

CHAPTER 4¹ PUBLIC FACILITIES AND SERVICES

A. INTRODUCTION

The first three chapters focus on developing a framework for future growth of Northumberland County. The first chapter examines physical and environmental conditions that influence or limit potential development. Chapter 2 identifies goals and strategies designed to deal with important issues that were defined by the physical analysis, demographic studies and input from the community. Chapter 3 is a core element of the Comprehensive Plan, the element that establishes a framework plan of future land use. The land use plan is an instrument for guiding overall growth although its main focus is to establish County policies and guidelines for development that occurs through private investment.

The current chapter focuses on that phase of the plan which is primarily represented by public investment. Its focus is on the provision of public facilities and services. In combination, the Land Use Plan and the Public Facilities and Services elements comprise the nucleus of the Comprehensive Plan for Northumberland County as envisaged by the Virginia Statutes. Public services covered in this chapter are provided by a combination of state, county and private agencies. The level of detail for any one subject area is general because of a requirement of the Virginia Law which stipulates that the Comprehensive Plan

"... shall be general in nature, in that it shall designate the general or approximate location, character and extent of each feature shown on the plan ..."

The Public Facilities and Services Plan is intended to provide guidance to the County by enabling it to anticipate additional public services that will be needed in future years. To private as well as public agencies that operate separately from the County government, the plan will provide policies and guidance concerning the County's intent to provide services of a particular type.

B. HIGHWAYS

Northumberland County is served by a network of primary and secondary public roads that are maintained by the Virginia Department of Transportation. Route 360 is a federal primary road while all other public roads, primary and secondary, are state roads. Although there are a few residential streets that are privately owned, the State's policy is to operate and maintain the public road system within counties. This policy applies throughout the Commonwealth of Virginia. New secondary roads may be built as part of a private development and brought into the state system if they are planned and constructed to VDOT standards and meet the service requirements for state-maintained roads.

While the State gives a high priority to traffic considerations when planning improvements to existing public roads, the County may influence the timing of improvements. Road widenings, bridge replacements and other major improvements to the existing system may be offered as priorities of the County during periods when VDOT is preparing its plans for highway improvements.

¹Filename is Chapter 4Public Comment

Table 4.1 presents the year 2000 VDOT traffic counts for Route 360 and Route 200 and forecasts for 2020.

Table 4.1 Average Daily Traffic Volumes, Routes 360 and 200

From	To	2000	Forecast 2020	Number Of Lanes	Practical Capacity (vpd)	V/C Ratio
Route 360						
Northumberland/ Richmond CL	SR 202	4,900	7,300	4	32,000	0.23
SR 202	Route 614	7,700	11,400	2	12,000	0.95
Route 614	SR 201	6,200	9,200	4	40,000	0.23
SR 201	SR 200	4,400	6,500	2	12,000	0.54
SR 200	Route 646	4,700	7,000	4	40,000	0.18
Route 646	Route 657	3,900	5,800	4	40,000	0.15
Route 657	Route 644	940	1,400	2	12,000	0.12
Route 200						
US 360 Burgess PO	Route 609	4,200	6,200	2	12,000	0.52
Route 609	Northumberland/ Lancaster CL	4,200	6,200	2	12,000	0.52
Reference: NNPDC Transportation Corridor Protection Plan, Tables 1 and 3.						

These data show the only bottleneck in the County is in Callao although a similar situation exists in Heathsville at the intersection of Route 201 at the curve on Route 360. In both places the solutions are dependent upon VDOT. There are no current plans to bypass either village due to the low overall traffic volume.

The Board of Supervisors has concentrated on pressing VDOT to complete bringing Route 360 up to four lanes but that does not seem likely in the near future. There are no plans to address the bottlenecks until the four lane upgrade project is complete. There are two state plans for roads, one for the primary system and one for the secondary system. Each system has its own planning cycle and in order for the County to introduce its planning priorities it must do so at the proper time within each planning cycle.

Each year VDOT prepares its own capital improvements programs. One program is prepared for improvements to primary highways and another for secondary roads. There is an opportunity for the County to express its priorities in each of these plans. Primary highways are planned and constructed through the District Engineer's Office. The County may make recommendations to the District Engineer at yearly hearings held for the purpose of discussing future improvements.

Improvements to secondary roads are handled by VDOT through a Six-Year Plan with local planning being coordinated through the Resident Engineer. The opportunity also exists for the County to make its priorities known when the Resident Engineer discusses planned secondary road improvements with the Board of Supervisors at a yearly meeting with the Board. By identifying its own roads that warrant improvement in the Comprehensive Plan, Northumberland County should be able to work many of its own priorities into the State's six-year plan for secondary roads.

This section of the comprehensive plan focuses on the potential need for improving a network of roads that best meets the circulation needs of different areas of the County.

1. Major Roads Identified

The clearest picture of which roads carry the predominant traffic in Northumberland County comes from an inspection of 24-hour traffic volumes. VDOT prepares traffic counts on most state roads on a continuing basis. Figure 4.1 illustrates graphically the amount of traffic currently (2003) on specific roads. This map shows by the width of the line roads that have more than 500 vehicles per 24 hours.

Space for Figure 4.1 Existing 24 Hour Traffic

Primary routes 360 and 200, both of which carry in excess of 4000 vehicles per day (VPD) form the central corridor of the County. Route 202 is also an important primary that connects Northumberland to Westmoreland County. These three primary roads not only provide primary circulation within the County's economic corridor but they also connect the County with Westmoreland, Richmond and Lancaster Counties.

Secondary roads, shown on the map with traffic flow above 500 VPD, extend traffic service from the primary routes to areas with concentrations of residential development, farm or marine activities. Some observations are appropriate for specific roads.

- Route 201 has traffic volumes that are below that normally expected on a Primary Road, but instead carries traffic at about the same level as a secondary road. This is a reflection of its physical condition because the distance from Heathsville to Kilmarnock over the 201/3 combination is about the same as it is over 360 and 200. Traffic naturally follows the routes of better roads; therefore, the 360/200 combination from the central part of the County south to Kilmarnock is the preferred route.
- Route 617 from Hyacinth to Village appears to be a "shortcut" from Route 201 to 360. Drivers often select roads of less quality if they can gain a substantial distance saving. That seems to be the case with this route.
- Most of the other roads with traffic above 500 VPD serve major areas of development or serve as corridors through rural areas. In general, these are the roads that are likely to continue to serve as feeder roads to developing areas and will warrant a higher priority for improvements.

2. General Road Plan

The General Road Plan for Northumberland County is presented on Figure 4.2. This plan is part of the Comprehensive Plan and serves as a guide to the County for purposes of identifying the County's own priorities for road improvements in future years. [The plan includes identification of currently planned improvements by VDOT discussed below and recommendations from County residents.](#) For purposes of this plan, public roads in Northumberland County are classified and identified as follows:

Space for General Road Plan

[Figure 4.2](#)

a. Four-lane Primary

U.S. Highway 360: This is the central traffic corridor of the County which serves nearly all traffic moving into, through and out of the County. It now has four lanes except for the segments through Lottsburg, between Heathsville and Burgess and between Lilian and Reedville. The County's primary strategy for this road includes completion as a four-lane road in order to establish a safe and efficient traffic corridor through the entire County.

Where 360 passes through villages, [it is necessary to](#) coordinate improvements with the local need for traffic management in order to minimize interference between local and through traffic. This is in particular a factor in Callao, [Lottsburg and Heathsville](#) where on-street parking competes with through traffic. Within the villages that have not yet developed to the extent of experiencing traffic and parking interference, this issue [should](#) be addressed by including off-street parking requirements in the zoning ordinance and coordinating access to parking areas through site plan review. [See the Section on the Corridor Zoning Overlay in the Land Use Plan, Chapter 3.](#)

Further improvement in the function and safety of this road may be accomplished by reducing the number of access points. This is also addressed in the Corridor Zoning Overlay in Chapter 3.

b. Two-lane Primaries

VA 200: This route links 360 at Burgess to Kilmarnock and from there via Route 3 to locations south of the Rappahannock River. It carries just slightly less traffic than 360 and serves as an extension of the central corridor that runs through the County. The 360/200 corridor serves all villages and constitutes an "economic corridor" within the County and also links the County with outside markets. Past improvements such as the bridge over the Great Wicomico River [are consistent with the economic importance of](#) Route 200. Accordingly, it warrants a major position in the comprehensive plan.

VA 202: This primary links Route 360 at Callao to Route 3 at Templeman. It is a more direct route to Northumberland County from the north and west than Route 3 via Warsaw and Kilmarnock. Yet it has been reported that traffic to Northumberland County from the west often uses the longer Route 3 via Warsaw rather than VA 202.

VA 201: This road, although classified as a primary, provides a much lower level of service than Routes 200 and 202. In terms of traffic using it and its [alignment](#), 201 is more like a secondary road than a primary. Unless it is improved to standards similar to 200 or 202, the road will likely continue to serve at the level of a secondary feeder road. This plan continues to designate 201 as a primary, although the major priorities of the County may be better served by continuing to upgrade the corridor primaries.

c. Feeder Secondary Roads:

These are secondary roads that serve as feeder roads to developed areas and primary circulation throughout rural areas of the County. They are identified on the Highway Plan as [feeder secondary roads and should be high on the VDOT list for maintenance and improvement.](#)

3. [Planned Highway Improvements by VDOT based on six-year plan presented by VDOT to the Board of Supervisors on November 18, 2004.](#)

The following improvements are currently planned by VDOT for construction.

[Route 604: Mob Neck Road, Spot improvements for 2.90 miles from Rt. 640 north to end of maintenance. \(2005 – 2012\)](#)

[Route 689: Salem Road, Pave from Rt. 360 to end of maintenance, 0.43 miles. County to hold public hearing and designate as a Rural Rustic Road. \(2007 – 2008\)](#)

Route 607: [Ditchley Road, Improve alignment of Route 607 for .20 miles east of Route 200. \(Not currently scheduled\)](#)

Route 647: [Greenfield Road, Complete the reconstruction of Route 647 east from 360 for a distance of 1.35 miles. \(Complete in 2005-2006\)](#)

Route 629: [Coan Harbor Road, Reconstruct Route 629 from Route 614 a distance of .40 miles. \(Not currently scheduled.\)](#)

[4. Recommended County Road Improvements](#)

[\(To be determined\)](#)

C. RECREATIONAL AREAS AND FACILITIES

1. Existing Recreational Sites and Opportunities

Recreational opportunities in Northumberland County consist of a mixture of public and private facilities and programs, both land and water oriented. Some of the more significant facilities are [illustrated in Figure 4.3 and](#) identified below.

a. [Athletic Fields.](#) The only county-operated athletic park is located adjacent to the Northumberland Middle School. It offers little league level baseball at the present time. The site contains two acres. School sites perhaps offer the most opportunities for active recreation, since each school has its own recreational area.

b. [State Facilities.](#) State facilities include [three](#) large conservation areas. [The Hughlett Point Natural Area Preserve](#), contains about 204 acres. [Facilities include parking, trails, a woodland boardwalk, wildlife viewing platforms, and interpretive signs.](#) A second state-owned site, the Bush Mill Stream [Natural Area Preserve](#), containing 103 acres is located near Howland. [The Department of Conservation and Recreation, Division of Natural Resources, has developed the Bush Mill site with a small parking area, scenic trails and overlooks and interpretive signs. The third site is Dameron Marsh Natural Area Preserve off VA](#)

605 which extends into Chesapeake Bay. It is the largest wetland on the western side of Chesapeake Bay. Facilities include a walking trail and boardwalk, a wildlife viewing platform, and a small parking area. These were established as conservation areas under the control of the Department of Conservation and Recreation.

- c. Chesapeake Bay Access. In the Chesapeake Bay Area Access Plan (1990) both public and private areas for accessing public waters in Northumberland County were identified. Thirty access points were examined of which 14 are publicly owned and the remaining 16 are private. The private facilities include both commercial marinas and membership associations. The two tables on the following pages identify the major features of each of these sites.

Table 4.1 gives a listing of public sites together with the specific recreational opportunities available at each site. The most dominant activities are (i) fishing that is available at all but two of the sites and (ii) trailer boat launching facilities available at about half of the facilities. Beach access by the public is available at Vir-Mar Beach, Hughlett Point Nature Preserve and Kohl's Island. Kohl's Island incorporates Smith Point itself and a beach to the west of where the Potomac River empties into the Chesapeake Bay, is owned by the Virginia Outdoors Foundation. No public access by land exists, or is planned and access can only be gained by boat. One of the concerns continually expressed by citizens was a need for more access to beaches. Greater beach access would also support the tourist business of the County as well as serve the needs of county residents. While it is true that many residents have access to the beach from waterfront homes or from membership associations, other residents of the County do not have the same access to the waterfront.

The Chesapeake Bay Access Plan indicated that "numerous beaches exist along protected shorelines. These beaches are often informal access areas, located on private property. Many receive heavy use by those familiar with the area and can be reached only by boat. They should be evaluated to determine suitability for future development for public use", according to that plan. Another resource for access to the Bay are tour boats and charter fishing boats, the latter being available from numerous private sources on the Northern Neck.

SITE IDENTIFICATION	Trailer Boat Landing	Marina (No. of Slips)	Fishing (Pier or Bark)	Beach (Swimming)	Nature Study Area	Picnic Area	Camping Area
Hampton Hall Creek Landing Hampton Hall Creek			X				
Lodge Landing, Lodge Creek	X		X				
Forrest Landing, Coan River	X		X				
Roves Landing, Coan River	X		X				
Vir-Mar Beach, Potomac River				X	X	X	
Shipping Point Ldg., Little Wicomico River			X				
Shell Landing, Cockrell Cr.	X		X				
Cranes Creek Ldg., Cranes Cr.	X		X				
Cedar Point Ldg., Gr. Wicomico R.	X		X				
Coopers Ldg., Gr. Wicomico R.	X		X				
Sampsons Wharf	X		X				
Great Wicomico Fishing Pier, Wicomico R.			X			X	
Hughlett Point				X	X		
Bush Mill Stream Natural Area Preserve, Bush Mill Stream					X		
Dameron Marsh Natural Area Preserve, Chesapeake Bay					X		

Source: Modified from Chesapeake Bay Area Public Access Plan, 1990; and Planning Commission Members.

Northumberland County Public Water Access Improvement Project²

The 1996 Northumberland County Comprehensive Plan pointed out the lack of public water access points in the county for citizens. The county is blessed with 14 power boat ramps; however, there are few opportunities for those citizens, who want to bank-fish, crab, launch canoes and/or kayaks. The county does have Vir-Mar Beach, a small (250 ft) long beach area on the Potomac River for fishing, crabbing, swimming and/or picnicking. The Northumberland County Planning Commission has been working for over five years towards improving public water access for Northumberland County citizens. To that end, Northumberland County, with the assistance from the Northern Neck Planning District Commission submitted a grant application for a public fishing pier on the Great Wicomico River to The Virginia Department of Environmental Quality's Coastal Program (funded by the National Oceanic and Atmospheric Administration) in 1999. To secure matching funds, the County submitted another grant application to the Virginia Marine Resources Commission's Recreational Saltwater Fishing Fund in 2000. Both grants were awarded, and the County now has a public fishing/crabbing pier to serve its citizens on the south side of the Great Wicomico River Bridge. However, there are still many opportunities to increase access to State Waters within Northumberland County, especially to increase handicap accessibility, and this plan seeks to address those opportunities.

Four planned improvements to public water access sites will fulfill some of these needs for individual natural, water dependent, recreational opportunities, while emphasizing handicap accessibility. Two sites are existing powerboat launching ramps (Cooper Landing, and Rows Landing), the other two sites are new water access points (Hampton Hall Creek and Great Wicomico River)..

Coopers Landing

Coopers Landing is a public power boat launch facility in the upper reaches of the Great Wicomico River at the end of State Route 707, owned by the County of Northumberland. There is one active concrete launch ramp and a second ramp unsuitable for launching power boats but suitable for canoes, kayaks and/or cartop boats. The Landing gets considerable use from recreational bank fishermen and crabbers. A 72 x 8 foot fishing pier is planned for this site between the two launch ramps to replace the existing 30 inch launching walkway.

Rows Landing

Rows Landing is an existing powerboat launch ramp, at the end of State Route 601 in Heathsville, with a gravel turnaround, concrete boat ramp, and small fixed boat launching pier, owned by the County of Northumberland. Due to several recent bad winters, ice has lifted several pilings on the east edge of the existing pier, causing the pier decking boards to be higher on the right side of the pier than the left side. The proposed improvements are to correct the problems with the pier; then to add a 10 foot by 6 foot floating canoe/kayak launch platform, on the

² More detail including details of improvements, maps and cost estimates are included in Northumberland County Public Water Access Improvement Project – 2004, Grant Application to the Jesse Ball DuPont Foundation, James W. Stone, Secretary Northumberland County Planning Commission.

opposite side of the pier from the boat launch ramp so as not to interfere with the powerboat launching function of the site

Hampton Hall Creek

The Hampton Hall Creek site is a former public water access site on Route 202 adjacent to the border of Westmoreland and Northumberland County. This public water access site was abandoned many years ago. The plan is to reinstate this site as a public water access point, and construct a canoe/kayak/car top boat launch facility.

A floating pier with a fixed 30 foot by 6 foot entrance deck, and 20 foot by 6 foot moveable ramp and 10 foot x 6 foot floating launch platform is planned be built adjacent to the access road's turnaround. The floating deck will be very near the surface of the water, making entering and exiting a kayak easy. Vegetation around the kayak launch will be cleared to afford bank-fishing opportunities for land-based anglers.

The County owns the land, and the old roadbed is still intact that terminates at the edge of Hampton Hall Creek.

Great Wicomico River

A new public water access site adjacent to the newly improved Great Wicomico River Public Fishing Pier, under the Rt. 200 Bridge is planned. The planned canoe/kayak launching pier site is located on land owned by the Virginia Department of Transportation (VDOT), however, the County of Northumberland has obtained written permission from the Warsaw Residency of the Virginia Department of Transportation for the construction of a canoe/kayak launching platform at the site. The canoe/kayak launching pier will be very basic. The existing shoreline is a gently sloping sand beach, which is very conducive to launching human powered watercraft. The pier will be an 8 foot by 10 foot ramp connecting to a 12 foot by 16 foot floating platform. The floating platform will be close to the water surface that should allow easy entry for those persons launching kayaks.

As Table 4.1 illustrates, there are twopublic beaches in the County, Hughlett Point and Vir-Mar Beach at the end of Route 806 near Hacks Neck. It is only 250 feet long, has no improvements and the beach is not protected from sea nettles.

Table 4.2 lists 12 marinas that provided 705 boat slips in 2004. t These are commercial marinas available to the public and offering not only boat storage but fuel, food sales, restrooms, boat repairs. There are many additional “membership” marinas available that provide access to a limited clientele. Many of these are controlled by Homeowners Associations. Northumberland County's unique location at the mouth of the Potomac River near the middle of the Chesapeake Bay makes this one of the more popular destinations for recreational boating and fishing.

SITE IDENTIFICATION	Trailer Boat Landing	Marina (No. of Slips)	Fishing (Pier or Bank)	Beach (Swimming)	Nature Study Area	Picnic Area	Camping Area
Coan River Marina, Coan R.	X	63					

Lake Francis Marina, Kingscote Cr.	X	34					
Olversons Marina, Lodge Cr.	X	229					
Lewisetta Marina	X	26					
Krentz Marina	X	35					
Smith Pt. Marina/Campgrnd, Slough Cr.	X	115					X
Gaps Marina, Slough Cr.		26					
Buzzards Point Marina, Cockrell Cr.		59					
Horn Harbor Marina, Campgrnd & Restaurant, Gr. Wicomico R.	X	30					X
Ingram Bay Marina	X	50					
Smith Point KOA		20					X
Glebe Point Campground		18					X
Source: Modified from the Chesapeake Bay Public Access Plan, 1990 and Virginia Department of Health, 2005							

- d. The Northumberland Family YMCA is a program-based YMCA currently operating from the County facility near the old Courthouse. They operate several programs through a partnership with the Northumberland County Public Schools. These include After School Care, Summer Day Camp, and various sports activities at the three schools in the County:
- e. Three golf courses are located within Northumberland County. Indian Creek golf course is part of a group of recreational facilities offered by the Indian Creek Yacht and Country Club. The Village Green golf course is located on Route 360 just west of Callao. Quinton Oaks golf course is also located within the County outside Village and off Route 600.

2. Conclusions

Northumberland County's major recreational offering is its access to 556 miles of shoreline of the Chesapeake Bay and its tributary rivers and creeks. Sports fishing, recreational boating and sailing also provide a stimulus for summer tourism thereby contributing greatly to the economy of the County through marine sales and operation of marinas, including repairs and fuel sales. In addition the boats that are based permanently in the County provide a significant contribution to the tax base. It should be a major policy of the County to promote the development of quality boating facilities for both public and commercial use. In the same sense, public beaches may also contribute to the economy of the County while providing a major recreational service for local citizens. One needs only to look at the growth of other communities along the East Coast to see that public beaches attract significant investment that satisfies a market for recreation. The growth of sports and recreational boating, combined with expanded beaches and controlled beach front development, offers a substantial opportunity for the growth of Northumberland County's economy.

In the area of public recreation the focus of recreational planning should be on services that serve the local population of all ages. At the present public recreation that is offered is limited by the amount of land available. This includes a single public playfield at the Middle School and use of school sites whenever they are not in use by the school program.

The County should plan to have a public park oriented toward children and young adults. The neighborhood-type park should have tennis courts, a jungle gym, basketball court and other amenities and be located off the water. Consideration should also be given for a comparable public facility oriented toward the retired community.

Figure 4.3 Recreation Map

As future plans are made for recreational facility development, the following general standards that have been used in other parts of Virginia as well as nationally may be helpful. These standards have been found to provide a satisfactory number and distribution of recreational facilities in typical communities.

- a. **Baseball and Softball fields:** Baseball is played in almost all communities and by nearly all ages. . Fields that are designed for youth baseball can also be used for adult softball since both use the same base spacing. The major difference is that softball requires a little longer pitching distance and longer outfield. A rule of thumb for ball fields in a community is at least one ball field for every 6000 persons. Considering the demographics, two should be sufficient for Northumberland County, but because of the distance between upper and lower parts of the County others may be required in order to provide service to all parts of the County.
- b. **Basketball:** This is another popular activity among youth. Schools may provide enough basketball courts to meet this need if they are spaced throughout the community appropriately. Both the Callao and Fairfield school sites have basketball courts. The general standard for basketball courts is one court for every 500-1000 persons.
- c. **Tennis:** The demand for tennis depends upon the importance of this game to each locality. There is a state standard that suggests one tennis court for every 2000 persons. At least one court should be available at the Middle School and two at the High School..
- d. **Swimming Pools:** The state standard suggests a swimming pool for every 10,000 persons. At present a public swimming pool is not available in Northumberland County for swimming lessons and competitive activities. The planning for the Middle School should include the option for a pool to be shared with the High School.

Future efforts to provide opportunities for recreation in Northumberland County should be focused on establishing a basic infrastructure of facilities similar to and in the amounts suggested above. The next step is to secure sites for the facilities with the facilities themselves being added as funds are available. .

D. PUBLIC BUILDINGS AND SCHOOL FACILITIES

This section addresses the public buildings used for the County administrative offices, courts related uses, Sheriff's department, and the buildings used for the County school system. The location of each of these facilities is indicated in Figure 4.4. Information on the County administrative office needs was obtained through discussions with County officials and department heads. Information on the County school buildings was obtained through discussions with the Superintendent of Schools. The Northumberland County Library which has facilities for public meetings is an important contribution to public services to the county residents as is the Fisherman's Museum located in Reedville.

Delete Graphic1. Administrative Offices

County administrative offices, courts facilities, sheriff's office and other government

functions are centrally located in Heathsville in or near the courthouse. With the completion of the new courts facility for the General District Court, the Circuit Court, Clerks of both courts, and the Juvenile and Domestic Court Services units, their space and facility requirements outlined in the last version of this Comprehensive Plan have been met for the foreseeable future.. These are located in a separate building behind the existing courthouse.

, The Commissioner of the Revenues and the Treasurer's requirements for additional office space were met when the court clerk relocated from the first floor of the courthouse to the new facility. The existing courthouse building needs to be renovated to add an elevator and provide handicap access to the basement areas which meets the Americans with Disabilities Act. Social Services, Health, , and the Cooperative Extension Service have sufficient space in their existing locations and will not likely experience significant growth in the foreseeable future.

The Sheriff's building was expanded to accommodate the needs of the new E-911 emergency dispatch system. The movement of dispatchers to the 911 space made additional office space available for use as desk space for some of the deputies. More space is required to accommodate current and future communications equipment and computer systems.

Participation in the Regional Jail has eliminated the requirement to accommodate inmates in the Sheriff's building.

2. Other Public and Quasi-Public Facilities

The Northumberland Public Library located on U.S. Route 360 in Heathsville is available to the public and is a valuable resource. The Library is open 62 hours a week, including Saturdays and some evenings.

The Library is an important aspect of life in Northumberland County. Library attendance in 2004 was approximately 32,000 and has been growing at a rate of 5% or greater per year. 35% of the County population holds library cards. The card catalog is also available online.

The collection consists of approximately 35,000 books and materials and provides free internet broadband access through the Library computer center and also offers high speed wireless WiFi service to patrons with laptops.

There is a planned balance in the collection between the user demographics and the classes of items.. Additional emphasis has been given to audio books and videos to meet the needs of the older population and the disabled. A children's librarian focuses on pre-school and elementary school children and a new "Homework Center" focuses on Middle and High School students.

The Library is a very busy place and lack of additional space is becoming a problem. The Library Long Range Plan and the Expansion Plan both address the needs of the future and expected growth in the County.

3. School Facilities

Schools are provided in Northumberland County School system by a Board of Education through the office of the Superintendent of Schools. The Board, together with its administrative staff is responsible for providing a system of public school facilities and an educational program of high quality. The population range from which most of the school enrollment comes has remained almost constant since 1980 and state estimates suggest this trend will continue for the next 10 to 15 years. Following are the estimates of population for the age group 0 to 19 for the last three decennial censuses and projections by the Virginia Employment Commission for the next two census years (Refer to Table 2.1, Appendix A).

YEAR	1980	1990	2000	2010	2020
Population	2485	2305	2491	2804	3356

Demographic trends show that although population growth has been occurring in Northumberland County, most of the growth is occurring in the adult population. The analysis referred to above reports that the age group from 20 to 44, customarily referred to as the "childbearing age" is projected by the state to remain constant at approximately 3000 persons through 2010. In addition, the older population is growing not only demographically but by the attraction of Northumberland County as a place for retirement. These forecasts point to an era of little growth potential for school enrollment.

The County opened the Northumberland Elementary School in 1996. This facility replaced the elementary schools at Fairfield and Callao., Northumberland Middle School and Northumberland High School will continue to serve the upper grades. The school system projects that school membership in the next five to ten years will remain fairly steady. The schools are identified in Figure 4.4 and described in the following paragraphs:

- Northumberland Elementary School

This elementary school is designed for an enrollment of 750 students from preschool to kindergarten through the fifth grade. Its design features some of the latest technology, including pre-wiring for computer networks in each classroom area. School system projections indicate that the elementary school enrollment will remain steady or gradually increase in the future, therefore it should have sufficient capacity until growth patterns in young families increase. Current enrollment is approximately 650 students.

- Northumberland Middle School

This facility is the oldest in the school system and it is currently accommodating about 370 students. There is a space shortage at this facility which has required the conversion of the stage area and the shop to classroom space. Temporary classroom units are also in use due to the lack of classroom space. This facility is scheduled for (replacement or renovation) (Decision to be made prior to completion of this Comp Plan and wording will be changed accordingly.)

Figure 4.4, Schools and Other Public Buildings

- Northumberland High School

The 2005 high school enrollment is about 450 students which exceeds the basic classroom capacity of the building. Trailers are being used for classroom space. The current available space is inadequate at this time to meet present and future program requirements. Significant issues exist regarding the alternatives for meeting the educational needs of the High School. These were discussed during the decision on the Middle School and included renovation versus relocation near the Middle School and the feasibility of collocating the three schools at some point in the future.

Overall, the present school system's capacity appears to be fairly evenly matched with the number of students. The educational needs at the Middle School have been resolved and the focus is shifting to resolving the problems at the High School. And with little growth foreseen in enrollment, future school planning can focus on matching the facilities with the education needs of the community.

An analysis of recreational space suggests that the playfields could increase the opportunities for full-time recreation. The buildings present other opportunities such as the current use of offices for the School Board. The current strategy which was discussed during the decision to renovate or replace the Middle School is to take aggressive action to convert these buildings for various uses including: economic enterprises, housing, community service buildings, community colleges and the like.

There are educational and economic advantages as well as benefits to the community to collocate the high school on the property along Academic Lane near the Middle School. The resulting campus could include an acoustically satisfactory auditorium as well as a sports complex with an indoor pool and a park. A detailed analysis and plan should be prepared to ensure there is sufficient usable space to accommodate these concepts and accommodate future growth.

E. WATER SUPPLY AND SEWAGE DISPOSAL

1. Water Supply

An examination of water sources is presented in Chapter 1 as part of the analysis of environmental conditions. That chapter identified groundwater as the present source of potable water supply for Northumberland County. Water comes from three aquifers with most of the major wells taking water from the deep artesian aquifer. Many private wells, however, that are not in a community water system, take water from the water table aquifer, the one closest to the surface. State surveys have indicated that the aquifers should provide an adequate supply of potable water to the County well into the 21st century. However, it appears certain that continued withdrawal of artesian water at current rates, causing water level declines of 1.5 feet/year, is not sustainable. Declining water levels are caused by both local withdrawal and withdrawal outside of the Northern Neck. Planning must recognize that it is not only local actions that affect our long-term artesian water supply.

The Health Department classifies these systems as community, transient or non-transient water

systems. A community water system is one that serves 14 or more houses or 25 or more persons for at least six months per year. A transient public water system is a class that is used by motels, restaurants and similar uses. A non-transient system is the same as a community water system but is used less than six months per year.

The Three Rivers Health District listed 54 public water systems in Northumberland County in 1995. These were distributed among the above three classes as follows: 28 community water systems; 8 transient systems; and 18 non-transient systems.

4.5 Community Water Systems

Figure 4.5 illustrates the locations of most of the major public water systems currently in service. The map displays 36 systems including the community systems and some non-transient systems such as public schools and systems serving larger employers.

Future needs over the next 20 years and beyond for potable water are a significant planning issue for Northumberland County. There appears to be sufficient groundwater in the deeper aquifers for the next several decades. Eventually, the artesian aquifers will cease to supply potable water and alternative supplies will be required.

If large-scale development of the type that is developing in many communities along the Mid-Atlantic states comes to Northumberland County, or to nearby communities using the same aquifers (as is already happening in Maryland to the detriment of our intermediate artesian aquifer) water supply will become a more immediate problem.

Such development, however, may be regulated and required to provide its own water system in scale with need. It would be prudent on the County's part, however, to have an alternative source of potable water supply. This is particularly true because of the County's proximity to sea water. Major withdrawals even in the upper reaches of the lower aquifers combined with pressure from sea water could modify adversely the quality of water available in the aquifers. A long-range strategy of surface impoundments is prudent.

The 1969 report prepared for NNPDC by Martin, Clifford and Associates, identified nine (9) reservoir sites in Northumberland County. All these sites should be permitted to develop only as consistent with a future public water supply. The sites of greatest potential include:

Site	Serving	Acres	Million gallons/day
Lodge Creek	Callao	118	1.05
Mill Creek	Wicomico Church	163	0.35
Sydnor's Mill	Burgess and points east	328	0.48
Crabbe Mill	Heathsville	310	0.56

These four reservoirs could provide 2.4 million gallons/day, enough to serve 24,000 people assuming typical water usage of 100 gallons/day/person. These four reservoirs should provide abundant water for the foreseeable future recognizing that some citizens not easily served by a public supply will remain on either artesian or shallow wells. Because most of the population of the county is in the northeast, and that is where growth is likely to be highest, it will ultimately be necessary to connect the reservoirs. It would be advantageous to Lancaster County to utilize Mill Creek reservoir, and the two adjacent counties should coordinate planning.

2. Sewage Disposal

The general mode of sewage disposal in Northumberland County is the septic tank; the exceptions are at Fleeton, Reedville and Callao where a public sewerage system has been established. The systems are operated by the Reedville Sanitary District which is governed by the County Board of Supervisors. The Sanitary District was originally designed to serve the town of Reedville but it was expanded in order to extend coverage to the Blackberry Community Development Project Area, Fleeton and Callao.

Figure 4.6 shows sanitary sewage facilities in the Reedville and Callao areas. Also shown on this map are the general locations of the pumping stations and the treatment plants. The Reedville plant is located across Cockrell Creek near the Zapata Protein Facilities, which is also served by the Reedville system.

With the addition of the Fleeton community, the system is presently operating at a high percentage of its total capacity. The Reedville treatment plant is designed to treat 200,000 gallons per day and the Callao plant 60,000 gallons per day.

4.6 Sanitary Sewage Facilities

Other areas of the County show signs of developing into active commercial areas even without sewers. . There are signs of growth at Burgess and at Heathsville, and in the long-range picture these areas would likely experience more development if sewers were available.

But there is the problem of economic and financial feasibility. The Fleeton expansion at Reedville and the Callao sewer system received grants of 75% of the construction costs leaving the remainder to be borrowed by the County and the debt serviced by the monthly fees.

There is a problem in the lower end of the County at the Indian Creek community. Soil problems and other constraints have led the County to apply for a grant to install a community sewer system similar to Callao. The available options are very limited should the grant application be rejected.

None of the other villages of the County appear to meet the current requirements for similar grants because of the low population densities. The monthly rates would have to be too high even with a comparable percentage of the funding in grants.. Nevertheless, the potential exists in these areas for commercial development and the establishment of new jobs. This is sufficient reason to continually monitor and examine the feasibility of establishing sewer systems at each location and when determined to be feasible and cost-effective, to actively pursue them.

Upgrades of existing facilities to reduce the discharge of nitrate and phosphate to local waterways should be planned. New facilities should be designed with state-of-the-art nutrient reduction technology. Upgrading the Reedville plant to reduce nutrient discharge and to accept septic pump-out should proceed simultaneously in order to realize cost savings.

F. OTHER PUBLIC AND QUASI-PUBLIC SERVICES

1. Emergency Services

Emergency services are available in Northumberland County through volunteer fire departments and volunteer rescue squads. Communications are coordinated through the Sheriff's office. Figures 4.7 and 4.8 identifies the locations of fire and rescue facilities within the County and the area served by each facility.

Fire departments serving Northumberland County include the following fire stations:

- The Callao Volunteer Fire Department: serves the northern part of the County to Horsehead.
- The Fairfield Volunteer Fire Department: serves the eastern portion of the County approximately from Horsehead to the Chesapeake Bay and the southern portion to about one mile below Wicomico Church. This fire company's main station is in Reedville with a sub-station located on Route 200 between Burgess and Glebe Point.
- The Kilmarnock Volunteer Fire Department: serves the remainder of the County from the point served by the Fairfield Company to the county line (shaded area on Figure 4.7).
- The Upper Lancaster County Volunteer Fire Department serves a small portion of Northumberland County between Mill Creek and Route 615 (county line).

Maps 4.7 Fire, 4.8 Rescue Map

Rescue squads serving Northumberland County are:

- The Callao Volunteer Rescue Squad serves the western part of the County from the county line to the Coan River.
- The Mid-County Volunteer Rescue Squad located just east of Heathsville serves the area from the Coan River to an area marked approximately by Horse Head, Hull Creek, Great Wicomico River and Browns Store.
- The Fairfield Volunteer Rescue Squad serves approximately the same area as the Fairfield Fire Department and also operates through a main station at Reedville and a sub station at Burgess.
- The Kilmarnock Volunteer Rescue Squad serves the southern tip of the county from just below Wicomico Church, the same area served by the Kilmarnock Fire Department. The portion of the County served by the Lancaster Volunteer Fire Department is provided with Rescue Service by the Kilmarnock Rescue Squad.
- Smith Point Sea Rescue, operated by the Virginia Marine Resources Commission, provides a search and rescue service.

At present these services are provided by all-volunteer organizations, there are no paid personnel. As indicated in the demographics, the County contains an aging population and it is to be expected that an increasing number of calls will be for rescue squad services to transport persons to hospitals. This will place a further strain on personnel, especially if the volunteers are drawn away from their places of employment. The volunteer rescue squads and fire departments need to perform a coordinated analysis and plan to address the changing demographics.

2. Solid Waste Services

The solid waste system serving Northumberland County consists of three solid-waste collection stations which provide facilities for citizens to dispose of their refuse and recyclables into appropriate bins. The bins are then transported to a land fill in another jurisdiction by a private contractor. The locations of the collection stations are shown on Figure 4.4. They are located as follows:

- ! Lottsburg on land which was part of a school site; now beside the School Board offices.
- ! East of Horse Head on Route 360.
- ! On Route 200 between Wicomico Church and the county line.

A typical solid waste collection site occupies about an acre and contains the following:

- ! Container with compactor that can be transported by truck.
- ! Spare container
- ! Recycle box (1 or 2)
- ! An attendant is stationed at each site.

While the present sites offer a solid waste disposal system, including recycling, in different parts of the County, concern was expressed in meetings of a need to have a more visible

program for disposing of household wastes which are classified as hazardous. Typical wastes in this category include old motor oil, paint cans, and household, or garden pesticides. Future planning should include arrangements for the disposal of these and other hazardous wastes along with paper other than newsprint

3. Animal Shelter

A fenced animal shelter has been built on the property currently used for solid waste disposal on Rt. 360 near Horsehead. This facility can house 20 dogs and is managed by the Animal Warden who is supervised by the Sheriff.

4. Emergency Preparedness

Hurricane Isabel hit Northumberland County on Thursday September 18, 2003 and caused extensive damage to trees and the power grid and also caused water damage from storm surge along the rivers. For many reasons, a combination of preparedness, effective support systems, strong community support and good fortune, there were no deaths attributed to the storm and minimal injuries.

The State and Federal policy is that a disaster is a local event and each jurisdiction must take care of itself for at least 72 hours and not rely on the State or Federal organizations. When all local resources have been expended to resolve a particular problem, then you may look to the State for assistance. When all State resources are expended, then the Federal government will provide assistance.

The County performed a "Lessons Learned" analysis and developed a set of recommendations after Hurricane Isabel and has initiated a program to increase preparedness and response in several key areas:³

- Management and Organization – formalize several informal working relationships to ensure all relevant personnel understand their roles in the process;
- Facilities – provide necessary emergency facilities and logistic support to the County Administrator in his role of Emergency coordinator;
- Communications – improve communications between all emergency service organizations and between governmental entities; improve communications with the public;
- Shelters – ensure that existing shelters in the schools and other facilities are staffed and equipped to accommodate expected demand, investigate the possibility of adding additional shelter space; and
- Power – ensure that emergency generators are available and operational to support the shelters and communications needs

G. STRATEGY FOR DEVELOPING PUBLIC SERVICES

The following table provides a quick reference to the public services covered in this Chapter of the

³ Kenneth D. Eades and Gregory T. Haugan, *Lessons Learned – Hurricane Isabel*, December 17, 2003

Comprehensive Plan. If the public or private sources that provide each type of service. Because services are provided by a combination of different public and private sources, planning for their development must be done in coordination with several other agencies.

The County is directly responsible for providing resources for construction of schools, county offices, sewage disposal facilities, solid waste stations, reservoirs and public recreational sites. The State provides for highways and support services through the Health Department and VPI Extension. Still other services (emergency services and recreation are in this category) are provided by private enterprise or not-for-profit organizations. The strategy for implementing the public elements of the Comprehensive Plan involves coordinating County projects with those provided by the State and other groups, private or public.

SUMMARY - PROVIDERS OF SERVICES	
Type of Facility	Agency or Level of Government Responsible for Providing Service
Highways, Public	Primary Highways: VDOT ⁴ , District Engineer's Office, Fredericksburg
	Secondary Roads: VDOT, County Resident Engineer's Office
Recreational Facilities	Recreational Programs: Northumberland Department of Recreation
	State: Construction and operation of public boat ramps
	Commercial marinas; charter fishing boats; campgrounds; community associations
Water Supply	Community water systems: public and privately owned and operated
Sewage Disposal	Private septic tank except in Reedville, Fleeton and Callao where public sewerage systems are operated
County Office and Operational Buildings	County: Administrator's office
Schools	Northumberland County School Board
Emergency Services	Volunteer Rescue Squads, Fire Companies, County Officials
Solid Waste Services	Private Contractor

⁴Virginia Department of Transportation