

## **CHAPTER 2 – SUITABILITY OF LAND FOR DEVELOPMENT**

### **I. LANCASTER COUNTY SUITABILITY OF LAND FOR DEVELOPMENT**

#### **A. ASSESSMENT OF EXISTING CONDITIONS**

Lancaster County covers approximately 135 square miles or approximately 86,267 acres of land. The County is rural in nature with limited public infrastructure such as public water supplies and sewage collection/treatment works. Due to this limited public infrastructure, development in Lancaster County usually requires on-site sewage facilities for disposal of waste and individual or community wells for domestic water supplies. Therefore, development of land in Lancaster County is closely tied to the physical characteristics of the land. These characteristics include the suitability of the soil for septic systems, the degree of slope of the land, the depth of the soil to the water table, the shrink-swell potential of the soil, and the proximity of the intended development to sensitive environmental features.

Sometimes the physical characteristics can act to preclude development such as when a parcel of land has steep slopes, wetlands, no suitable septic sites, or the presence of other environmentally sensitive features. Often development can occur, but with sensitivity to the unique physical properties of the particular parcel. The intent of this chapter is to provide a comprehensive base of information concerning physical constraints to development in Lancaster County. This base will provide a resource from which to draw policies and recommendations concerning future development in the County.

#### **B. PHYSICAL FACTORS THAT INFLUENCE OR CONSTRAIN DEVELOPMENT**

##### **1. Chesapeake Bay Preservation Areas**

The Chesapeake Bay Preservation Act of 1989 requires each county in Tidewater Virginia to designate land areas in their county that, if improperly developed, would contribute to significant degradation of the water quality of the Chesapeake Bay and its tributaries. The Chesapeake Bay Preservation Areas were broken into two classifications: Resource Protection Areas and Resource Management Areas. Resource Protection Areas (RPAs) are those lands and features that have a direct water quality function or impact. Resource Management Areas (RMAs) are lands that, if not properly managed, have the potential to degrade water quality or impact the functioning of RPAs. Detailed descriptions of the two Chesapeake Bay Preservation Areas and lands included in each are given on the next page.

##### **a. Resource Protection Area (RPA)**

The RPA includes: 1) tidal wetlands, 2) non-tidal wetlands connected by surface flow and contiguous to tidal wetlands or tributary streams, 3) tidal shores, 4) other lands as designated and 5) a 100' buffer adjacent to and landward of any of the

preceding components. This buffer area acts to filter run-off from developed areas, to provide natural stabilization of soils from forces of tidal and upland erosion, and to provide a setback that protects dwellings from erosion, wave action, and flooding. The total amount of land designated as RPAs in Lancaster County is estimated to be 3,356 acres.

Resource Protection Areas are strictly regulated. Development in the RPA is limited to new water-dependent facilities, expansion of existing water-dependent facilities, and redevelopment. In the RPA, a 100 foot buffer area of vegetation that is effective in limiting runoff, preventing erosion, and filtering non-point source pollution from runoff must be retained if already present, or established if it does not exist. Clearing in the RPA is limited to what is necessary to provide for reasonable views of the water, access to the water, and for general woodland management purposes. Cleared vegetation must be replaced with other vegetation that is equally effective in protecting water quality.

**b. Resource Management Area**

In Lancaster County all land outside of the designated RPA is classified as an RMA. The RMA is protected by the Chesapeake Bay Preservation Act and the Lancaster County Chesapeake Bay Preservation Ordinance through the establishment of performance standards that apply to all development and redevelopment.

Performance standards are as follows:

- 1) No more land shall be disturbed than is necessary to provide for the desired use or development;
- 2) Indigenous vegetation shall be preserved to the maximum extent possible consistent with the use and development allowed;
- 3) A maintenance agreement with the owner or developer shall be established where best management practices require regular or periodic maintenance;
- 4) All development exceeding 2,500 square feet of land disturbance shall require the issuance of a permit and be accomplished through a plan of development review process;
- 5) Land development shall minimize impervious cover consistent with the use or development allowed;
- 6) Any land disturbing activity regardless of size shall comply with the requirements of the Lancaster County Erosion and Sediment Control Ordinance;
- 7) On-site sewage treatment systems not requiring a Virginia Pollutant Discharge Elimination System (VPDES) permit shall be pumped out at least once every five years, and, for new construction, a reserve sewage disposal site with a capacity at least equal to that of the primary sewage disposal site shall be provided;

- 8) Stormwater management criteria which accomplish the goals and objectives of the Virginia Stormwater Management Regulations shall be satisfied;
- 9) Land upon which agricultural activities are being conducted, including but not limited to crop production, pasture, and dairy and feedlot operations, or lands otherwise defined as agricultural land, shall have a soil and water conservation plan;
- 10) Silvicultural activities are exempt provided that these activities adhere to water quality protection procedures prescribed by the Virginia Department of Forestry in the January, 1997 edition of "Forestry Best Management Practices Handbook for Water Quality In Virginia";
- 11) All wetlands permits required by law must be obtained prior to authorizing grading or other on-site activities to begin.

## 2. Flood-Prone Areas

Due to its proximity to large tidal bodies of water, Lancaster County has a number of flood prone areas. Damage from floodwaters in these areas can result in expensive repairs to structures, loss of use of structures (damaged homes), temporarily inoperable septic systems, contamination of water supplies, and quite possibly in bodily injury or loss of life. These are problems that can be further aggravated by the cumulative impact of development in flood-prone areas.

Once developed, land in the flood plain is lost as an area of filtration due to the resulting placement of structures and impervious cover. The result is that flood events can cause more damage than they did prior to development. For example, floodwater will travel faster and crest higher if water is not allowed to filtrate into the ground, or travel down streams unimpeded from man-made structures. The increased velocity of floodwaters can result in increased damage to properties, and the higher flood elevations could result in damage to properties that were not affected previously.

In all, the County has approximately 12,448 acres, or 19.45 square miles, of land that lies within the 100- year flood plain. These areas are highlighted in the "100 Year Flood Map" and are summarized in the chart below.

	Area in Acres	% of County
100 Year Floodplain	12,448	14
Outside 100 Year Floodplain	<u>73,819</u>	<u>86</u>
Total	86,267	100

## 3. Wetlands

Wetlands are defined by the United States Fish and Wildlife Service as "lands transitional between terrestrial and aquatic systems where the water table is usually at or near the

surface, or the land is covered by shallow water" (Pg. 4, Atlas of National Wetlands Inventory Maps of Chesapeake Bay, U.S. Fish and Wildlife Services; September, 1986). Generally, wetlands can be classified as either tidal or non-tidal. Locally, Lancaster County has approximately 4,500 acres of tidal wetlands and 1,349 acres of non-tidal wetlands. (Figures were obtained using the Lancaster County Geographic Information System utilizing a digital National Wetland Inventory map layer. Distribution of tidal and non-tidal wetlands in Lancaster County can be viewed on the "Tidal and Non-Tidal Wetlands" Map.)

Wetlands are important natural resources that provide many positive benefits to the man-made and natural environments. Wetlands provide aesthetic, recreational, and economic benefits to the community. Furthermore, wetlands are spawning and nursery grounds for finfish and shellfish, feeding and wintering sites for migratory waterfowl, nesting habitat for shore birds, and homes to a wide variety of wildlife. Wetlands further serve as important areas for groundwater recharge, flood control, pollution absorption, and retention of sediment from storm water run-off.

The inclusion of non-tidal wetlands as Resource Protection Areas (RPAs) is crucial and integral to meeting the criteria in the Chesapeake Bay Preservation Act Regulations adopted by the Chesapeake Bay Local Assistance Board. The designation of RPAs requires the inclusion of non-tidal wetlands that are both contiguous to and connected by surface flow to either tidal wetlands or water bodies with perennial flow. Surface flow means water that is moving across the ground surface from ground water springs and/or wetland drainage either overland or through a channel.

#### 4. **Steep Slopes**

Development and disturbance of land on steep slopes (over 15%) can have many negative impacts. First, stabilization of soils after development is often costly and difficult due to the fact that highly erodible soils are often found on steep slopes. Disturbance of these areas can result in erosion of the soils, causing sedimentation from run-off soils to flow into the streams and main bodies of water. Furthermore, steep slopes, and the soils found there, are not suitable for septic systems. The combination of unstable soils and poor septic suitability can result in higher construction costs if development is allowed to occur.

In Lancaster County, steep slopes are often found adjacent to the tributary streams and creeks of the Rappahannock River and Chesapeake Bay. In the County there are 19,415 acres of land which are classified as steep slopes. These areas can be seen in more detail on the "Slope Map" and "Topography Map" and are summarized in the following chart.

Degree of Slope	Area in Acres	% of County
0 -6%	56,763	66
6 - 15%	10,002	12
15 - 45%	15,652	18
Over 45%	3,763	4
N/A	<u>87</u>	<u>0</u>
Total	86,267	100

## 5. Shrink-Swell Soils

Shrink-swell soils are those that can greatly change in volume when their moisture level fluctuates normally throughout the year. The shrink-swell potential of the soil is a measurement of how much volume change can be expected in a soil with an increase or decrease in moisture levels. This measurement is important because continued expansion of shrink-swell soil can result in heaving, which places additional pressure on foundations. Contraction of these soils can lead to void areas that do not provide uniform, adequate support to the footing of the foundation.

The shrink-swell potential of Lancaster County soils was mapped using the County's Geographic Information Systems and the Lancaster and Northumberland Counties Soil Survey. Soil types in the County were studied as to their shrink-swell potential up to depths of 60". Sixty inches was chosen to account for any change in grade along the length of any planned or future structures. If any soil type was classified as having high shrink-swell potential anywhere in this 60" range, it was grouped in the "high" category. The extent of shrink-swell soils in Lancaster County can be seen on the "Shrink-Swell Potential Map" and are further described in the following chart.

Shrink-Swell Potential	Area in Acres	% of County
None	416	0.40
Low	24,992	29.10
Moderate	56,201	65.10
High	4,571	5.30
N/A	<u>87</u>	<u>0.10</u>
Total	86,267	100.00

## 6. Septic Suitability

### a. Septic Systems/Sewage Disposal

Approximately 83% of all private residences in Lancaster County utilize on-site septic systems for sewage disposal purposes. The potential for septic systems causing pollution of surface water bodies can stem from the initial improper siting of the system, or from the failing of aged or not properly maintained systems. Often septic systems have been placed in soils that can act to heighten the negative impact of the system. Specific soil characteristics that can impact

operation of septic systems are discussed below.

**b. Depth to Water Table**

Depth to the water table varies greatly throughout Lancaster County. In some areas of Lancaster County the seasonal high water level is as much as 40 or more feet below the ground surface. However, in other areas of the County the seasonal high water table is often less than 24 inches from the ground surface. The depth to the water table is important because soils where the water table is higher are not suitable for the use of septic systems.

First, in areas with high water tables, groundwater can rise into septic drain fields, mixing with untreated effluent. This situation can result in contamination of the water table aquifer that is used by over one fourth of all homes in Lancaster County. Additionally, septic systems in areas with seasonally high water tables can act to contaminate nearby surface water bodies. During times of high water table levels, effluent in an affected system is not able to percolate down through the drain field. Instead the effluent can rise to the surface untreated and pool because of the high water table. During a rainstorm, this pooled effluent can quickly drain into nearby surface water bodies.

Areas in Lancaster County with high water tables can be viewed in the "Water Depth Map" and are further summarized in the following chart.

Area in Acres	% of County	
< 24" to Water Table	24,386	28.40
> 24" to Water Table	61,794	72.50
N/A	87	0.10
Total	86,267	100.00

**c. Highly Permeable Soils**

Highly permeable soils also can act to increase negative impacts of septic systems. These soils allow septic effluent to percolate more quickly through soils underneath the drain field while not allowing for proper filtration. If the effluent percolates before it is properly treated, then it can become a threat to the ground or surface water that it acts to recharge.

The combination of high water tables and highly permeable soils is particularly a problem in densely developed areas close to the county's shoreline. The high number of septic systems in conjunction with poor soil conditions can lead to elevated levels of fecal coliform bacteria in adjacent surface water bodies, which can then result in the condemnation of the area for shell fishing. (See "Septic Suitability Map")

Highly permeable soils in Lancaster County include the following types:

1. Coastal Beach (0.48%)
2. Dragston fine sandy loam (3.2%)
3. Lakeland loamy fine sand, gently sloping (0.6%)
4. Rumford loamy sand, gently sloping (0.2%)
5. Rumford loamy sand, sloping, eroded (0.05%)
6. Sloping sandy land (9.3%)
7. Steep sandy land (18.0%)

**d. Low Permeability Soil**

Clayey soils with low permeability are not desirable for septic systems. These types of soils do not allow effluent to percolate down properly out of the drain field. If the effluent does not percolate down through the system's drain field, because of low permeability soil conditions, it could instead rise to the surface. This is an undesirable situation, which can be worsened in times of run-off when untreated effluent can run off into nearby surface water bodies. (See "Septic Suitability" map)

**e. Steep Slopes**

As discussed in the "Steep Slopes" Section, areas of steep slopes are not suitable for the placement of septic systems. Generally, septic systems need level areas for drain fields. Septic systems placed on slopes do not allow for the proper treatment of wastewater because the resulting effluent will travel down-hill to the end of a drainfield, where it can leach out, instead of slowly and evenly percolating through the entire length of the drain field. (See "Slope Map" and Chart)

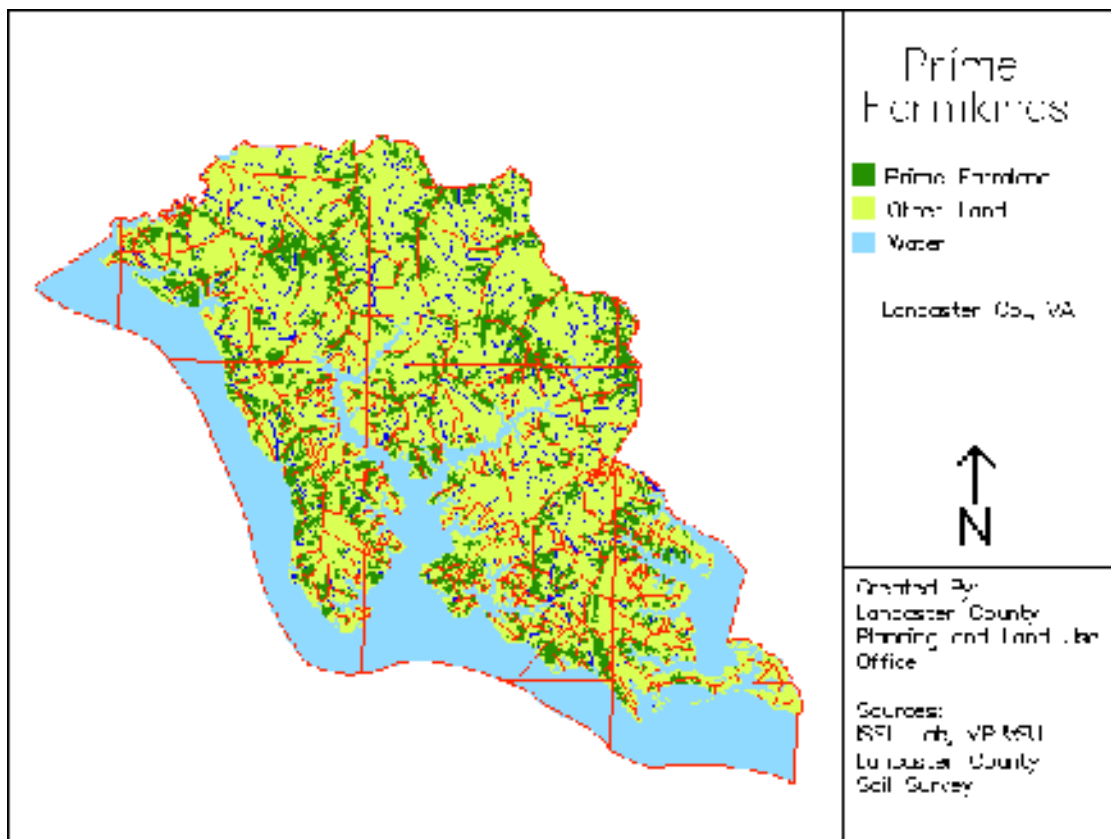
Septic Suitability	Area in Acres	% of County
Poor	30,336	35
Fair to Poor	742	1
Fair	21,902	25
Good	31,452	37
N/A	<u>1,835</u>	<u>2</u>
Total	86,267	100

**7. Prime Farmlands**

Lancaster County has a rich history of agriculture dating back to the Colonial Era. Agriculture and related services are important contributors to the local economy. Even though their role in the local economy has diminished, farms in Lancaster County still serve many important purposes. First, farmlands provide an aesthetically pleasing landscape that is enjoyed by all residents of the County. The 1992 adopted comprehensive plan cites farmlands as strong contributors to the County's rural nature. Additionally, farmlands play an important environmental function in that they are prime

areas for recharge of the County's groundwater aquifers. Areas of undeveloped, pervious land, such as woodland and farmland, are necessary for the purposes of aquifer recharge. It is because of these important roles that the 1992 Comprehensive Plan identified farmlands as resources that are worthy of conservation and preservation.

However, lands that have historically supported agriculture in Lancaster County are also the lands that are the most suitable for development. Lands in agricultural use are usually level, cleared, well drained, and consist of soils suitable for septic systems. These are conditions that are usually sought for other land uses such as residential development. The Farm Preservation Committee, appointed by the Planning Commission, identified the effect of attractive alternative uses in their August 2006 report, by pointing out that land in farm use had declined from 21,605 acres in 1990 to 15,071 in June 2005.



The Lancaster and Northumberland Counties Soils Survey ranks soil as to its potential for farming. Soils are grouped into eight different "capability units" which define their suitability for farming. The classifications are based on the limitations of the soils, the risk of damage when they are used, and the way they respond to treatment. Class I soils are the best soils for farming, descending to Class VIII soils which have limitations that make them unsuitable for farming, as well as most other uses. For purposes of this plan, all Class I and some Class II soils were considered to be prime soils for agriculture. Areas of prime agricultural soils can be seen in the "Prime Farmlands" map. (A list of soil types considered prime for agricultural activity can be seen in Appendix IV.)



## **C. EXISTING LANCASTER COUNTY ORDINANCES**

### **1. Erosion and Sediment Control Ordinance**

The Lancaster County Erosion and Sediment Control Ordinance establishes a program to protect and improve the water quality of the Chesapeake Bay that can be implemented on the local level. The ordinance regulates any land disturbance equal to or greater than 2,500 square feet in size. Before any site disturbance occurs, an erosion and sediment control plan for the site must be submitted and approved by the County's erosion and sediment control officer. Furthermore, all land-disturbing activities must comply with the Chesapeake Bay Preservation Ordinance.

### **2. Zoning Ordinance**

#### **a. Waterfront Residential Overlay Zone (Article 18; Zoning Ordinance)**

The Waterfront Overlay Zone regulates all parcels of land recorded on or after May 11, 1988 which are for residential use or residential-development and that lie within 800 feet of tidal waters and wetlands. This zone requires lots to have a two-acre minimum size. Additionally, the zone requires a 100-foot buffer landward from high water mark and tidal wetlands, and a 50-foot buffer landward from non-tidal, non-RPA wetlands, as well as a 200 foot wide average waterfront requirement for new subdivision lots.

#### **b. Chesapeake Bay Preservation**

This zone and its requirements were discussed in the "Chesapeake Bay Preservation Areas" section on pages 2-1 and 2-2.

#### **c. Flood Plain Overlay (Article 23; Zoning Ordinance)**

The Flood Plain Overlay Zone applies to all lands within the County that are identified as being in the 100-year floodplain by the Federal Emergency Management Agency. All activities in the flood plain district can be undertaken only after issuance of a zoning permit. Any development must also strictly comply with the Virginia Uniform Statewide Building Code and the Lancaster County Subdivision Ordinance. All applications for development and building permits in the floodplain further require submission of a site plan. The site plan must detail the existing and proposed topography on the site, the 100-year flood elevation, and the elevation of the first floor of any future residential structures.

### **3. Subdivision Ordinance**

The Subdivision Ordinance of Lancaster County recognizes that the County's economic viability is dependent on the wise use of its land and other natural resources. Many water quality related issues are addressed by this ordinance including the proper siting of wastewater disposal systems, assurances of strict adherence to the requirements of the Chesapeake Bay Preservation Act, and the adequate provision of proper erosion and sedimentation control, drainage, storm water management and flood control. Since the last update of the Comprehensive Plan, it has become apparent, however, that the Subdivision Ordinance, by providing only for traditional subdivision, does not support the objectives of open space and rural character. Changes may be made to the Subdivision Ordinance to ensure that future development does support these objectives.

#### **4. Wetlands (Article III, Environmental Ordinance; Lancaster County Code)**

The Wetlands Ordinance of Lancaster County applies to all tidal, non-vegetated and vegetated wetlands in Lancaster County. This ordinance requires any person pursuing a permitted use in a wetlands area, to first file an application with the Virginia Marine Resources Commission. The permit application details the intended use, the scale of the project, equipment to be used in construction and how the equipment will access the site, the cost of the project, the purpose of the project, and other applicable information. After submittal of the application, the proposed project will go to public hearing at a regularly scheduled meeting of the Lancaster County Wetlands Board, which has the authority to approve or deny the permit application.

## **II. LAND USE**

Development in Lancaster County is closely tied to the physical characteristics of the site to be developed. This close bond with the land is further magnified by the wide variety of environmentally sensitive areas found in the County including steep slopes, flood plains, prime agricultural lands, wetlands, and soils not suitable for septic systems. In all, approximately 56,229 acres or 65% of Lancaster County land is limited in some form. There is still a large quantity of land that has no limitations and is suitable for development. In total 30,038 acres or 35% of Lancaster County land has no physical constraints to development. These areas can be seen on the "Existing Conditions" Map, and the accompanying inset maps.

### **A. PHYSICAL CONSTRAINTS TO DEVELOPMENT**

Specific physical limitations to development that cause concern in Lancaster County include the suitability of soils for septic systems, the loss of prime agricultural farmlands to development, and the presence and location of shrink-swell soils in Lancaster County. Approximately 30,336 acres, or 35%, of land in Lancaster County is classified as "poor" for suitability of its use for septic systems. However, four out of five private residences in Lancaster County are dependent on septic systems for their sewage disposal purposes. Moreover, the total number of septic systems will continue to grow as more land becomes developed in the County with many new systems being placed in marginal or poor soils.

The dependency on septic systems is amplified because the Town of Kilmarnock possesses the only public sewage treatment facility in Lancaster County. Therefore, continued protection of ground and surface water supplies in Lancaster County will be contingent on the proper siting of new septic systems. This is even more significant given that the water table aquifers (the Yorktown-Eastover and the Columbia) are the ones most susceptible to contamination and are used by over 25% of all homes in Lancaster County.

The continuing loss of farmland to other uses in Lancaster County is a trend that needs to be stopped and ideally reversed. Farmlands provide acres of pervious land surface that act as recharge areas for groundwater aquifers. As more land is developed, remaining recharge areas become increasingly important. This is of particular importance in Lancaster County, which is totally dependent on groundwater for its drinking water supply.

Shrink-swell soil can act to damage the foundations and walls of buildings, resulting in expensive repairs to affected structures. However, the negative impacts of shrink-swell soil can be prevented during the initial construction of a building, if the builder is aware of this soil condition. In Lancaster County there is approximately 4,571 acres (5% of the County), of soil with "high" shrink-swell potential. Awareness of this soil condition needs to be heightened in Lancaster County to better protect property owners and their investments.

## **B. EXISTING COUNTY ORDINANCES**

All new development in Lancaster County must adhere to existing county ordinances and is often subject to the public hearing process. Lancaster County has ordinances that regulate new and existing development including the Zoning Ordinance, the Wetlands Ordinance, the Subdivision Ordinance, and the Erosion and Sediment Control Ordinance. A standalone ordinance deals with Chesapeake Bay Preservation and makes violations a Class I misdemeanor. Overall, Lancaster County's present ordinances are strong in the protection of water quality and the current level of enforcement is high.

## **C. HEIGHTENED AWARENESS**

Residents in Lancaster County are very attuned to many environmental topics such as residential shoreline development, the Chesapeake Bay Preservation Regulations, the value of wetlands in protecting water quality, the location of flood-prone areas in the County, and the impact of land use on surface water quality. However, there is significantly less awareness of other sensitive environmental features that need to be considered in planning for new development. Many citizens in Lancaster County are not aware of the presence of shrink-swell soils in Lancaster County, the important role farmlands play in providing ground water recharge areas, the effect of development on steep slopes, and the impact of improper septic system placement on surface and

groundwater supplies. Providing County residents this information, particularly in regard to their own property, will help them make environmentally sound decisions when considering new development.

The pace of development in Lancaster County, and the size of the county are such that people developing sites have significant interaction with County officials throughout the process. Having a system in place that enables County officials to advise citizens and potential property developers of limitations on their property, prior to development, can prevent much of the negative impact of development before it occurs.

### **III. LANCASTER COUNTY SUITABILITY OF LAND FOR DEVELOPMENT PLAN**

#### **A. PHYSICAL CONSTRAINTS/LIMITATIONS DATABASE**

To ensure that new development occurs with full knowledge of site constraints prior to development occurring, the County has begun to develop a countywide, parcel specific database highlighting the physical constraints present on each parcel of land such as “shrink/swell” soil, septic suitability, extreme slopes, and whether or not the parcel is in the 100-year floodplain. County staff is utilizing the County's Geographic Information System to develop a customized database showing these different limitations present on individual properties. When complete this database can be used by accessing the Land Records Database on the County website to make printouts that can be checked when property owners start the development process. The printout will let County staff and property owners know if there is the possibility of a physical constraint on the property at the onset of development plans. Alternative plans made necessary by the limitation can then be discussed at this point in the development process. The only limitation identified to date related to this tool is the ability to incorporate multiple layers of data into one presentation. If this technical limitation cannot be overcome, then it will still be possible to secure the data albeit with multiple accesses.

Implementations of this type of system will save time in the initial planning stages, will save property owners costly repairs at a later date, and will prevent possible negative environmental impacts of development before they occur.

#### **B. SEPTIC SYSTEM INVENTORY**

To help identify areas of the county where there are already high concentrations of septic systems, Lancaster County should complete an exhaustive inventory and mapping of existing septic systems in the County. Information obtained from this effort would be valuable in developing a future land use map for Lancaster County. Additionally, once compiled, this information would aid in any future efforts to identify and prioritize areas for efficient placement of a wastewater treatment works. This is consistent with further coverage of this subject in Chapter 3 as it pertains to continued protection of Lancaster County's surface and groundwater resources. High concentrations of septic systems in the County, which could act together to negatively impact the quality of Lancaster's surface

and groundwater supplies, could be pinpointed.

**C. CONTINUE PRESENT ENFORCEMENT AND PLANNING LEVELS**

To ensure continued protection of the quality of Lancaster County's surface water bodies, the County must continue its present, active enforcement of the Chesapeake Bay Preservation and Erosion & Sediment Control Ordinances.

**D. ENCOURAGE RE-USE OF SUITABLE ABANDONED STRUCTURES**

To limit the need for new construction on undeveloped sites and to limit increases in the amount of impervious surface cover in the County, Lancaster County will perform an inventory of abandoned or unused buildings with the potential to be renovated and then set forth policies that strongly encourage re-use and rehabilitation of suitable, abandoned structures. This proposal is designed to serve many purposes. First, these properties are sometimes safety hazards and often have abandoned wells. Improvements to the on-site water and sewage facilities at these structures would act to protect water quality in Lancaster County. Additionally, improvements to abandoned properties would result in increased assessments and, in turn, increased tax revenue. Lastly, by using an existing structure the user prevents undeveloped land from being developed at that time and also prevents an increase in impervious surface cover in Lancaster County.

**E. INVESTIGATE FEASIBLE METHODS OF PRESERVING PRIME FARMLAND IN LANCASTER COUNTY**

Preservation of the rural character of Lancaster County was the most prevalent and agreed upon objective of those identified during public input sessions held in March of 2006. To ensure continued protection of the quality of groundwater supplies, to ensure that farming remains a viable occupation in the County, and to retain the rural character of the County, feasible methods of preserving prime farmland as described in the Farmland Protection Committee Report of August 2006 will be developed. Such strategies as expansion of the existing land use taxation program, conservation planning whereby farmland is designated a primary conservation area, and, most importantly, promoting new market opportunities will be pursued. While obvious, protection and enhancement of the livelihood of the farmer through new markets is essential to farmland preservation.

**F. IDENTIFY POSSIBLE IMPOUNDMENT AREAS**

This recommendation would be carried out in conjunction with the similar proposal put forth in the Lancaster County Protection of Potable Water Supply Plan. It is further recommended that the County explore strengthened county ordinances to ensure protection of proposed impoundment areas.

#### IV. GOALS AND OBJECTIVES

**GOAL #1: Encourage new and orderly development in areas of the County most suitable for new growth.**

**Objective:** Create zoning incentives and ordinance amendments that help direct new development to areas of the County most suitable for growth.

**Objective:** Develop amendments to the zoning ordinance that help protect property owners from potential hazards of shrink-swell soil and high water tables.

**Objective:** Evaluate existing ordinances and develop modifications or new ordinances that will increase open space and preserve the rural character of the County.

**GOAL #2: Ensure that new development is designed in a manner that provides for continued protection of the surface and groundwater resources of Lancaster County and the State of Virginia.**

**Objective:** Continue consistent enforcement of the Chesapeake Bay Preservation Act and Erosion and Sediment Control Act Regulations to ensure protection of the water quality of the Chesapeake Bay and its tributaries.

**Objective:** Protect possible water impoundment areas presented in the Lancaster County Protection of Potable Water Supply Plan.

**Objective:** Develop County ordinances to protect proposed impoundment areas.

**Objective:** Provide incentives for re-use and rehabilitation of existing, vacant structures in order to limit need for new construction and increases in impervious surface cover in the County.

**GOAL #3: Preserve farm and forest land to help Lancaster County retain its rural character.**

**Objective:** Develop ordinances that discourage “checkerboard” subdivision and encourage grouping or clustering of development (such as Randall Arendt’s Conservation Design) into a limited area with dedicated open space of sufficient size and quality for farming operations.

**Objective:** Create a Rural Conservation District with sliding scale density that decreases as acreage increases, including a maximum dwelling lot size with uses limited to agricultural or forestal including hunting.

**Objective:** Encourage the creation of permanent conservation easements.

**Objective:** Investigate the concept of a Purchase of Development Rights (PDR) program consistent with state guidelines to receive matching funds to purchase permanent easements on farm and forestland.

**Objective:** Investigate the concept of a Transfer of Development Rights (TDR) program consistent with state guidelines to direct development away from farm and forestland and toward already developed areas.

#### **GOAL #4     Preserve the industry of farming in Lancaster County**

**Objective:** Eliminate the personal property tax on farm machinery as is done in other localities within the state.

**Objective:** Provide additional educational materials and advertising to inform all residents of the land use taxation program, open its enrollment period year round with deadlines corresponding to year end, and make land use taxation available to forestland as allowed by the state.

**Objective:** Make Lancaster County “farm-friendly” by putting up tractor “Share the Road” signs in cooperation with the Virginia Department of Transportation.

**Objective:** Create a countywide farmers market to encourage small vegetable and alternative crop farms.

**Objective:** Actively promote in conjunction with other state or local governments the production and use of biodiesel and ethanol.

**Objective:** Take every action as appropriate to ensure that Lancaster County farmers have a market in close proximity for traditional grain crops.