

# 2010 Amendments



## Sudlersville Comprehensive Plan

Municipal Growth and Water Resources

Approved and recommended by Sudlersville Planning Commission 8/26/10

Approved following public hearing by Town of Sudlersville Commissioners 9/15/10

## Regional Setting and Growth Patterns

When planning for the future of Sudlersville, it is vitally important to consider the location of the Town and its interdependence with other geographic and economic regions, such as Queen Anne's County, the Eastern Shore, the Delmarva Peninsula, and the larger metropolitan areas within close proximity.

Sudlersville, historically has been a classic rural crossroads community. It is situated in eastern Queen Anne's County approximately 6 miles from the Maryland-Delaware boundary at the intersection of two State highways, MD Rte. 300 and MD Rte. 313. According to the 2000 Census, Sudlersville was at that time (April 2000) home to 391 residents on about 220 acres of land.

Since the census, Sudlersville has annexed approximately 595 acres of ground with a potential for homes and a population increase of approximately 1200. Another annexation has added about 132 acres but that is for a school and park complex.

Queen Anne's County, in the north-central portion of the Eastern Shore, is characterized by gently rolling land areas bounded on the west by the Chesapeake Bay. The Eastern Shore's major link to the rest of Maryland is via the Chesapeake Bay Bridge which is located at the western boundary of the County. Queen Anne's 2000 population was 40,563, larger than either of its Eastern Shore neighbors (Talbot, Caroline, and Kent). The 40,563 residents represented a 19.5% increase over the 1990 population of 33,953.

The Eastern Shore of Maryland contains nine counties with a 2000 population of 395,903. This represents an increase of 15% over the 1990 population. An abundance of fresh water and favorable soil characteristics enhance the Eastern Shore's value for agricultural purposes. Industrial activity in the region has historically been related primarily to agricultural activities and processing of seafood taken from the Bay and its numerous tributaries. However, since 1970 several industries have located on the Shore that are not reliant upon food products. These include manufacturing, electronics assembly and commercial services, resulting in significant industrial diversification.

"Delmarva" is a term that describes the 6,057 square mile peninsula encompassing the nine Eastern Shore of Maryland Counties (although some descriptions of the region do not include Cecil County, for the purposes of this Plan it is included), all of the State of Delaware, and the two counties on Virginia's Eastern Shore. In 2000 the population of Delmarva was 1,230,901. 55% of the land area and roughly 1/3 of the population of the Delmarva Peninsula is in Maryland. The peninsula is bounded by the Chesapeake Bay on the west and south, and the Delaware Bay and Atlantic Ocean on the east. The peninsula lies almost entirely within the Atlantic Coastal Plain.

Table 1 below lists the population of Sudlersville, Queen Anne's County, and the Eastern Shore since 1960. As the table shows, there has been no growth in Sudlersville in new homes and an ageing population and out migration of the Town's young people has resulted in a small decrease.

**Table 1, 40-Year Population Comparison**

	2000	Sudlersville as %	1990	Sudlersville as %	1980	Sudlersville as %	1970	Sudlersville as %	1960	Sudlersville as %
Sudlersville	391	---	428	---	443	---	417	---	394	---
Queen Anne's County	40,563	1.0%	33,953	1.3%	25,508	1.7%	18,422	2.3%	16,569	2.4%
Eastern Shore	395,903	0.1%	343,769	0.1%	296,620	0.1%	258,329	0.2%	243,570	0.2%

One factor, which makes Sudlersville specifically, and the Eastern Shore in general, attractive to both people and businesses looking to relocate, is its relative proximity to surrounding states and economic markets. Sudlersville is approximately 6 miles from Delaware, 50 miles from Pennsylvania, and 85 miles from Virginia. The Town enjoys excellent access to major cities. From Sudlersville it is 74 miles to Baltimore, 75 miles to Washington, 49 miles to Wilmington, Delaware, and 79 miles to Philadelphia.

This proximity is augmented by the availability of excellent highways offering access to both the DC and Baltimore areas to the South and West and to Wilmington to the North. Dover, the rapidly growing capital of Delaware is only a few miles to the East and also offers many employment opportunities.

The combination of good roads, employment and relatively affordable housing has brought developers to the town's doorstep and created a setting that will ultimately result in major growth. The Town believes that population projections which rely solely on previous historic growth patterns do not adequately reflect the change that will result from limiting or halting residential subdivisions in cornfields throughout the county and instead directing that growth into the town as anticipated by "Smart Growth".

Further evidence of Sudlersville's growth potential can be seen in the recent experience of nearby Millington which saw the development and sale of 51 new homes during the past 2 ½ years of the worst housing market in 70 years. Millington and Sudlersville have very similar access characteristics to complement their attractive small town life-style.

Table 2 below shows how Sudlersville and Queen Anne's County are expected to grow, as the county has in fact already grown.

**Table 2, Current Estimated Population and projection through 2010**

	Estimated 2008	2010	2020	2030
Sudlersville	432	460	1110	1760
Queen Anne's Co.*	47,700	49,200	55,810	61,900

\*Projections by Maryland Department of Planning, 2007. Sudlersville projections assume in-town parcels, including recent annexations, will develop over 22 years.

As stated above, the driving force for this growth will be the annexed lands, combined with developer funded infrastructure. The Town is currently preparing for a major expansion of its

infrastructure and it is anticipated that capacity will be provided for substantial growth, again based on annexations.

The current construction of a new middle school and long term plans for a high school will also militate towards placing growth within the town. Sudlersville will become an outstanding example of the walkable community when children in the town will be able to attend school from kindergarten through the 8<sup>th</sup> grade and eventually through high school without having to ride a school bus

Table 3, Projected growth, current boundaries and possible annexations

Property	Acreage	Dwelling Units @ 3.5/acre, adjusted for major features	Estimated Residents @ 2.5 per household
<b>Currently in Town</b>			
Gray (p 29)	96 Acres	220	550
Friel (p122)	96 After return	300	750
BDC Partners	7 Acres	25	63
BDC (p 26)	115 Acres	200	500
Elevator Rd LLC (P. 2)	241 Acres	700	1750
Est. total within current limits		1445	3613
<b>Projected Growth</b>			
<b>Near Loop</b>			
Merrick (p 171)	158	450	1125
Willis (p 28)	202.72	515	1/2 commercial
<b>Est. total –</b>	<b>475 acres</b>	<b>965</b>	<b>1383</b>
<b>Near Loop</b>			
<b>Far Loop</b>			
Godfrey (p 40)			Deed restricted Open Space
Schmidt,W. (p 3 & 39)			Deed restricted Open Space
Schmidt, H & A (p 2)	136		Deed restricted Open Space
Schlosser (p32)	211		Deed restricted Open Space
Coleman (p 24)	161	528	1320
Dulin (p 25)	167	546	1365
<b>Est. Total -Far Loop</b>		<b>1074</b>	<b>2685</b>

**Past Growth Pattern and Infill Potential:** Sudlersville has grown minimally over the past 20 years and had potential for only about 17 additional homes within the corporate limits. Even those lots were closely held and not generally available to someone who might have wished to develop them. The Town had no water and limited sewer availability, and subsequently developers went to other communities that had such infrastructure, or more unfortunately, into the cornfields and farmlands of the county, gobbling up farmland that the county's efforts were unable to adequately protect. The past decade's 300 to 500 homes a year growth in the unincorporated areas of the county are another indicator of the potential for growth in Sudlersville and other towns with infrastructure and developable land if low-cost farmland is removed from the competition.

Starting in 2003 there was greatly increased interest in annexation and growth both in the private sector and also through Queen Anne's County with a proposal to build a 40 unit senior housing project. (Now completed, fully occupied and with an extended waiting list) Two major annexations were completed during 2004 (Gray and Friel) with a potential for an estimated 520 homes and developers purchased a property to the North which include 7 acres already in town, now being developed for 25 new homes. 2010 saw two further annexations of 362 acres with a potential for approximately 900 homes. A first 25 lot subdivision has been approved and escrows put in place so that construction may start within the next year.

A major factor in the potential growth is anticipated to be the new water and sewer systems which are currently funded and either under construction (water) or pending final construction permits (waste water). Queen Anne's County has provided \$1.2 million dollars in funding towards the design and construction of these facilities and USDA Rural Utilities has provided loans and grants for the balance of the costs.

**Future Municipal Growth Areas:** Sudlersville has identified two future growth areas, largely defined by the "Official Map" which is actually a projected highway network surrounding the Town. The above chart shows the acreage and projected population for both growth areas, the "Inner Loop" area and the "Outer Loop" area. These terms refer to the location of future growth parcels relative to the "official map" adopted two years ago which outlines the concept of approximately two roads that circle the main four corners with the intention of reducing the traffic pressure on that intersection and on the small feeder streets that on occasion become by-passes. The "loops" will be developed only as development occurs on the properties they encompass or border and will be funded by developers as part of the subdivision process. You will also note that many of the farms surrounding the town are in agricultural preservation programs and will thereby provide the town with a defining border and green buffer as it reaches the outer limits of the projected growth.

**Public Services And Infrastructure Needed To Accommodate Growth Within The Proposed Municipal Growth Areas.** It should be noted that the Town Commissioners started planning for growth with the first annexations in 2004. It was and is their stated policy that any infrastructure costs for development are to be paid for by the developers. Connection fees of over \$15,000 for water and sewer were implemented as well as the requirement for developer funding for any connections beyond the existing system. Funding for future library and public safety expansions has also been included in recent annexation agreements.

**Public Schools:** As mentioned above, the Queen Anne's County School District and the County Commissioners are already planning for expansion of the school system in the North end of the County and to that end have acquired a site for a new middle and high school. Construction for the Middle School is underway with an estimated opening date of approximately 2013. The elementary school is presently being used for students from some distance away and will presumably, with the construction of new school capacity in the southern end of the county, be adequate for growth over the next few years. The future availability of the present middle school also offers the opportunity for some additional educational opportunity. The Town has strongly encouraged the development of a vocational school at that location.

Looking to the future, the County Commissioners also acquired a site that would accommodate a future high school, though that is anticipated to be in the somewhat distant future.

**Public Buildings- Town Hall:** Sudlersville has recently completed expanding and improving the existing Town Hall, located just a block South of the Town's main intersection with the help of a grant from the DNR and should have the capacity for its administration until the growth reaches a number not anticipated for the next 20 years. The expanded building went from 1064 s.f. to 3296 s.f. with meeting space increasing from 308 sf. To 784 s.f. for the principal meetings, plus the addition of a 238 s.f. conference room which is being used by local groups throughout the town.

The expanded facility includes offices for the Clerk, Town Manager, records storage, an additional office, currently used as a site office for the engineers overseeing the various construction projects plus two meeting rooms, one large and one small for conferences.

**Public Buildings- Library:** The Town Library is presently looking at ways to expand through an addition to the present building. A USDA funding application is anticipated within this fiscal year (FY2011). It is anticipated that increasing hours will provide part of the needed additional access to library facilities however at some point an expansion of the present building will be needed.

**Public Parks:** A large part of the Town's park needs are met by the now nearly 40 acre county park within the town limits. This attractive facility includes athletic fields, and restrooms, a walking track with workout stations and picnic and play areas. A small park including both playground and a senior seating area are located at the Town Hall. Each of the new developments planned around the town will also be required to provide both active and passive recreational space and facilities. There is also the potential for joint use of all of the existing and proposed school athletic and recreational areas. The net result of all of this is that Sudlersville should not need any additional park facilities.

**Public Safety- Law Enforcement:** One of the major needs of the Town as it grows will be for greater law enforcement presence. At the present time the Sheriff's department provides law enforcement with some assistance from the State Police. The normal development as Sudlersville grows will probably be to contract with the Sheriff's Department for additional service until such time as there is sufficient need for the town to establish its own police department. This seems to occur most frequently when population reaches the 2000 plus mark.

**Public Safety- Fire Protection:** The Town is presently served very well by the Sudlersville Volunteer Fire Company. It has up to date equipment and facilities sufficient to serve a population larger than any current projections, and it does in fact provide service and back up service to a large area in Kent and Queen Anne's counties and even into neighboring Delaware. The major problem at the present time, and this is true of volunteer fire companies all over the country, is having enough volunteers to meet the standards required. The problem is particularly serious during the day time when there are few volunteers working in town at jobs which permit them to respond to fire calls.

**Water And Sewerage Facilities:** Water and Sewerage facilities represent a major challenge as the Town prepares for the anticipated growth for the next 20 years.

Sudlersville is currently in the process of installing a community water system, aided in large part by the county's need for water for the two existing schools and for the Foxxtown Senior Housing project, which opened in the fall of 2008. Under a joint agreement providing for partial reimbursement from developers, the County has constructed 2 high capacity wells and a water treatment facility plus a 12 inch water main under Church Street from the Town Hall to the Middle School. This will serve as the core of the public water system for the entire town. The balance of the water system including a water tower with sufficient capacity to provide both domestic and fire supply for the entire town is currently under construction with completion scheduled for 2011.

The Sudlersville Commissioners have also authorized the Town Engineers to design a state of the art waste water treatment plant to replace the existing lagoon based system which will not meet the new Total Maximum Daily Limits established for the Chester River. The Town system discharges its treated waste water into Tier 2 water, an un-named tributary of the Red Lion Branch, and thence into the Chester River and so is subject to all the evolving Chesapeake Bay standards. The system is designed to meet the TMDL and other requirements for discharge into a Tier 2 water and will not increase nutrient loadings at the discharge point.

The system is modular and is to be constructed in 2 phases, each of 200,000 GPD capacity so that it can be expanded to meet the larger population anticipated. As indicated previously the additional expansion, when it occurs, will be developer funded.

Funding and design has been completed for Phase I and construction will start as soon as permits are issued by MDE.

The Town is also exploring the possibility of a working relationship with a neighboring nursery which has the potential for both reducing discharges to the stream and curtailing ground water withdrawals for irrigation. This would be particularly valuable during periods of drought and low stream flow.

**Storm Water Management Systems Sufficient to Assure Water Quality Both Inside and Outside the Proposed Municipal Growth area.** Presently most of the storm water management system consists of storm drains built in conjunction with Maryland Highway projects and are outside the jurisdiction of the town. All the proposed new projects are being designed with up-to-the-minute stormwater systems including impoundments, etc to meet the

new state regulations. A demonstration rain garden at the renovated Town Hall further demonstrates the direction for future development.

**Public Facilities for Areas Outside the Corporate Limits:** Sudlersville is proposing to provide waste water treatment facilities to the Town of Barclay under the terms of an agreement which provides that we will construct, own and operate a waste water collection and treatment system which will serve the Town of Barclay. This system was the recommendation of a study done by Barclay as the most efficient way to serve that town which has a small population and a number of failing on-site treatment systems. Meeting this need will result in sizing the planned expansion for the Sudlersville Waste Water Treatment Plant for 100 immediate connections and an additional 49 connections as a result of growth in Barclay. No provision is made for, and no connections will be permitted from properties along MD 313 between the corporate limits of the towns. The Town also has a long-standing policy of not providing services to areas outside the corporate limits and has no properties within the town limits which are not presently connected to its public sewer system. No connections to septic systems except those in Barclay are planned in either the long or short term.

### **Sudlersville's Rural Buffer**

Thanks largely to Queen Anne's County's aggressive program of protecting farmland through easements and use of the various preservation options currently available, Sudlersville already has a substantial Rural Preservation buffer around much of its perimeter. The Town will continue to cooperate with the County in maintaining and expanding this buffer and defining its borders.

### **The Relationship of Long-term Development to the future Character of Sudlersville**

Sudlersville's plans for future growth have changed from the last adoption of its Comprehensive Plan in 2004 reflecting a desire to permit more growth and a greater expansion of the town boundaries. The determination to maintain the small town character and scale in a walkable and connected community has not changed however. To quote from the earlier plan:

“Taken altogether, we believe the Future Land Use Map presents a blueprint for a great small town. We believe the key to our future is largely to build upon, rather than destroy or denigrate, what we already have in Sudlersville. This Plan mentioned previously that our existing Town is in many ways what contemporary developers are trying to recreate in neo-traditional or new urban development schemes. We should take that as a compliment and as a clue as to how to develop in the future. Specifically we want to expand and ultimately replicate our quaint little Town. Our challenge is to do so in a logical and efficient manner. We believe this Plan is the first step in that direction.”

This will include both residential growth, largely in single-family homes and appropriate commercial facilities, on a scale and architecture that will be compatible with the present town. Efforts will also continue to provide greater employment opportunities within the town to reduce the necessity for long distance commutes currently undertaken by many of our residents. Development of additional employment centers on the Harbor Sales and Southern States properties is already permitted by zoning and discussions with the owners have encouraged job creating activities there.

### **Protection of Sensitive Areas.**

Sudlersville has few sensitive areas within, or immediately adjacent to its boundaries.

The zoning Ordinance requires the establishment and maintenance of non-disturbance buffers within 25 feet of all wetlands and waterways and a larger buffer where certain other conditions such as slopes or floodplains exist.

Sensitive areas include the Chapel Branch on the East side which is to be protected by buffers, pursuant to the Zoning Ordinance, reinforced by the fact that much of its length within the Town is part of the Queen Anne's County school campus where the middle school is currently being developed. Extensive areas of athletic fields will supplement the required buffers.

On the west side there are farm drains which the Corps of Engineers has determined do not constitute streams, and then a small tributary of the Red Lion Branch, which also serves as the discharge point for the Town's waste water treatment plant. An anti-degradation study has been prepared for this stream. Here also the requirements for buffering and protection and the high standards for the waste water discharge together with the new storm water regulations will serve to maintain and preserve these sensitive areas.

## **WATER RESOURCES ELEMENT-**

Queen Anne's County has included an excellent and comprehensive water resources analysis as Appendix 3 in its 2010 Comprehensive Plans update and the Town of Sudlersville has adopted it by reference as its Water Resources Element.

For the Convenience of those who may wish to find a quick summary of the data relevant to Sudlersville only we have extracted those provisions and include them here with the permission of the County.

In the Larger document see the following:

Section 7.3.14 Sudlersville Water System

Table 7-7 Town Facilities-Summary of Water Supply and Demand

Section 8.2.5 Sudlersville and Barclay

Table 8-1 Waste Water Treatment Facilities Summary

Table 8-2 County/Town Facilities- Summary of Wastewater Supply and Demand

Section 11.12 Upper Chester River

Section 11.13 Town of Barclay Growth Area

Section 11.14 Town of Sudlersville Growth Area

### **SUDLERSVILLE WATER AND WASTEWATER FACILITIES AND CAPACITY:**

**Wastewater:** Sudlersville currently has a wastewater collection and treatment system which has been in place and operating since about 1970. The most recent discharge permit, effective March 1, 2009, requires that the town make a major improvement in treatment quality and gives a 3 year period to meet the higher limits. The permit provides for summer discharges of 75,000 GPD and winter of 90,000. The town also is awaiting approval of a construction permit to replace the present plant with a new state of the art facility and increased capacity to 200,000 GPD. Funding through USDA is in place, MDE has provided no assistance in the financing.

The proposed new plant will meet the established limits through phase I and a discharge of 200,00 GPD. For the next 200,000 GPD additional filtration will be added to the treatment processes to meet the nutrient limits with the higher flow.

**Water:** Starting with assistance from Queen Anne's County designed to serve the schools and Foxxtown Senior Housing, the town has developed as public water system. Now, with USDA Rural Development assistance, that system is being expanded to include the whole town, including a 500,000 gallon elevated storage tank. Current permitting is based on an annual average of 17,500 GPD and a maximum monthly use of 26,000 GPD. Construction permits have been issued and the work is underway. Obviously a substantial increase will be required to meet projected growth with use in the range of 400-500,000 GPD at buildout.

## **WATER AND SEWER DEMAND AT BUILDOUT**

The Town of Sudlersville has identified long term growth potential not only for those properties that might be reasonably expected to join the Town in the 10-20 year period, but also for those that are proximate even though the likelihood of their joining the town is remote. The Town will continue its policy of limiting connections to properties within the corporate limits except for the contractual agreement to provide wastewater treatment to the Town of Barclay.

The waste water treatment plant which is expected to start construction this year has been designed to be constructed in 2 stages, each of 200,000 gallons per day capacity, with certain parts of the system, such as the headworks having capacity for the anticipated 400,000 GPD. Additional treatment at Phase II will include the addition of filtration to continue to meet the discharge limitations on the Red Lion Branch. The following matrix shows the Town's growth as measured against each of the two stages. It should be noted however that any of the parcels within the Town limits could be developed earlier than shown and the schedule adjusted accordingly.

All of the development will be charged the present connection fees (\$15,195) or such higher subsequent fees as may be identified to cover the cost of the infrastructure serving them.

### **Non-residential demand.**

The Town's non-residential demand at the present time, based on the present number of e.d.u.'s consists primarily of the two public schools located within the corporate limits which are presently carried at 64 e.d.u and projected with the new middle school at 117.e.d.u. Other non-school non-residential units total only 40 units at the present time for a total count of 157 e.d.u.s. Non-residential demand is expected to increase very modestly, reflecting primarily the addition of some small box retail with very limited discharge requirements. We are projecting the number of non-residential e.d.u's to be about 1 per 5 residential units or less.

**Table WRE #1 Projected growth, water and sewer requirements and capacity**

Property	Dwelling Units @ 3.5/acre, adjusted for major features	Estimated Residents @ 2.5 per household	Flow data- new units projected at 250 GPD	Flow against Town system capacity
<b>Currently in Town</b>				
Present edu's or d.u.	330 edu 178 d.u.	2.2 residents/household	233.3 GPD/edu. 44,000 GPD	Allowable in phase I
BDC Partners	25	63	6,250 GPD	Phase I
Gray (p. 29 )	220	550	55,000 GPD	Phase I
Friel (p. 122)	300	750	75,000 GPD	Phase I
Barclay	100 e.d.u.	250	25,000 GPD	End of Phase I
BDC (p 26)	200	500	50,000 GPD	Expansion to Phase II required
Elevator Rd LLC (P. 2)	700	1750	175,000 GPD	Phase II
Non-residentail Est. total within current limits	400 e.d.u 1445	3613	100,000 530,250 GPD	Major expansion req'd expansion to a third phase (see note following)
<b>Projected Growth</b>				
<b>Near Loop</b>				
Merrick (p 171)	450	1125		Major expansion reqd
Willis (p 28)	515	1/2 commercial		Major expansion reqd
<b>Est. total – Near Loop</b>	965	1383		
<b>Far Loop</b>				
Godfrey (p 40)		Deed restricted Open Space		
Schmidt,W. (p 3 & 39)		Deed restricted Open Space		
Schmidt, H & A (p 2)		Deed restricted Open Space		
Schlosser (p32)		Deed restricted Open Space		
Coleman (p 24)	528	1320		Major expansion reqd
Dulin (p 25)	546	1365		Major expansion reqd
<b>Total -Far Loop</b>	1074	2685		

(note on capacity and flow projections) We have used the broadly accepted figure of 250 gallons per day in projecting future flows however our current experience, reflecting in part our older population and housing stock is only 133 gallons per day. As development occurs we will

carefully monitor actual flows to fit available capacity, however it is likely that the requirements for additional treatment capacity will occur farther down the development scale than indicated.

Obviously the Town's water demand will parallel the waste water discharge and the withdrawal permits as well as wells and treatment capacity will require expansion. Capacity does not appear to be a problem at this time however.

An interesting footnote to both discharge and withdrawal is the fact that the Town has initiated a discussion with a major local nursery about the possibility of providing them with treated wastewater to help meet their very extensive irrigation needs. Although this is in its early stages, the potential for balancing the two major "activities" and their seasonal peaks shows long term promise for both parties.



# Sudlersville Conservation Lands

## LEGEND

-  Growth Area Boundary
-  Incorporated Town
-  Parcels

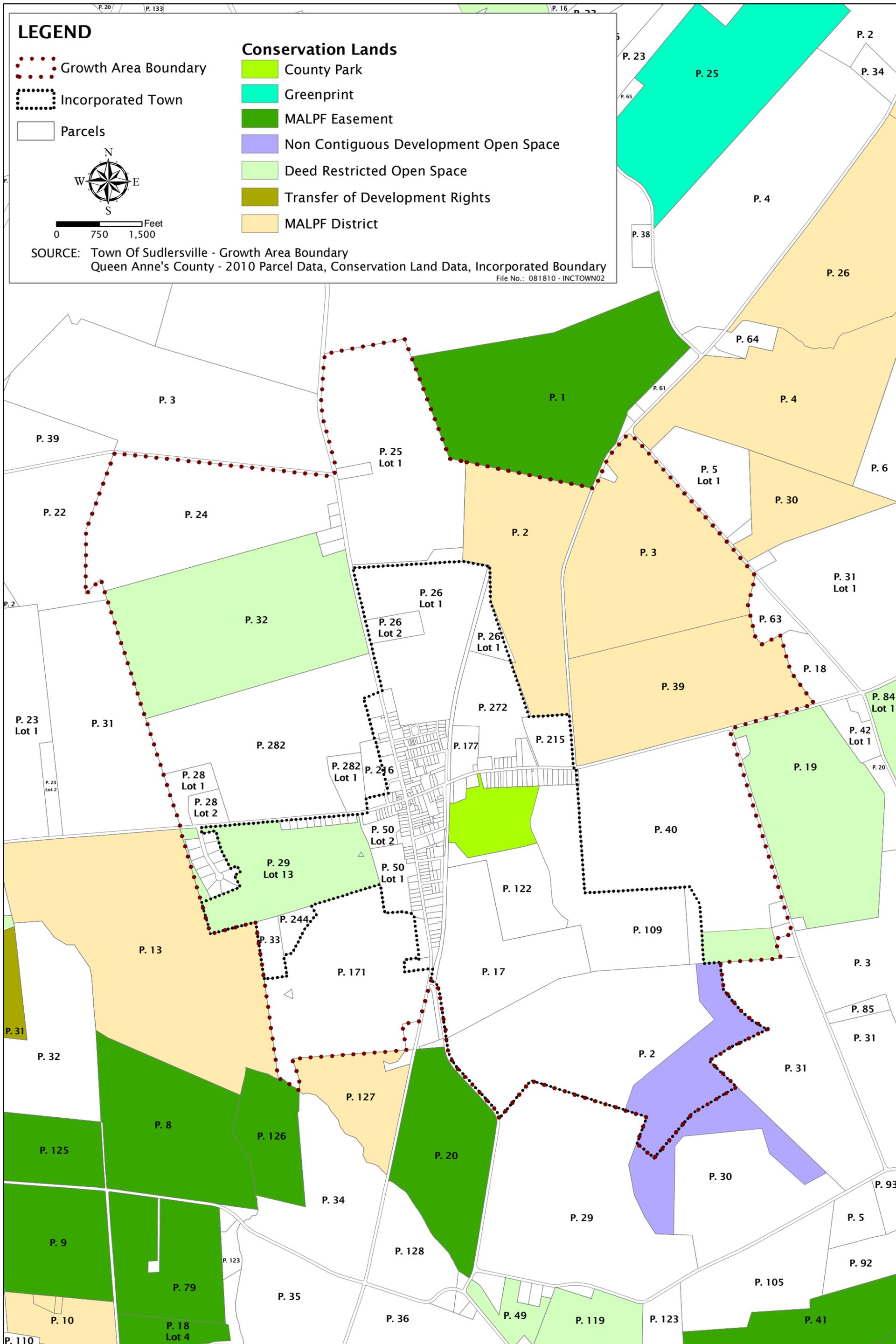
## Conservation Lands

-  County Park
-  Greenprint
-  MALPF Easement
-  Non Contiguous Development Open Space
-  Deed Restricted Open Space
-  Transfer of Development Rights
-  MALPF District

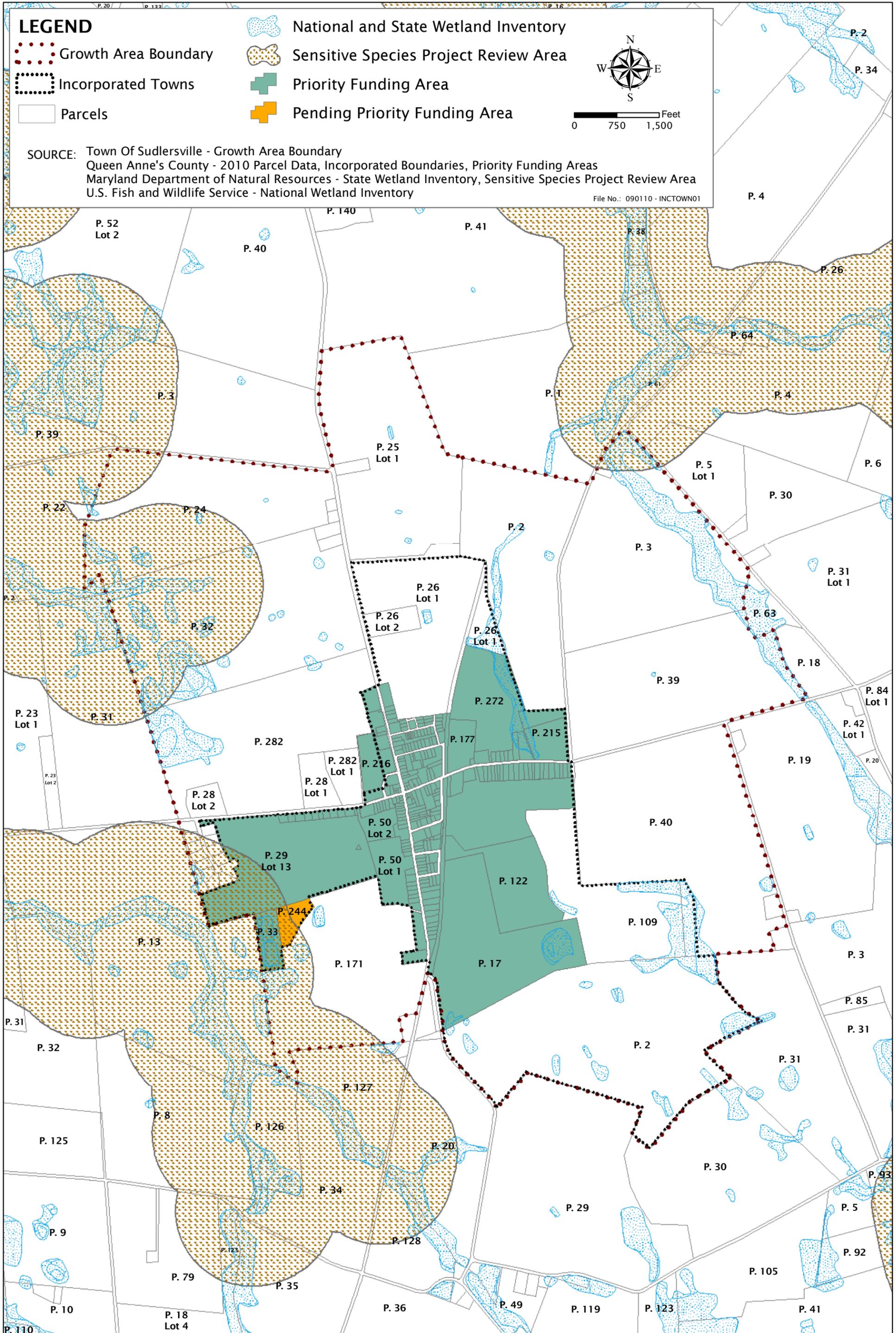


0 750 1,500 Feet

SOURCE: Town Of Sudlersville - Growth Area Boundary  
 Queen Anne's County - 2010 Parcel Data, Conservation Land Data, Incorporated Boundary  
 File No.: 081810 - INCTOWN02



# Sudlersville Sensitive Areas and Priority Funding Areas



# Sudlersville Growth Potential

## LEGEND

-  Growth Area Parcels
-  Growth Area Boundary
-  Incorporated Towns

## Loop Designation

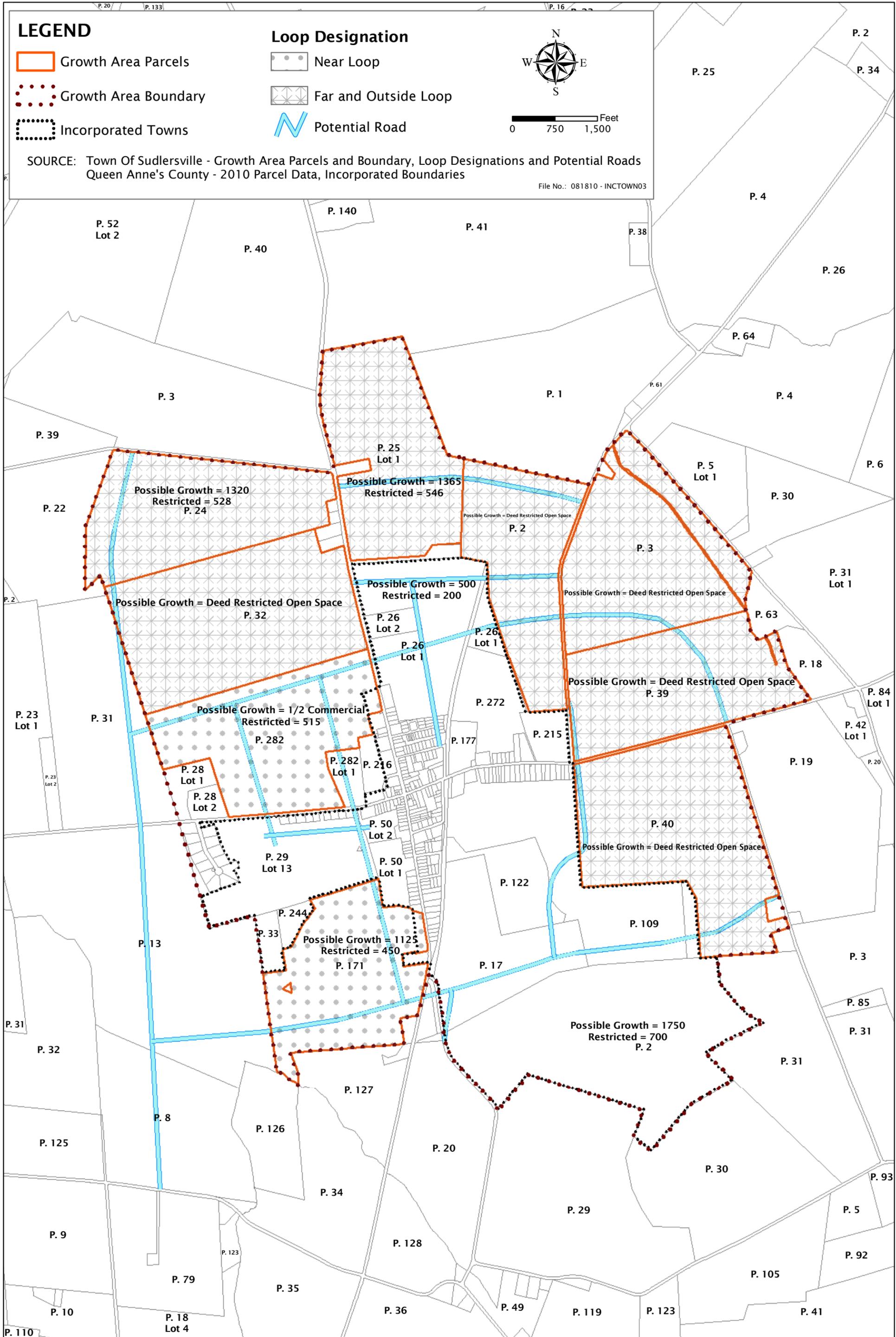
-  Near Loop
-  Far and Outside Loop
-  Potential Road



0 750 1,500 Feet

SOURCE: Town Of Sudlersville - Growth Area Parcels and Boundary, Loop Designations and Potential Roads  
Queen Anne's County - 2010 Parcel Data, Incorporated Boundaries

File No.: 081810 - INCTOWN03





### Section 7.3.13 Queenstown Water System

The Charter of the incorporated Town of Queenstown requires all developed properties within the Town limits be served by a public water system owned and operated by the Town of Queenstown. In addition, the Town provides water service to Friel's Lumber Company and the Queen Anne's County Animal Control Facility which are located outside the corporate limits of the Town. The Town presently serves water to approximately 620 units plus commercial uses.

The Town of Queenstown has three wells drilled into the Aquia aquifer. As of 2006, the Town draws water from only two wells. They are referred to as the Del Rhodes Avenue Well and the Outlet Center Well. The Del Rhodes Ave, Well and the Outlet Center Well each have pumps rated at 150 gallons per minute (gpm). The third well is located at the Wall Street tower was abandoned.

The Town currently has a permitted water appropriation of 77,000 gallons per day drawn from tow production wells in the Aquia aquifer and one recently permitted in the Matawan aquifer. Between 2002 and 2006, demand exceeded the permitted rate y as much as 40 to 80 percent (30 to 60 thousand gallons per day). The Town currently is seeking a permit to withdraw 154,000 gallons per day; this supply will provide current residents and pending development projects, but the withdrawal rate will not provide for additional development described in the consolidated growth alternative of the Queenstown Community Plan. Further increasing municipal water supply requires expanding the Towns' waste water treatment capacity.

Due to limited water supply and arsenic contamination in existing wells, Queenstown began investigating additional water supplies in 2008. An exploratory well installed in the Matawan aquifer indicated high production capacity (greater than 100,000 gallons per day) and overall excellent water quality (low iron and arsenic concentrations). In 2009, the exploration well was converted to a production well and currently is the Towns' main water source. During peak demand periods, water supply can be combined or blended with supply from the Aquia municipal wells while meeting the federal drinking standard for arsenic.

A new production well, permitted for up to 180,000 gallons per day, is being required contingent on accompanying improvements and increased capacity of the wastewater treatment plant. The Town has two elevated water storage tanks. The water tower at Wall Street is reported as a 50,000 gallon tank. The water tower at the Outlet well site is a 100,000 gallon tank. To ensure adequate fire flow, the Maryland Department of the Environment recommends a total storage of 432,000 gallons for municipalities with a population of less than 1,000.

The Town's and the County's current comprehensive plans call for a mix of residential and commercial land uses on lands adjacent to the Town and within the Queenstown growth area. If any of these lands were to be annexed, the Town will provide water and sewer service per the Town's charter; and indicate that additional water service of 300,000 to 527,000 gallons per day will be required to serve full build-out of the growth area as currently mapped.

### Section 7.3.14 Sudlersville Water System

Sudlersville is an incorporated community whose residents presently use individual wells for their water supply needs. Some wells are shallow, utilizing the surface deposits of the Wicomico Formation. All new wells and replacement wells are utilizing the Aquia aquifer as their water source. Two new public wells were installed in the Fall of 2008 to provide service to the Town.



Table 7-7: Town Facilities – Summary of Water Supply and Demand

WATER SUPPLY FACILITY	Sudlersville	Queenstown	Centreville	TOTAL WATER SUPPLY
Provides Service to:	Sudlersville	Queenstown Growth Area	Centreville Growth Area	
Water Source - Aquifer (Aquia, Magothy, Patuxent)	Aquia & Wicomico	Aquia	Monmouth & Aquia	
WATERSHED	Upper Chester River	Wye River & Lower Chester River	Corsica River	
<b>EXISTING CONDITIONS / CAPACITY</b>				
A Total Permitted Annual Average Daily Appropriations	17,500 gpd	77,000 gpd	645,000 gpd	739,500 gpd
Average Day Capacity Limitation based on most limiting factor	17,700 gpd	137,000 gpd	775,400 gpd	930,100 gpd
<i>LIST the MOST LIMITING FACTOR (Total permitted Annual Average Daily Appropriations, Well-field capacity during drought, Safe yield of the reservoir system, Treatment Capacity, or Pump Capacity)</i>				
B EXISTING DEMAND (Average Day Drought Demand)	19,470 gpd	102,000 gpd	459,800 gpd	581,270 gpd
Population Served	432	635		1,067
Number of Connections (Residential and Non-Residential)	293	640		933
C EXCESS ANNUAL AVERAGE DAILY CAPACITY				
Excess Average Day Capacity (Appropriations - Demand)	(1,970) gpd	(25,000) gpd	185,200 gpd	158,230 gpd
D PLANNED or ANTICIPATED CAPACITY NEEDS				
Potential Annual Avg. Daily Demand (from approved but undeveloped subdivisions/permits)	83,000 gpd	180,000 gpd	20,000 gpd	283,000 gpd
E NET EXCESS CAPACITY	(84,970) gpd	(205,000) gpd	165,200 gpd	(124,770) gpd
F. POTENTIAL ADDITIONAL USERS BASED ON NET EXCESS CAPACITY				
Potential Additional Units (Net Excess Capacity / 250 gpd)	Units	Units	660 Units	Units

- A = Permitted Appropriations
- B = Existing Demand
- C = Excess Daily Capacity (A-B)
- D = Demand based on known developments, includes residential and non-residential flows
- E = Net Excess Capacity after consideration for Planned or Anticipated Capacity Needs (C - D)
- F = Potential additional development based on net excess capacity as divided by 250 gpd (E / 250 gpd)

\*Bayside includes Bayside and Queen's Landing Facilities  
 \*\* Bridge Point includes Bridge Pointe and Kent Island Facilities  
 \*\*\* Stearnsville includes Stearnsville, Chesapeake Bay Business Park and Thomson Creek Facilities

Source: WRE Water Capacity and Supply Worksheets (2006) & Queen Anne's County Comprehensive Water and Sewer Plan 2006 as updated

Conclusions: Water Service Areas that have negative Daily Capacity or negative Net Excess Capacity (red numbers) may need to consider upgrades or changes in policy to meet anticipated growth.



### **Section 8.2.5 Sudlersville & Barclay**

The incorporated Town of Sudlersville has constructed a community sewerage system with a capacity of 90,000 gpd designed to serve 900 people. Sewerage treatment consists of two stabilization lagoons followed by chlorination. Dechlorination is provided by gravity feeding a sodium metabisulfite solution into a walled-off section of the existing chlorine contact tank. The two-year (2007-2008) rolling average annual flow is approximately 44,000 gpd.

Remaining capacity at the plant is reserved, approximately 50,000 gpd, as anticipated for a new school. Sudlersville and Barclay plan to create a denied access wastewater line between the communities to bring residents currently on septic onto a sewage system. Both communities anticipate, according to Community Plans, to increase in residential units and to eliminate current septic units. There are approximately 620 units anticipated for septic elimination and expansion.

According to the Draft Sudlersville Growth Management Plan (2009), there may be an additional 1,165 units which may be added to the planned WWTP.

### **Section 8.2.6 Chesapeake College**

Chesapeake College, the regional community college, operates an existing multi-use wastewater system serving approximately 3,500 students at Wye Mills. The method of treatment is an extended aeration unit followed by settling, chlorination, and dechlorination with discharge of the effluent to a tributary of the Wye East River. The collection system consists of 8-inch diameter gravity sewer lines and contains no pumping stations. The system is authorized an average flow of 15,000 gpd and a peak flow of 27,000 gpd. The two-year (2007-2008) rolling average flow is approximately 5,000 gpd.



**Table 8-1: Waste Water Treatment Facilities Summary**

WWTP Facility	Capacity Design (MGD)	Average Flow (MGD)	Remaining Capacity (MGD)	Comments Relevant to Facility
Kent Narrows Stevensville Grasonville (KNSG) WWTP	3.000	1.533	1.467	The KNSG plant has reserved capacity for future development including non-residential space and 1,418 units plus 500,000 GPD for failing septic systems. The plant is approaching capacity with these reserves.
Queenstown	0.077	0.073	0.004	Plant is at or near capacity; however the plant anticipates adding capacity for planned development as per the Queenstown Community Plan.
Centreville	0.542	0.381	0.161	Plant has capacity which could be exceeded according to planned development identified in the Centreville Community Plan; however additional plant capacity is anticipated to accommodate planned development.*
Church Hill	0.080	0.047	0.033	The Town anticipates using remaining capacity for planned development as per the Church Hill Community Plan. Plant may need to expand capacity to accommodate anticipated Priority Funding Area (PFA) expansion and requirement that all new development within PFA be connected to sewer.
Sudlersville WWTP & Barclay**	0.090	0.044	0.046	Remaining capacity at plant is reserved for 50,000 GPD school flow and connection to Barclay residences. The anticipated additional flow will require expansion of plant capacity.
Chesapeake College	0.015	0.005	0.010	Chesapeake College plant will utilize remaining capacity as needed to support campus expansion.
<b>TOTAL***</b>	<b>3.804</b>	<b>2.083</b>	<b>1.721</b>	

\* The Town of Centreville requested and, in 2008, MDE re-rated the new WWTF to process an annual daily average of 542,000 gpd of flow. This new WWTF is also capable of expansion to handle up to 1.2 million gpd of flow.

\*\* Barclay is dependent on Sudlersville for Capacity; flows include anticipated connections.

\*\*\*Wastewater treatment systems are not interconnected.



Table 8-2: County / Town Facilities – Summary of Wastewater Supply and Demand

EXISTING FLOW AND CONDITIONS							PLANNED "IN THE WORKS" CONNECTIONS (1)		
A	B	C	D	E	F	G	H	I	J
WWTP Facility	PERMIT NUMBER	Capacity Design (MGD)	2007 Average Daily Flow of Wastewater (MGD)*	2008 Average Daily Flow of Wastewater (MGD)	2-Year Rolling Average (MGD)	Remaining Capacity (MGD)	Number of Building Permits Approved / Requested (EDUs)	Estimate Flow from Non-residential Uses (GPD)	Capacity Needed (MGD) Assuming 250 GPD per EDU Plus Flow for Non-residential development
Queenstown		0.000	0.077	0.000	0.077	0.077			0.000
Centreville		0.500	0.222	0.000	0.222	0.278			0.000
Church Hill		0.000	0.054	0.000	0.054	0.054			0.000
Bartley		0.000	0.000	0.000	0.000	0.000			0.000
Sufferbside WWTP	MD0020559	0.000	0.000	0.000	0.062	0.028			0.000

\*Maryland Department of the Environment provided data

EXISTING	INFILL DEVELOPMENT (2)			EXISTING DEVELOPMENT THAT COULD BE ADDED TO SYSTEM SEPTIC ELIMINATION AREAS (3)			INFLOW / INFILTRATION
A	C	D	E	F	G	H	I
WWTP Facility	Potential EDUs Assuming 250 GPD per EDU	Estimate Flow from Non-residential Uses (GPD)	Capacity Needed (MGD) for INFILL AREAS Assuming 250 GPD per EDU Plus Flow for Non-residential development	Number of EDUs in Septic Elimination Areas	Estimate Flow from Non-residential Uses (GPD)	Capacity Needed (MGD) for SEPTIC ELIMINATION AREAS Assuming 250 GPD per EDU Plus Flow for Non-residential development	Estimate Inflow and Infiltration Flow impacting the Wastewater Treatment Facility (Subtract column D from I). Note State defined method. **
Queenstown							(0.077)
Centreville							(0.222)
Church Hill							(0.054)
Bartley							(0.000)
Sufferbside WWTP							(0.062)

\*Maryland Department of the Environment provided data

\*\* Maryland Department of the Environment method

EXISTING FLOW & CONDITIONS	ESTIMATE REMAINING CAPACITY		FUTURE DEVELOPMENT THAT COULD BE ADDED TO SYSTEM (4)			FUTURE ESTIMATE REMAINING CAPACITY		FUTURE ESTIMATE GROWTH POTENTIAL	
	B	A	C	D	E	F	G	H	I
WWTP Facility	Estimate Remaining Capacity without (4) Estimation (MGD)	Estimate Remaining Capacity with (4) Estimation (MGD)	Number of EDUs in Future Sewer Areas (Assume EDUs or Non-residential space for undeveloped sites)	Estimate Flow from Non-residential Uses (GPD)	Capacity Needed (MGD) for FUTURE SEWER AREAS Assuming 250 GPD per EDU Plus Flow for Non-residential development	Estimate Remaining Capacity without (4) Estimation (MGD)	Estimate Remaining Capacity with (4) Estimation (MGD)	Estimate Potential EDUs without (4) Estimation	Estimate Potential EDUs with (4) Estimation
Queenstown	(0.00)	-				(0.08)	-	(308)	-
Centreville	0.28	0.50				0.28	0.50	3,112	2,000
Church Hill	(0.05)	-				(0.05)	-	(218)	-
Bartley	(0.00)	-				(0.00)	-	(0)	-
Sufferbside WWTP	0.01	0.09				0.01	0.09	112	360

Source: MDE - WRF Documentation

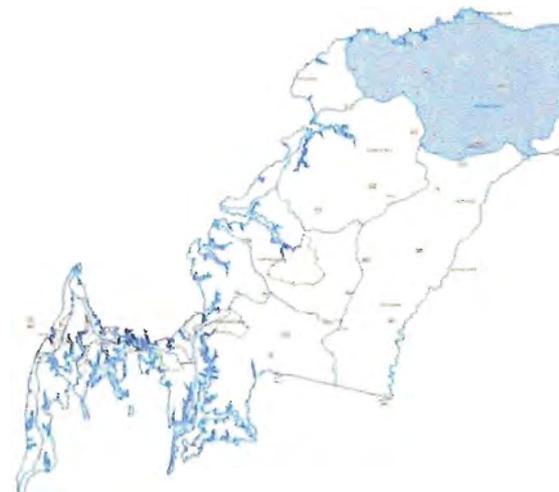
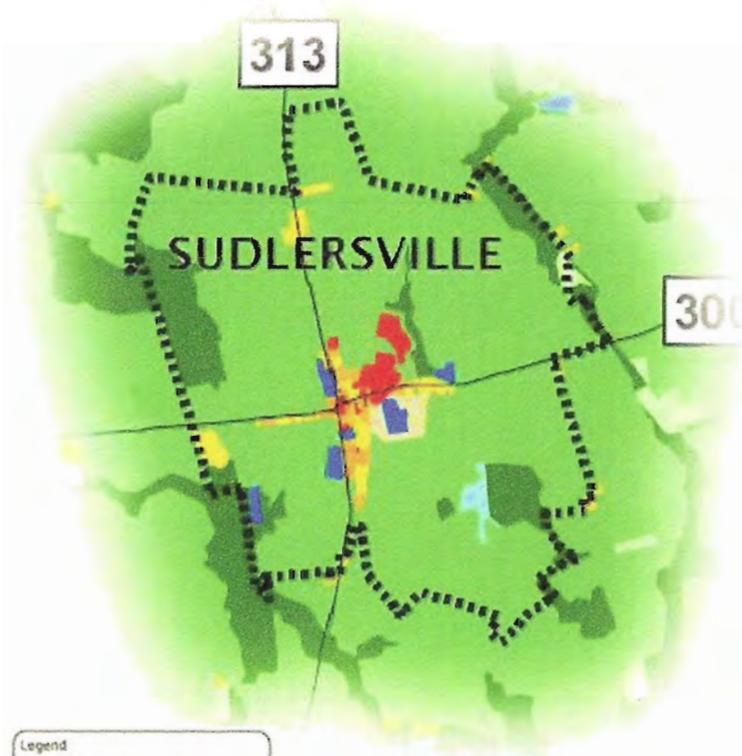
(1) PLANNED Connections: Includes approved and requested development, development required to be on system based on density, or until desiring to connect

(2) INFILL Connections: Undeveloped lots within an area already serviced by sewer that could develop and connect to system

(3) SEPTIC ELIMINATION AREA Connections: EDUs or Non-residential uses that are currently within Sewer Service Areas that have a septic system; includes uses whose septic system is failing

(4) FUTURE DEVELOPMENT Connections: Indicates an estimate of potential EDUs, or flow from users which could be incorporated into Sewer Service Areas.

**Section 11.14 Sudlersville Growth Area  
Existing Land Use 2008**



**Table Section 11.14-1 Cor**

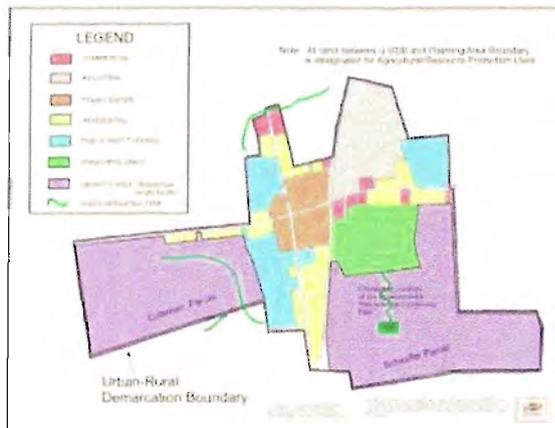
MALPF Easement
MALPF Greenprint
Rural Legacy Easement
MET
TDR Sending Areas
Private Conservation Easement
County Park
State Owned Land
Open Space (Deed Restricted)
Open Space (Non Contiguous)
MALPF Easement / Open Space
MET / Open Space
County Park / TDR
County Park / NCD
County Park / Open Space
County Park / MET
MET / TDR

**Land Available for Development**

Available
Divisible

Table Section 11.14-2 Updated General Land Use Classes (2008)	2008 Land Use	
	Total Acres	Percentage of Total
Low Density Residential (1 to 2 units per 5 acres)	61.8	2.4%
Medium Density Residential (2 to 8 units per acre)	50.5	1.9%
High Density Residential (8+ units per acre)	1.2	0.0%
Commercial	41.4	1.6%
Mixed Commercial - Residential	-	0.0%
Industrial	-	0.0%
Institutional	40.2	1.6%
Surface Mining	-	0.0%
Very Low Density Rural (1 unit per 5+ acres)	5.8	0.2%
Private Recreation	26.2	1.0%
Agriculture	2,080.0	79.9%
Forest	284.2	11.1%
Water	-	0.0%
Wetlands	19.1	0.7%
Transportation	-	0.0%
<b>Total</b>	<b>2,610.4</b>	<b>100.0%</b>

Preferred Land Use 2030



Sudlersville Comprehensive Plan

Map 3  
Future Land Use

DRAFT Sudlersville Growth Potential DRAFT



Table Section 11.14-3 Summary Table of Projected Impacts to Agriculture

Land Use or Variable	2008 Land Uses		2030 Preferred	
	Total Acres	Percent of Total Acres	Total Acres	Percent of Total Acres
Agriculture	2,080.0	79.7%	1,498.3	57.2%
Forest	284.2	10.9%	366.8	14.1%
<i>Queen Anne's County Impervious Surfaces*</i>	67.9	2.6%		
<i>Statewide Priority Wetlands**</i>	88.9	3.4%		
<i>Tier II Catchment Area within Watershed</i>	1,067.4	40.9%		

*\*Impervious surfaces data was created using 2004 planimetric data as updated using 2008 Aerial imagery collected by the State of Maryland. The data was not collected nor as to the precision of the collected features. This data provides a general value of the impervious surface area within the watershed.*  
*\*\*Queen Anne's County may need to track on permits issued by MDE for development within these wetlands to determine if they are suitable for agriculture.*

**Water Resources Element – Nitrogen, Phosphorus and Impervious Surface Data**

The following Nitrogen, Phosphorus and Impervious Surface table has been provided by Maryland Department of the Environment. The table was developed using the 2008 land use and the projected maximum capacity build-out values based on the Build-Out Analysis Report (May 2009) as part of Queen Anne's County Comprehensive Plan Update. The preferred land use is shown in the far right column.

Table Section 11.14-4 Assessing Impacts of Nitrogen, Phosphorus and Impervious Surface

Sudlersville - Upper Chester River	2002 LU, 2002 BMPs	2002 LU, Trib Strat BMPs	2008 Trib Strat BMPs	Scenario 1 2030 Max Build-Out with Trib Strat BMPs	Scenario 2 2030 Preferred Land Use with Trib Strat BMPs
	(Acres)	(Acres)	(Acres)	(Acres)	(Acres)
Development	134	134	161	653	653
Agriculture	2,104	2,104	2,080	1,498	1,498
Forest	308	308	303	386	386
Water	6	6	0	0	0
Other	58	58	66	73	73
<b>Total Area</b>	<b>2,610</b>	<b>2,610</b>	<b>2,610</b>	<b>2,610</b>	<b>2,610</b>
Residential Septic (EDUs)	0	0	179	0	0
Non-Residential Septic (EDUs)	0	0	1	0	0

Total Nitrogen Loading					
Sudlersville - Upper Chester River	2002 LU, 2002 BMPs	2002 LU, Trib Strat BMPs	2008 Trib Strat BMPs	Scenario 1 2030 Max Build-Out with Trib Strat BMPs	Scenario 2 2030 Preferred Land Use Trib Strat BMPs
	(Lbs/Yr)	(Lbs/Yr)	(Lbs/Yr)	(Lbs/Yr)	(Lbs/Yr)
Development NPS	1,164	810	969	3,972	3,972
Agriculture NPS	33,060	18,310	18,100	13,038	13,038
Forest NPS	456	425	419	534	534
Water NPS	63	52	0	0	0
Other Terrestrial NPS	515	355	402	439	439
<b>Total Terrestrial Load</b>	<b>35,258</b>	<b>19,952</b>	<b>19,891</b>	<b>17,983</b>	<b>17,983</b>

Residential Septic (EDUs)	0	0	1,664	0	0
Non-Residential Septic (EDUs)	0	0	2	0	0
<b>Total Septic Load</b>	<b>0</b>	<b>0</b>	<b>1,666</b>	<b>0</b>	<b>0</b>

<b>Total NPS Nitrogen Load</b>	<b>35,258</b>	<b>19,952</b>	<b>21,556</b>	<b>17,983</b>	<b>17,983</b>	
<b>Total PS Load</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,792</b>	<b>4,697</b>	<b>TMDL</b>
<b>Total Nitrogen Load (NPS+PS)</b>	<b>35,258</b>	<b>19,952</b>	<b>21,556</b>	<b>19,775</b>	<b>22,680</b>	<b>614,612</b>

Total Phosphorus Loading					
Sudlersville - Upper Chester River	2002 LU, 2002 BMPs	2002 LU, Trib Strat BMPs	2008 Trib Strat BMPs	Scenario 1 2030 Max Build-Out with Trib Strat BMPs	Scenario 2 2030 Preferred Land Use with Trib Strat BMPs
	(Lbs/Yr)	(Lbs/Yr)	(Lbs/Yr)	(Lbs/Yr)	(Lbs/Yr)
Development NPS	143	94	111	501	501
Agriculture NPS	2,275	1,639	1,621	1,167	1,167
Forest NPS	7	6	6	7	7
Water NPS	4	4	0	0	0
Other Terrestrial NPS	68	44	48	52	52
<b>Total Terrestrial Load</b>	<b>2,497</b>	<b>1,786</b>	<b>1,785</b>	<b>1,728</b>	<b>1,728</b>

<b>Total PS Load</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>135</b>	<b>353</b>	
<b>Total Phosphorus Load (NPS+PS)</b>	<b>2,497</b>	<b>1,786</b>	<b>1,785</b>	<b>1,863</b>	<b>2,081</b>	<b>34,354</b>

Impervious Cover and Open Space Sudlersville - Upper Chester River	(Acres)				
	2002 LU, 2002 BMPs	2002 LU, Trib Strat BMPs	2008 Trib Strat BMPs	Scenario 1 2030 Max Build-Out with Trib Strat BMPs	Scenario 2 2030 Preferred Land Use with Trib Strat BMPs
Total Impervious Cover	50	50	69	114	114
Agriculture	2,104	2,104	2,080	1,498	1,498
Forest	289	289	284	367	367
Percent Impervious	1.9%	1.9%	2.7%	4.4%	4.4%



MEMORANDUM

August 26, 2010

FROM: SUDLERSVILLE PLANNING COMMISSION

RE: MDP REVIEW OF DRAFT MUNICIPAL GROWTH AND WATER RESOURCES  
ELEMENT FOR SUDLERSVILLE COMPREHENSIVE PLAN

The draft plan was modified and expanded to meet the substantive comments in the Maryland Department of Planning Letter of August 11 and Comments of August 9, 2010 and the changes were included in the 2010 Amendments as adopted this date.

Ronald W. Ford, Chairman.

**Town of Sudlersville**

Planning Commission Meeting

August 26, 2010 7:00 PM

Chairman Ford called the meeting to order.

The Pledge of Allegiance was said

In attendance were Chairman Ford, Commissioner Faust, Commissioner Elter, Commissioner Williams, Town Manager Dave Teel, and Clerk/Treasurer Nicole Hilliard.

Commissioner Elter moved to approve the minutes from June 17, 2010, Commissioner Williams seconded the motion. Approved 4-0

Chairman Ford opened the public hearing for the proposed 2010 Comprehensive Plan Amendments. Dave Teel presented the changes that had been requested by the Maryland Department of Planning. Dave recommends the Planning Commission approve the amendments as written and send the amendments to the Town Commissioners for their review and approval.

There no members of the public present and there was no public comment or questions in regards to the 2010 Comprehensive Plan Amendments. Chairman Ford closed the public hearing.

Commissioner Williams made a motion to approve the 2010 Comprehensive Plan Amendments as written, and send them to the Commissioners for review and approval. Commissioner Faust seconded the motion. Approved 4-0

Public Comment

Larry Price questioned the Board in regards to the new house they approved on 112 S Church Street. He commented that it is only a one story house and all the surrounding houses are 2 stories. Dave Teel explained that there is nothing currently in the zoning ordinance that would prohibit that.

Chairman Ford requested that the Board review the zoning ordinances at the next meeting and also have Dave Teel draft an ordinance in regards to building a home relative to the houses surrounding the home.

Commissioner Faust made a motion to adjourn

Respectfully Submitted

Nicole Hilliard

Clerk / Treasurer

**Town of Sudlersville**

Commissioner Workshop Meeting

September 15, 2010 6:30 pm

Commissioner Kimble called the meeting to order

The Pledge of Allegiance was said

In attendance were Commissioner Kimble, Commissioner Price, Commissioner Ford, Commissioner Engrem, Town Manager Dave Teel and Clerk/Treasurer Nicole Hilliard

Commissioner Price made a motion to approve the previous minutes of September 1, 2010. Commissioner Ford seconded the motion. Approved 4-0

Commissioner Kimble opened the public hearing on the 2010 Comprehensive Plan Amendments. There was no public comment. Dave Teel advised that the Planning Commission has recommended the amendments as written to the Commissioners.

Commissioner Ford made a motion to approve the 2010 Comprehensive Plan Amendments including the Municipal Growth Element and the Water Resources Elements as recommended and forwarded by the Planning Commission. Commissioner Engrem seconded the motion. Approved 4-0

Commissioner Ford made a motion to approve Resolution 2010-07 Adopting the Queen Anne's County Storm Water Management Ordinance and Designating the Queen Anne's County Department of Public Works to Administer and Enforce the Storm Water Management Ordinance. Commissioner Price seconded the motion. Approved 4-0

Commissioner Kimble opened the bids for the 1988 Dodge Truck:

Brian DeMoss - \$1,652.00

Frank Davis - \$1,751.00

Craig Wilson - \$2,250.00

(another bid from Richard Connelly in the amount of \$1,000 was received the following morning 9/16/2010)

Commissioner Engrem made a motion to accept the bid from Craig Wilson in the amount of \$2,250.00.

Commissioner Price seconded the motion. Approved 4-0

**Public Comment**

Faye Williams told the Commissioners that the street behind Phillips Garage is being blocked again by the vehicles that are being worked on at the garage. Dave Teel said a letter could be sent to Phillips to advise him to keep the road clear for traffic.

Commissioner Ford made a motion to adjourn, Commissioner Engrem seconded the motion

Respectfully Submitted

Nicole Hilliard

Clerk/Treasurer