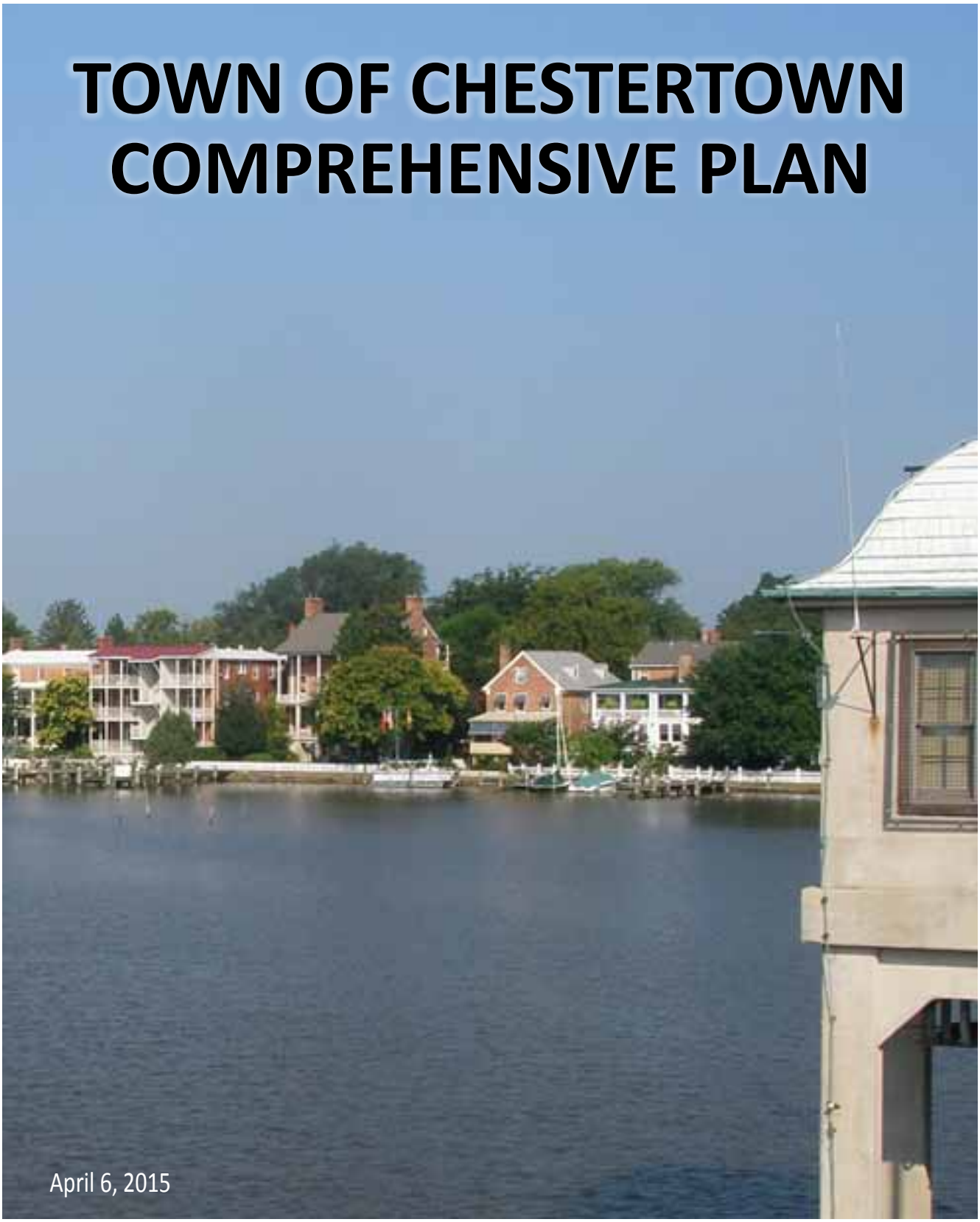
TOWN OF CHESTERTOWN COMPREHENSIVE PLAN



April 6, 2015

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Submission

This Comprehensive Plan was adopted by the Chestertown Mayor and Council on April 6th, 2015 following a duly advertised public hearing in accordance with the provisions of the Code of the Town of Chestertown and the Maryland Land Use Article.

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Preface

This Comprehensive Plan is the result of a year of public workshops held by the Chestertown Planning Commission. It lays out a vision of the future for Chestertown's citizens, residents of Kent County, and individuals interested in participating in the process of creating a vibrant, sustainable community in the years ahead.

The Plan aims to preserve and nurture what is special about Chestertown – its sense of place, historic character, links to its agricultural surroundings and to the Chester River, and its commitment to protect that heritage by encouraging careful, steady, well-planned growth.

Chestertown offers a wonderful quality of life that has evolved over the past three centuries and is firmly founded in the community's unique architectural, aesthetic and historical appeal. The town seeks to be a model of historic preservation and environmental stewardship, and is committed to local sustainability efforts. These include protection of the Chester River watershed, increasing pedestrian and cycling amenities, improving recreational opportunities for all ages, expansion of the town's tree canopy, and nurturing economic development that respects the town's character.

The Planning Commission has always consisted of citizen volunteers, and they are to be commended for this Comprehensive Plan. Commissioners who have worked on the Plan include past Chairman Chris Cerino, Jeff Grotsky, Paul Showalter, Gilbert Watson, Jane Richman, David Bowering, and former Commissioners Christine Betley, Trena Williamson and Sam Shoge.

Special thanks for the plan should go to Chestertown's Zoning Administrator, Kees de Mooy, who wrote the plan, shot photographs for it and designed its graphics. Thanks also go to Margo Bailey and the Town Council for their support, and Chestertown Town Manager William S. Ingersoll and Executive Assistant Jennifer Mulligan.

This edition of the Chestertown Comprehensive Plan is dedicated to the memory of Gilbert L. "Gil" Watson III, Planning Commission member for twelve exemplary years.

Executive Summary

The Chestertown Comprehensive Plan has eight major sections, which are described further below:

- Land Use Element
- Transportation Element
- Public Facilities Element
- Sensitive Areas Element
- Mineral Resources Element
- Historic Resources Element
- Municipal Growth Element
- Water Resources Element

The Plan also includes an Action Plan Priority List.

Land Use

Land Use is the foundation of the Comprehensive Plan. It is through the Land Use Plan that the town intends to establish the pattern, type and pace of growth. Recent projections indicate that Chestertown will grow slowly and carefully over the next ten years. It is the intent of the Planning Commission that that growth will consist of infill residential construction, and annexation if the proposed annexation meets the high standards set forth in the Comprehensive Plan. The Town is committed to preserving its agricultural and open-space buffer areas adjacent to the Town's boundaries, and extending those buffer areas to form wildlife corridors and greenways wherever practicable. Similarly, the Town is committed to preserving its historic character, maintaining its diversity of neighborhoods and setting high design standards for residential, commercial, and all other types of construction.

The Town's Land Use policies apply to the area inside of the Town's boundaries, but the Town Planning Area extends outward into Kent County to include all lands and waterways that are important to Chestertown's future. There are five geographical areas of focus in the Town Planning Area:

- **South and West** – This area is west of Radcliffe Creek and Flatland Road and consists mainly of farmland, which the Town desires to remain farmland. There is acreage near the Kent County Detention Center that is suitable for high density residential housing. In this area, as well as others, the Town looks to the County to discourage low-density, large-lot residential development.

- **North** – This comprises roughly 950 acres between MD 514 and MD 297. The Town desires this area to remain stable, with little or no growth, except perhaps future expansion of Crestview, if it is ever annexed.

- **North and East (north of MD 291)** – These are areas where the Town wants to see a new limited access "parkway" bypass that would connect Hopewell Corner with the area around MD 213/MD 544 in Queen Anne's County. There are approximately 275 acres north of MD 291 where a mix

of industrial and office use could become an "employment center." North of this land, there are several hundred acres of farmland that could eventually be annexed and developed with a mix of residential uses. Roughly 50 acres south of MD 213 around Hopewell Corner is proposed for mixed use. Additionally, about 14 acres between the Washington Square Shopping Center and the Whitsitt Center would be appropriate for commercial and residential infill development.

- **South and East (south of MD 291)** – The Town sees a need to slightly increase the amount of commercial land behind existing businesses lining the south side of MD 291 so that such businesses will have room to expand. Lands along and near the Chester River should be left undeveloped. Some land may be suitable for low-density residential development, but only if first annexed.

- **Riverfront Drive** – The Quaker Neck Road/Rt. 289 entrance into Chestertown from the south is a highly picturesque gateway into Chestertown. It has become a popular walking, jogging and cycling route and this amplifies the need for traffic calming strategies, starting at the Radcliffe Creek Bridge.

- **Queen Anne's County** – This area encompasses Kingstown and a portion of Chester Harbor. Although not in Kent County, this is an important gateway into Chestertown and must be carefully nurtured. The Town does not want to see additional commercial sprawl along MD 213 between Kingstown and Schrader/Union Church Road.

There are seven areas of focus within the Town limits where specific needs, changes and improvements are identified. These areas are not intended to be all inclusive, nor are they the only ones that need to be intensively studied or improved. Their order of discussion is also not intended to signify that one holds more importance than another. It should be noted that the areas, though defined by maps, overlap. The goal was to be specific but not limit discussion or improvements in other areas of the Town.

- **Scott's Point and Stepne Manor** – This area will be developed to extend the character of the town's street grid, with high quality pedestrian environments, small parks and green spaces and a mix of residential and commercial development. This area would include a pedestrian and water trail linking Wilmer Park and Radcliffe Creek and the newly created rails-to-trails system with a spur that extends behind and parallel to Cannon Street. Quaker Neck Road will be improved with tree planting and widening to accommodate a bicycle lane, as well as a safe crossing point for the planned walking trail connection between Stepne and the waterfront trail. The Manor House, currently a vacation and wedding rental property, must be protected from future development by providing adequate setbacks and other requirements that will protect its historical integrity.

- **Northeast Edge of Town** – This area provides opportunities for medium-density residential units that meet the needs of smaller households. It is also the site of the recently developed Margo G. Bailey Community Park. Walking trails and sidewalks will connect this area to adjacent neighborhoods, shopping areas, parks, downtown and the Gilchrest Rail Trail.

- **Commercial Area North of MD 291** – This is the Town's primary commercial revitalization area. It includes two shopping centers (Kent Plaza and Washington Square) in need of redesign and a large area of open space adjoining LaMotte. The land adjacent to LaMotte is owned by Washington College and is zoned RB Professional Office, which encourages mixed uses. The parcel is not intended to be commercial, and developnment if it occurs must repect the site's sensitive environmental qualities. In general, stringent environmental site design is strongly desired for all of the commercial areas, especially for places such as Kent Plaza, which have little or no stormwater infrastructure, inadequate landscaping, and insufficient pedestrian connectivity.

- **Washington Avenue Corridor** – Revitalization is desired for the shopping center at the intersection of Maple Avenue and Philosopher's Terrace. Streetscape improvements along Washington Avenue, particularly between Spring Street and Greenwood Avenue, will improve pedestrian safety, vehicular traffic, and protect the residential character of historic neighborhoods.

- **High Street Extended Area** – This section of town will remain mixed residential/commercial, but will receive special design focus consistent with the area's importance as one of the Town's gateways. Bicycle lanes and traffic calming bump-outs with tree wells have been constructed, as has a roundabout at Morgnec Road/Rt. 291. This area will feature pedestrian and bicycle links to a new Gateway Park (the former Nicholson property) and the rails-to-trails system, and bicycle and pedestrian connections from Gateway Park to the Cannon Street spur of the rail trail.

- **Route 20 Gateway** – The zoning of this area provides opportunities for expansion of existing commercial and residential uses. The intersection of Flatland Road and MD 20 will be developed as a gateway, and any development around Lauretum will be consistent with that structure's historic character. Flatland Road will require redevelopment as an urban street with sidewalks, bicycle path and safe pedestrian crossings.

- **Chester River Waterfront** – This area extends from the foot of High Street south to Radcliffe Creek. Currently a mix of commercial marina and institutional uses, with pathways that will run along the water's edge, connecting with the rail trail and across to Stepne Manor. The Town's ownership of the Marina is an important factor in the waterfront's redevelopment, which will include new docks and dredging, as well as improved pedestrian and bicycle access. A major waterfront campus development is planned by Washington College, which includes the Chestertown Armory building.

- **Historic District** – The Historic District is the heart of Chestertown, and provides the model of pedestrian-scale development that this Comprehensive Plan encourages in all areas of the Town. The most pressing need in this area is the incorporation of stormwater controls, which do not exist at all in the oldest sections, where stormwater sheet flows into the Chester River.

Chestertown's insistence on maintaining its small-town, rural identity is an issue of community character. To preserve its community character, the Town will insist on high quality in any future development, across the board. This will involve a number of design principles, including:

- **Mixed Uses Are Desirable** – The Town wants to maintain a reasonable mix of residential and commercial uses within and near neighborhoods.

- **Natural Features Should Determine Design** – All development should be environmentally sensitive and the natural character of land should be maintained. Environmentally sensitive development means creating pedestrian-friendly streets, so that people can walk to work or shop.

- **Stormwater Infrastructure** – All development and redevelopment must incorporate environmental site design to the maximum extent practicable ("ESD to the MEP").

- **Automobiles Should Not Determine Design** – The Town does not want garages to be the most prominent feature of houses, nor does it want streets that are too wide and huge parking lots that are seas of asphalt. Retrofits to existing parking lots should incorporate environmental site design (ESD) to the maximum extent practicable, to include infiltrative areas, tree islands, planters, and other features that improve water quality and prevent runoff, as well as create a more pleasant

environment for people.

- **Ample Open Space Must Be Provided** – Developers must provide significant, usable open space as integral parts of projects and neighborhoods – not afterthoughts. The Town will work to improve existing open space to create green corridors and ecological habitat.

- **Substantial Landscaping Should Be Incorporated Into Design** – This will include a number of approaches, including requiring developers to retain as much existing forest as possible and introduce street trees if they do not already exist. Plantings shall consist of large healthy nursery stock of native species, will be watered with irrigation systems and survival will be guaranteed with replacement and maintenance bonds when appropriate. Signage and lighting may be treated as landscaping elements. Maintenance agreements for care of common areas are required.

- **Architecture Should Reflect Chestertown's Traditional Development** – New development should look to the Town's historic core for examples of what to emulate, e.g. scale, size, materials, form and quality. The Town will insist on high quality architectural diversity (not copies of "historic" styles) and will not allow itself to be surrounded by generic residential and commercial development.

Community character is also shaped by existing neighborhoods. Below are four neighborhood areas which have opportunities for development and redevelopment, with visions for their future.

- **Upper Washington Avenue** – This is roughly the area from Washington College to Morgnec Road and at present it is characterized in places by poor landscaping, poor signage and lighting and a streetscape that is confusing and unattractive. The Town's plan is to improve this area through renovation, rehabilitation, reuse and infill. The plan will mean extending the character of the older central portions of Town to this area, creating a streetscape that is more pedestrian-friendly with wide, shaded sidewalks, benches and pedestrian scale lighting. Newly constructed buildings shall be located closer to Washington Avenue with parking in the rear, in order to create a more pedestrian-friendly streetscape. Signs will be small.

- **Cannon Street** – Cannon Street is of varied character, with qualities unique to every block from the waterfront to Lynchburg Street. The 100 block features restored historic single-family residences. The 200 block is a mixture of commercial parking lots, small businesses and medium-density residential, with much open space. Future development here should be of a scale and type that fits with the character of adjoining and nearby streets, a mixture of residential and professional office consistent with current zoning. The 300 block is a mixture of older buildings, new construction, relocated buildings and some buildings that could benefit from renovation. New zoning for this block calls for mixed-use and residential uses, improving the block to stimulate private investment and providing pedestrian access through the block to green space beyond. New roads to connect to Cannon Street will extend the existing downtown grid. In the 400 block, much opportunity exists for revitalization. On the south side, what is now open space has the potential for relatively dense, modestly-sized residential buildings. Cottage development would be appropriate. The 500 and 600 blocks of Cannon are all residential and are gradually being renovated.

- **High Street Extended** – This is the portion of High Street from about College Avenue to Flatland Road, and now includes a mix of small homes and businesses that historically marked the residential limits of town, as well as the Chestertown Cemetery, taverns, service stations and car washes. Setbacks vary widely and sidewalks are uninviting. The Town Planning Commission is committed to

redeveloping this area as one of the Town's important gateways, and encourages mixed uses here. The Town has added a landscaped roundabout at the High Street/Bypass intersection. The rail trail will include pedestrian linkages to the planned Gateway Park and trail head at Radcliffe Creek.

- **Kent Plaza to Washington Square** – These two shopping centers on MD 213 would benefit from newly redesigned, landscaped parking areas with appropriate lighting and stormwater controls. The area across MD 213 from Kent Plaza, now owned by Washington College, is an important parcel where existing natural features must be retained. A walking path connecting the rail trail to the shopping centers is planned in this area. The area behind the two shopping centers on Scheeler Road and Haacke Drive will continue to be developed both commercially and residentially.

Transportation

The Comprehensive Plan's overall transportation goal is to provide a safe, efficient, convenient and attractive transportation system that incorporates high quality pedestrian and bicycling opportunities. It will achieve that goal with sharp focus on the relationship between transportation and land use.

Chestertown's No. 1 transportation priority is construction of a new Chester River bridge crossing in conjunction with a new limited-access parkway combining a linear park with a landscaped bike path, from the intersection of MD 213 and 297 in Kent County to the intersection of MD 213 and 544 in Queen Anne's. Access for Chester Harbor residents will be provided at Fey and Round Top Road. Such a project would facilitate vehicular and pedestrian traffic in the Town, improve driver and pedestrian safety and help preserve the Town's Historic District from destructive traffic impacts. Washington Avenue traffic is heavy and will only grow worse as the Town and surrounding counties increase in population. The new bridge crossing should accommodate pedestrians and cyclists as well as automobiles. The 2010 Chester River Bridge Feasibility Study identified a number of planning, land use and pre-construction issues that need to be addressed, including coordinating with Kent County for right-of-way preservation and purchase. The construction of a bypass is consistent with Chestertown's Sustainable Community Action Plan, which lists the bypass as a Highest Priority.

There are five principal gateways into Chestertown and all are priorities for redevelopment and improved design. But it is the gateway at the intersection of MD 20 and MD 291 that is among the Town's very top transportation priorities. Traffic at that intersection has been addressed with a roundabout that will lessen congestion, and will accommodate bicycle and pedestrian traffic.

The Town supports increased transportation by bicycle as a quality of life issue, and encourages the strategic placement of bike racks with the purpose of increasing cycling. Development of the rails-to-trails project, the Radcliffe Creek water trail and a new gateway park at the north end of High Street also support increased bike and pedestrian traffic.

Public bus service in Town is provided by Maryland Upper Shore Transit (MUST) and Upper Shore Take-A-Ride (USTAR), but service is very limited and is primarily for senior citizens and Medical Assistance clients. A more robust public transportation service is desirable, but local demand has not been high enough to make this type of service economically feasible.

Public parking in Town is addressed by on-street spaces that are either metered or free. The Town encourages business in the downtown core by keeping parking costs low. The Town has created restricted parking in several residential neighborhoods and may create more restricted parking in the future. The Town discourages large-scale parking lots and, as noted earlier, would like to see the lots at Kent Plaza and Washington Square

redesigned. Where streetscape improvements are planned, on-street parking clusters should be separated at intervals with landscaped islands that contain shade trees and ornamental plantings. There should be landscaped bump-outs and crosswalks to increase pedestrian and cyclist safety.

The Town has street design guidelines that are intended to more closely integrate streets, street details and land uses. The Town wants pedestrian and bicycle-friendly streets where new roads are proposed and wants to upgrade roads that are not pedestrian-friendly or have problems regarding access, signage and visual attractiveness.

Public Facilities

The Plan's public facilities goal is to propose the most appropriate and desirable patterns for the location, character and extent of public and semipublic buildings, land and facilities on a schedule that extends as far into the future as possible. The Town should develop an ongoing program to insure a progressive, forward-looking approach to providing high quality public services and facilities. The Planning Commission should establish benchmarks for specific public facilities and require as part of the development approval process an evaluation of impact of proposed developments on public facilities.

Water and Sewerage Systems

The Town's water and sewerage system currently serve about 5,000 people. The Town should develop a plan for accommodating future development while maintaining the highest quality water and sewerage service. With diminishing federal and state funding for these services, the Town should develop a capital fund paid for in part by fees on development to build and maintain these systems. This fund should be created by hookup fees for new service, and those fees must be high enough to cover the cost per unit at the central treatment facility, plus help pay for maintenance and future upgrades. The fund should not be used for operating costs.

Recreation

The Town's parks include Wilmer Park, Fountain Park, Memorial Plaza, Remembrance Park, Margo G. Bailey Community Park, Mabel Mumford Gateway Park, plus several school playgrounds owned by the County. It is a goal of the Town to increase the number of children's playgrounds and other amenities at local schools and parks. The recently acquired Chestertown Marina will play a large part in the recreation opportunities for residents and visitors. Wilmer Park's walking path was recently repaved, and has become a model for environmental best practices with a Living Shoreline, rain garden and wetland restoration. Wilmer Park serves as a trail head for the Gilchrest Rail Trail and Water Trail, with a kayak and canoe ramp located next to Lelia Hynson Pavilion. The entrance to Wilmer Park will feature a children's playscape, the inaugural project of the Chestertown Public Arts Master Plan. Waterfront access is also provided via a dinghy dock and public landing at the foot of High Street. The Town is currently developing a recreation plan which will increase the recreation opportunities for local residents, to include a basketball court at Gateway Park. The Chestertown Recreation Commission was recently revived and is developing plans for improving recreational opportunities in town.

Major new residential and commercial developments must set aside centrally located lands for passive and active recreational use, including playgrounds for children, and wherever feasible, walking and cycling trails with connections to the current network of trails.

In 2014, the Town of Chestertown received a National Endowment for the Arts Our Town grant to create a Pub-

lic Arts Master Plan, which as explained in its Introduction seeks "to codify a vision for celebrating the artistic, historical, and environmental assets unique to Chestertown to revitalize the waterfront area, engage audiences, and create unique, memorable, and life-affirming experiences for residents and visitors alike." Planning efforts in the waterfront area should consult the Public Arts Master Plan.

Public Safety

Chestertown's police force is in the process of relocating to the recently acquired Shared Opportunity Services building on High Street.

County Educational and Other Facilities

Within the Town, Kent County owns and maintains Henry Highland Garnett Elementary School and Kent County Middle School. Recently reorganized, both schools have room to handle future enrollment projections, but Garnett may require major renovations in the future. The Town will work with the Board of Education to better use playgrounds, to improve landscaping to meet current standards, and to improve links with the community. The County also owns the Court House lands and 400 High Street, which together house many of the County's employees, a significant benefit to Chestertown's economy. The County and Town will work together to ensure that the historic character of the community and its quality of life are preserved.

State and Federal Buildings

The town should work closely with the state and federal governments to maintain appropriate design and landscaping standards at government-owned buildings, and, when needed, determine the location of new buildings.

Private Facilities

The following private institutions are critical to the character and well-being of the Town:

University of Maryland Medical Center at Chestertown – The Hospital and its affiliated institutions have expanded and will likely continue to expand. The new Institutional Zone limits the expansion of the hospital and protects the surrounding residential areas.

Washington College – The College has expanded rapidly during the past decade, and is planning to expand further. As with the hospital, the Institutional Zone limits expansion to defined areas and protects the residential areas on its periphery.

Chester River Yacht and Country Club – Although located outside of Town, the Country Club provides social and recreational opportunities and occupieds more than 60 acres of open space, which must be preserved.

Chestertown Volunteer Fire Department - The Fire Department must grow, and some way must be found to accommodate that growth in its present location or at a new facility.

Public Facilities Action Plan

The Town should demand public facilities impact studies as part of any large scale development approval

process. The town requires annexation as a condition for extension of public water and sewer service, and has established hookup fees that reflect the actual cost, maintenance, and future upgrades. The Town requires the preservation and/or creation of open space and parkland as part of the development approval process. A requirement for all new development, and for redevelopment if feasible, is to remove overhead power lines and put them underground.

Sensitive Areas

The need to protect environmentally sensitive areas is based on the fact that these resources are vital to the well-being of the community.

State law requires that this Plan address protection in four sensitive areas: the 100-year floodplain, streams and buffers, habitats of threatened or endangered species and steep slopes. This part of the Plan also addresses nontidal wetlands, agricultural easements and forest conservation. It concludes with a section on Additional Action Plans.

The Town's goal to protect the 100-year floodplain is to halt any future development there and to encourage Town acquisition of properties in the plain so that they can be returned to an undeveloped state.

Regarding streams and buffers, the Town's goal is to preserve and enhance these by identifying and mapping all streams and by establishing a minimum 100-foot buffer from each bank and by improving stormwater management in developed and developing areas. The Town will prohibit new development within stream buffers and will prohibit disturbance of natural vegetation within buffers.

At present there are no known habitats of threatened or endangered species within the Town. Should such habitat be discovered in the future, strategies will be prepared accordingly.

As for steep slopes, most of Chestertown is relatively flat. However, localized steep slopes that do exist are protected by the regulations for stream buffers. The Town's goal is to direct development away from steep slopes and the Town requires topographic review of all subdivision and site plans. It will prohibit development on slopes greater than 25 percent, and on slopes greater than 15 percent if highly erodable soils are present, unless it can be demonstrated that the stability of such slopes would be improved and adverse environmental impacts mitigated.

Regarding nontidal wetlands, it is the Town's intent to protect such wetlands by establishing a 50-foot "non-disturbance" buffer around such areas. Identification of wetlands and buffers will be part of the development review process.

Agricultural easements are an important tool for protecting environmental quality and the character and quality of life in Chestertown. The open agricultural character of land adjoining the Town defines the location and appearance of the Town within the County, and the Town will coordinate closely with County and State officials on these areas.

Chestertown's Forest Conservation program conforms to guidelines issued by the Maryland Department of Natural Resources. Any project "disturbance" (including subdivision) that affects more than 40,000 square feet necessitates compliance with the requirements of the Forest Conservation Ordinance (which restricts tree removal and specifies replacement practices at a two to one ratio).

The Town also intends the following Additional Action Plans, to be completed in five years:

- It will foster conservation corridor mapping to identify areas that should be preserved as open space, parkland or for transportation.
- It will target resources toward protection of Radcliffe Creek, which has significant environmental, recreational and tourism value.
- It will develop a Greenbelt within the Planning Area and around the Town to protect the Town's sense of place and its existing character.
- It will create landscape design standards for all development and redevelopment, strongly encouraging the environmental holistic approach known as "Bayscaping."

Mineral Resources

The one historic mineral resource that existed in the Planning Area were the clay deposits at the former Chestertown Brick and Tile Company, located just east of Chestertown off MD 291, now owned by Gillespie & Son.

Should other commercially viable mineral resources be discovered within the Town or the Planning Area, those resources will be protected by the Town or the County to permit extraction. Specific reclamation of the land afterward and reuse strategies will be developed on a case by case basis.

Historic Resources

Chestertown was established as the county seat of Kent County in 1706, and the need to protect and conserve the Town's historic resources is a fundamental, underlying concept to managing current and future growth of the Town.

In 1964 Chestertown became one of the first towns in Maryland to adopt a historic preservation ordinance. That ordinance defined the Historic District, required review and approval of exterior changes to any building in the district and established a seven-member Historic District Commission (HDC). The HDC has published the Chestertown Historic District Design Guidelines, which establishes best practices for exterior alterations in the Historic District. The Guidelines are available at Town Hall and online. The Town recently expanded the boundary of the Chestertown Historic District. This Plan recognizes the vital importance of the Historic District and of the HDC and its mission.

Action Plan Priority List

All of the items in this list are described more fully in this Comprehensive Plan, but the Chestertown Planning Commission believes it is important to make a clear, concise statement about priorities. This list is by no means inclusive.

New Initiatives – Highest Priority

- Construct a new Chester River Bridge crossing in conjunction with a new limited-access parkway with a landscaped bicycle path, from the intersection of MD 213 and MD 297 in Kent County to the intersection of MD 213 and MD 544 in Queen Anne's.
- Renovate and expand the Chestertown Marina, to include dredging, increasing the number of boat

slips, and building a walkway to connect it to existing trails, including the Rail Trail. The Marina will include a new interpretive and welcome center that will house a ship store, public bathrooms, and second-floor meeting space with views of the Chester River.

- Create an Arts & Entertainment District and explore the feasibility of a Regional Institution Strategic Enterprise (RISE) Zone to facilitate economic development and promote tourism.

- Embrace Washington College's sub-area study for Stepne Manor and waterfront parcels to facilitate context sensitive infill, development and redevelopment.

- For large developments, establish benchmarks for public facilities and require as part of the development approval process an evaluation of impact on public facilities. Develop a capital fund paid for by fees on development (such as hookup fees) to create the highest quality sewerage and water systems.

- Require major new residential/commercial developments to set aside specific lands for passive and active recreational use, with connections to existing or future walking and bicycling trails.

- Emphasize architectural design standards built around the scale, size, material, form and quality of the Town's historic core. Architectural design standards will embrace the concepts that mixed uses are desirable, natural features of the land should be preserved, and design should accommodate non-vehicular modes of transportation such as bicycling.

- Encourage high landscape design standards – including standards for lighting and signage — for all development and redevelopment, strongly encouraging the environmental holistic approach known as "Bayscaping," which emphasizes the use of native species of trees and plants.

New Initiatives – High Priority

- Foster conservation corridor mapping to identify areas that should be preserved as open space, target resources toward protection of Radcliffe Creek, develop a Greenbelt within the Planning Area to protect the Town's sense of place and character.

- Focus sharply on the Town's five "gateways" to redevelop and improve design.

Ongoing Initiatives

- Encourage and help facilitate solutions to the growth needs of two of the Town's largest institutions, Washington College and Chester River Hospital Center – within the Institutionally-zoned areas of Town.

- Continue to require annexation as a condition for the extension of public sewer and water.

- Continue to enforce sensitive areas oversight in the 100-year floodplain, streams and buffers, special habitats, steep slopes, nontidal wetlands and forested land.

- Continue slow, careful growth over the next 10 years, with a strong emphasis on infill housing and annexation, while preserving agricultural and open-space boundaries and preserving the Town's historic character, diversity of neighborhoods and high design standards for all new construction.

Introduction

The Maryland Land Use Article (2013) of the Maryland Annotated Code, formerly known as Article 66B, is the enabling legislation from which Chestertown derives its authority to regulate land use. This statute enables local governments to guide growth and development; outlines the responsibilities, roles, and functions of the Planning Commission; and sets the "ground rules" for operations. Many sections of the Land Use Article apply to all jurisdictions in the State that exercise planning and zoning powers.

The Land Use Code, Section 3-201, stipulates that the Planning Commission shall create a Comprehensive Plan with the general purpose of carefully and comprehensively surveying and studying the present conditions and projections of future growth of the local jurisdiction, and the relation of the local jurisdiction to neighboring jurisdictions. The Plan is designed to guide and accomplish the coordinated, adjusted, and harmonious development of Chestertown and its environs. It is also intended to: promote good civic design and arrangement; a healthy and convenient distribution of population; the health, safety, and general welfare of the local jurisdiction; and efficiency and economy in the development process.

Section 3.112 of the Land Use Code states that the Comprehensive Plan shall contain the following elements:

- A community facilities element;
- An area of critical State concern element;
- A goals and objectives element;
- A development regulations element;
- A sensitive areas element;
- A transportation element;
- A water resources element;
- A mineral resources element;
- A municipal growth element; and
- Additional elements may be included, such as community renewal, conservation, flood control, housing, natural resources, pollution control, the general location and extent of public utilities, and a priority agricultural preservation area element at the discretion of the commission.

In addition to the required elements listed above, the Planning Commission shall implement the following Twelve Visions:

1. Quality of Life and Sustainability: a high quality of life is achieved through universal stewardship of the land, water, and air resulting in sustainable communities and protection of the environment;
2. Public Participation: citizens are active partners in the planning and implementation of community initiatives and are sensitive to their responsibilities in achieving community goals;
3. Growth Areas: growth is concentrated in existing population and business centers, growth areas

adjacent to these centers, or strategically selected new centers;

4. Community Design: compact, mixed-use, walkable design consistent with existing community character and located near available or planned transit options is encouraged to ensure efficient use of land and transportation resources and preservation and enhancement of natural systems, open spaces, recreational areas, and historical, cultural, and archaeological resources;

5. Infrastructure: growth areas have the water resources and infrastructure to accommodate population and business expansion in an orderly, efficient, and environmentally sustainable manner;

6. Transportation: a well-maintained, multimodal transportation system facilitates the safe, convenient, affordable, and efficient movement of people, goods, and services within and between population and business centers;

7. Housing: a range of housing densities, types, and sizes provides residential options for citizens of all ages and incomes;

8. Economic Development: economic development and natural resource-based businesses that promote employment opportunities for all income levels within the capacity of the State's natural resources, public services, and public facilities are encouraged;

9. Environmental Protection: land and water resources, including the Chesapeake and coastal bays, are carefully managed to restore and maintain healthy air and water, natural systems, and living resources;

10. Resource Conservation: waterways, forests, agricultural areas, open space, natural systems, and scenic areas are conserved;

11. Stewardship: government, business entities, and residents are responsible for the creation of sustainable communities by collaborating to balance efficient growth with resource protection; and

12. Implementation: strategies, policies, programs, and funding for growth and development, resource conservation, infrastructure, and transportation are integrated across the local, regional, State, and interstate levels to achieve these visions.

Maryland's Priority Funding Areas

The 1997 Priority Funding Areas Act capitalizes on the influence of State expenditures on economic growth and development. This legislation directs State spending to Priority Funding Areas (PFA's). Priority Funding Areas are existing communities and places where local governments want State investment to support future growth. In addition to being a PFA, Chestertown is also a designated Sustainable Community, which automatically qualifies it as a Targeted Growth and Revitalization Area under Plan Maryland.

Growth-related projects covered by the legislation include most State programs that encourage or support growth and development such as highways, sewer and water construction, economic development assistance, and State leases or construction of new office facilities.

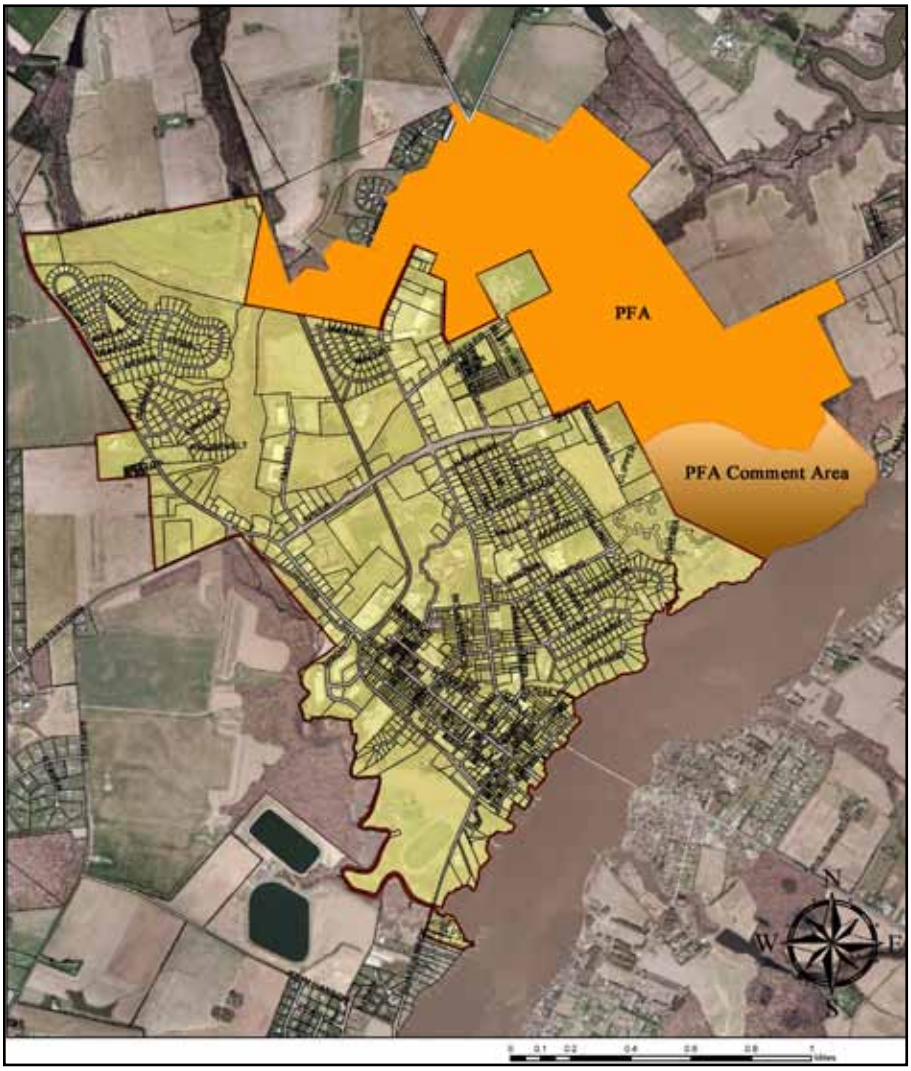
The Priority Funding Areas legislation builds on the foundation created by the Twelve Visions which were adopted as State policy in the 1992 Economic Growth, Resource Protection and Planning Act. Beginning October

1, 1998, the State of Maryland directed funding for projects that support growth to PFA's. Funding for projects in municipalities, other existing communities, industrial areas, and planned growth areas designated by counties receive State funding over other projects. PFA's are locations where the State and local governments want to target their efforts to encourage and support economic development and new growth.

The following areas qualify as Priority Funding Areas:

- every municipality, as they existed in 1997;
- areas inside the Washington Beltway and the Baltimore Beltway;
- areas already designated as enterprise zones, neighborhood revitalization areas, heritage areas and existing industrial land;

The Smart Growth legislation recognizes the important role local governments play in managing growth and determining the locations most suitable for State-funded projects.



Kent County Priority Funding Areas (PFA's)
Yellow = Chestertown
Orange = Chesteretown PFA
Source: MD Department of Planning

Statement of Goals

Within the context of these Twelve Visions, the following goals present Chestertown's vision for the future. They describe desired future characteristics of Chestertown as they relate to land use, transportation, community facilities, sensitive areas and community character. Measurable guidelines, standards and recommendations for implementing these goals are provided where appropriate.

Land Use

General Residential Goals

- Assure orderly and diversified residential development in the town and adjoining vicinity, as stated in the Land Use and Community Character elements.
- Develop residential density patterns which relate to natural and man-made assets of the Town and surrounding area, and insure that no residential areas are developed without adequate sewerage, water, stormwater and other infrastructure.
- Provide for varied housing needs as evidenced by the Town's population composition, existing and projected, and provide for a living environment that is healthy, safe, attractive and functional.

General Commercial Goals

- Develop a viable, efficient system of commercial areas by strengthening the existing downtown and by allowing for new centers in accordance with traditional neighborhood design standards.
- Provide community shopping facilities serving neighborhood areas.
- Develop a system of special service districts for certain highway-oriented business activities where unique factors of location make such districts particularly appropriate.
- Maintain the vitality of the central business area as a prosperous commercial center.
- Combine commercial facilities with other types of uses such as residential or industrial uses or other community facilities.

General Industrial Goals

- Stimulate the availability of land for light and clean manufacturing and research-office activities and locate such lands adjacent to major highways, convenient to commercial centers and high density residential areas.
- Strictly control industrial uses in order to ensure environmentally friendly industry compatible with the scale and character of the Town.
- Develop an attractive physical environment for industrial development through the creation of park-like districts and master planned industrial developments.

General Institutional Goals

- Allow for the present and future institutional uses with specific regulation appropriate to their public and semi-public needs.
- Locate new institutional zones near highway commercial and high density residential areas.

General Economic Goals

- Provide a diverse and expanding job market.
- Cooperate with the County Department of Economic Development in locating and retaining businesses in Chestertown.
- Provide the technological infrastructure (e.g. fiber-optic network) necessary to support telecommuting and other high tech jobs.
- Encourage job training programs.
- Encourage and support Heritage Tourism.

General Heritage Goals

- Expand the present Historic District to incorporate the National Register District, individual National Register sites and other noncontiguous structures of historic or architectural significance.
- Encourage design of new structures and redevelopment that respects the character of historic Chestertown.
- Maintain viewscapes to and from town with particular attention to National Scenic Byways and gateway areas.
- Encourage businesses and activities that protect the authenticity of Chestertown's historic resources.

Natural Resources, Conservation and Sensitive Areas Protection Goals

- Conserve the environmental quality of the planning area through measures which protect natural resources and environmentally sensitive lands.
- Promote and maintain a well-planned pattern of compatible and efficient utilization of land and water resources which concentrates development in suitable areas.
- Minimize adverse impacts on water quality that result from high nutrient loadings or pollutants in runoff from surrounding lands or from pollutants that are discharged from structures and conserve fish, wildlife, and plant habitats in the Town.

General Transportation Goals

- Provide or encourage a public transportation program that meets the total needs of the local

population.

- Integrate an efficient comprehensive transportation system consistent with an overall area-wide development pattern that includes walking, cycling and other human-powered forms of transportation.

- Build greenway trails to provide linkages among housing, employment, educational and recreational facilities.

- Use the existing railbed as the keystone of the greenway system and preserve it for possible future use as a transit right of way.

- Assure the effective and economical movement of people and goods within and through the Chestertown area.

- Complete the development of a coordinated system of major and minor roadways and alleys that will best serve the Town and its immediate environs in accordance with a specific Transportation plan.

- Develop a transportation system that is safe, attractive and gives careful consideration to its relationship to the land and the developed areas and to other forms of transportation such as walking and cycling.

General Community Facilities Goals

- Ensure that human needs for outdoor recreation are accommodated.

- Integrate, unify and protect residential areas through the creation of local centers of activity.

- Protect against the monotony of suburban sprawl by creating vistas of greenery, parks and open spaces.

- Share, or pass on, the cost of needed public facilities with the land developers who add or create demand for new or improved public facilities.

- Establish local parks within easy access of Chestertown's present and future residents, and set aside park areas in new developments for the use of all Town residents.

- Create interconnections between neighborhoods by expanding the Gilchrest Rail Trail, cycling lanes, and sidewalks.

General Emergency Facilities Goals

- Police Facilities – Ensure they are adequate to accomplish the mission by providing service to all areas of the Town with appropriate facilities, manpower and equipment.

- Fire Facilities – Cooperate in the provision of adequate protection of Town citizens and those in the surrounding area.

- Rescue Squad – Cooperate in the provision of adequate medical assistance to those with emer-

gency needs.

General Health Facilities Goals

- Cooperate with the County and State in the improvement and provision of public health facilities and services within the Chestertown area.
- Cooperate with the County and State in the development of local health centers in those areas where the gap between health needs and available facilities and services is the greatest.
- Facilitate and encourage the development of professional medical facilities in town.

General Utilities Goals

- Maintain and ensure the continued improvement of the Town's water and sewer facilities sufficient to meet Federal and State standards, now and in the future.
- Ensure that all future development within the Town is adequately served with water, sewer, storm drainage and other utility systems in an economic and environmentally coordinated manner.
- Cooperate with respective County and State agencies in the development of adequate and coordinated utility systems in the land areas adjacent to the Chestertown Planning Area.

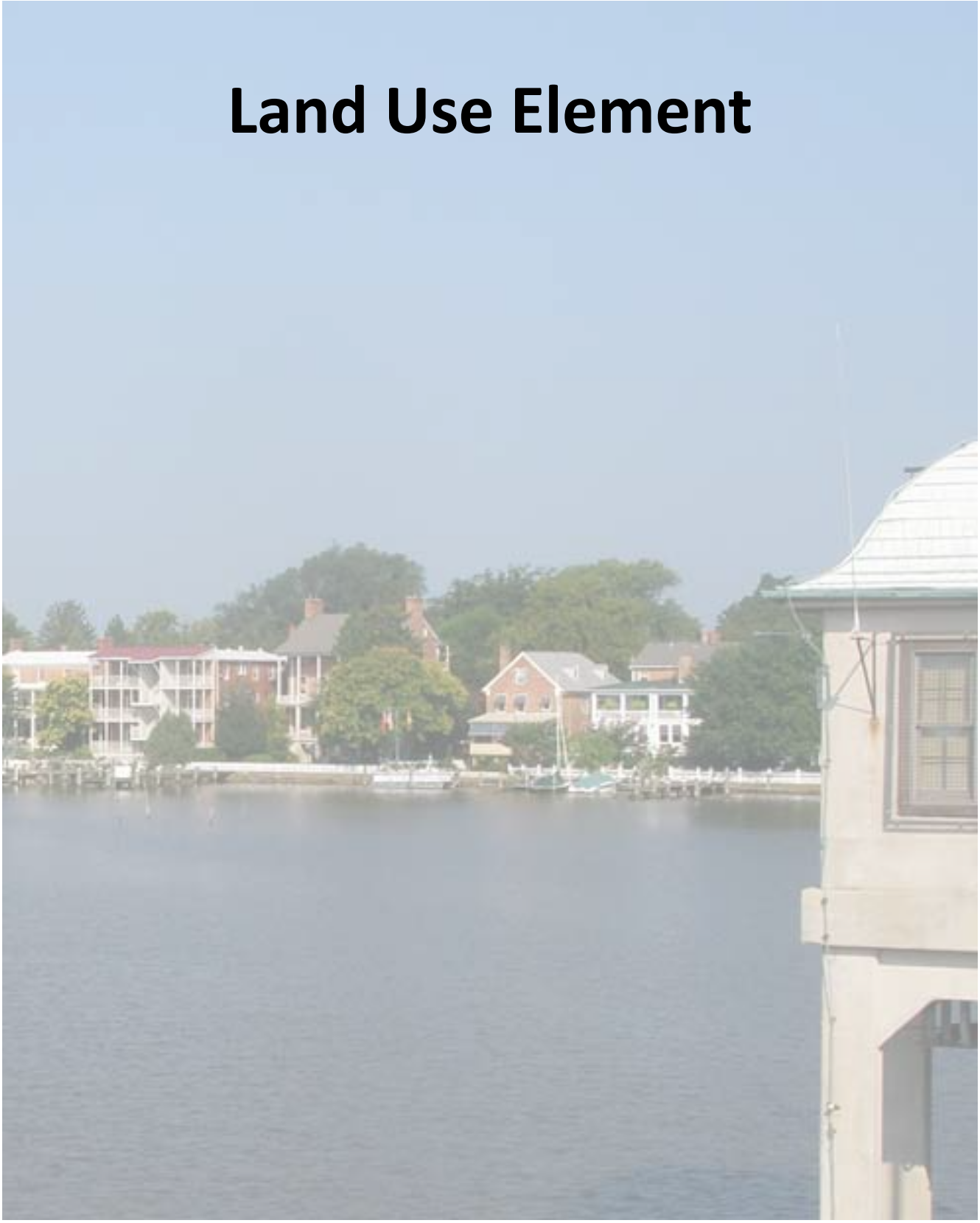
General Library Facilities Goals

- Help ensure the availability of public library facilities to the whole population of the Chestertown area.
- Stress the relationship of libraries to other programs aimed at achieving the Town's objectives of improving the environment and broadening cultural opportunities.

General Educational Facilities Goals

- Coordinate with the Kent County Board of Education so school district impacts from new development can be integrated with Educational Facilities Master Planning.
- Coordinate with private schools and Washington College to ensure student needs are accounted for in municipal planning efforts for various public services and facilities.

Land Use Element



A. Land Use Maps and Studies

Introduction

The discussion of existing and proposed land uses (Land Use Element), the character of those uses (Community Character Element), and the discussion of circulation and access to parcels of land (Transportation Element) form the heart of this Comprehensive Plan. These three issues are linked but must be discussed individually. Each is important, and each must be consistent and compatible with the others.

For purposes of organization and clarity, the discussion of land use is broken down into geographic areas, or neighborhoods based on existing character, historic patterns, geographic features and natural boundaries. In addition, seven focus areas direct readers to particular parts of Town where specific needs, changes and improvements have been identified. Under Community Character, the discussion is illustrated with graphics showing problems, opportunities and solutions. The graphics are intended to guide both Town officials and the public with regard to the specific intent of this Comprehensive Plan. They offer guidance with regard to future land uses, character and scale, and policies for access, use and preservation of buildings, neighborhoods and quality of life.

The Land Use Element also provides guidance for needed public services and infrastructure improvements required to implement the projects and proposals discussed. New streets, sidewalks, trails, parking areas, parks and recreation sites, water and sewer system improvements and other infrastructure improvements may be needed to support planned growth and development. Private developers and builders will be required to fund these facilities to offset the impacts of their projects on the current residents and tax payers.

Certain types of development, such as age restricted communities, housing tailored for elderly populations, and family oriented communities may generate additional needs and demands for such things as increased medical services or recreational facilities that are within walking distance of the community. For the purpose of this Plan, the Town defines “walking distance” as the area that a middle-aged adult can safely cover in a five to ten minute stroll. This is a distance of about 1,300 feet. While not a rigid and exact distance, this provides a reasonable guide for evaluating what is within (or proposed) walking distance of future development proposals.

Commercial land uses line sections of the major streets through the Town. The change the Town envisions for these commercial uses, both existing and new, focus more on walkability, appearance, safety, traffic and pedestrian circulation and access. As Chestertown slowly grows, the Town anticipates an intensification of existing land uses in existing locations through redesign, reconstruction, reuse and infill. Development controls will be amended to facilitate and encourage mixed uses where feasible. It is the Town’s intention that the overall physical form of Chestertown not expand outward at a dramatic rate over the next ten years. While annexation is encouraged in order to ensure the rate, timing, character and quality of growth, an active annexation program does not imply that all land that is annexed will be immediately developed. Toward that end, the Town encourages the continuation of agriculture and rural land uses in order to preserve a natural buffer between the Town and County. The buffer area includes the Chester River, streams, forests, fields, farms and open space within the planning boundary and on parcels that may be annexed.

Chestertown’s strategy is to ensure that the Town’s existing historic character and unique small town identity is preserved. The recently adopted Chestertown Tier Map guides development and restricts the use of septic fields except in identified Priority Funding Areas.

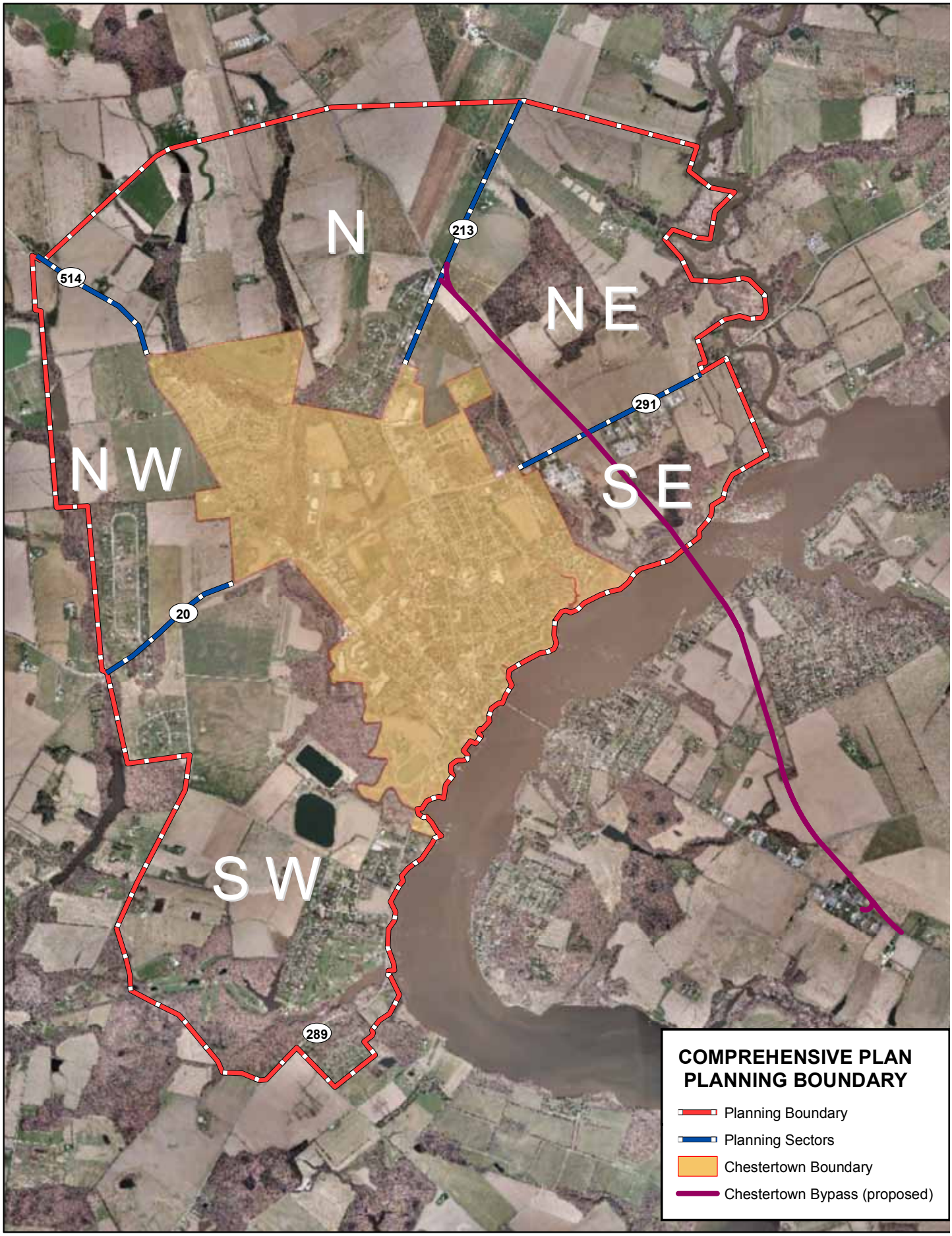
This Comprehensive Plan calls for more compact residential development within the Planning Boundary adjacent to the Town, which is shown on the Future Land Use Map. The planning area is divided into Sectors separated by major arterial roads in the Town, and includes both Town lands and adjacent parts of Kent County that contribute to, and are part of, a region that encompasses greater Chestertown. Serving low density sprawl with roads, water, sewer and other infrastructure is uneconomical and also prevents orderly expansion based on Chestertown's unique urban character. The Town encourages Kent and Queen Anne's County to support this vision of the Town's future.

Residential development adjacent to Chestertown should be directed into the Priority Funding Areas (PFA's) identified by the Town of Chestertown and Kent County, which are reinforced by the Tier Maps adopted by the Town and County. Residential growth in the County will be managed in part through the provision and extension of adequate public facilities, thus eliminating the likelihood of "leap-frog" development.

All new development shall relate to the town, in style and scale of buildings, width and pattern of streets and sidewalks, lot sizes and setbacks. Developers may be required to construct bikeways, pathways or sidewalks to connect with the town. New neighborhoods, whether standalone or extensions of existing neighborhoods, must also have sufficient open space and recreation facilities, and wherever possible, preserve the natural features of the land.

It is critical to the long-term implementation of this Plan that Kent and Queen Anne's Counties be active participants in land use issues that concern Chestertown. Chestertown's Comprehensive Plan, Kent County's Comprehensive Plan, and Queen Anne's County's Comprehensive Plan must be consistent as they relate to Chestertown's municipal boundaries for all to be effective.

The following map shows the extent of the Town's Planning Area, which is divided into five quadrants. The planning area extends beyond Town limits in order to recognize and address land uses and activities beyond Chestertown's corporate limits as they relate to the area's character, land preservation, and possible annexation and future development patterns, which should be consistent with the Town's vision for the future. Many of the issues that the Town faces today impact upon – and are impacted by – the uses and activities that occur on the lands within the planning area. These concerns are vitally important to the orderly extension of streets and appropriate development patterns. It is the Town's vision that its future layout, appearance and character are orderly, planned, efficient, and attractive.


N
NE
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213
514
291
20
289
COMPREHENSIVE PLAN
PLANNING BOUNDARY
Planning Boundary
Planning Sectors
Chestertown Boundary
Chestertown Bypass (proposed)

Land Uses in the Kent County Planning Areas

The Planning Areas in Kent County are divided into five geographic sectors using major roads - Route 20, Flatland Road, Route 213, Route 291/Morgnec Road - to mark the divisions between the Areas.

Southwest Planning Area

The Southwest Planning Area is bounded by the Chester River and the Town boundary (primarily Radcliffe Creek) on the east, the southern extent of Quaker Estates on the south, Lovers Lane and Airy Hill Road on the west, and Route 20 on the north. The SW Planning Area includes: farm land, including the 538-acre Airy Hill tract, which has a Maryland Environmental Trust easement; the Town of Chestertown's Waste Water Treatment Plant (145 acres), and several large-lot subdivisions including Country Club Estates, Quaker Estates, and Fannel's Meadow.

Other than infill, no new residential development is anticipated or desired in this Planning Area, as it is outside of the designated Kent County Priority Funding Area (PFA) and not designated for growth in the Chestertown or Kent County Tier Maps. The farms provide a much needed natural buffer area and greenbelt for the Town. Farmland anchors Chestertown's small town feel and is an essential element in defining the character of the area by providing a necessary rural contrast. This rural character needs to be maintained and preserved throughout the Planning Area. The Town looks to the County to steer development, especially low density residential development, away from this Planning Area. Alternatively, this Plan recommends that Mayor and Council annex sections of the Planning Area as necessary in order to establish development control and authority over the Area. This strategy may require the addition of agricultural zoning to current slate of zoning districts so that appropriate farmland areas can be effectively regulated. The drafting of such agricultural zoning should include consultation with the potentially affected landowners. There are current plans to annex the Waste Water Treatment Plant and several residential parcels contiguous to the Town, as indicated in the Future Land Use Outside Town Limits Map (page 31).

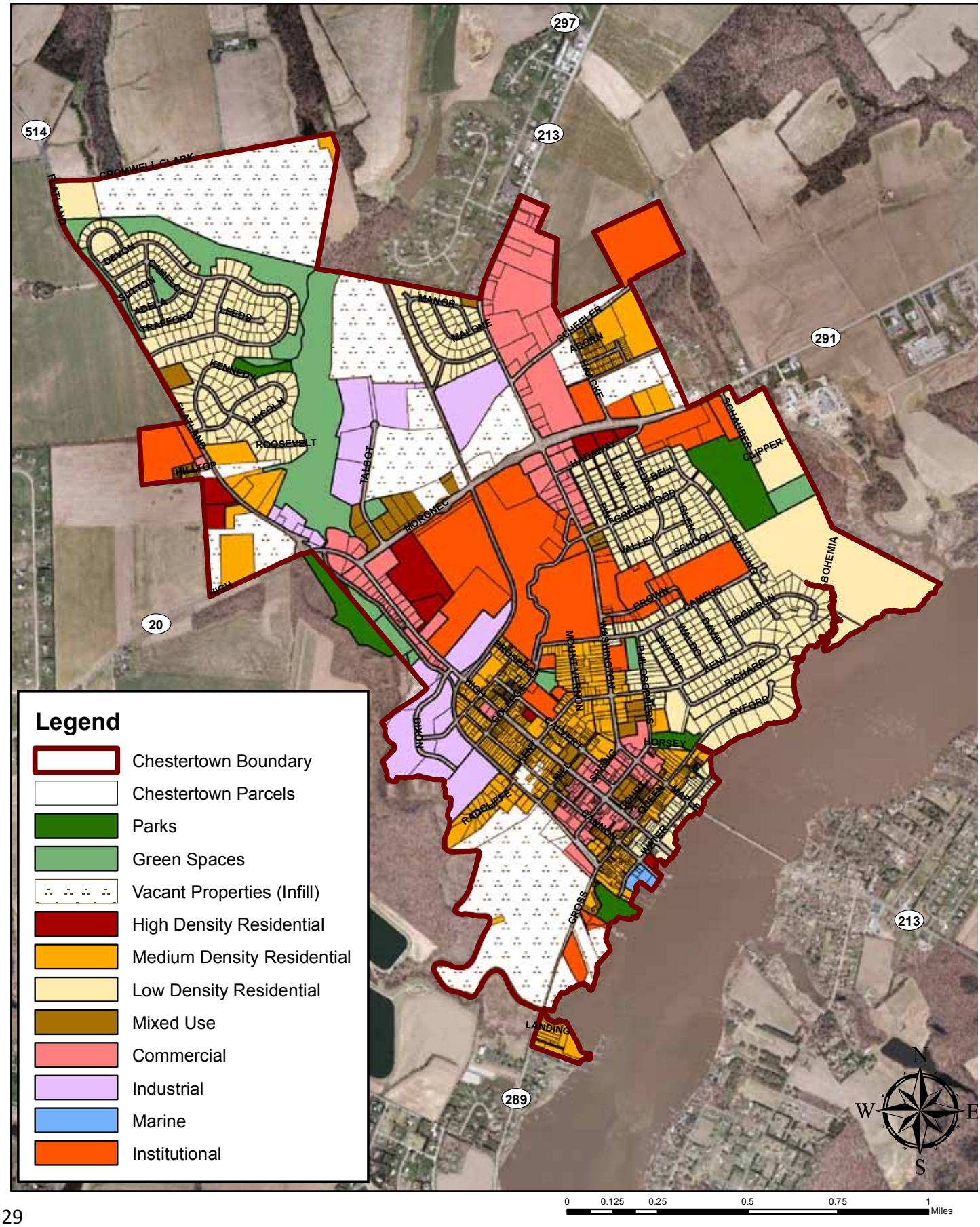
Northwest Planning Area

The Northwest Planning Area is bounded by Route 20 on the south, the west side of the Orchard Hill subdivision and Kimble Farm (Deer Tracks) on the west, and Flatland Road (which also forms the northwest boundary of the Town) on the north and east. This area is not projected to have any additional development, as it is completely outside of the Priority Funding Area. However, the two largest farms in the Area, the Kimble and Keen farms, are identified as Tier 2A, Designated Growth Areas but not included in Kent County's Sewer Master Plan. They are therefore identified as locations for possible medium-density residential development in the Future Land Use Outside Town Limits Map. The Town desires this area to remain stable with little growth, a goal that is also consistent with the Kent County Priority Funding Area (PFA). The existing development pattern in this Planning Area makes it difficult to extend roads and create the cohesive neighborhoods the Town wants.

North Planning Area

The North Planning Area is bounded on the south by the Town's northern municipal boundary, on the west by Flatland Road, on the north by Mary Morris Road, and on the east by Route 213. It includes the Crestview subdivision on the west side of Route 213, and the rest of the North Planning Area consists primarily of farmland, including the Clark Farm, which is protected by an agricultural easement. The only parts of this Planning Sector that are within the Priority Funding Area are a small agricultural parcel adjacent to Coventry III and the Crestview subdivision, which may be annexed at some future date. No additional development is projected or desired in this Area.

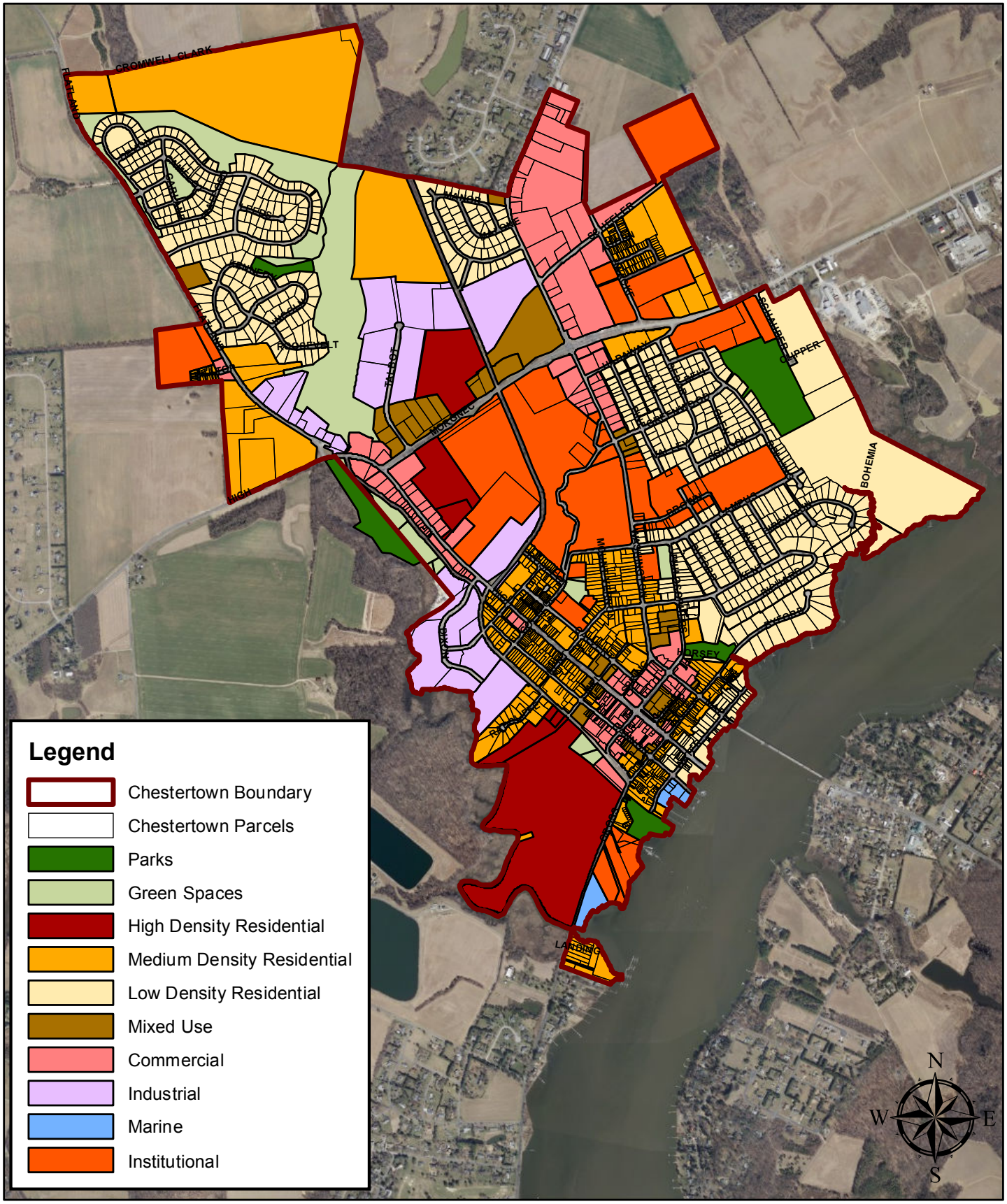
CURRENT LAND USE



Legend

- Chestertown Boundary
- Chestertown Parcels
- Parks
- Green Spaces
- Vacant Properties (Infill)
- High Density Residential
- Medium Density Residential
- Low Density Residential
- Mixed Use
- Commercial
- Industrial
- Marine
- Institutional

FUTURE LAND USE
INSIDE TOWN LIMITS



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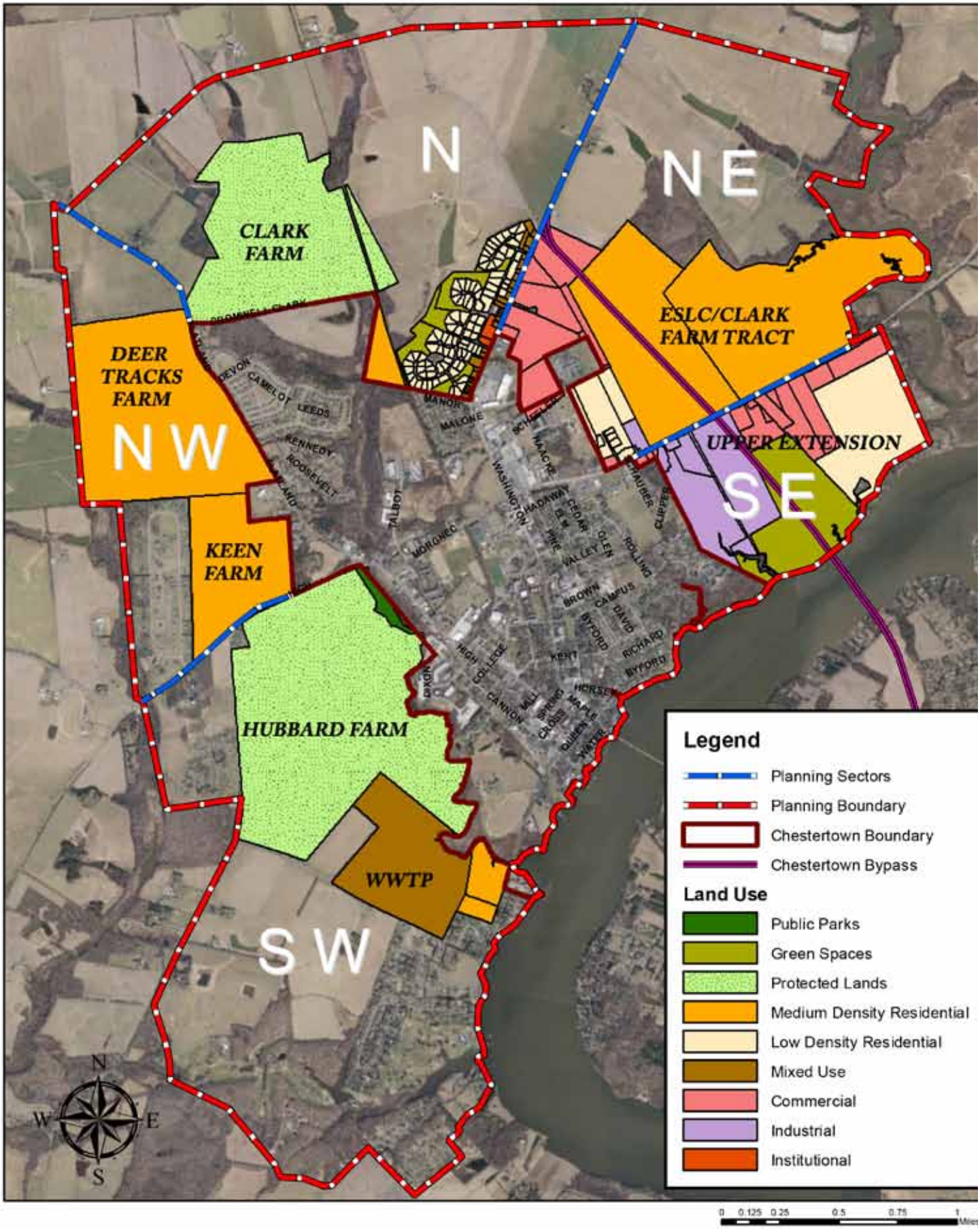
FUTURE LAND USE
OUTSIDE TOWN LIMITS



Northeast Planning Area

The Northeast Planning Area is bounded on the south by Route 291/Morgnec Road, on the west by Chestertown's eastern municipal boundary, on the northwest by Route 213, and on the east by the Leaverton Farm and the western side of Morgnec Creek. It does not include a cluster of residential parcels in the southeast corner of the Planning Area adjacent to Morgnec Creek and Route 291/Morgnec Road.

If and when annexation occurs, the Northeast Planning Area is the most likely place where it will happen. Factors that contribute to this area being the most appropriate for annexation include: the absence of waterways, wetlands, steep slopes and other natural features that would impede development; an existing network of arterial and secondary roads that are available for connecting to new development; and proximity to existing Town infrastructure. It should be stressed that infill development is a priority for the Town, and that no annexation will be entertained that is not contiguous to Chestertown's existing borders. As with the other Planning Areas, it is a goal of the Town to, wherever feasible, create a contiguous greenbelt that wraps around the Town's borders from Morgan Creek to Radcliffe Creek. The greenbelt will create a natural buffer between the Town and surrounding farmland, as well as create valuable habitat for wildlife.

Much of the Northeast Planning Area is designated a Priority Funding Area and contains several tracts identified as potential annexation areas in this Comprehensive Plan's Municipal Growth Element, which are also identified in the Future Land Use Outside Town Limits Map (facing page). The proposed Northeast Extension is comprised of a group of potentially commercial parcels on the east side of Route 213 across from the Crestview subdivision, and includes a parcel that is owned, and was under development consideration, by Wal-Mart. The Northeast Extension is intended to be a primarily commercial area. The Eastern Shore Land Conservancy/Clark Farm annexation area was so named because ESLC purchased an option on the property, which is comprised of 953 acres adjacent to Morgan Creek, in 2007. ESLC organized a series of public charrettes led by a consulting firm, and a development master plan resulted from those meetings. The master plan was adopted by reference to the Chestertown Comprehensive Plan by the Mayor and Council in October, 2008, and is intended to serve as a starting point for any development in this Planning Sector. The Ozman Tract is a series of contiguous single-family home sites located between the ESLC/Clark Farm and the western boundary of Chestertown, and could be annexed with appropriate single-family zoning such as R-2.

The Northeast Planning Area is also where the Town wants to see a new limited access parkway built that would connect Hopewell Corner (MD 213/MD297) with the area around MD 213/MD 544 in Queen Anne's County. The desired alignment generally follows the selected N-1 option designed by the State Highway Administration in the 1970's, and shown in the detail map for this Planning Area. It is the policy of Chestertown to continue to pursue construction of this needed second crossing of the Chester River. This new highway is envisioned to be limited access with one new controlled intersection at MD 291.

It is part of the Town's growth management strategy to provide economic balance and opportunity for job creation. The Northeast Planning Area contains a potential mix of commercial and residential properties that could aid Chestertown's and the region's economic development. Development impacts on the Morgan Creek watershed should be avoided through the use of innovative nonstructural sediment and stormwater runoff controls, such as forested or grassed buffers, living shorelines, rain gardens, and other means.

Southeast Planning Area

The Southeast Planning Area is bounded on the south by the Chester River and Mallard Road, on the west by the Town's eastern municipal boundary, on the north by Route 291/Morgnec Road, and on the east by American Legion Road. This Planning Area consists of commercial businesses on the south side of Route 291, includ-

ing Gillespie & Son, David A. Bramble, Choptank Electric, State Highway Administration, and the Kent County Roads Department. These businesses are served by Chestertown sewer and water, which was extended and paid for by the State Highway Administration. Most of this Planning Area is included in the Kent County Priority Funding Area, including a PFA Comment Area tha is comprised of wetland and in the Critical Area.

The Town sees a potential for a slight increase in the amount of commercial land to the rear of existing businesses lining the south side of MD 291, which is where these businesses have room to grow. This will locate heavy commercial activity away from existing residential areas and existing high traffic in-town locations that would be negatively impacted by increased large truck traffic. A new local access road from Route 291 may be needed to properly serve this area. Dense tree and vegetative buffers should separate the commercial uses from adjoining residential uses.

Lands where wetlands, woods and habitat areas predominate along and near the Chester River are best left in their natural state. Common open space access may be appropriate in sensitive areas if carefully designed to minimize any negative impacts. The remaining lands are best suited for low density residential development, to reflect the development that exists to the east on American Legion Drive. However, this development should only be done utilizing public water and sewer following annexation. Primary access to these potential new residential areas will be from roads designed to connect with American Legion Drive. Annexation requests in this area will be dependent on public hearings and approval by the Mayor and Council.

Areas Outside of the Planning Area

Queen Anne's County

Although a section of Queen Anne's County adjacent to Chestertown was included as a Planning Area in the previous version of this Comprehensive Plan, it was decided to not include it for the following reasons. First, the separation of Chestertown from Queen Anne's County by the Chester River creates a physical buffer, thus making it impossible that Chestertown would extend any infrastructure such as water or sewer into this area. Second, as a separate county, Queen Anne's is an independent jurisdiction that, unlike Kent County, is not obligated to work with the Town to address planning issues. If joint planning meetings were to be organized in the future between the two counties, this would be welcomed as a way to discuss concerns on both sides of the Chester River.

B. Community Character

Introduction

The Land Use Element of this Plan describes policies to accommodate an appropriate rate of growth, and also to contain this growth within a clearly defined boundary. The Plan has so far laid out how fast the Town wants to grow and where that growth should take place. The aim of this chapter is to discuss how community character can be preserved and enhanced through careful attention to building density, scale, massing, setbacks, and other design factors.

In general, the Town wishes to maintain its small-town, rural identity. Growth is desired but should take place in a manner that does not strain existing infrastructure such as water, sewer and roads. The expansion of the Town will take place in a manner that respects the streetscapes and building patterns established during the past three centuries. Smart growth principles and sustainable development practices are to be implemented

to the maximum extent feasible. These include amenities that enhance residential and mixed-use communities such as sidewalks, walking and cycling trails, passive and active parks, playgrounds, and access to the waterfront. Connectivity is essential to ensuring that no part of the municipality is isolated from any other part of Town, so that children will have safe routes to schools and playgrounds, and residents will be able to access shopping and recreation without having to use their car. Chestertown will be a model walkable community.

To this end, the Comprehensive Plan adopts the following Smart Growth Principles:

1. **Mix land uses:** The Town recently overhauled its zoning regulations, which included the creation of C-3 Neighborhood Commercial Districts on upper High Street and upper Washington Avenue. These new districts encourage mixed-use development such as buildings with neighborhood-serving retail on the first floor with second-floor residential, with parking lots for new construction located to the rear or side and buildings located towards the front of the property. In general, the Town wants convenience-level goods and services within walking distance of all neighborhoods.

2. **Use compact building design:** Chestertown's Historic District has many examples of residential and commercial buildings on narrow building lots. Larger new developments should include compact building design in at least part of the project, especially where the development adjoins historic areas.

3. **Create a range of housing opportunities and choices:** The availability of a wide range of housing options enhances community character. This includes housing for low- and medium-income, workforce, handicapped, and elderly populations.

4. **Create walkable communities:** The Chestertown Rail Trail is the most recent example of the Town's desire to increase walkability. The Town seeks to improve the connections between existing trails and sidewalks, as well as expand walkability through the construction of additional phases of the Rail Trail and additional sidewalks. Pedestrian-friendly design inludes principles such as decreasing the visual impact of garages by setting them back from the house or moving them to the rear, decreasing the width of streets and the size of parking lots, and incorporating traffic calming devices such as speed cushions and raised pedestrian crossings.

5. **Foster distinctive, attractive communities with a strong sense of place:** Chestertown was named one of the National Trust for Historic Preservation's "Dozen Distinctive Destinations" in 2007, in recognition of the Town's rich and unique heritage. Richard Moe, then President of the National Trust, stated that Chestertown is a "small, historic and relatively unspoiled Eastern Shore town," with "the good sense to hang on to what makes it so special." It is essential that Chestertown preserve its unique sense of place. One of the most important ways to accomplish this is through the use of architectural styles that are compatible with the existing residential and commercial forms, especially those found in the Historic District.

6. **Preserve open space, farmland, natural beauty, and critical environmental areas:** The Town is bordered on the south by the Chester River, the west by Radcliffe Creek, and by farmland, much of it in conservation easements, on most of its other boundaries. These natural features, in addition to the parks and other open spaces within Town limits, are of vital importance. An inventory of existing natural features should be a starting point in the development process. Mature trees, for example, should be preserved to the maximum extent feasible. Similarly, wetlands and other important natural features should be identified and made an integral part of the site design. The Town's goal of increasing the tree canopy will be accomplished in part through the planting of street trees, using native species.

7. **Direct new development to existing communities:** The Town's water and sewer infrastructure are, as

explained in the Municipal Growth and Water Resources Elements, sufficient to accommodate development on all of the available infill properties. These include Coventry III, the north end of Talbot Boulevard, and Stepne. Although annexation is anticipated in the future, priority will be given to infill developments. When and if annexation occurs, it will be in the Priority Funding Areas to the north and east, and any annexations must be contiguous to existing Town borders so as to avoid leapfrog development.

8. **Provide a variety of transportation modes:** The Town of Chestertown seeks to expand the choices of transportation through the expansion of, and access to, walking, cycling, and water trails with ADA compatibility wherever feasible. Automobiles should not determine design. It is anticipated that the completion of the two remaining phases of the Rail Trail will expand the ability of citizens to walk or bike to work, shopping, cultural facilities and recreational areas.

9. **Make development decisions predictable, fair, and cost effective:** Most of the Town's regulations governing new development can be found in the following documents, all of which have recently been revised and updated: Chestertown Zoning Ordinance; Design Principles, Policies and Guidelines for New Construction (Appendix I in the Zoning Ordinance), Chestertown Historic District Design Guidelines, and Chestertown Comprehensive Plan. These guiding documents provide a clear, coordinated framework for all future development.

10. **Encourage community and stakeholder collaboration in development decisions:** The Town has benefited greatly from community design, sustainability and visioning meetings, including the Chestertown Charette, World Café, Greater Chestertown Initiative, Waterfront Task Force, Chestertown Green Team, Sustainable Communities Workgroup and other citizen groups. Two charettes are planned as part of a National Endowment for the Arts (NEA) Our Town grant that seeks to develop a Public Arts Master Plan for the Town's waterfront, from High Street to Radcliffe Creek. Public involvement is a crucial aspect of successful town planning and sustainability efforts.

Adapted from Getting to Smart Growth: 100 Policies for Implementation. ICMA/Smart Growth Network 2002, p. ii.

In addition to the aforementioned Smart Growth Principles, the Town has also adopted Maryland's Twelve Planning Visions. These Planning Visions complement and expand on the Smart Growth Principles.

Design Principles for Chestertown

Chestertown's community character is shaped by existing neighborhoods. Following are six areas within the Town and the visions for their future.

Historic District

Chestertown's Historic District was created in 1964 and was expanded to its current boundaries in 2010. The Historic District includes the waterfront from Horsey Lane to Wilmer Park, follows the Rail Trail west to S. Lynchburg Street, then east along Campus Avenue to the Kent County Middle School, and south along both sides of Philosopher's Terrace. The Historic District contains all of the elements that contribute to Chestertown's unique character: an eclectic mix of architectural styles representative of the Town's history, from its Colonial beginnings as one of the Province of Maryland's six Ports of Entry to the mid-20th Century; tree-lined streets with brick sidewalks and reproduction historic street lighting; narrow front yard setbacks for both residential and commercial buildings; tightly regulated signage including strict limits on the type, size, design, and lighting of signs; and Historic District Commission review of all exterior changes within the District.

Queen Street

The Historic District includes a National Historic Landmark (NHL) District, which is comprised of the oldest and most historic buildings in the downtown core. The NHL category is the highest form of recognition given to historic sites by the National Park Service. As one of only four NHL Districts in Maryland, it is incumbent on the Town to preserve its architectural, archaeological and historical legacy. The importance of preservation is reinforced by the Historic Resources Element contained in this Comprehensive Plan, which states: "The need to protect and conserve Chestertown's historic resources is a fundamental, underlying concept to managing the current and future growth of the Town."

Infill opportunities in the Historic District are limited, but where they are possible, development will be held to the highest standards in order to protect the integrity of the surrounding streetscapes and neighborhoods. Scale, massing, rhythm and setbacks in any new development will reflect and complement the surrounding area. The Town requires brick sidewalks for new development in the Historic District, and has a cost-sharing arrangement for home owners who wish to have brick sidewalks in front of the their house. Parcels currently available for infill or redevelopment within the Historic District include, but are not limited to:

- 200 blocks of Front (S. Water) Street and S. Queen Street, also known as Scotts Point. Residential development on these parcels will reflect the modest, mostly vernacular architectural style in the surrounding neighborhood, primarily front-gable houses with a narrow front yard setback.

- 200 block of Cannon Street and extending to S. Cross Street, also known as Twilley Lane. Development of this property is currently being considered as townhouses with a "mew" (paved pedestrian walkway) between Cannon Street and S. Cross Street. The success of this development will depend on its ability to integrate with the surrounding historic neighborhood through the use of complementary architectural styles, massing, screened parking, a public green space and street trees.

Twilley Lane Development Site, Cannon Street

- 200 block of S. Cross Street. Sultana Projects will construct a new educational facility and boat shop on the lot between the former Methodist Church and the current Funk & Bolton office building. Historic District Commission and Planning Commission review has resulted in a feasible building design that blends well with the surrounding restored properties. Another infill building can be constructed on the lot adjacent to Tidewater Trader, the former Chestertown Train Station building. Redevelopment at this location has created a highly attractive entrance into Town, and it is anticipated and desired that infill projects here will further enhance that effect.

- 300 block of Cannon Street – Town Yard and Sultana Boat Yard. During the recent comprehensive rezoning, the zoning of the Town Yard parcel was split to create a C-2 Downtown Commercial area on the downtown half of the parcel, and RB Professional Office on the Mill Street half of the parcel. It is anticipated that the Town Yard will be moved within the next five years to a new location more appropriate to its industrial function, such as Talbot Boulevard. This will create the opportunity to build a mixed-use development with residential, office and commercial uses.

- 400 block of Cannon Street - The Planning Commission approved smaller lot sizes than would have been permitted under old zoning in order to replicate the lot sizes that typify the surrounding neighborhood. The parcel was formerly a delapidated car repair garage and converting these lots to a residential use will make this a much more attractive and livable area.

- 500 block of Cannon Street. Two adjacent parcels on the north side of Cannon Street are available for infill. The long, narrow lots in combination with the existing development pattern of the neighborhood make it very unlikely that these parcels could be developed as anything other than single family residential homes. The south side of the 500 block was the former site of Adkins Lumber Company, and is also available for an infill development.

500 Block of Cannon Street, north side

- 600 block of Cannon Street. A trailer park currently occupies two parcels at the end of Cannon Street where it meets S. Lynchburg Street. The Town is currently applying for a Community Development Block Grant to make infrastructure improvements to this area, including curbing, gutter, sidewalks and street lighting. The recent comprehensive rezoning decreased the setbacks to allow denser development. The owner of the trailer park is planning to redevelop 620 Cannon Street with five townhouses, which will be a dramatic improvement to this part of the neighborhood. The architecture of the townhouses will blend with the primarily vernacular architecture of the surrounding homes, and the corner lot location adjacent to the Rail Trail will require careful treatment of all the façades, as well as onsite parking and landscaping.

Intersection of Cannon and Lynchburg Streets with Gilchrest Rail Trail in foreground

- 200 block of Washington Avenue – Board of Education building. Washington College purchased the former Board of Education building in 2012 and has permission from the Historic District Commission to demolish the structure. Plans for a new building housing classrooms and offices have been reviewed by the Historic District Commission and Planning Commission for compatibility with the neighborhood in which it is located. Washington College has a policy to construct all new buildings to at least LEED Silver standards, which means that the design will incorporate many sustainability features that will be a dramatic improvement over the old building. Safe ingress and egress for pedestrians and vehicles on Washington Avenue will be one of many considerations for this highly anticipated project. The former playing field behind the existing building, which is adjacent to Philosopher's Terrace, will be used for a geothermal field and will remain undeveloped. A sidewalk will be constructed along Philosopher's Terrace and will accommodate parallel parking for residences across the street. The section of Washington Avenue from Spring Street to Greenwood Avenue is a residential neighborhood that is part of the Chestertown Historic District. It is distinguished by being an avenue of turn-of-the-century Victorian houses between two major north-south gateways to Chestertown. It is also a State highway carrying increasing volumes of private and commercial traffic. The Town will seek ways to preserve and improve the residential character of the historic neighborhood and to enlist the State's help in making improvements to pedestrian and traffic safety and control, sidewalks and pavements.

- Intersection of Philosopher's Terrace and Maple Avenue. This intersection includes the Dollar General/ Women in Need shopping center, Bennetts I and II gas stations, Ellen's Restaurant, and the Chestertown Volunteer Fire Department. As discussed in the previous version of this Comprehensive Plan, this is an area that requires a substantial overhaul. The ca. 1959 shopping center should be substantially redeveloped so that it presents a more aesthetically pleasing, pedestrian-friendly appearance, to include trees and planting islands, ADA-accessible sidewalks, and safe crosswalks. The parking area has no modern stormwater control devices and was built over a spring-fed stream that runs from the valley adjacent to 110 Spring Avenue, parallel along Horsey Lane and into the Chester River. Plans for the redevelopment of Bennetts II have been submitted by 7-Eleven. A new design that complements the surrounding streetscape was developed with input from the Historic District Commission and Planning Commission.

Dollar General parking lot

Public Waterfront and Chestertown Marina

Chestertown's public waterfront stretches from the public dock at the foot of High Street south to Radcliffe Creek. Many improvements have been made to this area during the past twenty years, and more are anticipated during the next ten that will make the waterfront a major amenity and tourist draw for the Town. The waterfront was one of the central study areas for the 1995 Chestertown Charette and Chestertown Waterfront Committee, which resulted in the development of the brick boardwalk and wooden foot bridge from the foot of High Street to the Chestertown Marina, trees and landscaping, and a new pier that today accommodates the Schooner Sultana and Echo Hill Outdoor School's Annie D. During the past five years, a Living Shoreline replaced the former bulkheading at Wilmer Park, the wetland behind Lelia Hynson Pavilion was restored, a rain garden was installed in the park, and the parking lot and walking trails were resurfaced. Public access to the waterfront has been improved with a floating dinghy and kayak dock at the foot of Cannon Street, plus a kayak ramp at the Living Shoreline in Wilmer Park.

The Town's purchase of the Chestertown Marina guarantees waterfront access to residents and visitors, and ensures that the Marina will remain active. The recent comprehensive rezoning removed the provision allowing R-5 Multiple-Family residential development. Within the next few years, the Town intends to dredge the channel, install new state-of-the-art floating docks, replace the aging bulkheading and boardwalk, construct a visitor's center, reconfigure the parking area, install new trees and landscaping, and make stormwater improvements to bring the facility up to the highest environmental and design standards. The waterfront walkway called for in the previous Comprehensive Plan will be completed, to include the waterfront path at the Scotts Point townhouses.

Chestertown Marina parking lot

Washington College's purchase of several large waterfront parcels adjacent to Wilmer Park, including the Armory, sets the stage for the construction of a new waterfront campus built to a minimum LEED Silver standard. Plans for the Armory have not been finalized.

All future development in this area will be done to the highest feasible standards of sustainability and will include a waterfront trail as suggested in this Comprehensive Plan and the Public Arts Master Plan. The waterfront trail will include safe crossings on S. Cross Street/Quaker Neck Road, which will be accomplished in part through traffic calming devices starting in front of the Chester River Landing development on the south side of Radcliffe Creek. A bicycle lane will be striped on a newly configured Quaker Neck Road and S. Cross Street, and will include a connection to the existing Rail Trail. The goal of the traffic calming devices is to slow traffic coming from Quaker Neck Road, which is heavily traveled by pedestrians, joggers and cyclists.

Stepne Manor

Stepne Manor is a ca. 1690 historic farm built by Simon Wilmer, whose son laid out "Chester Town" in 1706. An overmantel painting from ca. 1790 shows the farm with Chestertown in the background. The historic significance of the farm and house to Chestertown's history, its location next to the downtown core and Historic District, its environmentally sensitive location along Radcliffe Creek, and its commanding views of Chestertown and Chester River make it a particularly challenging parcel for development. Any future development on this site must balance and address all of these concerns thoroughly.

Stepne Manor entrance

Stepne Farm and several adjacent parcels were given a new zoning category, R-6 Traditional Neighborhood Development, in order to address some of these concerns from an architectural and neighborhood design standpoint. Additionally, the new Zoning Map provides for an extension of the C-2 Downtown Commercial District from Cross Street into Stepne Manor, so that the commercial uses do not stop abruptly at the Rail Trail, and to ensure a smooth transition into any future housing development. As shown in maps in the previous chapter, sight lines from the historic farm house to the Chester River must be preserved. The street grid in any new development will echo the existing street grid in the Historic District, while also respecting the natural and

historic features on the property. New housing adjacent to the farm house must be designed and oriented so that they do not detract from the importance of the site. Pedestrian trails will run along S. Cross Street/Quaker Neck Road, next to Radcliffe Creek, and across the north end of the property with a connection to the Rail Trail. Access to Radcliffe Creek and the Water Trail will be achieved through a kayak launch accessible from the trail. Residential development will be complemented by strategically located green spaces.

Upper High Street

One of the major gateways into Town is Route 20, which becomes High Street when it enters Chestertown. This area has been commercial in nature for the past fifty years, but several changes have taken place within the last few years to inject new possibilities for this mostly neglected part of Town: the creation of a new C-3 Neighborhood Commercial District that will encourage mixed uses; the purchase of the former Nicholson site below the Flatland Road/High Street Extended intersection, long used for truck storage but now destined to be converted into Gateway Park; the construction by the State Highway Administration of a traffic circle at the intersection of High Street and Morgnec Road/Rt. 291; the creation of a bike lane and landscaped traffic calming bump-outs on High Street Extended; the future construction of Phase III of the Chestertown Rail Trail with pedestrian and cycling connections to Gateway Park; and a sidewalk being planned for Flatland Road, which will provide much needed safety for pedestrians.

Upper High Street

Future improvements to this area include traffic calming at the transition between Rt. 20 and High Street Extended, constructing sidewalks to complete missing connections, expanding pedestrian and cycling trails, planting street trees, and other aesthetic improvements to make this a more attractive section of Town.

Upper Washington Avenue and Northeast Chestertown

This area starts just above the Washington Avenue/Greenwood Avenue intersection and runs north through the commercial corridor to the edge of town, and includes most of the residential and institutional area eastward including both sides of Morgnec Road/Rt. 291.

Upper Washington Avenue looking north

Like High Street Extended, Upper Washington Avenue was rezoned C-3 Neighborhood Commercial to encourage mixed uses in any future development. The intent for this section of Washington Avenue is that new buildings will be constructed closer to the front property line with parking in the rear or to the side, with neighborhood serving commercial retail or office uses on the first floor and high density residential on the second floor or to the rear of the building. One of the central goals is to make this area more pedestrian friendly and attractive through the introduction of street trees, landscaped planting areas, and screened storage and parking lots.

The intersection of Washington Avenue and Morgnec Road/Rt. 291 must be made safer for pedestrians and cyclists. In order to achieve this, the sidewalk on the south side of Morgnec Road, which currently ends just west of the corner Peoples Bank property, must be extended to Washington Avenue. A sidewalk should also be constructed on the north side of Morgnec Road, starting west of the intersection and running north on Washington Avenue so that pedestrians do not have to cross the numerous entrances into Kent Plaza and other businesses on the east side of Washington Avenue. Missing linkages in the sidewalk network on Morgnec Road, Haacke Drive, and Scheeler Road must be completed, and these will connect with sidewalks that will be required in any future development in the northeast quadrant.

The redevelopment of Kent Plaza includes landscaped areas, improved lighting and pedestrian connectivity, and a redesigned façade that is more inviting from Rt. 213, Improvements should be made to the rear and

Kent Plaza Shopping Center

side façades of the property, which are visible from residential areas on Haacke Drive and Morgnect Road. It is anticipated that two paper roads (roads that were planned but never built) – Metcalf Road, which runs between Haacke Drive and Silver Heel Drive just south of Conley Drive, and Chester Arms Road, which will connect Metcalfe Road and Conley Drive – will be built to facilitate additional residential development in the northeast corner of Chestertown (see the maps in the Transportation Element). This area will be integrated into the trail network that runs through the rest of the Town to the maximum extent feasible.

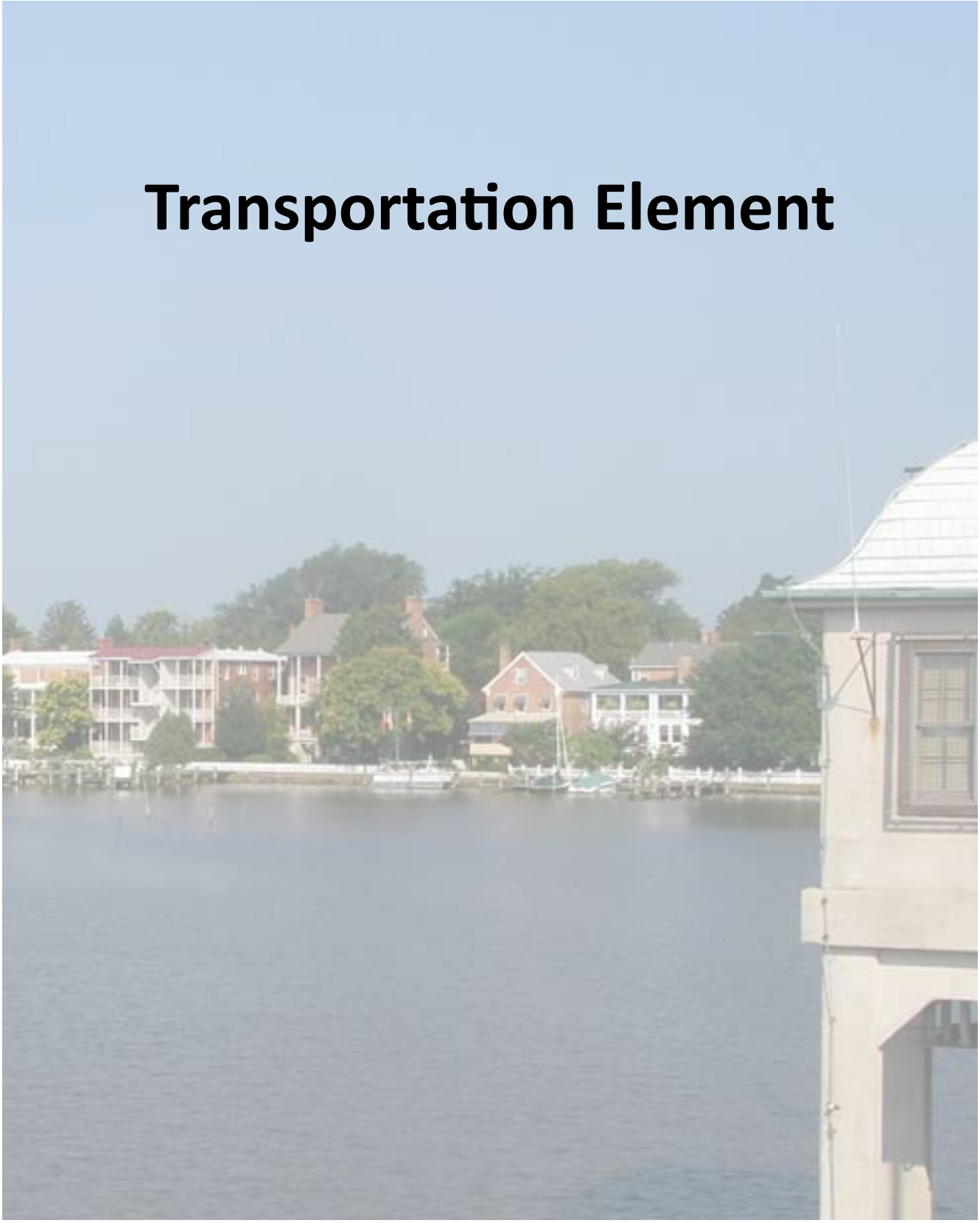
The vacant parcel owned by Washington College at the corner of Washington Avenue and Morgnec Road is an important gateway into Chestertown. As such, it must be developed in an aesthetically pleasing way that respects the environmental setting of the site, and does not overwhelm the site with a large facade pulled too close to the intersection. Any development of the site must include a pedestrian walkway along the rear of the property that connects to the GIlchrest Rail Trail, as well as sidewalks and street trees.

Upper Talbot Boulevard and Coventry III

Upper Talbot Boulevard and Coventry III represent, after Stepne Manor, the second and third largest potential residential infill properties in Chestertown. The parcel at the north end of Talbot Boulevard is zoned R-4 Multiple-Family Residential and Coventry III is zoned R-3 Low Density Residential. The two parcels are adjacent to, and drain into, Radcliffe Creek, which runs south between Flatland Road and Talbot Boulevard. The proximity of both parcels to wetlands will require particular attention to environmental site design.

Pedestrian trails should be constructed to link Coventry I, II and III through the Radcliffe Creek valley, and across the north end of the Talbot Boulevard property to connect that development to the Rail Trail. Vehicular movement will also be improved by constructing a road to connect Talbot Boulevard with the Foxley Manor subdivision, in order to permit access through Manor Avenue to Washington Avenue/Rt. 213.

Transportation Element



Introduction

The overall transportation goal of this Plan is to provide a safe, efficient, convenient and attractive transportation system. The Plan aims to achieve that goal with a sharp focus on the relationship of transportation to land-use planning.

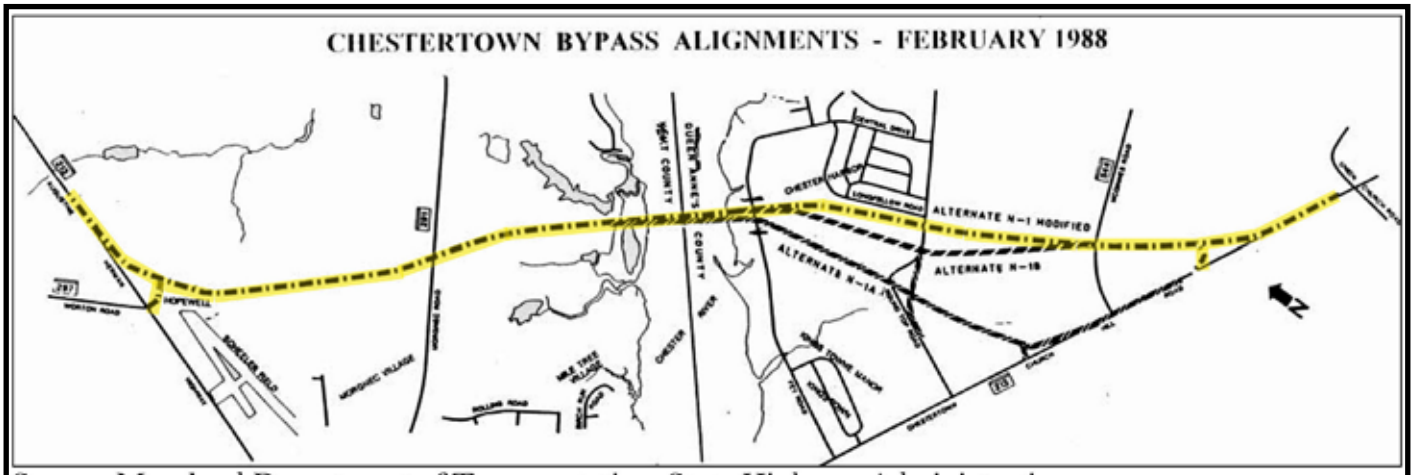
The Maryland Land Use Article, Section 6, details the duties and powers of the Planning Commission regarding the design and layout of future roads. Accordingly, the Commission studied the Town's road system and reached a consensus on the location of new roads, their purpose and character and how they should provide support for current and proposed land uses.

The Chestertown transportation system includes State roads and highways, Town-owned roads, private roads (on the Washington College campus), public and private sidewalks, hiking and biking paths, and a publicly operated regional transit system.

To a lesser degree, the Chester River adds transportation alternatives since the river flows into the Chesapeake Bay and is navigable by relatively deep draft vessels. The Chestertown Marina (Town-owned since 2012), the County-owned landing at the foot of High Street, and a dinghy and kayak dock at the foot of Cannon Street provide public access to the waterfront. It is vitally important to maintain and enhance riverfront access and amenities for residents and visitors, including out of town boaters. Two annual events – Sultana Projects' Downrigging Weekend and the Chestertown Tea Party Weekend – each of which draw thousands of visitors, are clear examples of the importance of the waterfront to the economic and recreational vitality of Chestertown.

New Parkway Bypass

A longstanding transportation priority is construction of a new Chester River bridge crossing and bypass which will divert through traffic out of the downtown and keep heavy truck traffic off Washington Avenue and Maple Avenue. This limited access parkway, according to a 1987 Environmental Impact Assessment that resulted in a Federal Highway Administration location approval, would have many benefits. It would "facilitate mobility, improve pedestrian and vehicular access to services," "have a beneficial effect on the provision of emergency and public services through the area," it would "be in keeping with the historical character of the area," and "reduce deleterious vibration effects on historic buildings."



Source: Maryland Department of Transportation, State Highway Administration

In addition, the 2010 SHA Chester River Bridge Feasibility Study identified challenges to the proposed bypass, including its consistency with Priority Funding Area law, because portions of the bypass are not located within the Kent County or Queen Anne's County PFA's. In order to facilitate the Kent County portion of the bypass, Kent County and Queen Anne's County will have to coordinate right-of-way preservation easements. The two counties must also ensure that the Chester River Bridge, which is nearing the end of its lifespan, will be replaced with a bridge that preserves the historical integrity of Chestertown's iconic river views and National Historic Landmark Historic District architecture. The Town of Chestertown acknowledges that the high cost of bypass construction, estimated at approximately $637 million, necessitates interim planning and coordination with SHA to integrate transportation and land use strategies to reduce traffic congestion, increase mobility and improve safety along the MD-213 corridor. Additionally, the construction of a bypass will have potentially negative growth implications that must be carefully considered.

Two earlier versions of the Chestertown Comprehensive Plan anticipated the construction of, and supported, the Bypass. That did not occur, but significant new development outside the Town, in both Kent and Queen Anne's counties, did occur, bringing more and more traffic. The result:

- Town residents who must travel Washington Avenue face worsening delays.
- Vehicular connection between neighborhoods is more difficult and less safe.
- Bicycle and pedestrian traffic is increasingly dangerous.
- Traffic problems may have negative consequences for the Historic District, economic development, retail vitality and housing values.
- Congestion has negative physical and aesthetic impacts on Chestertown's Historic District, especially the waterfront and Washington Avenue.

The preferred Bypass route is the N1 alternate identified in the 1980s (see map on previous page), running from the intersection of MD 213 and MD 297 southeast across the river to the intersection of MD 213 and MD 544. The Bypass would be a limited-access roadway between those routes, with a parallel, landscaped hiker-biker path.

Gateways

There are five principal gateways into Chestertown. They correspond to the State Highway approaches to Town and can be found on the maps in this plan. All the Town's gateways are overdue for design enhancements and all will be improved in conjunction with land-use planning.

The five gateways are, from the Chestertown's west and going counter-clockwise:

- Route 20 from Rock Hall, which passes through farmland on the Town's western edge and becomes High Street at Flatland Road;
- Quaker Neck Road, which passes through residential developments on Chestertown's southern boundary and becomes S. Cross Street at Radcliffe Creek Bridge;

- Rt. 213 from the south-east, a State highway and primary thoroughfare that passes through commercial development and residential areas on the Queen Anne's County side of the Chester River, and which becomes Maple Avenue on the north side of the Chester River Bridge;

- Morgnec Road/Rt. 291, a State road that passes through farmland and industrial development on Chestertown's eastern boundary before entering Chestertown; and

- Rt. 213/Washington Avenue, the major northern approach into Chestertown, which passes through farmland, residential and commercial development before entering the town, where it becomes Washington Avenue.

A traffic roundabout and sidewalks have been constructed at the Route 20 gateway, which was listed as a priority in the previous version of the Comprehensive Plan. Together with the planned Gateway Park and sidewalks on Flatland Road, the appearance and functionality of the area will be dramatically improved. The SHA is also developing a plan for traffic calming on the Route 20 approach leading up to Flatland Road and Gateway Park, which may include a traffic light. As with the other gateways, the primary goals are to improve connectivity and safety for pedestrians and cyclists.

The second gateway that will see significant changes within the next five years is Quaker Neck Road, which runs between the Chester River waterfront and Stepne Manor into the downtown. Sidewalks, walking trails and bicycle lanes are envisioned as part of a comprehensive redesign for this area, which will be informed in part by a Public Arts Master Plan as well as recommendations from the Waterfront Task Force convened by the Chestertown Mayor and Council.

Upper HIgh Street (Rt. 20) at Radcliffe Creek Bridge - Gateway Park site to left

Quaker Neck Road looking south to the Armory

The Rt. 213 approach into Chestertown from the south presents one of the most iconic views of the Town's historic waterfront. Rt. 213 is a designated National Scenic Byway, and the point at which the Chester River Bridge connects with Chestertown is the center of the Town's National Historic Landmark (NHL) District, of which there are only four in Maryland. The State Highway Administration has contemplated replacing the aging Chester River Bridge and it is essential that the design for such a replacement complement this landmark entrance, by retaining the low profile and spare architecture of the current bridge, as well as the period lighting fixtures that illuminate the approach into Town. A replacement bridge will provide an opportunity to provide a safer pedestrian and cycling crossing, which are currently inadequate.

The approach from Morgnec Road/Rt. 291 is largely commercial and industrial in nature. Businesses here include the State Highway Administration, Kent County Department of Public Works, Choptank Electric and David A. Bramble, Inc. The proposed Chestertown Bypass will intersect with Morgnec Road just west of the Choptank Electric Cooperative Regional Operations property, over land owned by David A. Bramble. As the Bypass is intended to have a bicycle lane and pedestrian sidewalk, Morgnec Road leading up to this intersection will have to be redesigned to accommodate a bicycle lane and sidewalk into Chestertown, most likely on the north side of the road to avoid the commercial driveways to the businesses located on the south side of the road. Street trees and lighting are encouraged to create a more safe and attractive roadway.

The Rt. 213 entrance into Chestertown is, along with the southern approach on the same highway, the busiest of the gateway entrances. The proposed Chestertown Bypass terminates at the intersection with Worton Road/Rt. 297. As with the Morgnec Road/Chestertown Bypass intersection, Rt. 213 will have to be modified to accommodate a bicycle path and sidewalk that will connect to the Bypass, with street trees and light fixtures to create a more attractive and safe roadway.

Roads

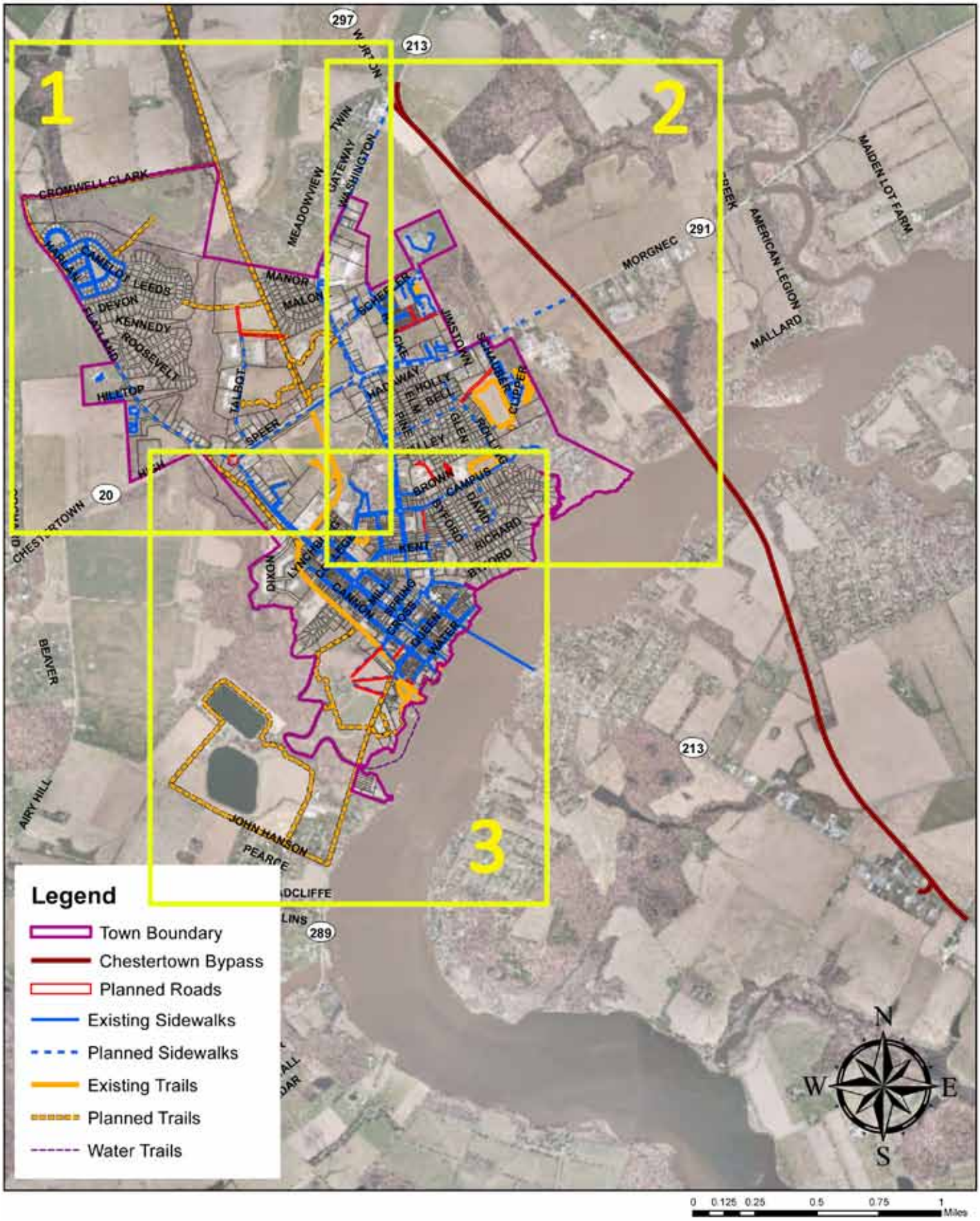
The map on pages 51 divides Chestertown and its surrounding area into three sections that are shown in

greater detail in the maps that follow. It should be noted that the proposed roads into Stepne Manor and the extension of Talbot Boulevard are hypothetical only, and that actual road designs will depend on the design of any future developments and Washington College's sub-area plan for Stepne and College-owned waterfront parcels.

For Stepne, it is desirable to preserve sight lines to the Chester River, the historic farm house, and Cross Street. For Talbot Boulevard, it is assumed that a road will have to extend into the north parcel (zoned R-4) that is slated for residential development, and that an east-west extension from Talbot Boulevard to the Foxley Manor subdivision could facilitate access to Washington Avenue and improve the circulation of traffic for any new development.

The proposed roads in Section 2 are likewise designed to facilitate traffic circulation and to relieve pressure on existing residential streets. In Section 3, Twilley Lane will connect Cannon Street and Cross Street Extended, and will recreate a roadway that existed during the early part of the 20th Century.

View from Chester River Bridge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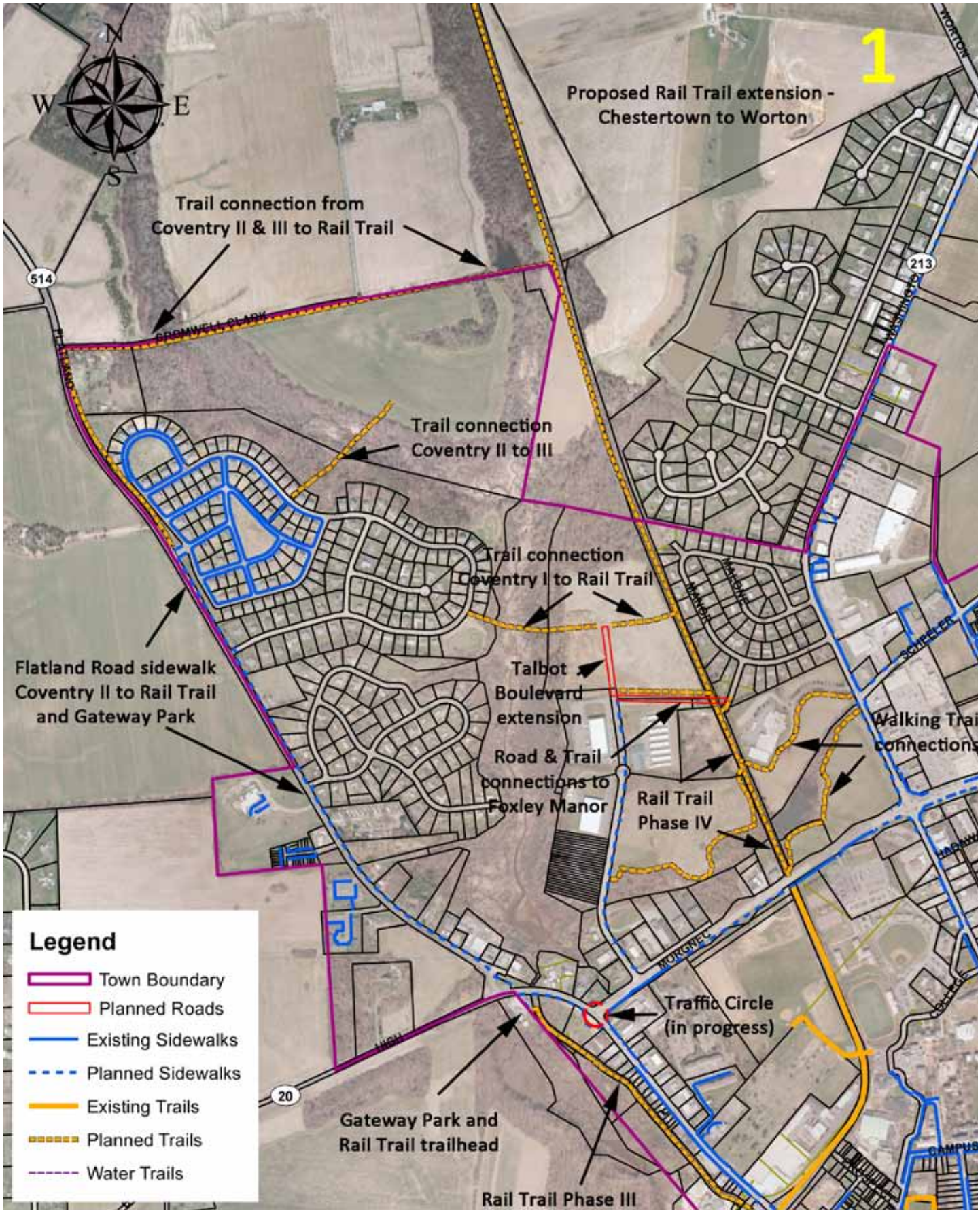
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Proposed Rail Trail extension - Chestertown to Worton
Trail connection from Coventry II & III to Rail Trail
Trail connection Coventry II to III
Trail connection Coventry I to Rail Trail
Flatland Road sidewalk Coventry II to Rail Trail and Gateway Park
Talbot Boulevard extension
Road & Trail connections to Foxley Manor
Rail Trail Phase IV
Walking Trai connections
Traffic Circle (in progress)
Gateway Park and Rail Trail trailhead
Rail Trail Phase III
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Legend
Town Boundary
Planned Roads
Existing Sidewalks
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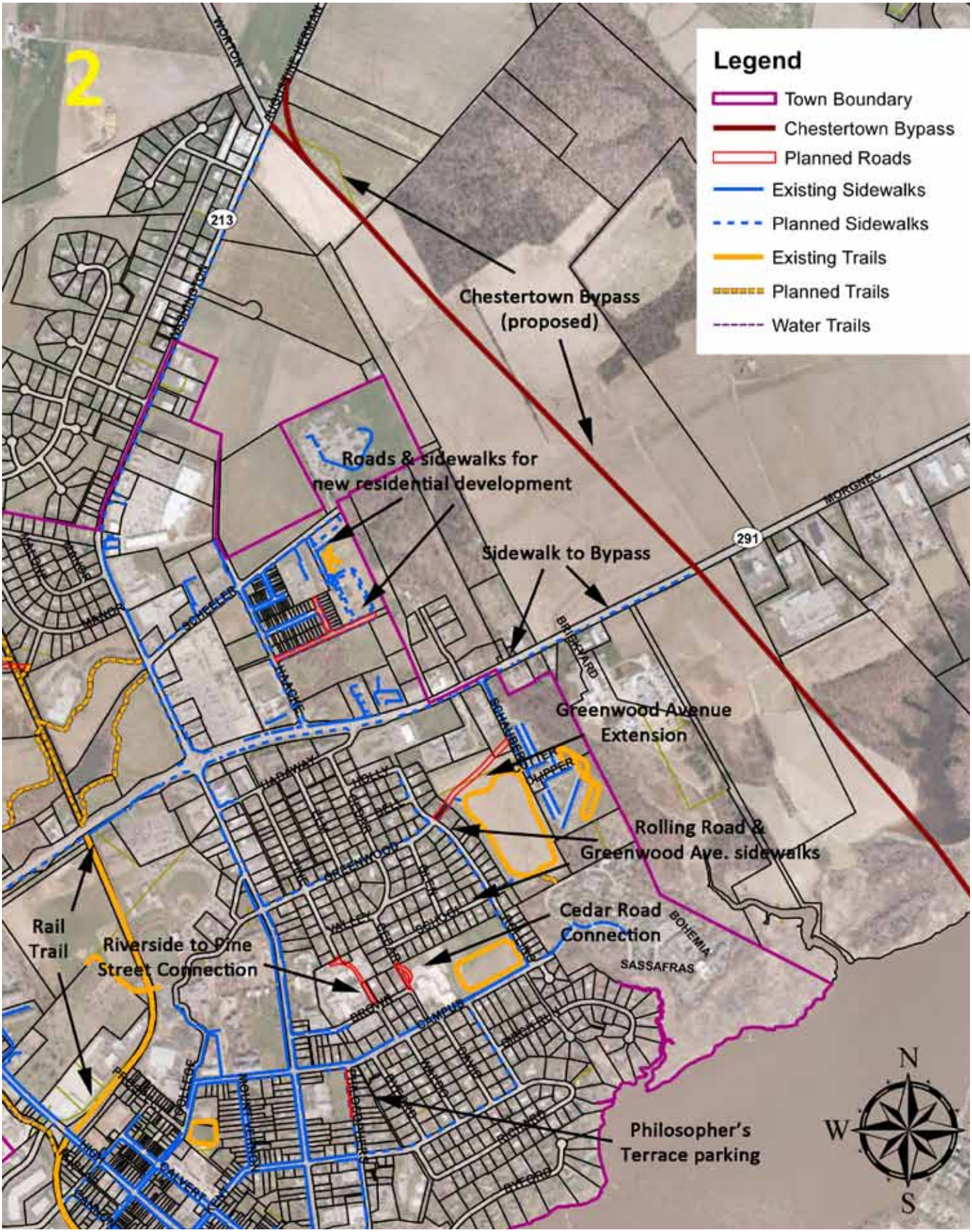
Existing Trails
Planned Trails
Water Trails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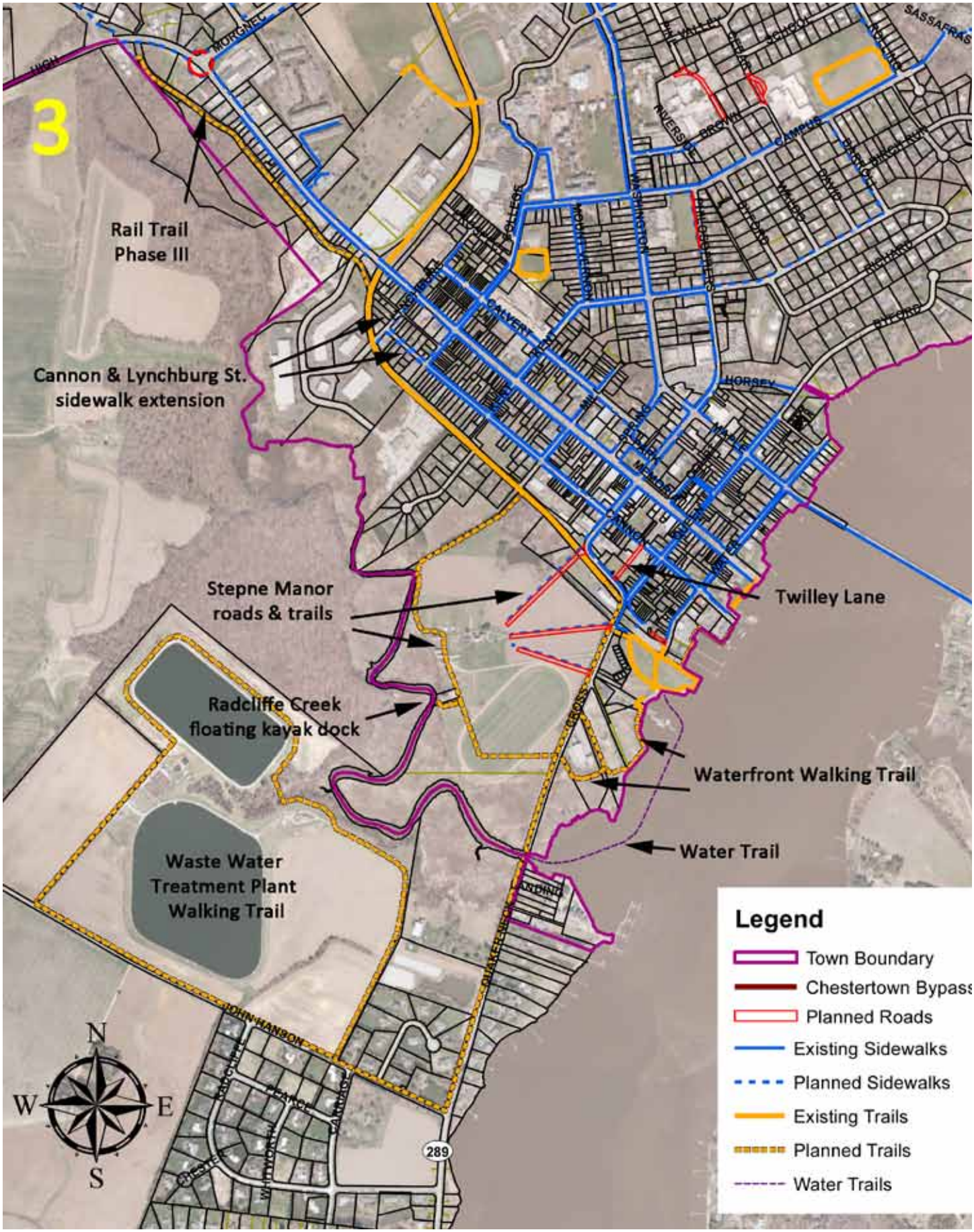
Legend
Town Boundary
Chestertown Bypass
Planned Roads
Existing Sidewalks
Planned Sidewalks
Existing Trails
Planned Trails
Water Trails
Chestertown Bypass (proposed)
Roads & sidewalks for new residential development
Sidewalk to Bypass
Greenwood Avenue Extension
Rolling Road & Greenwood Ave. sidewalks
Cedar Road Connection
Rail Trail
Riverside to Pine Street Connection
Philosopher's Terrace parking
213
291
N
S
W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Rail Trail
Phase III
Cannon & Lynchburg St.
sidewalk extension
Stepne Manor
roads & trails
Radcliffe Creek
floating kayak dock
Waste Water
Treatment Plant
Walking Trail
Twilley Lane
Waterfront Walking Trail
Water Trail
Legend
Town Boundary
Chestertown Bypass
Planned Roads
Existing Sidewalks
Planned Sidewalks
Existing Trails
Planned Trails
Water Trails
N
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289

Bicycles

The Town supports increasing the use of bicycles as a mode of transportation in the Town, primarily through the expansion of the Chestertown Rail Trail and the creation of bike lanes on primary thoroughfares where feasible.

Bicycle racks are now being provided in several locations around Town, and these will be expanded as demand increases. The Town encourages businesses to provide bicycle racks on a voluntary basis in appropriate, approved locations.

Bike-legal surfaces in the Town include all public streets but not sidewalks.

Trails

The Chestertown Rail Trail, the waterfront trail, and the Radcliffe Creek Water Trail are three main existing or proposed trail systems within Town limits. Additional connecting trails have been proposed or are planned for future developments, such as Stepne Manor, Coventry III, housing and commercial properties on Talbot Boulevard, the Washington College-owned property on the corner of Morgnec Road and Washington Avenue and other areas. All large new development projects are required to provide connections to the Chestertown Rail Trail or connecting trails where feasible.

Public Transportation

Maryland Upper Shore Transport (MUST) promotes and coordinates the community's fixed-route transit service, which is provided by Delmarva Community Service/Transit (DCS/T)and Queen Anne's County Ride. Stops

Gilchrest Rail Trail

in Chestertown include the Kent County Library, Dollar General and Rose's. The bus service has connections to Rock Hall, Centreville and Easton. DCS/T provides seniors over 60 with door-to-door service with 24 hours' notice.

Upper Shore Take-A-Ride (USTAR) provides door to door transportation needs primarily for Upper Shore Aging, as well as Medical Assistance clients, social service agencies and the general public. USTAR operates in Kent, Talbot and Caroline Counties.

A variety of private transportation services are available, including taxi services to regional airports. Washington College operates a shuttle service for students to the Western Shore, with stops including Amtrak and BWI Airport.

Parking

Public parking is currently addressed downtown by on-street metered parking spaces and in Town-owned lots without charge on a "first come" basis. The Town encourages business in the downtown core by keeping the parking cost low and providing as much free parking as possible. The Town has created restricted resident-only parking in several neighborhoods close to the downtown core, Washington College and the Hospital, and may at some point need to restrict parking elsewhere.

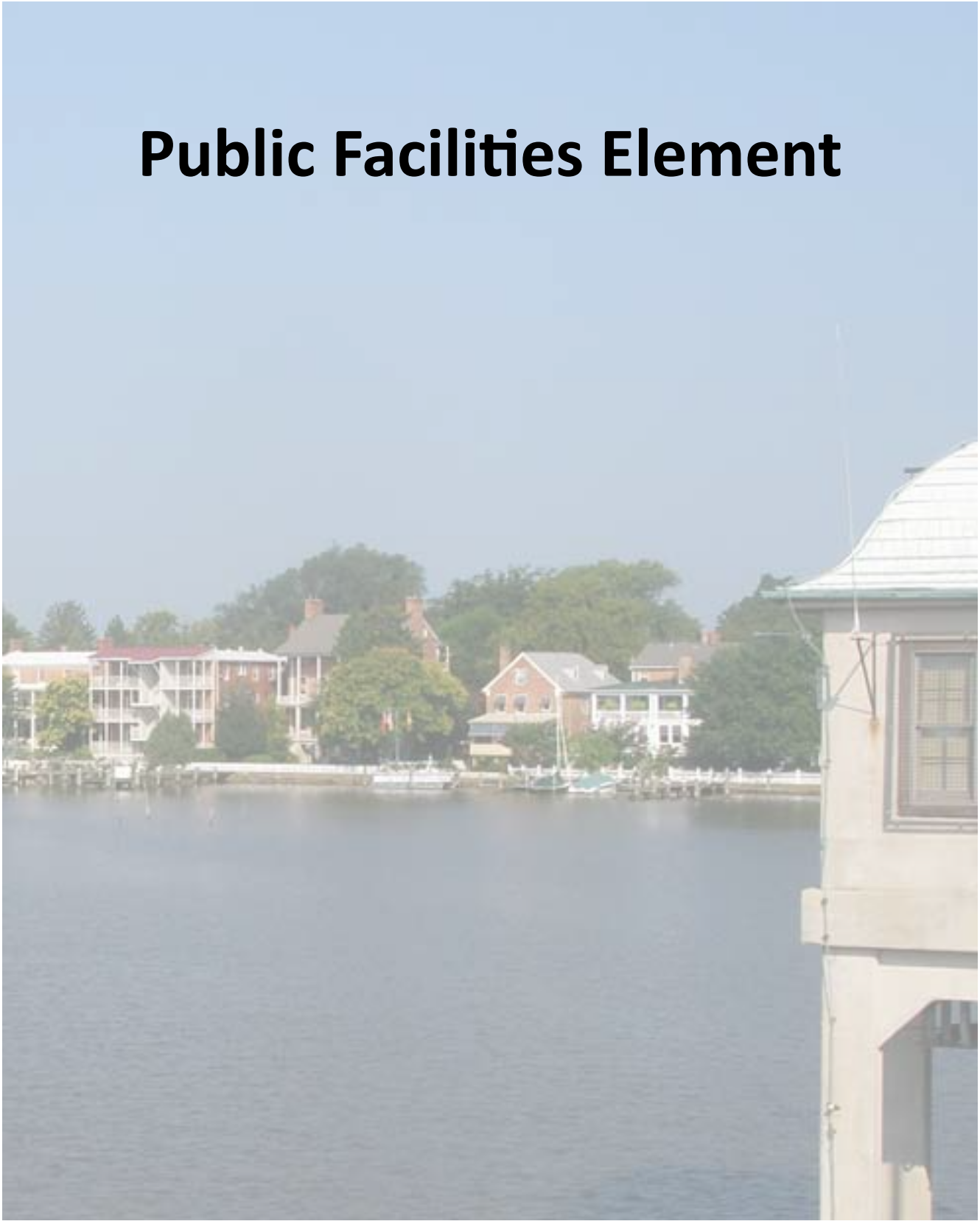
Existing parking lots at Kent Plaza and Washington Square should be redesigned to be more pedestrian friendly. Parking should be provided in clusters, both in front of and behind businesses. Excess unused parking can be converted to landscaped islands that will not only improve the appearance of the lot, but also address current stormwater regulations. Shaded parking spaces, especially during summer months, will encourage more frequent and longer shopping trips at the shopping centers.

Where streetscape improvements are planned, on-street parking clusters should be separated at intervals with landscaping islands that contain shade trees and ornamental plantings. Landscaped "bump-outs" should also be located at intersections to reduce the street cross-section at those locations. This will benefit pedestrians by reducing the distance they have to walk to cross a street as well as act to slow traffic approaching corners. Crosswalks should employ contrasting materials such as bricks or cobblestones that add visual interest as well as providing a "rumble strip" to slow traffic and increase safety.

Street Design Guidelines

It is the Town's intent to foster the creation of pedestrian and bicycle-friendly streets, and to improve access, streamline signage, and increase visual attractiveness, general safety and convenience. New development or redevelopment provides the opportunity to introduce street trees, brick sidewalks, bike lanes and other amenities. A good street network is essential to improving traffic safety, increase people walking and bicycling, reducing vehicular dependence and vehicle miles traveled, and allow more effective emergency response. To this end, cul-de-sac subdivisions, unnecessarily wide streets, and inadequate pedestrian and cyclist amenities are to be avoided. Sustainable street networks support compact development and help to prevent sprawl, thus causing less strain on the surrounding environment. Well designed streets are more economical because they require less infrastructure, and they maximize social and economic activity. Street design guidelines are incorporated into the text for Traditional Neighborhood Development, Institutional District, Commercial, and Neighborhood Commercial sections of the recently revised Zoning Ordinance, Design Principles, Policies & Guidelines for New Construction, Appendix I. Developers will be responsible for building roads and sidewalks to the specifications in the Guidelines.

Public Facilities Element



Introduction

The Maryland Land Use Article requires that Comprehensive Plans include a public facilities element, with the goal of proposing the most appropriate and desirable location, character and extent of public and semipublic buildings, land and facilities in the short and long term.

Water and Sewerage Systems

The Town operates a water supply and sewerage system described more fully in the Water Resources Element in this Comprehensive Plan.

The Town water system supplies approximately 5,000 residents from nine existing wells. The average daily water withdrawal is 709,000 gallons, and the water system has a capacity of 975,000 gallons per day. The reserve capacity of 242,000 gallons, based on an average 250 gallon per household rate of consumption per day, will not be insufficient to meet the projected 2030 population of 7,031. To meet the projected 2030 demand of 1,011,750 gallons per day, an additional well and a second 1.5 million gallon elevated spherical water storage tank will be required, along with some minor upgrades to the water treatment plant.

The Town's wastewater treatment plant (WWTP) was upgraded with a BNR/ENR system in 2007, and treats approximately 723,000 gallons per day. The capacity of the plant is 900,000 gallons per day. The projected 2030 population of 7,031 would increase the demand to 1,025,750 gallons per day, which is 14 percent over the current capacity.

Based on the above information, it is recommended that within the next five years, discussions be initiated with MDE to increase the permitted water withdrawal, and develop plans to expand the WWTP capacity. Strategies for reducing WWTP impacts to the environment, such as nutrient trading and land application, should be explored, and water conservation practices and conservation landscaping should be adopted to reduce the demand for water. New developments will have to pay for infrastructure in order to offset the additional demand, and a Capacity Management Plan should be instituted in order to set aside capacity for infill development. Additional water-saving strategies include cutting grass less often and letting grass grow higher, xeriscaping (landscaping with drought tolerant plants), and implementation of water conservation techniques.

Streets and Sidewalks

The Town's streets and sidewalks are described and discussed more fully in the Transportation Element. With the exception of the State roads – Washington Avenue/Maple Avenue (Rt. 213), Flatland Road (Rt. 514), Morgnec Road (Rt. 291), and Rt. 20 from Morgnec Road heading south towards Rock Hall – all roads within the Town limits are the responsibility of the Town and are maintained by the street crew, who are headquartered in the Town yard at the intersection of Mill and Cannon Streets, formerly the County maintenance yard. This facility's industrial nature, combined with its location within a residential district and adjacent to the Gilchrest Rail Trail, has highlighted the need to move the yard to a new location.

The goal for streets and sidewalks is to improve connectivity and circulation within and between neighborhoods, to create a network of bicycle and pedestrian infrastructure, and in general, to enhance pedestrian access to create safe, ADA accessible sidewalks and crossings throughout the Town. The model for the types of streets and sidewalks that are desired can be found in much of the Historic District, where relatively narrow streets and tree-lined sidewalks with reproduction historic streetlights create pleasant, walkable neighbor-

hoods. Outside of the historic core, the streets become wider, houses are further apart, and in many cases, sidewalks disappear altogether. This creates a car-dependent, auto-centric environment that is inhospitable to pedestrians.

Streets and sidewalks not owned by the State are maintained by the Town Street Department, which has a maintenance yard at 201 South Mill Street, which was formerly used by Kent County, and part of which is used by Sultana Projects for small boat construction and service. The maintenance yard is situated in a residential area, and with the construction of the Rail Trail, there is a strong incentive to move the maintenance yard to a more suitable, preferably industrial location.

Pedestrian and Cycling Trails

Chestertown has an expanding network of pedestrian and cycling trails that originated with the waterfront boardwalk at the foot of High Street and the walking trail at Wilmer Park. The most significant improvement to the Town's trail infrastructure came with the 2012 construction of Phases I and II of the Gilchrest Rail Trail, which extends from Wilmer Park to the Chestertown Bypass (Morgnec Road). The Rail Trail was expanded in 2014 with a spur that runs parallel to High Street, from the intersection of the Rail Trail with High Street to Gateway Park. Phase IV, which extends from the Bypass/Morgnec Road intersection to the Foxley Manor subdivision, will take place in the next two years.

It is hoped that the Rail Trail will in future be extended to Worton and beyond, thus linking the Town to the Worton Community Center and points north.

Public Fire and Safety

- Fire – The Chestertown Volunteer Fire Company is the largest of seven fire companies in Kent County and is completely staffed by volunteers. With fewer volunteers coming into the organization, it is anticipated that the company will have to begin transitioning to a paid staff in the next ten years. The Fire Company's location at 211 Maple Avenue is sufficient for the current demand, but with an anticipated growth in the population of the Town, a satellite location will be needed for additional men and equipment.

- Police – The Town's police force is in the process of relocating to the former Shared Opportunity Services building on High Street. Among the many priorities in the new facility are safe and secure rooms for processing and interrogation, separate holding cells for adults and juveniles, office space for officers and staff, a briefing room that will accommodate the entire force plus visitors, and secure storage areas for weapons, equipment and supplies. Also needed are a secure garage and a fenced, gated parking area for vehicles and equipment, and a bunk area with locker room and showers.

- Ambulance – The Kent and Queen Anne's Rescue Squad is the primary ambulance organization for Chestertown and the outlying rural areas, and is staffed by volunteers. The Rescue Squad is located at 140 Morgnec Road and its facilities are currently adequate.

Recreation

Town-owned recreation areas include Wilmer Park (6.5 acres), Margo Bailey Community Park (18 acres), Gateway Park (11 acres), Washington Park (4.42 acres), Remembrance Park (3.46 acres), and Fountain Park (0.9 acres. The Town also maintains the Gilchrest Rail Trail, which is currently 1.2 miles long with a .6 mile spur

constructed in 2014. There are no plans to expand the number of parks within the Town.

Existing and planned amenities at Town-owned parks include:

- **Wilmer Park** – Wilmer Park was purchased by the Town in 1977. It was the formerly the site of a basket factory and the terminus for the Chestertown Branch of the Philadelphia Baltimore & Washington Rail Road (PB&WRR). It is the Town's most frequently used park because of its prime waterfront location, proximity to downtown, large size, and plentiful parking. The park is rented out by the Town during the warmer months for weddings and parties, and is used for several large community-wide events per year including Chestertown Tea Party, Sultana Downrigging Weekend, Taste of the Town, and the Chestertown Jazz Festival.

  Existing amenities at Wilmer Park include the Lelia Hynson Pavilion, an elevated wood structure that can accommodate approximately 150 people, and which was built by Washington College on Town-owned land. The College uses the Pavilion during the academic year, and the Town rents out the Pavilion for weddings and other events during the summer months. A 1/3 mile paved pedestrian trail weaves around the perimeter of the park and includes benches along the waterfront. Wood bulkheading at the site was recently removed to create a Living Shoreline, which naturally filters runoff pollutants and provides ecological and habitat benefits through the use of native grasses. The Rotary Club constructed an open air pavilion on the north side of the park, which provides shade during concerts, parties, and other events. A demonstration rain garden is the most recent addition to the park, and serves to educate the public about the benefits of on-site stormwater reduction using native landscaping. The parking lot at Wilmer Park is used as a staging area for bicycling and running events.

Wilmer Park entrance at Quaker Neck Road

Planned amenities at the park include the construction of a safe access point for the Gilchrest Rail Trail. Pedestrians and cyclists must cross Quaker Neck Road, which is a busy entrance into Chestertown. One of the main objectives in this area is to slow traffic down along the length of Quaker Neck Road, starting before the Chester River Landing subdivision on the south side of Radcliffe Creek. A National Endowment for the Arts grant was recently used to create a Public Arts Master Plan, and an interactive children't playscape will be constructed at the entrance to Wilmer Park as the inaugural public arts project.

- **Margo Bailey Community Park** – The Margo Bailey Community Park is located between Rolling Road and Schauber Road, and was purchased from Kent and Queen Anne's Hospital in 2000. The property was farmed for many years prior to the Town's purchase.

  Existing amenities at the park include a .6 mile paved walking trail and a recently completed 2 acre dog park. Nearly 200 native trees were planted this year. A demonstration rain garden is located near the Rolling Road entrance.

  Planned amenities include a multi-use playing field, as shown in a conceptual plan created by McCrone, Inc. The access points from Rolling Road and Schauber Road need improvement, as does the parking lot adjacent to Schauber Road. Both of these areas need additional landscaping and stormwater controls. The park would also benefit from a children's playground.

- **Washington Park** – Washington Park is located within the Washington Park development, on the north side of Kennedy Drive. When the community was developed in the 1970's, this parcel had a swimming pool operated by Kent County, which was torn down in the late 1980's. Significant improvements are planned for this park, which has suffered from neglect for many years. It is intended that a recent DNR Community Parks and Playgrounds grant will pay for these improvements.

  Existing amenities at the park include a rundown trail that once led to the swimming pool. A demonstration rain garden is located adjacent to the roadway, and next to it is a dilapidated half basketball court. One picnic table is located at the opposite end of the park.

Remembrance Park from Philosophers Terrace

The planned amenities include a new paved walking trail, improved landscaping and lighting, and a parking lot where the basketball court is currently located. A new half basketball court will be constructed behind the parking area, along with a wood pavilion and children's playground.

- **Remembrance Park** – Remembrance Park is located on Horsey Lane, and is the former site of the Chestertown Stables, where horses and mules were kept in the early 20th Century. One of the Town's wells is located in the center of the park. A tidal and spring-fed stream runs along the north edge of the park, which originates in "Eliason's Hollow," a valley within a residential parcel located at the intersection of Maple Avenue, Spring Avenue (which got its name from the spring), and Washington Avenue. Another spring is located in the bank opposite the park, on the south side of Horsey Lane. The park was built with DNR Community Parks and Playgrounds funds in 2012.

  Existing amenities include paved and oyster shell walking paths, a permeable brick sidewalk and parking area, and native landscaping.

  Planned amenities consist of benches that were included in the original design but never installed.

- **Fountain Park** - FountainPark is Chestertown's oldest park and was originally known as Market Square. The central feature of the park is a fountain that was installed in 1899, depicting Hebe, the goddess of youth. Brick walkways radiate from the fountain to the corners and midpoints of the block in which the park is located. The park is heavily used for many community events, including the Farmers' and Artisans' Markets, Chestertown Tea Party, Music in the Park, National Music Festival, and Christmas Parade.

Fountain Park from Cross Street

Existing amenities include brick pathways, mature landscaping, and parking along the perimeter and next to the Hospital Auxiliary shop.

Improvements to Fountain Park have been developed in the Chestertown Garden Club.

In addition to these Town-owned parks, Kent County Public Schools has a playground and walking trail behind the Henry Highland Garnett Elementary School, and a walking trail behind Kent County Middle School that are accessible to the public. The Middle School also has tennis courts and an outdoor basketball court that are run down and in need of repair.

Chestertown Marina

The Town of Chestertown purchased the Marina in 2012 with the goal of preserving waterfront access for the public. Many improvements are planned for the Marina, including dredging, new bulkheading and landscaping, and floating concrete piers that will be extended 60 feet further into the channel in order to provide berths for deeper draft vessels. Waterfront trails will connect the Marina to the Rail Trail and Radcliffe Creek.

Educational Facilities

- Washington College – Founded in 1782, Washington College is a private institution that has a 112-acre campus and approximately 1,450 students. The College adds immeasurably to the intellectual and artistic climate of the Town. During the comprehensive rezoning of the Town in 2012, Institutional zoning was created to delineate College and other institutional lands within the Town.

- Kent County Schools – Kent County owns and maintains the Henry Highland Garnett Elementary School on Calvert Street, which in 2013 has 250 students in pre-K through fourth grade. The Kent County Middle School, formerly known as the Chestertown Middle School prior to school consolidation, has 450 students enrolled, many of them bussed in from other parts of the County. It is a priority of the Town to improve trail and sidewalk connectivity at both schools so that children can walk to school safely.

- Private Schools – The Chestertown Christian Academy is a K-2 through 12th grade school operated by the Chestertown Baptist Church. The Chester River Adventist Church is grades 3-8 and is operated by the Chestertown Seventh Day Adventist Church.

County Facilities

- R. Clayton Mitchell, Jr. Kent County Government Center, 400 High Street – the Government Center houses the offices of the Kent County Commissioners, Planning Office, Office of Finance, County Administrator, and others.

- Kent County Detention Center, 104 Vickers Drive – Located on the west side of Town, the Detention Center houses pretrial detainees and adjudicated offenders.

- Office of Emergency Services/911, 104 Vickers Drive – OES is located in the basement of the Detention Center, and is the coordinating agency for the emergency response for day-to-day emergencies and natural and technological hazards such as fires, floods, tornadoes, hurricanes, winter storms, chemical releases and terrorism incidents.

Kent County Government Center

- Kent County Courthouse, 103 N. Cross Street – The Courthouse is located in the heart of Chestertown's Historic District, and contains the Circuit Court, District Court, and Orphan's Court. The Courthouse also houses the offices of the Clerk of the Court and Register of Wills.

- Upper Shore Aging, 100 Schauber Road – Upper Shore Aging is a 501(c)(3) that serves Talbot, Caroline and Kent Counties.

- Kent County Public Library, 408 High Street – The Library offers free membership to all Maryland residents and features computers with high speed internet access.

State and Federal Facilities

Chestertown is the county seat of Kent County and is fortunate to have State and Federal facilities in the Town, including:

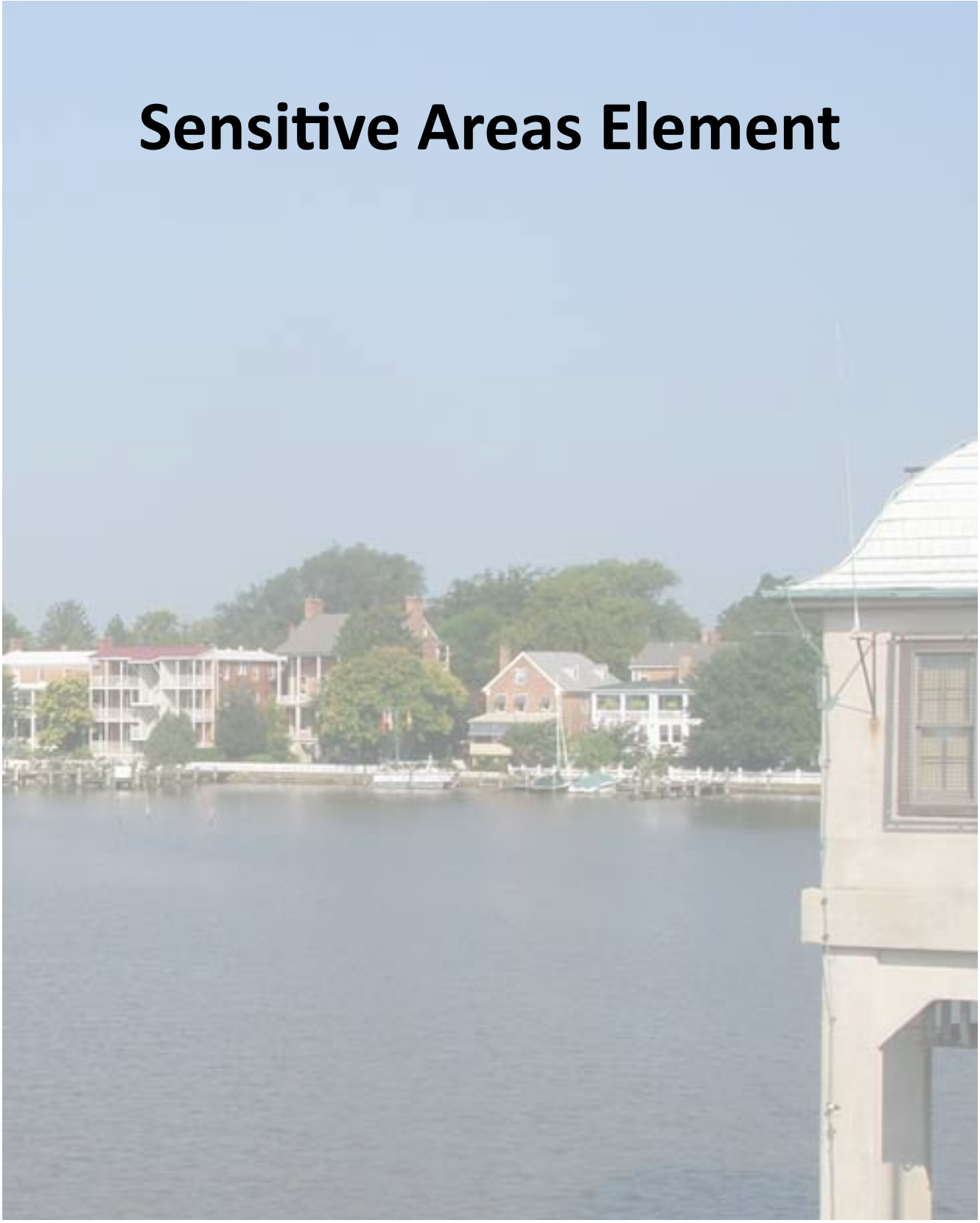
- Maryland Department of Juvenile Services, 315 High Street.

- Office of the State's Attorney, 103 Church Alley.

- Upper Shore Community Mental Health Center, 300 Scheeler Road.

- U.S. Post Office, 104 Spring Avenue.

Sensitive Areas Element



Introduction

The need to protect environmentally sensitive areas is essential for the wellbeing of our community. Destruction or drastic alteration of these areas through insensitive development can be detrimental to social and economic welfare by creating hazards such as flooding, destruction of groundwater supplies and degrading water quality of streams and rivers. It can also affect the economic vitality of the Town by negatively impacting the natural beauty that is essential to maintaining a high quality of life while attracting tourists and new businesses to the Town.

The Maryland Land Use Article requires that the Comprehensive Plan address protection of the following four sensitive areas: 1) 100-year floodplain, 2) streams and buffers, 3) habitats of threatened and endangered species and 4) steep slopes. This element also addresses nontidal wetlands, agricultural easements and forest conservation. Finally, it includes an important section entitled Additional Action Plans.

100-Year Floodplain

As described in the town's Floodplain Management Ordinance (repealed and replaced April 7, 2014), Chapter 81, floodplains are important assets that provide vital functions such as temporary storage of floodwaters, moderation of peak flood flows, maintenance of water quality, groundwater recharge, prevention of erosion, habitat for diverse natural wildlife populations, recreational opportunities, and aesthetic quality. Floodplains are by definition subject to periodic flooding. They are characterized by relatively flat topography and soil types that were laid down during past inundations. Generally, prohibition of development within the 100-Year Floodplain has the greatest potential for achieving environmental and resource protection goals. Restricting these areas within the Town from further development will also serve to protect against the loss of life and property.

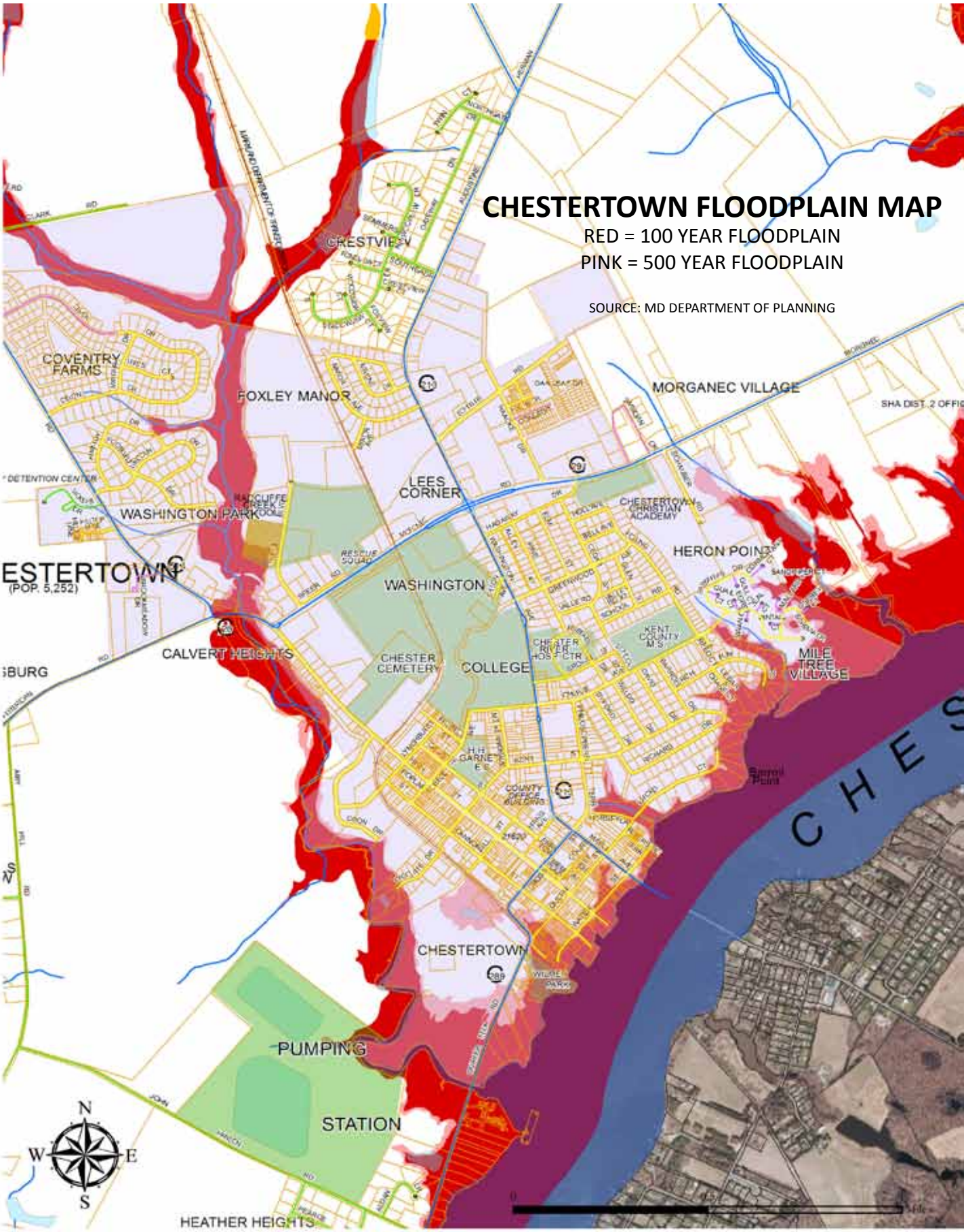
The 100-Year Floodplain is shown on the adjoining graphic based on the Flood Insurance Rate Map (FIRM) prepared by the Federal Emergency Management Agency (FEMA). The Town's Floodplain Ordinance contains details concerning the regulations governing of the floodplain, which includes a 100 foot buffer that extends beyond the limits of the floodplain.

It is the Town's goal to protect the 100-Year Floodplain from adverse effects of development by halting further development in the plain and encouraging Town acquisition of properties in the plain, so that these areas can be returned to an undeveloped state.

Streams and Their Buffers

The Chester River and Radcliffe Creek are fed by several perennial and intermittent streams, including Radcliffe Creek, which forms much of the Town's western boundary. These streams are an important component of the Town's undeveloped areas and serve several functions. They receive stormwater runoff, serve as habitat for many aquatic and terrestrial plant and animal species, and contribute to the quality of the Town's water resources. They contribute to the Town's environmental health by serving as pathways for transport of sediments and nutrients and promoting biological diversity by interconnecting ecological systems.

Development in the Town has resulted in significant impacts to streams and buffers. As areas of open land were built upon, new impervious surfaces, forest clearing and intensified human activity increased pollution, storm water runoff and sedimentation in streams. Maintaining the health of streams is dependent on many factors throughout the watershed; however, buffers are a critical component of the stream ecosystem. A


CHESTERTOWN FLOODPLAIN MAP
RED = 100 YEAR FLOODPLAIN
PINK = 500 YEAR FLOODPLAIN
SOURCE: MD DEPARTMENT OF PLANNING
CRESTVIEW
COVENTRY FARMS
FOXLEY MANOR
MORGANEC VILLAGE
LEES CORNER
WASHINGTON PARK
CHESTERTOWN CHRISTIAN ACADEMY
HERON POINT
ESTERTOWN
(POP. 5,252)
WASHINGTON
CALVERT HEIGHTS
CHESTER CEMETERY
COLLEGE
KENT COUNTY MS
MILE TREE VILLAGE
CHESTERTOWN
PUMPING
STATION
HEATHER HEIGHTS
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healthy stream with steady base flow, natural bends, adequate shade cover, an integrated combination of deep pools and slow moving runs, and wide well-vegetated buffers provides the optimum water quality, habitat and ecosystem benefits.

The quality of streams and their buffers directly impacts Radcliffe Creek and the Chester River. Excess nutrients, sediments and pollutants from developed lands in the Town can contribute to over-nutrification and excess turbidity. These conditions adversely impact water quality and the health of bay grasses, fish and shellfish that are important to the economy and quality of life for residents and visitors.

The Town will not allow new development within stream buffers and will prohibit alteration of streambeds or stream banks, except for Best Management Practices (BMP's) to reduce erosion or stabilization, such as Living Shorelines and stream restoration projects. It will prohibit disturbance of natural vegetation within buffers, including tree removal, shrub removal, clearing, burning or grubbing. The Town will require Planning Commission review of development proposals in which applicants provide information concerning location of streams and stream buffers with respect to proposed developments. Future development should treat surface runoff prior to surface discharge through the use of innovative stormwater management practices such as Regenerative Stormwater Conveyances (RSC's) or Step Pool Conveyances (SPC's). To protect downstream habitat, development projects should include green infrastructure to include rain water reuse through rain gardens, reduction in impervious surfaces, tree plantings, innovative stormwater management systems, downspout disconnections, bioswales, and permeable pavements.

Critical Areas and MDE Tidal and Non-Tidal regulations provide the basic framework for decisions impacting stream buffers. Variances from the strict application of the stream buffer requirements may be granted by Chestertown's Board of Appeals only where it can be demonstrated that the existing lot size or configuration creates an undue hardship that prevents reasonable use of the property. Nonconformities created by buffer requirements may be maintained and repaired so long as the "encroachment" is not increased beyond the existing structural footprint. Water-dependent uses may be exempt from the buffer requirement.

Habitats of Threatened and Endangered Species

The physical and biological features of certain areas are uniquely conducive to the maintenance, expansion and long-term survival of threatened and endangered species. These features — which include the structure and composition of vegetation, faunal community, soils, water chemistry and quality and geologic, hydrologic, and microclimatic factors — comprise "habitats." Protection of threatened, endangered and locally rare species is grounded in ethical and cultural reasons for preservation of all species, regardless of their known value to humans. This ethic is part of the current emphasis placed on conserving biological diversity. The key to protecting rare, threatened and endangered species is protecting their natural habitats from human disruption.

The Natural Heritage Program (NHP) at the Maryland Department of Natural Resources reports that there are no known habitats of threatened or endangered species located within the boundaries of the Town of Chestertown. It is possible, however, that habitat areas may be discovered in the future, or may be present on future annexation sites. At such time as these areas are identified, goals, objectives and policies will be prepared for each site. This work would be conducted in coordination with the NHP.

The Town's Critical Area Ordinance also addresses habitat issues and is incorporated by reference. The Chesapeake Bay Critical Area is defined in State law as including the Bay, its tributaries and all lands located within 100 feet of tidal waters and the head of tide. Chestertown has administered a Chesapeake Bay Critical Area

program, prepared and adopted in accordance with State regulations, since 1986.

Steep Slopes

Most of Chestertown is relatively flat, and slopes are generally less than 10 percent. Localized steep slopes border the stream channels along Radcliffe Creek and portions of the Washington Park residential development area. Most of these areas are protected by the Comprehensive Plan's goals for stream buffers. However, there may be a few localized areas where slopes exceed 25 percent.

Preservation of steep slopes adjacent to water courses protects water quality and aquatic habitat. Preserving vegetation on steep slopes can minimize flooding, landslides, upland slumping, erosion and pollution. Conservation of the biodiversity that characterizes these areas is an important consideration in steep slope protection.

The Town's goal is that development will be directed away from areas of steep slope and that the most prominent slopes and those in greatest need of stabilization will be carefully managed. The Town will prohibit unnecessary disturbance of developed steep slopes, it will identify specific steep slope areas near Radcliffe Creek that need priority attention via stabilization and wise management and will develop Best Management Practices and mitigation techniques to be implemented on sites where disturbance to steep slopes cannot be avoided.

The Town will demand topographic information review on all subdivision and site plans; it will prohibit new development on steep slopes greater than 25 percent unless it can be demonstrated that the stability of the slope will be improved and that adverse environmental impacts will be mitigated. It will prohibit new development on slopes greater than 15 percent where highly erodible soils are present, unless it can be demonstrated that the stability of the slope will be improved and that adverse environmental impacts will be mitigated.

Non-Tidal Wetlands

Nontidal wetlands include important environmental conditions that support plant and animal habitats important to the rural landscape. As a step toward achieving sensitive areas protection and developing an environmental stewardship ethic in all residents, nontidal wetlands have been added to the list of conditions that should be protected from development impacts. This Plan expands local protection of nontidal wetlands to include those located outside the Chesapeake Bay Critical Area. The Maryland Department of the Environment also has a Non-tidal Wetlands Program and the U.S. Army Corps of Engineers maintains primary jurisdiction over these lands. Because Federal and State regulations govern non-tidal wetlands, and wetlands have implication for limiting and shaping growth patterns, the Town has identified locations of nontidal wetlands mapped on the National Wetlands Inventory in the area. Identification of wetlands and buffers will be part of the development review process.

Agricultural Easements

Agricultural Easements are an important tool for protecting both environmental quality and the character and quality of life enjoyed by Chestertown residents. Easements are owned and administered by a number of organizations, including MALPF (Maryland Agricultural Land Preservation Foundation) and MET (Maryland Environmental Trust). The open agricultural character of adjoining areas defines the location and appearance of the Town within the overall fabric of the County. From that perspective, preservation of agricultural land and the

agriculture economy in the region is viewed as a sensitive areas issue. From a land use perspective, agricultural easements also restrict future development and changes in land use. These easements minimize the impacts of man on the landscape and on the environment.

Some land adjacent to town should be available for future growth and development consistent with the goals and objectives of this Comprehensive Plan and the specific recommendations of the Land Use and Transportation elements. This is an issue that the Town will coordinate more closely with Kent County and State officials.

The Town will also continue to maintain open dialogue with landowners near town.

Forest Conservation

Chestertown has adopted a Forest Conservation program and ordinance that conforms to guidelines issued by the Maryland Department of Natural Resources. Any project "disturbance" (including subdivision) that affects more than 40,000 square feet necessitates compliance with the requirements of the Forest Conservation ordinance, which protects existing tree stands, restricts tree removal, and where trees must be removed, requires that trees shall be replaced at a two to one ratio.

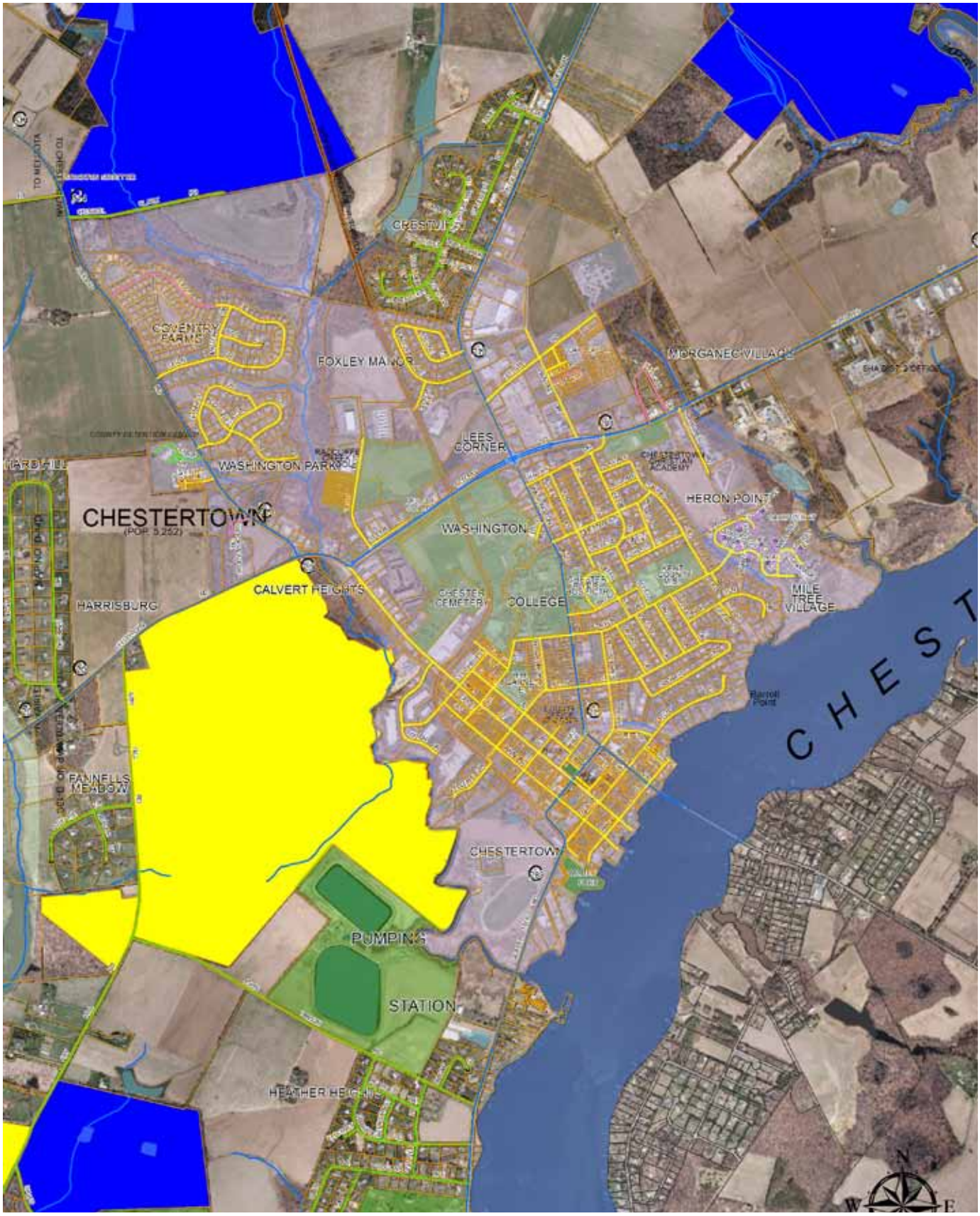
Additional Action Plans

In addition to the steps outlined above for protecting sensitive areas, the Town also intends to do the following within the next five years:

- Target resources toward protection of Radcliffe Creek. Radcliffe Creek has been mentioned repeatedly in this Plan because the waterway has very significant environmental, recreational and tourism value. It must be preserved and its possibilities maximized through coordination with landowners and conservation and nonprofit groups. Plans are currently in place to construct a floating kayak and canoe pier on Town-owned land next to Radcliffe Creek behind Stepne Manor, and the construction of Gateway Park includes stream restoration and a wetland walking trail and observation platform.

- Continue to encourage a Greenbelt within the Planning Area through easements, land purchase and other means that may become available. A Greenbelt of forested, wetland, and agricultural land should be preserved around Chestertown to anchor the Town's sense of place in the landscape and to help protect the Town's existing character. The Greenbelt also preserves essential habitat for plants and animals, and provides for a wildlife corridor essential for some species. The The town will coordinate with Kent County's Department of Planning and other officials for the creation and preservation of the greenbelt.

- Continue to encourage the highest landscape design standards for all development and redevelopment using native species. Design standards will promote "Bayscaping," an environmentally holistic approach to landscaping that encourages native species, water conservation, diversity and creation of wildlife habitat.



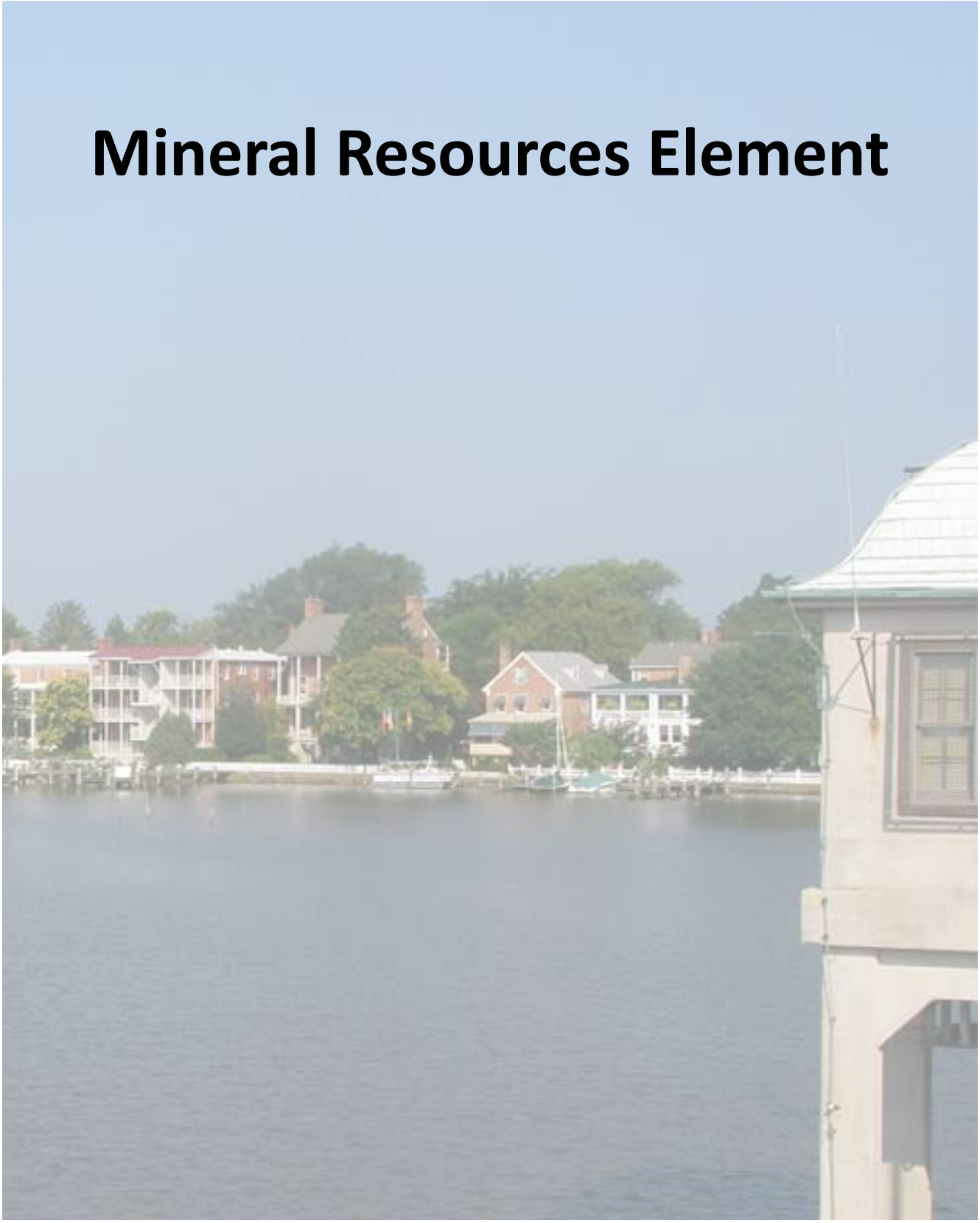
AGRICULTURAL EASEMENTS

BLUE = MD AGRICULTURAL LAND PRESERVATION FUND (MALPF)

YELLOW =MARYLAND ENVIRONMENTAL TRUST (MET)

SOURCE: MD DEPARTMENT OF PLANNING

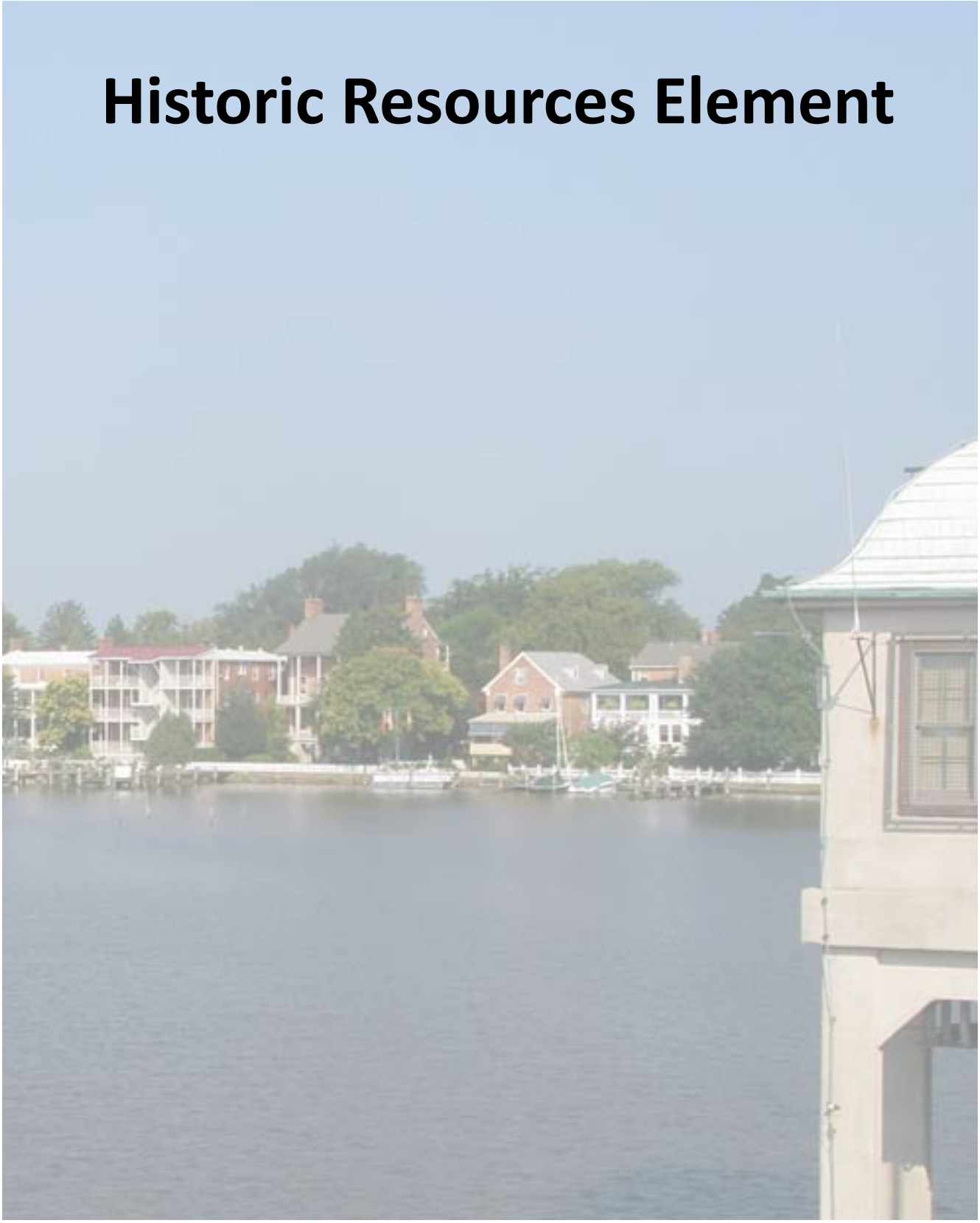
Mineral Resources Element



The Maryland Land Use Article requires that Comprehensive Plans include a plan element on mineral resources. The purpose is three-fold: to identify undeveloped land that should remain undeveloped until the land can be used to supply minerals (as defined by State law); to identify appropriate uses for such lands following the extraction of the identified minerals; and to incorporate land use policies and recommendations for regulations to balance mineral extraction with other land uses and, to the extent possible, prevent the preemption of mineral resources extraction by other uses.

Although brick production took place historically at the Chestertown Brick and Tile Company, located just outside of Town on Morgnec Road, that plant is no longer in production and the site is now occupied by Gillespie and Son, a concrete products company. The current owner has stated that the brick yard closed in part because the clay deposits were depleted.
No other known mineral deposits have been identified in the Planning Area, but if any are found within Town limits, it is anticipated that they would, on a case by case basis, be evaluated for potential extraction and use.

Historic Resources Element



Chestertown was established as the county seat of Kent County in 1706. It became one of the most important towns in the Chesapeake region and was an official Port of Entry for the Province of Maryland during the Eighteenth Century, when it became the chief tobacco and wheat shipping port in the region. Chestertown's prominence and prosperity is evidenced by the fine examples of 18th, 19th and 20th Century residential, commercial and institutional buildings that make up the Town's historic core. Chestertown's collection of extant pre-Revolutionary buildings is the second-largest in the State, after Annapolis. The importance of the town's architectural and historical legacy was the impetus for the creation of a Historic District in 1964, which was subsequently expanded in 1984 and 2007.

The boundary of the current Historic District follows in large part the outlines of the National Register District, which was mapped in 1984 by the Maryland Historical Trust on behalf of the National Register of Historic Places, which is administered by the U.S. Department of the Interior. In addition to the Historic District, there is a smaller National Historic Landmark District, corresponding roughly with the outlines of the Town's 1706 boundaries. The National Historic Landmark program is administered by the National Park Service and recognizes buildings, sites, structures, and objects of national-level historical significance. Of the approximately 85,000 places that are listed on the National Register of Historic Places, only about 2,500 are designated as National Historic Landmarks. The Chestertown National Historic Landmark District is one of only four in Maryland, a testament to its major historic and architectural significance.

The value of Chestertown's architectural legacy has been recognized by the National Trust for Historic Preservation, which named the town one of its Dozen Distinctive Destinations in 2007. "Chestertown is a treasure hidden in plain sight," said Richard Moe, president of the National Trust. "A small, historic and relatively unspoiled Eastern Shore town, Chestertown had the sense to hang on to what makes it so special. The result is a vibrant community that offers travelers an ideal retreat."

A 1999 study into the economic benefits of historic preservation in six historic districts in Maryland, including Chestertown, showed that:

- businesses in historic districts flourish when they capitalize on the district's unique character;
- historic districts are powerful economic development tools that attract new businesses;
- the six districts generated $40.3 million in wages and over 1,600 jobs, based on tourism and construction figures alone; and
- residential and commercial property values in the six districts appreciated on average 28.9 percent faster than properties located just outside of the district in the same community.

The need to protect and preserve Chestertown's historic resources is a fundamental, underlying concept to managing the current and future growth of the Town, as well as its economic stability. Chestertown's character is shaped by its history, its architecture, and its pattern of growth over the centuries. Much attention and effort has been devoted to ensuring that current and future growth decisions reflect sensitivity to the need for compatible scale and character, particularly within and adjacent to the Historic District.

Historic District Commission

In 1963, Article 66B of the Annotated Code (now called the Maryland Land Use Article) was amended to grant

local governments the authority to protect and preserve their historic buildings. The following year Chestertown became one of the first towns in Maryland to adopt a historic preservation ordinance (Chapter 93 Historic Area Zoning). That ordinance defined the Historic District's original boundaries, required review and approval of exterior changes to any building in the District, and established a seven-member Historic District Commission (HDC).

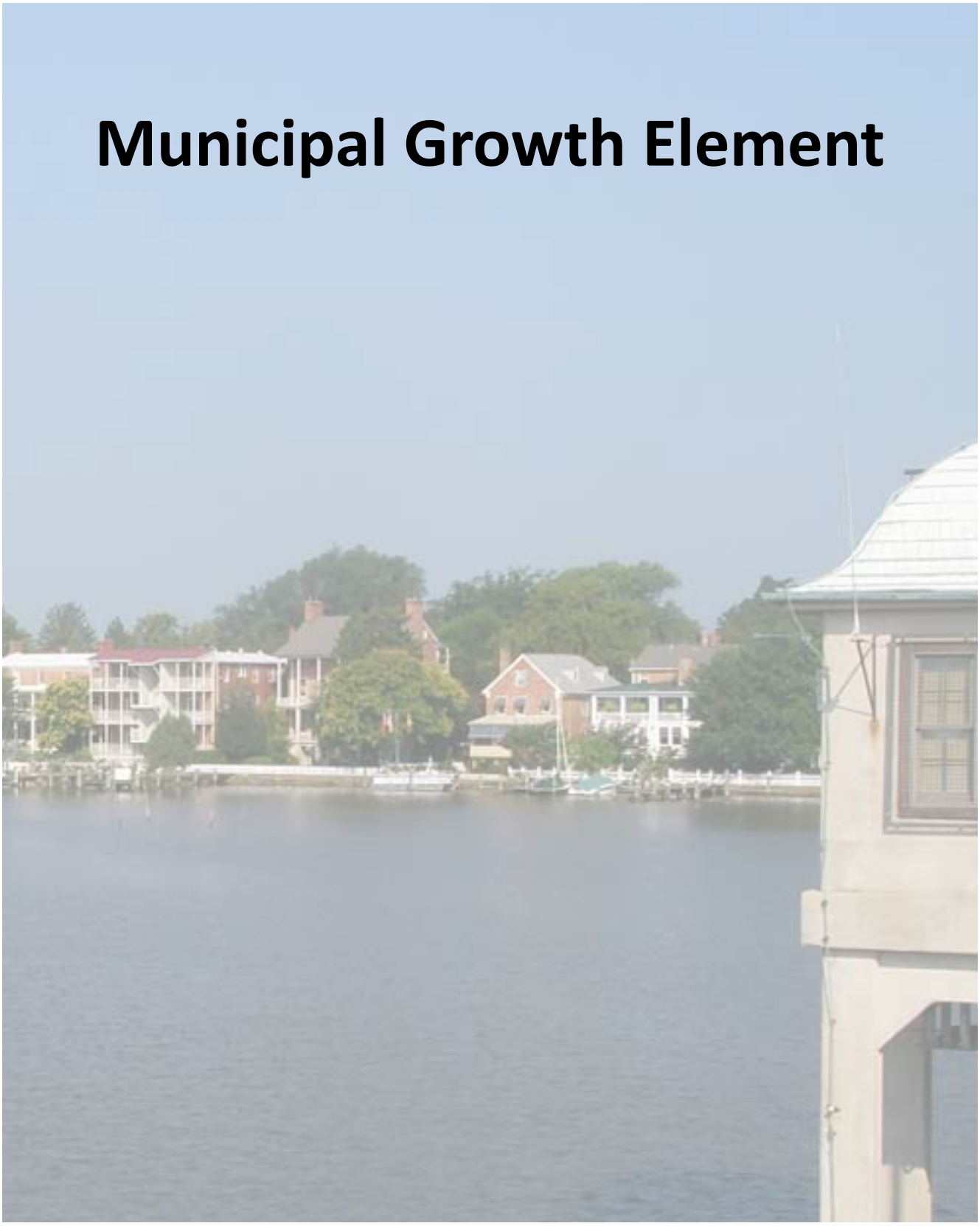
In 2003, the HDC published the Town of Chestertown Historic District Design Guidelines, which provides guidance for the rehabilitation and maintenance of existing structures, new construction and additions, landscaping, signage, and procedures for the moving and demolition of buildings. The Guidelines were revised in 2012 and expanded to include information on energy efficiency and renewable energy systems, including solar power.

High Street commercial district

The HDC reviews all exterior alterations to buildings, and development and redevelopment projects in the Historic District to ensure that these projects do not adversely impact the District. Some of the criteria that the HDC uses in its decision-making process include massing, scale, size, height, setbacks, roof forms, and materials. The HDC's purview – exterior appearance and compatibility with the Historic District – meshes very well, and is complementary to, the Planning Commission's review authority, which includes matters related to zoning, subdivision, and site design.

CHESTERTOWN HISTORIC DISTRICT

Municipal Growth Element



Introduction

The Municipal Growth Element (MGE) is one of two new elements in the Chestertown Comprehensive Plan developed specifically to meet the requirements of Maryland House Bill 1141. The MGE describes where Chestertown intends to grow, both within and outside its existing corporate limits. In combination with other elements of the Comprehensive Plan, it also discusses how the Town intends to address services, infrastructure, and environmental protection needs within the designated Growth Area.

In order for land annexed after September 2006 to qualify for State assistance as a Priority Funding Area (PFA), the MGE must contain an analysis of land capacity available for development, including infill and redevelopment. The Town must develop and share with other planning agencies (State/County) an "Annexation Plan" consistent with the MGE. The MGE provides Town officials with a better understanding of the impacts of growth, and affords a framework for establishing land use and growth management policies going forward.

Future growth in the County and Chestertown will require multi-jurisdictional strategies to address such issues as school capacity, demands on emergency services, public infrastructure and transportation facilities.

The Municipal Growth Element for the Chestertown Comprehensive Plan presents land consumption analysis and impacts on public facilities that will be due to the expected population increase from 4,899 (MDP estimate in July, 2007) to between 6,400 and 7600 residents by 2030. This increase in population is expected to have a substantial effect on the development pattern within the current Town boundaries and those areas designated as growth areas. As the population and housing units increase, there will also be growth in demand for increased services and facilities. Greater demands for water supply and wastewater treatment facilities will require increases in water supply and waste treatment capacity. Pressures on the County school system will be created. Open spaces will need to be created either by municipal purchase or as a result of dedication through approval of development plans. Municipal services to accommodate the increase in population will have to be funded by the Town or other sources.

Growth Trends and Patterns

Chestertown was established as the county seat of Kent County in 1706. It became one of the most important towns in the Chesapeake region during the Eighteenth Century and was an official port of entry for the Province of Maryland. A number of publications and surveys exist on the Town's architecture and history.

The need to protect and conserve Chestertown's historic resources is a fundamental, underlying concept to managing the current and future growth of the Town. Chestertown's character is shaped by its history, its architecture, and its pattern of growth over the centuries. Much attention and effort have been devoted to ensuring that current and future growth decisions reflect sensitivity to the need for compatible scale and character, particularly within the Town's designated Historic District, within the National Register of Historic Places District, and in areas in general proximity to these two districts. The population of Chestertown was modest through early and middle 1900's hovering between 3,000 and 3,500 residents and showing only modest population increases and periodically modest declines throughout most of the 20th Century. Since 1980, new development activity, in the form of recently constructed residential communities and plans for new development, show substantial increases in growth trends. As shown in Table 1, the Town's population grew from 3,300 residents in 1980 to 4,746 by 2000; a 40% increase over the 20 year period.

Table 1: Chestertown Population Growth Trends 1980-2000						
1980	Change 1980-1990	% change 1980-1990	**1990**	Change 1990-2000	% change 1990-2000	**2000**
3,300	705	21.4%	**4,005**	741	18.5%	**4,746**

Source: US Census Bureau

Projected Growth

Population projections to the year 2030 are provided in Table 2. Projections to the year 2020 are the same as those prepared for the 2004 Comprehensive Plan contained in Appendix A to that Plan. This Plan Element provides population projections to the year 2030 to reflect potential growth scenarios extended an additional 10 years beyond the previous projections.

Table 2: Population Projections for Chestertown 2010-2030							
Year	**2000**	**Change/%**	**2010**	**Change/%**	**2020**	**Change/%**	**2030**
Slow Growth	4,746	569 / 12%	5,315	584 / 11%	5,899	590 / 10%	6,488
Medium Growth		712 / 15%	5,458	764 / 14%	6,222	809 / 13%	7,031
"Rapid" Growth		854 / 18%	5,600	952 / 17%	6,552	1,048 / 16%	7,600

Source: 2004 Chestertown Comprehensive Plan (Appendix A) and URS Corporation, 2009
Note: "Rapid" Growth reflects percentages of growth equivalent to trends manifest from 1980-2000

These population projections may be high given more recent trends. For example, the Maryland Department of Planning (MDP) estimated the population for Chestertown to be 4,899 in July 2007. This reflects a modest 3.3% increase for the seven year period between 2000 and 2007.

Infill Development Capacity Analysis

Given the import of the methodology and assumptions selected in estimating development capacity, the following approach was selected to estimate likely future infill development in Chestertown. The approach begins with identifying 25 key vacant parcels of a size that could support infill development, assigning the specific zone classifications to each parcel and calculating expected residential development capacity for each parcel. Selected parcels are shown on Map 1. Results from this parcel by parcel analysis, shown in Table 4, were based on meetings with Town staff to ascertain any specific knowledge they might have regarding prospective development of any of the parcels evaluated. In many cases, the permitted number of residential units was modified to a "forecast" number of units based on this local knowledge and specific assumptions which are noted in the table which established the results of this analysis. Parcels zoned for Commercial or Industrial development were not included in this analysis although they are shown in the table since their future development will place demand on Town Sewer and Water systems capacity. Seven parcels totaling 46.5 acres zoned for Commercial or Industrial use were subtracted from the total to isolate those parcels expected to yield only residential infill development at build-out within the Town's current corporate limits

Results of this analysis indicate that development of these key parcels could result in 880 residential units. Lots or properties that exhibited limited or no development potential that were not included in the analysis of key available parcels for development were then added to this estimate. Assuming infill development on

these smaller parcels may yield an additional 110 residential units over time, a total of 990 future residential units are projected to be built within the current corporate boundaries of the Town. (See Table 3)

Utilizing the 2000 census figure of 1.98 persons per household, the current corporate limits can support an estimated population of 1,961 new residents at build-out. When added to the estimated current population of 4,899 residents (July, 2007 MDP estimate) a total population of some 6,860 residents could be supported within the Town as presently configured.

Given the alternative population projections shown in Table 2, this suggests that soon after the year 2020, the Town may be unable to contain the population projected under the sustained or "rapid" rate of growth scenario in its current boundaries.

A similar conclusion was drawn from the 2004 build-out estimate located in the Land Use Plan element of the Town's Plan (see page 39 of the Plan). Analysis, at that time, concluded the following:

"If the recent "rapid growth" trend continues, as we expect, our available inventory of residential development lands may be consumed between 2010 and 2015. Accordingly, it is appropriate for the Town of Chestertown to embark on a careful and measured program of annexation to ensure an adequate supply of land for growth and development in concert with the growth management principles and Smart Growth visions this Plan is based upon". Priorities for annexation should be determined cooperatively between the Planning Commission and Mayor and Council, ensuring that adequate public facilities are available to support new development as it is proposed. Developers must pay for the capacities they use or expansions that will be necessary".

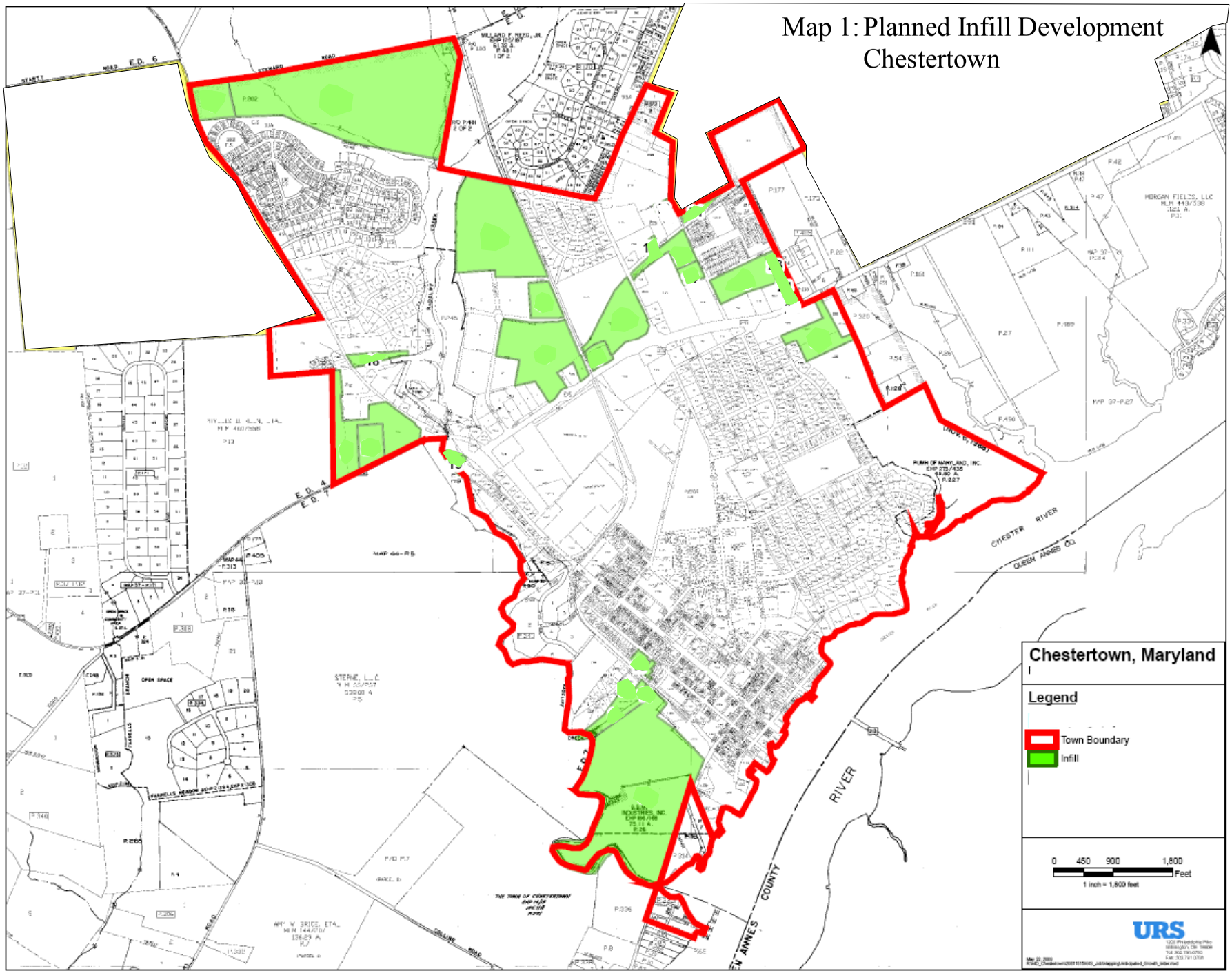
Table 3: Town of Chestertown Vacant Lands Infill Development Analysis

Site No.	Address	Acres	Zoning	Units/Acre	Permitted EDU's/Zoning	Forecast Residential Units
1	Flatland Rd	9.190	R-2	4	36	30
2	329 Flatland Rd	87.340	R-2	4	349	138*
3	Talbot Blvd	37.235	LI-1	Assumes R-4 Zoning		200*
4	201 Talbot Blvd	22.850	LI-1	211,511 building square feet		
5	Morgnec Road	13.029	LI-1	120,603 building square feet		
6	Morgnec Road	2.155	LI-1	19,948 building square feet		
7	900 High Street	15.670	R-4	12	188	56
8	406 S. Cross	70.080	R-4	12	840	260*
9	207 Radcliffe Drive	5.710	R-4	12	68	26*
10	424 Cannon Street	1.620	R-5	12	19	14
11	300 S. Mill Street	0.500	R-4	12	6	2
12	302 S. Mill Street	0.500	R-4	12	6	2
13	501 Morgnec Rd	3.990	R-2	4	15.96	13
14	125 Haacke	9.000	R-4	12	108	50*
15	150 Haacke	2.210	R-4	12	26	19
16	125 Scheeler	2.797	C-1	25,890 building square feet		
17	Haacke Drive	0.900	C-1	9,801 building square feet		
18	140 Scheeler	0.769	C-1	8,374 building square feet		
19	Flatland Rd	2.770	R-4	12	33	12
20	859 High Street	3.100	C-1/LI-2	Proposed Mixed-Use		20*
21	954 High Street	6.020	R-4	12	72	20
22	200 Scheeler Rd	4.000	C-1	37,026 building square feet		
23	410 Morgnec Rd	1.025	R-4	12	12	6
24	Jimstown Circle	1.400	R-4	12	16	6
25	Jimstown Circle	1.320	R-4	12	15	6
Total		**305.180 (258.7 acres forecast for residential use)**				**880**
	Potential units on smaller parcels not included in 25 larger sites					**110**
Total Residential Units (subset of 1,430 EDU's)						**990**

Source: Parcel evaluations by Town Staff and URS Corporation, 2009
* denotes figure provided by Town Manager or staff for projects based on concept plans or approvals in process

Notes concerning assumptions:

1. Forecast residential units column reflects 15% reduction of permitted zoning densities for roads and infrastructure in R-2 district.
2. Forecast residential units column reflects 25% reduction of permitted zoning densities for roads and infrastructure in R-4 district.
3. Forecast edu's (column I) for Stepney Farm (#8) reflects 69% reduction of permitted zoning densities for roads and infrastructure and Critical Area buffer
4. Forecast edu's (column I) for non-residential parcels (zoned C-1,LI-1,and LI-2) reflects 15% reduction in lot area for subdivision when parcels are over 2 acres in size and building square feet not exceeding 25% of lot area due to parking, loading, drives and landscaping requirements
5. Estimated demand in GPD's for non-residential uses will be based on estimated building square feet shown utilizing .1 gallon per square foot, but are not included in Table 4.



Map 1: Planned Infill Development
Chestertown

Impact on Public Facilities

Population growth will have impacts on public services and facilities provided by the Town. Population growth in Chestertown will, in some cases, also impact services and facilities provided by Kent County. The following table summarizes the estimated potential impacts on public facilities and services (Town and County) associated with Town growth. Infill and redevelopment within Chestertown will result in the potential for an additional 990 residential units. The impacts of potential "in-town" growth at build-out for Chestertown are summarized in Table 4.

Table 4: Potential Impacts of "In-Town" Residential Growth on Public Facilities & Services *

Classification and standard used		Infill/Redevelopment Areas
Total Dwelling Units		990
Population @ 1.98 per unit		1,961
Sewer (gallons per day) GPD (250 per dwelling unit)		247,500 (329,151 including Commercial and Industrial Development)
Water (gallons per day) GPD (250 per dwelling unit)		247,500 (329,151 including Commercial and Industrial Development)
School (new students) (.476 per dwelling unit)		472
	-High School (.154 per dwelling unit)	153
	-Middle School (.107 per dwelling unit)	106
	-Elementary School (.215 per dwelling unit)	213
Library (gross floor area) GFA (.25 sf per unit)		248 sq. ft.
Police (personnel) (1.6 officers per 1,000 pop).		3.1
Recreation Land (acres) (30 acres per 1,000 pop)**		59
Fire and Rescue (Emergency Services)		
	-Personnel (one per 500 pop)	3.9
	-Facilities (gross floor area) GFA (.7 sf per pop)	1373 sq. ft.

Sources:

1. Maryland Department of Planning – MDP: Municipal Growth Element Model (Smart Growth lot size, underbuild assumptions, school enrollment multipliers, and recreation land demand);
2. Maryland Department of the Environment – MDE: Water and Wastewater Capacity Management Plans (sewer and water gpd demand estimates – 250 gpd per dwelling unit);
3. American Library Association (library facility square footage multiplier);
4. International Association of Police Chiefs and other organizations (personnel multiplier);
5. 2000 U.S. Census for Chestertown (persons per household) based on descending trend in household size);
6. International City Management Association. (fire personnel multiplier); and National Planning Standard (fire facility square footage multiplier).

* These impacts do not include demands for service prompted by Commercial /Industrial Development unless noted.
** Recreation land standard represents land provided by State, County, and Town.

Infill residential development within the Town's current corporate limits is estimated to produce 990 additional residential units as shown in Table 4. This includes the estimated 880 residential units on 258.7 acres shown in Table 4 as well as 110 units on smaller lots in scattered locations estimated to represent a total of approximately 25 acres. Gross density anticipated as a result of infill development is 3.5 units per acre, in keeping with "smart growth" development principles. Impacts identified in Table 5 include demands on sewer and water, as well as other public facilities and services such as schools, libraries, police, recreation land demand, and fire and rescue (emergency services) based on total projected dwelling units from infill and redevelopment and corresponding projected population increases.

Potential Future Town Growth Within the Town Planning Area

Chestertown's growth will not be limited to areas currently located within the existing corporate limits of the Town. Several locations within the designated Town Planning Area (see Map 002 in the Land Use Plan Element) which are contiguous or proximate to the existing Town boundary have the right to petition for annexation at any time. Town policy is to evaluate any requested annexation on its own merits and to assure growth through annexation is sustainable and does not exceed the capacity of Town infrastructure to support it. Therefore, any annexation will be subject to substantial consideration in keeping with recommended annexation policies identified later in this Element of the Comprehensive Plan. Areas that represent potential growth through annexation and are located within the Town's designated "Planning Area" are shown on Map 2. These areas, in no particular order, include:

- Deer Tracks, located west of Flatland Road, across from Coventry Farms and consisting of a total of 337.11 acres.
- Northeast Area, located east of MD Route 213, and extending north from the present Town limits to a location north of the intersection of MD Route 213 and Route 297 at Hopewell Corner. This area is in several parcels totaling 178.66 acres.
- The Clark Farm, located west of Town fronting on MD Route 291 (Morgnec Road) and extending westward along 291 to include frontage on portions of Morgan Creek. This is the largest of the areas identified. Total land area of these holdings, located on three existing parcels includes 507.15 acres.
- Route 20 Gateway parcel located on the north side of Route 20 between the Orchard Hill Development and Historic Lauretum.
- The Upriver Extension Area, located along Morgnec Road and East/Northeast of Town, which includes both developed and undeveloped lands. Developed lands, most of which are removed from the Riverfront and located along Morgnec Road include the Brickyard, and a range of Business and Industrial uses including farm equipment dealership, contractor's offices, the County Public Works Department, and SHA offices among others.
- Crestview, and existing development located along Route 213 north of the Town.
- The Ozman tract, located between the current corporate limits and the Clark Farm, consisting of approximately 18 acres.

Estimated development potential through possible future annexation and growth in these seven areas is summarized in Table 5.

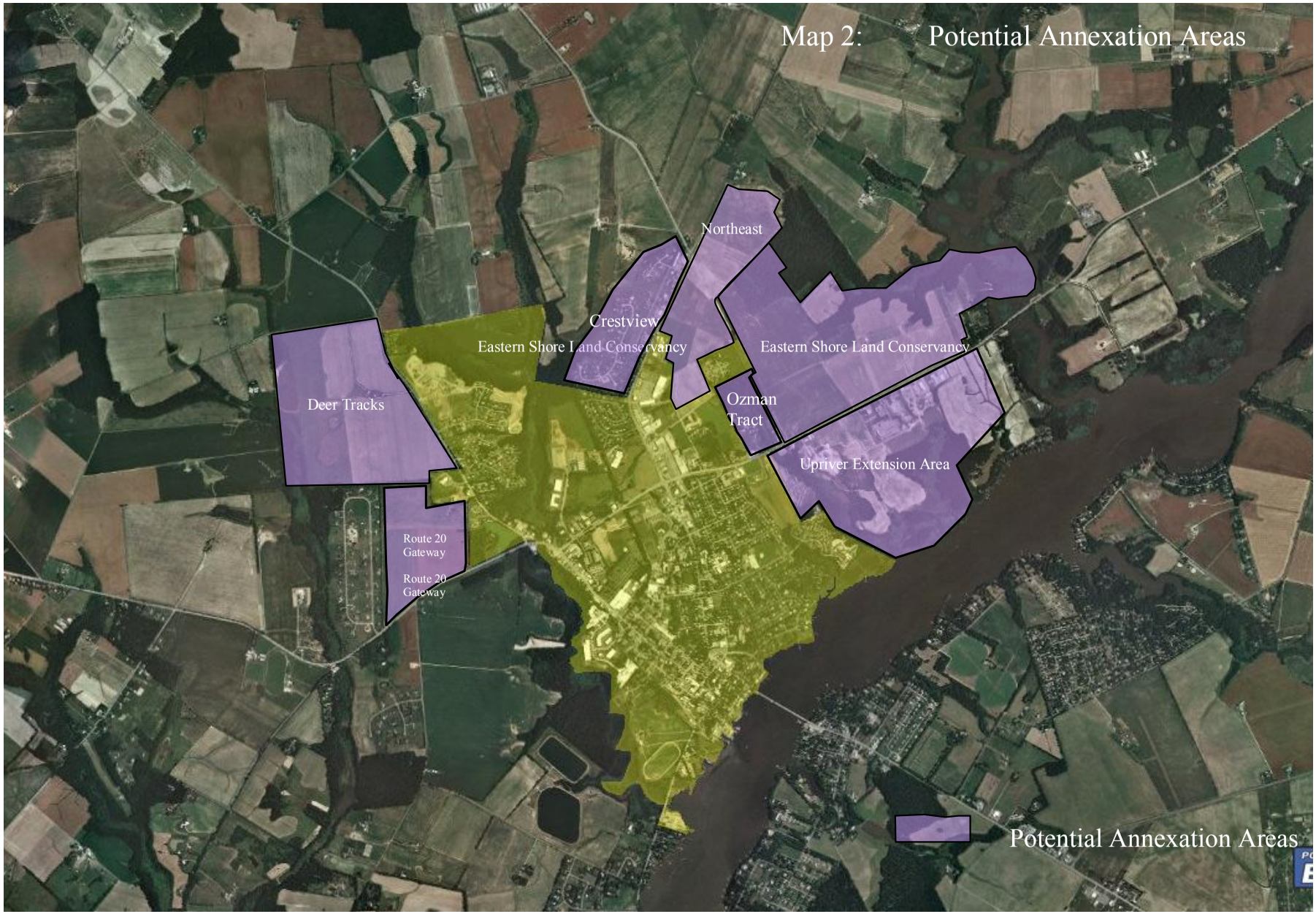

Map 2: Potential Annexation Areas
Northeast
Crestview
Eastern Shore Land Conservancy
Eastern Shore Land Conservancy
Deer Tracks
Ozman Tract
Upriver Extension Area
Route 20 Gateway
Route 20 Gateway
Potential Annexation Areas

Table 5: Projected Growth in Residential Units Through Potential Annexations		
Candidate Annexation Area	**Acres**	**Estimated Future Residential Units**
Deer Tracks	337.11	750
Northeast	178.66	350
Clark Farm	507.15	1,100
Route 20 Gateway parcel	110 (estimated)	200
Upriver extension area	400 (estimated)	180
Crestview	---	No new units (Existing Development)
Ozman Tract	18 (estimated)	20

A portion of the Clark Farm Holdings located within 1,000 feet of Morgan Creek is located in the Chesapeake Bay Critical Area. Likewise, much of the land located in the "Upriver Extension Area" shown on Map 2 is also located in the Critical Area. If annexed, development on portions of these properties will likely require the County and Critical Area Commission approval of the award of growth Allocation within the Critical Area, since both areas are likely designated Resource Conservation Areas (RCA's) under the County's Critical Area Program.

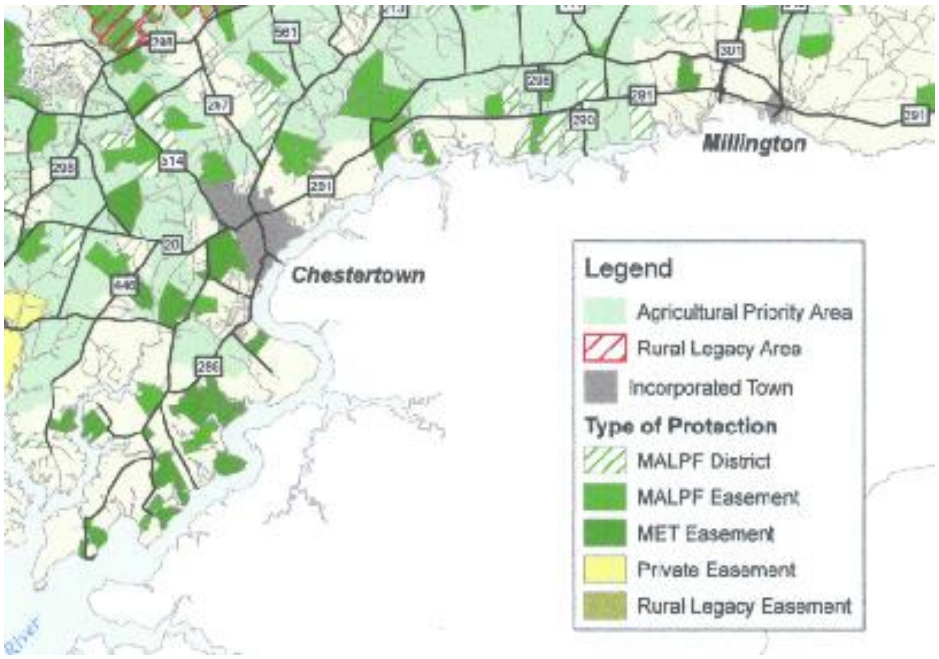
Annexation of more than one or two of these locations in the Chestertown Growth Area is not anticipated within the foreseeable 20 year planning period. However, the Town does anticipate future annexation and development in its more distant future. Chestertown has several reasons in support of the rationale for annexation of these areas at some future point in time including:

- Enabling and requiring Smart Growth densities for new development;
- Protecting the Town's unique identity by controlling the quality of development occurring in and around the Town;
- Requiring development site design that focuses on "place-making" principles;
- Ensuring natural resource conservation and sensitive areas protection consistent with the recommendations of the Chestertown Comprehensive Plan, including the"Greenbelt" concept;
- Requiring appropriate stormwater Best Management Practices (BMP's) to enhance and protect water quality in receiving waters;
- Providing additional alternative access to MD Rt. 213 Bypass, a planned modification to the primary County arterial system.
- Assuring appropriate street system, trail and pedestrian connections between the Town and its future growth areas.

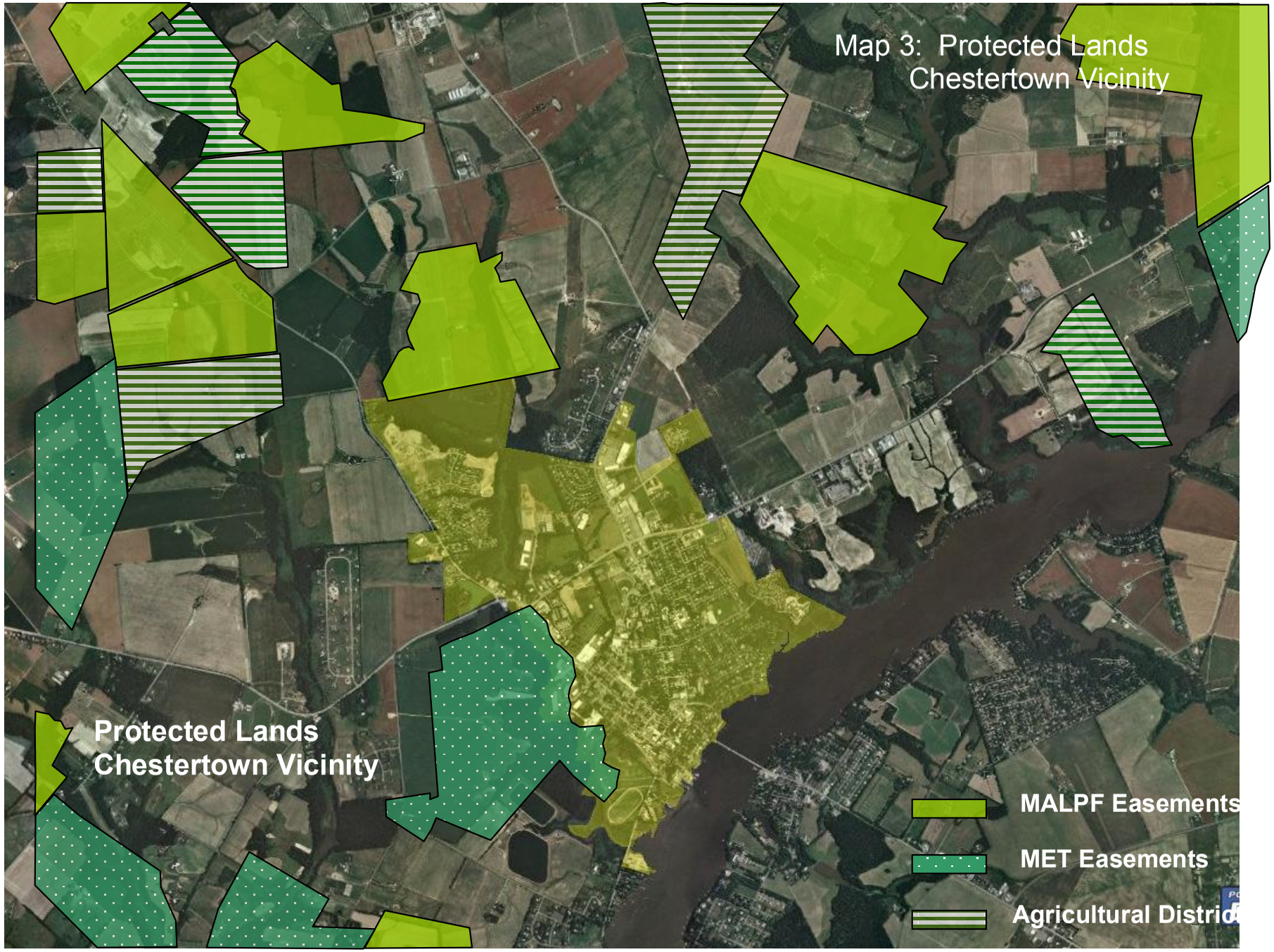
Agricultural Easements

The open agricultural character of adjoining areas defines Town edges and offers contrast between developed Town and rural County. From that perspective, preservation of agricultural land and the agriculture economy in the region is viewed as a means of framing the Town's identity within the larger rural County context. From a land use perspective, agricultural easements also restrict future development and changes in land use. These easements are therefore an important consideration and limiting factor in shaping or defining the potential future growth pattern of Chestertown.

As shown on Map 3, two large parcels, immediately adjacent to Town and also shown as easement lands on the "Protected Lands" map in the Kent County Comprehensive Plan serve to contain growth to the north and west of Town. An additional site located north of Town along MD Route 213, shown as a Maryland Agricultural Land Preservation Foundation (MALPF) District, should also be considered a future prospect for land that may be placed under easement. Additional lands designated as "Agricultural Priority Area" by the County, if placed under easement in future years, would establish a greenbelt defining the Town's edge. The Deer Tracks property, a future candidate for annexation, is one such property designated an Agricultural Priority Area.



Source: Excerpted from "Protected Lands" Map, Kent County Comprehensive Plan, 2006


Map 3: Protected Lands
Chestertown Vicinity
Protected Lands
Chestertown Vicinity
MALPF Easements
MET Easements
Agricultural Distric

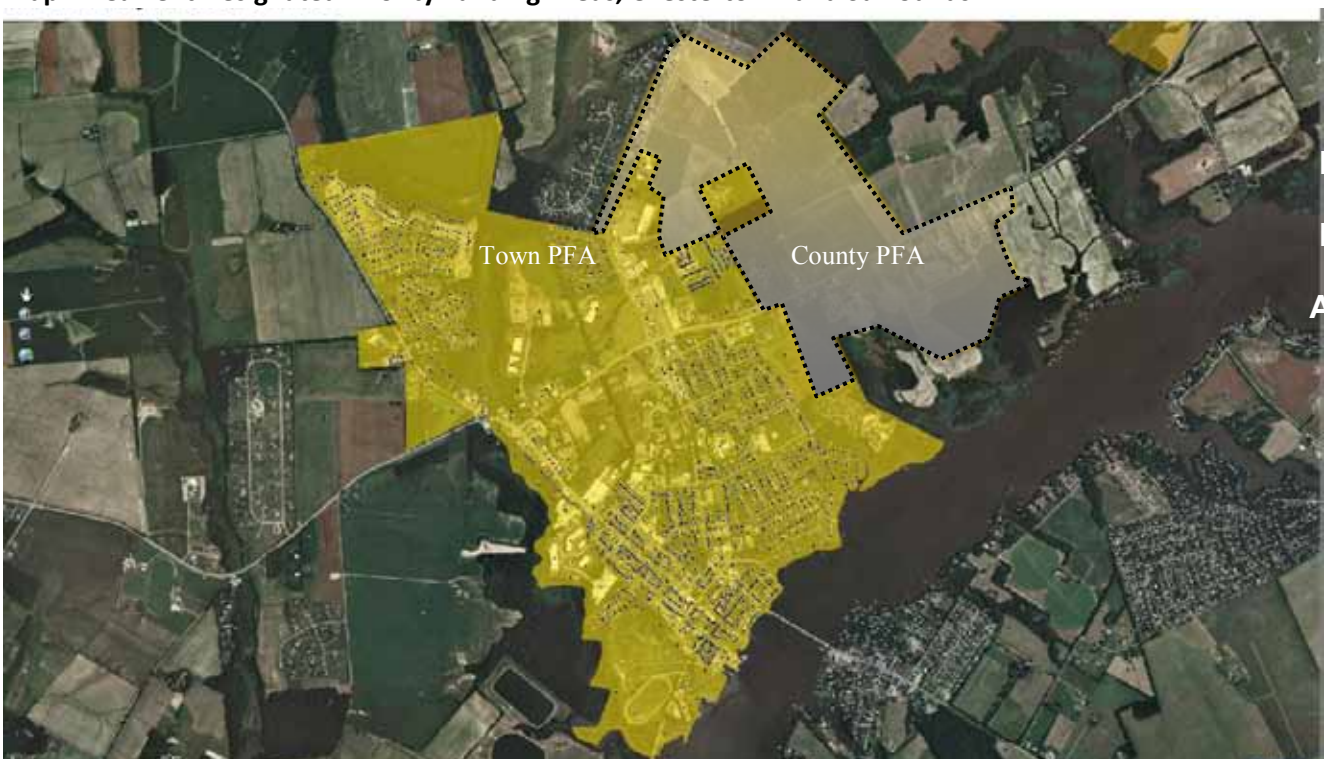
Priority Funding Areas

Chestertown is a designated growth area in Kent County. The region surrounding the Town consists of large agricultural parcels. As noted, several of these parcels are subject to easements held by the Maryland Agricultural Land Preservation Foundation or Maryland Environmental Trust. Nevertheless, substantial land area remains available for future municipal growth. According to the Kent County Comprehensive Plan:

"*The five incorporated towns of Betterton, Chestertown, Galena, Millington, and Rock Hall are the County's principal residential, commercial, and business centers. These towns are the best locations for future growth and development. The primary goal is to encourage development to occur within the designated growth areas (Village Centers and Town Growth Areas) while preserving the existing character of the communities and their historic and cultural features. Each town has its own independent planning and zoning boards, plans, and ordinances. Given the goal of focusing growth into the towns, the County needs to coordinate and support their efforts to manage growth*."

As indicated on Map 4, Chestertown is a "Priority Funding Area" (PFA) within Kent County. The requirement for designating PFAs was established under the 1997 *Neighborhood Conservation and Smart Growth Areas Act* (Smart Growth) and supports the State "Visions" for growth as expressed in the 1992 Planning and Zoning Enabling Act (*Article 66B of the Annotated Code of Maryland*).

Map 4: Current Designated Priority Funding Areas, Chestertown and Surrounds



PFAs are locally designated areas targeted as eligible for State funding. PFA designations include municipalities, rural villages, communities, industrial areas, and planned growth areas to be served by public water and sewerage. The corporate boundaries of Chestertown define the municipal portion of the PFA.

The intent of the State's "Smart Growth" legislation, as well as other recent changes to Maryland laws affecting PFAs, is to marshal the State's financial resources to support growth in existing communities and limit development in agricultural and other resource conservation areas. The designation of new PFAs in the State of Maryland must meet minimum density, water and sewer service and other criteria outlined in the law.

In addition to the Chestertown municipal PFA, there is a County designated PFA located adjacent to the Town in Kent County. This PFA is shown on Map 4 and is generally located North and East of Town. Total land area in the adjacent County PFA is estimated to total approximately 650 acres. It is important to note that as of October 2006, new municipal annexations seeking PFA designation must be submitted to the Maryland Department of Planning (MDP) for "PFA Certification." According to MDP, County properties annexed into the Town that currently have PFA status, do not retain such status and do not automatically become PFAs if annexed. The 2004 *Chestertown Comprehensive Plan* highlights the need for improved inter-jurisdictional coordination primarily with Kent County regarding growth.

Several of these areas where future annexation may be considered include properties not currently identified within the certified PFAs. These include property located west of Flatland Road across from Coventry Farms, and additional lands proposed for annexation by the Eastern Shore Land Conservancy west and adjacent to portions of Morgan Creek. These properties and additional lands to the north located east of the Maryland Route 213 corridor should all be included within the certified County PFA adjacent to Town to facilitate any future annexation and development of these sites. The Town should seek official PFA Certification from MDP for these properties. The primary objective is to assure that the land area designation of Town or adjacent County PFAs corresponds to areas the Town may annex in the future.

Prospective Build-out from Infill and Annexation

Table 6 identifies all expected components of future residential development currently anticipated within Chestertown and the surrounding Planning Area. These components include infill development of 990 units within the current Town limits and the additional residential units attributable to possible future annexations. For those units attributable to annexations, the project units are based on previous development applications and estimates by Town staff. Non-residential development (commercial or industrial) attributable to both in-Town and possible areas to be annexed that should be expected in future years will also be a component of growth and will place demands on infrastructure in future years, but are not shown in Table 6. Figures shown for residential use in annexed areas can only be considered estimates. Actual production of residential units on these properties will be a function of the mix of uses and mix of residential unit types proposed in future plans. The presence or absence of site resources or sensitive environmental features in each location can also be expected to influence residential unit yield on each of these parcels.

Table 6: Estimated Build-out from Infill and Prospective Annexation

Development Location	Development Type	Estimated Acres	Residential Units
Town Infill	Residential	258.7	990 units
Deer Tracks	Residential	337.11	750 units
Northeast	Mixed-use	178.66	280 units*
Clark Farm	Mixed-Use	507.15	1,100 units*
Route 20 Gateway parcel	Residential	110	200
Upriver extension area	Mixed-Use	400	180
Crestview	Residential	---	---

Ozman Tract	Residential	18	20
Total	----	1,809.62	3,520 units

* Residential unit production assumes future Mixed-Use development of the Northeast annexation area and Clark Farm lands with some portion of acres shown committed to non-residential (commercial or industrial) uses. Estimates do not reflect the influence that site features may have to limit densities.

As indicated in Table 6, build-out of all properties shown could result in as many as 3,520 additional residential units in Chestertown at some future point in time. Certainly this is not anticipated to occur over the next 20 to 30 years but these estimates do represent an indication of the possible size of Chestertown in a more distant future. Assuming the population per household remains constant over time at 1.98 persons per household, the population could increase by as many as 7,000 new residents at some future point in time, rivaling the current population of the Town of Easton.

The potential impacts of this long-term forecast for build-out are difficult to assess. Clearly, current public services and capacities of facilities to support development, presently in place, will not satisfy the demands that will be prompted by such growth. Fortunately, the Town, and County will have over 30 years to plan the expansion of infrastructure and public services to support this long-term prospect for build-out as it evolves over time. Nevertheless, it may very likely represent the maximum size of Chestertown some 50 or more years from now, since few remaining areas would be available to support growth through annexation, due in large part, to the Greenbelt around the Town that is forming which will be reinforced with additional easements on lands surrounding the Town over the years.

Assessment of Impacts of Growth Within the 20 Year Planning Period

Table 2 identified a range of potential 20 year growth projections for Chestertown dependent on alternative rates of growth that were considered. This plan element utilizes the Medium growth scenario illustrated in Table 2 as the basis for evaluating potential impacts created by additional demands on public services and facilities required to support growth over the next 20 years. This 20 year projection establishes a realistic time frame to determine demands that can be anticipated within the time horizon of this plan.

This growth scenario indicates that the year 2030 population will be approximately 7,031 residents in Chestertown. Assuming, an estimated current population of 4,950 residents, this growth scenario will result in 2,081 new residents over the next 20 years. Assuming the average household size remains constant over the 20 year period, an estimated 1,051 new residential units are forecast. Potential impacts on a range of services and facilities as a result of this residential and population growth are identified in Table 7.

Table 7: Potential Impacts of Forecast Growth on Public Facilities & Services * 2009-2030		
Classification and Standard Used		**Estimated Growth in Service and Facility Demands 2009-2030**
Total increase in Dwelling Units		1051
Population increase @ 1.98 per unit		2,081
Sewer (gallons per day) GPD (250 per dwelling unit)		262,750 (302,750 including Commercial and Industrial Development)*
Water (gallons per day) GPD (250 per dwelling unit)		262,750 (302,750 including Commercial and Industrial Development)*
School (new students) (.476 per dwelling unit)		500
	-High School (.154 per dwelling unit)	162
	-Middle School (.107 per dwelling unit)	112
	-Elementary School (.215 per dwelling unit)	226
Library (gross floor area) GFA (.25 sf per unit)		263 sq. ft.
Police (personnel) (1.6 officers per 1,000 pop)		3.3
Recreation Land (acres) (30 acres per 1,000 pop)**		62.4
Fire and Rescue (Emergency Services)***		
	-Personnel (one per 500 pop)	4.2
	-Facilities (gross floor area) GFA (.7 sf per pop)	1,457 sq. ft.

Sources:

1. Maryland Department of Planning – MDP: Municipal Growth Element Model (Smart Growth lot size, underbuild assumptions, school enrollment multipliers, and recreation land demand);
2. Maryland Department of the Environment – MDE: Water and Wastewater Capacity Management Plans (sewer and water gpd demand estimates – 250 gpd per dwelling unit);
3. American Library Association (library facility square footage multiplier);
4. International Association of Police Chiefs and other organizations (personnel multiplier);
5. 2000 U.S. Census for Chestertown for persons per household assumed constant throughout the planning period.
6. International City Management Association (fire personnel multiplier) and National Planning Standard (fire facility square footage multiplier).

* Estimated Sewer and Water demand in GPD's for non-residential uses assumes construction of 400,000 square feet of commercial or industrial space through the 20 year planning period and that demand will be approximately .1 gallon per day per square foot.

** Recreation land standard represents land provided by State, County, and Town.

*** Assessment of demand for Fire and Emergency Services factors only growth in Town population. Actual demands may be greater since services by these providers extend to County areas beyond the Town.

Sewer

The Town wastewater treatment plant (WWTP) is newly constructed in 2008 and utilizes Enhanced Nutrient Removal (ENR) technology. It can be characterized as an activated sludge plant with effluent denitrification filters and effluent disinfection by chlorination. Effluent is then de-chlorinated, re-aerated and discharged to the Chester River. The plant presently treats an average yearly flow of 723,000 gallons per day (gpd). The treatment facility has a design capacity for treatment of up to 1.5 MGD. The current Maryland Department of Environment permitted design treatment capacity of the plant is 900,000 gpd. With projected growth over

the next 20 years, as shown in Table 7, the facility will be required to treat an average yearly flow of 1.03 MGD. This can be accommodated with MDE increasing the permit limits for treatment.

The recent evaluation of this system indicates that components of the treatment facility that may require upgrades during the planning period include the grit chamber (specified to handle approximately 1.1 MGD) and the secondary treatment components that can support up to 1.2 MGD in treatment capacity.

Water

Chestertown's water supply is obtained from 10 wells, 8 in the Aquia-Monmouth Formation and two in the Magothy Formation. Water storage is provided by a 450,000 gallon underground reservoir and one 125,000 gallon elevated storage tank and one 1,000,000-gallon standpipe. Treatment consists of aeration, fluoride treatment, iron removal and sand filtration. The distribution system consists of 12, 8 and 6 inch mains with two 600 gpm pumps and one 1,200 gpm variable flow pump.

Recent water system upgrades have included a second deep-water well in the Magothy formation, a second treatment facility with green sand filters, a cover for the existing reservoir, and an additional covered reservoir.

Current permits issued by MDE allow a daily average water withdrawal of 600,000 gallons from seven wells in the Aquia Aquifer and withdrawal of 375,000 gallons from two wells in the Magothy Aquifer. Total permitted water use for the purpose of water supply granted the Town from MDE's Water Management Administration is 975,000 gpd on a yearly basis to the year 2015.

Total average demand presently is approximately 709,000 gpd, indicating the present system can support projected growth to the year 2020, but not throughout the entire 20 year planning period. Therefore, the Town will need to work with MDE to secure a new Water Appropriation and Use Permit to permit an increase in average daily withdrawal to support demand beyond the year 2020. This may require a hydrogeologic study to determine the best potential supply sources and drilling a new production well. Recent study of the water system indicates that the water treatment system could provide upwards of 1,872,000 gpd if the sole water source was the Magothy Aquifer. If the Town is unable to secure permits for additional water supply, actions will need to be taken to slow the pace of growth.

Fire and Police Protection

Chestertown has one of the seven volunteer fire companies in Kent County. Firefighting equipment is maintained in good condition and equipment is upgraded as funds are available. Local volunteers and the Kent-Queen Anne's Rescue Squad provide emergency ambulance services.

Chapter 33, "Fire Companies", of the Code of Public Local Laws of Kent County was amended in 2006 to provide a dedicated source of funding for County Fire Companies and Emergency Services providers. This funding is provided through an appropriation of .0322 per $100 of the value of the assessable real property as set by the State Department of assessments and Taxation (full-year levy) and is for the use and benefit of the fire companies, ambulance companies, rescue squads, and/or other public safety providers.

The Chestertown Volunteer Fire Company is located at Philosopher's Terrace and Maple Avenue. As noted in the public facilities element of the Chestertown Comprehensive Plan, the Department says it needs to grow. Some way to accommodate that growth must be found if the Department is to maintain an adequate level of service for a growing and aging population.

As Chestertown's assessable tax base increases due to population and/or business growth, emergency services funding should correspondingly increase to support the additional demand for services, thus ensuring adequate emergency services and personnel for the future are commensurate with increased population. The Town and County may need to monitor this funding source in the future to assure its adequacy.

Chestertown has a police force that is headquartered in a small historic structure on Cross Street. The force has a chief, 10 officers, a civilian and a parking enforcement officer. Equipment needs, including vehicles, are addressed annually through the Town operating budget. Cooperative assistance is also available through the County sheriff's patrol and the Maryland State Police. The police headquarters building is too small and inappropriately located to serve the entire community. A study should be completed to examine the facility as it relates to statewide standards, and to examine the possibility of a new, larger headquarters located elsewhere. Growth implications over the next 20 years as shown in Table 7, suggest the police force may need to expand by as many as three additional officers.

Schools

Figures shown in Table 7 indicate Growth in the Town population could generate as many as 500 new students by the year 2030. These standard multipliers, typically used to project future growth in school enrollment can be misleading, particularly when applied to a Town with an average household size of only 1.98 persons per household. Actual estimates, locally derived by the State and County Board of Education, project modest declines in school enrollment over the next 10 years.

Kent County owns and maintains Garnett Elementary School, located on Calvert Street. In addition to a "Robert Leathers" playground, the school provides classroom space for about 220 pre-K through fourth grade students. Local school enrollment projections suggest that enrollment will decline slightly to around 190 over the next 10 years. Accordingly, this school is adequately sized but may need capital funds for major renovations or repairs.
Kent County also owns and maintains Chestertown Middle School, located on Campus Avenue. In addition to ball fields and hard surface courts, the Middle School provides space for about 410 students. Middle School enrollments are projected to decline to just under 300 over the next 10 years.

Projections prepared by the Maryland Department of Planning, Planning Data Services as of February 2009 indicate Countywide primary school enrollment (Grades K through 6) is projected to increase by 140 students Countywide between 2010 and 2017 while secondary school enrollments are expected to decline from 900 students in 2010 to 830 students Countywide by the year 2017. This indicates that modest increases in primary school enrollment may be a County-wide consideration, but such increases are not likely to occur in those schools located in Chestertown.

The old Chestertown High School on Washington Avenue has been converted into office space for the County Board of Education, but the multi-purpose playing field is still used occasionally for sporting events. The Town has expressed an interest in this property should it become available for alternative use in the future.

The Community Facilities Plan Element notes "The Town should work with the Board of Education to better use playgrounds, to improve landscaping on Board properties and to improve links to the community". In addition, the Town needs to monitor the impact of growth on school facilities within the Town, including impact on staffing levels in the schools.

Library Services

The Kent County Public Library is funded by the County and Friends of the Library. Library services have expanded in recent years. The Library offers books, reading materials, records, videotapes, and CD's and DVD's to patrons on a loan basis. Internet access is also available. The Kent County Public Library has two meeting rooms at its Chestertown branch, for use by non-profit groups for non-commercial, cultural, informational, educational, intellectual and civic purposes on an as-available basis. Demands for additional library space (263 square feet) over the 20 year planning period are modest, but may prompt needs for expansion of facilities near the end of the planning period.

Refuse Collection

Refuse collection services are provided by Chestertown twice a week. Costs for refuse collection and tipping fees were approximately $179,000 per year in 2007. Residents pay for this service through real property taxes. The Town is currently implementing a recycling program and instituting ongoing improvements to reduce the waste stream. As residential growth occurs, fees for refuse collection services will need to keep pace with costs of such services.

Parks and Recreation

The Town's recreation areas include Wilmer Park (6.5 acres), Fountain Park (0.9 acres), Court Street Park (0.3 acres), and the recently acquired MD 291 Park (18 acres). Development plans include softball fields, a multipurpose field, an exercise trail and parking. Other recreational programs are available through the use of school playground facilities. The Town's other parks are primarily for passive recreation and include walks and benches.

Town plans also call for conversion of the old railroad line that ends across MD 289 from Wilmer Park to be linked to the park and converted into a hiker-biker trail. This proposal is discussed in greater detail in the Land Use Element and in the Transportation Element. Radcliffe Creek's designation as a canoe trail also provides an additional Town recreation offering that will require access landings in the future.

As growth occurs, the demand for an additional 62 acres of parkland will need to be assessed by both Town and County officials to ascertain the need to meet the generally accepted standard of 30 acres of parkland per 1,000 residents. Some portion of demand for this parkland may be provided by the Town as development occurs through mandatory requirements for dedication of recreation lands as a condition of development approval or an alternative requirement for payment of a fee-in-lieu of dedication for use by the Town to purchase land. Some portion of the demand for recreational land should be shared by the County and State, since Chestertown serves as a center for recreational land and facilities that are used by County residents.

Additional Facility Needs

The Town also recognizes that any gain in population will require an equivalent increase in demand for municipal meeting space, Town administrative staff, and demand for municipal services (street repairs, trash collection, etc.). The existing Town Office may prove to be limited in its size to handle some of these functions in the future. The Mayor's new "Climate Protection Agreement" is one of a number of initiatives that can be expected to change Town administrative functions over time.

A review of staffing levels for both administrative and public works employees as well as Town Police Department employees should be conducted periodically (or every five years) to determine adequacy. Expansions to support administrative functions, Town staff, and municipal services can be made and funded as the assessable tax base in the Town expands. In some cases, planning for both offices and meeting space should be considered in conjunction with one another to determine the feasibility of satisfying multiple needs under one roof. In others, satellite locations for specific functions may prove more efficient or cost-effective.

The Town should also encourage provision of access to high speed internet services throughout the Town and within any properties that may be annexed in the future to support employment from home and to benefit local businesses.

In the future, large-scale developments with significant potential impacts should be required to conduct a fiscal impact analysis to determine if revenues will cover the cost of public services and facilities. If a shortfall is determined, the Town should exact fees and/or dedications from a developer to address the necessary facilities and/or services.

Recommendations to Prepare for or Mitigate the Impacts of Growth

Adjustments to Designated Priority Funding Areas

The current County designation of Priority Funding Areas adjacent to Chestertown does not include several areas targeted by the Town for future potential annexation. These areas include the properties referenced earlier in this plan element as Deer Tracks on the west side of Town and Eastern Shore Land Conservancy holdings located north and east of Town and extending to Morgan Creek.

The Town should work cooperatively with the County and State to have these areas and any others that the Town may consider potential annexation areas in the next few years to secure PFA designation of these areas.

Chesapeake Bay Critical Area Land Classification Definitions

Any future Town annexation and development that is proposed within 1,000 feet of tidal waters and is currently located in the County and designated a Resource Conservation Area (RCA) under the terms of the Chesapeake Bay Critical Area Program, will require the award of growth allocation to permit development exceeding a density of one residential unit per 20 acres.

A portion of the Clark Farm holdings, located along Morgan Creek, fall within this RCA designation as well as lands along the Chester upriver from the current Town boundary. At such time as the Town may annex either

of these properties, those portions of the site located in the Critical Area may require the award of growth allocation to permit "Town-scale" development density. Since portions of these sites in near shore locations may be retained as future greenways or possibly limited to public trail system use, not all such lands may require the award of growth allocation. The Town and property owner should work with the County and State prior to annexation to assure such an award can and will be made at such time as it may be required. Any other areas that may present similar circumstances that are located within the Critical Area should also be given similar consideration and treatment.

Water and Sewer Planning

The Town should develop a plan for accommodating future development while maintaining the highest quality water and sewerage service. Earlier sections of this plan element have noted projected growth will require increases in capacity and investments in the sewer and water system infrastructure over time. With diminishing prospects for federal and state funding for these services, the Town should develop a capital fund paid for in part by fees on development to build and maintain these systems. This fund should be created by hookup fees for new service, and those fees must be high enough to cover the cost per unit at the central treatment facility. The fund should not be used for operating costs. The Town is currently conducting a Preliminary Needs Analysis for both water and wastewater facilities and the results upon completion should form the basis for supporting any needed changes in ready-to-serve fees, connection or hook-up fees, or additional fees to offset major capital improvements to these facilities as may be prompted by larger development or annexation proposals. Additionally, proposed annexations should be responsible for the cost of providing additional water and sewer capacity for the needs of the development.

Greenbelt

Preservation of agricultural land and the agriculture economy in the region is viewed as a means of framing the Town's identity within the larger rural County context. In this regard, the Chestertown Comprehensive Plan clearly supports the creation of a greenbelt to distinguish itself in the larger County landscape. From a land use perspective, agricultural easements also restrict future development and changes in land use. As noted earlier, these easements are therefore an important consideration and limiting factor in shaping or defining the potential future growth pattern of Chestertown.

The Town should work with the County cooperatively to assure that future lands placed under easement or the formation of Agricultural Preservation Districts that may lead to MALPF easements in the future do not pre-empt opportunities for expansion of the Town in targeted areas.

It is the clear intention of Chestertown to provide a Greenbelt around the Growth Area. The key issue is defining where the Growth Area ends and the Greenbelt begins in locations that are mutually acceptable to the Town and County. The County needs to keep in mind that if easements preclude continued sustainable Town growth, then pressures for growth in other less appropriate locations in the County will result over time and be detrimental to current County planning policy. By the same token, the Town needs to be re-assured that ample opportunities for long-term growth can be realized. Therefore, on-going County and Town coordination in this regard will be important.

The Greenbelt can also be further supported by the Town through Open Space Development Design in future areas that may be annexed. Development design within the Town's outer edges would be made up of open

space lands that would be prevented from development by a variety of means, including dedication of open space, dedicated easements or other land conservation techniques. These lands would be within the corporate limits of the Town in the Growth Area and would be credited in tabulation of the overall gross density permitted on the parcel. Near Town portions of the parcel would be permitted to develop at higher "smart growth" densities (3.5 units per acre) in exchange for conservation easements on remaining portions of each parcel that would serve as open space or remain in agricultural use. In this regard, they permit the Town to create portions of its own greenbelt within its corporate limits to supplement County easement acquisition efforts and to separate developing areas from potential nuisances associated with farming on County easement lands at the Town's edges. Combinations of low intensity recreation and conservation uses could also be permitted, such as forest conservation programs, passive recreation activities, hiking/biking trails, and agricultural uses.

Acquisition of parcels that would make up the Greenbelt could occur over time as part of the development review process by dedication of individual areas of open space. Larger or connecting parcels may be acquired by fee simple purchase by the Town or a land conservancy.

Protection of Sensitive Areas

The ultimate form of the Town of Chestertown at build-out will likely be largely defined by Radcliffe Creek, Morgan Creek and, of course, the Chester River as its Eastern, Western and Southern edges, respectively. Uses adjacent to these bodies of water should continue to be buffered to minimize the impact of land disturbances and activity on water quality and wildlife habitat.

This plan element, the plan's Sensitive Areas Element, and the plan's Water Resources Element, all recognize each of these water resources as sensitive areas. The Town's goal is to preserve and enhance its streams and buffers, and it intends to do so by identifying and mapping all perennial and intermittent streams and establishing a minimum 100 foot buffer from each bank; improving stormwater management in developed areas, including use of retrofit to address existing problem areas, and providing incentives for developers constructing new stormwater management structures to address areas that currently do not have such structures.

The Town will continue to prohibit new development within stream buffers and will prohibit alteration of streambeds or stream banks, except for Best Management Practices to reduce erosion or stabilization.

Annexation Policies

Properties designated within the mapped planning area (see Comprehensive Plan, page 33) will be considered candidate areas eligible for future annexation. This policy includes small properties where annexations will be undertaken to clarify boundaries, prevent "enclaves," and/or extend service to areas in need of municipal services for health or safety reasons. Larger parcels proposed for annexation will be required to maintain 20% or more of their respective land area in Open Space which may include use for active and passive recreation activities or sustained agricultural use. These large parcels are expected to realize overall densities of less than 3.5 units per acre but would be permitted to cluster development to achieve net densities on developed portions that equal or exceed 3.5 units per acre.

Prior to annexing any land area not included in the Growth and Annexation Plan, the Town will first consider appropriate amendments to this Comprehensive Plan and will follow the procedural requirements for comprehensive plan amendments and annexation established in State law (Articles 66B and 23A). This will ensure that the proposed annexation is consistent with the goals and objectives of this Comprehensive Plan, that appropriate consideration has been given to the adequacy of public facilities and services, and that County and State agencies are afforded an opportunity to comment on the proceedings. In addition, the following annexation policies will apply to future annexations:

- Proposed annexation areas will be economically self-sufficient and will not result in larger municipal expenditures than anticipated revenues, which would indirectly burden existing Town residents with the costs of services or facilities to support the area annexed.
- The costs of providing roads, utilities, parks, other community services will be borne by those gaining value from such facilities through either income, profits, or participation.
- Specific conditions of annexation will be made legally binding in an executed Annexation Agreement. Such agreements will address, among other things, consistency with the goals, objectives and recommendations contained in the *Chestertown Comprehensive Plan*, zoning and development expectations, responsibility for appropriate studies, and agreements concerning responsibilities for the cost of facilities and services provided by the Town. These Annexation Agreements may be further revised in a Public Works Agreement or in a Developer's Rights and Responsibility Agreement (DRRA).
- For annexations involving larger parcels of land, the Town may require appropriate impact studies, including a fiscal impact study and an environmental impact assessment that addresses the potential impact of the proposed annexation and planned development on the environment of the site and surrounding area.
- If considered necessary or appropriate, applicants for annexation shall pay the cost of completing all studies related to expanding capacity of existing public facilities and/or services.

Vision of Chestertown's Future Character

Chestertown is expected to remain a largely residential community with limited employment opportunities locally. The areas around Chestertown are expected to remain agriculturally oriented, due in large part to participation in agricultural preservation programs. Chestertown's insistence on maintaining its small-town character and rural identity as growth occurs over time is clearly stated in the Comprehensive Plan's Executive Summary regarding Land Use Planning. To preserve its community character, the Town will insist on high quality in future development across the board.

The Town's Vision of its future character is best expressed through a number of design principles that are expected to guide all future development. Although they are described on Pages 10 and 11 in the Executive Summary of the Comprehensive Plan, they may bear repeating in this Municipal Growth Element. They include:

- Mixed Uses Are Desirable – The Town wants to maintain a reasonable mix of residential and commercial uses within and near neighborhoods. It does not want to repeat errors of past decades in which housing was located far from places to shop and work.

- Natural Features Should Determine Design – This means all development should be environmentally sensitive and that the natural character of land to be developed should be maintained.

Environmentally sensitive development means creating pedestrian-friendly streets so that people can walk to work or shop.

- Automobiles Should Not Determine Design – The Town does not want garages to be the most prominent feature of houses, nor does it want streets that are too wide, or huge parking lots that are seas of asphalt. These are mistakes of the past not to be repeated.

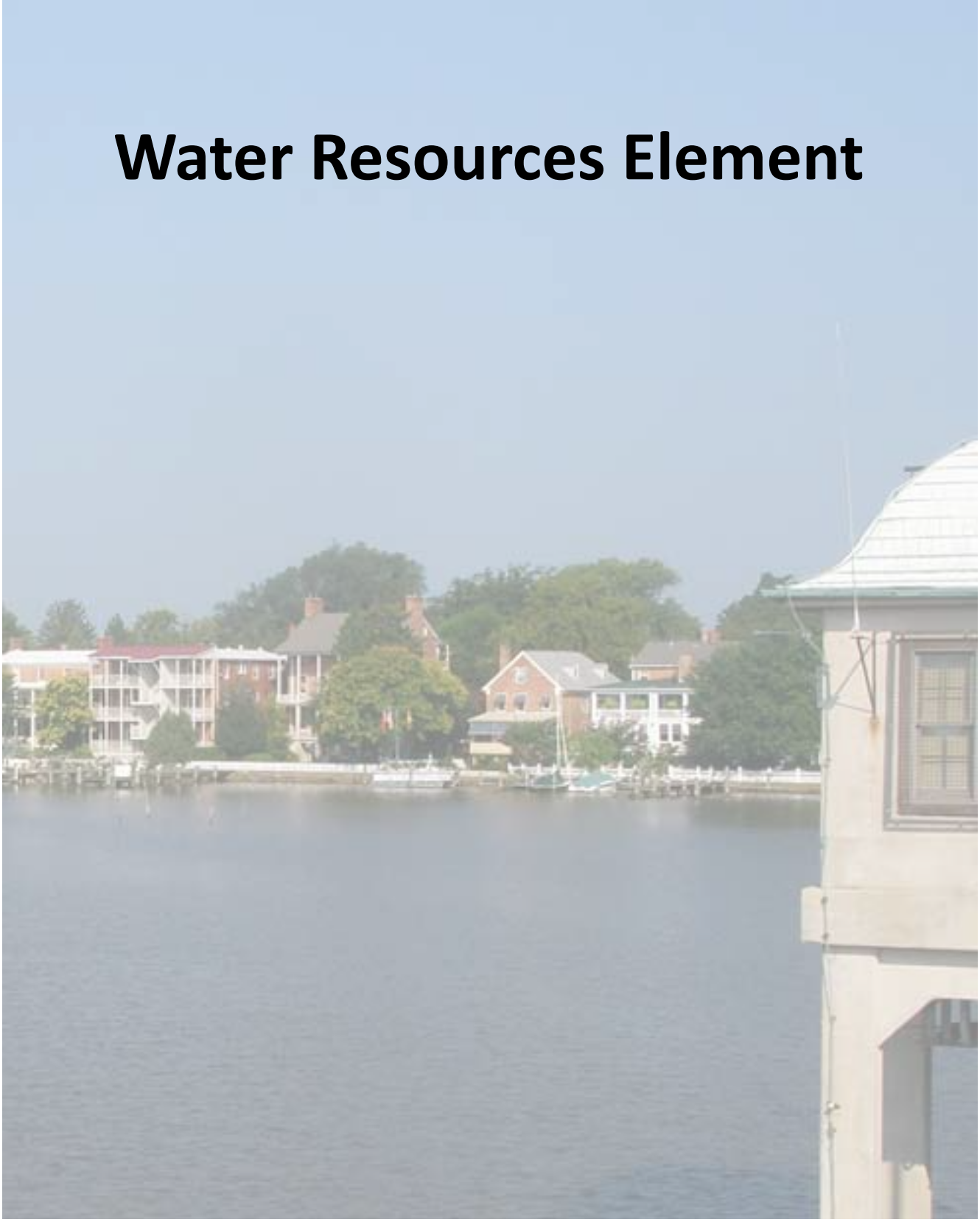
- Ample Open Space Must Be Provided – This means that every developer must provide significant, usable open space as integral parts of projects and neighborhoods – not afterthoughts. This also means the Town will work to improve existing open space to create green corridors of connected open space.

- Substantial Landscaping Should Be Incorporated In Design – This will include a number of approaches, such as requiring developers to leave as much existing forest as possible, requiring large, healthy nursery stock, native species, irrigation systems and replacement and maintenance bonds. It will mean treating signage and lighting as landscaping elements and requiring maintenance agreements for care of common areas.

- Architecture Should Reflect Chestertown's Traditional Development – Very simply, new development in the Town should look to the Town's historic core for examples of what to emulate, e.g. scale, size, materials, form and quality. The Town will insist on high quality architectural diversity (not copies of "historic" styles) and will not allow itself to be surrounded by generic residential and commercial development.

Growth occurring around the Town of Chestertown today is expected to maintain a similar appearance to that established in the Town through extended use of a grid street pattern and compatible architectural forms. Recently adopted Design Standards will reinforce the Town's interest in preserving the character of a small, rural town. Future developments within the Growth Area will be expected to flow from these design principles.

Water Resources Element



Introduction

The Chestertown Comprehensive Plan's "Water Resources Plan Element" (WRE) is a new plan element added to the Comprehensive Plan. This plan element is mandated to assure compliance with the requirements of Maryland House Bill 1141 (HB 1141). The purpose of the WRE is to provide additional layers of planning for water resources in relation to existing use and proposed land use, based on an analysis of growth and development trends to assure demands for water supply, wastewater treatment and stormwater management can be sustained as Town growth occurs and to assure measures are taken to minimize impacts to water quality.

The Chestertown WRE is directly linked to a number of other Comprehensive Plan elements. They include: 1) the Land Use Plan; 2) the Municipal Growth Element; 3) Community Facilities; and 4) Sensitive Areas elements. The Water Resources Element addresses three major areas including water (both supply and quality), wastewater treatment and discharge, and stormwater management.

Among other things, preparation of the WRE is an exercise intended to test water resource capacity limits, determine the potential implications of water resource issues for future growth, and facilitate development of coordinated management strategies. The Town of Chestertown represents a very small portion of the much larger Chester River watershed. Since water resource protection issues are of concern watershed-wide, much of the effort to protect or enhance water quality will be dependent on County and State actions and programs. Nevertheless, this plan element evaluates Chestertown's role in protection of water resources in this larger context.

The purpose of the WRE, as defined in Maryland House Bill 1141, is to establish a clear relationship between existing and proposed future development. It further establishes the relationship between drinking water sources and wastewater facilities that will be necessary to serve that development and measures to limit or control the stormwater and nonpoint source water pollution that will be generated by new development.

Specifically, the statutory requirements are:

- Identify drinking water and other water resources that will be adequate for the needs of existing and future development proposed in the land use element of the Plan, considering available data provided by the Maryland Department of the Environment (MDE).

- Identify suitable receiving waters and land areas to meet the stormwater management and wastewater treatment and disposal needs of existing and future development proposed in the land use element of the Plan, considering available data provided by MDE.

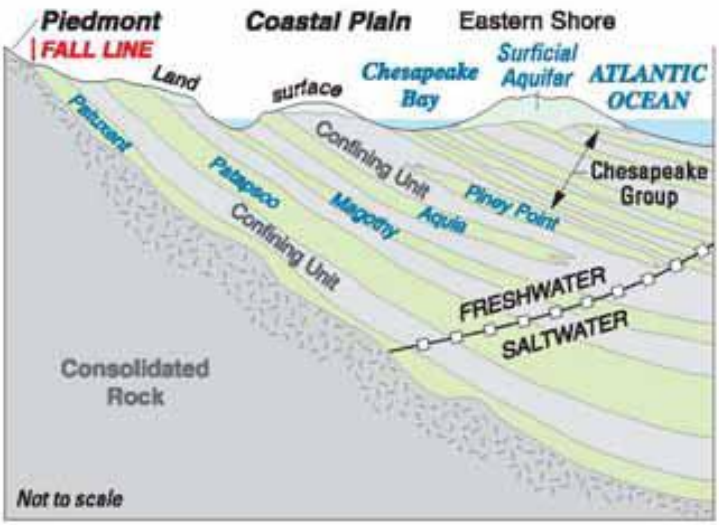
- Adopt a WRE in the Comprehensive Plan on or before October 1, 2009, unless extensions are granted by Maryland Department of Planning (MDP) pursuant to law. Zoning classifications of a property may not be changed after October 1, 2009 if a jurisdiction has not adopted a WRE in its Comprehensive Plan.

This element of the Comprehensive Plan assesses the Town's drinking water sources and wastewater treatment facility and their ability to support existing and future development. It also identifies suitable receiving waters for existing and future wastewater and stormwater discharges. The Town of Chestertown has

prepared this WRE to assure the Town will focus growth to areas best suited to utilize the Town's existing and planned water and wastewater infrastructure; to nurture efficient and sustainable patterns of growth; protect and preserve the natural environs; promote sustainable economic growth; and support diversity of living environments in the Town.

Water Resources

The Town of Chestertown and Kent County lie within the Northern Atlantic Coastal Plain (NACP) aquifer system. The NACP system extends from the North/South Carolina border to Long Island, New York. In Maryland, the NACP is bounded in the west by the Fall Line and in the east by the Atlantic Ocean. The Coastal Plain system consists of sand and gravel aquifers interspersed with layers of silt and clay called confining beds. Beneath this system lies a layer of consolidated rock at depths ranging from zero at the Fall Line to about 8,000 feet at Ocean City. Chestertown's water system is supplied by the Aquia and Magothy aquifers which are two among many located within the Atlantic Coastal Plain. The Magothy is a confined aquifer. A confined aquifer has a layer of clay or fine silt above it (a 'confining' layer) that allows very little water to travel vertically into the aquifer. Confined aquifers receive recharge from leakage through confining beds from surficial aquifers and lateral movement of water from adjacent aquifers and thus are less vulnerable to drought conditions.



The Northern Atlantic Coastal Plain Aquifer System
Source: *A Science Plan for a Comprehensive Regional Assessment of the Atlantic Coastal Plain Aquifer System*

Water quality in the Aquia and Magothy aquifers that serve Chestertown is generally good. MDE has researched and identified potential sources of contamination for confined aquifers and analyzed a number of water systems for susceptibility to pollutants originating at the land surface. MDE concluded that due to the protected nature of confined aquifers, the water supplies were not susceptible to surface contaminants. Some naturally occurring pollutants, such as arsenic and fluoride, do pose a risk to water systems supplied by the Aquia Aquifer but do not exceed EPA's maximum contaminant level (MCL).

Watershed Characteristics and Conditions

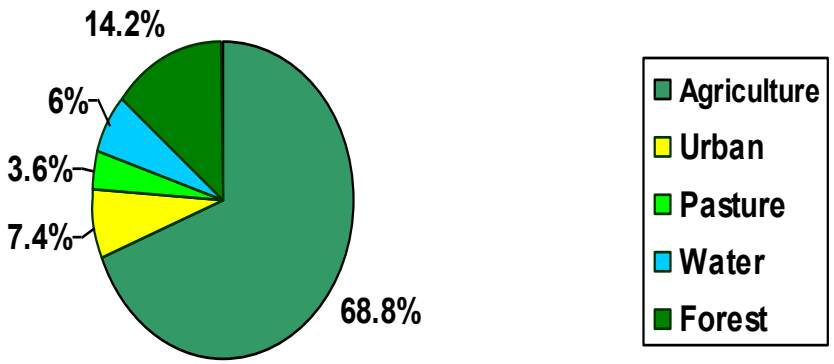
Chestertown drains into the Chester River Basin which is a State-designated 6-digit watershed. Three State-designated 8 digit watersheds (a subset of the 6-digit basin) within the Chester River Basin include the Upper Chester, Middle Chester and Lower Chester River Watersheds. Approximately 17% of Kent County and the entire Town of Chestertown is located in the Middle Chester Watershed.

The Maryland Clean Water Action Plan identified four watersheds in Kent County that are in need of restoration: Langford Creek, Sassafras River, Still Pond - Fairlee, and the Middle Chester River.

The Middle Chester River is approximately 9.5 miles in length. It extends from the River's confluence with Foreman Branch, downstream to the confluence with Southeast Creek. The Middle Chester is among those Maryland watersheds with the least impervious surface, lowest population density, the least wetland loss and the highest soil erodibility. The average size of a farm in this region is about 400 acres (Shanks, 2001).

The Middle Chester Watershed, as shown in Chart 1, consists mostly of mixed agriculture (26,404 acres or 68.8%), with the remaining land use being forest cover (5,436 acres or 14.2%), urban (2,838 acres or 7.4%), and pasture (1,372 acres or 3.6%).

Chart 1: Proportions of Land Use in the Middle Chester Watershed



The Kent County portion of the Middle Chester Watershed includes an estimated area of 29,600 acres. Several small, unnamed streams drain directly to the Chester River.

Two smaller watersheds, Radcliffe and Morgan Creek watersheds, occupy most of the Kent portion of the Middle Chester watershed land area. (See Map 1) The larger of the two, the Morgan Creek Watershed, encompasses and drains approximately 22,000 acres. Agricultural uses dominate the Morgan Creek Watershed. However, the Villages of Kennedyville, Worton, and Butlertown are also located in the Morgan Creek Watershed. Some of the County's most productive farmland is within this Watershed.

Chestertown is in the Radcliffe Creek Watershed, which is the smaller and more developed watershed of the two. This subwatershed drains approximately 4,030 acres. The Town's location and its availability of infrastructure in the Radcliffe Creek Watershed has prompted growth in the past and will continue to do so in the future. As such, the Radcliffe Creek Watershed contains a higher percentage of developed lands.

The Middle Chester River segment is impaired by the nutrients nitrogen and phosphorus, which cause excessive algal blooms accompanied by reduced concentrations of dissolved oxygen. The Middle Chester River was first identified on the State's 1996 303(d) list as impaired by nutrients, sediments, and bacteria. In 2002, polychlorinated biphenyls (PCBs) in fish tissue and evidence of biological impacts were added, with additional sub-basins listed as impaired by evidence of biological impacts in 2004.

Nearly all of the water quality information available for the Middle Chester River Watershed is for the Chester River mainstem where water quality is poor in general. In this area of the mainstem, water clarity was the worst of the Chesapeake Bay "segments" for the period 1992 through 1997. Several water quality parameters, including water clarity, algae and phosphorus, are showing a recent trend toward slight improvement. Based on the relatively little information available on nontidal streams in the Middle Chester River Watershed, few

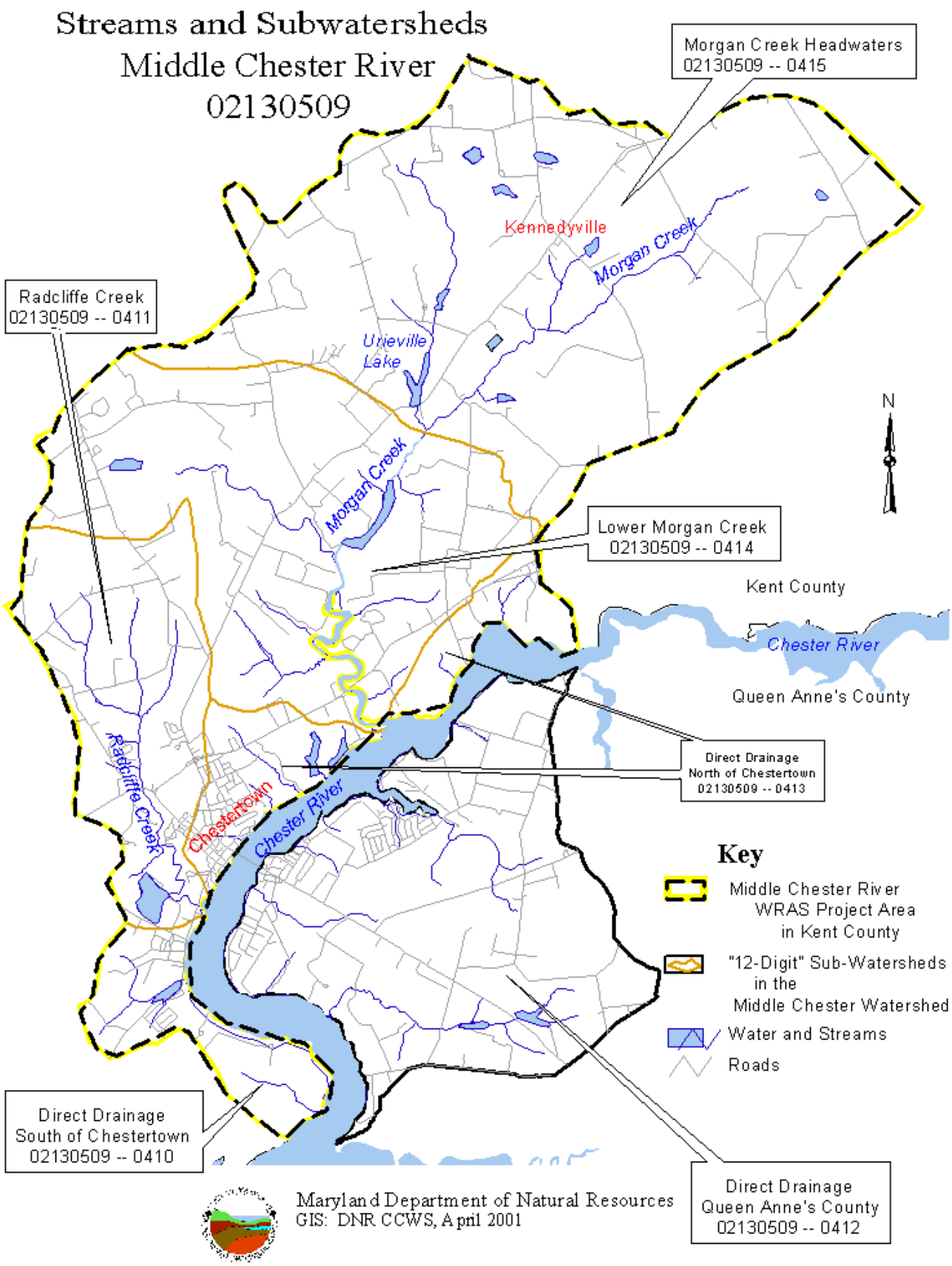
generalizations can be put forward. For Radcliffe Creek, low summer dissolved oxygen and assessment of benthic organisms found there suggests that high nutrient levels may be present.

Kent County has coordinated with the Department of Natural Resources, Queen Anne's County, local watershed organizations, Kent Soil and Water Conservation District, the Town of Chestertown, and various other state and local agencies to complete the *Middle Chester River Restoration Action Strategy*. The strategies within the plan include a wide variety of residential and agricultural best management practices including conservation subdivision techniques, low impact development and environmental site design, innovative stormwater management initiatives, and extensive stream buffer and wetlands restoration projects. Four primary considerations guided planning for the Middle Chester Watershed:

- The County's long-term goal of restoring the watershed to a point where aquatic and terrestrial organisms can thrive;
- The removal of the watershed from the impaired list;
- Agriculture remaining a strong presence in the watershed;
- Significant growth occurring in some portions of the watershed.

The County has also coordinated with the Chester River Association and a wide array of partners to submit a 2010 Trust Fund Local Implementation Grant for the Middle Chester River Watershed. The application focuses on non-point source pollution with agricultural, restoration, and denitrifying septic system initiatives.

Map 1


Streams and Subwatersheds
Middle Chester River
02130509
Morgan Creek Headwaters
02130509 -- 0415
Kennedyville
Morgan Creek
Radcliffe Creek
02130509 -- 0411
Unieville
Lake
N
Morgan Creek
Lower Morgan Creek
02130509 -- 0414
Kent County
Chester River
Queen Anne's County
Direct Drainage
North of Chestertown
02130509 -- 0413
Radcliffe Creek
Chestertown
Chester River
Key
Middle Chester River
WRAS Project Area
in Kent County
"12-Digit" Sub-Watersheds
in the
Middle Chester Watershed
Water and Streams
Roads
Direct Drainage
South of Chestertown
02130509 -- 0410
Maryland Department of Natural Resources
GIS: DNR CCWS, April 2001
Direct Drainage
Queen Anne's County
02130509 -- 0412

Total Maximum Daily Loads (TMDLs)

A TMDL is a calculation of the maximum amount of a pollutant that a body of water can receive and still meet water quality standards. Point sources include urban stormwater systems and wastewater treatment plants with direct discharge permits into waterways (National Pollutant Discharge Elimination System Permits-NPDES). Non-point sources are all discharges other than point source discharges, including stormwater runoff from land and erosion of stream and river banks. A TMDL is used as a regulatory mechanism to identify and implement additional controls on both point and non-point source discharges in water bodies that are impaired from one or more pollutants and are not expected to be restored through normal point source controls.

TMDLs establish limits or "caps" on the amount of pollutants permitted from point and non-point sources through an allocation system. A primary determinant of future growth is the assimilative capacity of local receiving waters for the input of pollutants. Assimilative capacity is expressed in the TMDLs for the receiving waters. The water quality monitoring data used in the Middle Chester River TMDL analysis was obtained from four different sources: the Chesapeake Bay Program (CBP), Maryland Department of Environment (MDE), University of Maryland Center for Environmental Science (UMCES), and the Chester River Association (CRA).

The average annual TMDL for the Middle Chester River for nitrogen is 275,437 lbs/yr, and for phosphorus is 16,709 lbs/yr. The Middle Chester River nonpoint source loads are allocated 217,447 lbs/year of total nitrogen and 10,047 lbs/year of total phosphorus. The Middle Chester River point sources which include the Chestertown wastewater treatment plant effluent are allocated 47,567 lbs/year of total nitrogen and 6,188 lbs/year of total phosphorus.

Table 1: Nutrient Caps for Middle Chester River Watershed

Source	Nitrogen Cap (lbs/yr)	Phosphorus Cap (lbs/yr)
Point Sources	47,567	6,188
Non Point Sources	217,447	10,047
Total Sources	275,437	16,709

Source: Total Maximum Daily Loads of Nitrogen and Phosphorus for the Upper and Middle Chester Rivers, Kent and Queen Anne's Counties, Maryland, Maryland Department of Environment, April, 2006

The water quality goal of these TMDLs is to reduce high chlorophyll *a* (Chl*a*) concentrations (a surrogate for algal blooms) and to maintain dissolved oxygen (DO) at a level supportive of the designated uses for the Middle Chester River. Loading caps for total nitrogen and total phosphorus entering the Upper and Middle Chester Rivers are established for the growing season (critical conditions) and for average annual flow conditions. The growing season TMDLs apply from May 1 through October 31.

Problems associated with eutrophication are most likely to occur during the growing season (May 1 to October 31). The rest of the year is referred to as the non-growing season. During the growing season, there is typically less stream flow available to flush the system, more sunlight to grow aquatic plants, and warmer temperatures, which are favorable conditions for biological processes of both plant growth and dead plant

matter decay. Because problems associated with eutrophication are usually most acute during the growing season, the temperature, flow, sunlight and other parameters associated with this period are key variables driving water quality in the river.

For the Middle Chester River, the growing season TMDL for nitrogen is 116,149 lbs/growing season, and the growing season TMDL for phosphorus is 5,048 lbs/growing season. The Middle Chester River nonpoint sources are allocated 92,534 lbs/growing season of total nitrogen, and 2,649 lbs/growing season of total phosphorus. The Middle Chester River point sources are allocated 19,275 lbs/growing season of nitrogen, and 2,286 lbs/growing season of phosphorus. An explicit margin of safety makes up the remainder of the nitrogen and phosphorus allocations. Based on MDE's report on point sources to establish TMDL's, the Middle Chester River Watershed has four point sources of nutrients. They include three municipal WWTPs (Kennedyville, Worton-Butlertown, and Chestertown) and one industrial PS (Chestertown Foods, Inc.).

Waste load allocations have been assigned to NPDES-regulated wastewater treatment plants in Middle Chester River Watershed. The Middle Chester River Watershed has three municipal PSs a single industrial PS: Worton-Butlertown, Kennedyville and Chestertown WWTPs, and Chestertown Foods, Inc. The waste load allocations are based on permitted flow rates. To remain consistent with the EPA policy regarding stormwater load quantification, MDE has accounted for the nutrient loads generated from urban land uses during storm events by assigning the load to the waste load allocation portion of the TMDL.

Table 2: Loads Attributed to Point Sources Used to Compute the Average Annual Flow TMDL for the Middle Chester River Watershed

Point Source Name	Permit Number	Nutrient Loads (lbs/year)		Flow (MGD)	Concentration (mg/l)	
		TN	TP		TN	TP
Worton-Butlertown WWTP	MD0060585	4,069	678	0.15**	18	3
Kennedyville WWTP	MD0052671	1,641	274	0.03	18	3
Chestertown WWTP	**MD0020010**	**10,919**	**821**	**0.9**	**5/3*** **	**0.3**
Chestertown Foods, Inc.†	MD0002232	10,159	2,338	0.23	14.4	3.3
Kent County	NA	14,711	1,471	NA	NA	NA
Queen Anne's County	NA	6,067	607	NA	NA	NA
Total*		47,566	6,189			

Source: Technical Memorandum *Nutrient Point Sources in the Upper and Middle Chester River Watersheds,* January 31, 2006
* Total shown does not include discharge from Vesicol Inc. which has had its discharge permit revoked and/or is in litigation with MDE.
** Worton-Butlertown WWTP has no discharge during growing season
*** Chestertown WWTP Non-growing season concentration 5mg/l, growing season is 3 mg/l
† On January 7, 2008, Tip Top Poultry Inc., a family owned and operated business established in 1947, agreed to acquire the processing equipment of Chestertown Foods, Inc. In connection with the closing of the transaction, Chestertown Foods ceased processing operations at its Maryland plant.

In the Middle Chester River, the Chestertown WWTP concentrations were set at an average 4.0 mg/l (growing season 3 mg/l and non-growing season 5 mg/l) and 0.3 mg/l for TN and TP respectively, with a flow of 0.9 MGD throughout the year. These very low concentrations set for the Chestertown WWTP in comparison to other wastewater treatment plants in the Middle Chester are due to the Town's upgrade of the facility in 2007 to Enhanced Nutrient Removal (ENR) technology.

Water System

The Town owns and operates a water supply system serving an estimated 4,005 town residents and an area outside of the town limits on MD 291, or approximately 5,000 persons. The water supply is obtained from nine wells, eight in the Aquia-Monmouth Formation and two wells in the Magothy Formation.

Water storage is provided by 450,000 gallon underground reservoir and one 125,000-gallon elevated storage tank and one 1,000,000 gallon standpipe. Treatment consists of aeration, fluoride treatment, iron removal and sand filtration. The major distribution system consists of 12 and 8 inch mains with two 600 gpm pumps and one 1,200 gpm variable flow pump.

Six Town wells (#3 through #8 pump from the Aquia Formation. Two wells (#1 and #9) pump from the Magothy Formation. Well #2 use has been discontinued and Well #8 is currently not in use. The Aquia formation at Chestertown is an unconfined aquifer with the top of the aquifer approximately 10 feet above sea level and the bottom approximately 148 feet below sea level. The Magothy is a confined aquifer with the top of the aquifer approximately 324 feet below sea level and the bottom approximately 380 feet below sea level.

The MDE has issued two water appropriation permits to the Town. Both were issued October 1, 2003 and will expire October 1, 2015. Water appropriation permit information is summarized in Table 3.

Table 3: Water Appropriation and Use Permit Summary Data

Permit Number	Aquifer	# of Wells	Daily Average Withdrawal	Maximum Month Daily Withdrawal
KE1970G004 (05)	Aquia	7	600,000 gal.	800,000 gal.
KE1992G011 (02)	Magothy	2	375,000 gal.	500,000 gal.
Total		9	975,000 gal.	1,300,000 gal.

Source: Town of Chestertown Water and Wastewater Facilities Preliminary Needs Analysis, URS Corporation, July 2008

The current permitting of water use for the purpose of water supply granted the Town of Chestertown from MDE's Water Management Administration appropriates 975,000 gpd.

The Town's Utilities Manager indicates that the Aquia Wells #2 through #7, or shallow wells, can produce a combined supply of 400 gpm when operating together. A Source Water Assessment Report prepared by the Water Supply Program of MDE in 2003 concluded the Town should minimize the usage of these wells because of past contamination of the Aquia aquifer supply wells and future susceptibility of these wells from surface contamination. However, the current concentration of all contaminants in the Aquia raw water supply do not

exceed Drinking Water Standards based on the State of Maryland's Department of Health and Mental Hygiene's Water Analysis. The Magothy Wells #1 and #9, or deep wells, can produce a combined 750 to 800 gpm. These wells require treatment for removal of iron.

When current water supply pumping capacity is evaluated in combination with permit limits established by MDE, the average and maximum existing supply capacity can be summarized as shown in Table 4.

Table 4: Summary of Chestertown Existing Water Supply Capacity (Average and Maximum)

Aquia Wells Capacity	Magothy Wells Appropriation Average Day (Year)	Supply Wells Average Daily Capacity	Chestertown Average Daily Demand
576,000 gpd	375,000 gpd	951,000 gpd	709,000 gpd
Aquia Wells Capacity	Magothy Wells Appropriation Maximum Day (Month)	Supply Wells Maximum Daily Capacity	Chestertown Maximum Daily Demand
576,000 gpd	500,000 gpd	1,076,000 gpd	1,100,000
Source: Town Utilities Manager	Source MDE Permit	Sum of Columns #1 and #2	Source: Town Utilities Manager

Note: Sources for information in each column identified in the bottom row of table for each respective column.

Review of Table 4 indicates the following conclusions can be drawn regarding Town water supply. The supply wells average daily capacity exceed the Town's present average demands for 709,000 gallons per day and indicate the Town presently has a reserve capacity of 242,000 gpd. However, the maximum month daily capacity of the supply wells is less than the Town's one day maximum demand of 1,100,000 gallons.

Projected Water Demand

To calculate future demand on Chestertown's water system, a per-household water usage multiplier of 250 gpd (MDE estimate of single family household daily water usage) was applied to projected dwelling unit increases forecast for the Town. Water demand is based on existing dwellings as well as potential units, which may be built through infill development of vacant and underutilized lots within the current municipal boundary and/or in Town designated municipal growth areas (see Table 5).

This growth scenario indicates that the year 2030 population will be approximately 7,031 residents in Chestertown. Assuming, an estimated current population of 4,950 residents this growth scenario will result in 2,081 new residents over the next 20 years. Assuming the average household size remains constant over the 20 year period, an estimated 1,051 new residential units are forecast.

Figures shown in Table 5 indicate the present system can support projected growth to the year 2020, but not throughout the entire 20 year planning period. Therefore, the Town will need to work with MDE to secure a new Water Appropriation and Use Permit to permit an increase in average daily withdrawal to support demand beyond the year 2020. This may require a hydrogeologic study to determine the best potential supply sources and drilling a new production well. If the Town is unable to secure permit modifications to allow additional withdrawal, then the Town may have to take alternative actions to reduce the rate of growth.

Table 5: Projected Water Demand Based on Projected Population Growth Within the Corporate Limits (Infill) and in Designated Municipal Growth Areas

Year	**2009**	**2015**	**2020**	**2025**	**2030**	**Increase 2010-2030**
Population	4,950	5,841	6,224	6,628	7,031	2,081 ***
Household Units*	2,500	2,950	3,143	3,347	3,551	1,051
Residential Water Demand (GPD)**	709,000	821,500	869,750	920,750	971,750	262,750
Non-residential Demand (GPD) †		10,000	20,000	30,000	40,000	40,000
Combined Demand	709,000	831,500	889,750	950,750	1,011,750	302,750
% Average Daily Flow Capacity****	73%	85%	92%	98%	104%	31%
% Maximum Daily Flow****	55%	64%	68%	73%	78%	----

Projections shown here based on incremental 10 year medium growth rate projections established in Appendix A of the 2004 Comprehensive Plan and as used in the Comprehensive Plan Municipal Growth Element (Table 2) for consistency.

Notes:

- * Household units projection assuming a sustained average of 1.98 persons per household as evident in 2000.
- ** Water consumption/demand for years 2015 through 2030 assumes demand for 250 GPD per each additional household as per guidelines provided by MDE.
- *** Population increase includes growth of existing population as a result of infill development and/or annexation.
- **** Average daily flow capacity/maximum daily flow: 975,000 gpd/1,300,000 as per current Groundwater Appropriation Permit.
- † Estimated Sewer and Water demand in GPD's for non-residential uses assumes construction of 400,000 square feet of commercial or industrial space through the 20 year planning period and that demand will be approximately .1 gallon per day per square foot.

A recently completed Water and Wastewater Facilities Preliminary Needs Analysis by URS Corporation (September 2009), on behalf of the Town, has recommended the Town apply for an updated water appropriation permit for the Magothy aquifer that would increase the average daily demand and the maximum month daily withdrawal. The projected needs, as indicated in Table 5 above, confirm the need to increase water supply capacity. The preliminary needs analysis further recommends a hydrogeologic study to determine potential sources of water, drilling a new production well in the Magothy (depending on the recommendations from the hydrogeologic study), and re-opening discussions with MDE regarding options for continued use of the Aquia Aquifer.

The Town's Water Treatment Plant has capacity to treat additional sources of raw water with changes in pumping capacity and replacement of media in the plant's pressure filters.

Projected growth over the next 20 years will also require additional water storage capacity to meet future needs. Recent preliminary analysis of the system indicates that storage capacity may need to be increased by adding a 1,500,000 gallon elevated storage tank based on growth projections established in the Municipal Growth Element of this plan. This capacity increase would then satisfy fire protection and operational needs while providing one day's emergency storage.

Future growth will also prompt the extension of water distribution lines to areas where growth is proposed within the 20 year planning period. In 1997, the Town revised the Town Charter to its original language prohibiting out of town water extensions without annexation.

Wastewater Treatment Facilities

Chestertown owns and operates a wastewater treatment facility which serves the Town and areas outside Town limits along MD Routes 291 and 289. The system serves approximately 5,000 people. The portion of the collection system serving the area along MD 289, outside of the Town limits, is owned and maintained by the Kent County Department of Water and Wastewater Services through an inter-municipal agreement which is included in the Kent County Water and Sewerage Plan. The wastewater treatment system is generally described as an activated sludge plant with effluent denitrification filters and effluent disinfection by chlorination. Treatment includes chlorination, dechlorination and re-aeration before discharging into the Chester River.

The facility was upgraded in 1990 with an outfall line discharging into the Chester River and construction of a new aeration system. A more recent upgrade in 2007 adds Enhanced Nutrient Removal (ENR) technologies to the treatment process to substantially reduce nitrogen and phosphorus concentrations in the effluent.

The plant treats an average yearly flow of 723,000 gpd based on the average of the past three years. The plant is permitted to treat a maximum of 900,000 gpd to very stringent permit requirements. These requirements provide for enhanced nutrient removal to reduce Total Nitrogen concentrations in effluent to 3 milligrams/liter (mg/l) on a yearly average and reduce Total Phosphorus concentrations to 0.3 mg/l. The discharge permit is a federal permit enforced by the MDE under the National Pollutant Discharge Elimination System (NPDES).

This permitted capacity of 900,000 gpd also equates to the assigned flow based on the nutrient loads attributed to the Chester WWTP per the TMDL for the Middle Chester River. The TMDL assigns 10,919 lbs/year of nitrogen and 821 lbs/year of phosphorus to the Town's WWTP.

Similar to Table 5, Table 6 provides projected wastewater demand based on infill and development within the growth area to the year 2030. Based on the permitted capacity of 900,000 gpd and projected flows, the Town will reach its capacity by the year 2020. Further recommendations are made at the end of this section.

Table 6: Projected Wastewater Flow Based on Projected Population Growth Within the Corporate Limits (Infill) and in Designated Municipal Growth Areas						
Year	**2009**	**2015**	**2020**	**2025**	**2030**	**Increase 2010-2030**
Population	4,950	5,841	6,224	6,628	7,031	2,081 ***
Household Units*	2,500	2,950	3,143	3,347	3,551	1,051
Residential Water Demand (GPD)**	723,000	835,500	883,750	934,750	985,750	262,750
Non-residential Demand (GPD) †		10,000	20,000	30,000	40,000	40,000
Combined Demand	723,000	845,500	903,750	964,750	1,025,750	302,750
% Permited Capacity****	80%	94%	100%	107%	114%	34%

Projections shown here based on incremental 10 year medium growth rate projections established in Appendix A of the 2004 Comprehensive Plan and as used in the Comprehensive Plan Municipal Growth Element (Table 2) for consistency.

Notes:

* Household units projection assuming a sustained average of 1.98 persons per household as evident in 2000.

** Wastewater flow for years 2015 through 2030 assumes demand for 250 GPD per each additional household as per guidelines provided by MDE.

*** Population increase includes growth of existing population as a result of infill development and/or annexation.

**** Permitted capacity = 900,000 gpd as per NPDES Permit.

† Estimated Sewer and Water demand in GPD's for non-residential uses assumes construction of 400,000 square feet of commercial or industrial space through the 20 year planning period and that demand will be approximately .1 gallon per day per square foot.

In 1997, just as it did with water hookups, the Town revised the Town Charter to prohibit out-of-town sewer extensions without annexation.

Planning Recommendations for Water and Wastewater Systems

The Town should develop a plan for accommodating future sustainable development while maintaining the highest quality of water and wastewater service. In consideration of the information contained in this section, the following provides recommendations for the Town's water and wastewater systems. These recommendations should serve as action items:

- The Town should initiate discussions with MDE regarding a revised Groundwater Appropriation Permit (GAP) to increase the average daily permitted withdrawal to accommodate future needs and to increase the average daily permitted withdrawal during the month of maximum use to accommodate existing needs. This may require a hydrogeologic study to determine the best potential supply sources and drilling a new production well.

- The Town should begin planning for an increase in the permitted capacity of the wastewater treatment plant (based on current flows and permitted capacity, the plant is currently at 80% capacity and based on future projections, the plant will be at 100% in the year 2020.)

- Due to the Middle Chester River TMDL allocation of nutrients for the Chestertown wastewater treatment plant, which limits flow to 900,000 gpd at enhanced nutrient removal (ENR) effluent standards, the Town may need to investigate land application and/or nutrient trading alternatives in accordance with MDE regulations and policies.

- As part of ongoing consideration of larger annexations, the Town should require the developer to submit any reports and/or studies for the Town's review to demonstrate that each respective development will not have negative impact on the Town's water and wastewater treatment facilities.

- If it is determined that, in consideration of infill needs and the needs of any proposed annexation, the capacity of the Town's water and/or sewer facilities are exceeded, the Town should require that the annexation provide the necessary upgrades or funding for upgrades or reject the proposed annexation. Such upgrades or financial contributions should be included as part of an "Annexation Agreement" or "Developer Rights and Responsibilities Agreement".

- If it is determined that infill needs and the needs of a proposed annexation exceed the nutrient cap for effluent, the Town should consider requiring that the proposed annexation(s) dedicate appropriate land for land application of wastewater.

- The Town should prepare a Capacity Management Plan to track remaining capacity in water and wastewater systems and assure that capacity is not overcommitted and to set aside flow for infill development and non-residential development.

- If it is determined that, in addition to any contributions or upgrades made from developers, additional financial assistance is needed, the Town should seek funding support from MDE through the State Revolving Loan Fund (SRF), the U.S. Department of Agriculture (USDA), or the Rural Utility Service (RUS).

- Utilize the report entitled Town of Chestertown Water and Wastewater Facilities Preliminary Needs Analysis, prepared by URS Corporation, dated September 2009, as the basis for other upgrades, including additional water storage.

- Encourage or require use of water conservation fixtures and design techniques in new development to reduce water system demands and reduce flows to the wastewater treatment facility and thereby reduce point source nutrient loadings.

- Require water conservation landscaping practices.

- Place maximum limits on lawn size as a percent of total lot area or on watering.

- Require a minimum percentage of required landscaping utilize native plant materials.

Non-Point Source Pollution and Stormwater Management Considerations

Non-point source pollution occurs when rainfall, snowmelt, or irrigation runs over land or through the ground and gathers pollutants. Pollutants are then deposited into streams and rivers or introduced into groundwater. Stormwater runoff is a significant contributor to non-point source pollutant loading. By all estimates, the largest non-point source of nitrogen in the Middle Chester River Watershed is agriculture (approximately 70 percent). Agriculture is also the largest contributor of phosphorus (estimated 62 percent) and sediment loads (estimated 85 percent).

The Town of Chestertown, together with other Urban Uses in the Watershed contributes an estimated seven percent of non-point source nitrogen loadings, eight percent of the non-point source phosphorus loadings and four percent of the sediment loadings to watershed tributaries.

Stormwater runoff is part of the natural hydrologic process. Human activities and landscape changes resulting from urbanization can alter natural drainage patterns and add pollutants to rivers. Urban runoff is often a significant source of water pollution, including flows discharged from urban land uses into stormwater conveyance systems and receiving waters.

In the past, efforts to control the discharge of stormwater focused on quantity (e.g. drainage, flood control, etc.) and only to a limited extent on quality. More recently, awareness of the need to improve water quality has increased. With this awareness, Federal, State, and Local programs have been established to reduce pollutants contained in stormwater discharges to our waterways. These programs promote the concept and practice of preventing pollution at the source before it can cause environmental problems.

In a growing number of communities, a primary determinant of future growth is the assimilative capacity of receiving waters for stormwater runoff associated with land use change. Assimilative capacity is expressed in the TMDLs for the receiving waters.

Chestertown's Projected Non-Point Source Loading

Table 7 illustrates estimated nitrogen and phosphorous loadings from stormwater runoff based on projected growth in the Town through 2030. To assist communities with preparing a methodology for calculating nutrient loading rates for various land uses, MDE developed estimates of nutrient loading rates and loads.

Land use acreage totals are applied to a formula developed by MDE that includes soil factors, average annual rainfall and impervious surface percentages (impervious surface percentages vary according to land use – generally, developed land has a higher percentage of impervious surface than undeveloped land). The result is a per-acre rate of loading for each land use. The "Developed Land" per acre rate of loading was applied to the Town of Chestertown since it reflects a mix of residential, commercial and industrial uses.

Table 7: Chestertown Estimated Non-point Source Loading Rates and Loads (2009 and 2030)

Estimated Acres of Developed Land*	Nitrogen Loading Rate (lbs/ac)	Phosphorus Loading Rate (lbs/ac)	Estimated Nitrogen Load (lbs)	Estimated Phosphorus Load (lbs/yr)
Year 2009 1,365 acres**	8.77	1.14	11,971	1,556
Year 2030 1,707 acres†	8.77	1.14	14,970	1,946
Net Increase	---	---	2,999	390

Notes: Loading rates are based on MDE/CBP land use load estimates.
* "Developed" includes residential, commercial, industrial and institutional land uses.
** The Town corporate boundaries include a total of approximately 1,670 acres. Figure shown subtracts approximately 305 acres within the corporate limits which are vacant or undeveloped.
† Year 2030 estimate of developed land acres assume development of 1,051 residential units at 3.5 units per acre and construction of 400,000 square feet of non-residential uses on 42 acres during the planning period.

Estimates shown in Table 7 indicate that approximately 2,999 additional pounds in nitrogen loading and 390 additional pounds in phosphorus loading can be expected from non-point sources of nutrients as a result of projected development over the period. This estimate does not account for annexation of any specific site or land area but assumes that development may occur as a result of both infill development within existing corporate limits and/or annexation.

Based on the TMDL for the Middle Chester, the total average annual allocation for non-poing sources for nitrogen is 217,447 lbs/year and the same for phosphorus is 10,047 lbs/year. Therefore, it would appear that Chestertown's growth will represent a small proportion of total TMDL's likely to be allocated for non-point sources, and can be accommodated in watershed-wide context.

This conclusion underscores the importance of regional planning and coordinated land use and growth management strategies based on sound watershed planning principles. It also underscores the importance of inter-jurisdictional coordination and cooperation between Kent County, the Town of Chestertown, and the County's need to support the agricultural industry's efforts to reduce non-point loadings in the Watershed.

For TMDLs, Maryland has several well established programs that will be drawn upon: the Water Quality Improvement Act of 1998 (WQIA), the Clean Water Action Plan (CWAP) framework, and the State's Chesapeake Bay Agreement's Tributary Strategies for Nutrient Reduction. Also, Maryland has adopted procedures to assure that future evaluations are conducted for all TMDLs that are established. The implementation of point source nutrient controls will be executed through the use of NPDES permits. The NPDES permit for the Chestertown WWTP will have compliance provisions which provide a reasonable assurance of implementation.

Finally, Chestertown's Land Use and Municipal Growth Plans reflect "smart growth" strategies. They are designed to concentrate development adjacent to the existing developed areas within the corporate limits. Growth will be permitted on annexed lands at net densities ranging from 2 to 4 units per acre. The result is development concentrated within the existing corporate limits and in any areas that may be annexed and support development in cluster form. This approach maximizes opportunities to minimize additional nutrient loadings in the Middle Chester River watershed.

Water Resource Non-Point Source Strategies and Recommendations

Beyond establishing a land use planning framework that is supportive of water quality protection efforts, the Town can also initiate measures that further support sound management of stormwater flows to improve water quality. These include:

- Use of "Environmental Site Design" (ESD) Principles to manage Stormwater in new development. The Maryland Stormwater Management Act of 2007 is based upon Environmental Site Design (ESD)

Principles which attempt to mimic natural hydrology on developed sites. The Stormwater Management Act of 2007 is based upon 13 core principles, which are listed below:

1. Increase on-site runoff reduction volumes
2. Require a unified early ESD map
3. Establish nutrient–based stormwater loading criteria
4. Apply ESD techniques to redevelopment
5. Integrate ESD and stormwater management together at construction sites
6. Provide adequate financing to implement the Act and reward early adopters
7. Develop an ESD ordinance that changes local codes and culture
8. Strengthen design standards for ESD and stormwater practices
9. Ensure all ESD practices can be adequately maintained
10. Devise an enforceable design process for ESD
11. Establish turbidity standards for construction sites
12. Craft special criteria for sensitive and impaired waters of the state
13. Implement ESD training, certification and enforcement

The Town should consider amendment to Stormwater Management Regulations to incorporate these principles in standards for future development and site planning.

- Requiring bio-retention as a means of treating stormwater runoff. Bio-retention, such as a rain gardens, provides stormwater treatment that enhances the quality of downstream water bodies by using soil and both woody and herbaceous plants to remove pollutants from stormwater runoff.

- Determine the feasibility of implementation of a stricter lot coverage limit on all new development.

- Review existing stormwater management facilities and practices and investigate innovative methods to retrofit these facilities to include enhanced water quality benefits.

- Create incentives that encourage water quality improvements for existing development through stormwater management techniques such as rain barrels, rain gardens, and native planting plans.

- Encourage reduction of lawn area in new and existing developments.

- Remove short grass cutting requirements, encourage greater grass cycling and high mowing techniques in new and existing developments.

- Require xeriscaping and native plantings in landscape plans.

- Educate existing and future homeowners regarding the importance of water conservation and stormwater management for sustainability.

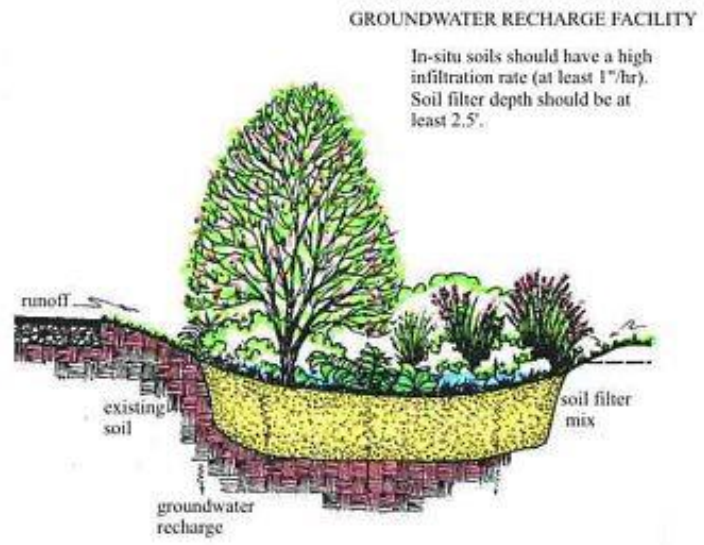
Rain gardens (see Figure 1) are vegetated surface depressions, often located at low points in landscapes, designed to receive stormwater runoff from roads, roofs, and parking areas. The gardens' sandy soils allow stormwater to infiltrate quickly to the native soils below and eventually contribute to groundwater recharge. Pollutants and nutrients in stormwater runoff are removed by rain garden vegetation and soils through

biological and physical processes such as plant uptake and sorption to soil particles. In comparison with stormwater release to receiving waters through conventional storm drain systems, infiltrating stormwater through rain gardens reduces peak flows and stressor loadings.

- Utilize Low Impact Development (LID) stormwater management techniques and devices in new developments to minimize flows and attenuate impacts near their source. These include:

- Bioretention or vegetated depressions that collect runoff and facilitate its infiltration into the ground. These include rain gardens as discussed above. (See Figure 1)

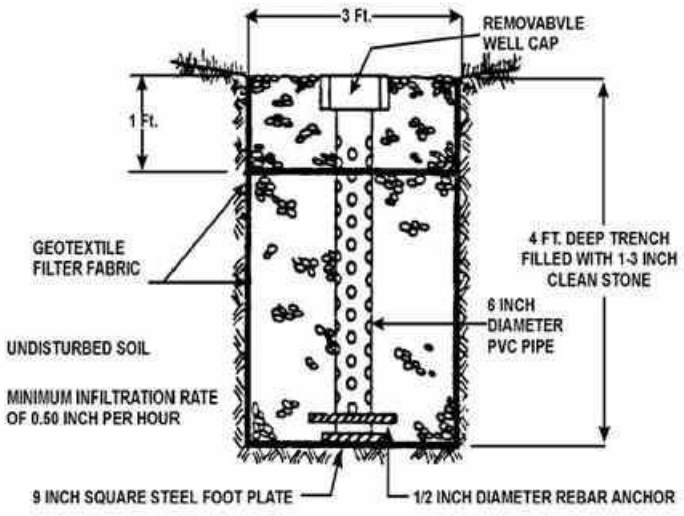
Figure 1: Bioretention Area



Source: Prince Georges County DER

- Infiltration Trenches: Trenches filled with porous media such as bioretention material, sand, or aggregate that collect runoff and infiltrate it into the ground.

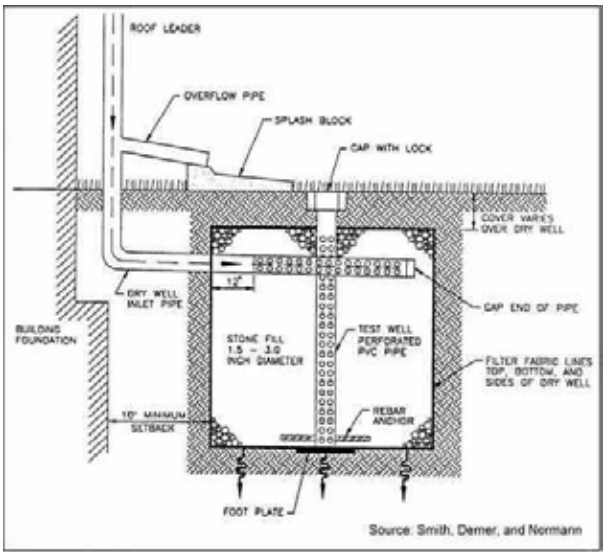
Figure 2: Infiltration Trench Schematic



Source: SWRPC, 1991. In EPA, 1999c.

- Dry Wells: Gravel or stone-filled pits that are located to catch water from roof downspouts or paved areas.

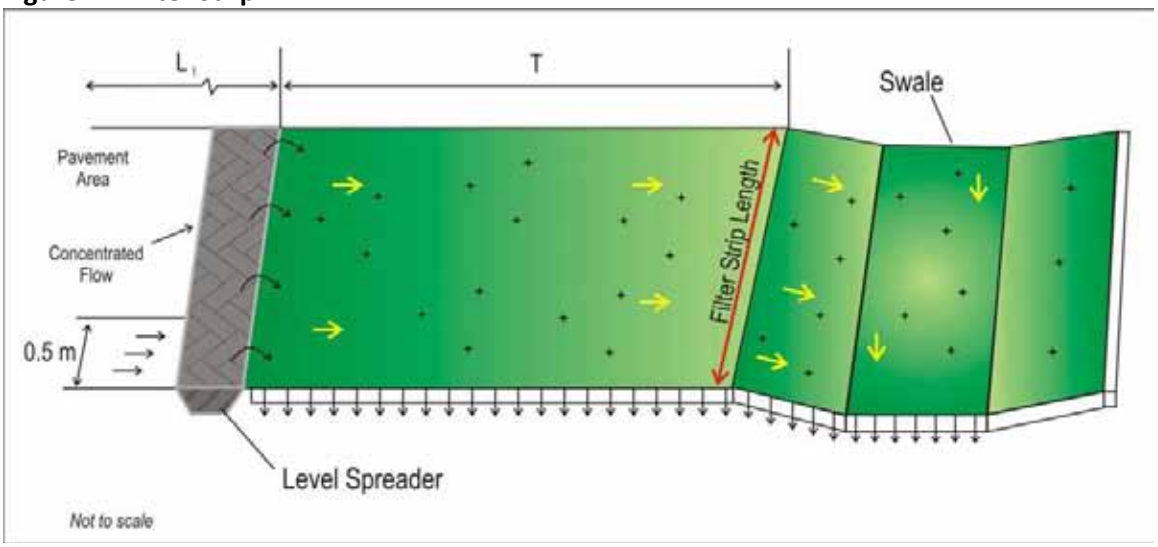
Figure 3: Dry Well Schematic



Source: Stormwater Management for Maine, 1995.

- Filter Strips: Bands of dense vegetation planted immediately downstream of a runoff source designed to filter runoff before entering a receiving structure or water body.

Figure 4: Filter Strip

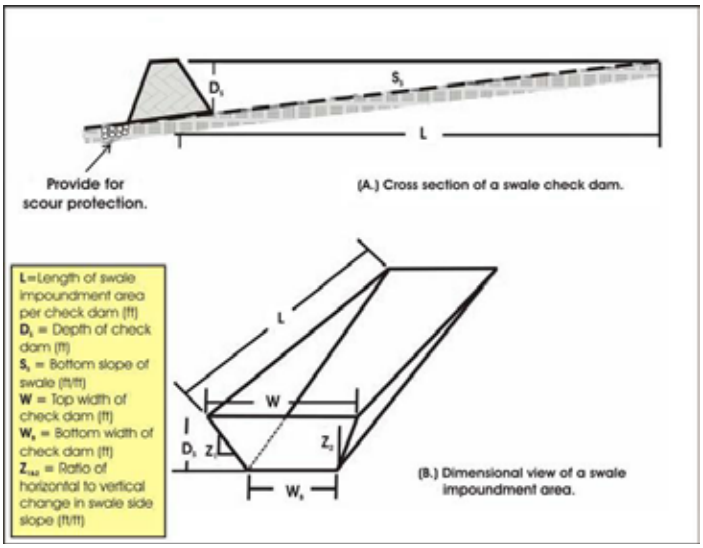


Source: Low Impact Design Manual, US Army Corps of Engineers, 2004

- Inlet Pollution Removal Devices: Small stormwater treatment systems that are installed below grade at the edge of paved areas and trap or filter pollutants in runoff before it enters the storm drain.

- Grassed Swales: Shallow channels lined with grass and used to convey and store runoff.

Figure 5: Grassed Swale Schematic



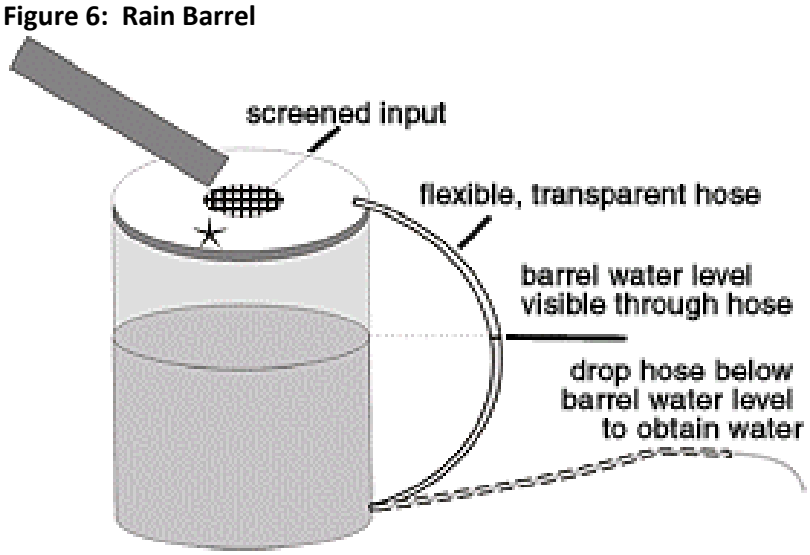
Source: NVPDC, 1991. In EPA, 1999d.

- Permeable Pavement: Asphalt or concrete rendered porous by the aggregate structure.

- Permeable Pavers: Manufactured paving stones containing spaces where water can penetrate into the porous media placed underneath.

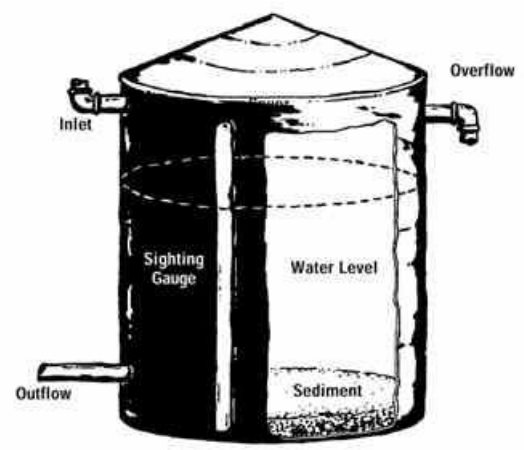
- Rain Barrels and Cisterns: Containers of various sizes that store the runoff delivered through building downspouts. Rain barrels are generally smaller structures, located above ground. Cisterns are larger, are often buried underground, and may be connected to the building's plumbing or irrigation system. Rain barrels and cisterns are low-cost water conservation devices that reduce runoff volume and, for very small storm events, delay and reduce the peak runoff flow rates. Both rain barrels and cisterns can provide a source of chemically untreated 'soft water' for gardens and compost, free of most sediment and dissolved salts.

Figure 6: Rain Barrel



Source: Maryland DNR Green Building Program.

Figure 7: Cistern



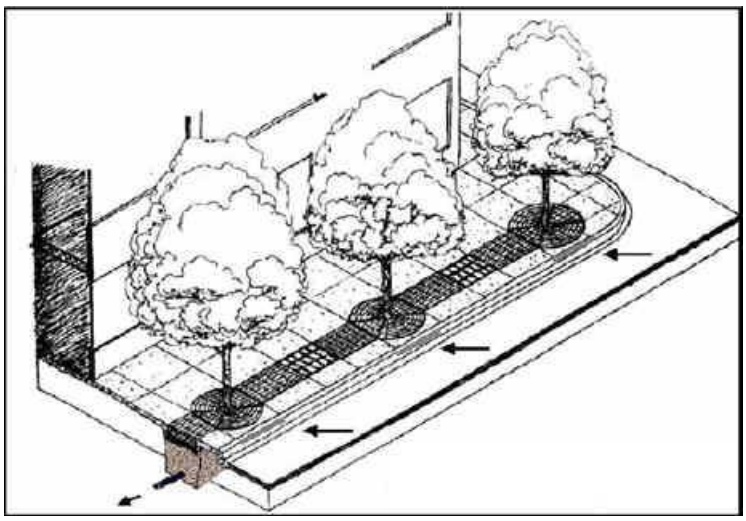
Source: Texas Guide to Rainwater Harvesting.

- Soil amendments: Minerals and organic material added to soil to increase its capacity for absorbing moisture and sustaining vegetation.

- Weirs and check dams in swales

Tree Box Filters: Curbside containers placed below grade, covered with a grate, filled with filter media and planted with a tree in the center.

Figure 8: Manufactured Tree Box Filter

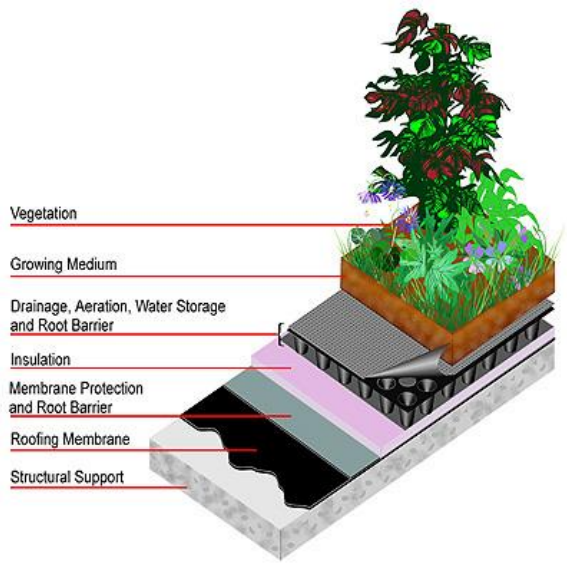


Source: Virginia DCR Stormwater Management Program.

- Vegetated Buffers: Natural or man-made vegetated areas adjacent to a water body, providing erosion control, filtering capability, and habitat.

- Vegetated Roofs: Vegetated roofs, also known as green roofs, eco-roofs or nature roofs, are structural components that help to mitigate the effects of urbanization on water quality by filtering, absorbing or detaining rainfall.

Figure 9: Vegetated Roof Cross-Section



Source: American Wick Drain Corp.

Table 8: Chestertown Combined Point and Non-point Nutrient Loads		
	Nitrogen (lbs/yr)	**Phosphorus (lbs/yr)**
Point	10,919	821
Non-point	14,970	1,946
Total	25,889	2,767

Table 8 represents the total nutrient loading estimated to be generated by the Town of Chestertown based on this Comprehensive Plan. The point totals are as assigned by the TMDL for the Middle Chester River. The non-point totals are based on estimated land use changes as described earlier in this chapter.

Table 9: Average Annual Allocations Middle Chester River TMDL		
	Nitrogen (lbs/yr)	**Phosphorus (lbs/yr)**
Point*	47,567	6,188
Non-point**	217,447	10,047
Margin of Safety***	10,424	474
Total	275,437	16,709

Table 9 represents the nutrient allocations per the Middle Chester River TMDL. A comparison of Tables 8 and 9 would indicate that the nutrients generated as a result of this Comprehensive Plan do not unreasonably or disproportionately impact the Middle Chester River Watershed.

Water Resources Goal and Objectives

The Water Resources goal for the Town of Chestertown is:

- to maintain a safe and adequate water supply and adequate capacities for wastewater treatment to serve projected growth at sustainable levels; to take steps to protect and restore water quality; and to meet water quality regulatory requirements in the Middle Chester River Watershed.

- Objectives to support this goal are:

- Assure that existing and planned public water systems meet projected demand in a sustainable fashion.

- Assure that existing and planned public wastewater collection and treatment systems meet projected demand without exceeding their permitted capacity.

- Assure that the Town's stormwater management policies reflect the most recent state requirements, and require Low Impact Development (LID) practices in both new development and by existing homeowners.

- Maintain land use patterns that limit adverse impacts on water quality.

- Continue to focus growth to areas best suited to utilize the existing and planned water and wastewater infrastructure efficiently and sustainably.

Sources:

Town of Chestertown Comprehensive Plan, *2004*

The Water Resources Element: Planning for Water Supply and Wastewater and Stormwater Management; publication #26 from the Maryland Department of Planning "Models and Guidelines" series.

Sustainability of the Groundwater Resources in the Atlantic Coastal Plain of Maryland, USGS Fact Sheet FS 2006-3009.

A Science Plan for a Comprehensive Regional Assessment of the Atlantic Coastal Plain Aquifer System in Maryland (Open-File Report 2007–1205), by Robert J. Shedlock, David W. Bolton, Emery T. Cleaves, James M. Gerhart, and Mark R. Nardi, U.S. Department of the Interior and U.S. Geological Survey, prepared in cooperation with the Maryland Geological Survey, the Maryland Department of Natural Resources and the Maryland Department of the Environment.

Estimated Use of Water in the United States County-Level Data for 2000., US Geological Survey

Maryland's 2006 TMDL Implementation Guidance for Local Governments, Maryland Department of Environment, May 24, 2006.

Water Quality in the Delmarva Peninsula, Delaware, Maryland, and Virginia, 1999–2001, U.S. Geological Survey Circular 1228, Judith M. Denver, Scott W. Ator, Linda M. Debrewer, Matthew J. Ferrari, Jeffery R. Barbaro, Tracy C. Hancock, Michael J. Brayton, and Mark R. Nardi, 2004.

Technical Memorandum_Nutrient Point Sources in the Upper and Middle Chester River Watersheds. Maryland Department of Environment January 31, 2006

Technical Memorandum_Nutrient Non-Point Sources in the Upper and Middle Chester River Watersheds. Maryland Department of Environment January 27, 2006

Middle Chester River Watershed Characterization, Maryland Department of Natural Resources, April, 2001

Middle Chester River Watershed Restoration Action Strategy, Kent County Planning Department and others, April, 2002

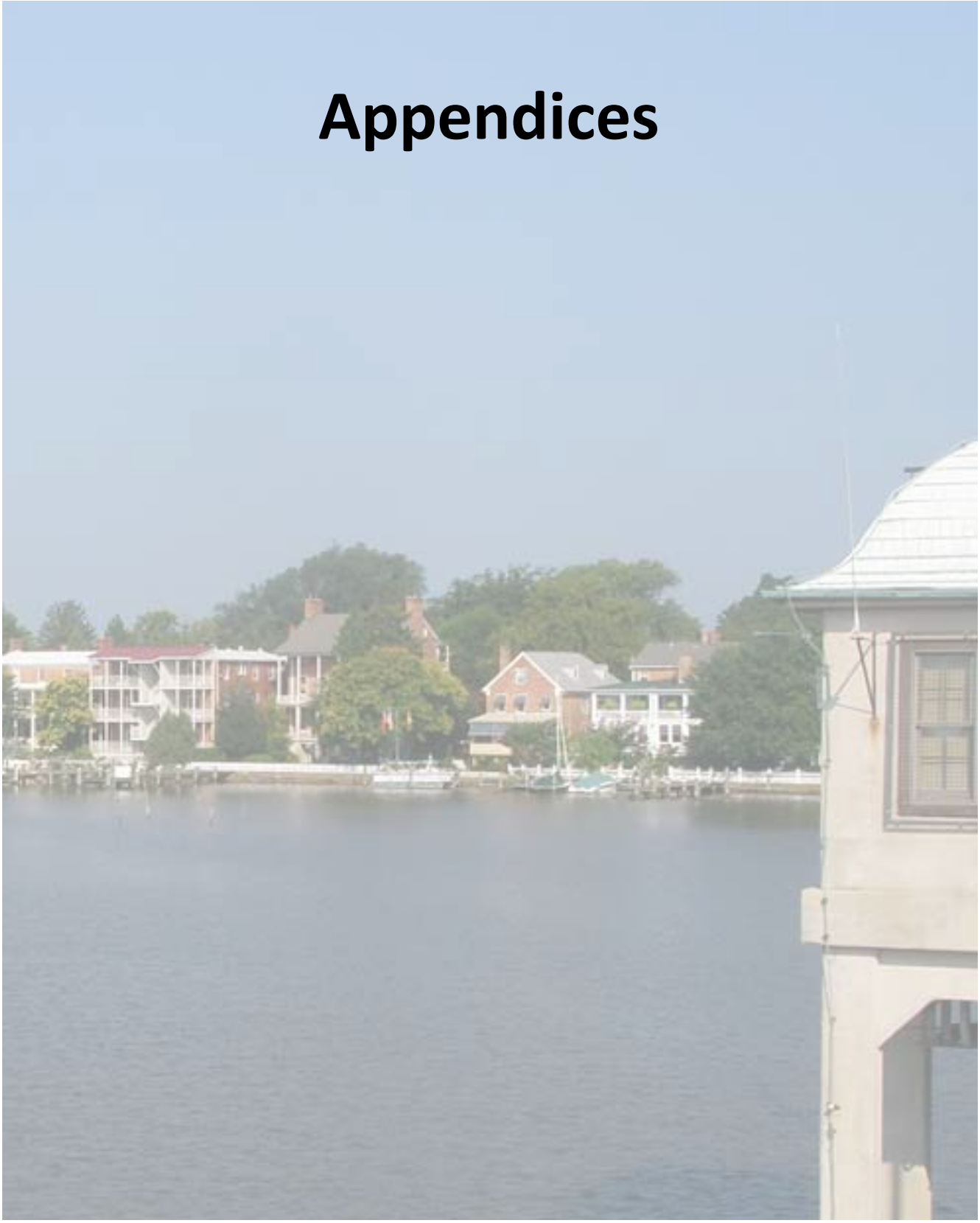
2008 Chester River Report Card, Chester River Association, March, 2009

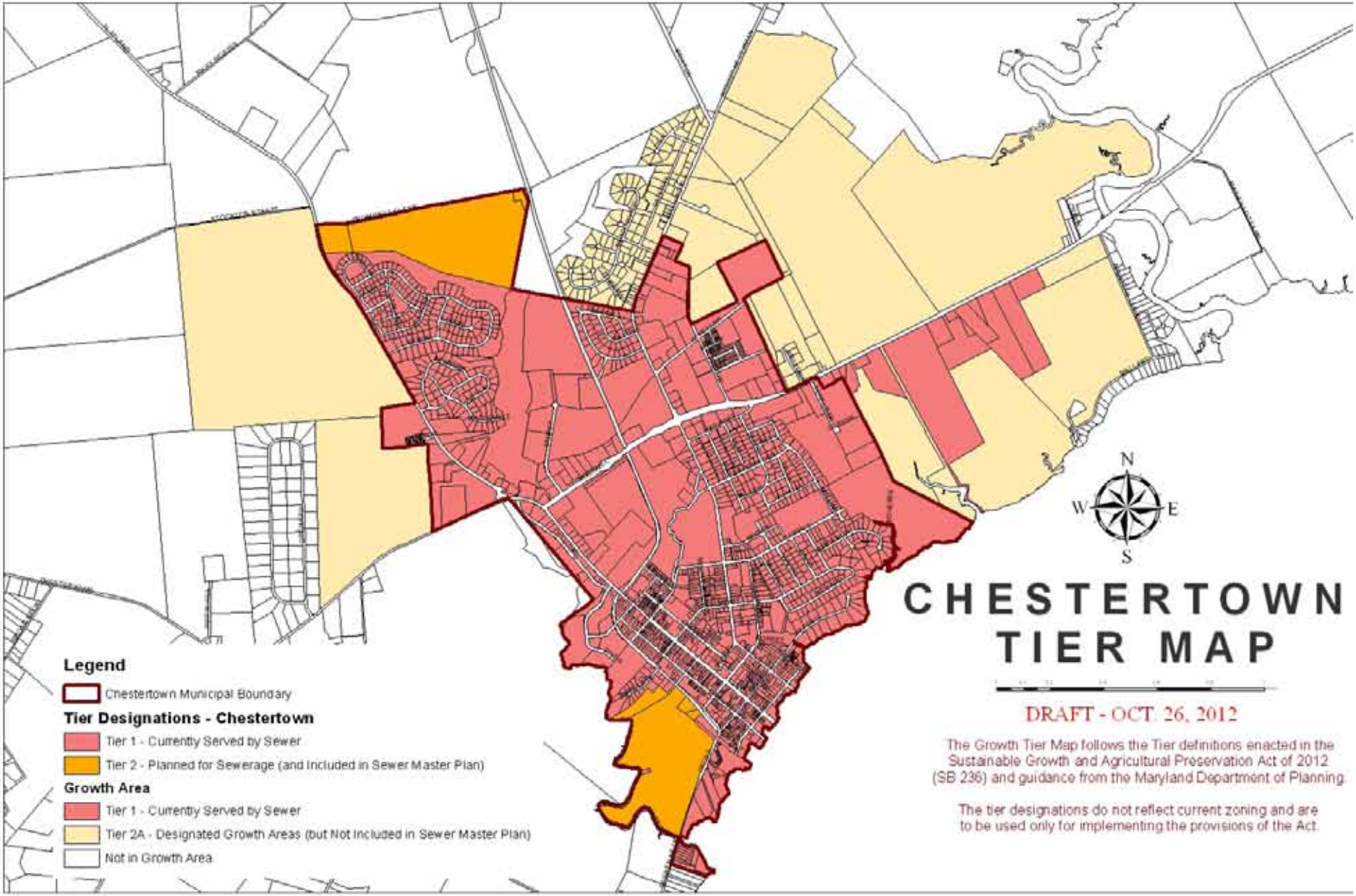
Moving Water, Report to the Chesapeake Bay Cabinet by the Public Drainage Task Force Dr. Wayne H. Bell, Chair, Center for the Environment and Society, Washington College, October 2000.

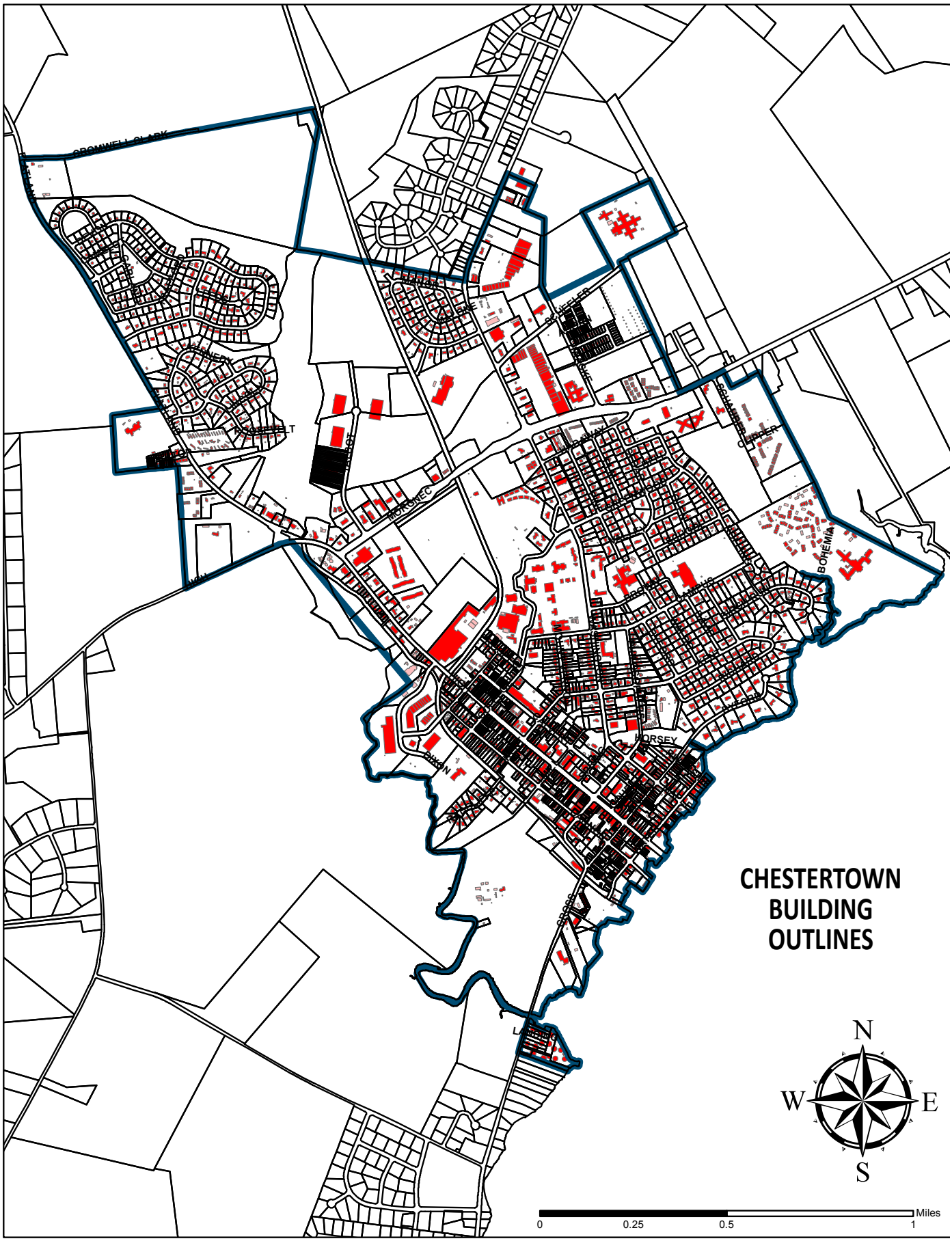
Total Maximum Daily Loads of Nitrogen and Phosphorus for the Upper and Middle Chester River Kent and Queen Anne's Counties, Maryland, Maryland Department of Environment, April, 2006// EPA Approval Date: Nov. 28, 2006

Town of Chestertown Water and Wastewater Facilities Preliminary Needs Analysis (Draft), URS Corporation, July 2008

Appendices




CHESTERTOWN
TIER MAP
DRAFT - OCT. 26, 2012
The Growth Tier Map follows the Tier definitions enacted in the Sustainable Growth and Agricultural Preservation Act of 2012 (SB 236) and guidance from the Maryland Department of Planning.
The tier designations do not reflect current zoning and are to be used only for implementing the provisions of the Act.
N
W
E
S
Legend
Chestertown Municipal Boundary
Tier Designations - Chestertown
Tier 1 - Currently Served by Sewer
Tier 2 - Planned for Sewerage (and Included in Sewer Master Plan)
Growth Area
Tier 1 - Currently Served by Sewer
Tier 2A - Designated Growth Areas (but Not Included in Sewer Master Plan)
Not in Growth Area


CHESTERTOWN
BUILDING
OUTLINES
N
W
E
S
0
0.25
0.5
1
Miles
CROMWELL CLARK
MORGNEC
HORSEY
BOHEMIA
DIXON
CROSS

BIRDS EYE VIEW OF
CHESTERTOWN
KENT CO.
MARYLAND
1907

Documents Adopted by Reference

The following documents and any related amendments are hereby adopted by reference as part of this Comprehensive Plan:

1. Chestertown Waterfront Committee Report (1995)
This report was the result of several public charrettes that envisioned many of the waterfront amenities visible today, including the public dock, boardwalk and pedestrian bridge.

2. Town of Chestertown Historic District Design Guidelines (2002, rev. 2012)
The Design Guidelines provide rehabilitation, maintenance, and new construction guidance for residential and commercial properties within the Historic District.

3. Chestertown Greenbelt & Comprehensive Plan (2007)
Led by the Town of Chestertown, Kent County and the Eastern Shore Land Conservancy, the consultant firm Town Planning & Urban Design Collaborative created a guide book for the expansion of the Town to the northeast.

4. Sustainable Communities Action Plan (2014)
Administered by the Maryland Dept. of Planning, Sustainable Communities seek to conserve resources, provide green spaces and parks for recreation, offer transportation options, use natural and cultural resources wisely and consider the social and economic needs of all residents.

5. Chestertown Public Arts Master Plan (2014)
Funded by a National Endowment for the Arts Our Town grant and the Town of Chestertown, in partnership with RiverArts, the Master Plan creates a vision for public arts, primarily in the waterfront and downtown area, guided by three themes: art, history, and environment.