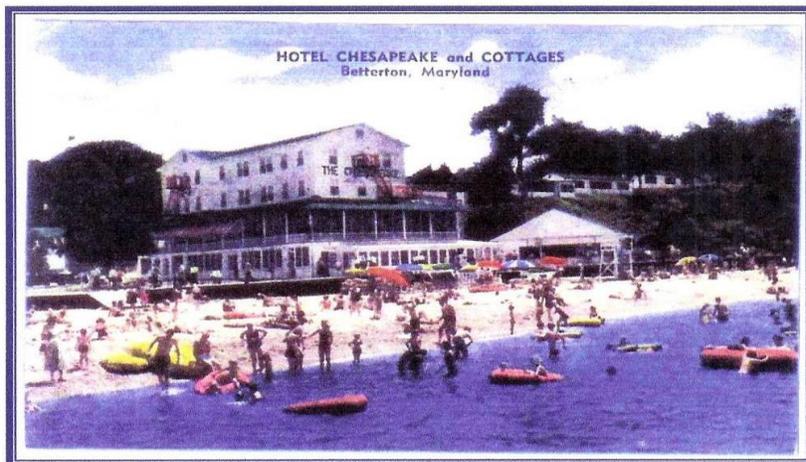


# BETTERTON COMPREHENSIVE PLAN



December 30, 2005  
With 12/14/2009 Revisions

## 1.0 INTRODUCTION

### 1.1 Purpose

The Comprehensive Plan is the principal document outlining the Town of Betterton's goals and policies regarding the use of land. It has been designed as a policy statement that should remain valid in the face of change over the years. Properly used, the Plan is the basis for decision-making at all levels of government and will guide the public and private sectors toward beneficial activities affecting its people and land.

This Plan has several specific purposes:

- Create a unified set of goals for change and development within and surrounding the Town.
- Become the central source of guidance on proposed public activities by coordinating them to ensure that each contributes to the adopted goals.
- Apply the individual tools of planning within the framework of an overall Plan so that regulation is not arbitrarily applied.
- Guide private land use decisions by providing information on the overall direction of the community.
- Provide analysis and policies that will allow assimilation of the unexpected to the Town's advantage, turning problems into opportunity.
- Condition and channel all change in ways that ensure the continued residential ambiance, attractiveness, favorable business climate, and overall health and well-being of the Town.
- Keep the Town's resources and services abreast of the projected demands for resources and services.

And the final purpose is to...

- Help Betterton operate as a good "citizen" of Maryland by adopting the following "Visions" for Maryland.
  - 1) Development shall be concentrated in suitable areas;
  - 2) Sensitive areas shall be protected;
  - 3) In rural areas, growth shall be directed to existing population centers and resource areas shall be protected;
  - 4) Stewardship of the Chesapeake Bay and the land shall be a universal ethic;
  - 5) Conservation of resources, including a reduction in resource consumption, shall be practiced;
  - 6) To encourage the achievement of paragraphs 1) through 5), economic growth shall be encouraged and regulatory mechanisms shall be streamlined;
  - 7) Adequate public facilities and infrastructure under the control of the county or municipal corporation are available or planned in areas where growth is to occur; and
  - 8) Funding mechanisms shall be addressed to achieve this policy.

This Plan supports all of these Visions and recognizes that those with natural resource implications, e.g. stewardship of the Chesapeake Bay, are particularly important to Betterton. With its limited land area, transportation access constraints, and the importance of its relationship to the Bay, Betterton must make careful decisions about its future. The critical elements of the Plan are the Visions of the Town of Betterton. All of the goals, policies, and actions flow from these Visions as a means to move from where we are today to where we want to be in 15 or 20 years. Clearly, some steps are of higher priority than others and, just as clearly, some steps are easy and straightforward while others are more uncertain and require further community dialog and background effort. The Vision invites reflection, examination, and understanding.

This Comprehensive Plan provides the policy framework for making choices about growth, change, and preservation. With its adoption, all citizens will be aware of the fundamental background against which decisions will be made. Each choice about the overall health and well-being of Betterton will not have to be made anew if this Plan is adopted and used as an accepted basis for decision-making. This 2005 Plan is the single, comprehensive source of information and direction about the future growth and management of Betterton.

## **1.2 Procedure and Authority**

The Economic Growth, Resource Protection, and Planning Act of 1992 (the Growth Act) amended Article 66B to require jurisdictions to periodically review their Comprehensive Plans and implementation measures. The Growth Act requires all jurisdictions, at intervals of no more than six years, to review and, if necessary, update the Plan. Implementation regulations that are consistent with the updated Plan, such as revised zoning and subdivision laws, should also be adopted.

Plan preparation and revision is the responsibility of the Betterton Planning Commission, a group of citizen volunteers with an interest in and long-term commitment to discovering the most appropriate uses of the physical and fiscal resources of their community and coordinating those uses with surrounding jurisdictions. In carrying out its responsibilities, the Planning Commission has chosen to base this update on the efforts and ideas of its residents and property owners. To develop the 1997 Plan, the Comprehensive Planning Commission gathered data, debated issues, and sought widespread community input and advice. It was a “home-grown” plan that taught its many contributors the complexity and excitement of thinking about the future and moving it through the political framework.

Notwithstanding the State’s mandate, the Town’s successes and setbacks, as well as economic and social change in the eight years since 1997 also call for a review of the Plan to find if its provisions are still relevant to new conditions. This Plan, begun in 2003, is the product of that review. It was prepared with important contributions from individual citizens and organizations.

To accomplish the purposes of this Comprehensive Plan, the following elements are included: 1) Statements of visions, policies, and standards, 2) Community Services and Facilities, 3) the Natural and Built Environment, 4) Land use and Growth, and 5) Annexation and Implementation.

## 2.0 THE SETTING

### 2.1 Local History

Twelve miles northwest of Chestertown, Maryland, lies Betterton, a scenic, incorporated town of fewer than 400 year-round residents. Nestled midst the bluffs of the Chesapeake Bay, the town's northern boundary, Betterton covers approximately 500 acres before joining the rural countryside of Kent County, Maryland. Visitors arriving via Route 292 are welcomed to the town by a sign, heralding entry to "The Jewel of the Chesapeake."

Victorian-style homes, a few sprawling rooming houses, and tiny summer cottages give glimpses of days gone by. Newly constructed townhouses and condominiums with unobstructed views of the Bay reside peacefully with their neighbors of a different era. Some of Betterton's residences have experienced extensive restoration and renovation while other dwellings have been left to decline.

Scattered among the residences are a town park (boasting tennis courts, playing field, picnic pavilion and playground), a fire hall, a town office, a town maintenance building, a water tower, sewage treatment plant, a U.S. Post Office, two churches, a bed and breakfast, and a restaurant. Adjacent to the town on the south side are an American Legion Post and The Kent Center, a daycare for mentally and physically challenged adults.

Although there are no operating stores within the town limits, a small grocery/general store is located 3 miles south in Still Pond. Most shopping is done in Chestertown, approximately 12 miles to the south. Major commercial areas also are easily accessible: Annapolis, Maryland, and Dover, Delaware, are an hour away; Baltimore, Maryland, Washington, D.C.; and Philadelphia, Pennsylvania, can be reached in one and one-half hours. Two major airports, Philadelphia and Baltimore-Washington International, are within easy driving distance.

The main roads, Ericsson Avenue and Main Street, parallel one another and lead from the southern entrance of Betterton to the northern boundary, the public beach owned by Kent County. This beach is Betterton's Number One asset and attraction.

Whether lying on the beach, fishing from the pier, or watching the sunset in the silence, one can easily imagine the charm of yesteryear before being abruptly brought back to the present by a passing ocean cargo ship or the "booms" from the Army's Aberdeen Proving Ground, directly across the Bay.

The recorded history of Betterton dates back to the Seventeenth century. The Fishall Patent was granted in 1664, later becoming known as Fish Hall. The house located at 104 Ericsson Avenue contains foundation bricks dating back to 1698. In 1715 Edward Crew leased Fish Hall and the name was changed to Crews Landing.

For the next 100 years Crews Landing was a small fishing village and then later a port for the waterborne transport of local farm produce to urban markets. In 1851, Richard Townsend Turner

(a Quaker) named the town "Betterson" after the family of his wife Elizabeth Betterton. The Turner pier, and later the Ericsson pier, provided access to the town for the shipping trade. Eventually townspeople rented out rooms to the travelers, salesmen, and shippers attracted to the beach. Mr. Turner built the Rigbie Hotel (demolished in August 1986) and Mr. Crownhart built the Belmont Hotel (destroyed by fire in 1956). These were joined by such lodging establishments as the Betterton, the Chesapeake, the Country Cousin, the Southern, and many others. Boat traffic from Baltimore and Philadelphia on the Ericsson Line (and others) brought the visitors and vacationers. The Ericsson line was named after John Ericsson, the inventor of the "screw propeller". It was this invention that allowed steamboats to be built with narrow enough beam to allow them to traverse the recently opened Chesapeake and Delaware Canal then only 25 feet wide. Betterton was an easy and natural stop for boats using the canal and the explosion in steamboat traffic brought growth and prosperity to Betterton. For some time before the turn of the Twentieth century, there were 11 scheduled steamboat landings daily at Betterton's piers. The boom period for Betterton is generally thought to be from 1918 to 1930, when restaurants, taverns, dance halls, bowling alleys, and amusement arcades all helped create the town's resort image.

The Great Depression severely reduced the influx of vacationers and during World War II fuel was not available to run unessential excursion steamboats. Indeed, many of the boats themselves were recruited for the war effort and were lost. After World War II, Betterton entered a period of slow decline. People were using their newly available cars more. After completion of the Chesapeake Bay Bridge between Kent Island and the western shore in 1954, people in Baltimore found the ocean beaches, with their more modern facilities, to be just as easy to reach as Betterton had been by steamboat. The excursion steamboat service out of Baltimore to Betterton ended after the 1961 season. Betterton lodging establishments were not "modern" by post-war standards and the decline in patrons made renovation and modernization a poor investment strategy. Further deterioration of the buildings caused further decline in the tourist trade in a self-reinforcing cycle, until the few remaining commercial properties at the beach became literal derelicts.

At the urging of the Town fathers and using State of Maryland "Open Space" monies, Kent County purchased the beachfront properties in 1978. Over the next few years the county razed the derelict structures, opened up and cleared the beach, rebuilt the current boardwalk, bathhouse, and picnic pavilion, thus creating the park and beach area we have today.

An influx of "automobile people" from Philadelphia, Washington, and as far away as New York, were attracted by the changes and they bought many Betterton homes as retirement or second homes, investing substantially in their properties. The result is a well-maintained community with a good mix of young and old, permanent residents and weekenders, basically a middle class community.

Because Betterton's historic properties are unique it is important to preserve them as a part of our history and heritage. Special consideration shall be taken to preserve the natural setting and ambiance of Betterton's historical structures and properties from any adverse effects of development.

In recognition of the Town’s architectural, cultural and historic importance, in June 1984, the Betterton Historic District was listed on the National Register of Historical Places by the United States Department of Interior. Bounded on the north by the Sassafras and south by Sixth Avenue and Howell Point Road, the Betterton Historic District consists of about 300 acres of the town center, containing almost all the built area at the date of the listing. As is well known, the National Register of Historical Places is a national listing of buildings, sites and towns which are considered worthy of preservation because of their architectural merits or importance in local, regional or national history. A National Register of Historical Places designation may assist property owners in several ways, including consideration in the planning for federal or federally assisted projects, such as a state highway, eligibility for federal tax benefits and qualification for federal assistance in historic preservation. But such designation does not prevent property owners from making changes in or painting their houses. It also does not limit the use of buildings, cost the property owner anything to be listed, affect tax assessments or make the owners purchase or erect plaques.

The Comprehensive Plan recognized the importance of the Betterton Historic District in any future planning. In April 2005 Betterton adopted the “The Stories of the Chesapeake Bay Heritage Area,” as an addendum to the new Comprehensive Plan. The Town of Betterton is also listed as a sidetrack to the Chesapeake Country National Scenic Byway.

**2.2 Population and Housing**

The following tables summarize current demographic and economic data for Betterton, Kent County, and Maryland.

Table 1. Betterton General Demographics – 2003					
	Total Population (Rank)	Percent Age 65 & Over (Rank)	Percent Age 18 & Over (Rank)	Percent Foreign Born (Rank)	Percent Bachelor’s Degree or Higher (Rank)
Betterton	376 (131 of 157)	13.6% (69)	73.9% (74)	3.0% (74)	15.3% (91)
Kent Co.	19,197 (24 of 24)	19.3% (3)	79.2% (4)	2.9% (11)	21.7% (14)

Maryland	5,296,486	11.3%	74.4%	9.8%	31.4%
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Source: MD Department of Planning, 6/27/03

Table 1 shows a small town in the smallest county in the State with an age distribution slightly tilted to the elderly, few foreign born, and a higher education rank one/half of the Statewide percentage. Approximately 190 adults reside full time in Betterton.

Table 2. Betterton General Economics – 2003					
	Mean Travel Time to Work (Rank)	Percent in Labor Force (Rank)	Median Household Income (Rank)	Poverty Rate (Rank)	Median Value of Owner Occupied Housing (Rank)
Betterton	26.7 min. (106 of 157)	65.4% (89)	\$36,477 (103)	6.8% (98)	\$91,400 (110)
Kent Co.	24.6 min. (20 of 24)	62.2% (17)	\$39,869 (17)	13.0% (6)	\$115,500 (16)
Maryland	31.2 min.	67.8%	\$52,868	8.5%	\$146,000

Source: MD Department of Planning, 6/27/03

Table 2 reveals a town with very few local jobs, typical participation in the labor force, a low poverty rate, but also lower than average household income and housing value. The employment breakdown is 91 employed in Kent County, 23 self-employed, 24 employed outside of Kent County, 40 retired, and 11 unemployed.

The key to understanding these numbers is that the town has a large number of weekend or summer people – over 50% of the town’s utility bills are sent to out-of-town addresses. A general review of the Town in March, 2004, shows that 125 owners consider their residential dwellings “second homes.” Eleven dwellings are unoccupied.

Betterton had its highest percentage population growth from 1940 to 1950 (42.1%) and its low (-25.3%) from 1930 to 1940. The reason for this wide variance is probably due to the Depression, the influx of people after World War II seeking a nice place to live and work with the government at Aberdeen Proving Grounds within eyesight across the Bay, and the low population numbers which produce large percentage swings with small changes in the actual numbers. Growth leveled off in the past decade to only 1.1%. The most recent estimates are shown in Table 3 and show a loss – in fact, the worst percentage loss in the State.

Table 3. Population Estimates: 4/1/00 to 7/1/03								
	7/1/2003	7/1/2002	7/1/2001	7/1/2000	4/1/2000	Rank 7/1/2003	Change 2003- 2000 (Rank)	Percent Change 2003- 2000 (Rank)
Betterton	342	355	364	374	376	133 of 157	-34 (149)	-9.0% (157)

Source: MD Department of Planning, 6/24/2004

Predicting future population using the small additions and losses of Betterton residents is not very productive or statistically valid. A much more useful guide is residential development activity and interest in major development which is present in 2005. Large parcels surrounding the town along Maryland Route 292 and Howell Point Road are currently zoned to support development around existing infrastructure. As interest in these parcels turns into concrete site plans and subdivisions, implementation of these plans must include economic impact studies conducted by developers. Any proposed growth in the town must accommodate reasonable integration with existing infrastructure. Further, infrastructure within any subdivision must be provided by developers of any future subdivisions. While any expansion in this area zoned for growth will dramatically increase the town population, town infrastructure must not be negatively impacted or stressed by expansion.

Land use in Betterton is currently distributed as follows:

Residential	Total	484 acres	
R-1 Residential			121 acres
Developed			0 acres

R-2 residential		303 acres
Developed		267 acres
R-3 residential		60 acres
Developed		30 acres
Commercial	Total	14 acres
B-1 commercial		2 acres
Developed		2 acres
C-1 Commercial		12 acres
Developed		11 acres

### 3.0 THE VISIONS

#### 3.1 The Challenge

The first undertaking of the Betterton Comprehensive Plan Review Committee was to determine from the town residents how they felt about their town, what is desirable, what is undesirable, how we see our community, how we would like to see it in the future. The responses played a large part in shaping the decisions of the committee.

In 1997, 226 surveys were sent with 91 responses. In 2003, 350 surveys were sent and 175 responses were received. The questions here are paraphrased for brevity and the answers to both surveys are presented where possible.

Do you believe the town is more...

1997 –	2003 –
61% rural	72% rural
25% rural suburban	25% rural
2% suburban	2 suburban

Do you want to retain the current character...

1997 –	2003 –
89% Yes	86% Yes
11% No	14% No

Do you want development to be compatible with the existing town...

1997 –	2003 –
99% Yes	93% Yes
1% No	7% No

How fast should Betterton grow...

1997 –	2003 –
46% Very slowly	23% Very slowly
42% Slowly	60% Slowly
12% Not at all	7% Not at all
3% Rapidly	9% Rapidly

How should Betterton grow...

1997 –	2003 –
59% Mostly SF detached commercial	68% Mostly SF detached with some commercial
40% Overwhelmingly SF	28% Overwhelmingly SF
1% Mostly commercial	4% Mostly commercial

Do you want to protect residential areas...

1997 –	89% Yes
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11% No

Do you want to allow (controlled) commercial uses in single family areas...

1997 –	2003
42% no	40 no
58% yes	60% yes

Do you want to separate commercial areas...

1997 –	2003 –
85% Yes	70% Yes
15% No	30 % No

Do you want forested buffers from commercial areas...

1997 –	2003 –
96% Yes	69% Yes
4% No	31% No

Do you want to consider existing areas prior to authorizing new commercial areas...

1997 –	75% Yes
	25% No

Do you believe open space and agricultural uses important...

1997 –	2003 –
90% Yes	95% Yes
10% No	5% No

Do you want to protect open space and agricultural uses when growth and annexation occur...

1997 –	2003 –
92% Yes	93% Yes
8% No	7% No

Should new development pay higher fees...

1997 –	59% Yes
	41% No

Should sewer hook up fees be raised to an amount equal their current worth...

1997 –	91% Yes
	9% No

Are recreational facilities adequate...		
1997 –		2003 –
74% Yes		61% Yes
26% No		39% No
Is traffic circulation acceptable...		
1997 –		2003 –
89% Yes		98% Yes
13% No		2% No
Are town taxes fair...		
1997 –		2003 –
87% Yes		78% Yes
13% No		22% No
Should water/sewer be self-supporting...		
1997 –		2003 –
94% Yes		82% Yes
6% No		18% No
Are public services adequate...		
1997 –		2003 –
84% Yes		77% Yes
16% No		23% No

The survey responses suggested that Betterton should stay basically the same, residential with some commercial. Large commercial endeavors should be separate from the residential areas and well buffered by trees. Any new development should proceed slowly and be of a character consistent with the present town including mixed housing types, small lots, parks, recreation areas, and open space in general. The survey also indicated a preference for maintaining the agricultural neighbors we now have. Many residents added specific comments to the survey revolving around several town issues including the repair or elimination of derelict housing, the need for additional local personal and commercial services, the need for a stronger police presence, improvements to the recreational system (specifically better facilities at the beach and a townwide fitness/walking/biking trail), and the need for better variety of mixed uses throughout the town.

From our history we can see the dangers of a poorly maintained community and the benefits of a diversified populace. We must therefore encourage renovation and innovation without overly restrictive regulations and cost. With impending extensive development at our door, we must adhere to existing building and development standards in both new and existing neighborhoods. We must ensure that new development does not drown out our past.

### **3.2 The Visions**

This plan is based on a concerted effort by Town Council members, Planning Commission, Comprehensive Plan Committee members, and interested citizens to define the character of our town and our aspirations for its future. Through many discussions and a survey of our residents, we reached a general consensus on a vision for the future of Betterton and specific goals and objectives that form a strategy to achieve that vision.

The current strength of Betterton lies in its combination of quiet small-town living and access to the beauty and recreational value of the Bay. This has stimulated the investment in renovation and beautification of the town's properties that has been in progress for the last decade. This process has also resulted in a diverse population of permanent and part-time residents. Our intent is to continue this progress by creating a set of shared visions for our entire community as it should exist some 10 to 20 years in the future. These visions do not focus on what is wrong, they focus on what is possible, and describe Betterton as though these possibilities have already been achieved. It is built upon those aspects of Betterton that make it a desirable place to live and work -- its small town character and neighborliness, the quality of its residential areas, the level of its community services, and the major resource of the Chesapeake Bay.

**Our Services and Facilities: Betterton is a year-round, full-service community with family residences and access to the Chesapeake Bay forming its social and economic vitality.**

Betterton serves its residents and their changing needs with the facilities that support and enhance community life. It has identified and strives to provide the community-serving elements that are critical to maintain living quality such as efficient public services, recreational facilities, local businesses, and public safety. Local traffic is accommodated in a manner that maintains the physical unity of Betterton. Efficient, safe circulation is provided throughout the town for pedestrians, bicyclists, automobiles, school busses and trucks.

**Our Natural and Built Environment: Betterton's careful use and preservation of its built character and natural environment is at the heart of its local and regional identity.**

Betterton has a unique and valuable feature not shared by any other waterside community in this area, the nicest public beach on the entire Upper Bay. The care and protection of this valuable feature is of the highest value to the community. Betterton takes special pride in the quality and the preservation of its natural environment, in the appearance of its streets and buildings, and in the retention of its places of special beauty and interest. Its neighborhoods are orderly, walkable, and diverse in architecture, dwelling type, spacing, and size.

**Our Land Use and Growth: Betterton contains places reminiscent of a "slower and older" era, places that are familiar from other Bay towns, and places that represent new ways of building community.**

Betterton is a diverse, year-round working community with a mixture of ages, income levels, architectural styles, business activities, and physical environments. It values its small town scale and the sense of neighborliness that is characteristic of its quality of life. This intangible quality

is enhanced by certain tangible aspects of town layout such as easy walking distances, porches, sidewalks, safe streets, focal points for gathering, and community activities.

## 4.0 OUR SERVICES AND FACILITIES

### Betterton's Objectives Are To...

Ensure that the location, timing, and pace of new development is compatible with the Town's ability to secure and program funds to maintain and provide sewer, water, transportation, and community services.

Maintain and improve cost efficiencies to deliver services and to minimize the need for future tax increases.

New development and growth within the municipal portion of the Town will be directed to areas with existing or funded infrastructure.

### 4.1 Community Services and Infrastructure

**Government:** The Town of Betterton has been incorporated since 1906. The Charter of the Town authorizes the governing authority to be comprised of a Mayor and four Council members duly elected to four year terms. The terms of the Mayor and two Council members are coincidental and the other two members terms are offset by two years. Elections are held every two years. Additionally the Mayor and Council appoint a Planning Commission, a Zoning Board of Appeals, a Property Maintenance Code Board of Appeals, a Zoning Administrator, Ethics Board and a Code Enforcement Officer.

**Schools:** Betterton children attending public schools are bused to Worton Elementary School, Galena Middle School, and Kent County High School. Several private schools, such as Kent School, Radcliffe Creek School, Chestertown Christian Academy, and the Gunston School also serve area children. According to the 1995 Educational Facilities Master Plan for the Kent County Public Schools, there are no plans for additional county schools. In fact, the first finding states, "The basic educational facilities are adequate in capacity for the 10 year time frame of this Master Plan."

**The Beach:** The public beach is on the town's northern border at the mouth of the Sassafras River on the Chesapeake Bay and 3 miles east of Howell Point. On a clear day the view from Betterton Beach surpasses any on the entire bay. The beach and its amenities are owned by Kent County and not the Town of Betterton. Due to its location in the town it must be considered part of the town's recreational picture, present and future. Betterton is the nicest beach in the northern bay area and the only nettle-free public beach on the Eastern Shore. It has a treed picnic area, boat ramp, bathhouse, pavilion with water and cooking grills, free transient boat docking, a volley ball net on the beach, and lifeguards on duty on summer weekends from Memorial Day until Labor Day. A new jetty was constructed in the early 1980's and reinforced in 2003. The jetty is handicapped accessible. There is free parking across the street.

With the exception of the boat launching ramp and pavillion all facilities at the beach are offered free, including parking. Use is on a first-come, first-served basis. An annual permit is required

for unlimited use of the boat ramp. The pavilion overlooking the beach is available on a reserved basis by prior arrangement with the County Department of Parks and Recreation. Transient use of the boat dock is restricted to no more than 10 days out of any 30 day period.

The beach is used by people from Betterton, Kent County, and surrounding border counties. It is a pleasant, family beach ideal for young children. Because of its limited size and limited parking it is not likely the use of the beach will grow appreciably. There may be additional commercial activity in the future in the way of bed and breakfast establishments, small shops, and restaurants. At the present time this would seem unlikely since it conflicts with the "quiet residential" focus of the present beach area.

The beach is the focus of several annual events: the Betterton Day celebration in August, the Still Pond-Betterton "tree run" in the spring and the Bay to Bay Cycling Event in the summer. It is the center of attraction in the town of Betterton and should remain so in the future.

Some residents have questioned the amount of attention that the County gives to beach maintenance, the adequacy of its facilities, and the recreational activities offered and feel that the Town can do a better job if it could regain control of the beach. There is only anecdotal evidence to support either Town or County control and a thorough look should be taken at the issue. The Town and the county should explore joint solutions to the problem of parking for the beach during the summer.

**The Town Park:** The park is approximately 4.5 acres situated on the Southeast corner of the intersection of Main Street and Sixth Avenue. It is one of the first things you note when you enter town and is a pleasant, peaceful park. The Town updated Park facilities with new playground equipment and new picnic tables in 2003 and it now offers swings, monkey bars, see-saws, a pavilion, cooking grills, rest rooms, a baseball field, tennis courts, basketball practice courts, and a parking lot.

All park facilities are offered free to Betterton residents and their guests. Use is on a first-come, first-served basis without fees or permits. A very informal and verbal survey in town shows that in general the park is enjoyed and appreciated by those who use it. Betterton fields its own Little League Team. There is no possibility at present for significant expansion and no room at the present site to add more facilities. The Park is nicely connected to the rest of the town by a new crosswalk and sidewalks renovated in 2003.

**Libraries:** Although there was a twig, not a branch, of the Kent County Library in Betterton for a short time, there is no library facility in the town at the present time. Most municipalities within the County do not have library branches in their community. Residents must either travel to the main library in Chestertown or order books through the Mailbox Library service. Books that are ordered through this service are delivered postage-free. There is a book drop in Still Pond just three miles from Betterton. A long range plan developed in 1990 is available from the library. However, the present director indicated that there was no plan for additional services to the Town of Betterton.

**Hospitals and Doctors:** There are no hospitals or medical practices in Betterton. The Town is served by the Chester River Hospital Center in Chestertown, Maryland. The Hospital provides short-term acute care emergency, inpatient, outpatient, maternal and child care services and is accredited by the Joint Commission on Accreditation of Health Care Organizations. Other services offered by the hospital are free screenings and programs, support groups, childbirth classes, and a speakers' bureau. There are no known plans for medical services within Betterton in the near future. However, as of March, 2003, the Betterton Fire Company has an ambulance in service available to the town. The BFC ambulance "first due service area" begins in Betterton and services Still Pond, Lynch, and Worton up to the Kent County High School.

**Police Department:** There is no police department in Betterton at the present time. Police protection is provided by the Kent County Sheriff's Office and the State of Maryland. The Sheriff attends Town Council meetings to update the town on policing activities on a monthly basis. The Sheriff also presents the town with an Annual Report on Betterton.

**Fire Department:** A new fire house was constructed in 1998. A new engine was put into service in 2003. The new fire hall is available for community use and is the site for annual events such as the Lion's Club Night at the Races, the Ducks Unlimited Dinner, and the Kent County High School National Honor Society Dinner. The Fire Company also caters events.

The County finances the Fire Department through an annual allotment. The Department adds to these resources by hosting a bazaar, dinners, and an annual fund drive each March. The department has adequate personnel at this time but will accept membership applications at anytime. They are dedicated to protecting the people of the district.

The fire department has assessed its current and future needs and identified 2 areas for future growth. The present hydrant situation could be improved greatly. The installation of hydrants at each end of Bayside Boulevard and possibly one between First and Third Avenues is essential. A new ladder truck will be needed soon.

**Water and Sewer:** The Town of Betterton is served by public water and sewer systems. These facilities provide safe drinking water, fire protection, and waste treatment for the Town. Each represents major capital investments which are required to operate constantly each and every day of the year. Major portions of these facilities have been upgraded and revised through a Farmers Home Association Federal Grant over the last few years.

#### Water Facilities

The existing water system consists of two 8" diameter wells, a treatment plant, a 125,000 gallon elevated storage tank and 3.5 miles of distribution piping. The elevated tank is located next to the treatment plant on Church Alley. This tank was built in 1969, repainted in 1992, and was last inspected in March 2004. The distribution system is made up primarily of 2 to 8 inch asbestos cement pipe. Individual electronically read meters for each service connection were added in the late 1980's. There are currently 306 dwelling units served by water as well as the restaurant on Ericsson Avenue, the Kent Center, and the American Legion Post.

## Wells

Well #1 is 152' deep and is located within the treatment building. It was drilled in 1969. Well #2 is located on the north side of Third Avenue approximately 550' apart from Well #1. It was also drilled in 1969 and is 105' deep. Both draw from the Magothy aquifer. These were both tested in 1987 and found to be providing an estimated 80 to 90 gallon per minute (gpm) with submersible pumps. Both were cleaned and had new pumps installed in 1991.

## Treatment

The water treatment plant on Church Alley was built in 1969. A calcite neutralizer and caustic soda solution injection for pH adjustment, a polyphosphate solution as a sequesterant agent, and calcium hypo chlorite solution injection for disinfection are used to treat the water. The wells and treatment plant are in good operating condition, but the need for well maintenance and treatment rehabilitation should be considered a priority.

## Current Water Demand

Current water records show that average daily water consumption ranges from 35,000 gallons per day (gpd) in winter to 42,000 gpd in late summer (averaged from 2000 to 2003 usage records). The resort nature of the Town is the cause of the summer increase in usage. A 1987 report by McCrone, Inc. shows that the wells and storage tank can provide an instantaneous peak flow for consumptive purposes plus the following fire purposes:

- 1500 gallons per minute (gpm) for 1.2 hours
- or 1000 gpm for 1.7 hours
- or 750 gpm for 2.1 hours
- or 500 gpm for 2.8 hours

The distribution system consists of 27 fire hydrants that are flushed and tested annually. The Mayor and Council are currently reviewing the capacity and available supply for services and fire protection. The dry hydrant at the end of Main Street in the Sassafra River provides additional fire fighting supply for use in a major fire emergency.

## Reserve Capacity

The town is permitted to withdraw a monthly average of 60,000 gallons of water per day from its two wells. An additional 92 households at 250 gpd could be accommodated within the current water withdrawal permit.

The current reserve capacity of the water treatment plant and wells is of major concern and the focus of many discussions by the Mayor and Council. Any proposed major development will need to provide for the expansion of the supply, treatment, storage, and distribution systems. Any

proposal brought before the Town should include enough expansion of each system to provide for the projected growth within the Town Limits for at least the next 10 to 20 years.

## **Sewerage System**

Betterton's sewage collection system contains 3.7 miles of 4 to 8 inch diameter gravity sewer, 0.77 miles of 2 to 6 inch diameter force mains, 5 pump stations, and 86 manholes.

The oldest portion of the sewer system was built in 1952 and serves from the east end of Belmont Avenue west to Ericsson, south on Ericsson to Wheeler and down the north side of Wheeler to a newer line running down the ravine area to the Beach(including pump station #2). In addition, about 200 feet of the older lines exist on Second Avenue between Church Alley and Main. They are reported to be made of vitrified clay pipe (VCP). Approximately 2200 feet of VCP was used to build the sewers on Bayside Boulevard and Bayside Alley in 1969. There are portions of the older lines that the Town must consider for replacement due to poor condition. One such line is 260 feet of VCP that serves Dwyer Road.

Shortly after 1969, 11,300 feet of asbestos cement gravity and 3,500 feet of cast iron force main sewers along with four pump stations and a 200,000 gallon per day contact stabilization treatment plant were built. The existing Beach pump station (PS #2) was upgraded to 300 gpm as part of this project. In 1984, approximately 4,000 feet of the 1952 sewer from Howell Point Road to the Beach pump station (PS #2) was replaced. Additionally PS#2 had two vertical centrifugal 175 gpm pumps installed.

Approximately 1300 feet of the line between Pump Station #5 on Main at Fourth Avenue to First Avenue was replaced prior to the 2003 State Highway Administration's "Main Street Rehabilitation Project." In addition, about 300 feet of the sewer line on Howell Point Road was replaced from Ericsson toward Main Street to divert the flow to Pump Station #5 at Fourth Avenue.

As stated above there are five pump stations currently in the Town's sewerage system. They consist of:

Pump Station #1 (PS#1), a duplex pneumatic ejector rated at 30 gpm on Idlewhile Avenue. This station was installed during the 1969 upgrade and is the only original station from that upgrade. It is very inefficient and the gravity line serving it is in poor condition. An upgrade should be given serious consideration by the Town.

PS#2, the Beach station, was upgraded in 1984. The pumps were replaced in 1994. The wet well will need work, due to the deteriorating condition of the concrete.

PS#3, the station on Bayside Boulevard was part of the 1969 upgrade. The pump was replaced in 1992 with a submersible grinder pump.

PS#4, at the eastern end of First Avenue was also part of the 1969 upgrade. The pump was replaced in 1992 with a submersible grinder pump.

PS#5, which is on Main Street opposite Fourth Avenue, is a replacement of the original station from the 1969 work. The station was installed in 1997 and contains a duplex submersible grinder pump system. As part of the installation, the force main was redirected to feed to a manhole on Church Alley which provides gravity flow to the treatment plant. This was done to remove flow from PS#2.

### **Equalization Basins**

In 1992 a set of six 4400 gallon equalization basins were installed to offset peak flow demands on the sewage treatment plant. These basins have worked with the exception that a reducer placed in the line to backup peak flows into the basins has become blocked with debris on numerous occasions. A solution currently being studied is to replace the reducer with a valve that can be opened at times of blockage. The valve would better regulate the flows and could be opened if it became blocked.

### **Treatment Plant**

The sewage treatment plant is a 200,000 gallon per day contact stabilization plant built with the 1969 upgrade. The plant is currently discharging under a five-year NPDES Permit No. MD 0020575 (State #01-DP-0591) which will expire on December 31, 2007. The plant generally receives about one third of its design flow. Some renovations have been made to make the plant run more efficiently under these low flow conditions.

In 1984, a 165 kW generator was installed for backup power at the plant. In 1999, two vertical centrifugal dry pit submersible out fall pumps were installed as replacements. Also in 1999, the ultrasonic flow meter, flow chart recorder, and a refrigerated composite sampler were replaced. In January of 2001, a flushing pump was installed to use treated wastewater to deliver the chlorine solution for disinfecting and the sulfur dioxide for dechlorination. This installation saved the use of approximately 11,000 gallons per day of the Town's potable water supply. In 2003, both of the blowers and motors for the plants aeration system were replaced with higher efficiency models.

There are still many renovations that need to be considered to make the plant more efficient. Some of these will need to be done to meet more stringent discharge limitations. Any new major development will need to incorporate these renovations as part of the development plans.

Current sewage treatment capacity is 200,000 gallons per day. This capacity is determined not only by the physical capability of the treatment plant but also by the operating permit issued by the Maryland Department of the Environment. There are now 310 equivalent sewage hookups with a usage rate calculated for operating permit purposes at 250 gpd per hookup. This yields a theoretical 77,500 gpd flowing through the treatment plant. Using the 250 gpd rate, permitted treatment capacity is available for 490 additional hookups.

#### **4.1.1 Community Services and Infrastructure Policies:**

- a. The Town will protect and enhance its investments in facility infrastructure by thorough advance planning and continuous maintenance.
- b. The Town shall not extend additional public facilities or provide services beyond the Town Corporate Limits.

#### **4.1.2 Community Services and Infrastructure Operational and Enforcement Actions:**

##### **4.1.2.1 The Subdivision Process**

- a. Subdivision applications and other development approvals will be reviewed for adequacy of all public facilities. Approvals may be deferred, phased in, or conditioned upon the availability of adequate capacity.
- b. Performance bonds shall be made a part of subdivision approvals which require public infrastructure.
- c. Developer-constructed infrastructure shall meet Town standards and shall be inspected and approved by the Town.
- d. Ensure that the subdivision regulations require the provision of adequate passive and active recreation in new residential developments.

##### **4.1.2.2 Funding and Operation**

- a. Prepare a five-year Capital Improvement Program.
- b. Investigate ways to improve the funding and operation of the maintenance programs for public landscaping, sidewalks, and streets
- c. The Town will explore a formal Adequate Public Facilities Ordinance to ensure that public services are not overwhelmed by development.

##### **4.1.2.3 Cooperative Planning**

- a. Investigate opportunities for cooperative planning with the County and State to improve the provision of community services and facilities e.g. youth opportunities, police protection, parks, and services for visitors.
- b. Investigate, with the County, the advantages and disadvantages of the Town resuming ownership and control of the beach.

#### **4.2 Roads, Walkways, and Parking**

Betterton has three main objectives regarding its transportation network: 1) Maintain the quality of dedicated town streets, 2) Ensure that potential future roads protect the character of Betterton, and 3) Establish walking trails for access and passive recreation wherever possible.

Betterton is located at the north end of MD Route 292, which is known in Betterton as Main Street (see map #1).12/30/2005 This road provides the most convenient access to Betterton and serves the County beach. The other roads in Betterton are owned and maintained by the Town, except the part of Howell Point Road extending from Ericsson Road to Harry Clark Road on the west which is maintained by Kent County. There are no traffic lights in Betterton. The Town owns and maintains 4.39 miles of road which are all paved and reasonably well-maintained. Maintenance work on the roads has been done by Kent County or private contractors and paid for by the Town.

Traffic through Betterton is predominantly on Main Street and results from use of the County Park. Speeding is often a problem on both Main Street and Ericsson Avenue. Heavy trucks often travel on Ericsson Avenue and other streets but only Main Street is built for them. Traffic calming should be explored and instituted if possible to minimize safety problems and improve walk-ability throughout the Town.

Off-street parking is provided for the County Park and it is inadequate at peak times. The overflow is currently handled by parking along Main Street. Some additional off-street parking is available at the Town Park but this is about 0.6 miles from the beach. Any future development must take parking into account

Recently, Main Street was rehabilitated from Sixth Avenue to the beach. Besides all new roadway, curbing, and storm drains, the sidewalk on the west side of the road was replaced. A survey of the remaining sidewalks in town shows that they are old and deteriorating, having many tripping hazards, with most sidewalks not being maintained. Other than Main Street, only Ericsson Avenue, Wheeler Avenue, Bayside Boulevard, Bayview Road, and Park Street have sidewalks on their complete length. First Avenue, Idlewhile Avenue, Belmont Place, and Howell Point Road have sidewalks for only part of their lengths. The remaining roads in town have no sidewalks.

In addition, the “Rigbie Steps”, connecting Bayside Boulevard to Main Street at the beach, are in serious jeopardy due to hillside erosion. These steps are considered, by many, to be one of the few remaining historically significant pieces of old Betterton’s heyday in the first half of the Twentieth Century. Immediate cooperative action by the County, the residents of Rigbie Bluff Condominiums, and the Town is needed to save this important pedestrian corridor.

Betterton is considered a “walking friendly” town, but many people walk in the street due to the disrepair of the sidewalks. This unsafe practice will become exacerbated as Betterton develops. A systematic program of sidewalk construction, replacement and having homeowners maintain their sidewalks is required to make and keep Betterton pedestrians and motorists safe.

#### **4.2.1. Transportation Policies:**

- a. New streets and sidewalks shall be designed to fit in with existing neighborhoods and shall facilitate circulation within the community.
- b. Development projects shall be evaluated for adverse impacts on local street traffic and on existing and planned land uses. Streets necessary for these projects shall not physically divide or otherwise adversely affect established residential and commercial neighborhoods.
- c. New development shall include sidewalks or trails that provide linkages to existing path systems in Town, and conduits to nearby public buildings, commercial neighborhoods, and open space.
- d. Vehicular, cycling and hiking linkages to community facilities within the Town and to major activity centers beyond the Town shall be encouraged in the review of development proposals
- e. Both public and private development shall incorporate accessibility and safety for pedestrians and the disabled, and shall include, whenever possible, benches and other pedestrian amenities at strategic locations.

#### **4.2.2. Transportation Operational and Enforcement Actions:**

##### **4.2.2.1 Transportation Design**

- a. Ensure that any new streets or modifications to existing streets are carried out in a grid or network that produces alternate routes to every destination.
- b. Ensure that there is a full hierarchy of streets with most being relatively narrow and well-defined by the buildings along them. One method is to establish a functional street classification system with street design standards that incorporate sidewalks, parking, paved width maximums, and streetscaping elements. This would help assure that the streets of the town are complex, containing traffic, parking, trees, sidewalks and buildings so that both vehicles and pedestrians feel equally comfortable in them.
- c. Identify the opportunities to expand and extend the internal system of walkways and bikeways throughout the town and design a program to reserve land for future walkways and bikeways in new developments and ensure their connection with planned overall circulation systems.

##### **4.2.2.2 Transportation Regulation**

- a. Investigate the use of traffic calming devices to slow traffic in areas where

speeding is a problem.

b. Develop a set of standards that govern the construction specifications of new roads and walks throughout the town.

#### **4.2.2.3 Sidewalk Construction and Maintenance**

a. Where discontinuous sidewalks currently exist within a block throughout the town, the missing sections of sidewalks should be filled in.

b. Sidewalks will be provided with ADA compatible ramps at curb cuts.

c. The Town will enact any necessary amendment to its codes to ensure that it has the authority to cut and remove any vegetation that infringes on sidewalks and to repair, replace, or extend sidewalks wherever needed.

## 5.0 OUR NATURAL AND BUILT ENVIRONMENT

### **Betterton's Objectives Are To...**

- Ensure protection of the natural environment and its inhabitants in growth areas and all other areas.
- Maintain and improve water quality in that part of the Chesapeake Bay watershed that we impact.
- Promote reductions in resource consumption and assist efforts to increase recycling and reuse.
- Maintain and enhance the diverse character of Betterton as a small family-oriented residential community and as an attractive location for vacation and retirement homes.
- Promote the physical attractiveness of Betterton, including dramatic views of the Bay from many locations.
- Protect and promote property values as a priority in all government actions and promote an adequate supply of various housing types that meet the needs of all town residents.

### **5.1 Sensitive Areas**

This element supports and addresses Vision Two of this Plan, Sensitive areas are protected. The six sensitive areas mandated for management and protection include: Tributary Streams and Non-tidal Wetlands Buffers, Tidal Buffers, One-Hundred Year Flood Plain, Habitats of Threatened and Endangered Species, Steep Slopes and Wooded Areas.

Sensitive areas act as natural constraints to development and the expansion of the town. They influence decisions about the location of the planning boundary line. Protection and improvement of water quality and wildlife habitat is our overall goal for managing "sensitive areas."

Within this context, it is the objective of this comprehensive plan to protect the quality of the air, water, and land from the adverse effects of development and growth. Growth areas will be selected and designated to avoid sensitive areas. However, development activities should avoid impacting sensitive areas located outside designated growth areas and development should be controlled so that on-site and off-site impacts are minimized. When sensitive areas are disturbed, the disturbance can result in increased speed and volume of over-the-ground runoff. In addition to direct deposition of soil particles, runoff carries chemicals such as fertilizers, pesticides, and herbicides that have bonded to the soil or are leached from yards. Some of the non-point sources of pollution related to man's impact on the landscape eventually flows into the Bay unless filtered or retained by some control technique.

For these reasons, natural woodlands and grasslands are important in helping to restore and maintain the health of the aquatic environment. These natural vegetated areas act as filters to trap various chemicals and soil particles before they enter our area's drainage systems.

### **Tributary Streams and Non-tidal Wetlands Buffers**

Tributary streams are defined as those perennial and intermittent streams which are so noted on the most recent U.S. Geological Survey 7 1/2 minute topographic quadrangle maps (1:24,000) or on more detailed maps or studies at the discretion of the local jurisdiction. There is but one stream that flows year round; it discharges into the bay at the end of Idlewhile Avenue. It is unnamed and is identified, with its buffer (see Map #2). The buffer for tributary streams is defined to be the land within 50 feet of the banks of the stream.

There are several springs found at the base of the cliffs along the shore line. One in particular, known as the "Chesapeake Spring," because it was the water source for the now non-existent Chesapeake Hotel, has been a favored source of drinking water for local residents for many years. It has been recently labeled as an unsafe drinking source. There are at least as many as an half dozen similar springs whose flow disappears into the ground before reaching the beach.

Non-Tidal Wetlands are defined as those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation, and is determined according to the current Army Corps of Engineers Wetland Delineation Manual. The buffer is defined to be the land within 50 feet of the edge of the wetland area. There are small areas of non-tidal wetlands on the eastern edge of town.(see Map #2).

### **Tidal Buffer**

Tidal buffers are defined in the Chesapeake Bay Critical Areas Criteria as, "a naturally vegetated area or vegetated area established or managed to protect aquatic wetland, shoreline, and terrestrial environment from man-made disturbances". The buffer zone normally extends 100 feet inland from mean high tide and from tidal wetlands. The buffer may be extended beyond the 100 feet to include contiguous sensitive areas. Buffers are utilized to maintain a transitional habitat zone between aquatic and upland communities. Betterton has most of its shoreline in the Buffer. There are areas of the Betterton shoreline that did not meet the definition of a buffer when the Critical Areas came into existence. The areas not meeting this definition are called "buffer exempt areas." Betterton's buffer exempt area is the portion of the shoreline by the public beach that contains buildings, parking lots, boat ramps, and extends from the beach eastward to the town boundary.

## **One-Hundred Year Floodplain**

The source of flooding in Betterton is the Chesapeake Bay. The floodplain is any area lower than 4 feet above mean high tide, and except for two small areas is limited to the beach and beach parking lot. No development areas are currently located within the 100 year floodplain.

## **Habitats of Threatened and Endangered Species**

There are recognized endangered species within the corporate limits according to the State agencies governing such concerns. The cliff on the westerly side of the northern edge of town has been identified as a habitat of an endangered species of the tiger beetle.

## **Steep Slopes**

Betterton has extensive areas of steep slopes (>25%), concentrated along the shore line. These steep slopes are protected by the Betterton Critical Areas Program by limiting the development that may occur in proximity to the slopes.

## **Wooded Areas**

Betterton has extensive wooded areas which are protected under the Betterton Forestation Conservation Ordinance and the Betterton Critical Areas Program, see the Wooded Areas Map Map # 2 A.

### **5.1.1. Environmental Policies**

- a. Development shall avoid designated Sensitive Areas and employ best management practices to minimize adverse impacts on water quality. Use of resource lands including agriculture and forestry shall employ best management practices to minimize adverse impacts to water quality and habitat.
- b. New development and economic growth will be directed to lands served by or programmed for water and sewer service and away from sensitive areas.
- c. Planting will be promoted in buffer areas consistent with attractive views of the Bay.

### **5.1.2. Environmental Operational and Enforcement Actions**

- a. Planning Commission review and approval of planting plans in open space areas and on lands dedicated to the public will be required.
- b. To protect sensitive areas, Betterton will develop “non-disturbance” areas such as: no development on slopes of 25% or greater; setbacks from the top of slopes that are greater than 15%; limit the amount of impervious surface that can be

created near a sensitive area; and require the replanting or afforestation of trees near sensitive areas. The strict observance of the Chesapeake Bay Critical Area guidelines for buffers will be enforced. Other restrictions will be imposed as needed to protect Betterton's sensitive areas.

## **5.2 Chesapeake Bay Critical Area**

### **History of the Critical Area Act and Criteria**

The Chesapeake Bay Critical Area Protection Program (Natural Resources Article 8-181-8-1816) was passed by the Maryland General Assembly in 1984 because of concern for the decline of the quality and productivity of the waters of the Chesapeake Bay and its tributaries. The decline was found to have resulted, in part, from the cumulative effects of human activity that caused increased levels of pollutants, nutrients, toxins, and also from the decline in more protective land uses such as forest land and agricultural land in the Bay region. The General Assembly enacted the Critical Area law for the following purposes:

1. To establish a Resource Protection Program for the Chesapeake Bay and its tributaries by fostering more sensitive development activity for certain shoreline areas so as to minimize damage to water quality and natural habitats; and
2. To implement the Resource Protection Program on a cooperative basis between the State and affected local governments, with local governments establishing and implementing their programs in a consistent and uniform manner subject to State criteria and review.

To achieve these two purposes the law specified the creation of a 27-member Commission (now 29 as a result of the addition of Coastal Bays), appointed by the Governor and representing the local jurisdictions, State agencies, and diverse interests. The Commission was charged with developing a specific set of criteria to regulate land use in the Critical Area, and the General Assembly approved these criteria during the 1986 legislative session (COMAR 27.01.01 - 27.01.11). Subsequently, "the Criteria" were used by each of the affected local jurisdictions to prepare their own local Critical Area programs, ordinances, and regulations to manage and regulate land use within the Critical Area. The Critical Area includes the Chesapeake Bay, its tributaries to the head of tide, tidal wetlands, plus all land and water within 1,000 feet beyond the landward boundary of these waters and wetlands.

The goals of the Critical Area program are to accomplish the following:

1. To minimize adverse impacts on water quality that result from high nutrient loadings in runoff from surrounding lands or from pollutants that are discharged from structures;
2. To conserve fish, wildlife, and plant habitats; and

3. To establish land use policies for development in the Critical Area which accommodate growth and address the fact that even if pollution is controlled, the number, movement, and activities of persons in that area can create adverse environmental impacts.

### **Betterton Critical Area Program**

In accordance with the Critical Area Act, all affected jurisdictions were required to develop and implement a Critical Area Protection Program to control the use and development of that part of the Critical Area within its territorial limits. The Town of Betterton adopted a Critical Area Program along with a series of implementing provisions contained in the Betterton Zoning Ordinance and Subdivision Regulations in May, 1988. The policies and goals included in the Critical Area Program and the specific requirements and standards included in the Betterton Zoning Ordinance and Subdivision Regulations were developed in accordance with the Critical Area Act and Criteria to accommodate future growth of the Town while addressing the associated environmental impacts.

In this update of the Comprehensive Plan, some of the provisions included in the Critical Area Program are being incorporated into the Sensitive Areas Element of the Town's Comprehensive Plan and some are being incorporated into the Betterton Zoning Ordinance in order to more effectively implement the Town's Critical Area Program and to ensure consistent and uniform application of the Critical Area regulations.

### **Critical Area Designations and Policies for Future Growth**

In recognition that the Critical Area has great diversity in existing land use, the State's criteria for local programs and ordinances is based on three different land use classifications. At the time of original Critical Area Program adoption, each jurisdiction identified and mapped land within the Critical Area as one of the three classifications. This designation allowed jurisdictions to either use existing zoning classifications or to use overlay zones to effectively implement different performance standards for development and redevelopment in those areas. The land within the Critical Area was mapped as one of these categories based on existing land use as of December 1, 1985. See Critical Areas Map #3.

Intensely Developed Area (IDA)  
Limited Development Area (LDA)  
Resource Conservation Area (RCA)

The total area of the Town of Betterton is about five hundred (500) acres. Roughly one-third of the Town or one hundred and sixty-six (166) acres is within the Critical Area.

**Intensely Developed Area.** IDAs are the most intense land use classification in the Critical Area. In accordance with the Criteria, IDAs are areas where residential, commercial, institutional and/or industrial development is predominant and relatively little natural habitat

occurs. At the time of initial mapping these areas had to have one of the following characteristics:

1. Housing density greater than four dwelling units per acre;
2. Industrial, institutional, or commercial uses concentrated in the area; or
3. Public sewer and water collection and distribution systems currently serving the areas and housing density greater than three dwelling units per acre.

In addition, these features had to be concentrated in an area of at least 20 acres or the entire upland portion of the Critical Area within a municipality.

At the time of Program approval, about 32 acres were classified as IDA. In 1990, 2.18 acres were reclassified as IDA by the use of growth allocation for the Rigbie Bluff project. Presently there are 34.18 acres of IDA.

Betterton will encourage IDA activities to occur in its present IDA area or outside of the Critical Area, but the town will maintain growth allocation procedures in the event that they are needed. Since a large part of the town is in the Critical Area, it needs to make effective use of the growth allocation that it is allotted. The town can help to maintain the natural habitat of the area by allowing the wise use of IDA areas.

**Limited Development Area.** LDAs are those areas developed in low or moderate intensity uses and contain areas of natural plant and animal habitats. The quality of runoff from these areas has not been substantially altered or impaired. At the time of original mapping, these areas had to have one of the following features:

1. Housing density between one dwelling unit per five acres or up to four dwelling units per acre;
2. Areas not dominated by agriculture, wetland, forest, barren land, surface water or open space;
3. Areas having the characteristics of the IDA, but less than 20 acres in extent; or
4. Areas having public water or sewer or both.

At the time of program approval there were approximately sixty-two (62) acres classified as LDA. In 1993, growth allocation of 41.9 acres was approved for the Betterton Bay Club project. In 1996 the growth allocation that was approved for the Betterton Bay Club project was rescinded and the 41.9 acres returned to the Town's growth allocation pool. Currently there are 59.82 acres of LDA within the Town.

**Resource Conservation Area.** RCAs are areas characterized by nature-dominated environments such as wetlands, forests, and abandoned fields and areas where resource utilization activities (agriculture forestry, fisheries activities, and aquaculture) take place. At the time of original mapping, these areas had to have one of the following features:

1. Existing density less than one dwelling unit per five acres; or
2. The Dominant land use in agriculture, wetland, forest, barren land, surface water or open space.

The original mapping of Betterton's Critical Area defined nearly seventy-two (72) acres as Resource Conservation (RCA). Due to the return of the growth allocation previously approved for the Betterton Beach Club, this number remains at 72 acres.

**Habitat Protection Areas (HPAs)**- Maps illustrating the general location, extent and configuration of Habitat Protection Areas in the Town are on file at the Town Hall. They will be used to assist the Town, property owners, developers and any person proposing development when reviewing development projects. While these maps give a general indication of the area, they do not excuse any property owner or operator from establishing, to the satisfaction of the Town Planning Commission, whether or not the property or activity will affect the element of habitat to be protected. During site plan review, the applicant will be responsible for providing a more detailed site analysis and inventory of the following Habitat Protection Areas:

1. The 100 foot Buffer;
2. Threatened and Endangered Species and Species in Need of Conservation;
3. Colonial water bird nesting sites;
4. Historic waterfowl staging and concentration areas in tidal waters, tributary streams or tidal and nontidal wetlands;
5. Existing riparian forests;
6. Forest areas utilized as breeding areas by forest interior dwelling birds and other wildlife species;
7. Submerged aquatic vegetation (SAVs)
8. Designated Natural Heritage Areas; and
9. Non-tidal wetlands.

The Town's Critical Area boundary is mapped as part of this document (see map #3). Other elements of land use development that are addressed in the Critical Area Program are: buffer areas; land cover; impervious surfaces; water access; wildlife habitat; setbacks; open space; and recreation areas.

Many of the Critical Area requirements are performance standards that developers and other land uses are required to achieve. These standards affect such things as impervious surface area, forest clearing, and density. These standards and implementation regulations are part of the Town's Zoning Ordinance and Subdivision Regulations.

### **5.2.1. Critical Area Policies:**

Betterton will protect and conserve the Critical Area within its boundaries by:

- 1) Minimizing adverse impacts on water quality that result from pollutants discharged from structures, conveyances, marinas or that have runoff from surrounding lands;
- 2) Conserving fish, wildlife, and plant habitat; and;

3) Establishing land use policies for development in the Chesapeake Bay Critical Area which accommodate growth and also addresses the fact that even if pollution is controlled, the number, movement, and activities of persons in the area can create adverse environmental impacts.

### **Critical Area Operational and Enforcement Actions:**

The Betterton Critical Areas Program and the Planning and Zoning Ordinances will encourage:

- 1) The establishment of recreation areas in new developments;
- 2) The protection of the Habitat Protection Areas and Sensitive Areas through appropriate Zoning and Subdivision regulations; and
- 3) The planting of native trees, shrubs, and herbaceous plants where appropriate in town.

### **5.3 Mineral Resources**

At this time, there are no mining activities or other reclamation activities for recovering mineral resources in Betterton. The only known mineral resource is sand. Because of the town's proximity to the Chesapeake Bay and the layout of the community, the recovery of mineral resources will be discouraged. Mining or drilling could have serious effects on the environment around the town.

### **5.4 Community Character**

The character of a community is more than its physical appearance. It has to do with an environment scaled to the human being and attractive and encouraging to its pedestrians. It has to do with a claim to uniqueness among communities rather than a generic “franchise” appearance that may be seen anywhere around the Bay. It has to do with cooperative relationships among diverse community members. Understanding and protecting this character is one of the most important tasks of a community. When insensitive development undermines property value by turning a neighborhood into a hodgepodge of poorly designed individual structures that ignore their location and surroundings, the resulting lack of cohesiveness makes the entire locale less attractive to investors and home buyers. Communities that actively protect their physical and social character encourage the purchase and rehabilitation of properties because the investment is better protected over a longer period of time. Buyers know that the aspects of community that make a particular area attractive will be maintained.

To the extent that elected officials and other decision-makers recognize and emphasize the importance of community character controls and guidance and take public policy actions to encourage them, the economic value of their towns will increase. Three variables of real estate must be understood – the physical, the social, and the economic.

The physical variable has to do with the condition of the property within the lot lines (Does the roof leak? Is the foundation sound?) and conditions beyond the lot lines (Are there parks nearby? Are the streets maintained? What is the condition of the house next door?). The external conditions are examples of the physical side of value over which the individual property owner has no direct control.

The social side of the value equation is how people understand and attach importance to any given property characteristic (Are there trees on the property? Is there enough sunlight to plant a vegetable garden?). When more people hold controls that produce “valuable” characteristics, there will be an increase in the economic value of properties with those characteristics.

The economic part of real estate value has to do with availability of financing, use restrictions, and incentives. If financing is more difficult or easier to obtain for properties in Betterton, property value will be affected up or down. If the uses allowed in Betterton are no longer in demand or are in great demand, value will be affected. If financial incentives in the form of tax credits or an easing of area or bulk zoning restrictions are provided in Betterton, value will be affected.

In the search for an appropriate means to “manage” the visual and historic texture of the Betterton of the future, the Town realizes that community design is both an art and a science and that appropriate solutions are difficult and prey to many political and economic judgments. It also realizes that its views of community needs may not match the views or economic needs of all potential applicants. To this end, the Town will examine means to be as flexible as possible in the administration of any regulations to preserve the “freedom to build” for an applicant who is working to produce a thoughtful and responsive addition to the community and incentive programs that offer benefits to those who participate in historic or design quality efforts.

### **5.4.1 Community Character Policies**

- a. All redevelopment and new development shall retain the pattern, scale, and character of the surrounding neighborhood. This does not mean that new development must mimic current development so long as it remains sympathetically related to its surroundings and commonly accepted architectural and community design principles.
- b. Site designs that retain or create a pedestrian-friendly community shall be encouraged and facilitated.
- c. The Town shall maintain and encourage adequate public open space to enhance the Town's character and quality of life. The Town will identify and establish resting areas for pedestrians, e.g. benches, flower gardens, or fountains, in important activity areas.
- d. The review of development proposals will place priority on the protection of historic and culturally significant buildings, open spaces and vistas which contribute to the character of the Town.

### **5.4.2. Community Character Operational and Enforcement**

#### **Actions**

- a. Yard setbacks, bulk standards, and height restrictions that retain or promote desirable community character shall be established.
- b. Cul-de-sacs will be discouraged, except where they are the only feasible means to prevent disturbance of sensitive areas or when deemed a necessity by the Planning Commission.
- c. Strip commercial development shall not be permitted.
- d. The scale, character, number, and location of signs shall be consistent with the Town's character.
- e. Street trees and trees in public open spaces shall be retained. Landowners should be encouraged to plant additional trees on their property. Tree plantings shall be done in a manner that maintains existing vistas.
- f. The Town shall encourage the retention and preservation of older existing homes within the National Register Historic District and work with owners to secure funding through the "Stories of the Chesapeake Bay" Heritage Area.

**5.4.3. Housing Operational and Enforcement Actions:**

- a. Housing affordability will be promoted by flexible zoning such as mixed use and Traditional Neighborhood Development options.
- b. Ensure that new construction or landscaping does not interfere with attractive views of the bay.
- c. Encourage general yard maintenance and beautification as well as building maintenance and repair by enforcing the Property Maintenance Code.

## **6.0 OUR LAND USE AND GROWTH**

### **Betterton's Objectives Are To...**

- Remain a small town, keeping the pace of development compatible with our ability to provide public services.
- Foster a strong sense of community to ensure that growth areas become attractive, desirable areas to live.
- Promote phased development of larger parcels based on an overall concept plan that integrates new development, including streets and general circulation patterns, into the existing character and fabric of Betterton.

### **6.1 Land Use and Growth**

Betterton wishes to remain a small town, managing growth and expansion at a pace that does not overwhelm its infrastructure, cost of living, and peaceful setting. Future land use planning in Betterton will continue in the direction of our history as a residential/resort community. Development will be welcomed but it must acknowledge and reflect the present character of the town and avoid the character or feel of being “adjacent to but separate or apart from” the rest of town.

### **Betterton's Growth Boundary**

The outer edge of the growth areas, as shown by the Town Boundary on Map 4, forms an urban-rural growth boundary and represents the planned build-out limits of the Town. Maintaining the unique identity of Betterton will require careful planning for development within designated growth areas to insure that the Town achieves its land use and neighborhood design objectives. It also will require cooperation from the County to insure the Town retains its unique identity in the overall County landscape. To achieve this objective, the Town will encourage the County to create a permanent greenbelt (see Map 4) that will define the build-out limits of our community. The greenbelt could be achieved through a combination of targeted incentives, e.g., conservation easements and regulatory strategies, e.g., agriculture zoning. The objective is to maintain Town edges dominated by open fields, forest, wetlands, and water features with occasional low-density residential uses situated so as to maintain a rural character. In addition, the Town will ask the County to protect its entrances (gateways) by prohibiting excessive curb cuts, strip development and commercialization of the road frontage.

For its part, the Town will require that the design of new development include appropriate urban/rural transition uses e.g., open space, larger lot residential uses. In addition, the Town will require the greenbelt extend into new developments by incorporating adjacent features such as sensitive environmental areas, natural drainage ways and existing hedgerows along rural roads as part of the green edge. Areas for reforestation/afforestation areas will be located to reinforce the

greenbelt and buffer agriculture uses. Properties fronting on main roads will include appropriate gateway treatments along MD 292 , Howell Point Road and Clark Road.

## **Residential Growth**

Most of Betterton’s residential growth will occur on the large development parcels on the southern and western portions of the community.

The town will insure that new neighborhoods become an integral part of the existing community fabric by requiring that the design of new development projects reflect the existing community’s development pattern and traditional architecture styles found in the community and surrounding countryside. To achieve this end the Town will encourage mixed use development, establish special land development regulations for mixed-use planned neighborhoods and require all proposed large-scale development (25 acres or more) adhere to development design objectives, standards and guidelines. Development review and approval processes for large-scale development projects will be established for the express purpose of achieving a shared vision (community and developer) for proposed development and regulating community development and architectural patterns. The Town will discourage development which is not consistent with the Town’s character by requiring the terms of any annexation agreement to commit the land proposed for annexation to development as a mixed-use, planned neighborhood and by assigning a base zoning to all large parcels that only permits low density residential and agricultural uses.

The key to their integration into the community will be roadway and bikeway/walkway connections to the existing community. Neighborhood layouts should promote pedestrian movement, safe streets, and focal points for gathering. Housing designs should feature porches, a strong relation to the street environment, no dominating “garage facades,” and a range of prices and sizes.

### **6.1.1. Land Use Policies:**

- a. Development of appropriately-scaled and compatible mixed uses shall be encouraged to reduce dependence on automobile travel and the need for road expansion and new parking lots. No development shall be considered for which adequate public facilities are not currently available or for which planning and attendant funding is not guaranteed
- b. New development shall be compatible with the character of the Town. New development abutting existing neighborhoods shall provide continuity for vehicular and pedestrian movement.
- c. Remain flexible to consider and respond to new development opportunities using the Comprehensive Plan as a guide.
- d. Priority Funding Areas. Consistent with Article 66B as amended, new development shall be consistent with the Maryland Guidelines for Priority Funding Areas.

## **6.1.2. Land Use Operational and Enforcement Actions:**

### **6.1.2.1 Rehabilitation**

- a. Encourage the improvement of run-down buildings and properties to make Betterton a healthier, safer and more attractive town to live in.
- b. Emphasize the prevention of demolition by neglect through effective consistent code enforcement.
- c. Encourage the demolition and removal of buildings that can not be rehabilitated in order to improve the health, safety and character of the town and to make room for new construction.

### **6.1.2.2 Regulations**

- a. Encourage development of vacant in-town lots with flexible and innovative zoning regulations.
- b. Encourage and protect existing mixed uses that contribute to the character of the various neighborhoods.
- c. The Town may establish a maximum lot size in certain zoning districts to prevent inefficient use of land and public infrastructure investment, consistent with the Town's physical character.
- d. Promote a mixture of compatible and complementary land uses by amending land development regulations to facilitate mixed use and reduce instances of non-conformance, especially with existing properties.

### **6.1.2.3 Neighborhood Design**

Use traditional neighborhood design principles to create high quality living environments in preferred growth areas i.e. Encourage narrow streets and common rear alleys or open spaces; Encourage a modified grid street pattern in preferred growth areas; Allow narrow lots and shallow setbacks where consistent with existing neighborhood character.

## **6.2 Economic Development**

Future residential development may make it economically feasible to consider additional commercial development. Land use regulations should allow for new commercial development focused around the beach and a small village center or “Main Street-type” commercial area as part of one of the potential housing developments. Mixed use provisions allowing a limited

amount of commercial and service space should be considered for all residential zoning districts. The commercial and service uses allowed shall be of such high design quality so as to integrate well into the community.

In addition to the traditional mixed use approach, the regulatory process will be streamlined to make it less costly and more flexible to encourage small in-home type businesses and enhance the diversified character of the community. There is nothing inherently wrong with being able to use property for a variety of activities so long as those activities and uses do not create problems or nuisances in the neighborhood.

Encourage retention of existing businesses, promote location of certain new businesses in Town, provide for traditional neighborhood businesses, and encourage business and commercial revitalization.

Encourage small businesses that can provide useful services and amenities to residents and visitors.

### **6.2.1. Economic Development Policies**

- a. Promote small businesses, home occupations and part-time ventures to stimulate economic activity and increase incomes.
- b. Improve communication systems and access to regional State and national information sources.
- c. The Town shall give priority to neighborhood, business, and commercial projects that have a reasonable expectation of being a catalyst for revitalization in designated areas of the Town.

### **6.2.2. Economic Development Operational and Enforcement Actions**

#### **6.2.2.1 Promotion**

- a. Business shall be encouraged to remain in or move to the Town through regulatory flexibility, incentives, and promotional efforts.
- b. Work with local businesses to establish an association that promotes Betterton as a place to live and offers a point of contact between government and the private sector on development issues.

#### **6.2.2.2 Regulations**

- a. Regulations will be streamlined and flexible to encourage economic growth projects in Town.

b. Appropriately scaled neighborhood commercial uses shall be incorporated into or adjacent to residential areas.

c. Traditional business activities that support residential areas shall be encouraged as part of the Town's redevelopment efforts in designated neighborhoods of the Town. Low impact businesses, such as catalogue sales, telecommuting, and other forms of "home-based" businesses shall be encouraged through revised zoning.

d. Adopt flexible regulations that support and promote entrepreneurial ventures and simplify licensing procedures.

### **6.3 Town/County Coordination and Annexation**

The Town shall retain, and shall encourage the County to retain, a clear and well-defined edge where growth and development in and around the Town ends, and rural areas begin. This area in the County will be considered "The Sphere of Influence". The Sphere of Influence is defined as that area of land laying within the County and contained within a three mile radius from the center of the intersection of Main Street and Howell Point Road. Within this Sphere, the Town of Betterton would like to be informed of any items affecting the area that are to be discussed at a public meeting.

The Town shall discourage inefficient use of land planned for development within its boundaries and shall encourage the county to prevent sprawl residential development and resource-consuming patterns of growth within and beyond the Sphere of Influence. The Town should establish agreements with the County regarding the phasing and funding of growth and infrastructure investments in the vicinity of the Town, consistent with the Land Use Plan and the Sphere of Influence. The Town shall coordinate with and encourage the County to locate community facilities, and community services within the Sphere of Influence. The Town should continue to work with the County to maintain the Sphere of Influence and to accomplish strategic planning with regard to annexation potential.

The Town shall provide notices to the County of proposed actions within the Town which may be of interest to the County. The Town should work with the County to arrange reciprocal notification of nearby proposals that may be of interest to the Town. The Town Planning Commission should review and comment on proposed land use activities near the town that have potential to affect the Town.

The Town will encourage the County to protect sensitive areas and rural resources in the Sphere of Influence. Of primary importance for protection are farm and forest land along entrance corridors of the Town, the stream floodplain, and adjacent steep hillsides. The Town will encourage the County to protect rural character, support agriculture, and minimize forest loss in the Sphere of Influence. The town encourages the County to establish a Greenbelt of one mile from the Town Boundaries.

### **6.3.1. Town/County Coordination and Annexation Policies**

- a. Connections to the rural landscape will be maintained by encouraging protection of farm and forestland within the Sphere of Influence.
- b. The Town will emphasize growth within the current boundaries of Betterton. The intent is to encourage the development of existing vacant in-town lots (in-fill development). Zoning will also be modified to reflect this emphasis on in-fill development.
- c. Annexation may be considered where traffic patterns, public facilities and infra-structure upgrades or other benefits to the town and its citizens are derived from the annexation. Annexation may be considered on a small scale where it rationalizes the town boundaries, particularly for parcels already enclosed within or immediately adjacent to the Town on the easterly side. Annexation is not to be considered for growth's sake alone.
- d. The rate of growth, particularly through possible annexations shall be controlled by the availability of infra-structure, particularly water and sewer capacity. In no case shall annexation of large parcels be considered where a solid commitment by the owners of the annexed property has not been made to provide all necessary infra-structure at no cost to the existing town.
- e. The Land Use Plan Map shall guide the location, and general land uses for annexed . Land to be annexed by the Town shall be developed at a density, scale, and character that is compatible with the Town.(See map # 4)
- f. The Town will keep an open communication link with surrounding landowners in the Sphere of Influence and with the County Government.

### **6.4 Plan Implementation**

Regulatory consistency with this Plan is required in all implementing ordinances, capital improvement programs, and functional plans. This Plan is the dominant policy document and guide for all other land use plans, programs, and regulations and is to be directly linked to the drafting, interpretation, application, amendment, and enforcement of land use laws and programs.

Development proposals that are not compatible or consistent with our visions and policies will most likely not receive favorable consideration during the development review process. Our Board of Appeals is bound to review and consider in its entirety this Comprehensive Plan when making findings of fact regarding requests for variances, conditional uses, and appeals to the administrative implementation of this Plan and its ordinances. Hardships that are self-imposed, or created by the applicant in the process of furthering a request, must be discounted and are not valid reasons for subverting or diluting the intended effect of this Plan and its ordinances.

Local governments in Maryland have been directed to review and streamline their regulations to assure achievement of growth management and resource protection goals. The Town will undertake a thorough review of all of its development regulations not only for the required streamlining but also for clarity and consistency with this Plan. An important part of this review will be an examination of the Town's enforcement requirements and shortcomings as well as the needs of the citizenry for education and information about the Town's land use and building codes. Inconsistent codes will be modified and new regulations will be enacted to achieve consistency and to efficiently carry out the purposes of the Plan.

The guidelines to be followed in the regulatory review are the following:

- Clear areas of responsibility will be assigned within Town government to guide development applications through the regulatory process.
- All development standards will be clearly written, current, consistent, and widely available.
- Any desired or required interagency reviews, e.g. with Kent County, will be conducted in a coordinated and concurrent manner.
- All review procedures will be examined to promote administrative efficiency.
- All review periods will be time certain.
- The regulatory fee structure will be examined to assure that the costs of regulation and enforcement compare favorably to the fees charged.
- Regulatory requirements for establishing or expanding businesses will be examined to remove any unnecessary procedures and improve the timeliness of review.
- All development regulations will be examined so that unnecessary impediments to Plan-designated growth and change are systematically eliminated, flexible means of granting relief are introduced, and new techniques such as incentive-based regulations are introduced.
- Requisite implementation and enforcement procedures will be developed.
- Notification procedures for all permits and hearings will be examined for their effectiveness in prompting citizen input.

#### **6.4.1. Plan Implementation Operational and Enforcement**

##### **Actions:**

The Planning Commission should prepare an Annual Report which

- summarizes planning, zoning subdivision, site plan, project review, and Board of Appeals activities;
- assesses progress in meeting the visions of the Plan;
- summarizes County and State actions affecting the Town;

- makes recommendations to the Mayor and Council for strengthening growth management and resource protection in the Town.

## **7.0 MUNICIPAL GROWTH ELEMENT**

The Municipal Growth Element is a new element required under Article 66B of the Annotated Code. The passage of House Bill 1141 mandated the adoption of a Municipal Growth Element by every municipality by October 1, 2009.

The purpose of the "Municipal Growth Element" is to examine the interrelationships among land use, population growth, impacts on public facilities and services, and water resources issues associated with projected growth. This information will provide a multi-dimensional planning tool to assess the impacts of change and provide Town officials with a strong basis for setting land use and growth management policies

### **7.1 Background**

The Town of Betterton is located on Route 292 off Maryland Route 213, the major highway traversing Kent County. Based on the 2000 Census, the Town of Betterton had a population of 376. There were 1,302 improved residential parcels as of 2004. Betterton is bounded to the north by the Sassafrass River. The Village of Still Pond lies to the south and nearest incorporated towns are Galena to the north and Chestertown to the south.

Betterton is imbedded in a primarily rural, agricultural area that has promoted minimal growth throughout the county. Betterton's main attraction for growth stems from its vistas of the Chesapeake Bay and Betterton Beach that is owned and maintained by Kent County. The waterfront park attracts tourist from land and water but provides limited amenities to visitors during summer months. It remains one of the few public beaches on the Chesapeake Bay.

The Town is located at the confluence of the Sassafrass River and Chesapeake Bay and is directly across from the Aberdeen Proving Grounds in Harford County.

Once a thriving tourist attraction, many of the old hotels and eating establishments have disappeared and have been replaced by condominiums and townhouses fronting the Bay. Even with the new modes of housing, the Town still has the charm associated with many Eastern Shore communities.

### **7.2 Growth Patterns & Trends**

In exploring the history of growth in Betterton, one can say that the Town has not changed substantially over the last twenty years except for the change in the type of housing. In seeking the vistas of the Bay, condominiums and townhouses became the housing trend perched above the shoreline providing second or retirement homes for new comers to the community.

Except for infill on existing lots in the older part of Town, the Town chose to extend its boundaries to the south. These areas were logical for growth considering land to the east has considerable environmental constraints including Chesapeake Bay Critical Area, non tidal wetlands and Forest Interior Dwelling Bird Habitat.

To the west along Howell Point Road, a large parcel totaling 185 acres was previously annexed. This property was once slated for a major resort community, but was never developed and ultimately auctioned and subdivided into five parcels. The parcels within the Chesapeake Bay Critical Area were limited due to habitat protection areas, steep slopes, streams and stream buffers. The property could be developed into residential lots, but site restraints and ownership priorities may limit the number of residential uses.

As stated above it was logical that the Town chose to annex land to the south since the area did not have the site restraints associated with land near the Sassafras River and the Chesapeake Bay. Over the past years two large parcels totaling 218 acres were annexed along Howell Point Road (both annexed 2/21/1974). These parcels are slated for single family residential and potential mixed use development. No development plans have been approved for these parcels to date.

### 7.3 Land Use

The primary land use surrounding the Town is agricultural. With the County promoting itself as an agriculturally friendly place and supporting that major industry, expansion of corporate limits are limited. This land use trend provides the basis of many Eastern Shore Towns and Betterton has embraced this sense of inclusion.

South of Betterton along Route 292 and extending west along Route 298 is designated as a Rural Legacy Area and an Agricultural Priority Area by Kent County. Many of these areas are already protected and the County continues to pursue various options for protecting additional agricultural land.

### 7.4 Population Projections

Population projections have become increasingly important in comprehensive planning with the passage of MD House Bill 1141 of 2006, which requires that growth and annexation be considered with demographic trends, available infrastructure, and services required supporting new development.

Based on the 2000 Census, the Town of Betterton had a population of 376. The total population projections from 2000 through 2030 are illustrated in the following Table 1.

Table 1 – Population Projections

2000	2005	2010	2015	2020	2025	2030	Change
376	393	404	424	442	456	466	90

Source: Maryland Department of Planning, June, 2009

Since the 2000 Census, Betterton's population has remained stable and projections for the Town as part of this Growth Element indicate an increase in population to the year 2030 to be around 90. Some important observations can be inferred from the population projections. Betterton's population is not expected to grow substantially and may be the result of the local economy that does not have a large economic base other than agriculture. Young adults unable to find jobs in the County and the commute time to metropolitan areas for jobs have played a major role in the low growth rate. Based on Census data, the County's populations by age groups indicate that there is an out-migration of young adults and an in-migration of older age groups, especially those of retirement age. In 1980, over 20% of the County's population was over 60. By 2000, over 24% was over 60. Kent County's retirement age population is higher than the state average and projections show this trend is likely to continue. .

## **7.5 Growth Plan**

In an effort to coordinate growth, the Town has encouraged the County to retain a clear and well-defined edge where growth and development in and around the Town ends, and rural areas begin. This "sphere of Influence" is defined as that area of land lying within the County and contained within a three mile radius from the center of the intersection of Main Street and Howell Point Road. Much of this area encompasses the Town's Greenbelt as defined in earlier chapters of the Comprehensive Plan and included on the Sensitive Area Map below.

The Town presently has a substantial amount of vacant land in corporate limits that has been annexed over the last five years. Although slated for residential and mixed use development incorporating "Smart Growth" principles, the economic climate and required infrastructure is not adequate to support the potential number of dwelling units unless upgrades to the water and sewer systems are implemented. No development plans have been approved on these properties at the writing of the plan.

Based on the projected growth and trend toward an older population, consideration for senior housing incorporated in a mixed use development should be part of the town's growth strategy.

## **7.6 Development Capacity within the Existing Corporate Limits**

In determining the development capacity for the Town of Betterton, a survey was made of existing vacant parcels. There were two analysis performed for the Betterton Development capacity analysis using this information:

1. Estimate density in dwelling units (DUs) that would arise in each zoning district.
2. Estimate developable area (usable) within each classification.

Infill capacity is based on existing number of vacant lots currently available for development. These lots are located in the older part of town within the designated Infill Development Overlay District (IDOD). Potential yield in the IDOD was determined by first identifying the number of vacant lots and underutilized parcels. Many of these parcels are properties of record scattered

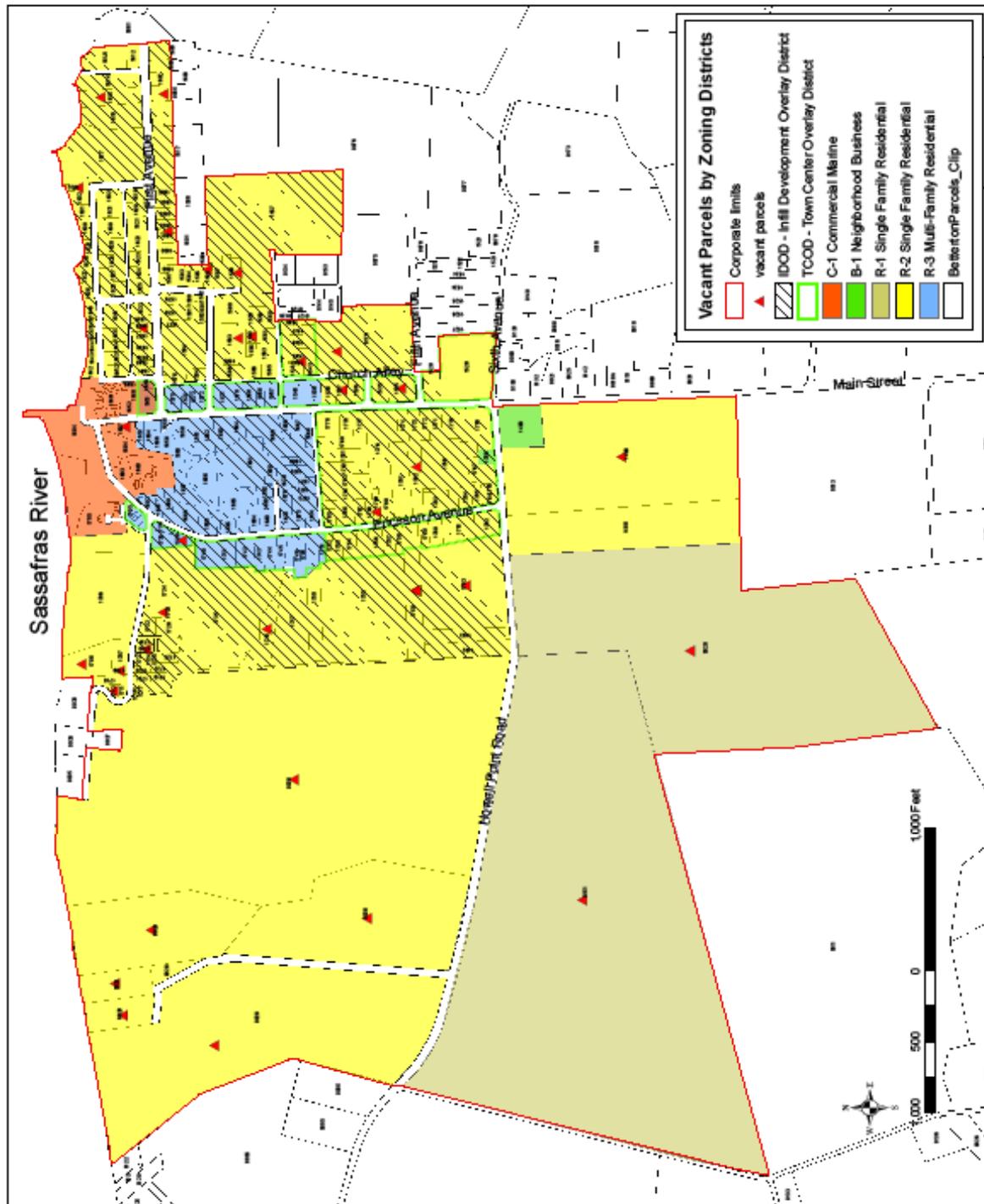
within the existing neighborhood. The IDOD provides specific guidelines so new housing maintains the existing character of the surrounding neighborhood. With an increased emphasis on infill and redevelopment, potentially 100 dwelling units could be added in the Infill Overlay District alone. While the full acreage is used for the purpose of determining the number of possible dwelling units allowed, it should be understood that the physical land constraints and environmentally sensitive areas will restrict land disturbance and yield on actual land cover based on best management practices on each new development site.

To determine the build out capacity on large vacant lots, the allowable density was determined based on current zoning. These are vacant parcels where new development will occur. This capacity was estimated by applying the permitted densities allowed by current zoning on the available land within the existing Betterton corporate limits. The area consists of three parcels. Two parcels are approximately 188 acres and are zoned R-1, single family residential and one 30 acre parcel zoned R-2.

The following Table indicates the number of dwelling units allowable based on current zoning.

Table 2 - Development Capacity by Zoning Classification

Zoning District	Description	Maximum Density DU/ac
R-1	Single Family Residential	2.0
R-2	Single Family Residential	4.0
R-3	Multiple Family Residential	7.5



The following table shows the development capacity of each zoning district within the current boundary of Betterton.

Table 3: Potential Dwelling Units on Existing Vacant Lots

Zoning Classification	Number of Vacant Parcels	Acreage	Potential # Dwelling Units	Population (DU x 2.5)
R-1	2	187	375	938
R-2	9	218	593	1,483
R-2/IDOD	17	26	100	250
R-3	1	.28	3	8
<b>TOTAL</b>	<b>29</b>	<b>431.28</b>	<b>1,071</b>	<b>2,579</b>

Source: Maryland Property View & Data Provided by Town

The population projection is based on the number of dwelling units allowed by Town zoning and assumes the average household size to be 2.5 persons per household. The figures represent an approximation of the developable acreage in each zoning category. These numbers reflect the highest potential allowable under the existing zoning.

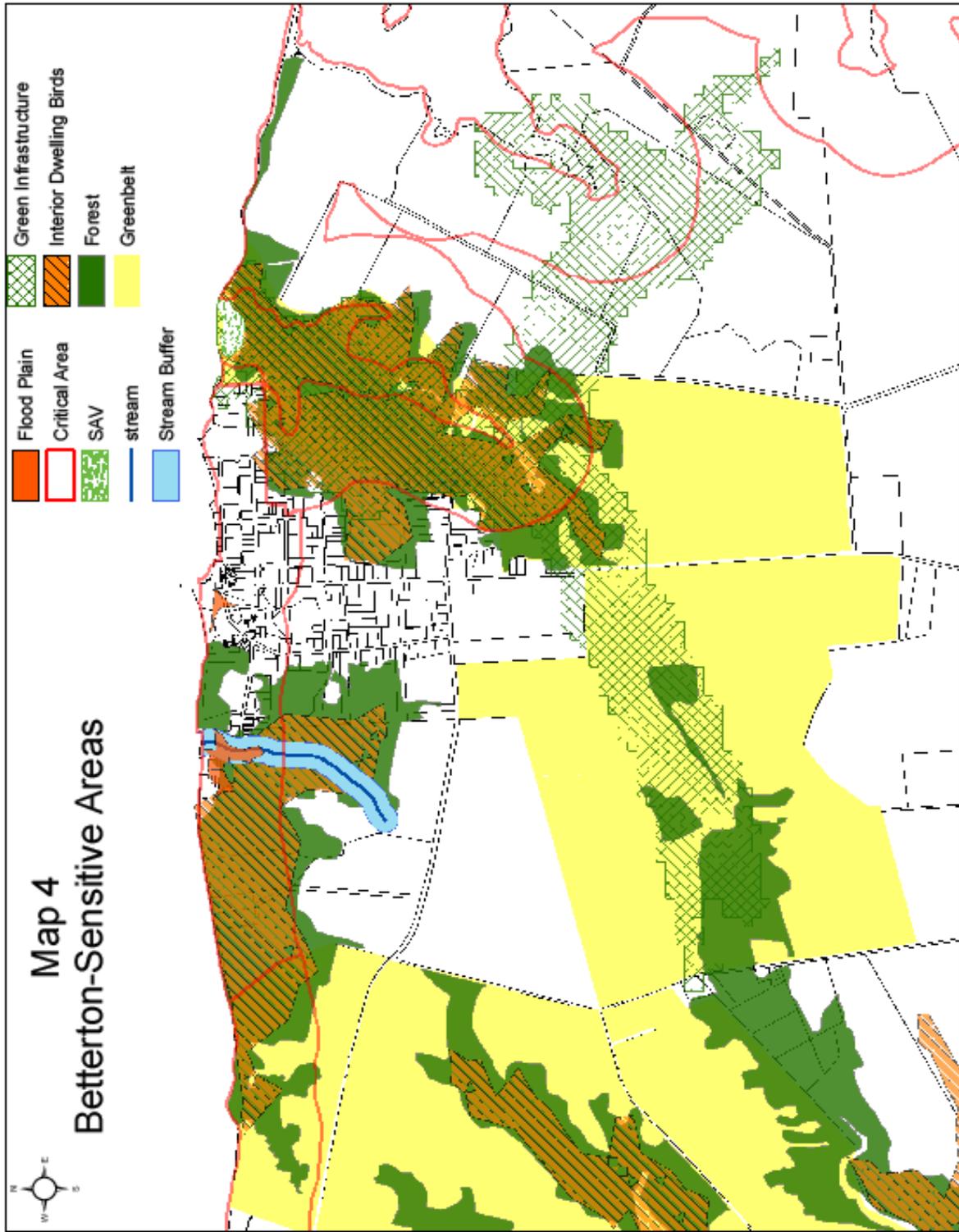
In determining the potential build out on existing land in the Town of Betterton consideration for land other than building lots (right of ways, common open space, stormwater management areas, sensitive areas, forest conservation, greenbelts), were estimated in the following Table.

Table 4: Potential Dwelling Units on Existing Vacant Lots.

Zoning Classification	Net Acreage Available	Potential # Dwelling Units	Population (DU x 2.5)
R-1	112	224	560
R-2	131	524	1,310
R-2/IDOD	16	64	160
R-3	.28	2	5
<b>TOTAL</b>	<b>259.28</b>	<b>814</b>	<b>2,035</b>

Based on observations and the sensitive area map, Table 4 assumes that 40% of the gross acreage is not available for dwelling units.

Map 2 indicates areas with existing site restraints and environmental features that may limit the number of dwellings allowable and was considered in the calculations in Table 4.



Comparing the two tables 814 to 1,071 dwelling units are possible on existing available land. Again, it is important to mention that consideration for land used for roads, stormwater facilities, open space and other potential site restraints determine the net acreage actually available for building lots. Table 3 summarizes the capacity for growth based on this scenario.

These scenarios are intended to show a range of possible outcomes for Betterton if certain conditions occur. Realistically, growth will probably not occur exactly like either of these scenarios, but more likely somewhere in between.

The addition of approximately 1,071 dwelling units, as shown in Table 3 would result in additional population of approximately 2579 persons or as shown in Table 4, 2035 additional population based on an average household size of 2.5 persons.

As mentioned earlier, Maryland Department of Planning projects an increase in population for Betterton to 2030 to be around 90. The estimates in Tables 3 and 4 far exceed the forecast growth or demand for Betterton. The Town intends to promote slow growth and hopefully attract individuals desiring to live near the Chesapeake Bay in a small village setting.

## **7.7 Impacts of Growth**

However the Town chooses to grow, any new growth will have impacts on public services and facilities provided by the Town as well as impacts on services and facilities provided by Kent County.

**7.8 Library:** Nearby libraries are located in Galena and Chestertown. A branch may be a possibility in the future.

**7.9 Recreation Land:** Betterton has one municipal park consisting of 4 acres that includes tennis courts, basketball court and swing sets. It also has the Betterton Beach area consisting of 4.79 acres. Although owned by Kent County, the park provides picnic facilities, a bathhouse, a sandy beach along the Bay for swimming, and a public pier. Although the waterfront park provides a great place for summer activities, new development should require parkland for passive or active recreational activities and gathering places within the community.

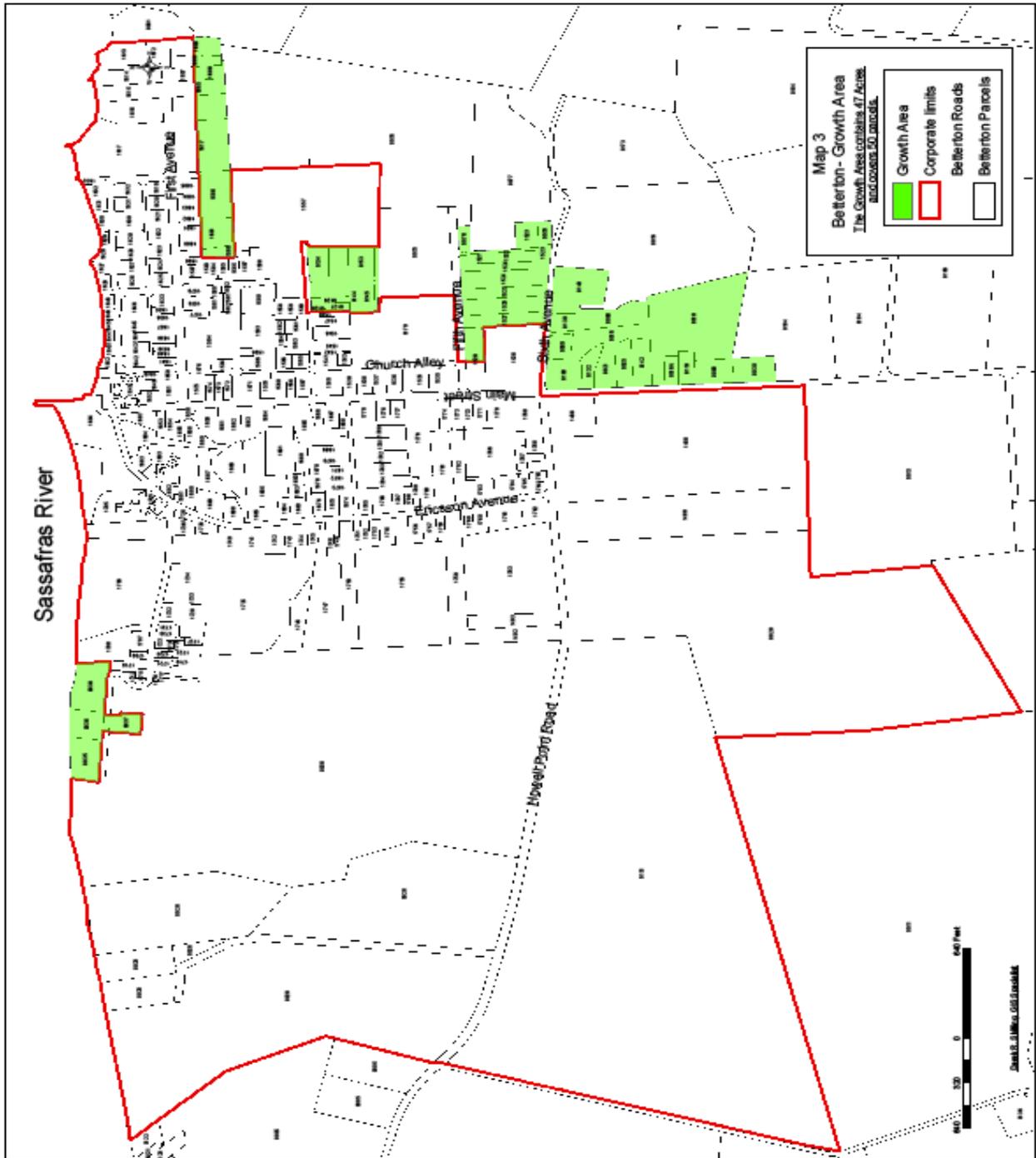
**7.10 Public Safety:** Emergency medical services are provided to Betterton residents through Kent County's Department of Emergency Services, which supplies emergency medical services (EMS) to Kent County towns and oversees municipal volunteer fire departments. The Betterton Volunteer Fire Department is within corporate limits, but due to the lack of full time residents has concern for future volunteers to meet the needs of a growing community. Police protection is provided by the Kent County Sheriff's Department and the Maryland State Police. As development increases, impacts on these services should be monitored in order to determine needed personnel to serve the projected increase in population.

**7.11 Staffing and Municipal Services:** The Town also recognizes that an increased population will impact the town administrative staff and municipal services (street repair, trash collection, etc.). A review of staffing levels for both administrative and public works employees should be conducted periodically to project the future staff needs.

Future large scale developments with significant impacts shall be required to conduct a fiscal impact analysis to determine if revenues will cover the cost of public services and facilities to support the development.

### **7.12 Annexation Policies**

The Comprehensive Plan maps a proposed Growth and Annexation Area. Properties located within this Growth Area are eligible for annexation. Although Betterton's growth analysis suggests that adequate land already exists within corporate boundaries to support projected growth to the year 2030, this policy includes properties where annexations may be undertaken to clarify boundaries, prevent enclaves and/or extend municipal services to areas that are in need of municipal services for health or safety reasons. The following Growth Area Map includes properties that would be considered under this policy.



In considering annexing any land area, the Town will make appropriate amendments to this Comprehensive Plan and will follow requirements for amendments and annexations established in State law (Articles 66B, 23A and House Bill 1141). This will assure consistency 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 any future annexations:

- 1 Proposed annexations will be economically self-sufficient and will not burden the existing Town residents with the costs of services or facilities to support an annexed area.
- 2 The cost of providing roads, utilities, parks, and other community services will be borne by the developer.
- 3 Conditions of an annexation shall be specified and shall be made legally binding in an executed annexation agreement. Such an agreement should address, among other things, consistency with the goals, objectives and recommendations contained in the Betterton Comprehensive Plan, zoning and development expectations, responsibility for appropriate studies, and preliminary agreements concerning responsibilities for the cost of facilities and services provided by the Town. Another mechanism for accomplishing specific arrangements is through a Developers Rights and Responsibility Agreement (DRRA).
- 4 Requiring appropriate impact studies including fiscal and environmental impact to determine their impact on the site and surrounding area.
- 5 Applicants shall pay the cost of completing all studies in determining capacity and improvements necessary for annexation and the legal and advertising costs associated with annexation.

## **8.0 Water Resources Element**

The Water Resources Element (WRE) is a mandated requirement of Maryland House Bill 1141 (HB 1141). The purpose of the WRE is to provide an additional layer of planning for water resources in relation to existing use and proposed use, based on an analysis of growth and development trends.

The WRE addresses 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.

The following section assesses the Town's drinking water sources and wastewater treatment facility and their abilities to support existing and future development. It also identifies suitable receiving waters for existing and future wastewater and stormwater discharges. The Town of Betterton has prepared a Water Resources Element that will focus growth to areas best suited to

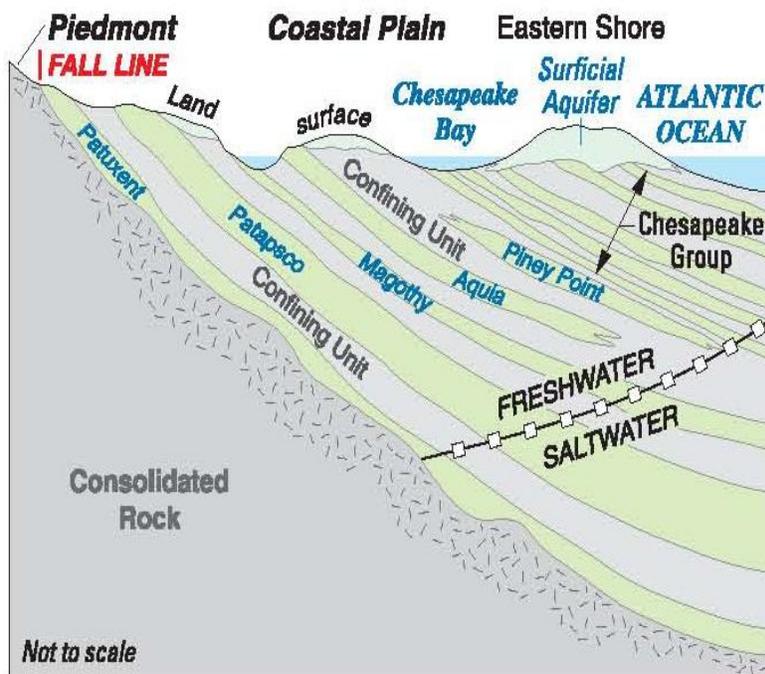
use the existing and planned water and wastewater infrastructure that will protect and preserve the natural environs, promote economic growth, and support diversity of living environments in the Town.

## 8.1 Goals and Objectives

The Water Resources goals for the Town are to maintain a safe and adequate water supply and adequate amounts of wastewater treatment capacity to serve projected growth; to take steps to protect and restore water quality; and to meet water quality regulatory requirements in the Sassafas River and its tributaries. Objectives to support the goals are listed below.

1. Assure that existing and planned public water systems meet projected demand.
2. Assure that existing and planned public wastewater collection and treatment systems meet projected demand without exceeding their permitted capacity.
3. Follow the State's new stormwater management regulations and new technologies that reflect the most recent requirements.
4. Maintain land use patterns that limit adverse impacts on water quality.

## 8.2 Drinking Water Supply Assessment



Ground water is the sole source for domestic water supplies in the Town and in Kent County comprising 94% of its overall water supply. Surface water is used for irrigation and livestock

watering only. The layers of sediments underlying the County contain an abundance of water for wells; however, a groundwater study is necessary in order to confirm this data. These layers dip to the southeast and thus are generally deeper in the eastern part of the County and shallower in the northwestern portion. There are four aquifers that supply nearly all groundwater in Kent: Aquia, Monmouth, Magothy, and Raritan Patapsco Formations.

The Atlantic Coastal Plain aquifer system in Maryland consists of an alternating series of aquifers and confining units that descend and widen as they extend toward the Atlantic Ocean. The major aquifers in the Coastal Plain system are the Patuxent, Patapsco, Magothy, Aquia and Piney Point Formations, and the Chesapeake Group. The sediments that form the aquifers and confining units range in age from Cretaceous to Quaternary. Most of the Eastern Shore is covered by loose sediments, in layers containing gravel, sand, silt and clay deposited during the present post-glacial period (Tertiary).

The present consumption of ground water in Kent County is about 4.81 million gallons per day. The estimated ground water recharge is 0.4 to 0.6 million gallons per square mile per day. The quantity of ground water appears to be substantial; however, the Delmarva Water Study will supply the County with more up to date information regarding its water supply and quality. The quality of the ground water is generally good although water from several aquifers contains iron in sufficient quantity to cause some problems to domestic users necessitating iron removal systems for satisfactory domestic use.

The Town of Betterton is part of the Northern Atlantic Coastal Plain aquifer system (NACP). The NACP system encompasses approximately 50,000 square miles that extend from the North Carolina and South Carolina border to Long Island, New York. In Maryland, the aquifer system is bounded in the west by the Fall Line, which separates the Piedmont from the Coastal Plain physiographic province. It is bounded in the east by the Atlantic Ocean. The Town draws its water from the Magothy Formation within the Coastal Plain system. Groundwater in the Coastal Plain is drawn from unconfined (natural water table) and confined (artesian) aquifers. Unconfined aquifers are recharged by rainfall and snow melt and depleted by drought, resulting in fluctuating water levels. Artesian aquifers receive recharge from areas where water-bearing formations crop out, leakage through confining beds, and lateral movement of water from adjacent aquifers. Artesian aquifers are much less vulnerable to drought conditions.

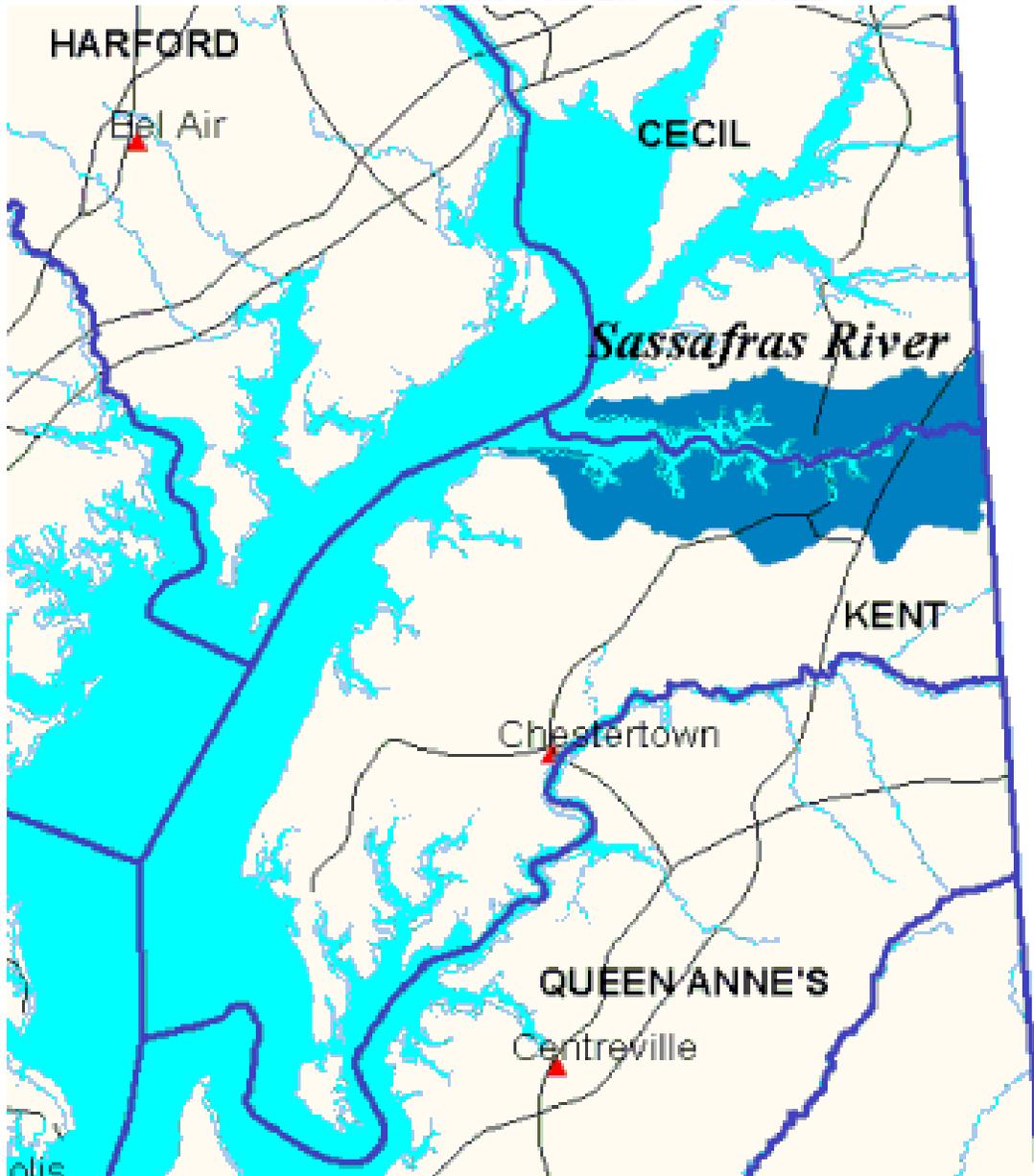
Various state and federal agencies are currently developing a Science Plan for a Comprehensive Regional Assessment of the Atlantic Coastal Plain Aquifer System in Maryland (Aquifer Assessment Plan). The Aquifer Assessment Plan addresses the Coastal Plain area which includes most of Southern Maryland, nearly all of the Eastern Shore (including all of Kent County), all of Delaware south of Wilmington, and the northeast corner of Virginia. The Aquifer Assessment Plan will address significant declines in water levels and water-quality problems in parts of the aquifer system that may be exacerbated by increased withdrawals. When the assessment is completed, the Town of Betterton will incorporate applicable parts of the assessment into its Plan.

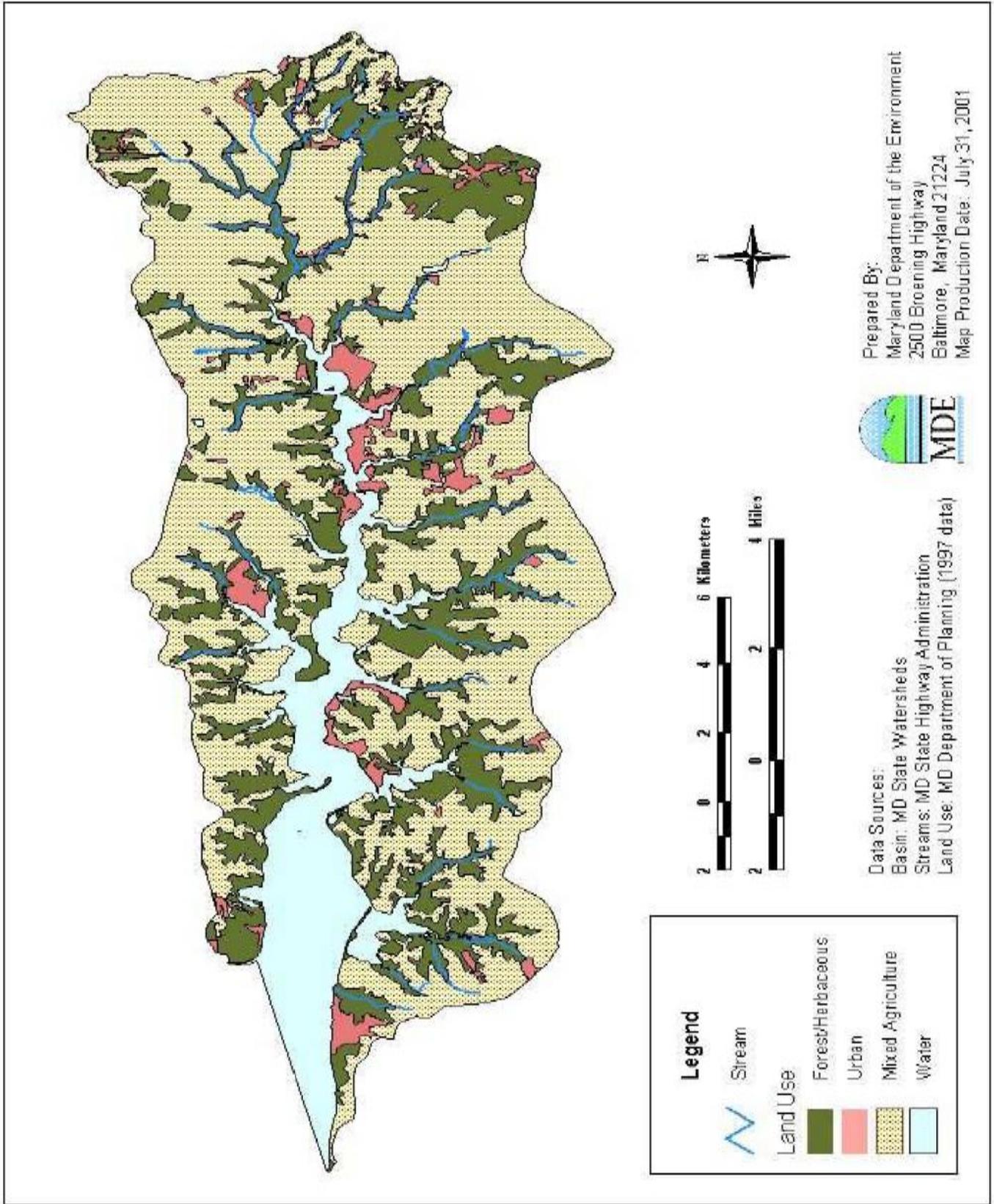
### **8.3 Watershed Analysis**

The Town of Betterton is located within the Sassafras River Watershed. The Sassafras River is a tributary of the Chesapeake Bay on the Delmarva Peninsula. Reaching approximately 20 miles long, the Sassafras begins in western New Castle County, Delaware and frames the southern edge of Cecil County and the northern edge Kent. It rises southwest of Middletown, Delaware, and opens at the Chesapeake Bay in a wide mouth between Betterton in Kent and Grove Point in Cecil. The river is entirely within the Coastal Plain. Its watershed area (including the water surface) is 97 square miles and drains 83 square miles of land. Thus, its total watershed area is 14% water.

Along the Northern Kent County shoreline, the Sassafras is comprised of many winding tributaries including Lloyd's Creek, Turner's Creek, Freeman Creek, Woodland Creek, Dyer Creek, Mill Creek, Swantown Creek, Jacobs Creek, and Herring Branch. The incorporated towns of Betterton and Galena are located within the Kent County portion of the watershed. Both towns contain water and sewerage treatment plants. In 2004, the watershed was added to the Maryland List of Impaired Waters (303d) for biological impairments.

SASSAFRAS RIVER WATERSHED





#### **8.4 Town of Betterton Water System**

The Town water system consists of two 8” diameter wells, one treatment plant, one 125,000-gallon elevated storage tank, and 3.5 miles of distribution piping. One well, drilled in 1969 and drawing from the Magothy aquifer, is 152 feet deep and is located within the treatment plant building. A second well is located approximately 550 feet from the other well and is 105 feet deep. It too was drilled in 1969 and draws from the Magothy. When last tested in 1987, both wells were found to be providing between 80 and 90 gallons per minute with submersible pumps. Both wells were cleaned, redeveloped, and received new pumps in 1991.

The plant was constructed in 1969. Water is treated by a calcite neutralizer and caustic soda solution injection for pH adjustment, a polyphosphate solution as a sequestrate agent and calcium hypochlorite solution injection for disinfection. The water system is permitted for an average daily withdrawal of 50,000 gpd and a maximum daily flow of 60,000 gpd. The water treatment plant daily operating reports reveal that daily average water consumption ranges from 37,000 gallons per day during the summer months. The system also serves 30 fire hydrants; a dry hydrant adjacent to the public pier in the Sassafra River takes some of the burden off of the water system in the event of a major fire emergency.

The current system serves approximately 376 people with 281 in town connections and 16 out of town connections. The system is nearing full capacity and upgrades will be required prior to any major development.

#### **8.5 Projected Water Demand**

Considering the Town’s permitted monthly average withdrawal rate of 60,000 gallons of water per day from its two wells, an additional 92 households at 250 gpd could be accommodated within the current water withdrawal permit based on the plant’s daily operating reports. The current reserve capacity of the water treatment plant and wells is of major concern and the focus of many discussions by the Mayor and Council. Any proposed major development will need to provide for the expansion of the supply, treatment, storage, and distribution systems. Any development proposal brought before the Town should include enough expansion of each system to provide for the projected growth within the Town limits for at least the next 10 to 20 years.

Long-term strategies will need to be developed to accommodate future water needs for existing vacant land. The Town will have to explore alternative strategies for ensuring an adequate, reliable supply of water, including requiring developers to fund expansion to the water system necessary to support their development.

In calculating future demand on the Town's water system, a per household water usage multiplier of 250 gpd (an estimate of single family household daily water usage) was used with projected dwelling unit in the following tables.

Table 1: Betterton Projected Water Demand Based on Existing Vacant Lots Scenario 1

Zoning Classification	Potential # Dwelling Units	Water (GPD)	Population (DU x 2.5)
R-1	375	93,750	938
R-2	593	148,250	1,483
R-2/IDOD	100	25,000	250
R-3	3	750	8
TOTAL	1,071	267,750	2,579

Notes: Lots/dwelling unit totals based on total allowable by zoning.

Table 2: Betterton Projected Water Demand Based on Existing Vacant Lots Scenario 2

Zoning Classification	Potential # Dwelling Units	Water (GPD)	Population (DU x 2.5)
R-1	224	56,000	560
R-2	524	131,000	1,310
R-2/IDOD	64	16,000	160
R-3	2	500	5
TOTAL	814	203,500	2,035

Notes: Lots/dwelling unit totals based on zoning and assumptions on land available for development. Population projections assume average household size to be 2.5 persons.

The current Betterton boundary will serve as the 20-year growth boundary with potential annexations undertaken to clarify boundaries, prevent enclaves and/or extend municipal services to areas that are in need of municipal services for health or safety reasons.

One concern the Town must confront is the large population of second home residents. This population is difficult to track, but becomes apparent in the spikes in services in summer months, weekends, and holidays. These inhabitants, along with a substantial population of recreational boaters and visitors to Betterton Beach account for a discrepancy between people served by Betterton water and sewer and correlating with growth projections.

Current available information indicates that the capacity of the Magothy aquifer is adequate to meet Betterton's water needs during the planning period. At the same time, a number of federal and State studies indicate that the State's groundwater supply, particularly in aquifers that serve southern Maryland and the Eastern Shore, may be inadequate to meet demand in the future. The Town should regularly monitor available studies of water supply in the region and work with Kent County and the State to assess the implications of new information for the Town's water management strategies.

Of particular note is the Assessment of the Coastal Plain Aquifer System in Maryland and its companion data information system. This study, anticipated to be completed by 2014, could provide new data that potentially impacts projections made for the planning period in this Plan. While current information from MDE, DNR, and federal studies indicate no immediate shortage of the water from the Town's supply source (the Patapsco aquifer), the Town should review the final assessment of the Coastal Plain Aquifer System when it is made available and, if necessary, reassess its strategies for insuring that Betterton has an adequate supply of water to meet current and future needs.

## **8.6 Town of Betterton Wastewater System**

A major wastewater treatment plant is characterized by a design capacity of 500,000 gpd or more. Betterton's treatment facility is identified as a minor plant. Minor plants are those which are designed to handle less than 500,000 gpd. Major facilities must meet nutrient caps which are based on MDE 2020 flow projections. Nutrient caps are legally enforceable aggregate mass load limits contained in a major plant's discharge permit. Nitrogen and phosphorus must be treated and must meet the caps. Minor plants must report nutrient loadings in a Daily Monitoring Report (DMR) which is submitted to MDE monthly. Minor plants are not required to treat nutrients or meet the caps set by the 2020 flow projections. Minor plants that propose any upgrades to their existing plant will be required to meet the projected caps set by MDE.

All plants have nutrient caps which are set based on 2020 flow projections; however, only major plants are required to treat these nutrients and to upgrade their facilities to meet Enhanced Nutrient Removal (ENR) standards. ENR is a wastewater treatment technology that is capable of reducing the nitrogen and phosphorus concentrations in wastewater effluent to achieve permit limits equivalent to concentrations of no more than 4 milligrams per liter total nitrogen and 0.3 milligrams per liter total phosphorus, as calculated on an annually averaged basis. Bay Restoration Funding (the Flush Fee) is meant to assist with the costs of upgrading major plants ENR capability.

Betterton owns and operates a minor wastewater treatment facility with a collection system containing 3.7 miles of 4-8 inch diameter gravity sewer, 0.77 miles of 2-6 inch diameter force main, 5 pump stations, and 88 manholes. The treatment plant is a 200,000 gallon per day activated sludge packet plant built in 1969 and discharges to the Sassafra River, which is designated as Use II: (shellfish harvesting) waters protected as actual or potential areas for the harvesting of oysters, soft-shell clams, hardshell clams, and brackish water clams. It receives a daily average flow of 66,667 gpd. Betterton reports an average flow of between 13,000 gpd and 18,000 gpd. The plant presently receives only one third of its designed flow. The 2020 projected flow is 22,000 gpd.

Based on the potential for infill development and acreage available for potential residential development existing, additional annexation would only be approved under conditions specifically outlined in the Growth Element. There is adequate acreage within the existing Town boundaries to accommodate residential growth (of the 14 acres of commercial land, only one acre remains undeveloped). While the Town's reserve capacity of the water treatment plant and

wells would require expansion for any major development, the Town has adequate sewage treatment flow capacity (based on average flow) to accommodate an additional 490 dwelling units. The plant currently maintains 292 total sewer connections (of which 15 are out of town connections).

However, according to MDE, the Town is currently exceeding and is projected to exceed the minimum sewer gpd demand estimate. The limiting factor for the Town, according to MDE, is its phosphorus loading. While not presently regulated by MDE, the Town reports these rates to the state on a monthly basis. Any upgrades to the existing plant will be required to meet the projected caps set by MDE.

The Town will undertake a feasibility study to explore operational or mechanical solutions to come into compliance with the annual loading rate. This study may trigger permit review and require compliance with MDE loading caps.

### 8.7 Projected Demand for Sewer Treatment

As discussed in the Growth Element, the analysis of potential growth is based on a combination of development plans on previous annexed lands and on estimated build-out and likely demand in the Growth Area. There are many variables and the specifics of proposed development cannot be known at this time, however their magnitude can be estimated. The analysis of potential growth is based on a combination of outcomes based on zoning and land required for other uses. These estimates must also consider infill development and underutilized properties.

Table 3 illustrates the potential number of households, and the projected demand for sewage treatment capacity based on possible outcomes.

Table 2: Betterton Projected Sewer Demand

Zoning Classification	Potential # Dwelling Units*	Population	Sewer Usage (GPD)	Potential # Dwelling Units**	Sewer Usage (GPD)	Population
R-1	375	938	93,750	224	56,000	560
R-2	593	1,483	148,250	524	131,000	1,310
R-2/IDOD	100	250	25,000	64	16,000	160
R-3	3	8	750	2	500	5
TOTAL	1,071	2,579	267,750	814	203,500	2,035

Notes: \*Lots/dwelling unit totals based on total allowable by zoning. \*\*Lots/dwelling unit totals based on assumption that 40% of gross acreage is not available for dwelling units. Population projections based on projected trend in average household size of 2.5. Demand for sewer is based on potential outcomes in development of land. No projects have been approved on vacant large parcels at the writing of this plan.

## **8.8 Unmet Future Demand**

Betterton's large population of second home residents is not tracked by the Maryland Department of Planning or accounted for by the Maryland Department of Environment, as this population is counted in its primary places of residency whether those residences are Maryland, Delaware, Pennsylvania, Virginia, West Virginia, or Florida. However, these residents are utilizing both public water and sewer services causing spikes in the systems in summer months, weekends, and holidays. These residents along with a substantive population of recreational boaters account for a discrepancy between people served by Town water and sewer and agency projections for population statistics and growth projections. Projections should attempt to anticipate a transition in use from seasonal to full time as second homes become retirement homes. This transition will surely have an impact on flow and nutrient readings.

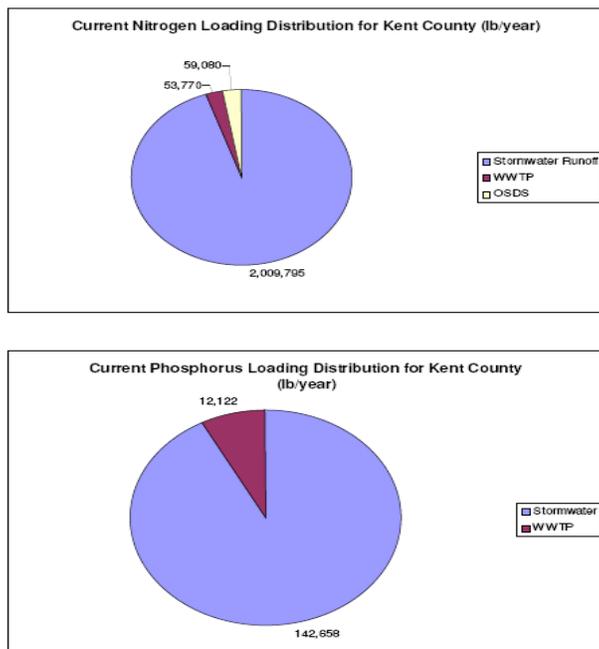
Based on the projected sewer demand, should development occur on existing vacant parcels, upgrades to the existing treatment plant will need to occur to accommodate any large scale development. Any growth exceeding the available 490 dwelling units will trigger upgrades to the existing wastewater treatment facilities. Further, the Town must implement the findings of the future feasibility study to determine best operational or maintenance practices to meet both resident needs and nutrient caps. With the Maryland Department of Planning projections for an increase in population of 84 for Betterton to the year 2030, the projected land available for growth far exceeds the projected growth.

## **8.9 Nonpoint Source Assessment**

The population of the Chesapeake Bay is increasing and expanding through the process of low density development. For example, between 1990 and 2000, Bay population climbed by 8%, but impervious cover climbed by 41% and turf cover has climbed by nearly 80% (Stormwater Consortium, 2007). As land is transformed from forests to general development and agricultural land, the volume of stormwater runoff will increase. This can result in erosion and flooding of adjacent land. The transformation has contributed additional nutrient and sediment loading to the local water bodies degrading the health of the water system and resulting in pollution and eutrophication of the Chesapeake Bay. Stormwater regulations have been developed to protect the water resources of Maryland, including the Chesapeake Bay, from the effect of development.

## 8.10 Stormwater Policies

Figure 5-1 Nutrient Loading Distribution (Draft)



The Town of Betterton is not required by MDE to submit NPDES stormwater permits. The Town implements the Stormwater Management Ordinance which sets regulations governing stormwater. The Town ordinance encourages responsible growth and protects the health of the Chesapeake Bay. The Town promotes the use of non-structural stormwater BMPs over structural BMPs. It also regulates residential and commercial landowners to utilize technology to reduce the volume and improve the quality of runoff from their property.

The Maryland Stormwater Management Act of 2007 was signed into law by Governor Martin O'Malley in Senate Bill 784. This Bill gives the Maryland Department of the Environment the authority to regulate stormwater throughout the State of Maryland. The Town of Betterton, along with Kent County, will be exempt from the NPDES Phase I and II permits but will comply with general regulations. The updated regulations of the Stormwater Management Act will become effective May 2010. Future updates of this plan will incorporate these regulations where appropriate.

### 8.11 Growth Simulation Analysis and Nonpoint Source Loading Analysis

The Maryland Department of Planning has developed a nonpoint source nutrient loading analysis to determine how growth trends and land use planning decisions will impact future (2030) nutrient loading. The 2030 land use is determined by a growth simulation model, which uses 2002 land use and current growth trends as the input. Nitrogen and Phosphorus loading rates (lb/acre/year) based on current practices are applied to the 2002 and 2030 land use to establish a baseline. These baseline results can be compared to alternative future planning scenarios.

The tributary strategy loading rates assume that there has been 100% implementation of the tributary strategy nonpoint source BMP's for the Upper Eastern Shore. Details can be seen in the Maryland Tributary Strategy Upper Eastern Shore Basin Report for 1985-2005 Data.

The Town of Betterton, through its Zoning, Comprehensive Plan, pending Sassafras Watershed Action Plan, and representation on the Kent County Total Maximum Daily Load Committee, promotes growth that will minimize future deterioration its tributaries and would further encourage improvements to the Sassafras River and overall Chesapeake Bay watersheds.

### 8.12 Total Maximum Daily Load (TMDL)

The health of the Chesapeake Bay is dependent upon a variety of factors. These factors include point sources of pollutants (wastewater treatment plants) and nonpoint source pollutants (stormwater runoff and onsite disposal systems). Water quality regulations have traditionally focused on point source pollutants because they are easier to define, monitor and control. However, in many areas and watersheds, they only constitute a minor portion of the total nutrient loading in a Total Maximum Daily Load document (TMDL). Such is the case in the Sassafras River Watershed as demonstrated in the following chart:

Watershed	Area (acres)	WWTP	TMDL	Date	303D Impaired List/Category 5 (reason why it is on the list)
Sassafras River	56,935	Betterton Galena	Phosphorus	1 April 2002	PCB in fish tissue; contaminated sediments

TMDLs are designed on two levels, the macro level of the Chesapeake Bay and the micro level of individual watersheds. Healthy streams are listed as category 1; the numerical listing increases as the pollution level increases until category 5 (impaired streams) is reached. The category 5 streams are listed on the 303d impaired waters list.

Harvesting shellfish has historically been a vital part of the economy on the Eastern Shore of Maryland. Due to degrading water quality, the Maryland Department of the Environment has restricted shell fishing in certain water bodies due to water quality impairment. Grey's Inn Creek, Portions of the Chester River, Fairlee Creek and Worton Creek, Stillpond Creek and the Sassafras River are MDE restricted shellfish waters.

Under the terms of the Federal Clean Water Act (33 U.S.C. §§ 1251-1387) the U.S. Environmental Protection Agency (EPA) delegated authority to Maryland to implement a systematic technical and administrative framework for managing water quality. Delegated responsibilities include setting water quality standards, assessing water quality, identifying waters that do not meet standards, establishing limits on impairing substances, and issuing permits to ensure consistency with those pollutant limits.

The State must conduct scientific studies for waters that do not meet water quality standards due to an excessive pollutant load and determine the maximum amount of the pollutant that can be introduced to a water body and still meet standards. That maximum amount of pollutant is called a TMDL, and the studies are called TMDL Analyses or simply TMDLs. TMDLs are a regulatory mechanism to identify and implement additional controls on both point (i.e., wastewater treatment plants, urban stormwater) and nonpoint source (i.e., stormwater runoff, erosion) discharges in water bodies that are impaired from one or more pollutants and are not expected to be restored through normal point source controls.

Total Maximum Daily Loads (TMDLs) establish limits or “caps” on the amount of pollutants permitted from point (P) and nonpoint sources (NPS) through an allocation system, and TMDL analysis defines a quantified framework for TMDL implementation. TMDLs are expressed as allowable loads of a specified pollutant by point and nonpoint sources. Point sources include wastewater treatment plants with direct discharge permits into waterways (National Pollutant Discharge Elimination System Permits—NPDES) and urban storm sewer systems.

The Sassafras River Watershed has two minor municipal point sources: Betterton WWTP and Galena WWTP. Nonpoint sources are all discharges other than point source discharges. A TMDL is a calculation of the maximum amount of a pollutant, both point source and nonpoint source, that a water body can receive and still meet water quality standards.

### **8.13 Kent County TMDL Committee**

Maryland has addressed the nonpoint source pollution sources through the Tributary Strategy Implementation Plan. All six watersheds in Kent County are contained within the Upper Eastern Shore Tributary Strategy Area.

Through the Council of Governments (COG), the Town of Betterton is represented on the Kent County TMDL Committee which has been meeting since November 2006 to draft the Local Tributary Strategy Basin Implementation Plan. The draft was completed in March 2008 and represents a snapshot in time. The Committee is awaiting state data both from MDE and Maryland Department of Agriculture.

The Draft Basin Plan includes the following initiatives:

- 1 Point Source Implementation Plan
- 2 Urban and Suburban Nonpoint Source Implementation Plan
- 3 Planning and Preservation Programs to Reduce Impacts of Future Growth on Water Quality
- 4 Regulations, Zoning, Ordinances and other Implementation Programs to Protect Water Quality
- 5 Watershed Restoration and Education Programs
- 6 New Initiatives to Address Barriers

#### **8.14 Impervious Surfaces/Lot Coverage**

Generally, impervious cover includes rooftops and roads that prevent stormwater from infiltrating in the ground. Significant water quality and habitat impacts are observed in streams in watersheds with average impervious cover of about 10% or greater. Impervious surfaces are calculated based on a number of project reviews including Stormwater Management and Critical Area. Recently, the Critical Area Program has changed its impervious surfaces requirements to lot coverage requirements.

The Town of Betterton adopted a Critical Area Program along with a series of implementing provisions contained in the Betterton Zoning Ordinance and Subdivision Regulations in May 1988. The total area of the Town of Betterton is about 500 acres. Roughly one-third of the Town or 166 acres is within the Critical Area (34.18 acres of Intense Development Area; 59.82 acres of Limited Development Area; and 72 acres of Resource Conservation Area).

Regardless of the manner in which lot coverage is calculated, the Town supports a manageable increase in stormwater runoff through the enforcement of its Stormwater Management Ordinance. In addition to traditional stormwater management practices, the Town promotes bio-retention as a means of treating stormwater runoff. Bio-retention, or rain gardens, provide stormwater treatment that enhances the water quality by using soil treatment and plantings to remove pollutants from stormwater runoff.

The Town favors conservation subdivision techniques for new subdivisions. Conservation subdivision simply rearranges the development on a parcel as it is planned so that a large percentage of the parcel remains in open space. This design technique not only uses low impact development measures but also contributes significantly to the corridor and buffer goals of this strategy. In the long term, conservation subdivision design can protect blocks and corridors of open space, reduce the amount of impervious surfaces, and reduce the impact of future growth on watersheds.

### **8.15 Bay Restoration Fund Enhanced Nutrient Reduction (ENR)**

The Bay Restoration Fund ENR program provides up to 100 percent state grant funds to local governments to retrofit or upgrade major wastewater treatment plants (WWTP) to remove a greater portion of nutrients from discharges. ENR technologies allow sewage treatment plants to provide a highly advanced level of nutrient removal. The ENR strategy builds on the success of the biochemical nutrient removal (BNR) program already in place. Upon completion of the upgrade, the NPDES permits will require the permittee to make a best effort to meet the load goals providing reasonable assurance of implementation. The NPDES permits should also be consistent with the assumptions made in the TMDL (e.g., flow, effluent nutrients concentrations, CBOD, DO, etc.).

### **8.16 The Maryland Water Quality Improvement Act**

The Maryland Water Quality Improvement Act “requires that comprehensive and enforceable nutrient management plans be developed, approved and implemented for all agricultural lands throughout Maryland. This act specifically requires that nutrient management plans for nitrogen be developed and implemented by 2002, and plans for phosphorus to be done by 2005.

### **8.17 Maryland’s Clean Water Action Plan**

Maryland’s Clean Water Action Plan was developed in a coordinated manner with the State’s 303(d) process. In 2004, the Sassafra River Watershed was added to the Maryland List of Impaired Waters (303d) for biological impairments.

### **8.18 Chesapeake Bay Agreement**

In the 1987 Chesapeake Bay Agreement, Maryland made a commitment to reduce nutrient loads to the Chesapeake Bay. In 1992, the Bay Agreement was amended to include the development and implementation of plans to achieve these nutrient reduction goals. Maryland’s resultant Tributary Strategies for Nutrient Reduction provides a framework supporting the implementation of NPS controls in the Upper Eastern Shore Tributary Strategy Basin, which includes the Sassafra River Watersheds.

### **8.19 Five-Year Watershed Cycling Strategy**

Maryland uses a five-year watershed cycling strategy to manage its waters. Pursuant to this strategy, the State is divided into five regions, and management activities will cycle through those regions over a five-year period. The cycle begins with intensive monitoring, followed by computer modeling, TMDL development, implementation activities, and follow-up evaluation. The choice of a five-year cycle is motivated by the five-year federal NPDES permit cycle. This continuing cycle ensures that every five years intensive follow-up monitoring will be performed. Thus, the watershed cycling strategy establishes a TMDL evaluation process that assures accountability.

## **8.20 Water Resources Element: Town Policies and Actions**

- 1 Investigate the use of municipal wastewater for agricultural irrigation.
- 2 Complete the feasibility study on the wastewater treatment facilities.
- 3 Consider a water capacity plan.
- 4 Identify groundwater recharge areas and investigate protection strategies accordingly.
- 5 Consider the development of a wellhead protection plan.
- 6 Continue to coordinate with the county regarding proposed green belts.
- 7 Consider the implementation of a 15 percent lot coverage limit on all new development.
- 8 Encourage water quality improvements for new development through stormwater management techniques such as rain barrels, rain gardens, and native planting plans.
- 9 Review initiatives found in its Local Basin Implementation Plan.

This Report should be sent to the Mayor and Council and to the Maryland Department of Planning.

**Mayor and Council  
Town of Betterton**

**Resolution Adopting Recommended Amendment to the Comprehensive Plan of the Town  
of Betterton**

Whereas, Article 66B of the Maryland Code provides that amendments to local comprehensive plans shall be made after local planning commissions review, hold hearings on and submit recommendations to the local governing body, and;

Whereas, the Betterton Planning Commission has reviewed the “Stories of the Chesapeake Heritage Area Management Plan” and conducted a public hearing thereon, and recommended adoption to Mayor and Council, and ;

Whereas, it is the considered opinion of the Betterton Planning Commission that participation in the Heritage Area Management Plan affords opportunities for possible funding and access to other benefits that are or may, in the future be available to participants in the Plan. And:

Whereas, participation in the Management Plan does not impose any limitations on the rights of the Town of Betterton or its citizens and property owners, and

Whereas, it is the desire of the Mayor and Council of the Town of Betterton to amend the Betterton Comprehensive Plan by adding the “Stories of the Chesapeake Heritage Area Management Plan” as an appendix.

Now therefore be it resolved, by the Mayor and Council of the Town of Betterton, that it does hereby adopt, as an amendment to the Comprehensive Plan of the Town of Betterton, Appendix A, **Stories of the Chesapeake Heritage Area Management Plan”**

**Moved by Tom Hollidge      Seconded by Donald Sutton**

**Approved and adopted this 28<sup>th</sup> day of March, 2005 by a vote of 4 yeas and 0 nays.**

**s/Carolyn C. Sorge  
Mayor  
s/ Thomas O. Hollidge  
Councilor  
s/ Karen E. Russo  
Councilor  
s/Donald E. Sutton  
Councilor**

**s/Margo M. Turner  
Town Clerk**

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**BETTERTON PLANNING COMMISSION**

**Resolution Recommending Adoption of Updated Water Resources and  
Municipal Growth Elements for the Comprehensive Plan of the  
Town of Betterton**

Whereas, the Smart Growth Areas Act of 1997, HB1141 and other growth management principles require updated Water Resources and Municipal Growth Elements for the Comprehensive Plan of the Town of Betterton, and;

Whereas, the Betterton Planning Commission has drafted and reviewed Water Resources and Municipal Growth Elements for the Comprehensive Plan of the Town of Betterton, and;

Whereas, the Betterton Planning Commission has sent these elements to the Kent County Board of Planning and the Maryland Department of Planning for consideration and review, and;

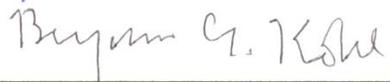
Whereas, the Betterton Planning Commission has held a public hearing on the Water Resources and Municipal Growth Elements on December 14, 2009; and, approved said elements,

Now therefore be it resolved by the Betterton Planning Commission that it does hereby recommend to Mayor and Council of the Town of Betterton, the updated Water Resources and Municipal Growth Elements for the Comprehensive Plan of the Town of Betterton be incorporated and here transmitted with the Maryland Department of Planning comments as an attachment into the Comprehensive Plan of the Town of Betterton.

**Moved by Bob Thomas**

**Seconded by Cynthia Sutton**

  
\_\_\_\_\_  
**Chairman**

  
\_\_\_\_\_  
**Secretary**

**Mayor and Council  
Town of Betterton**

**Resolution # 2010-01**

**Resolution Recommending Adoption of Updated Water Resources and  
Municipal Growth Elements for the Comprehensive Plan of the  
Town of Betterton**

**WHEREAS**, pursuant to Article 66B of the Annotated Code of Maryland, the Planning Commission of the Town of Betterton, Maryland has prepared amendments to the Comprehensive Plan for the Town of Betterton, Maryland entitled "Betterton Comprehensive Plan – December 30, 2005"; to meet the requirements of House Bill 1141 adding Section 7.0 and 8.0 and

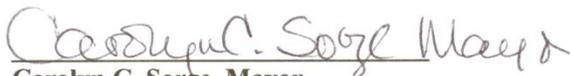
**WHEREAS**, the Planning Commission held a public hearing for the amendment to the Comprehensive Plan on December 14, 2009, and thereafter approved the Comprehensive Plan for Betterton, Maryland which is hereby submitted for adoption by the Mayor and Council of the Town of Betterton, Maryland,

**NOW, THEREFORE, BE IT RESOLVED** by the Mayor and Council of the Town of Betterton, Maryland, that the Comprehensive Plan Amendments for the Town of Betterton recommended by the Planning Commission are hereby adopted and will become part of the "Betterton Comprehensive Plan-2005" for the Town of Betterton, on this **23rd** day of **February** 2010.

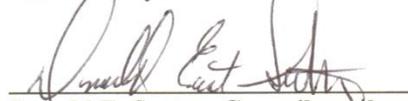
Adopted by resolution this 23<sup>rd</sup> day of February, 2010 by a vote of 3 for and 0 against.

Attest:

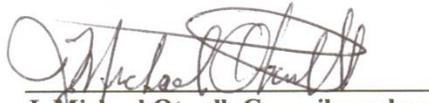
  
Annette M. Green, Town Clerk

  
Carolyn C. Sorge, Mayor

Robert E. Pyfer, Councilmember

  
Donald E. Sutton, Councilmember

Edward C. Zellers, Councilmember

  
J. Michael Otwell, Councilmember