The pilot, beginning in FY21, would be used to research similar programs in Maryland and Virginia, evaluate the most effective methods to implement the program, and develop application, certification, and maintenance protocols. Several demonstration GICPs would be implemented

the first year. Annual funding is proposed at \$30,000, with \$7,500 the first year for program development and the remaining for GICP demonstration projects.

3.4. Drainage Improvement Fund

Phase I proposed the use of CCTV to assess the condition of the City's aging drainage system. That process will likely identify additional drainage system capital needs that are not reflected in the City's current CIP. The amount needed for drainage improvements is unknown. However, it is important to build up a fund so that the City can begin rehabilitation in a timely manner. Annual funding is proposed at \$250,000. This amount should be adjusted once a more complete picture of needs is established using CCTV.

3.5. Revised Total Stormwater Program Cost

Table 5 presents the revised total stormwater program cost that is used for generating user fee rate scenarios in Section 4. The table does not show debt payments associated with street sweepers and the Pangborn Lake reconstruction or other capital bonding expenses. These are included in the final cash flow and rate models. In addition, it is important to note that stormwater program elements currently funded through the General Fund are shifted to the stormwater utility. As a result, the General Fund is relieved of the burden of supporting the stormwater management program.

Table 5 – Revised Stormwater Program Cost

Activity Area	FY20	FY21	FY22	FY23	FY24	FY25
Personnel ⁸	\$602,435	\$727,040	\$748,101	\$766,178	\$784,708	\$803,700
Direct Operating ⁹	\$399,491	\$563,376	\$553,627	\$563,438	\$636,042	\$589,848
Capital						
Storm Drain Routine Repairs (C0444)	\$40,000	\$210,000	\$20,000	\$150,000	\$150,000	\$150,000
Stormwater Vehicles (C0064)	\$110,000				\$125,000	
Green Street Program (45-C0639)	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000

⁸ Includes \$50,000 and one-time set up costs for billing coordination and other administrative functions.

⁹ Includes \$30,000 per year starting FY21 for Small-Scale Incentive Program.

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Activity Area	FY20	FY21	FY22	FY23	FY24	FY25
<i>Curb Maintenance Program</i>		\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
<i>Longmeadow Park Stream Restoration</i>			\$650,000			
<i>Pangborn Lake Reconstruction</i>	\$330,000					
<i>Stormwater Retrofit Projects (45-C0637)</i>		\$1,538,000	\$1,538,000	\$1,538,000	\$1,538,000	\$1,538,000
<i>Large-Scale Incentive Program¹⁰</i>		\$250,000	\$250,000	\$250,000	\$250,000	\$250,000
<i>Drainage Improvement Fund</i>		\$250,000	\$250,000	\$250,000	\$250,000	\$250,000
Capital Total	\$560,000	\$2,428,000	\$2,888,000	\$2,368,000	\$2,493,000	\$2,368,000
Program Total	\$1,561,926	\$3,718,416	\$4,189,728	\$3,697,616	\$3,913,750	\$3,761,548

¹⁰ Total of Stormwater Retrofit Projects and Large-Scale Incentive Program equals cost of 20% treatment requirement.

4. Stormwater Utility Fee Analysis

City staff worked with Wood and the SAC to finalize technical and policy issues necessary for implementing a stormwater utility and developing a rate estimation. The following is a summary of primary decision points and recommendations.

4.1. Billing Mechanism

Billing options include three basic approaches: (1) utilize the existing real property tax bill; (2) utilize another utility bill; or, (3) set up a separate “stormwater only” bill and manage the process either through a third-party biller or directly by the City. Representatives from Finance, Engineering, and Utilities met to discuss the advantages and disadvantages of each approach. The water/sewer utility bill was selected as the preferred alternative. The stormwater program includes \$50,000 for staff support plus additional budget for one-time set up.

4.2. Bonding Policy

Long-term financing of capital improvements was evaluated as part of the overall cash flow demand model. Use of debt often occurs for large capital projects to achieve several outcomes. These include: sharing the cost of the improvements with future users of the projects, rather than burden only current users; leveling the cash demand from year to year as cost of capital projects vary over time; and, providing significant cash flow to ensure that capital projects that usually require multiple years to accomplish have the cash on hand to commit to construction projects.

Working with the City Finance staff, the cash demand analysis included use of debt annually to sustain large capital equipment purchases as well as infusion of cash for design and construction of stormwater treatment structures. Each year the City will review the cash demand for stormwater capital and will include such projects for coverage by bond issues. The cash demand model used to establish the rates for stormwater user fees include \$1 million in bonds issued in the first seven years of the utility, reduced to \$500,000 by year 10. The total capital program averages \$2,470,000 annually, with 40% funded by bonds.

4.3. Credit Policy

The SAC considered several credit policy options during Phase I and further developed these concepts as part of Phase II. A draft credit policy, with an overview of key decision-points, is contained in Appendix C.

Core concepts incorporated into the draft credit policy include the following:

- A stormwater structure must be built in accordance with the City’s Stormwater Management Ordinance to obtain any credit.

- Likewise, a stormwater structure must be in compliance with a properly executed maintenance agreement.
- The amount of credit is linked with the benefit provided to the City. This is critical since the stormwater utility is a fee for service.
- Credit increases for higher water quality treatment. For example, a structure designed in accordance with the current 2000 Maryland Stormwater Design Manual meets the treatment requirements of the Chesapeake Bay TMDL.
- Additional credit for redevelopment and voluntary projects is justified because they can be used to achieve the 20% treatment requirement, and therefore result in a direct cost avoidance for the City.

Table 6 presents the proposed credit amounts based on the structure category and the standard used in designing the structure. It is important to note that the credit applies to the impervious area draining to the structure, and not the entire property.

Table 6 – Draft Credit Policy

Structure Type		Standard	Credit
Condition of Development	Control of New Impervious Cover	Pre-2000 Design Manual	15%
		2000 Design Manual	20%
		2000 Design Manual, 2009 Version (Environmental Site Design)	25%
	Control of Existing Impervious Cover	Post-2000 Design Manual	40%
Voluntary		2000 Design Manual, 2009 Version (ESD)	60%

Structures built voluntarily to control existing impervious cover are the most impactful since they result in a directly-avoided City program cost. To help incentivize this voluntary investment, a 60% credit is proposed. This is based on the fact that the 20% treatment requirement represents roughly 60% of total program expenditures through at least FY2025. This level of credit should be validated once final decisions are made about the scope of the City's stormwater program. The 60% credit is also proposed to be available to structures built using pre-2000 Design Manual standards (which don't meet water quality treatment requirements) that are voluntarily upgraded so that the City receives credit toward the treatment requirement.

Credit Policy Cost

A credit is treated as an expense against the stormwater utility. As a result, any credit granted to one property owner shifts the cost burden to all other property owners. The impact of future redevelopment and voluntary structures is unknown, and any structures are likely to have only a negligible impact on the program in the short-term. However, existing structures will have an impact on the program cost. City staff conducted a high-level estimate of the impervious acres treated by existing structures in each of the credit categories. This data was then used to determine the cost to the stormwater program. Note that the cost is highly influenced by the rate per billing unit, which is provided in Section 4.6. Any increase or decrease in the rate will affect the impact of the credit policy.

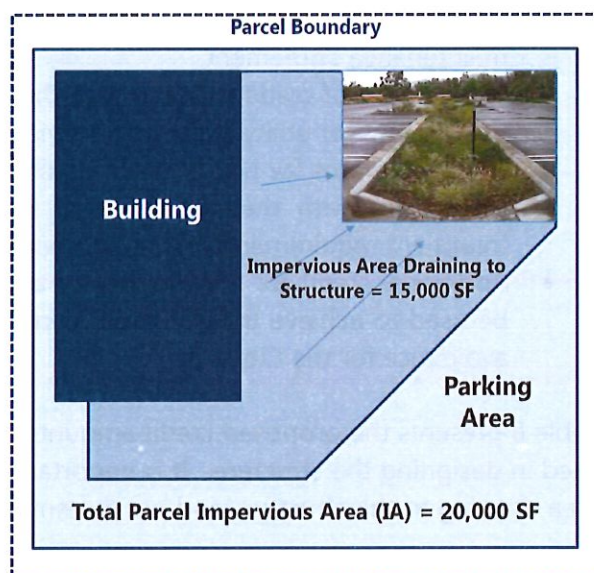


Figure 8 – Example Fee Credit

This property has a total IA of 20,000 SF. 15,000 SF drains to a stormwater structure. Credit is applied as a percent reduction in the fee generated from the IA treated by the structure.

Table 7 – Impact of Credit for Known Structures on Program Cost

Credit Bracket	Credit	IA - Feet	Billing Units Subject to Credit
Pre-2002	0.15	18,513,000	18,513
2002-2009	0.2	9,888,120	9,888
Post-2009	0.25	1,785,960	1,786
Redevelopment	0.4	Unknown	0
Voluntary Retrofit	0.6	Unknown	0
Total		30,187,080	30,187

	FY21	FY25	FY30
Credit Expense ¹¹	\$166,434	\$197,640	\$260,053

¹¹ Credit expense equals total billing units subject to credit multiplied by the weighted average amount of credit multiplied by the rate per billing unit.

County/SHA Properties

Wood's rate estimation assumes that County/SHA properties will be charged the fee in the same way that the City will charge its own properties and properties owned by the federal government. The SAC discussed whether a fee credit should be provided to County/SHA properties located in the City that are not part of the City's 20% restoration requirement. Combined, these properties represent approximately 207 acres of impervious cover and could significantly impact the financial credit expense depending on the amount of credit provided. The SAC recommended that just because a property is not included in the MS4 mandate, it should not be granted separate financial credit on that basis. Rather, they should receive a financial credit only if they have structural controls on the properties that meet the financial credit criteria in Table 6. This is consistent with the treatment of properties subject to a separate NPDES industrial stormwater permit.

If the City provides credit to County/SHA properties based on ownership status (as opposed to a stormwater management structure), the cost of the credit program would increase. Table 8 shows how the credit expense would increase if County/SHA properties were granted a 60% fee credit. Section 4.6 discusses how this increase would affect the utility fee rate for City properties.

Table 8 – Impact of Credit for County/SHA Properties on Program Cost

Credit Expense	FY21	FY25	FY30
No Automatic Credit for County/SHA Properties	\$166,434	\$197,640	\$260,053
Including 60% Credit for County/SHA Properties	\$371,394	\$435,061	\$562,396

4.4. Impervious Area Analysis/Billing Units

During Phase I, Wood conducted a review of the City's impervious area layer in GIS and provided recommendations for refinements in a separate report. City staff systematically reviewed the impervious area layer and made refinements through October 31, 2019. Table 9 provides billing units broken down by land use type used to develop the rate estimation.

Table 9 – Impervious Area Billing Units by Land Use Type

Land Use	# Parcels	# Billing Units	% Total Units
Apartments	387	4,571	5.1%
Cemetery	1	1	0.0%
Commercial Residential	7	31	0.0%
Commercial	1,004	31,169	34.6%
Commercial Condo	18	159	0.2%

Land Use	# Parcels	# Billing Units	% Total Units
Exempt	108	346	0.4%
Exempt Commercial	235	5,046	5.6%
Gov – City of Hagerstown	160	4,063	4.5%
Gov - County	40	5,031	5.6%
Gov - SHA	27	471	0.5%
Gov - State / Fed	10	488	0.5%
Industrial	120	9,861	10.9%
Residential	9,277	21,652	24.0%
Residential - Multi	20	1,394	1.5%
Residential - Vacant	385	122	0.1%
Residential Condo	345	1,179	1.3%
Town House	1,296	2,452	2.7%
Not Assigned ¹²	81	2,024	2.2%
Grand Total	13,521	90,060	100.0%

4.5. Billing Unit Rounding

Billing units are rounded to a whole number. A fraction of a billing unit would overstate the level of precision in the mapping of impervious area in GIS. The two most common rounding methodologies are rounding to the next whole number and natural rounding (rounding to the closest whole number). For example, applying a billing unit of 1,000 SF of impervious area to a property with 2,300 SF of impervious area would result in the fraction 2.3 ($2,300 / 1,000 = 2.3$). Rounding to the next whole number results in three billing units, while using natural rounding results in two billing units. The choice of methodologies is a matter of policy preference. City staff recommends the use of natural rounding.

4.6. Minimum Billing Threshold

Typically, parcels with only a small amount of impervious area are defined as “unimproved” in a utility implementing ordinance and therefore are not charged a utility fee. The minimum billing threshold is automatically determined (unless over-ridden by another methodology) with the decision to use natural rounding since any property with less than 500 square feet of impervious area is assigned zero billing units.

¹² The category of “Not Assigned” indicates that a land use category has not been assigned to the parcel in the City’s GIS.

4.7. Additional Policy Assumptions

Table 10 provides an overview of additional assumptions made in developing the cash flow and rate models and the final rate estimation.

Table 10 – Additional Policy Assumptions

Type	Specific Assumption	Unit/Amount
Benefits	FICA	6.20%
Benefits	Medicare	1.45%
Benefits	Retirement	9.38%
Benefits	Life	0.20%
Benefits	Health	16.50%
Benefits	Retiree Health Insurance	\$25,000/Year
Benefits	Dental	0.46%
Benefits	Salary Increase	2.50% FY23-On
Financial	Bad Debt	4.0%
Financial	Cash on Hand - 60 days	16.50%
Financial	Bond Placement Costs	2%
Financial	Bad Debt Recovery in Following Fiscal Year	50%
Financial	GO Bond Coverage	Reserve is a function of General Fund, not Stormwater Fund
Financial	Billing Unit Growth Percent	0%

4.8. Rate Estimation

Table 11 shows the estimated user fee rate based on program expenses, other revenue, total user fee revenue required, total number of billing units, and other program and policy assumptions contained in this section. Rates are for billing units of 1,000 SF of impervious area.

The median impervious area for a single family detached residential (SFDR) property in the City is 1,861 SF, which means the median bill would be \$64 per year in FY21 ($1,861/1,000 = 1.861$ rounded to two billing units using natural rounding). The median impervious area for non-SFDR is 2,039 SF, which means the median bill would also be \$64 per year in FY21 ($2,039/1,000 = 2.039$ rounded to two billing units).

Table 11 – Rate Estimation Table

City of Hagerstown Cash Demand Analysis - Rate Estimation - 1000 sf Unit - Capital Program Through 2030 - Bonds												
Row		FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	
1	Expenses - Program Implementation											
2	Operating Expense	\$ 1,290,416	\$ 1,301,728	\$ 1,329,616	\$ 1,420,750	\$ 1,393,549	\$ 1,430,712	\$ 1,533,267	\$ 1,407,133	\$ 1,438,985	\$ 1,538,435	
3	Capital Expense	\$ 2,428,000	\$ 2,888,000	\$ 2,368,000	\$ 2,493,000	\$ 2,368,000	\$ 2,373,000	\$ 2,488,250	\$ 2,383,763	\$ 2,389,551	\$ 2,520,628	
4	Subtotal	\$ 3,718,416	\$ 4,189,728	\$ 3,697,616	\$ 3,913,750	\$ 3,761,549	\$ 3,803,712	\$ 4,021,517	\$ 3,790,895	\$ 3,828,536	\$ 4,059,063	
5	Debt Payments (P&I) - Sweepers and Pangborn	\$ 131,900	\$ 131,900	\$ 131,900	\$ 131,900	\$ 131,900	\$ 131,900	\$ 131,900	\$ 131,900	\$ 131,900	\$ 131,900	
6	Bond Placement Costs	\$ 20,000	\$ 20,000	\$ 20,000	\$ 22,500	\$ 20,000	\$ 20,000	\$ 22,200	\$ 15,000	\$ 15,000	\$ 12,500	
7	GO Bonds for Capital Projects - Principle and Interest FY20	\$ 76,708	\$ 143,923	\$ 211,139	\$ 289,359	\$ 356,575	\$ 423,790	\$ 500,498	\$ 565,406	\$ 630,314	\$ 684,590	
8	Operating Reserve (60 days) - Contribution	\$ 47,601	\$ 1,867	\$ 4,601	\$ 15,037	\$ -	\$ 1,644	\$ 16,922	\$ -	\$ -	\$ -	
9	Subtotal Operating Expenses	\$ 276,208	\$ 297,690	\$ 367,641	\$ 458,756	\$ 508,475	\$ 577,334	\$ 671,520	\$ 712,306	\$ 777,214	\$ 828,990	
10	Total Expenditures	\$ 3,994,624	\$ 4,487,418	\$ 4,065,257	\$ 4,372,546	\$ 4,270,023	\$ 4,381,046	\$ 4,693,037	\$ 4,503,201	\$ 4,605,750	\$ 4,888,053	
11	Other Revenues											
12	Appropriated Fund Balance From Previous Fiscal Year	\$ -	\$ 10,731	\$ 52,881	\$ 95,432	\$ 125,017	\$ 134,792	\$ 115,423	\$ 144,844	\$ 169,728	\$ 177,867	
13	Bond Revenues	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,125,000	\$ 1,000,000	\$ 1,000,000	\$ 1,110,000	\$ 750,000	\$ 750,000	\$ 625,000	
14	Other Revenues	\$ 8,487	\$ 8,742	\$ 9,004	\$ 9,274	\$ 9,552	\$ 9,839	\$ 10,134	\$ 10,438	\$ 10,751	\$ 11,074	
15	Grant Revenues	\$ 320,000	\$ 660,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	
16	Interest Income	\$ 32,260	\$ 32,543	\$ 33,240	\$ 35,519	\$ 34,839	\$ 35,768	\$ 38,332	\$ 35,178	\$ 35,975	\$ 38,461	
17	Miscellaneous Collections - Delinquencies	\$ 33,151	\$ 52,015	\$ 54,468	\$ 56,913	\$ 59,608	\$ 59,420	\$ 61,425	\$ 65,754	\$ 68,540	\$ 70,015	
18	Total - Other Revenue	\$ 1,393,899	\$ 1,764,031	\$ 1,219,594	\$ 1,392,139	\$ 1,299,016	\$ 1,309,819	\$ 1,405,314	\$ 1,076,215	\$ 1,104,994	\$ 992,416	
19	Net Value - Service Fee Revenue Requirement	\$ 2,600,726	\$ 2,723,387	\$ 2,845,663	\$ 2,980,407	\$ 2,971,008	\$ 3,071,227	\$ 3,287,723	\$ 3,426,986	\$ 3,500,756	\$ 3,895,636	
20	Revenue Reduction Allowances											
21	Delinquencies and Bad Debt	\$ 104,029	\$ 108,935	\$ 113,827	\$ 119,216	\$ 118,840	\$ 122,849	\$ 131,509	\$ 137,079	\$ 140,030	\$ 155,825	
22	Credits	\$ 166,434	\$ 176,836	\$ 187,238	\$ 197,640	\$ 197,640	\$ 202,841	\$ 218,444	\$ 228,846	\$ 234,047	\$ 260,053	
23	Total Revenue Reduction Allowances	\$ 270,463	\$ 285,771	\$ 301,065	\$ 316,856	\$ 316,480	\$ 325,690	\$ 349,953	\$ 365,925	\$ 374,077	\$ 415,878	
24	Total Service Fee Revenue Requirement	\$ 2,871,189	\$ 3,009,159	\$ 3,146,728	\$ 3,297,263	\$ 3,287,488	\$ 3,396,917	\$ 3,637,676	\$ 3,792,912	\$ 3,874,833	\$ 4,311,515	
25	Number of Billing Units	90,060	90,060	90,060	90,060	90,060	90,060	90,060	90,060	90,060	90,060	
26	Estimated Annual Fee	\$ 31.88	\$ 33.41	\$ 34.94	\$ 36.61	\$ 36.50	\$ 37.72	\$ 40.39	\$ 42.12	\$ 43.03	\$ 47.87	
27	Annual Rate per Billing Unit	\$ 32.00	\$ 34.00	\$ 36.00	\$ 38.00	\$ 38.00	\$ 39.00	\$ 42.00	\$ 44.00	\$ 45.00	\$ 50.00	
28	Projected Total Revenue from User Fees	\$ 2,881,920	\$ 3,062,040	\$ 3,242,160	\$ 3,422,280	\$ 3,422,280	\$ 3,512,340	\$ 3,782,520	\$ 3,962,640	\$ 4,052,700	\$ 4,503,000	
29	Undesignated Revenues	\$ 10,731	\$ 52,881	\$ 95,432	\$ 125,017	\$ 134,792	\$ 115,423	\$ 144,844	\$ 169,728	\$ 177,867	\$ 191,485	
30	Annual Rate per Billing Unit	\$ 32.00	\$ 34.00	\$ 36.00	\$ 38.00	\$ 38.00	\$ 39.00	\$ 42.00	\$ 44.00	\$ 45.00	\$ 50.00	

Rate Scenario with Credit for County/SHA Properties

As noted previously, estimated user fee rates for City residents and businesses will be impacted by any policy decision to provide credit to County/SHA properties. Table 12 shows the increase in the estimated rate per 1,000 SF of impervious area using two scenarios – no automatic credit for County/SHA properties and 60% credit for County/SHA properties.

Table 12 – Impact of Credit for County/SHA Properties on Estimated Rate

Rate Scenario	FY21	FY25	FY30
	Per 1,000 SF Impervious Area		
Scenario Recommended by the SAC	\$32	\$38	\$50
Including 60% Credit for County/SHA Properties	\$35	\$41	\$53

Impact on General Fund

The estimated rate is based on the assumption that all stormwater program elements currently funded through the General Fund are shifted to the stormwater utility. This allows for the more efficient management of stormwater program funds. As a result, the real property tax is relieved of the burden of supporting the stormwater management program.

The total amount of relief is based on the FY20 stormwater program cost of service (expenditures plus debt service) minus revenue other than real property taxes (bonds, grants, review fees, and stormwater permits). That amount must then be adjusted for two items – the cost to the City to pay the utility fee for City-owned properties and the proposal for sidewalk maintenance to come out of the General Fund. Table 13 details the relief to the real property tax for FY21.

Table 13 – Impact of Stormwater Utility Fee on FY21 General Fund

Component	Details	Amount
FY20 Operating and Capital	FY20 Operating + Capital	\$1,561,927
+ FY20 Debt Service	2 Sweepers; Pangborn Lake	\$131,900
Total FY20 Program Cost		\$1,693,827
- Other Revenue	Bonds; Grants; Review Fees; Stormwater Permits	\$188,240
- City Utility Fee Contribution	Rate of \$32 * 4,063 Billing Units	\$130,016
- Sidewalk Maintenance	City Staff Cost Estimate	\$100,000
Total General Fund Relief		\$1,275,571

5. Public Outreach and Feedback

The City hosted two public meetings on August 8, 2019, one during the afternoon and one during the evening. The meetings consisted of an open house discussion with presentation boards, a video produced by the City with an overview of the Stormwater Utility Fee Study, a PowerPoint presentation, and a question and answer period. The following is a summary of comments made by meeting participants and responses from City staff:

- *Will taking credit from wastewater limit growth and/or take capacity from the plant?* Taking credit will not limit growth or take away capacity. Credits are generated from pollutant reduction in excess of permit requirements for the immediately preceding year.
- For properties with limited space, can the owner arrange for an improvement on another property and transfer the fee credit? This approach has not been considered, but can be discussed as part of the final credit policy.
- *How will the City determine the impervious area?* The City has an impervious area layer in GIS that will be open to public inspection.
- *If you eliminate impervious area, will that be a reduction in the fee square foot by square foot? How about pervious pavers?* Eliminating impervious area will result in a fee reduction if it reduces the number of billing units. Billing units are in 1,000 SF increments, so the number of billing units may or may not go down based on the removal of IA. Pervious pavers are a type of stormwater treatment structure. The property owner would receive a fee credit depending on the circumstances under which the pavers were installed.
- *Is fee tax deductible?* A stormwater utility is considered a fee for service, and is there not tax deductible (similar to water and electricity).
- *What is the County doing? If they raise taxes to pay for permit requirements, do City properties pay twice?* The County is working on its strategy, which will include street sweeping, tree planting, downspout disconnection, and any other strategies to meet the permit. City staff is aware of the need to coordinate closely with the County to ensure that the County's funding strategy does not penalize City property owners.
- *Once construction is complete for the current permit mandate, will the fee go down?* There must be a rational nexus between the fee and the stormwater program. If program costs go down, then rates will also go down over time. Considerations that will affect long-term rates include maintenance of the new stormwater infrastructure and whether MDE imposes even more stringent requirements on MS4 permit holders.



Figure 9 – Public Meetings
Staff discussing the proposed user fee with a resident.

6. Advisory Committee Findings

At its November 12, 2019 meeting, the SAC reaffirmed its finding from Phase I that a user fee is the more equitable approach to funding the City's current and future stormwater infrastructure needs, improving local water quality and aquatic habitats, and meeting state stormwater treatment mandates.

In addition, the SAC made the following additional findings:

- Maintenance and rehabilitation of stormwater infrastructure is a core responsibility of the City and is important to protecting the health, safety, and welfare of City residents.
- Support the use of wastewater treatment credit to spread the cost of new stormwater quality treatment infrastructure over a longer period of time.
- Support the proposed water quality incentive program to leverage private investment and engage the public in water quality improvements.
- Support the proposed credit policy. The policy increases the amount of user fee credit based on the benefit of private investment to the City's stormwater program.
- City residents should not be unfairly impacted if Washington County decides to rely on real property taxes to meet their MS4 permit stormwater treatment requirements. Any increase in the proportion of real property taxes going to new stormwater programs in the County should result in an adjustment to the City's differential tax rate.
- Support moving forward with implementation of a stormwater utility fee, to be effective July 1, 2020.

7. Next Steps

The following represent next steps should City Council decide to move forward with implementation of the stormwater utility fee (Phase III).

Public Education

The City should continue to engage with the public in order to build the compelling case for the program and the proposed funding source. Wood also recommends that the City meet with top rate payers to ensure that they understand the need for the program and that any issues or concerns can be addressed upfront.

Coordination with Washington County

Continued coordination with Washington County government is important to ensure that City residents are not unfairly impacted by County funding strategies. One option is to consider a real property tax rate differential to account for differences in funding and levels of service.

Ordinance Development and Adoption

The user fee is implemented through an ordinance in the City Code. The City will need to determine the structure of the ordinance as well as the best placement within the City Code. A typical stormwater utility ordinance will address the following:

- Purpose and authority
- Definitions
- Establishment of the fee and associated enterprise fund
- Waivers and exemptions
- Stormwater fee calculation methodology
- Stormwater fee credits
- Description of the purposes for which the fee may be utilized
- Billing, enforcement, and interest
- Appeals and petitions for adjustment

Master Account File Development and Integration

Once the City has decided to move forward with billing, the City will need to build a master account file (MAF) that assigns a user fee to each parcel based on the rate structure. The MAF will then need to be integrated into the billing system.

Staff Training and Customer Service

Successful implementation of a stormwater utility hinges on the support provided to customers on receipt of their stormwater bill. It is critical that individuals who interface with the public, by phone or email, understand the basics of the utility and are trained accordingly.

Appendix A

Stormwater Advisory Committee Members

Name	Representing	Place of Employment
Paul Frey	Business Community	Chamber of Commerce
Elmer Weibley	Environmental Community	Washington County Soil Conservation District
Sean Griffith	Public Housing	Hagerstown Housing Authority
Margaret Yaukey	Realtors	Century 21
Mark Halsey	Higher Education	University System of Maryland at Hagerstown
Rob Rollins	Public Schools	Washington County Public Schools
Keith Moore	Engineering/Land Development	Frederick Seibert & Associates
Stan Steele	Faith Community	St. Mark's Lutheran Church
Chris Howlett	Resident	

Appendix B

WCSCD Incentive Program Pilot Proposal



CITY OF HAGERSTOWN
SWM INCENTIVE PROGRAM
PILOT PROGRAM PROPOSAL

Program Title:	SWM Pilot Incentive Program, City of Hagerstown
Period of Performance:	Spring/Summer 2020, After passage of SW Utility ordinance. Continuing for 12 months thereafter.
Cost of Proposal:	\$7,500.00
Primary Collaborators, WCSCD:	Elmer Weibley, CPESC, District Manager Denise Price, CESSWI, Urban Program Director
Primary Collaborators, City of Hagerstown	Rodney Tissue, P.E., Director Parks and Engineering Jim Bender, Assistant City Engineer
Background, Objectives and Deliverables	

The City of Hagerstown (City), Washington County Soil Conservation District (WCSCD) and the Stormwater Advisory Committee identified the potential for an incentive program for individual property owners in the City. The program would provide incentives for installation of Green Infrastructure Conservation Practices (GICP's), such as, rain barrels, rain gardens, conservation landscaping, removal of impermeable surfaces and replacement with permeable practices, and fertilizer reduction, etc.

The pilot programs objectives will be to evaluate the feasibility, cost, appropriate GICP's for use in Hagerstown and effectiveness of such an incentive program. The pilot program will evaluate the most effective methods to implement the program, considering the experience and expertise, of the City and the WCSCD. Staff from the City and WCSCD will evaluate similar existing programs in MD and VA to select proven program guidelines and GICP's to guide recommendations for an ongoing program.

WCSCD will deliver recommendations regarding the type of GICP's to be offered, develop program incentive application for landowners, develop a certification of completion protocol and documentation, periodic maintenance inspection schedule for each practice, provide outline and content for a program brochure and fact sheets, and collaborate with City staff for a technical manual and installation procedures for each GICP. It is anticipated, several of the GICP's will be installed as part of this pilot to aid in development of the program. WCSCD will collaborate with City staff to select landowners, locations, and GICP's for the pilot. WCSCD will be on hand during practice installation to document procedures, challenges and outcomes. The City will fund the installation as part of the pilot depending upon available funds.

WCSCD will invoice the City on a quarterly basis at a rate of \$1,875 per quarter.

Proposal Accepted: _____

Date _____

Appendix C

Draft Stormwater Fee Credit Policy

Hagerstown Stormwater Utility Fee Study
Stormwater Advisory Committee



DRAFT STORMWATER FEE CREDIT POLICY

June 18, 2019

The following Stormwater Fee Credit Policy has been adopted by the City of Hagerstown in accordance with Section 4-202.1(f) of the Annotated Code of Maryland. The credit policy recognizes that ongoing operation and maintenance of a private structural stormwater management structure results in a benefit to the public stormwater management program. The credit policy is also designed to encourage voluntary private investment and redevelopment that results in cost avoidance, improves water quality, and reduces flooding.

Credit for Stormwater Management Structures

Credit Eligibility

The City will provide a stormwater utility fee credit for any stormwater management structure, whether built voluntarily or as a condition of development, installed in accordance with the City's Stormwater Management Ordinance (City Code, Chapter 212). To be eligible for credit, the structure must meet the following requirements:

Eligibility Component	Requirements
Technical Standards	• Condition of Development – The structure is designed, installed, and accepted by the City in accordance with the technical standards required by the City at the time of construction. • Voluntary – The structure is designed, installed, and accepted by the City in accordance with the technical standards required in the 2000 Maryland Stormwater Design Manual, as revised in 2009. Other technical standards may be approved at the discretion of the City if they are approved by the City and meet the water quality treatment requirements of its Municipal Separate Storm Sewer System (MS4) permit.
Maintenance Agreement	• The structure must have a properly executed maintenance agreement with the City. Such agreement will allow for regular inspections of the functionality of the structure by City staff. • For a voluntarily implemented structure, the maintenance agreement must be in force for at least 20 years from the date the structure becomes operational unless a different amount

Eligibility Component	Requirements
	of time is agreed to by City staff. When the maintenance agreement expires, the owner may renew the maintenance agreement or allow it to lapse, after which credit will be discontinued. As a condition for a new or renewed credit, the City may require an existing maintenance agreement to be updated to meet current standards for maintenance and inspection.
Function Verification	- The structure must currently function as designed. - This requirement is satisfied if the structure has previously been accepted by the City in accordance with the Technical Standards, has passed its most recent inspection by the City, and is compliant with any reporting requirements contained in the maintenance agreement. - If the above conditions have not been met, this requirement is satisfied if a professional engineer or other professional recognized by the City certifies that the structure is operating as designed. - If the structure fails a City inspection, or the owner fails to submit documents as required in the maintenance agreement, the City will revoke the credit if corrective actions are not taken within the time specified by the City.

Credit Amount

The following credit amounts will be applied to an eligible stormwater management structure. The credit applies only to the impervious area treated by the structure.

Structure Type			Credit
Condition of Development	Control of New Impervious Cover	Pre-2000 Design Manual	15%
		2000 Design Manual	20%
		2000 Design Manual, 2009 Version (Environmental Site Design)	25%
	Control of Existing Impervious Cover	Post-2000 Design Manual	40%
Voluntary		2000 Design Manual, 2009 Version (ESD)	60%

The amount of credit will be reduced for structures built using City cost-share funds. The credit will be reduced by the percent of the structure built using City funds for the expected life-time of the facility (generally 20 years unless otherwise provided by the City).

Credit may be taken for off-site impervious area treated by a structure provided that the area is not subsequently treated by a structure on the contributing property. In no case shall the total credit taken by a property owner exceed 60% of the total stormwater utility fee for the property.

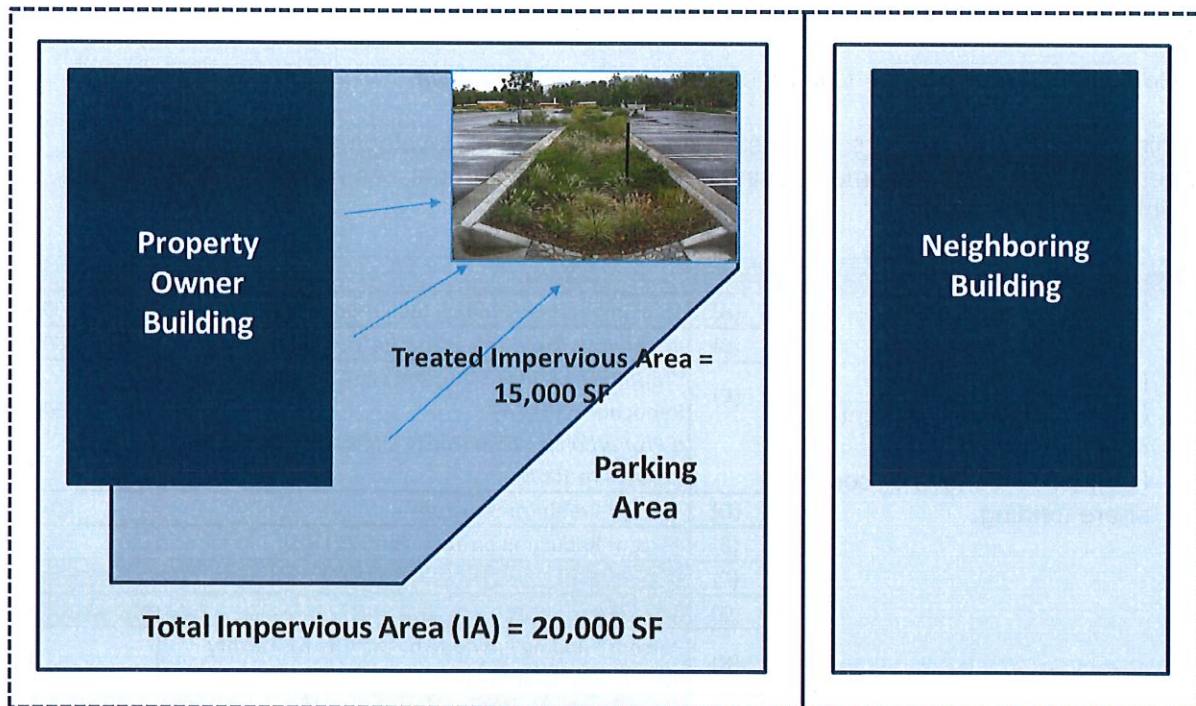
Credit Calculations

The following calculation is used to determine the credit given to a property owner:

- (A) Total Impervious Area on the Property _____ (SF)
- (B) Impervious Area Treated by the Structure _____ (SF)
- (C) Proportion of Property Eligible for Credit Reduction = $(B)/(A) =$ _____
If Proportion is >100% Due to Offsite Treatment, Reduce (C) to 100%
- (D) Credit Percentage _____ %
- (E) Percent Reduction on Total Fee = $(C)*(D) =$ _____ %
- (F) Original Fee \$ _____
- (G) New Reduced Fee = $(F)*(1-E) =$ \$ _____
- (H) Percent Funding Provided by the City of Facility Installation _____ %
- (I) Adjusted New Reduced Fee = $F-(F-G)*(1-H) =$ \$ _____

Credit Calculation Examples

The following are examples of how the credit calculation may be applied to a hypothetical property in Hagerstown. In this case, the stormwater fee assumed to be \$32 per 1,000 SF of impervious area.



Condition of Development – Control of New Impervious Area

In this example, the structure was installed as a condition of development to treat new impervious area under the City's Stormwater Management Ordinance using the original 2000 Design Manual. As a result, the property is eligible for a 20% credit.

Credit Parameters	Credit Calculation		
20,000 SF total IA. 15,000 SF IA treated. - No off-site IA treated. - Credit for 2000 Design Manual structure = 20%. - No public incentive or cost-share funding.	(A)	Total Impervious Area on the Property (SF)	20,000
	(B)	Impervious Area Treated by the Structure (SF)	15,000
	(C)	Proportion of Impervious Area Eligible for Credit Reduction = (B)/(A) <i>If Proportion is >100% Due to Offsite Treatment, (C) Reduces to 100%</i>	75%
	(D)	Percent Credit for Structure =	20%
	(E)	Percent Reduction on Total Fee = (C)*(D)	15%
	(F)	Original Fee	\$ 640.00
	(G)	New Reduced Fee = (F)*(1-E)	\$ 544.00
	(H)	Percent Funding Provided by the City for Facility Installation (Cost-Share)	0%
	(I)	Adjusted New Reduced Fee = F-((F-G)*(1-H))	\$ 544.00

Condition of Development – Control of Existing Impervious Area

In this example, the structure was installed as a condition of development to treat existing impervious area (redevelopment) using the 2000 Design Manual. As a result, the property is eligible for a 40% credit

Credit Parameters	Credit Calculation		
20,000 SF total IA. 15,000 SF IA treated. - No off-site IA treated. - Credit for redevelopment = 40% - No public incentive or cost-share funding.	(A)	Total Impervious Area on the Property (SF)	20,000
	(B)	Impervious Area Treated by the Structure (SF)	15,000
	(C)	Proportion of Impervious Area Eligible for Credit Reduction = (B)/(A) <i>If Proportion is >100% Due to Offsite Treatment, (C) Reduces to 100%</i>	75%
	(D)	Percent Credit for Structure =	40%
	(E)	Percent Reduction on Total Fee = (C)*(D)	30%
	(F)	Original Fee	\$ 640.00
	(G)	New Reduced Fee = (F)*(1-E)	\$ 448.00
	(H)	Percent Funding Provided by the City for Facility Installation (Cost-Share)	0%
	(I)	Adjusted New Reduced Fee = F-((F-G)*(1-H))	\$ 448.00

Voluntary Structure with Public Incentive Funds

In this example, the property is treated with a voluntarily installed structure. As a result, the property is eligible for a 60% credit. However, 50% of the funding for the structure came from the City's incentive program.

Credit Parameters	Credit Calculation	
20,000 SF total IA. 15,000 SF IA treated. - No off-site IA treated. - Credit for voluntary structure = 60% 50% funded with through public incentives.	(A)	Total Impervious Area on the Property (SF) 20,000
	(B)	Impervious Area Treated by the Structure (SF) 15,000
	(C)	Proportion of Impervious Area Eligible for Credit Reduction = (B)/(A) <i>If Proportion is >100% Due to Offsite Treatment, (C) Reduces to 100%</i> 75%
	(D)	Percent Credit for Structure = 60%
	(E)	Percent Reduction on Total Fee = (C)*(D) 45%
	(F)	Original Fee \$ 640.00
	(G)	New Reduced Fee = (F)*(1-E) \$ 352.00
	(H)	Percent Funding Provided by the City for Facility Installation (Cost-Share) 50%
	(I)	Adjusted New Reduced Fee = F-((F-G)*(1-H)) \$ 496.00

Voluntary Structure with Offsite Treatment

In this example, the property is treated with a voluntarily installed structure. As a result, the property is eligible for a 60% credit. In addition, the structure treats impervious area from a neighboring property. No public funding was used.

Credit Parameters	Credit Calculation	
20,000 SF total IA. 15,000 SF on-site IA treated. 10,000 off-site IA treated. - Credit for voluntary structure = 60% - No public incentive or cost-share funding.	(A)	Total Impervious Area on the Property (SF) 20,000
	(B)	Impervious Area Treated by the Structure (SF) 25,000
	(C)	Proportion of Impervious Area Eligible for Credit Reduction = (B)/(A) <i>If Proportion is >100% Due to Offsite Treatment, (C) Reduces to 100%</i> 100%
	(D)	Percent Credit for Structure = 60%
	(E)	Percent Reduction on Total Fee = (C)*(D) 60%
	(F)	Original Fee \$ 640.00
	(G)	New Reduced Fee = (F)*(1-E) \$ 256.00
	(H)	Percent Funding Provided by the City for Facility Installation (Cost-Share) 0%
	(I)	Adjusted New Reduced Fee = F-((F-G)*(1-H)) \$ 256.00

Credit for Structures Treating Condominiums or Homeowner Associations

Where a stormwater management structure is operated and maintained by an association on behalf of its members, the credit applicant (association) should use the total impervious area treated by the structure. The association will then be responsible for distributing the credit among the property owners within the association. Associations are encouraged to contact the City prior to applying for credit.

Credit Application

An initial Credit Application Form must be submitted to the City by the owner of the stormwater management structure, or his/her legal agent, and approved by the City to receive credit. The following documentation is required.

Documentation	Description
Application Form	This form is provided by the City and captures basic information about structure ownership and area treated.
Facility Certification Form	This form is required if the structure has not already been approved by the City and accepted into the City's inspection program. The form is completed under the authority of a professional engineer or other qualified professional as determined by the City. The form must include certification that the structure is functioning as originally designed.
Documents Submitted at the Request of the City if Not On-File	
Drainage Area Map	Provide a to-scale map showing property lines, impervious areas, stormwater drainage area boundaries, and the total impervious cover draining to the structure(s).
Structure Design Plan/As-Built Drawing	Provide the design plan and as-built drawing for the structure(s).
Maintenance Agreement	Provide a copy of the agreement that allows the City access to the site and establishes enforceable maintenance and reporting requirements. An updated maintenance agreement may be required as a condition of receiving credit.

Credit Renewal

At the discretion of the City, the credit will continue to renew on an annual basis provided that the owner complies with all requirements of the maintenance agreement. The City reserves the right to change the criteria for receiving a credit or require additional information for the owner of the stormwater management structure to continue receiving a credit.

**REQUIRED MOTION
MAYOR AND CITY COUNCIL
HAGERSTOWN, MARYLAND**

Topic:

Comprehensive Plan Amendments – *Kathleen Maher, Director of Planning and Code Administration, and Megan Flick, Planner*

Mayor and City Council Action Required:

Discussion:

Financial Impact:

Recommendation:

Motion:

Action Dates:

ATTACHMENTS:

File Name

Comp_Plan_Amendments_MCC_Package.pdf

Description

Comp Plan Amendments



CITY OF HAGERSTOWN, MARYLAND

Planning and Code Administration Department

Memorandum

TO: City of Hagerstown Mayor & City Council

FROM: Megan Flick

SUBJECT: Comprehensive Plan Amendments

DATE: November 27, 2019

The City of Hagerstown Planning Commission has recommended the proposed amendments to the Comprehensive Plan vision Hagerstown 2035. Attached are the proposed amendments to the Plan, including changes in Future Land Use designations and incorporation of the newly created Institutional zoning district into the Growth Management and Land Use text.

The amendments to the Future Land Use Plan are as follows:

- YMCA Property: from Business Employment to Commercial General
- Linwood Property (southern half): from Medium Density Residential to Industrial
- Doub Farm Property (eastern parcel): from Business Employment to Commercial General
- South End Shopping Center (southern portion): from Commercial General to Industrial
- Hebb Road Property (south side): from Medium Density Residential to High Density Residential
- Copy Quik & Old Potomac Liquor: from Mixed Use to Commercial General
- Hagerstown Water Department: from Industrial to Institutional

As a result of these changes in Future Land Use designations, the acreage of each land use designation and proportion of land use in the Medium Range Growth Area (MRGA) have also been updated. The changes in acreage and percentage of total are shown in the charts below:

Previous Future Land Use Chart

Future Land Use Designation	Acreage	% of Total
Moderate Density Residential	4,510	17.7%
Medium Density Residential	7,066	27.8%
High Density Residential	683	2.7%
Downtown	161	0.6%
Mixed Use	88	0.3%
Commercial General	3,067	12.1%
Business Employment	4,258	16.7%
Industrial	3,208	12.6%
Institutional	1,091	4.3%
Parks Recreation Open Space	1,297	5.1%
Total	25,429	100%

Amended Future Land Use Chart:

Future Land Use Designation	Acreage	% of Total
Moderate Density Residential	4,510	17.7%
Medium Density Residential	7,018	27.6%
High Density Residential	720	2.8%
Downtown	161	0.6%
Mixed Use	88	0.3%
Commercial General	3,115	12.3%
Business Employment	4,211	16.6%
Industrial	3,218	12.7%
Institutional	1,091	4.3%
Parks Recreation Open Space	1,297	5.1%
Total	25,429	100%

The amendments to the Growth Management and Land Use text are as follows:

- Identify Institutional (INS) zoning district as a compatible zoning district for Institutional Future Land Use designation (page 2-21)
- Identify Institutional (INS) zoning district as a compatible zoning district for Parks, Recreation, Open Space Future Land Use designation (page 2-21)

Additional attachments include the public input received at the Planning Commission's public review meeting on the Comprehensive Plan amendments, which was held on October 30, 2019. Public input includes: Landis Road residents against the change to Commercial General future land use of the Doub Farm property, support for the YMCA change in future land use to Commercial General, and opposition to the implementation of the Institutional zoning district in the Comprehensive Rezoning.

Lastly, the Maryland Department of Planning's comments on our Comprehensive Plan amendments are attached. Staff recommendations include holding off on changes to the residential development capacity described in Figure 2-4 until the MRGA boundary is amended. This way, staff can create a more accurate picture of development potential within the amended MRGA boundary. Furthermore, staff would like to point out that the lack of acreage changes in Mixed Use and Institutional future land use categories are due to the changing properties being less than 1 acre in size. The future land use chart does not show these changes in acreage because they are decimals of acres. The last staff recommendation is once again to wait until the MRGA boundary amendment until we recalculate the water and wastewater demand and capacity. The transportation comments are guidelines that the City already follows when presented with development plans.

The public hearing on the proposed amendments to the Comprehensive Plan is scheduled for December 17, 2019.

visionHagerstown 2035
Comprehensive Plan



Map 2-7: Future Land Use
(Amended 2019)

- Major Road
- Street
- Corporate Boundary
- Medium-Range Growth Area
- Moderate Density Residential
- Medium Density Residential
- High Density Residential
- Downtown
- Mixed Use
- Commercial General
- Business-Employment
- Industrial
- Institutional
- Parks, Recreation, Open Space

*Corporate boundary updated in April 2019
to include the annexations of Foggy Bottom Farm
and Antietam Creekbed*

Future Land Use Designation	Acreage	% of Total
Moderate Density Residential	4,510	17.7%
Medium Density Residential	7,018	27.6%
High Density Residential	720	2.8%
Downtown	161	0.6%
Mixed Use	88	0.3%
Commercial General	3,115	12.3%
Business Employment	4,211	16.6%
Industrial	3,218	12.7%
Institutional	1,091	4.3%
Parks Recreation Open Space	1,297	5.1%
Total	25,429	100%

0 0.5 1 1.5 2
Miles

Map Projection: NAD83 State Plane Maryland FIPS (feet)

Data Sources:
City of Hagerstown, 2017; State of MD Imagery, 2014
Washington County, 2016

Prepared By:
Hagerstown Planning & Code Admin Dept, 10/16/13 (rev. 10/27/17, 08/21/19)



Linwood: Medium Density Residential to Industrial

YMCA: Business Employment to Commercial General

Copyquik & Old Potomac Liquor:
Mixed Use to Commercial General

South End Shopping Center:
Commercial General to Industrial

Hagerstown Water Department:
Industrial to Institutional

Doub Farm:
Business Employment to
Commercial General

South side Hebb Rd:
Medium Density Residential to
High Density Residential

Figure 2-9: Future Land Use Designations

of Maryland Ave, and the Wesel Boulevard corridor. In the Medium-Range Growth Area (MRGA), concentrations of industrial uses include the Mack/Volvo plant and nearby areas, as well as land along Oak Ridge Drive.

Institutional (INS)

Compatible Zoning Districts: Any INST

Average Residential Density: Not Applicable

These areas recognize land occupied by large public and quasi-public institutional uses, such as schools, hospitals, the YMCA property, and the Municipal Stadium, and include some large religious institutions. While existing schools are included in this land use, future school sites and other institutional uses may be located in areas with other land use designations – especially residential areas.



Central Library at S. Potomac St & W. Antietam St

Parks, Recreation, Open Space (PROS)

Compatible Zoning Districts: Any INST

Average Residential Density: Not Applicable



Fountain at Pangborn Park

These areas include public and private parks, recreation facilities, large cemeteries, and other large land areas specifically preserved as open space.

Comprehensive Plan Amendments Public Input

Doub Farm- all neighbors against change to commercial general future land use at Doub Farm

- Tab Kurtz (404 Landis Rd) - questioned the current zoning of Doub Farm property. Staff confirmed it is mostly Commercial Regional zoning with some POM zoning. Also clarified difference between zoning and land use, and the future land use plan.
- Stan Stouffer (20028 Landis Rd) - expressed concerns about traffic for any commercial development on the Doub Farm property with the existing road network. Also expressed concern for the underground streams.
- Keith Griffith (203 Lands Rd) - also had concerns about traffic in the Doub Farm area if it were to develop commercially. Expressed additional concerns about the waterway that runs through the property and is concerned about potential water runoff when considering development.
- Brian Wright (20008 Landis Rd) - concerned about fire/emergency services and potential traffic when considering Doub Farm commercial development. Also concerned about the underground wells that the residents in this area depend on for water.
- Cindy Harbaugh (300 Landis Rd) - agrees with neighbors and is against Doub Farm commercial development.

Other Public Input

- Paul Corderman (1312 Hamilton Blvd) - expressed concerns about the newly created Institutional zoning district. Is concerned about rehab centers being allowed in the Institutional zone, particularly when considering schools that are sold and able to occupy new use. Is against implementation of institutional zone.
- Maria Rubeling (1100 Eastern Blvd) - representing YMCA and is in favor of that property turning commercial in the comprehensive amendments and rezoning.



Maryland DEPARTMENT OF PLANNING

October 18, 2019

Ms. Kathleen Maher, Director
Hagerstown Planning and Code Administration
One East Franklin Street, Room 300
Hagerstown, Maryland 21740-4987

LOCAL PLAN REVIEW: Hagerstown Comprehensive Plan Amendments 2019

Dear Ms. Maher:

Thank you for the opportunity to review the proposed amendments to the Hagerstown Comprehensive Plan entitled "visionHagerstown 2035". The proposed amendments to the 2018 Comprehensive Plan's Chapter 2, Growth Management and Land Use section, include changes to the future land use designations within the Medium Range Growth Area (MRGA) and the incorporation of the newly created Institutional zoning district.

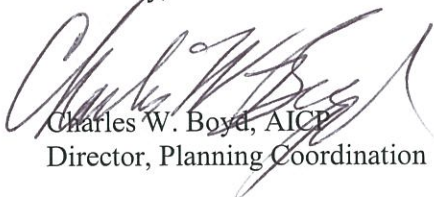
The Department forwarded a copy of the Hagerstown Comprehensive Plan amendments to several State agencies for review including, the Maryland Historic Trust and the Departments of Commerce, Environment, Housing, Natural Resources and Transportation. To date, we have received comments from Transportation. Any Plan review comments received after the date of this letter will be forwarded upon receipt.

Please consider that Planning's comments reflect the agency's recommendations and observations on ways to strengthen the City's Plan, as well as satisfy the requirements and intent of the State Land Use Article.

Planning respectfully requests that this letter be made part of the City's public hearing record.

Please feel free to contact me at (410) 767-4533 or David Cotton, Western Maryland Regional Planner, at (301) 777-2161. We appreciate your participation in the plan review process.

Sincerely,



Charles W. Boyd, AICP
Director, Planning Coordination

cc: Stephen Goodrich, Washington County Planning Director
Joe Griffiths, Manager Local Assistance and Training
David Cotton, Regional Planner



Review Comments
Hagerstown Comprehensive Plan Amendments 2019
October 18, 2019

The Maryland Department of Planning (Planning) has reviewed the proposed amendments to the vision Hagerstown 2035 City Comprehensive Plan (Plan) and offers the following comments for your consideration. These comments are offered as suggestions and/or comments to improve the Comprehensive Plan and better address the statutory requirements of the Land Use Article. Other state agencies as noted have contributed comments. Still others may have comments submitted under separate cover. If comments from other agencies are subsequently received by Planning, they will be forwarded to the city in a timely manner.

Summary of the Draft Comprehensive Plan

The amendments would change Future Land Use designations and incorporate the newly created Institutional zoning district (INS) into the Growth Management and Land Use text. In the 2018 version of the Plan, Figure 2.9 indicated that Institutional land uses were compatible in any zoning district. This amendment limits that compatibility to the INS district.

General Comment

Please consider adding a statement to the amendment providing context for the reason for the changes.

Growth Management and Land Use

It would be helpful to include an analysis of how these amendments affect residential development capacity or development potential. Using the assumed densities from footnote b: of Figure 2-4, residential densities were assumed to be 5 dwelling units per acre (du/ac) for Medium Density Residential and 10.61 du/ac for High Density Residential areas. Conducting a rough calculation, Planning estimated that there could be an addition of approximately 153 dwelling units.

Addition of 37 high density residential acres = $37 \times 10.61 \text{ du/ac} = 393 \text{ DUs}$
Decrease of 48 medium density residential acres = $48 \text{ acres} \times 5 \text{ du/ac} = 240 \text{ Dus}$
Net increase of 153 dwelling units

The proposed future land use designation for the Copy Quick and Old Potomac Liquor property would be changed from Mixed Use to Commercial General. However, the Amended Future Land Use Chart does not indicate a change in Mixed Use acres. Similarly, the land use designation for the Hagerstown Water Department would be changed from Industrial to Institutional; however, there is no change in the acreage in the amended chart to the Institutional category. It appears the Amended Future Land Use Chart does not reflect all the acreage changes described in this amendment. Please update the table if necessary.

Adding additional acreage to the Commercial General future land use category may affect an area's form and appearance as new commercial uses develop. Certain existing structures currently contribute to the fabric of an older, revitalizing city. When developing commercial properties, Planning suggests that the city give attention to form, design and landscape, and is available to assist in the development of any guidelines or design considerations.

Water Resources

It appears that the proposed changes would result in future increases in service demands. According to the footnote on page 4-3, an EDU represents the amount of wastewater capacity required by one dwelling unit, which the City determines to be 200 gallons per day (gpd). Utilizing the net increase of 153 dwelling units, this increase would amount to 30,600 gpd ($153 \text{ du} \times 200 \text{ gpd}$). Planning acknowledges that the additional 153 units would account for a relatively small share of new potential residential units based on Figure 2-3. Planning recommends that the city estimate the change, in water and wastewater demand, that is expected to result from the proposed changes.

After determining the extent of change in water and wastewater demand, the city should either: (a) include a statement or footnote in the Water Resources Element (WRE) that the change in demand is minor enough that no changes to the WRE are warranted; or (b) modify the WRE to account for these changes.

Maryland Department of Planning Review Comments October 18, 2019
Hagerstown Comprehensive Plan Amendments 2019

STATE AGENCY COMMENTS

The following pages contain comments from other State agencies in support of the Maryland Department of Planning (Planning) review of the Hagerstown Comprehensive Plan Amendments 2019 as part of the standard 60-day review period for municipalities and non-charter counties. Comments not included here may be submitted under separate cover, or via the State Clearinghouse. If comments from other agencies are received by Planning, they will be forwarded to the County in a timely manner.

Attachments

Page 2

Maryland Department of the Transportation

September 26, 2019

Mr. David Cotton
Western Maryland Regional Planner
Maryland Department of Planning
301 West Preston Street, Suite 1101
Baltimore MD 21201

Dear Mr. Cotton,

Thank you for coordinating the State of Maryland's comments on the 2019 City of Hagerstown Comprehensive Plan vision Hagerstown 2035 Amendments, hereafter referred to as the "the Plan". The Maryland Department of Transportation (MDOT) offers the following comments.

General Comments:

- Any future development or re-development of properties adjoining State roads or proposals for new access points to state roads will require an MDOT State Highway Administration (MDOT SHA) access permit and may require a traffic impact study and traffic impact mitigation improvements.
- The MDOT requests that careful consideration be given to the potential consequences of additional growth in light of the area traffic.

Specific Comments:

Page 1

The MDOT has reviewed the proposed amendments to the Plan and supports the proposed changes to future land use. The following bullets suggest possible transportation issues and items to keep in mind if these properties are redeveloped:

- The proposed changes in zoning of the Linwood Property from Medium Density Residential to Industrial, the South End Shopping Center from Commercial General to Industrial, along with the Hebb Property from Medium Density to High Density Residential, could result in additional freight traffic on these roadways.

Mr. Dave Cotton
Page Two

It is recommended that the City of Hagerstown continue to work with Washington County, as well as MDOT SHA, on any future Transportation Management Systems Operation (TSMO) efforts as applicable.

- The MDOT recommends possibly investigating the implementation of local traffic management plans as a regular practice for proposed development. These measures could help ensure that there is less degradation to the performance of the existing transportation network.

Thank you again for the opportunity to review the Plan. If you have any questions or concerns, please do not hesitate to contact Mr. Ian Beam, Regional Planner, MDOT Office of Planning and Capital Programming (OPCP) at 410-865-1280, toll free at 888-713-1414 or via email at ibeam@mdot.state.md.us. He will be happy to assist you.

Sincerely,



Heather Murphy
Director, OPCS, MDOT

cc: Mr. Ian Beam, Regional Planner, OPCS, MDOT