

Municipal Growth ~~& Public Services and Community Facilities~~

Overview

The purpose of this chapter is to examine the relationship between land use and population trends to predict the residential and non-residential demand as well as their impacts on public services and community facilities. In combination with other chapters of this Plan, recommendations to guide growth, infrastructure, and services both within and outside of the existing City boundary are examined. These policies also effect State assistance as the analysis of capacity available for development, including infill and redevelopment, play a significant role in the creation of the City of Frederick Priority Funding Area (PFA).

[bumpout – define PFA]

1997 Planning Legislation capitalizes on the state's influence on economic growth and development. This law directs state spending to Priority Funding Areas. PFA's are existing communities and places designated by local governments indicating where they want state investment to support future growth.

As stated in previous chapters, the city is expecting a continual increase in population, which will have a significant impact on development patterns and land consumption as well as the City's service boundary. An overarching goal of the Comprehensive Plan is to prioritize redevelopment of vacant and underutilized lands, where existing infrastructure and public services have the capacity to serve the additional growth. The 2010 Comprehensive Plan recommended a modest expansion of the City limits in comparison to the 2004 Comprehensive Plan and the subsequent annexation initiative. Unlike the 2010 Plan, this Plan recommends a flexible growth approach that acknowledges that the economy drives the housing market and its growth pattern, however, recommends that future annexations use an approach that is timed and calculated to predict and concentrate public services and community facilities in an efficient manner.

In recent history, the City's growth boundary has been limited by water capacity, mainly determined by the City and County Potomac River Water Service Agreement (PRWSA), a utility service agreement for County supplied water capacity. In addition, the school capacity has been a factor for new development, including infill and redevelopment opportunities. When considering the population projection coupled with the limitations of utility

capacity and school capacity, it is important to remain flexible to emerging technologies and governmental policies that may affect the growth patterns that the market demands.

~~The Municipal Growth Element (MGE) is a requirement of the HB 1141 that was enacted by the State of Maryland. The MGE will review population and housing projections against the ability to provide adequate services. To decide upon an appropriate land use plan, the City of Frederick has put in place a three tier growth model in the land use element to conduct a series of analyses based on the tenets mentioned above, historical growth trends and natural resource limitations, and focuses on the eight Vision of the State Planning Act of 1992.~~

~~The City of Frederick has historically been the growth center of Frederick County and the City sees this trend to continuing. By concentrating capital improvements projects and using the existing infrastructure, the City should maximize the use of existing infrastructure.~~

~~The City of Frederick's 2010 Comprehensive Plan over arching goals includes:~~

- ~~—Promote the redevelopment of lands with existing infrastructure and public services while supporting the maintenance and rehabilitation of existing residential, commercial, and industrial structures;~~
- ~~—Encourage land uses, densities and regulations that promote energy efficient development patterns and relatively low municipal, state governmental and utility costs; and~~
- ~~—Ensure that existing infrastructure (water, sewer, parks, roads, etc.) and services (police, code enforcement, recreation, etc.) are properly maintained and utilized.~~

~~This Comprehensive Plan calls for only modest expansion of City limits in comparison to the 2004 plan. The growth limits essentially revolve around the current city-county Potomac River Water Supply Agreement (PRWSA) utility service agreement which lie adjacent to the city-county boundaries. Frederick will grow from within with only 2-3 potential annexations occurring by 2030 outside of this boundary. Thus, the policies in the section relate to:~~

- ~~—Supporting the level of growth anticipated through 2030 identified on the land use map and text.~~
- ~~—Document the potential impact of growth on public services & community facilities.~~

Population Growth

The City of Frederick showed the largest percentage growth in the following years: 1860 (35%), 1930 (30%), 1990 (43%) and 2000 (31%). -The City of Frederick

only had one period of decline and that happened in 1890. -The reduction in population amounted to five percent (5%) of the total population.

E

The 1860's increase can be attributed to Maryland's predominance of being the ~~bread basket~~breadbasket of the Mid-Atlantic region.- The rail had been expanded to the region as well as the C&O Cannel to help reduce the cost of transporting goods from the region to Baltimore. -Citizen came to the area to ~~full~~ fulfill the need for labor.

E

The 1930's increase can be ascribed to focus on the air cargo transport and the military where Detrick Field, now Fort Detrick, was used as a summer training ~~camp~~camp by the 104th Air Squadron 29th Division.- Again, like the railroad had been in the previous era, air cargo transport had been expanded to the region and the labor associated with this economic ~~spurt~~growth. As the 1940's and 50's entered the economy was supplanted by Detrick Field becoming Camp Detrick. -This ~~spurred~~spurred on even further growth that carries until today.- The exception was 1970's when we the Country entered a prolonged and difficult economic period.

~~Forty-seven percent (47%)~~Almost half of the City's population occurred after 1980. This unprecedented growth is related to the growth at Fort Detrick and the price of real estate. -In 1990 and 2000 due to the rising cost of land around Washington DC and Baltimore;z the City of Frederick was viewed as an acceptable commuting distance to these two large employment areas.

In the last 10 years, the City of Frederick and Frederick County has seen a rise of employers relocating to the area. ~~In~~Table 4-1 shows the ~~past 10 years, the City has seen the following~~ businesses that were either relocating or expanding in the City: ~~State Farm, United Health Care, BP Solar, SAIC, MedImmune, Wells Fargo.~~ Frederick's City population has been about 24.5% of Frederick County's population in 1980 and Fort Detrick. ~~has been increased to 28% in 2010.~~ According to Metropolitan Washington Council of Governments (MWCOC), this ratio is not expected to change significantly until 2040. Table 4-2 shows this relationship.

~~The City of Frederick is remains under intense growth pressure due to its location; the City's population growth trend is expected to continue. Typically Frederick's City population has been about twenty-five percent (25%) of Frederick County's population. Table MGE-1 shows this relationship. This is also expected to be maintained. (Insert Table MGE-1)~~

~~Land Use Change~~

AstraZeneca (formerly MedImmune) – Biopharmaceutical Manufacturing - EXPANSION
Stulz ATS – HVAC Manufacturing - EXPANSION
Frederick National Laboratory for Cancer Research (Biomedical Cancer and AIDS Research) - NEW
Equipment Development Corporation (EDCO) – Floor Finishing Manufacturing and custom Metal work - EXPANSION
Frederick Health – Frederick Memorial Hospital - EXPANSION
Frederick Health – James M Stockman Cancer Institute - NEW
Charles River Labs – Vivarium - EXPANSION
Fort Detrick National Biodefense Campus – (Biomedical Research and Development) – EXPANSION/NEW
Ogden Newspapers Printing (formerly Randall Family LLC) - NEW
Wilcoxon Sensing Technologies – Manufacturing – NEW
Frederick Innovative Technology Center Inc (FITCI) @ ROOT – Technology Business Incubator – NEW
Dairy Maid Dairy – EXPANSION

(Insert Table MGE-2)

~~The Potomac River Water Supply Agreement (PRWSA) shows that the potential areas of annexation total more than 1,600 acres. These areas of future growth are generally located north along US 15 and on the west side of the City along Kemp Lane.~~

~~The City of Frederick has certain limitations to future annexations. The City can not grow to the south with the County's Ballenger Creek developments. Annexations to east are limited by the Monocacy River. The west has limitations with the providing water services at the higher elevations. The logical expansion of the City of Frederick is to the north along US 15. The County recognized these potential annexations by zoning the majority of this property as agricultural.~~

~~The biggest issues facing the City are water and sewer capacity. With limited vacant land, the City will be looking to future annexations. With the PRWSA in place, the City of Frederick is guarantee water into the year 2015. However with the increasing requirements of Total Maximum Dailey Load (TMDL) on the Monocacy River, sewer capacity will be the single most critical infrastructure need.~~

~~If the Monocacy River capacity is at or near the maximum TMDL, then growth in Frederick County and the City of Frederick will drastically slow down. In that scenario, well and septic sprawl will occur on the edges of the City of Frederick. This potential sprawl will prevent future annexations should the City find additional sewer capacity. With the State, County and City's projections of additional growth to the region, these projections would need to be revised if additional sewer treatment capacity can not be obtained.~~

Future Population Growth

~~As described in the previous section, the~~ The City of Frederick is under intense growth pressure ~~from the great~~ due to its location of being 45 miles from both Baltimore, Maryland and Washington, DC. -The City's population has typically been about twenty-five percent (25%) of Frederick County's population. ~~This growth trend is expected to continue.~~ as MWCOG projects more ~~(Insert Table MGE-2)~~

~~The future population projections may be somewhat lower than what the state is projecting.~~ There are several reasons 32% population increase from 2015 to 2045 for the ~~differences between these two projections.~~ The first is that the City is using as the basic premise for its projections the PRWSA. The City is going to be allocated so much water over the next 15 years. Also in the agreement is the provision that if the City does not use the water in the agreement, that the City will be charged a carrying fee for the unused water. So it is in the best interest of the City to continue with a steady and predicable growth. The second is that the national economy is entering a period of slower growth which has not been taken into account in the Maryland's Department of Planning projections at this time. ***(Insert Table MGE-3).***

[Insert COG table]

[Insert Infographics]

Household Size Table

Housing Projection Table

(Insert Table MGE-3)

According to COG, in 2045, the City's population will be 93,100 in 36,700 households. This means the household size will be 2.54 people per household. However, based on 2018 ACS, Frederick's household size is 2.46 and considering the historical data, it is even expected to decrease just like in the past decades. Considering COG population projection of 93,100, and if the household size decrease to 2.35, there will be a need of less than 40,000 housing units in the City.

Land Use Change

A policy recommendation of this plan is to encourage mixed use redevelopment and infill development with the addition of several mixed-use land classifications and higher densities within the Tier I and Tier II growth boundary. The purpose of these recommendations is to capture the demand for

housing as the population increases with limited growth potential outside of the existing growth boundary and PRWSA. At this time there are approximately 790 acres of land within the PRWSA and Tier II growth area that could be annexed and developed.

The land beyond the Tier II growth area that could be annexed is limited due to geographical, topographic and political influences. There is potential for growth to the north and west of the City. However, due to the extreme infrastructure costs, the increased elevation limits the potential to provide water services to those areas. There are areas to the east that may be developable, however the Monocacy River provides a natural geographical boundary, which may be cost prohibitive to provide adequate road infrastructure to serve the neighborhoods. As indicated in the Land Use chapter, the areas south of Interstate 70 are delineated as future Frederick County growth area and served by County sewer. While the City would encourage development in this area to be developed within the City boundary, the willingness to annex at a higher tax rate for services that the County also provides is unknown at this time.

Growth Assumptions

~~The citizens, Planning Commission, and Mayor and Board of Aldermen have considered several different growth scenarios related to how the City of Frederick should grow over the 20-year period. All agree that the City of Frederick is~~ The City has historically been the growth center of Frederick County, based on the population projections as well as the longer-term vision of the State, County and City, it is projected to continue to attract much of the County's growth and development for the next 10-20 years. The City is anticipated to be the growth center for Frederick County for the following reasons:

- Federal, State, and County infrastructure is ~~centered~~concentrated in the City of Frederick.
- The state of Maryland's Smart Growth policies focuses growth towards areas with infrastructure in place.
 - ~~—The 2002 Frederick Region's Comprehensive~~County's Livable Frederick Master Plan classifies includes the City of Frederick ~~as the County Center:~~
 - ~~—“New development shall be directed to designated development areas to limit wasteful sprawl to permit the economic provision of public services and facilities, and to conserve valuable farm and forest land.”~~ 2002 Frederick Region Plan
- ~~“Major new residential, commercial, industrial, and employment development shall be concentrated within Frederick City and the Regional Community of Ballenger Creek and will utilize appropriate levels of public services and facilities consistent with the Comprehensive Plan guidelines.”~~ 2002 Frederick Region Plan the Central District which is a Primary Growth Sector.

- The City of Frederick is a State Priority Funding Area.

Topography and Future Development

The City's existing water supply and distribution system is divided into two major pressure zones, with the lower Zone 462 to the east and higher Zone 595 to the west. The system includes elevated storage tanks to supply water at adequate pressure in these zones.

As the city develops to the north and west, it is important to realize that any development at an elevation higher than 595 will require additional infrastructure to supply the necessary water and pressure to service those demands. As we project development, these areas may require infrastructure such as elevated storage tanks or other methods that may be costly to the developer or City. The map below shows areas that are outside of the City boundary at an elevation higher than 595 that cannot be serviced by existing infrastructure.

[Bumpout: define Livable Frederick Primary Growth Sector]

The Primary Growth Sector articulates the locations and types of development that are to be emphasized as the county grows in future years. Given the significant existing pipeline of development, as well as the cumulative land area surrounding and within existing communities throughout the county that is currently designated in the Comprehensive Plan Map, the Primary Growth Sector may not correspond to locations where the majority of our future county-wide growth will be directed. Therefore, a basic purpose of the Primary Growth Sector is to support the long term strategic shift in the style and location of development that will occur in Frederick County.

The Primary Growth Sector is composed of land in and around Frederick City, including the Frederick City Growth Area, the Ballenger Creek Community Growth Area, the South Frederick Community Growth Area, and lands along major infrastructure corridors in the southern portion of the county that connect to regional employment centers. These areas include the Eastalco Growth Area, the Brunswick Community Growth Area, the Point of Rocks Community Growth Area, the Urbana Community Growth Area, and the I-270 Growth Area.

Two districts are identified within the Primary Growth Sector: the Central District and the Multi-Modal District. The Central District is composed of major developed areas in the county that have significant access to infrastructure and services - areas where there is high potential for development patterns that support multimodal accessibility, and where a significant share of development may occur through infill and redevelopment strategies. The Multi-Modal District includes specific corridors in the county where growth potential will be maximized by leveraging the existing assets of rail and highway infrastructure that connect Frederick County to the greater Baltimore-Washington region. Emphasis is on building transit connectivity, centered on the City of Frederick, and creating multi-modal corridors that catalyze redevelopment of aging retail and office developments, while also creating new transit accessible mixed-use locations in the county.

Development Capacity

In simple terms, the development capacity is the relationship between the projected population growth and resulting housing demand. The purpose is to determine if the City has adequate land, zoned appropriately to meet the housing demand as the population grows or if there is a need to extend corporate limits and services to prepare for the predicted growth. Since 2004, the City has considered future growth in the following Tiers:

- Tier I – Areas for Infill and Redevelopment within existing City limits
- Tier II – Immediate areas of growth limited to prescribed water capacity
- Tier III – Areas of future growth without allocated water capacity assumptions

In calculating the land area required by the future growth of the City of Frederick, this ~~growth element~~Chapter of the comprehensive plan is based on the following assumptions:

TIER I DEVELOPMENT WITHIN THE EXISTING CITY LIMITS

Tier ~~1~~Development within ~~development~~ consists of the **Existing City Limits**

~~The City of Frederick has little~~infill and redevelopment of vacant land left in the City. The ~~and underutilized parcels within the existing City boundary. For the purpose of projecting growth, only the vacant land inventory can be viewed in Table MGE-4. Some of the vacant land was remove do to various reasons. The net~~parcels are

considered. The vacant land available for development is approximately 844,1,550 acres. ~~(Insert Table MGE-4)~~

Of this the 844 developable acres, of which only about 400,817 acres are zoned residential— or mixed use.

The two vacant residential parcels are both zoned R4 and currently not developed to their potential. When the families of these parcels decide to develop is still unclear. There are currently

As of the fourth quarter of 2019, there are approximately 400,7,000 units in the development pipeline.

The City is expecting to build 400 units to 2012 and then Using conservative trends from 2013 to 2030 the City is predicting to build on 2000-2019, the average 700 number of dwelling units a constructed per year— is approximately 450. Given this the historical pace of residential development, the residential pipeline will be drained by the 2020. exhausted in 2035.

Table MGE-5 shows the amount of vacant within the City of Frederick broken down by the size of the lots. This information is needed to show that where there is a large amount of vacant land with in the City of Frederick, much of it is in small parcels. The City of Frederick needs larger parcels (50+ acres) to attract large national employers. ~~(Insert Table MGE-5) (Insert Table MGE-6)~~

Tier 2 Development Beyond Present City Limits

The majority of the new land to be considered for annexation into the City of Frederick lays to the north and west of the present City boundaries. The number and size of the vacant parcels are itemized in Table 4-6. This information demonstrates the development potential of the vacant acreage. As depicted, there are few lots over 25 acres. Medium-sized lots (three to 25 acres) allow for creative development opportunities that have the most potential to add to the unique character of the City. Small lots can be developed by small home builders or consolidated with neighboring parcels to improve single lot development opportunities.

Infill Capacity Analysis

To estimate the development capacity of the vacant parcels, those of 3 or more acres are assumed to support noteworthy infill development. The applicable zoning classification was matched to the parcel to calculate the expected residential development capacity for each parcel. Selected parcels are shown on Figure 4-6. Results from this parcel by parcel analysis are shown in the Table 4-7.

Parcels zoned for commercial or industrial development were not included in this analysis. However, these parcels are shown in the Table 4-7, since their future

development will place demand on the water, sewer, and road infrastructure. 246 parcels totaling 735 acres zoned Commercial or Industrial were subtracted from the total to isolate those parcels expected to yield residential or mixed-use infill development at build-out within the City's current corporate limits.

Results of the projection indicate that development of these noteworthy parcels could result in more than 4,000 residential units. Utilizing the 2018 household size of 2.46, the development potential of these units has the potential to support almost 10,000 new residents at build-out. When added to the existing population, a total of around 82,000 residents could be supported within the existing City limits.

In addition to vacant parcels' potential for development, there is always a redevelopment possibility for underutilized parcels. Normally, as an existing structure ages over time, maintenance becomes more expensive and the improvement value declines. Meanwhile, as population and wealth increase, the demand for land tends to rise and so does the value. Although not calculated in this analysis, land value to improvement value ratio is depicted in Figure 4-7 to determine the probability of the potential redevelopment: as the ratio increases, the likelihood that reinvestment will occur on the land increases.

It is important to note that the expected residential units yielded in this forecast will be inflated because many development constraints are not assumed.

(Insert Table MGE-5)

TIER 2 DEVELOPMENT BEYOND PRESENT CITY LIMITS

The City's growth will not be limited to areas currently located within the existing corporate limits. Several parcels are located within the Tier II boundary, which includes the PRWSA limits. These parcels are contiguous or proximate of the City's boundary and have the right to petition for annexation at any time.

Areas that represent potential growth through annexation and are located within the Tier II growth area are shown on Figure 4-9 and listed in Table 4-8. The estimated development potential through potential annexation and growth for these parcels is summarized in Exhibit 4 of the PRWSA. Please note that the projection of the PRWSA is estimated and the property will be carefully reviewed at the time of annexation.

Parcels zoned for commercial or industrial development were not included in this analysis. However, they are shown in the table since their future development will place demand on the water, sewer, and road infrastructure.

12 parcels totaling 790 acres zoned for Residential and/or Mixed-use are expected to yield residential units at build-out within the PRWSA limits.

Results of the projection indicate that development of the Tier II parcels could result in more than 1,600 residential units. Utilizing the average household size of 2.46, the development potential of these units has the potential to support almost 4,000 new residents at build-out. When added to the existing population and projected infill population, a total of 86,000 residents could be supported within the Tier II boundary.

TIER 3 GROWTH

~~As stated in the land use discussion, annexations to east are limited by the Monocacy River. The west has limitations with the providing water services at the higher elevations. The logical expansion of the City of Frederick is to the north along US 15. The County recognized these potential annexations by zoning the majority of this property as agricultural. These areas generally have large tracts of undeveloped land. Frederick County has zoned much of this land as agricultural to ensure that sprawl does not take place. The advantages of expanding the city limits to the north include:~~

- ~~— Access to either US 15, Monocacy Boulevard / Christopher's Crossing~~
- ~~— Natural Drainage Area~~
- ~~— Limited County Development~~
- ~~— Large tracts of undeveloped lands~~

~~The properties to be considered for future annexation will be considered based on the criteria adopted by the Mayor and Board of Aldermen on December 6, 2007. These criteria include:~~

- ~~— Within the 20 year Urban Growth Boundary~~
- ~~— Future Water and Sewer Service Area~~
- ~~— Addressing one or more important City needs~~
- ~~— Access is through City streets~~
- ~~— No County easements are needed~~
- ~~— Eliminate portions of County land nearly surrounded by City limits~~
- ~~— Significantly contiguity with the City boundaries~~

~~The larger parcels that are mostly likely to be considered for future annexation by the City of Frederick are shown below. These parcels are also listed in the PRWSA. These are the larger parcels (50 acres or more) and are in no specific order.~~

- ~~— Crum Joli LLP ————— 362 acres~~
- ~~— Thatcher Route 15 ————— 108 acres~~
- ~~— Richfield Farm Route 15 — 139 acres~~
- ~~— Homewood — Willow Road — 65 acres~~

- Sanner — Walter Martz — 64 acres
- Albaugh — Walter Martz — 67 acres
- Keller — Yellow Springs — 206 acres
- Staley — Rocky Springs — 72 acres
- Clover Ridge LLC — 62 acres
- Oden Kemp Lane — 80 acres
- Gladhill Route 70 — 75 acres
- Summers Mt Phillip — 100 acres

Tier 3 Growth

Growth in this tier is ~~intended to indicate areas that could be annexed to be considered only~~ after the first two tiers are substantially developed, ~~unforeseen growth opportunities necessitate additional housing units~~ and only if water and sewer resources are available. ~~Expansion in the third tier will focus primarily on two locations; growth east of the Monocacy River between State Road 26 and Interstate 270 and growth Northwest of Biggs Ford Road.~~ As described in the Land Use Chapter, the 2020 Comprehensive Plan eliminates the future Tier III growth area from the Land Use Map. It ~~prioritizes infill and redevelopment opportunities within the existing municipal boundary and creates flexibility for future annexations. The flexibility is shown by a hatched area surrounding the Tier II/PRWSA boundary that represents a timed and calculated approach to annexations based on the market demand and the supply of residential dwelling units tracked by the pipeline.~~

~~Development east of~~When adding the ~~Monocacy River is focused on~~potential development of the ~~North-South Road. This is an important road to facilitate traffic~~parcels located within Tier I and ~~provide an alternative to US-15. See~~ll with the current pipeline, the planned residential dwelling units can supply a population of 103,000. (12,600x2.46+72,000)

Please see the Land Use ~~Chapter~~ and ~~Transportation Element regarding further policies on the North-South road.~~

~~The northwest, growth boundaries is the next steps in contiguous growth that likely can be served by utilities.~~

~~The~~Future Land Use ~~Element and~~Map ~~contains for~~ further ~~detailed text~~details on the three growth tiers: ~~and the proposed annexation policy.~~

Sustaining Growth Projections

The growth projections based on the Tier 1 & 2 & III development areas yield a similar conclusion as the state MWCOC projections. ~~These generalized projections deviate from other very little~~

~~(Insert Table WMCOC projection vs Existing Tier I and taken as a whole, they indicate that by 2030 II entitled Projection)~~

~~Additionally, according to MWCOC's *Growth Trends to 2045*, the City's City is estimated to have 93,100 population in 36,700 households in 2045. Per the analysis, the City can provide the units necessary to assist our region with housing units just through the existing pipeline and potential entitlements within the Tier I and II growth areas, not including increased density or other incentives that may approximate 85,000 and the number of households may approximate 35,000. The Appendix provides information on the sources and methodologies for preparing the general projections, which were based on historical trends. Table MGE 7 shows the City growth projections based on the current City Boundary and the PRWSA. (Insert Table MGE-7) encourage infill or redevelopment opportunities.~~

~~As a basis for planning, of this Comprehensive Plan adopts, the projected levels of growth which are shown in Table MGE -7. This table shows generalized projections based are considered to drive housing demand. It is important that City policy remains flexible to housing market with regards to unit types, densities and unforeseen employment and economic development initiatives that may increase the need to provide more units than projected. Based on the City's Land Use Plan. Between 2009 and 2030, about 9,195 new households may be expected to be added to assumptions of this plan at the City. (Insert Table MGE-8)~~

~~Of the 9,195 new households expected between 2009 and 2030, nearly half of these potential households are in the current development pipeline. Therefore, in keeping with the projections, in the future years between 2009 and 2030 time of adoption, the City may anticipate an additional has the existing housing stock and planned units to supply the population of 22,044 persons. As described in the following section, this development would be accommodated through development of the Tier 1 & 2 boundaries that are or will be entirely within the City.~~

~~This distribution of growth is discussed in more detail in the Land Use Element of this plan. This element proposes development policies intended to guide growth through development and redevelopment primarily within the future City boundary as follows: projected until 2045.~~

- ~~— This Comprehensive Plan seeks to direct future growth potential into areas presently within the existing and proposed corporate limits of Frederick.~~

- ~~All growth potential can be accommodated within Tiers 1& 2.~~
- ~~Only two areas are anticipated for annexation in Tier 3. They are a logical part of land use changes that would occur as part of Tier 2 area development. These would only occur~~

Burdens on sensitive lands in and adjacent to the City of Frederick

The City of Frederick has a considerable diversity of habitat within a relatively small area.- Within a short distance, in nearly every direction from the City's center, there are forested lands, streams and a scenic river, open farmland with fence rows, and wooded parcels. -The City of Frederick maintains ~~an 8,000~~7,500-acre Municipal Forest in the mountains to the northwest of the City, primarily to protect the City's mountain water sources. -Beyond this forest, Frederick also serves as a gateway for many local and regional environmental resources in the Catoctin Mountain region.

One of the most important natural resources of the City of Frederick is the Monocacy River.- The Monocacy River is one of the largest tributaries of the Potomac and its watershed drains about 970 square miles in Carroll, Montgomery, and Frederick counties in Maryland and parts of Pennsylvania. The Monocacy is also the principal water resource in the Frederick region. -Most wetlands in the Frederick region are also located along the Monocacy and its tributaries.

One of the premises for the tiered level of growth ~~was~~is to continue the balance ~~between the State of Maryland's already stringent development with~~ environmental regulations and any additional environmental protection activities ~~the City wishes to undertake~~stewardship. This ~~balance applies to~~includes the preservation of forest land, the management of air quality, and the protection of water quality. ~~For example, Maryland's Planning Act requires jurisdictions to address sensitive areas in their Comprehensive Plans. This plan addresses that requirement.~~
Sensitive areas include streams and their buffers; 100-year floodplains; habitats of threatened and endangered species; and steep slopes as well as other areas that the city determines are in need of protection. -As the City continues to with growth, the protection of its sensitive areas will be ever more critical. -Given Monocacy River watershed's importance to Frederick and the diversity of sensitive areas it contains, this habitat ~~continue~~continues to receive special consideration.

The municipal annexation described in this and the Land Use [ElementChapter](#) will also have a major impact on how the City interacts with its natural surroundings.- Development plans for annexation areas should take into consideration the effects that new development will have on [the](#) surrounding natural resources.

The City must decide on the appropriate balance between development and natural resource preservation, and should continue to maintain policies that help its citizens and businesses achieve that balance. [The Environmental Chapter contains policies that provide more detailed information on shielding sensitive areas.](#)
~~The Environmental Element contains policies that provide more detailed information on shielding sensitive areas.~~

Agriculture Easements

[The City must recognize that the open agricultural character of adjoining areas defines the City edges and offers contrast between the developed City and rural County. From that perspective, preservation of agricultural land and agriculture economy in the region is viewed as a means of framing the City's identity within the larger rural County. From a land use perspective, the City must develop in a form that transitions from a dense urban core to the rural agriculture land located in the County.](#)

[When considering development entitlements, the State and County offer agriculture easements to preserve and conserve the necessary agriculture land for our community. It also restricts development and forces land use decisions. These easements are an important consideration and a factor in shaping the potential growth pattern of the City. Where they may limit development and potential annexation, they may provide many other resources that allow concentrated development within the City boundary.](#)

[As shown in Figure 4-12, there are several parcels encumbered by agriculture easements that may have been considered for future development.](#)

Growth's Impacts on Public Services and Community Facilities

~~To accommodate the additional residents there will be a corresponding increase in services that these residents will need. The services outlined in this section include: Schools, Libraries, Public Safety, Water, Sewer, Roads, and Recreation. It should also be noted that the City of Frederick has no control of County services (Schools, Libraries, and Fire & Rescue). This section is a composite of the entire plan. The entire document should be reviewed to obtain a clear and complete understanding of the issues.~~

Public Schools

The public school system is a County wide service. The City works with the Frederick County Public School (FCPS) system on several levels. **The Development Impacts** The anticipated growth will demand additional resources for public services and facilities provided by the City, County and others. Impacts include increased demand for water, sewer, roads, schools as well as other public facilities such as police, fire and rescue, parks and libraries. While the City is diligent to ensure that adequate capacity is available for the services that it controls, the City does not govern the capacity of schools, libraries, fire and rescue and select sewer services.

The following impact estimates are derived using multipliers that represent assumptions about the level of service that will be provided in the future. New dwelling units or new population are the "service units" representing demand.

<u>Facility / Service</u>	<u>Multiplier</u>	<u>Service Unit</u>
<u>Frederick County Public Schools</u>		
<u>Elementary School*</u>		
<u>Students</u>	<u>0.19</u>	<u>Per Dwelling Unit</u>
<u>Teachers</u>	<u>X.X</u>	<u>Teacher to Student Ratio</u>
<u>Middle School*</u>		
<u>Students</u>	<u>0.10</u>	<u>Per Dwelling Unit</u>
<u>Teachers</u>	<u>X.X</u>	<u>Teacher to Student Ratio</u>
<u>High School*</u>		
<u>Students</u>	<u>0.13</u>	<u>Per Dwelling Unit</u>
<u>Teachers</u>	<u>X.X</u>	<u>Teacher to Student Ratio</u>
<u>Police (sworn officers)</u>	<u>1 sworn officer</u>	<u>XXXX Residents</u>
<u>Fire and Rescue</u>		
<u>Personnel</u>	<u>1</u>	<u>500 residents</u>
<u>Facilities</u>	<u>XX GFA</u>	<u>XXX residents</u>
<u>Water and Sewer – Residential</u>		
<u>Water</u>	<u>250 GPD</u>	<u>Per Dwelling Unit</u>
<u>Sewer</u>	<u>250 GPD</u>	<u>Per Dwelling Unit</u>
<u>Water and Sewer – Commercial</u>		

Water	GPD	Gross Floor Area**
Sewer	GPD	Gross Floor Area**
Libraries	1,000sf	10,000 residents
Parks and Recreation	10 acres	1,000 residents

* For a detailed pupil yield rate for Grade Level and Dwelling type, see Table X.X

Public Schools

City residents are served by Frederick County Public Schools (FCPS) for Kindergarten through Grade 12 public education. Impacts to FCPS enrollment levels are directly affected by the anticipated growth and development described in this Plan. In order to ensure quality education for all students of Frederick County, FCPS reviews the City's development review plans for consistency with the County's Schools-FCPS Educational Facilities Master Plan. During this process, the FCPS provides feedback on the feeder pattern of schools, possible bus routes, turning radius information, joint location of City parks and County school sites.

FCPS also reviews plans as needed in relation to the City's APFO. The City of Frederick provides the FCPS with background data and other relevant information as needed. Then (EFMP). A typical review consists of comments and consideration to the FCPS staff provides the capacity of each of the schools serving that development. Adequate Public Facilities Ordinance including enrollment and capacity as well as other site design standards.

[Insert Table: Enrollment Capacity of Schools that Serve the City] MGE6

As depicted in Table 4-10, there are 26 schools that service City residents. Nearly half (12) are over the State Rated Building Capacity, with 3 determined to be 125% over the SRC. As of recently and most likely in the foreseeable future, the schools that are most effected by City development pressure are those service the north west quadrant of the City. These are demarked with an asterisk in Table 4-10.

When considering the impacts of potential development within the City to the school system, it should be noted that school enrollment and staffing are only assumed for City developments. These assumptions do not consider other developments outside of the City's jurisdiction and within the same school district, the possibility of redistricting or other influences that would impact the future development potential or entitlements to properties. When considering the potential for Tier I and Tier II buildout, beyond the current pipeline, there is potential for 5,600 additional housing units, not including future annexations.

These housing units have the potential to add 1,064 elementary, 560 middle, and 728 middle school students dispersed throughout the school district.

[Insert Table: Projected Population, Dwelling Units, General E.S, M.S, H.S Enrollment]

Insert Table: Projected Population, Various Mixture of Dwelling Units, E.S, M.S, H.S Enrollment

A major theme of this plan is to guide future growth and development with flexibility for the next 10 to 20 years. As technology continues to advance at exponential rates it is probable that local school systems, including FCPS, will adjust to meet modern developments. This may include new ways of instruction that may change the way enrollment and capacity is calculated. The City should continue to provide quality housing to meet the needs of the projected population growth, while remaining flexible to the existing and future capacity of the local school system.

Public Safety

The City of Frederick provides its own public safety services. Divided into three bureaus, Administrative, Operations, and Support Services, the Frederick Police Department provides 24 hours a day, seven day a week law enforcement services for the 72,152 residents of Frederick's approximately 24 square miles. As shown in Figure 4-16, the City generally has a low and decreasing level of crime, contributing to the City's high quality of life.

The addition of approximately 10,200 and 13,700 residents in the City over the next 10 and 25 years, respectively, will place additional service demands on public safety resources. As shown in Table 4-9, the City should expect to employ approximately 179 sworn officers in 2030 and 186 in 2045.

Currently, due to space constraints, the police headquarters is not located in a centralized location. It is well known that the current configuration of the Police Department is inadequate for current and future needs. A recommendation of this plan is to prioritize the acquisition and planning for a new police headquarters.

[Insert Table Future Population / Police Sworn Officer]

Fire and Emergency Services

Frederick County provides fire protection services for all County and City residents. Additionally, the County provides disaster protection, emergency

health care, rescue, and other related services for the City. Since Fire and Emergency Services are provided to an area larger than the City itself, service levels are impacted not only by growth and development in the City, but also by development throughout the County. Policies in this Plan do not entail significant expansion of the City fire protection service areas. However, the Plan does call for intensified monitoring of response times and equipment capabilities and ensuring that response times and service levels remain adequate or improve over time.

The Frederick County Division of Fire and Rescue Services (DFRS) views the City and its potential growth as the population center of the County and the area where most of the fire and EMS incidents occur. Stations 1, 2, 3, 4 and 31, as well as the DFRS Headquarters are located within the City and its growth areas.

Current DFRS locations include four downtown stations, three of which are located within the County's area of highest demand. All are primarily career operated and are near one another. Stations 1 and 3 are fire stations with engines, ambulances and other equipment; Station 4 houses only a truck company, while Station 2 and the DFRS Headquarters house Advanced Life Support (ALS) units. The Frederick County Fire Rescue Service Plan indicates that this arrangement has excessive redundancy and is not efficient use of resources. The City of Frederick could be more efficiently served by a consolidated downtown station and stations tragically located around the outer portions of the city; this configuration could help to maximize 4-minute travel time coverage as the City grows both in population and area.

[Insert Map: All existing Fire Stations in proximity of the City]

According to the Rescue Service Plan, there are three future fire-rescue station locations planned to improve the City.

North Frederick – Site Acquired

As development has continued in the Route 15 corridor North of Opossumtown Pike in the City of Frederick, service demand in this growth area has continued to increase. This is an urban mixed-use development area that consists of single-family homes, multi-family apartments/condominiums mixed use retail commercial/professional office facilities, medical offices/institutions, educational institutions, light industrial facilities and assisted living facilities. The Junior Fire Company station located at 535 North Market Street, in downtown Frederick is currently the primary service provider to this growth area.

Given the current service demand in this growth corridor, the Division of Fire and Rescue Services views this area to be our number one priority to locate a new fire-rescue station. This station would be developed in partnership with the Junior

Fire Company. The intent is for the county to build the station and Junior Fire Company would provide the fleet vehicles for the station and the facility would be staffed with a combination of career and volunteer personnel.

Downtown Frederick – (No Site Identified)

Currently, the core downtown area of the City is serviced by three (3) separate Fire-Rescue stations which are all located within 0.6 miles of each other. The United Steam Fire Engine Company located at 79 South Market Street, the Citizens Truck Company located at 15 South Court 45 Street and the Junior Fire Company located at 535 North Market Street. This situation exists today primarily because the stations were constructed during the era of non-motorized fire apparatus.

The current United Steam Fire Engine Company station no longer adequately serves the needs of the career and volunteer personnel. The apparatus bays barely accommodate the fire and rescue vehicles that operate from this station. The station is land locked with no option to increase space through expansion of the station and the historic significance of the building make renovation problematic.

While the current Citizens Truck Company station is in good structural condition, it is also cramped for space for the response vehicles and personnel that operate from this station. This facility is redundant, and it does not make good economic sense to fund a facility that houses a single fire suppression response function.

The optimal solution is to locate a downtown fire station site and construct a new station that would combine the functions of the United Steam Fire Engine Company and the Citizens Truck Company into a single downtown fire-rescue station.

Due to limited land area available within the core downtown area it is highly doubtful that a 4-acre site could be obtained, therefore the site selected will more than likely dictate that a multi-story fire-rescue station be constructed to house the downtown companies.

Walter Martz Road / Christopher Crossing – (Site Acquired)

Given the current growth in the Yellow Springs/Christopher Crossing/Whitter areas in west Frederick City and the continuing requests for land annexation into the City, a parcel of land has been acquired from the City of Frederick as a placeholder for a future fire-rescue station site to serve the greater Yellow Springs area.

This area continues to see land use applications for low and medium density residential development in single family attached and detached arrangement. Small general commercial development of the type typically provided for residential support will also occur in this growth area.

With growth in the City of Frederick and environs continuing to progress to the North and West, an additional fire – rescue station will be needed to meet the service demand that this growth will generate.

[Insert Map: Locations of Future Fire Stations]

Water and Sewer Facilities

A detailed description of the City's existing and planned public water and sanitary sewer services and facilities is provided in the Water Resources Chapter. This section only summarizes the impact of future growth on those facilities. The FCPS also provides the City with the capacity of all schools on a quarterly basis. The FCPS also provides the City with the pupils per dwelling unit. The FCPS breaks this down by unit type and by school district. This information is used by City on several levels.

The number of schools that serve the City of Frederick is large in numbers. While all the schools will not be directly affected by the potential annexations, the ripple effect of potential redistricting may cause their enrollment numbers to change. The schools that serve the City are listed in Table MGE-9. **(Insert Table MGE-9)**

While the City of Frederick has 25 school districts that serves its citizens, only 11 of those districts will be directly affected by potential annexations. These school districts are located in the north and western part of the City. As mentioned above, redistricting could cause ripple effects through out these districts and other school districts boarding the City. The school district that has a greater probability of being affected by the potential annexations are shown in Table MGE-7 with an asterisk (*) after its name.

The potential student growth for the projected growth is based on the number of housing units. Assuming that the new units created are 1/3 single family, 1/3 townhouse and 1/3 multifamily units.

Then apply the student generation rate for each type of unit and each school type (elementary, middle and high schools). The last assumption is that the rate of build out remains constant over the next 20 years. **(Insert Table MGE-10)**

Currently the City has 5.39 million GPD of water available to units that have been accounted for in the development pipeline or anticipated in the PRWSA. Future available capacity for units that have not received entitlements or accounted for in the PRWSA equals 1.47 million GPD. If the available water was allocated only to future residential development, there is capacity for 6,774

residential units (1.47M / 217) (217 is the average of 250 GPD/SF, 225 GPD/TH, 175 GPD MF) or the additional population of 16,935 residents or approximately a total City population of 120,000.

Note that this calculation does not include future commercial development that may be proposed in Tier I or Tier II. If the total buildout of 7.9 million square feet of non-residential development forecasted in Table 4-6 would be realized in vacant land only, approximately 5-10 million GPD of water would be demanded. This does not include areas located within Tier II or future annexations.

It is difficult to assess the exact water demands for future development, especially non-residential. These numbers were estimated only to provide a general assumption for future growth capacity for only residential and non-residential development and not a mixture of uses. Further engineering studies should be conducted to analyze the exact implications of the infill development, development not accounted for in Tier II or the PRWSA and the impacts of future annexations to the available capacity.

Library System

The Frederick County Public Library System is a county wide system consisting of 89 branches serving more than 300250,000 County residents. One library branch serves the City of Frederick: the 66,000 square foot C. Burr Artz Library located on 110 East Patrick Street and situated on the Carol Creek. -The C. Burr Artz Library also serves as the County's central library system.- Per the American Library Associations suggested standards of 1,000 square feet of library space per 10,000 residents the City's library is more than adequate in size to accommodate our expected population growth through 2030.

Nevertheless, with the anticipated growth, the library service requirements will increase. Future library needs will need to consider growth in the north and possibly west areas of the City. -The Frederick County Public Library's twenty- year plan also indicates/recommends that atby 2030 an additional library should be located within the north area of the City and recommends that the City's central library be expandedC. Burr Artz Libarry is renovated as well.

Public Safety

~~The City of Frederick provides its own public safety services. Divided into three bureaus, Administrative, Operations and Support Services, the Frederick Police Department provides 24 hours a day, seven day a week law enforcement~~

services for the nearly 63,000 residents of Frederick's approximately 20 square miles. The City generally has a low level of crime, contributing to the City's high quality of life.

The addition of approximately 22,000 persons in the City over next 20 years will place additional service demands on public safety resources.

Police Service will require another 60 officers based on the national standard of 2.6 officers per 1000 persons of population. Currently, due to space constraints, the police headquarters is not located in a centralized location. As growth pressures of the City continue, the current configuration of the Police Department is inadequate for current needs. A priority of the City should be the initiation of planning for a new facility and/or acquisition of property for site development should be initiated.

Fire and Emergency Services

Frederick County fire protection services for all County and City residents. Frederick County provides fire and disaster protection, emergency health care, as well as rescue and related services for the City of Frederick. Because Fire and Emergency Services are provided to an area larger than the City itself, service levels are impacted not only by development in Frederick but also by development throughout the County. Policies in this Comprehensive Plan provide for little expansion of the City fire protection service areas. However, it does call for intensification of monitoring response times and equipment capabilities and work within framework to ensure that response times and service levels remain adequate or are improved over time.

[Insert Map: All Library's in proximity of the City]

The Frederick County Division of Fire and Recue Services (DFRS) views the City and its potential growth boundaries as the population center of the county and the area where the majority of fire and EMS incidents occur. Stations 1, 2, 3, 4, 31, and DFRS Headquarters are located within the City and its growth areas.

The current locations include four downtown stations; three of the four are the County's area of highest demand. All are primarily career-operated and are located in close proximity to one another. Stations 1 and 3 are fire stations with engines, ambulances, and other apparatus; Station 4 houses only a truck company, while Station 2 and DFRS house Advanced Life Support units (ALS). The DFRS master plan indicates that his arrangement has excessive redundancy and is not an efficient use of resources. The City of Frederick could be more efficiently served by a consolidated downtown station and strategically located stations around the outer portions of the city to maximize 4-minute travel time coverage as the City grows.

Water and Sewer Facilities

A detailed description of the City's existing and planned public water and sanitary

~~sewer services and facilities is provided in the Water Resources element. This section only summarizes the impact of future growth on those facilities. The additional 9,185 housing units and 8.7 million square feet of commercial space forecast by this Plan would demand an additional 5.0 MGD (estimated currently under review) of water capacity and 4.0 MGD (currently under review) of sewer capacity. The City water supply system and allocation of the wastewater (sewer) treatment system can likely accommodate the forecasted growth.~~

Recreation

~~A detailed description of the City's existing and planned public parks and recreation services and facilities is provided in the Parks and Recreation Chapter. The City of Frederick has 6475 public parks, totaling 440807 acres, with an average size of 810.7 acres. Frederick's parks fall into three categories, as defined by equating to approximately 11 acres of parkland per 1,000 residents, thereby exceeding the National Recreation and Park Association (NRPA): neighborhood parks, community parks, and special facilities. These definitions are based on park size, function and service area of the parks.~~

~~The City has about eight acres guidelines of park land per 1,000 residents, slightly less than the 10 acres per 1,000 residents recommended by the projected population in the NRPA. To attain this recommended standard, approximately year 2045 is 93,100 additional requiring at least 931 acres of parkland to will be needed to comfortably serve the existing population residents. As the City reaches its year 2030 projected population prepares for future growth, approximately 500124 additional acres of parkland will be needed. The Recreation Element provides detailed policy on achieving in the stated need next 25 years.~~

Municipal Growth Policies and Implementation

MGEMG Policy 1

The City of Frederick will continue to encourage redevelopment of under utilized vacant and underutilized land within the current municipal boundaries.

Implementation

IMPLEMENTATION

- 1. The City will develop as per the tier policy as outlined in the ~~land use plan element~~Land Use Chapter and outlined in the land use map.
- 2. The City of Frederick will develop at a density higher than 3.5 units per acre. ~~The lowest residential zoning classification is R4 (4 units per acre).~~

~~MGE~~[Insert bump out of current densities of R districts]

MG Policy 2

~~Continue Municipal Annexations as prospects benefiting the City arise.~~

~~Implementation~~

Encourage Annexations in a timed and calculated manner to provide the necessary dwelling units to supply the demand of the future population projection.

IMPLEMENTATION

- 1. The City of Frederick’s shall ~~continue supporting~~support a variety of housing ~~mix of 1/3 single family, 1/3 townhouses and 1/3 multifamily units. types and densities to provide opportunities for all existing and future residents.~~
- 2. Continue to use the City’s APFO and Water Allocation Ordinance to provide a predictable growth rate over the next 20 years.
- 3. The City of Frederick and Frederick County should continuously hold a series ~~of~~ meetings centered on not only the best locations for new growth, but how this growth will affect facilities and how best to manage these facilities to accommodate this new growth.

MGEMG Policy 3

The City will continue to work to ensure that adequate police and fire service will be available throughout existing and future growth areas.

~~Implementation~~

IMPLEMENTATION

1. Continue to assess appropriate land for the construction of a central police headquarters.
- ~~1. Continue to participate in the Frederick County Department of Fire/Rescue Services emergency preparedness training programs.~~
2. Continue to monitor emergency response time and adapt a level of service for inclusion in the development review process.
3. Provide Police Activity facilities in higher crime ~~corridors~~ areas.
4. Continue to improve upon the City's level of service standard for police officers.
5. Actively pursue land acquisition for multiple purpose public facilities in the northern sections of the City. -These facilities may include a police, fire station, park, school, DPW yard and/or library.
6. Support the relocation, consolidation, and the construction of new fire stations as proposed in the Division of Fire and ~~Recue~~ Rescue Services master plan.

MGEMG Policy 4

The City will continue to protect and conserve the existing water and waste water supply systems.

Implementation

IMPLEMENTATION

1. Implement improvements to the water supply systems in order to provide reliable water service to all City residents and improves water system losses and consumption rates.
2. Undertake a public awareness campaign to educate the residents and commercial business on practical conservation methods.
3. Consistently meet all regulatory requirements to help protect public health and the environment, and the environmental impact on our water tributaries.

MGEMG Policy 5

The City will ~~provide for wastewater~~continue to communicate with Frederick County about future development projects to ensure adequate capacity that serves future growth as based on the land use tier policies of the land use element. See ~~Water Resources Element.~~

MGE Policy 6

The City will ~~provide sufficient school facilities infrastructure and services enrollment capacity to serve~~for the growing population and projected growth.

Implementation

IMPLEMENTATION

1. Continue to work with Frederick County Public Schools to identify potential school sites ~~within in the City's growth boundary.~~that would serve City residents.

MGE Policy 7

~~Library facilities should be provided to serve the growing needs of the City projected growth.~~

Implementation

2. Continue to work with Frederick County Public Libraries to ~~identify potential sites within in the City's growth boundary.~~ensure adequate library facilities are provided to the City Residents.

MGEMG Policy 86

Establish and maintain a monitoring system to measure progress toward achieving the policies of the ~~municipal growth element~~Municipal Growth Chapter.

Implementation

IMPLEMENTATION

1. Design and implement a land use monitoring system based on measurable results directly related to objectives 1 through 7.