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ACKNOWLEDGEMENTS

MORGAN COUNTY COMMISSIONERS

THOMAS R. SWAIM
ROBERT L. FORD
GLEN R. STOTLER

MORGAN COUNTY ADMINISTRATOR

WILLIAM R. CLARK

MORGAN COUNTY PLANNING COMMISSION

JACK SORONEN
CARL COWGILL
RICHARD HARVEY
DARYL COWLES
DONALD KIDWELL
MARY ELLEN LARGENT
ANN SMITH
SUSAN PARKER
SCOTT SWAIM
THOMAS R. SWAIM
THOMAS "TUCKER" STINEBAUGH

MORGAN COUNTY COMPREHENSIVE PLAN ADVISORY COMMITTEE

JACK SORONEN
RICHARD HARVEY
SUSAN PARKER
DARYL COWLES

MORGAN COUNTY PLANNING STAFF

ALMA GORSE STAFF PLANNER

MORGAN COUNTY COMPREHENSIVE PLAN CONSULTANT

KRISTIN B. ALESHIRE ARRO INC
JOSEPH MOSS ARRO INC

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INTRODUCTION

Purpose of the Comprehensive Plan

The general purpose of the Morgan County Comprehensive Plan is to guide the governing body to accomplish a coordinated and compatible development of land and improvements within its territorial jurisdiction, in accordance with present and future needs and resources.

A comprehensive plan is a process through which citizen participation and thorough analysis are used to develop a set of strategies that establish as clearly and practically as possible the best and most appropriate future development of the area under the jurisdiction of the planning commission. A comprehensive plan aids the planning commission in designing and recommending to the governing body ordinances that result in preserving and enhancing the unique quality of life and culture in that community and in adapting to future changes of use of an economic, physical, or social nature. A comprehensive plan guides the planning commission in the performance of its duties to help achieve sound planning.

A comprehensive plan must promote the health, safety, morals, order, convenience, prosperity, and general welfare of the inhabitants, as well as efficiency and economy in the process of development.

The purpose of the comprehensive plan is to:

- 1) Set goals and objectives for land development, uses and suitability for a governing body so a governing body can make informed decisions
- 2) Ensure that elements in the comprehensive plan are consistent
- 3) Coordinate all governing bodies, units of government and other planning commissions to ensure that all comprehensive plans and future development are compatible
- 4) Create conditions favorable to health, safety, mobility, transportation, prosperity, civic activities, recreational, educational, cultural opportunities and historic resources
- 5) Reduce the wastes of physical, financial, natural, or human resources which result from haphazard development, congestion, or scattering of population
- 6) Reduce the destruction or demolition of historic sites and other resources by reusing land and buildings and revitalizing areas

- 7) Promote a sense of community, character, and identity
- 8) Promote the efficient utilization of natural resources, rural land, agricultural land, and scenic areas
- 9) Focus development in existing developed areas and fill in vacant or underused land near existing developed areas to create well designed and coordinated communities
- 10) Promote cost-effective development of community facilities and services

A comprehensive plan may provide for innovative land use management techniques, including:

- 1) Density bonuses and/or density transfer
- 2) Clustering
- 3) Design guidelines, including planned unit developments
- 4) Conservation easements
- 5) Infill development
- 6) Consolidation of services
- 7) Any other innovative land use technique that will promote the governing body's development plans

When preparing or amending a comprehensive plan, a planning commission shall make comprehensive surveys and studies of the existing conditions and services and probable future changes of such conditions and services within the territory under its jurisdiction.

The comprehensive surveys and studies may cover such factors as population density, health, general welfare, historic sites, mobility, transportation, food supply, education, water and sanitation requirements, public services, accessibility for the disabled and future potential for residential, commercial, industrial, or public use.

The major objective of the planning process is providing information to and coordination among divergent elements in the municipality or county. The elements in the comprehensive plan shall be consistent and governing bodies, units of government and planning commissions must work together to ensure that comprehensive plans and future developments are compatible.

A planning commission shall prepare a comprehensive plan for the development of land within its jurisdiction. A planning commission shall then recommend the comprehensive plan to the appropriate governing body for adoption.

A county, multi-county, regional, or joint comprehensive plan may include the planning of towns, villages or municipalities to the extent to which, in the planning commission's judgment, they are related to the planning of the unincorporated territory of the county as a whole: Provided that the comprehensive plan shall not be considered a comprehensive

plan for any town, village, or municipality without the consent of the planning commission and/or the governing body of the town, village, or municipality.

A comprehensive plan should be coordinated with the plans of the department of transportation in so far as it relates to highways, thoroughfares, trails and pedestrian ways under the jurisdiction of the planning commission.

A county planning commission may prepare a comprehensive plan for either the entire county or a part of the county.

A multi-county, regional, or joint planning commission may prepare a comprehensive plan for land within its jurisdiction.

A comprehensive plan, by State law, requires that the following minimum components be included in the Plan:

- Delineation of Land Use Designations
- Development of Housing Projections and Programs
- Outline of Transportation Networks and Needs
- Measurement of Infrastructure Capabilities
- Extension of Public Services
- Protection of Rural Areas
- Identification of Recreation & Tourism Goals
- Establishment of Economic Development Guidelines
- Promotion of Consistent Community Design
- Incentives for Preferred Development Areas
- Renewal and/or Redevelopment Initiatives
- Creation of Short and Long-term Financing Goals
- Historic Preservation Areas

The Comprehensive Plan may have, but is not limited to the following components:

- History of the area
- Environmental protection programs
- Promotion of tourism
- Conservation programs
- Public safety programs
- Natural resource areas

Prior to adoption of the Comprehensive Plan, public hearings must be held to include public participation and input from affected governing bodies and agencies. This process includes submission of the draft for review by the public for comment to the planning commission prior to making a recommendation to the County Commissioners. Subsequent to this process the Commissioners must also hold public hearings for additional public input before final adoption of the plan by ordinance.

Once the plan or any amendment thereto is adopted by the Commissioners, a certified copy shall be held on record in the office of the county clerk. However, if the plan is rejected it must be sent back to the planning commission with the reasons for rejection, for further review and recommendation as outlined in State law.

After the adoption of the comprehensive plan by the governing body, the planning commission shall follow the comprehensive plan, and review the plan and make updates at least every ten years. This update, whether it is in part or comprehensive shall follow the process as outlined in State law.

Role of the Comprehensive Plan

In order to carry out the purpose of the Comprehensive Plan as outlined in West Virginia State Code 8A, there are numerous supporting documents that serve to guide and direct the general components that make up the Plan.

The role of the Plan includes, but is not limited to the following characteristics:

- Focus on current trends and issues to develop appropriate solutions
- Review current growth patterns to develop strategies for a sustainable future
- Direct future change through a vision of community potential
- Establish consistency between land use policy and regulatory measures
- Assist County officials in the decision making process

The Comprehensive Plan is a broad policy document that provides guidance for future decision making. The Plan should provide consistency with other plans that have been developed in the community. Some of those plans considered for this update include:

- Morgan County Schools- Comprehensive Educational Facilities Plan
- WV Department of Transportation- 6 Year Highway Improvement Program
- Morgan County Solid Waste Authority- Litter & Solid Waste Control Plan
- Morgan County Commercial Solid Waste Facility Siting Plan
- Morgan County Water Resource Study
- West Virginia 9 Corridor Selection Report
- US Rt. 522 Improvements Report
- North South Appalachia Corridor Feasibility Study
- Berkeley County Comprehensive Plan

Other reports of civic organizations considered in development of this Plan include:

- Homegrown Vision and Recommendations Report
- Morgan County Trails Report
- Cultural Arts and Recreation Plan

- Travel Berkeley Springs Report
- North South Appalachia Feasibility Study
- Sleepy Creek Watershed Association Report

In addition to the above plans and reports, many other reports, recommendations, and responses from key agencies and organizations were used to develop the Plan. Data was also collected from a variety of sources and several public meetings were held to provide additional public input in the process.

The Comprehensive Plan is an ever-evolving document that should be reviewed and modified regularly to ensure that it provides adequate guidance regarding future growth in the County. This regular review will also ensure that as a guiding document it will remain viable in providing accurate supporting information and strategies for implementation of the above plans. Thus it is important for this Plan to include a brief outline of the strategies within other plans to serve as a record of major activities undertaken and accomplished. This review will provide regular opportunity to identify new issues that may impact the County, and the appropriate course of action to address them in the future.

Morgan County Description

Morgan County is the smallest of the three Eastern Panhandle counties of West Virginia. It is located less than 100 miles from the Baltimore-Washington metropolitan area, which has stretched further west over the past several decades placing increased growth pressures on many once secluded rural counties. It is surrounded to the north by Washington and Alleghany counties in Maryland, to the south by Frederick County, Virginia and by fellow West Virginia counties of Berkeley and Hampshire on the east and west respectively.

The County has an area of about 230 square miles or roughly 148,000 acres, which is divided into 6 tax districts that include; Allen, Bath, Cacapon, Rock Gap, Sleepy Creek, and Timber Ridge. It also includes the Town of Bath located along US Rt. 522 surrounded by a larger area better known as Berkeley Springs, and the Town of Paw Paw located in the southwest area below Cacapon along WV Rt. 9. For planning purposes the County is divided into 3 planning regions that encompass the 6 districts. The Cacapon and Sleepy Creek districts comprise their own planning areas while the remaining districts combine to form the Central Valley region.

Although the County appears to be flush with natural waterways, rivers and streams make up less than 1% of the total County land mass. These water sources include Cacapon River, Cherry Run, Sir Johns Run, Warm Springs Run, and Sleepy Creek. All systems flow northeast into the Potomac River, which is primarily located in Maryland.

The County is flanked on both the west and east side by mountainous ridges that run north south. The higher mountain ridge of Cacapon separates Morgan and Hampshire counties on the west, while the lower Sleepy Creek ridge forms the boundary between Morgan and Berkeley counties to the east.

History of Morgan County

Morgan County was created by an act of the Virginia General Assembly in 1820. It was formed from parts of both Berkeley and Hampshire counties, and named in honor of the revolutionary war general, Daniel Morgan. The first settlers to this area are believed to be squatters who arrived in the 1730s, with the first known cabin being built in 1745. Due to the areas popular warm springs, Lord Thomas Fairfax had the area surveyed in 1748. George Washington, at the age of 16, was part of that survey party, and returned many times with his half-brother, Laurence, believing the rumored medicinal benefits of the warm springs would aid in improving his brothers health.

As news of the warm springs grew, the area of Berkeley Springs became a popular destination with vacation homes and private baths for the social elite. In 1776, the Virginia Assembly formally recognized the area as the Town of Bath, in honor of England's spa city called Bath. The main north-south street was named Washington and east-west street was named Fairfax. Seven acres were set aside for "suffering humanity", which later became West Virginia's (the nations) first state park. Bath later became known as Berkeley Springs, primarily because the Town's post office took that name to avoid confusion with another post office in southern Virginia, which was also called Bath.

The Town of Paw Paw was created in 1891, named after the paw paw, which is a wild fruit that once grew in abundance in this area of the County. It is best known for the nearby Paw Paw tunnel. It is also stated that George Washington passed through the area on his many trips west, using the Winchester-Cumberland road.

Historic Population

In its first census year of 1820 the County recorded a population of just 2,500, which was mostly located within the Berkeley Springs area or spread in remote southern portions of the County. By 1900 the population had more than doubled to 7,294, with development continuing to occur around the Berkeley Springs area. Also, at this time population growth was increasing around the newly formed Town of Paw Paw in the southwestern part of the County, as well as along the major County thoroughfares. Due to limited growth of its public infrastructure and the scenic charm of its rural seclusion, the County experienced increasing growth along its rivers and streams into the mid 1900s, with a population of 8,276 by 1950. The County again nearly doubled in size with an estimated 2000 population of 14,943, much of that growth occurring in the last two decades.

Table I-1 Historic Population Growth

<u>Year</u>	<u>Population</u>	<u>% Increase</u>
1820	2,500	-
1830	2,694	8%
1840	4,253	58%
1850	3,557	-16%
1860	3,372	-5%
1870	4,315	28%
1880	5,777	34%
1890	6,744	17%
1900	7,294	8%
1910	7,848	8%
1920	8,357	6%
1930	8,406	1%
1940	8,743	5%
1950	8,276	-5%
1960	8,376	1%
1970	8,547	2%
1980	10,696	25%
1990	12,128	13%
2000	14,943	23%

Comprehensive Policies

In order to maintain a consistent direction in accomplishing the goals of the Comprehensive Plan, as well as consider appropriate updates to such goals over time, each chapter must provide policy that directs the governing bodies in implementing initiatives to achieve the desired outcome. These policies can be found in each chapter, and are requisite to the following planning principles:

- Land Use should provide a flexible approach toward guiding the overall development of the County during the Plan period. As the principles by which this is accomplished over time continue to evolve, the objectives must be fluid in allowing conceptual guidance for the County to implement the Plan.
- Population and Housing will continue to be driven primarily by the role Morgan County plays within the region. As population increases and housing needs change, the demographic make up will continue to be affected. These indirect effects will require continual analysis by the County on the growing population and increased residential areas.
- Transportation includes coverage of all modes of pedestrian and vehicular movement. Although the County includes a relatively small population, its transportation network is heavily affected by its location within the region as

well as its unique tourism industry. During the Plan period the transportation objectives will serve to recognize the volume of pedestrian and vehicular activity, and provide direction for how the County will address the coexistence of the effects from such activity with the added increase in residential and commercial development.

- Public infrastructure, much like public services, serves as the fabric by which growth will occur during the Plan period. It is important to ensure that adequate infrastructure is in place, especially in those areas designated for growth to occur. However, unlike many public services, infrastructure needs are regulated by higher governmental policies and in some cases owned and operated by private entities. As regulations move toward greater governmental efficiency and accountability within these facilities, it is important that the County actively participate in this process.
- The Public Services chapter is best represented by the accuracy and depth of historical data provided. In using this data, as past experience for how efficiently County services were able to serve existing population and business, proper planning based on future projections may be determined. It is important therefore to ensure that proper increases in public services are a reflection of those objectives outlined by the various public service agencies. Many of these entities have developed internal plans that serve to address these needs outlined in objectives that are included in this Plan.
- The natural environment and the physical factors affecting it are important to the local quality of life and the local economy. If new development is most efficiently guided toward existing population centers which provide basic public service and infrastructure, development can occur in the most cost-effective way, while preserving the rural open space, and sensitive areas. Unplanned growth, loss of farmland and open space, and subdivision of rural land, are among the top concerns for Morgan County residents. Since preventive measures to protect the environment are preferable to corrective measures, this Plan should accentuate goals and objectives which will prevent scattered sprawl in the rural areas, loss of open space, and degradation of the environment.
- Parks and recreation activities are an integral part of the overall tourism attractiveness of Morgan County. With a ratio of recreational space well above national standards, and being located in close proximity to urban areas where this positive ratio does not exist, Morgan County should continue to diversify and promote its parks, recreation and tourism related amenities to the local and regional market.
- To attract new industry, priority should be given to promoting the sale and lease of existing available buildings and established business parks near locations that provide adequate existing water and sewer resources as well as

necessary public services. Focus should include the long-range diversification of employment opportunities, bridging a strong local economic market with global products and ensuring that production of such goods and services support the quality of life of local residents.

- The preservation of existing communities and other significant community features should be an ongoing process that evolves and changes with the changing of the community outlook. These initiatives are necessary to preserve the historic significance and cultural heritage of the community in order to promote the long-term asset and identity that such features provide. As the community grows to appreciate the importance that this identity offers to the overall design of neighborhoods, recreational amenities, and cultural activities, it may provide a natural pace at which each area wishes to proceed in implementing goals that support this approach.
- As Morgan County continues to grow, it is important to direct growth in a manner that strives to make the most efficient use of public services and infrastructure. Although market demand and availability of land for development will continue to be primary factors driving growth, it is important that the effects of this direction are monitored at all governmental levels to ensure that there is consistency between planning efforts and development pressure.
- Communities may often overlook the value of preservation and improvement of their existing neighborhoods. The impact of this value is difficult to measure, especially in the short term, as these improvements can affect the appeal of a neighborhood, the opportunity to create jobs, or the recognition of cultural heritage. All of these reasons are for the public good, and thus require public participation in the process to ensure there is a collective approach to sustain these efforts.
- It is important for planning purposes to understand the budgetary process in order to most efficiently address the priorities of the legislative body in ensuring that adequate services are provided as growth continues to occur. Through review of the general revenues and expenses experienced by the various local government entities, agencies and organizations, the County is provided the opportunity to address such priorities in a proactive manner, placing appropriate funding mechanisms in areas where services are projected to be needed.
- Historic preservation is an effort that is broadly defined and generally supported by an overwhelming majority of the local population. This is in part because of the value that preservation serves in promoting the cultural heritage of a community. Preservation efforts should serve to enhance the quality of life through the conservation, promotion and interpretation of cultural and historic resources.

Goals and Objectives

For the Comprehensive Plan to function in a successful manner, there must be established goals and objectives in order to achieve the desired outcome. These goals are structured around basic planning principles and incorporated into each chapter to ensure that policies are driven by the approach as outlined in this Plan. Major factors driving the goals and objectives within each chapter are centered on the following primary trends:

Land Use goals focus primarily on new development, including

- Location and density of new development
- Location of new commercial and industrial development
- Location of new community facilities and services

Population demographics focus on impacts to housing demand, including

- Significant population growth and housing starts since 2000
- Aging population with nearly 45% of residents over age 44
- Seasonal housing makes up more than 15% of total housing stock

Transportation network limitations creating inadequate levels of service, including

- Traffic volume and road alignment on US Rt. 522 and WV 9
- Lack of public transportation component for population migration
- Connectivity of alternative pedestrian system for leisure and destination travel

Infrastructure and utility capacities focus on impacts to utility resources, including

- Ground and surface water resource supply capacities
- Location and proliferation of septic fields and extension of public sewer
- Efforts to reduce solid waste through expansion of recycling programs

Public services expanding to provide for a growing population, including

- Placement and staffing of necessary services such as schools and public safety
- Support for cultural amenities, libraries and youth and elderly programs
- Efficiency of general government functions at both a town and County level

Rural land identification and preservation to protect sensitive areas, including

- Location of sensitive area features not conducive to additional development
- Location of rural land types that support productive agricultural uses
- Protection of waterways for recharge and recreational purposes

Recreation and tourism focus on increased local and visitor activity, including

- Evaluation of recreational activities distributed among population centers
- Support for civic organizations and commercially driven initiatives
- Cross over of tourism activities to maximize resident and visitor experience

Economic development efforts focus on sustained employment growth, including

- Promotion of available industrial parks and underutilized properties

- Support for tourism and recreational businesses
- Providing necessary commercial services to boost local spending

Community design being consistent with existing characteristics, including

- Compatibility of new development with existing neighborhoods
- Aesthetic appeal of commercial and industrial centers
- Recognizing the social importance of cultural amenities

Preferred development areas locating where services are readily available, including

- Coordination of development efforts around existing towns and communities
- Promotion of mixed uses and creative designs for new developments
- Limiting development in environmentally sensitive areas

Redevelopment and revitalization focused on quality of life issues, including

- Efficiency of location that links existing resources with community needs
- Sustaining long-term viability of important urban centers
- Utilizing creative strategies to ensure proper maintenance of properties

Finance plans should address the short-and long-term budgetary needs, including

- Use of funding plans that address projected capital expenditures
- Provision of funding mechanisms to provide adequate services to new growth
- Improved local economy to support sustainable community affordability

Historic preservation identifies, protects and preserves significant features, including

- Inclusion of historic features in heritage tours
- Support for programs that provide incentives for preservation efforts
- Placement of historic sites and structures on the National Register

Implementing the Comprehensive Plan

The ability to implement the Plan will depend largely on the County to follow through with the policies and goals of the Plan. The County cannot accomplish this alone and will require partnerships with the public and private entities to meet the objectives of the Plan. To achieve these partnerships the County must provide education and outreach to property owners, the general public, and development community to “buy into” the good planning principles of the Plan. Some of this outreach should include:

- Workshops on timely issues and topics
- Involving the public as part of coalition building
- Publicizing current activities and actions
- Ensuring adequate staff to handle planning related duties
- Fostering partnerships between the Planning Commission and other organizations

Timing of the various planning components attempting to be addressed through this outreach effort will be subject primarily to policy and funding. The Plan includes both a practical approach toward developing funding strategies to address the initiatives of this and other plans, as well as recognizing the cautious approach that often precedes such direction with changes in policy. Understanding the role that each of these factors is bound by, the Plan does provide a 20 year window with the opportunity for update as goals and objectives are accomplished.

As growth and development activity continues to increase over the next 20 years, the County should be prepared to use the Comprehensive Plan to appropriately guide it in the direction that is most beneficial to the long-term goals of the community. The Plan includes numerous tools and strategies to accomplish this task and achieve a level of growth that is consistent with the County's ability to service and absorb it.

Implementation of the Plan as a whole is necessary to accommodate future growth where it is designated and preserve those areas where it should be limited. It is important for the County to guide all parties identified in this Plan to work together with the tools and strategies that these partners will need to organize a collective approach toward the success of plan implementation.

CHAPTER 1 - LAND USE

Introduction

In order to determine how the County should grow and most benefit its citizens, it is important to first evaluate what factors have driven County growth to its current status. The Land Use Plan may then utilize these factors, including balancing the protection of natural and cultural resources with the extension of necessary public services to develop the most appropriate growth policies.

Although the County planning process does not currently provide for established zoning districts, mapping of existing land uses provides an outline of the natural progression of growth that has occurred. From these defined growth areas the Plan should provide direction on how best to manage and direct future growth patterns that will affect existing land use. This direction will then aid in the promotion of the designation of projected growth areas to serve an increasing population and economy, as well as define limitations that may affect the pace at which future growth occurs.

Existing Land Use

Residential land use comprises approximately 10,914 acres of the total area within Morgan County, with just over 6,500 acres estimated as developed. This is a significant increase from less than 4,700 acres in 1980. However, average lot size for this same period has decreased from roughly one-acre per home in 1980 to just over .75 acres in 2000. This land use designation is made up primarily of three types of residential development. These areas include urban growth served by public water and sewer, newer suburban subdivisions, and the less defined rural pockets of residential dwellings. These types overlap other developed land use designations such as municipal as well as undeveloped land use designations such as woodlands and agricultural.

Commercial land use comprises 1,212 acres of the total area within the County, for those areas specifically outside of the incorporated towns and excluding industrial business parks. This a new category from the 1985 Comprehensive Plan, and although it currently represents a small percent of the total County acreage is projected to increase throughout the County with the proliferation of larger new residential development in areas where growth pressures did not previously exist. This land use designation is made up primarily of retail and service businesses that are located in and around residential development. Development of property for commercial use is also affected by the location of necessary public services as well as the adequacy of public infrastructure such as roads, water, and sewer.

Industrial land use comprises 3,014 acres of the total area within the County, most of which is owned by the US Silica Company. This area includes property that is part of undeveloped industrial property holdings, currently utilized for light and heavy industrial and manufacturing industries and underutilized developed land which may no longer serve its original purpose or be

in full operation. Most of the land reflected in the 1985 Plan included more than 7,000 acres of undeveloped property holdings under two companies, while the remainder was spread among nine smaller sites around the Berkeley Springs and Paw Paw areas. However, since that time the major landholders either sold off or changed their prospective use of the properties while most of the smaller sites have been developed or abandoned for industrial use and replaced with more appropriate locations. In order to designate and promote appropriate future industrial and manufacturing uses for these properties, it is important to understand the change in industries that provide the largest employment base for the local County workforce.

Agricultural land use comprises nearly 23,000 acres of the total area within the County. This is a decrease from more than 26,000 in 1980, and represents approximately 16% of the total County land area. Although the number of farms within the County has increased from 143 to 178, the average acreage per farm has decreased from 182 to 129 during this period. Further, the overall acreage being actively farmed has decreased from more than 13,000 acres in 1980 to less than 10,000 acres in 2000, with the remaining property primarily wooded.

Recreational land use comprises 11,562 acres of the total area within the County. The primary difference, or loss of recreational land over the 1985 Plan analysis is removing the 1,800 acre Coolfont Resort area that is privately owned, and therefore not available to be classified as public recreational area. Also, not included in this acreage is land designated as educational. However, it is reflected in Chapter 7 as part of the overall open space used by the public. Recreational land referred to in this chapter is owned and maintained primarily by the various governing entities for both active and passive use.

Educational land use, which totals 150 acres of the County land, comprises a small percentage of the total area within the County. This is primarily due to both a small and widely spread population that has not experienced a level of growth requiring construction of significant additional educational facilities and their accompanying school athletic field needs. However, given recent growth trends, including pace and location of new development, coupled with the fact that many existing schools are located on property with limited room for expansion and provision of adequate field space, it will be important for the school system to use the projections within the Comprehensive Plan to prepare to address future school needs. This is evident in the fact that over the last decade several older schools on smaller properties have been replaced by newer schools on larger campus settings, two of which make up two-thirds of the total acreage.

Municipal land use comprises 704 acres of the land, existing in the two incorporated towns located within the County. This includes nearly 400 acres in the Town of Bath and the remainder in the Town of Paw Paw. The increase in acreage from 1980 to 2000 is due to differences in classification, whereas the 1985 Plan classified some areas in the County as “urban built-up area”, and the classification for this Plan refers to specifically those areas within the municipal limits. In reality there have been less than 50 acres of land annexed during that period. Due to the varying mixture of uses, and the continual evolution of these primarily built-up areas, it is difficult to classify any large single area within either Town under one particular land use designation. Therefore it is understood for purposes of this chapter that areas within each town contribute in some part to all of the land uses listed.

Public land use is defined in this chapter as land other than schools and parks owned by government for the provision of public utilities and services such as water and sewer, police, fire, libraries, and transportation. These uses comprise a small amount of the overall County acreage and are included in various designations as outlined in this chapter. More important, as reflected in Chapters 3, 4 and 5 of this Plan, is the current location of these services as it relates to their need and ability to physically expand in order to adequately address future growth.

Woodlands comprise 117,000 acres of the total area within the County. This land use makes up a large part of the County, covering vast areas across many types of land uses including more than 11,000 acres in recreational, 12,000 in agricultural and some smaller amounts in other classifications. The net acreage thus represents roughly 80% of the total County land area. This acreage has remained relatively constant over time due in large part to some areas previously in active agricultural production giving way to passive woodland, while in other areas previously wooded, new development has occurred. Although it is estimated that clear cutting for development accounts for only 130 acres of the total 1,130 acres cleared per year, consideration of preservation of these natural areas may be required in future planning process.

Historic and conservation land uses act more as an overlay of those areas previously outlined. The historic areas may include both natural and built features within the County that should be identified to protect their individual importance to the character of the community in which they are located. Conservation areas include both public and private properties. These areas may be protected through more stringent regulations that preserve the environmental integrity and sensitive elements that extensive growth would impair.

In addition to the various land use categories is the acreage for roads and water. Water coverage makes up less than 1% of the County's total landmass, which equates to just over 1,000 acres. This has remained relatively constant over time as development and environmental changes have not had significant effects on changing the County's waterways.

As residential development has nearly doubled since the 1985 Plan, local road systems have been added to serve new homes and accompanying commercial centers. Added to the nearly 400 lane miles of roads maintained by the West Virginia Department of Transportation, highway and roads systems are estimated to cover approximately 3,000 acres of the total County land area.

Based on US Census data the total County land mass consists of 229.67 square miles. Converted to acres, the total County land mass is 146,988.8 acres. Subtracting out the total estimated acreage covered by water and roads, the total net land use acreage is approximately 142,970 acres.

In developing Table 1-1, all acreage for those types of land uses clearly documented were established first. From this calculation acreage for those land uses not documented, specifically residential and commercial were estimated from the remainder.

Based on review of the 2006 County tax year statistics it was estimated that 10% of the remaining acreage could be classified as commercial and 90% residential with 80% and 61% developed respectively. Several notable changes from the 1985 Plan include:

- Reduction in total estimated County acreage from 149,277 to 146,989
- Increase in total residential acreage from more than doubling of housing stock
- Accounting for undeveloped acreage in the residential planning pipeline
- Reduction in total industrial acreage due to changes in designation of land holdings
- Reduction in recreational due to removal of large private recreational property
- Increase in municipal acreage from 1985 which listed an “urban” acreage of 416

Table 1-1 Land Use (acres)

<u>Land use</u>	<u>1980</u>	<u>1980 Net</u>	<u>2000</u>	<u>2000 Net</u>	<u>Change in Acreage</u>
Residential	4,864	4,864	10,914	6,658	6,050
Commercial	N/A	N/A	1,212	971	N/A
Industrial	8,162	511	3,014	678	-5,148
Agricultural	26,068	13,635	22,953	9,475	-3,115
Woodlands	121,650	129,301	117,000	123,834	-4,650
Recreational	13,315	500	11,562	500	-1,753
Educational	50	50	150	150	100
Municipal	416	416	704	704	288
Total		149,277		142,970	

Land Use Zoning Regulations

Under West Virginia State Code, Article 8A-7-1 provides counties the ability to enact zoning ordinances. Based on this provision, there have been considerations in the past of enactment, the most recent of which included the development of a tentative report and explanatory map which outlined comprehensive zoning ordinances and land use designations. This report was considered for adoption by the County in 1994 and ultimately turned down. The State Code specifically outlines the process by which a County must proceed with enactment including:

- Determining the area in which the ordinance will apply
- Consideration of the contents of the ordinance and its application
- Certification of zoning district boundaries and maps
- Completing a study and providing a report of existing and proposed land uses
- Providing public review and input through hearings prior to enactment

Although the land use map in this chapter does not serve as part of any process to establish zoning, it does provide the basic outline of many of the existing land use categories that could be used in development of zoning designations. This map merely provides all property within the County with a land use designation that reflects the current or proposed use of that property in relation to larger whole of the surrounding area. Therefore in certain instances it may not reflect

the use of each property specifically, but rather should be used as guide in of uses in general within the defined area.

Population Trends

For purposes of development analysis and growth projections, this chapter is divided into 3 planning areas made up of 6 districts. These areas include: the small northeastern tip of the County known as the Sleepy Creek region, the Central Valley region, made up of four districts that encompass the largest and most heavily populated area, and the southwestern mountain area known as the Cacapon region, which includes the Town of Paw Paw as well as a large amount of publicly owned lands. These planning regions are further referenced throughout the Comprehensive Plan.

Morgan County is the western most of three counties that make up the Eastern Panhandle of West Virginia. These counties, unlike much of the rest of the State have experienced significant increases in growth over the past 50 years, due in large part to the automobile-driven development pressures from the growing metropolitan areas of Baltimore and Washington to the east. It has also experienced recent pressures from the spreading Winchester areas in Virginia, to the south.

Historic growth shows that the County experienced a 25% increase in residential growth between 1970 and 1980. Prior to this time growth was either negligible or in some areas declining. This increase in growth, however, did not result in a significant increase in population since the average household size continued to decline from 3.1 persons per household in 1970 to 2.8 in 1980. Further, an increasing percentage of this residential growth was due to new construction of scattered minor rural subdivisions and single lot recreational homes. By 1980 the decrease in average household size and increase in rural lot development produced roughly an average population of 46 persons in 16 households per square mile.

Between 1980 and 1990 the growth trend slightly declined, producing roughly 57 additional households or 143 persons each year as compared with nearly 74 new households and 215 persons per year in the previous decade. This decline included as well a significant further decline in household size to just over 2.5 persons on average. Growth patterns during this period were focused on new development being located in the Sleepy Creek and upper Central Valley regions.

In spite of the further decline of household size to 2.43 persons per household, the growth trend of the previous decade nearly doubled between 1990 and 2000, adding more than 117 new households and 280 persons per year, which accounted for an increase in population from just over 12,000 in 1990 to nearly 15,000 in 2000. One important trend bolstering new households during this period, which is further outlined in the Population and Housing Chapter, is the reduction of vacant rental units from nearly 13% to 7.6% in this period. As a result of the significant increase in growth from 1980 to 2000 the average population and households increased to roughly 65 persons in 27 households per square mile, which accounted for nearly a 71% population and 60% housing increase over the 1980 figure.

Table 1-2 Population Trends

Trend	1960-1970	1970-1980	1980-1990	1990-2000
Household Size	3.1	2.8	2.5	2.43
Units per Year	7	74	57	117
Annual Population Increase	20	215	143	280
Housing per Square Mile	14	20	23	30
Persons per Square Mile	37	46	52	65

The most significant increase in growth has occurred over the past 5 year period between 2001 and 2005. In 2002 Morgan County experienced its first year of issuing more than 100 permits for new homes. In 2005 this number approached 300. It appears from submission of major residential subdivision development plans and continued increases in the annual number of minor exemption approvals, that permit activity will not decrease significantly in the near future.

At the current pace it is projected that the 2010 population could reach 20,318 under the recommended growth scenario, which would mean an increase of more than 1,110 new housing units equating in an average yearly population increase of 566. While still remaining quite rural in its overall appearance, this growth will result in increased population and housing densities, especially in the more densely developed urban areas within the County.

Table 1-3 Historic Population

Location	1970	1980	1990	2000	2005
Sleepy Creek	640	967	N/A	N/A	N/A
Central Valley	6,063	7,673	N/A	N/A	N/A
Cacapon	1,844	2,071	N/A	N/A	N/A
Town of Bath	944	789	735	663	764
Town of Paw Paw	706	644	538	524	N/A
Morgan County	8,547	10,771	12,128	14,943	17,232

Building Intensity

From the growth trends described above, the County has experienced three distinct types of residential development. These include lots with well and septic, community systems for water and sewer, and public-utility-driven growth. Each type of development has a different impact on the ability to adequately provide various public services, which must be taken into account in providing direction for future growth. This is important in development of a land use map because the provision of water and sewer services in particular plays a large role in determining the density and pace at which development may occur.

From existing activity it is estimated that there is a total of 1,117 lots currently in the development pipeline for major subdivisions. In order to be included in this pipeline, it means

that the proposed development has a reasonable probability of fruition in the Plan period due to the fact that plans have been granted some stage of review.

Major Subdivision Activity

As outlined in Table 1-4, there are several changes taking place in the development pipeline, which must be considered to understand better how increased pressures may affect growth. In using the sketch plan to final plat as a timeline, one noticeable trend is the increase in total number of lots being submitted for development approval as part of a single subdivision. These larger developments also include an increased average density per acre, which means that under State regulations many of these larger, denser developments must be supported by a public or community water and/or sewer system and are affected by conditions of the housing market. It should also be noted that many of the smaller developments that have reached final plat approval, and therefore presumably older in the pipeline, have been submitted in sections, which typically denotes that the development is part of a larger whole being constructed by a smaller developer over a longer period of time.

Table 1-4 Major Subdivision Activity

Subdivision	Approval	Location	Units	Acres	Avg. Lot Size	Year Start
Various Plans	Sketch Plan	Central Valley	894	411	.46 acre	N/A
Huntington Farms	Preliminary	Timber Ridge	56	90	1.6 acres	2006
Parkside Section II	Preliminary	Rock Gap	11	28	2.5 acres	2006
Pious Spr. Sect. I&II	Preliminary	Allen	9	23	2.6 acres	2006
Point View Estates	Preliminary	Rock Gap	15	24	1.6 acres	2006
Cacapon S. Sect. V	Final Plat	Timber Ridge	31	50	1.6 acres	2006
Fairview Oaks Sect. I	Final Plat	Bath	15	22	1.5 acres	2006
Horseshoe Run	Final Plat	Allen	43	125	2.9 acres	2005
Orleans Overlook	Final Plat	Cacapon	5	15	3 acres	2005
Parkside Section I	Final Plat	Rock Gap	14	16	1.1 acres	2005
Pious Spring Sect. I	Final Plat	Allen	5	17	3.4 acres	2004
Silo Acres	Final Plat	Allen	12	26	2.2 acres	2004
Stonewood	Final Plat	Allen	7	18	2.6 acres	2004
Totals			1,117	865	.77 acres	

Minor Subdivision Activity

Although major subdivision activity is increasing, it appears that much of the current and past development continues to occur on individual buildings lots within subdivisions of less than five total lots, which are commonly referred to as exemptions that often include several lots and a remainder. In order to better understand trends as it relates to this type of growth and the effect it will have on future development patterns in the County, it is important to utilize recent data due to the fact that unlike large subdivisions which may be affected by government policy, environmental constraints, or significant changes in land value, minor lot exemptions are not typically limited by such constraints, but collectively impact services, infrastructure, and available resources in a similar manner.

Table 1-5 Minor Lot Exemptions (Individual buildings lots of less than five total lots)

District	2000	2001	2002	2003	2004	2005	Total	Average
Sleepy Creek	1	0	16	5	0	18	40	7
Allen	24	18	10	33	6	41	132	22
Bath	5	2	12	13	16	13	61	10
Rock Gap	16	20	23	33	21	32	145	24
Timber Ridge	34	45	15	16	34	13	157	26
Central Valley Total	79	85	60	95	77	99	495	82
Cacapon	10	13	5	16	34	29	107	18
Total	90	98	81	116	111	146	642	107

Development Activity

It is apparent from the tables above that the concentration of newly approved growth is and will continue to occur in the southern area of the Central Valley Planning Region, especially in the Timber Ridge and Rock Gap districts. This region includes 1,112 of the total proposed 1,117 major subdivision lots, and has experienced an average of 82 minor lot exemptions per year since 2000. This region also includes an estimated 1,750 undeveloped residential parcels which may yield a significant amount of additional future growth. This does not include the nearly 200 farms, most of which are located in the south central area of this region and can be expected over time to continue to experience both marginal and major development patterns. For this reason it may be important for the County to identify these areas and establish programs to maintain the agricultural character of this part of the Central Valley region.

The second most impacted region for immediate future growth is in the Cacapon Planning Region. Located west of Timber Ridge. There is only one listed major subdivision containing 5 lots in the development pipeline, and approximately 18 minor lots per year on average over the past 6 years. However, the number of minor lot exemptions approved has continued to grow from 10 in 2000 to 29 in 2005. Further, this region includes many of the necessary resources that may adequately absorb future growth, with an estimated 1,615 undeveloped residential parcels. Given this amount of vacant available acreage, this region could also experience significant additional residential dwellings. However, unlike the Central Valley Planning Region, this area has a much smaller number of parcels classified as farms and due to its more rural character may expect to see a greater number of minor lot exemptions on larger lots over a longer period of time.

Although it appears that the much smaller Sleepy Creek Planning Region is least impacted at this time with no major subdivision proposals in the development pipeline and a sporadic annual average of 7 minor lot exemptions, pressures from the spreading growth in Berkeley and Jefferson counties immediately to the east, and the lack of adequate infrastructure and resources elsewhere in the County may change this direction at any point. However, this region being

much more limited in physical size has less than 600 undeveloped residential parcels remaining for additional growth. Under optimistic standards this may yield a limited amount of additional growth. Further, it has less than 20 farms, and appears from recent permit activity to be building out at a faster pace than the Cacapon Planning Region, which would determine that both land and resources may be “used up” sooner than either of the two larger planning regions to the west.

Population Projections

Population projections for the County are developed in order to ensure that public utilities and services are adequate to provide for the natural increase in development. Projections are affected by such factors as the economy, household size, public policy, and adequacy of services. They are developed based on historic growth trends, current development activity, and land available for future development. However, given the method in which each factor may be affected, it is important to develop at least three growth scenarios for the County to consider when planning for the financing and provision of services.

Low Growth Scenario

The low growth scenario takes into account the pace at which development has occurred over the past 20 years. Although much of this chapter has focused on presentation of information in census periods, the impact of growth since the 2000 census period has increased significantly, and must be accounted for. Therefore, for purposes of this scenario the historical growth period will be measured from 1985 to 2005. During the past 20 year period as outlined, the average annual increase was 306 persons or 120 additional units with an average household size of 2.55 persons per household. Using these historical figures to project growth for the next 20 years, this static scenario would result in a projected population of 23,352 in a total of 9,487 dwellings for the year 2025. This assumes there will be similar periodic constraints on new development that have occurred in the past, and a significant decline in recent growth trends.

High Growth Scenario

Like the low growth scenario, the high growth scenario will also utilize an average household size of 2.55 persons per household, but will continue the recent escalation in development activity rather than an average of the previous 20 years. The high growth scenario takes into account all land currently available for development, as well as optimal conditions that reflect continued growth pressures that have been experienced in the past several years. Therefore, for purposes of this scenario it is assumed that growth will continue to build out without limitations to infrastructure, services, economy, or changes in the regulatory process. Under this scenario the County would continue to approve 223 new residential units per year for major subdivisions, and that exemptions will continue to increase by 4 additional permits per year. This would result in a projected population of 37,890 in a total of 14,859 dwellings for the year 2025. This assumes that there will be a steady housing vacancy rate, an additional 3,140 minor lot exemptions and 4,460 major subdivision units, adding approximately 380 units per year and more than doubling the population and housing within the County.

Recommended Growth Scenario

The recommended growth scenario analyzes all land currently available for development and the projected ability for existing public services to adequately provide for that growth. It is much more difficult to project than the above two scenarios, as it must take into account potential changes in infrastructure, economy, services, and especially the regulatory process. This scenario recognizes that the current development pipeline will exceed the slow growth scenario, while at the same time acknowledges services and resources may need to be expanded or improved in a more timely manner in order to sustain the pace estimated under the high growth scenario.

Taking into account that although a significant amount of development has been placed in the development pipeline, the actual build out of such development between 2000 and 2005 has averaged approximately 222 new homes being constructed and occupied per year. In comparing this data with the estimated availability of services from other chapters, it is evident that the pace of both current and projected growth will be affected by improvements to these necessary services being an integral part of the overall development process and the finite capacity of natural resources. This includes such examples as:

Public Service Needs

- Schools- the overall school system having less than 600 available seats will need to be evaluated for efficient student distribution and timing of expansion to handle increased growth
- Roads- upgrades will be required to address major issues such as capacity limitations on US Rt. 522 and alignment deficiencies on WV Rt. 9 as well as minor local road needs
- Public Safety- entities experiencing increased call load on primarily volunteer services will need additional funding for personnel and capital equipment outlay

Environmental and Natural Resource Limitations

- Water- current restrictions and proposed changes in the regulatory process should both seek additional capacity and ensure that provision is from a governmental system
- Sewer- development will be affected by additional regulatory restrictions, the cost of extension of service, and the term of existing consent orders placed on various systems
- Sensitive Areas- consideration of development in areas where there are sensitive soils, steep slopes, floodplains and other significant features

Other Factors Affecting Development

- Market- market demand for housing has experienced a significant jump in housing prices, while there has been a noticeable decrease in average number of new units available
- Government Regulation- potential creation of comprehensive local zoning ordinances and expanded State and Federal environmental regulations

It is assumed that in order to maintain the recent pace of growth, such necessary services and regulations would be addressed as part of the development process. In addressing these current and projected limitations, it is also assumed that the 2005 peak of more than 300 permits will steadily decline as public will places increased pressure on the regulatory process to require growth and services be consistent in their collective approach.

Given this experience as reflected in the growth process of more developed counties to the east, it is a fair estimate to conclude that Morgan County may expect to experience a more balanced pace of an additional 566 people in 222 units per year through 2025. However, although Table 1-5 may reflect these increases in 5-year periods, it should be understood that the ebb and flow of such increases may depend largely on the ability for services and resources to adequately provide for the additional growth as well as market and regulatory effects. If this pace is achieved during the Plan period and average household size climbs slightly up to 2.55 from its current 2.4, it would result in a 2025 population of 29,577 in a total 11,599 dwelling units.

Table 1-5 Population Growth Scenarios

Scenario	2005	2010	2015	2020	2025
Low Growth	17,232	18,762	20,292	21,822	23,352
Recommended Growth	17,232	20,318	23,404	26,490	29,577
High Growth	17,232	22,397	27,562	32,727	37,890

Factors Affecting Growth

Public Services include all necessary and desirable services provided by the government that allow for a community to function appropriately. These services range from necessary services such as public safety to desirable amenities such as public libraries. It is important to link the goals of the public services section of this Plan with the potential changes in land use and ultimately the direction of growth in order to ensure that services are timely, adequate, development funded, and above all financially efficient to maintain.

Infrastructure includes both public and privately developed services that are necessary in order for development to occur. These services primarily include roads, water, and sewer. It is important to understand how the extension of infrastructure, or lack thereof, over time has allowed for growth to occur. This will allow for the public to make the most appropriate decision on whether growth will be better served by well and septic, private systems or public water and sewer, and determine how to best manage the design and maintenance of road systems to ensure efficient transportation networks and traffic flow.

Because environmental regulations are driven by ever changing State and Federal policy, this constraint is often the most overlooked and unpredictable factor affecting growth. In order to sustain some consistent direction for the County as it relates to growth and development, it is important for the County to develop policies that place it at the forefront of environmental policy rather than at the mercy of development that may leave behind costly measures for the County to later correct.

Possibly the most important factor affecting land use and growth is the socio-economic make up of the County. This can be observed at every point across the County from substandard housing to large vacation homes as well as declining industry and the rise of small seasonal retail tourism. In order to direct such change in a comprehensive manner, it is important to develop a

plan for the most beneficial use of finite public resources. To accomplish this effort, the County must develop and lead this direction through the necessary implementation of all available planning tools that serve to guide all growth in an appropriate and timely manner.

Land Use Planning Tools

Although there are currently no zoning regulations governing land use within Morgan County, there are numerous available planning tools that should be considered by the County during the plan period to guide future land use. Given the sensitive issues surrounding what land use policies can and cannot control, it is important that the public is invited to participate in this decision making process. The following land use tools may be important to consider in the effective growth management of the Comprehensive Plan.

- Countywide Zoning Ordinance as provided by State Code and based on the strategies outlined in the Comprehensive Plan, most notably the ability for resources to support various types of growth in designated areas.
- Subdivision and Land Development Regulations recently updated by Morgan County to ensure that techniques used for development of land will be consistent with measures to benefit the entire County
- Traditional Neighborhood Design development with concepts that recreate and promote the continuation of small town character in design elements of new subdivisions and redevelopment proposals.
- Planned Residential Development permits innovative, well planned development that creates open space, blends housing types, and includes a mixture of uses that promotes neighborhood activity.
- Overlay Districts may be considered as part of the development of a comprehensive zoning ordinance to allow for increased flexibility within classifications while preserving the underlying controls that ensure neighboring uses are compatible.
- Agricultural Land Preservation includes methods to establish permanent easements that protect prime agricultural land from development, while providing financial value to the farmer to continuing viable operations.
- Transfer of Development Rights preserves land for agricultural and other sensitive areas directing growth to preferred development areas where services and resources are available.
- Neighborhood Revitalization incentives work to identify blight areas and properties that detract from the overall health of a community so that targeted strategies can be established to address each area's need.

Goals & Objectives

Goals

The goal of land use planning in Morgan County is to provide a reasonable, flexible guide for an orderly and economically sound pattern of development consistent with the goals in this Comprehensive Plan, which include:

- Preserving the rural nature of the county while providing for compatible residential, commercial and industrial development;
- Protecting, encouraging and maintaining viable agricultural land use;
- Preserving the views, water resources, and other natural features that define the county; and
- Protecting and enhancing the cultural, historic and aesthetic aspects of life in Morgan County.

Objectives

These goals may be achieved by implementing objectives such as the following:

Procedural Objectives:

- Establish some measure of countywide comprehensive land use controls;
- As one aspect of establishing land use controls, evaluate the need for zoning regulations and associated enforcement mechanisms;
- Determine the issues and how the process for obtaining Planning Commission review and approval for development plans might be streamlined;
- Promote coordination of the work of government entities to identify and designate areas where public services, infrastructure expansion, and public utilities will be needed in the future; and
- Create clear, consistent definitions for land use designations and development standards.

Land Use Design:

- Consider incorporating into development regulations elements that would protect view sheds and other natural features;
- Expand programs that protect the viability of active agricultural land uses;
- Ensure that adjoining areas are compatible when mapping transitions from urban to rural areas; and
- Create policies that provide adequate buffers between conflicting land uses, and limit incompatible land uses around farmland, historic sites, and industrial extraction areas.

CHAPTER 2 – POPULATION AND HOUSING

Introduction

In order to positively affect the balance of growth that will occur in Morgan County, the Comprehensive Plan must determine the most appropriate direction in which to proceed to ensure that both existing and future populations are provided with adequate public services and housing. Using projections from the Land Use chapter and analyzing demographics and housing stock can most accurately make this determination. This analysis will provide a comprehensive direction in identifying projected housing needs, rehabilitation goals for existing housing stock, and adaptive reuse of underutilized structures. It will also serve to some degree in developing growth areas where housing will be encouraged to develop near existing population centers and public services.

Demographics

The most obvious demographic data are census figures that generalize changes in age, sex, and race. However, this data fails to provide an in-depth perspective of the socio-economic and cultural uniqueness of the community. For that reason it is also important to outline changes in income, education, and migration that provide a better picture of how the County is changing. To further understand these changes it would also be desirable to analyze how similar changes in neighboring counties and how migration from those counties might affect Morgan County.

Age, Sex, and Race

Although the best method by which to understand the demographic changes in a community over time is through the provision of the following tables, there are several points within each table that should be noted. First, the calculations for the 2005 figures are derived by simply using the 2000 figures and plotting a straight percentage calculation of the total number, which is then applied to the estimated 2005 population figure.

From the above process, it is clear to see that growth in the past 5 year period has increased significantly, without greatly changing the trend of demographic characteristics that have carried forward over the past several decades. This is evident in the fact that census percentages in each of the categories within the age, sex, and race tables have remained fairly consistent from 1970 to 2000.

Changes in the age characteristics include decreases to those under age 19 of nearly 13% of the total population make up, while population figures for age 20 and up have increased by 11%, thus continuing the trend of an ever-aging population between 1970 and 2000. Male to female changes from 1970 include a slight increase in the female population from 50.5% of the total to 50.8% in 2000. Racial makeup has also remained fairly constant with less than a tenth of a percent change from the 1980 estimate of 98.7% increasing to 98.8% classified as white in 2000.

Table 2-1 Population by Age

Age	1970	1980	1990	2000	2005
0-4	750	720	700	905	1,043
5-19	2,420	2,700	2,340	2,723	3,140
20-44	2,540	3,580	4,270	4,819	5,557
45-64	1,840	2,380	2,860	4,021	4,637
65+	1,000	1,440	2,040	2,475	2,854

Table 2-2 Population by Sex

Sex	1970	1980	1990	2000	2005
Male	4,231	5,259	5,890	7,337	8,461
Female	4,316	5,452	6,238	7,605	8,769

Table 2-3 Population by Race

Race	1970	1980	1990	2000	2005
White	N/A	10,583	11,985	14,689	16,939
Black	N/A	104	92	89	103
American Indian	N/A	8	25	26	30
Asian, Pacific	N/A	11	18	20	23
Other	N/A	5	8	34	39

Household Education, Income, and Size

In addition to basic age, sex and race statistics identified in census reports, education, income and household size provide a view of changing characteristics of households over time. These three factors play a larger role however in determining more of the socio-economic direction of the County.

The most notable point in educational achievement between 1970 and 2000 is the number of residents over 25 having some college experience, increasing from less than 6% to more than 43% during this period. Also, important was the decrease in number of people without high school diplomas representing a decline of approximately 66% in 1970 to less than 24% in 2000.

Although Table 2-5 is not converted into today's dollars, the increases in per capita and household incomes are an obvious reflection of improvements in socio-economic status such as education. Most notable are the recent increases from census 2000 to estimated 2005 figures. While per capita increases over past census periods averaged around \$5,000, the County has experienced more than \$10,000 in average increase over the past 5 years. Poverty levels, which declined between 1980 and 1990 and have gradually inclined since that period, still represent a decrease in total percent of population from more than 16% in 1970 to just over 10% in 2005.

While the household population has been steadily declining since 1970, it is important to note the current housing market for both seasonal and year round housing is steadily increasing in the

average size of structures being built. Further, although it appears the average age has been increasing during this same period, it is likely the strong inward migration of new residents purchasing these larger homes may gradually decrease the average age and increase population per household over the next 20 years.

Table 2-4 Household Education

Education Level	1970	1980	1990	2000	2005
No Diploma	3,315	3,010	2,934	2,564	N/A
High School Graduate	1,032	2,350	3,275	1,668	N/A
Some College	256	554	868	4,868	N/A
Associate Degree	N/A	N/A	274	291	N/A
Bachelors Degree	235	628	669	681	N/A
Graduate/Professional	N/A	N/A	316	506	N/A

Table 2-5 Household Income

Income Level	1970	1980	1990	2000	2005
Median Income	\$6,018	\$13,632	\$24,372	\$35,016	\$49,700
Per Capita Income	\$2,132	\$6,242	\$11,420	\$18,109	\$28,550
% Below Poverty	N/A	1,764	1,317	1,531	1,765

Table 2-6 Household Size

Year	Persons in Household	Households	Persons per Household
1970	8,507	2,780	3.06
1980	10,609	3,830	2.77
1990	11,969	4,731	2.53
2000	14,748	6,145	2.40
2005	17,181	7,159	2.40

Population

Morgan County, along with Jefferson and Berkeley Counties, is located within Region 9, the easternmost of eleven West Virginia State Planning and Development Regions. Population trends for Region 9 are in several respects unlike the trends and characteristics of the State as a whole. This is due in part to these three counties being wedged between three other states, including Maryland, Virginia, and Pennsylvania. As Morgan County, more so than Jefferson or Berkeley, serves as the gateway to the rest of the State, it is important to understand how it functions in the context of both Region 9 within the State as well the four state region it is also a part of.

Population Trends

Since 1950, all three counties within Region 9 have been exceeding the State's population growth trends. While the State's population declined from 1950-1970, Morgan County grew by 3%. Further, all three counties exceeded the State growth rate of 11.8% from 1970 to 1980, with Morgan County more than double at 25.3%. From 1980 to 2000 this increase and disparity continued, with the State again experiencing a loss in population and Morgan County growing by nearly 40%.

The bulk of Morgan County's population and growth has always and continues to be in the Central Valley Planning region, especially in the Berkeley Springs area. However, the growth rate, which was greatest in the Sleepy Creek region between 1970 and 1980, shifted to the Central Valley region between 1980 and 2000, and most recently toward the southern districts of Timber Ridge and Rock Gap. The proportion of the total county population made up by the population of the Cacapon region has been slowly but steadily increasing since 1980.

Table 2-7 Population Trends

<u>Area</u>	<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>	<u>Avg. % Growth</u>
Berkeley	36,356	46,775	59,253	75,905	109%
Jefferson	21,280	30,302	35,926	42,190	98%
Morgan	8,547	10,696	12,128	14,943	74%
Region 9	66,183	87,773	107,307	133,038	101%
West Virginia	1,744,237	1,949,644	1,793,477	1,808,344	4%

Historic Population Forecasts

It is interesting to note as part of this Comprehensive Plan the population forecasts made in the 1985 Comprehensive Plan, in order to better understand how well the County handled historic projected growth trends as compared to the projected increases over the next 20-year period.

Population projections from the 1985 Plan were developed by the West Virginia State Health Planning and Development Agency by assuming a natural rate of increase based on historic trends derived from comparison of average birth and death rates. It did not provide a more in depth analysis at that time due to the relatively small base and dominating migration factors.

Although extrapolating basic percentages from historic planning region counts may not have yielded accurate numbers for growth by planning region between 1980 and 2000, the over all County projections were fairly close. This includes the 1985 Plan projection of 12,991 people for 1990 compared to the actual census count of 12,210 for that same year. It appears this slightly over projection by the Plan continued into 2000 with the Plan projecting 15,276 total population, while the actual census figure was 14,943.

As outlined in Chapter 1 of this Plan, population projections for the next 20-year period cannot realistically depend on the historic models used here. This is due to increases from current

growth being well beyond the mere measure of birth and death rates, and depending much more heavily on inward migration from neighboring counties and beyond at a much faster pace.

Migration Trends

Population increases due to inward migration are difficult to estimate with accuracy. To do so, the analysis must take into account residential changes of those leaving and coming into the County. It also includes changes of births and deaths, which are based on national averages, and may not apply to Morgan County in a manner that would provide an accurate net migration figure.

There were two studies conducted covering the periods of 1960 to 1970 and 1970 to 1980. From the first study period of 1960 to 1970, estimates suggested that the County experienced a net migration of 446 people out of the County. Based on the analysis, most of the outward migration occurred in the age groups between 15 and 29 years of age. The second period of 1970-1980 showed a reversed trend with a net inward migration of 1,794 people.

A study developed by the West Virginia Health Statistics Center for the periods of 1980 to 1990 and 1990 to 2000 reflected a continued increase in the net inward migration trend. This included a net in inward migration of 1,334 people between 1980 and 1990, increasing the County's ranking from 3rd to 2nd overall for net inward migration of all counties in West Virginia. This trend further increased with the County moving to 1st overall, having a net inward migration of 2,783 people between 1990 and 2000.

Table 2-8 Regional County Comparison Census 2000

<u>County</u>	<u>Population</u>	<u>Housing Cost</u>	<u>Median Income</u>	<u>Median Age</u>
West Virginia				
Berkeley County	75,905	\$99,700	\$38,763	36
Hampshire County	20,203	\$78,300	\$31,666	38
Jefferson County	42,190	\$116,700	\$44,374	37
Mineral County	27,078	\$73,500	\$31,149	39
Morgan County	14,943	\$89,200	\$35,016	41
Virginia				
Clarke County	12,652	\$139,500	\$51,601	41
Frederick County	59,209	\$118,300	\$46,941	37
Maryland				
Alleghany County	74,930	\$71,100	\$30,821	39
Washington County	131,923	\$115,000	\$40,617	37
Pennsylvania				
Bedford County	49,984	\$80,200	\$32,731	40
Franklin County	129,313	\$97,800	\$40,476	38
Fulton County	14,261	\$83,900	\$34,882	38
Region Average	54,383	\$96,933	\$38,253	38

Housing

Morgan County has continued to experience two distinct effects from additional housing development. This includes a continued decrease in population per household and a continued increase in housing stock being built for recreational or second home purposes.

Housing Occupancy

Historic growth trends show that Morgan County experienced an increase of 1,462 housing units from 1970 to 1980. While total housing during this period increased more than 42%, total population grew by only 25%. This is due in part to an increase in recreational housing stock from 7.1% to 7.7% of the total available housing as well as an increase in number of households comprised of elderly and single persons, and a slight decrease in children per household.

From 1980 to 2000 these trends continued with declines in children per household and increases in the middle age and elderly population resulting in a year 2000 average of 2.43 persons per dwelling. At the same time significant increases in seasonal housing, especially during the 1980's, produced an estimated increase from 7.7% of total housing to 15%, much of it occurring in the Sleepy Creek region. As a total percentage of housing occupancy, there was a decrease in vacant units from 15.4% in 1980 to 11.2% in 2000, which may be even less given that some units listed as vacant during the census report could have been completing construction for sale and occupancy at the time. As noted in the 1985 Plan, at more than 700 units, this still represents a relatively substantial stock for potential rehabilitation.

Table 2-9 Occupancy Statistics

<u>Data</u>	<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>	<u>2005</u>
Owner Occupied	2,068	3,132	3,927	5,119	N/A
Mortgage Cost	N/A	\$378	\$619	\$747	N/A
Rental	700	684	804	1,026	N/A
Average rent	N/A	\$183	\$217	\$342	N/A
Married Households	N/A	2,690	3,107	3,780	N/A

Housing Stock

An important component of a successful community is a balance of housing stock. This provides housing opportunities for a financially diverse population, stabilizes equity within the tax base, promotes healthy urban and rural development patterns, and allows local government the ability to plan efficiently for the provision of services. As pointed out previously, housing stock within Morgan County has continued trends of declining persons per household, substantial vacant and seasonal housing, and dramatic increases in residential activity, especially in the last five-year period. For that reason, this section will use the estimated 2005 figures to provide some further insight on the balance of housing stock within the County.

Seasonal housing during the past five years has increased by more than 100 units, while at the same time has decreased slightly as a percentage of overall housing stock. This is due in part to both the increase in number of year-round housing units being built, as well as the decrease in overall seasonal units experienced from 1990 to 2000. Although the total seasonal units appear to be on the rise, given the number of projected year-round housing units in the development pipeline, this number may continue to slightly increase in overall units, but continue to decrease as a percentage of total housing stock.

The number of vacant housing units has nearly doubled since 1970. However, as a percentage of overall housing stock it has decreased from more than 12% in 1970 to less than 9% in 2005. As noted previously the significant increase from 2000 to 2005 may be associated with seasonal housing being counted as vacant, or housing within new subdivisions just placed on the market.

Year round housing continues to increase as both a percentage and overall part of the total housing stock. This includes conversions of seasonal housing, rehabilitation of vacant housing, and especially increases in new housing. While it appears there have been nearly 200 seasonal units converted and more than 100 vacant units rehabilitated since 1990, new housing over the past five years has increased in permit activity from less than 100 permits per year to nearly 300 permits in 2005.

While mobile and multi-family homes have increased significantly over time, much of the balance of recent permit activity has included single-family housing. During this period median housing value has risen from less than \$100,000 to nearly \$150,000, or a 50% increase over the past five years.

Table 2-10 Housing Type

Subject	1970	1980	1990	2000	2005
Total Housing	3,422	4,884	6,757	8,076	9,487
Year Round Housing	3,180	4,508	5,335	6,863	8,102
Seasonal Housing	242	376	1,422	1,213	1,385
Vacant Housing	413	694	604	718	843
Single Family	2,818	3,661	5,174	6,327	7,432
Multi Family	169	311	346	360	422
Mobile Home	260	537	1,237	1,360	1,646
Median Value	\$9,500	\$35,000	\$61,900	\$89,200	\$149,000

Housing Conditions

Since 1970, housing standards have dramatically improved for the overall housing stock within Morgan County. These standards are measured by such factors as age of structure, overcrowding, and presence of heating equipment and plumbing.

Although it is difficult to measure an exact number of substandard housing units given the overlap in criteria, generally, from 1970 to 1980 substandard housing decreased from approximately 23% of the total housing stock to less than 10%. Much of this housing exists in the Central Valley region, while a larger proportion is in the Sleepy Creek region. This can be directly correlated to the proportion of seasonal and vacant housing units within these respective regions of the County.

Between 1980 and 2000 this number continued to decrease as a percentage of the overall housing stock. This was due in part to the continued decline in persons per household, conversion of seasonal housing, rehabilitation of vacant structures and an overall increase in number of houses. This is evident by the decline in total number of units constructed prior to 1939 from 1,229 to 1,111. More significant however, is the total number of units constructed from 1970 to 2000 making up more than 50% of the available year-round housing stock.

As of 2000 less than 10% of the remaining housing units were considered substandard, with much of those units listed as lacking an adequate heating system. However, as the number of units lacking adequate plumbing has decreased significantly, it should also be reflected that a majority of the units listed as lacking an adequate heating system actually use a natural wood heating method, thus indicating that most of the substandard housing units are either adequately provided with heat, or that they lack both adequate plumbing and heating systems.

Table 2-11 Substandard Housing

<u>Subject</u>	<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>	<u>2005</u>
Without Plumbing	N/A	291	N/A	66	N/A
Constructed Pre-1939	N/A	1,229	1,229	1,111	N/A
Overcrowded	81	93	78	119	N/A
Lacking Heating System	N/A	1,027	N/A	1,133	N/A

Housing Needs

General housing needs should provide for a balance of housing types and opportunities for individuals of all income levels and family size. This balance is important in both recognizing the diversity of the community make up and the provision of sustaining and promoting a healthy housing stock for existing residents and those who would choose to move into the County. In establishing this balance, growth should be directed in a manner that makes efficient use of public services and infrastructure, and promotes the establishment of sustainable communities and neighborhoods through a mixture of housing types.

Much of the existing subsidized housing in Morgan County is located within the Towns of Bath and Paw Paw. However, the total units within this classification make up less than 1% of the total housing stock. These units are primarily within multi-family type housing, which serves mostly elderly and low-income families, and includes at times a waiting list of people seeking housing. To measure low-income status most Federal HUD Programs use a factor of 30-50% of median income. Using 50% of the median household income it appears that nearly 21% of families based on the 2000 Census would be considered low income. This factor is important to

consider as it relates to new development and redevelopment efforts for multi-family residential structures given that at least 90% of all new housing units built since 1990 were single-family detached dwellings.

With housing prices continuing to increase, the County should also identify the housing needs of the moderate-income population to ensure that all areas of the County include opportunities for those who typically work in the County to be able to afford to live in the County. This may include implementation of local, State, and Federal programs where assistance of such programs is most appropriate. Although there is no standard measure of moderate income households Federal HUD programs typically use 80% of median household income for 2 person and 90% for 3 person. Given that average household size for Morgan County is roughly 2.5 persons per household, a measure of 85% of median household income is used in this chapter to determine the number of moderate-income families. Not including the low-income households above, it appears that 20% of the total households could be defined as moderate income in 2000. This is important given that between 2000 and 2005 average housing costs have increased by more than 50%.

As new development continues to concentrate on construction of primarily single-family detached dwellings, the County may consider using this opportunity to promote the rehabilitation efforts of its vacant multi family structures as well as development of infill lots, where services are most conducive to the population seeking this type of housing lifestyle. This approach would focus on the urban areas where much of the County's existing underutilized structures are located, and given the age and proximity of such structures to existing services may be eligible to utilize comprehensive plans and funding strategies to accomplish larger redevelopment efforts.

Although new housing development has increased significantly in cost and capacity, it appears the most important impact on the County is location. As much of the new housing is projected for the lower Central Valley region where existing services are limited, the County should take appropriate steps to ensure that development occurs in such a manner that services and resources will be adequate to address. The geographic distribution of housing as noted in the Land Use chapter appears to reflect the continued trend of much of the new growth occurring in the Central Valley region. As more than 70% of all new growth has been in this region over the past several decades, more than 90% of the new growth potential is projected to occur in this region.

The total demand for mobile home placement as well as seasonal housing may not be completely accurate given that applications for mobile homes include both new as well as transferred units, and seasonal housing starts are listed as such on occasion by an applicant seeking more favorable tax treatment from the process. However, market demand has and continues to remain steady for mobile, seasonal, and single family housing, while demand for new multi-family and attached style development has remained relatively low.

The demand for mobile home construction comes from both an issue of affordability as well as a greater general acceptance of the higher quality type mobile home structures being introduced into the market. Also, while many homebuyers continue to seek larger homes on several acre lots, larger builders are introducing a new trend toward larger developments located near existing services with homes on smaller lots.

The demand for seasonal housing has changed over time, with a growing trend toward middle age and older couples seeking long weekend use and eventual retirement locations. However, there continues to be little interest in joint ownership or conversion of seasonal homes to timeshare investments. Since 1980, the number of applications for seasonal homes has remained relatively constant at nearly 70% out-of-state, primarily from Maryland and Virginia. However, in that same time costs for seasonal homes have increased from \$50,000 to more than \$200,000. This is due in part to the fact that many seasonal homes are being constructed much larger than the one and two bedroom styles in the 1980s.

Among the barriers to future housing development are the prospect of rising interest rates, saturation of the surrounding market, lack of adequate public services, and constraints on natural resources. Each factor will have a varying effect on the types of housing currently in demand and projected for development. This includes interest rates and the economy affecting seasonal housing, saturation of the market influencing large single-family subdivisions, and limitations on public services and resources limiting densities.

Housing Affordability

As land and housing costs continue to escalate in Morgan County it is important to consider the overall affordability of housing that is available. To address the issue of affordability there are a number of strategies that should be considered to improve the availability of this housing stock.

One strategy would be to incorporate smart growth techniques into the development process that would encourage affordability, especially in designated growth areas. This would decrease the cost to provide services, allow for adequate densities, provide for mixed-use developments and ensure compatibility with surrounding neighborhoods.

A second measure could be the development of inclusionary housing tools to target affordable housing to below market and moderate income households. This approach may include a minimum percent of each development being offered as affordable housing that encourages smart growth techniques and provides housing opportunities for changes demographics.

Other methods include working with the development community to establish innovative housing styles and expanding relationships with lending institutions to diversify funding mechanisms for home ownership financing.

Goals and Objectives

Goals

The makeup of Morgan County's population will continue to be driven by regional factors, i.e. housing affordability relative to the surrounding area, population mobility and transportation costs, economic conditions (especially the proportion of disposable income as this relates to vacation homes), and the aging of the population. Goals related to population and housing include:

- Maintaining a growth rate that is in concert with the availability of services;
- Promoting the creation of diverse housing types, with a healthy balance between permanent and recreational dwellings, for all income levels, with special attention to affordable housing for the local workforce and the elderly;
- Encouraging improvement of aging and neglected housing stock; and
- Maximizing open space and protecting environmentally sensitive areas.

Objectives

The following objectives will further accomplishment of these goals:

- Increasing the proportion of housing stock served by public water and sewer systems;
- Providing incentives to focus new development around existing population centers and available public resources;
- Encouraging diverse housing alternatives such as assisted living and apartments;
- Identifying the needs of the seasonal housing population and assessing the impact of this group on public facilities in relation to its contribution to the tax base;
- Developing programs to assist with purchase and rehabilitation of neglected or deteriorating housing stock;
- Providing incentives for innovative development methods that will help achieve County goals; and
- Exploring the need for a housing committee to monitor and make recommendations on the availability of housing;

CHAPTER 3 – TRANSPORTATION

Introduction

This Chapter serves to focus not only on the existing transportation system as it pertains to roads, but also the network of alternative means of travel, which include pedestrian, rail, air, water, and mass transit. Identifying all modes of transportation in a comprehensive manner allows for the local governing body to develop plans for improvements to this system that will provide for the efficient movement of people and goods throughout the County. This approach ensures that all governing bodies with jurisdiction over this network will work together for the benefit of this County in a regional context as well.

Roads

There are several governing jurisdictions within Morgan County that oversee the road system. This includes the State routes under the West Virginia Department of Transportation Division of Highways (DOH), the municipal roads within the towns of Paw Paw and Bath, and to a lesser degree the private road systems that are approved primarily as part of developments in the County. This order of ownership and maintenance is part of the reason for current limitations on the County's ability to improve the overall road network. Given the County's automobile dependent population, which has increased from 76% residents driving alone in 1990 to 78% in 2000, other factors influencing this process should also be identified in developing a plan to address these deficiencies.

First, the West Virginia Department of Transportation DOH owns and maintains most of the roads in Morgan County. This means that improvements must be programmed, funded and implemented at the State level through an established process. Second, there are no specific requirements within the County's regulations to assess and mitigate the traffic impacts of new development. Third, the County is wedged between several other counties that cross over four separate states with their own established transportation improvement process and funding priorities. Lastly, the County includes numerous historically significant sites and sensitive areas which create difficulties in constructing necessary improvements in a timely manner.

The West Virginia DOH uses a functional system which classifies each public roadway. In Morgan County two functional classifications are represented. This includes feeders, which serve communities and collect and feed traffic to the higher systems, and state-local service roads, which serve local traffic movement in and around the County. U.S. Rt. 522 and WV Rt. 9 are considered feeders, and all other roadways are classified as state-local service.

The functional classification system is as follows:

- Expressway- connects metropolitan areas and provide service to major interstate or interstate travel
- Trunk-line- is the intrastate network intended to serve smaller cities
- Feeder- serves smaller towns and industrial and recreational areas not served by the higher systems
- State-local Service- roads are localized arterial and spur roads which provide access and socio-economic benefits abutting properties and are further sub-classified as Essential Arterials, Collectors, and Land Access
- Occasional use- is the lowest classification of the local road, providing access to rural areas on a low-volume basis

Level of Service

Transportation studies conducted by the West Virginia Department of Highways consider the ability of roadways to provide adequate service for the existing volume of traffic in terms of Level of Service (LOS). Level of service is a comparison of traffic volume and the capacity of the roadway, which are measured in a range from “A” to “F” with “A” being the highest condition and “F” the worst. Level of Service “C” represents stable flow and is generally considered as the goal for service.

Table 3-1 Traffic Volume Level of Service

<u>Level</u>	<u>Description</u>
A	Zone of condition of free flow, with low volumes and high speeds.
B	Zone of stable flow, with operating speeds beginning to be restricted somewhat by traffic conditions. Drivers still have reasonable freedom to select their speed and lane of operation.
C	Zone of mostly stable flow, but speeds and maneuverability are more closely constricted by the higher volumes.
D	Zone that approaches unstable flow, with tolerable operating speeds, however driving speed is considerably affected by changes in operating conditions.
E	Zone that cannot be described by speed alone. Operating speeds are lower than in Level D, with volume at or near the capacity of the highway.
F	Zone in which the operating speeds are controlled by stop-and-go mechanisms, causing forced flow. The stoppages disrupt the traffic flow so that the volume carried by the roadway falls below its capacity; without the stoppages, the volume of traffic on the roadway would be higher, or in other words, it would reach capacity.

Major Roads

Historically, the highest traffic volumes in Morgan County have been experienced on U.S. Rt. 522, particularly in the Berkeley Springs area. Traffic volumes in this location have increased from approximately 6,900 vehicles per day in 1980 to 14,800 in 2000, with nearly 20% of the total volume being heavy through truck traffic. Other areas along this route that have seen significant development include the Timber Ridge District, which experienced 5,700 vehicles per day in 2000. In general, daily traffic along U.S. Rt. 522 has increased by more than 50% since 1980. This route has also seen a significant and continued increase in heavy truck traffic, which is used as an alternate route between I-81 at Winchester, Virginia and I-70 at Hancock, Maryland. Based on standard Level of Service (LOS) measurements for average daily traffic flow, US Rt. 522 operates at level E for its entire length through West Virginia.

The second most heavily traveled roadway in Morgan County is West Virginia Route 9. This route enters the County at Paw Paw, running north along the west side of Cacapon Mountain and crossing U.S. Rt. 522 in Berkeley Springs, then turning east toward Martinsburg in Berkeley County. Since 1980 traffic volume has increased from 1,500 vehicles per day at the Berkeley County line and 2,600 in Berkeley Springs to 4,000 and 4,800 respectively in 2000.

Traffic on WV Rt. 9 from Berkeley Springs to Great Cacapon ranged from 900 to 2,000 vehicles per day in 1980 to 1,800 to 4,200 in 2000, which represents a 100% increase. Unlike the relatively constant and in some cases decreasing average daily flow of traffic south of Great Cacapon near the Paw Paw area in 1980, traffic volumes in this area in 2005 averaged 2,400 vehicles per day. Depending on location, alignment and other factors, WV Rt. 9 operates at various LOS throughout the County, with the worst being a level E at its intersection with US Rt. 522 in Berkeley Springs.

Local Roads

Aside from the major road improvements to US Rt. 522 and WV Rt. 9, there are ten projects from previous studies outlined in the 1985 Comprehensive Plan that were identified for improvements by the State. Since that time four of the projects have been completed. The remaining projects have either been removed from the State priority list or folded into the major ongoing projects relating to the US Rt. 522 bypass and WV Rt. 9 alignment study.

Except for several minor routes that traverse the County, which are also maintained by WVDOT, all other roads outside of the municipal systems are private and/or part of the various subdivisions. However, simply because these types of roads within the transportation network are not owned and maintained by any governing entity does not mean that there are not needs for improvements to segments of these types of roads throughout the County.

The Town of Paw Paw includes several miles of local roads, which function primarily as local neighborhood roads connecting to WV Rt. 9. This State route runs east-west through Town, serving as Main Street before crossing the river on the west side of Town, into Maryland.

The Town of Bath, which is surrounded by the Berkeley Springs area, includes several miles of roads within the corporate limits. These roads are owned and maintained by the town government, and serve as local connections to US Rt. 522 running north south through the Town. This road, which serves as Main Street through Town is also used as the connection for WV Rt. 9 which enters the north end of Town from the west and heads east out of Town to the south.

Bridges

Due to the terrain, elevation, and number of waterways, bridges play a key role in improvements and expansions to the road network in Morgan County. An assessment of bridge sufficiency ratings was completed in 1984 as part of the overall traffic volume studies, to determine how increased traffic would impact these crossings. From that evaluation six bridges were identified as needing improvements in order to be sufficient in handling projected traffic demand and maintaining a safe passable structure. Since that time only one of the listed bridges has been upgraded. None of the currently listed State transportation improvement projects includes the remaining five bridges identified in the study as needing to be upgraded.

Table 3-2 WVDOT Highway Improvement Program

<u>Route</u>	<u>Location</u>	<u>Improvement</u>	<u>Cost</u>	<u>Year</u>
CO-002	Fairview Drive	Cont Paving	134,000	2006
CO-522/13	Wilkes Street	Improvement	293,000	2006
US-522	Berkeley Springs-VA RD	Resurfacing	600,000	2007
US-522	Berkeley Springs-VA RD	Resurfacing	300,000	2006
WV-009	Fishers Ford Bridge	Reconstruction	2.8 million	2006
WV-009	Paw Paw-Great Cacapon RD	Cont Paving	285,000	2007
WV-009	Cacapon-Berkeley Springs	Resurfacing	500,000	2010
WV-009	Berkeley Springs-Hedgesville	Cont Paving	120,000	2009
WV-009	Berkeley Springs-Hedgesville	Cont Paving	200,000	2008
WV-009	Great Cacapon-Berkeley Springs	Other	1.24 million	2008
US 522	Hancock Bridge	Clean & Paint	2.1 Million	N/A
CO-8/18	Packing House Br.	New Bridge	125,000	N/A
CO-10	Householder Rd.	Box Culvert	125,000	N/A
Total			8.822 million	

Other Road System Deficiencies

In addition to the major roads and bridges, which receive much of the State government's attention, there are a number of secondary roads and minor bridges in the County that need to be addressed. With the continued growth in the County and surrounding area, these roads are becoming increasingly congested while bridges are receiving a greater number of passes. To address this issue in a proactive manner, the County must increase the level of communication with the State. This includes regular review of traffic volume and its relationship to new development as well as an exchange of information on deficiencies in alignment, capacities and structural integrity of roads and bridges.

To ensure that the road system standards are consistent with pressure from additional growth, the County should consider development of a County-wide Master Transportation Plan to develop joint solutions with the State. This Plan could be coupled with projects already identified by the State for improvement that have not received approval to be included in the State transportation improvement plan. This would provide the County the opportunity to assist in prioritization of such projects as listed in Tables 3-3 and 3-4 based on projected growth, emergency services, and other factors important to consider.

Table 3-3 Other Road System Deficiencies

Route	Location	Improvement	Projected Cost
Total			

Table 3-4 Other Bridge Deficiencies

Route	Location	Improvement	Projected Cost
CO-1	Sleepy Creek Arch	New Bridge	\$2.5 Million
CO-1/3	Burnt Mill Br.	New Bridge	\$3.0 Million
CO-7	Rock Ford Br.	New Bridge	\$2.5 Million
CO-8 @ MP 4.93	Oakland Br.	New Bridge	\$300,000
CO-8 @ MP 7.10	Lonesome Arch	New Bridge	\$300,000
CO-8 @ MP 8.16	Old Oak Arch	New Bridge	\$250,000
CO-8 @ MP 8.44	VA Line Road	Box Culvert	\$125,000
CO-8 @ MP 14.90	Duckwall Br.	New Bridge	\$2.5 Million
CO-8 @ MP 16.74	Yellow Springs Run	Widen	\$100,000
CO-8/1	New Hope Br.	New Bridge	\$2.0 Million
CO-8/13	Lineweaver Rd.	Box Culvert	\$125,000
WV-009	Largent Br.	New Bridge	\$4.5 Million
CO-9/28	Critton Hollow Rd.	New Bridge	\$150,000
CO-13@ MP 8.89	North Stotlers X-Rds.	New Bridge	\$2.5 Million
CO-13 @ MP 9.32	Paul Myers Br.	New Bridge	\$1.5 Million
CO-13 @ MP 10.66	Pallet Factory Br.	New Bridge	\$2.0 Million
CO-13/1	Smith X-Rds. Br.	New Bridge	\$1.5 Million
CO-13/2	Water View Rd.	Box Culvert	\$125,000
CO-18/2	Doe Gully Br.	New Structure	\$75,000
CO-26	Johnsons Mill Br.	New Bridge	\$2.0 Million
CO-28	Ward Dawson Br.	New Bridge	\$300,000
Total			\$28,350,000

Major Improvements

Unlike the more routine projects listed above, there are two major projects that have been long planned to improve the major transportation network within the County. This includes the US Rt. 522 Bypass and relocation and upgrade of parts of WV Rt. 9. Both projects require millions of dollars in funding, have included numerous comprehensive studies for impacts and alignments, and have received increased attention due to both increased growth within the region and effects of increased traffic volume and decreased safety along both routes.

US Rt. 522

US Rt. 522 has been included in numerous studies, the most recent of which are the 2001 North South Appalachia Feasibility Study and the 2000 US Rt. 522 Upgrade from the Virginia to the Maryland state lines. The Feasibility Study focused on the economic benefits of upgrades to several major routes connecting the eastern panhandle of West Virginia with Virginia, Maryland, and Pennsylvania. Although it did not find that US Rt. 522 upgrades would serve the same level of economic benefits as some of the comparative routes within the report, it did provide some key traffic volume and safety information confirming the need for improvements to US Rt.522 through West Virginia to address both increased through traffic and growing unsafe traffic conditions.

The US Rt. 522 Upgrade around Berkeley Springs includes several reports in the ongoing State and Federal review of developing a bypass to address both increased through traffic and unsafe traffic conditions. This includes reports that deal with traffic volume, accident data, environmental assessments, and economic impacts. All of these reports are required in the evaluation and recommendation of improvements to this corridor by the West Virginia Division of Highways. The goal of this assessment is to develop a plan that will improve the corridor through Morgan County from the Maryland to the Virginia line.

The purpose and need as outlined in the report are to improve the unacceptable levels of service, especially in the Berkeley Springs area, as traffic volume is expected to double over the next 20 years. It is also to decrease the level of traffic incidents, as the reports show that in 1999 accidents in the Berkeley Springs area were nearly double the State rate for similar road systems. Indirect benefits for more rural sections of the road include improvements to unsafe access points, site distance, turn lanes, shoulder widths and pedestrian travel.

During the evaluation and review process there were four alternatives studied with Alternative One being the chosen option. This alternative is divided into two sections, north and south, for future improvements, and an Environmental Impact Study has been completed for the entire corridor. As development continues to occur within the County, it is important to consider the expectations of this ongoing State project with the various elements of growth that will have an impact on this improved transportation network both before and after the improvements are complete.

WV Rt. 9

WV Rt. 9 has been included in more recent studies, the latest of which is the Corridor Selection Report drafted by the WV Division of Highways in 1998. This report was the culmination of nearly four years of evaluation and public review during the period between 1992 and 1996. From this report was developed a State project to identify the most appropriate corridor in which to relocate and improve parts of WV Rt. 9 from Berkeley Springs in Morgan County to Martinsburg at I-81 in Berkeley County. The report further separated out the Martinsburg area for more immediate improvements around the I-81 interchange.

From the review and evaluation conclusions, the WVDOH selected Corridor IIBc, which is further defined in the report as one of numerous routes considered. This corridor was chosen for best meeting the transportation services, public improvements, and environmental objectives outlined in the report. In meeting transportation services it was determined that this route, which would remain south of Hedgesville would receive both WV Rt. 9 and Rt. 7 traffic flows. This corridor satisfies the preferences of the majority of public surveyed. It also compares most favorably in avoiding the displacement of environmentally and culturally significant locations.

As the report is part of an ongoing State project, there were no costs included in the evaluation. However, it is clear that cost as it is related to the primary factors outlined will play a role in the ultimate development costs of the project. As it relates to the long term planning efforts of this Comprehensive Plan it is important to ensure that implementation of the elements of this plan take this necessary improvement into account as growth will continue to impede upon this selected route.

Regional Transportation Authorities

There are several specific authorities that carry regional system-wide multimodal transportation planning for the Eastern Panhandle. These authorities provide a direct link to State and Federal funding programs that link Morgan County to larger transportation projects requiring joint cooperation.

Hagerstown Eastern Panhandle- Metropolitan Planning Organization (HEP-MPO)

In addition to the projects identified in the State Highway Improvement Program there is a larger regional plan that addresses the long-term needs of the entire Eastern Panhandle and neighboring counties. The HEP-MPO is a long-range multi-modal plan that identifies regional issues of the entire transportation network. This Plan, which includes Morgan County, identifies road projects that impact the County as part of the Eastern Panhandle, such as improvements to WV Rt. 9. The Organization regularly reviews and updates the needs of this Plan which is shared by West Virginia, Maryland, and Pennsylvania, and identifies projects in an effort to receive federal funds to improvements to areas based on population projections and employment opportunities.

According to the plan's projections it is anticipated that population growth will create demand for highway capacity that outpaces the planned system of improvements, resulting in a deteriorating system performance. If enhancements to the roadway system are limited to projects currently underway and those programmed, it is likely that WV Rt. 9 will experience unacceptable levels of service by the year 2030. This project is included in the long-range Plan, but not in the current funding scenarios.

Region 9 Eastern Panhandle Regional Planning and Development Council

This council is the official group that represents the Eastern Panhandle counties through the HEP-MPO process. It is the coordinating body linking the MPO with the West Virginia Department of Transportation.

West Virginia Eastern Panhandle Transportation Authority (WVEPTA)

The WVEPTA is a newly created authority that acts in an advisory capacity to promote mobility, economic development and tourism investment in the Eastern Panhandle. It supports the activities of the HEP-MPO and the Region 9 Council. It was created by an act of the West Virginia Legislature in 2004 to coordinate transportation-planning decisions among the Eastern Panhandle counties. The newly created authority is expected to promote and advance highway construction projects in conjunction with the counties and municipalities as well as advocate for economic development and tourism investment. A specific focus of the authority is to organize local input on improvements proposed for WV Rt. 9 and other highways that serve the area.

Eastern Panhandle Transit Authority (PanTran)

This is a non-profit public transit provider for all three counties within the Eastern Panhandle. It operates 51 fixed-route bus services Monday through Saturday. At the present time the service is not extended into Morgan County.

Scenic Byways

There are several scenic byways that are located within or traverse Morgan County. These include trails and tours that follow roads, waterways and walking routes, many of which are centered on The Washington Heritage Trail and historic Berkeley Springs area.

The Washington Heritage Trail was developed in 1998, and includes a self-guided tour of the many locations throughout Morgan County, which are associated with the rich historical link it shares with George Washington. The tour covers at least 15 points of interest within the County, from the Town of Paw Paw to a small park in the Sleepy Creek region. The tour is defined as "following his footsteps on the Washington Heritage Trail National Scenic Byway takes you on a tour of the county's most historic locations" associated with George Washington, who "from the time he was sixteen through the reading of his will in 1799, ate, slept, owned land, and bathed in and around Berkeley Springs". The tour follows closely along WV Rt. 9, and includes some locations along the southern portion of US Rt. 522.

Also associated with the George Washington Heritage Trail are both a self-guided boating and driving tour of the Cacapon River. The boating tour extends from the small hamlet of Largent, located off of WV Rt. 9, east of Paw Paw, and ends at Great Cacapon, where the Cacapon joins the Potomac River. This tour passes many natural and man-made features including historic bridges and unique rock outcrops. The self-guided driving tour follows much the same route, traveling in either direction along WV Rt. 9, which hugs and crosses the river for its entirety through the County. Both tours are administered by the Friends of Cacapon River, which is a local nonprofit group that works to preserve, protect, and promote the Cacapon River watershed.

One other scenic Byway that is in the early stages of development is the Grand Highlands Scenic Byway and Trail System. This byway would be the first to traverse the entirety of the State extending from the eastern panhandle to the southwest tip, and encompassing numerous highways, which traverse countless towns, parks, waterways, and tourist destinations. This proposed byway would run through Berkeley Springs, providing access to numerous existing scenic systems.

Berkeley Springs includes two pedestrian scenic byways for those who choose to walk to see the sites of this historic area. These walking tours include; the Treasure Tour of Berkeley Springs State Park, which features 16 points of interest centered around the nearly five acre park that houses the original Berkeley springs, and the Walking Tour of Berkeley Springs, which includes the sites and structures of 28 local historic landmarks, most within several blocks of downtown Bath.

Hiking and Biking Trails

The Western MD Rail Trail is a continuing joint effort between County, State, and Federal government agencies to convert the length of the abandoned railroad along the Potomac and C&O Canal into a hiker/biker trail for recreational use. Parts of the proposed trail in Washington and Alleghany counties have been converted by the National Park Service, while efforts further west, along the Morgan and Alleghany sections, especially near Paw Paw, have yet to be completed. This includes 6 areas where the trail crosses several bridges and includes 3 tunnels where the trail would cross into and out of Morgan County. The possibilities in completing this trail would support the economic and recreational goals of the County simply by opening up an opportunity for the public to enjoy some of the most natural and scenic views in the Appalachian region.

The Cacapon State Park Trails include nine different trail systems making up more than 20 miles of hiking and riding access that spread throughout the 6,000 acre park. These trails are primarily used by the many visitors to the park, enjoying a stay at camping cottages, the Lodge or Old Inn, or simply visiting the many other attractions such as beach swimming, boating or fishing. The trail also follows a road that climbs nearly 1,400 feet to the Cacapon Mountain summit.

The Tuscarora Trail extends south from Pennsylvania through West Virginia and into Virginia and is used for hiking purposes. It cuts through the eastern part of Morgan County following a north south route, exiting into the Sleepy Creek Wildlife Management Area. It is considered a side trail to the Appalachian Trail.

Although not considered a greenway trail system in the sense of connectivity of specific destinations, the Sleepy Creek Wildlife Management Area, which is the largest single recreational tract of land owned by the State, includes nearly 35 miles of trails for both pedestrian and vehicular access primarily for hunting activities. Vehicular access is limited to fall and winter seasonal activities, and ATV use is prohibited.

One other smaller greenway trail system is located on the private 1,800 acre property known as Coolfont. This system includes seven trails of varying length and use by both hikers and bridle riding covering a total of 18 miles within a connected circuitous route within the private resort.

Given the length and location of existing trail systems located throughout Morgan County there is an excellent opportunity to integrate biking and pedestrian paths with new development and the County's stream system to create a regional trail network. This "greenway" network would provide an alternative means of travel connectivity among the County's towns and village centers as well as its historically significant and recreational sites.

This process would require strong public and private partnerships as many of the corridors are adjacent to private properties, are maintained by park services and civic organizations, or located in remote areas where safe accessibility would need to be established. However with careful planning and community involvement this network could increase neighborhood interaction, and attractiveness to draw visitors to the area.

Railroads

The main line of the Baltimore and Ohio Railroad parallels the entire length of Morgan County's boundary with Maryland and the Potomac River. This is part of the category A mainline owned by CSX, which crosses the northern portion of West Virginia from Parkersburg to Harpers Ferry. The segment within Morgan County has two or more parallel tracks.

The B & O line segment is listed in the State Rail Plan (West Virginia Railroad Maintenance Authority) as an active freight carrier of coal and other commodities. Traffic density is listed as carrying in the millions for gross ton per miles in both the eastward and westward directions. These are among the largest listed for any rail line in the region. A major rail siding location north of Berkeley Springs serves the US Silica Glass Corporation. The B & O line also carries the Amtrak Capital Limited, which provides daily passenger service from Cumberland, Maryland to Washington D.C. A train station is located at Hancock, but is no longer used. The closest passenger train service for Morgan County residents is located in Martinsburg, West Virginia.

Concern over the capability of the nation's railroads to transport essential Department of Defense supplies and equipment during both peacetime and wartime led to the identification of a national strategic rail corridor network (STRACNET). Based on extensive analysis of defense peacetime rail carload traffic, clearance requirements and contingency plans, several rail corridors are determined strategically important to national defense. The B & O line that passes through Morgan County is one of three STRACNET corridors that cross the State of West Virginia. The significance of STRACNET designation to Morgan County is that the B & O line is likely to remain an active rail line well into the future.

The Western Maryland Railroad also parallels the Potomac River on the Maryland side, with crossings into Morgan County at three locations. The segment from a point 8 miles west of Hancock, Maryland to Cumberland including stretches in Morgan County has been abandoned and the right-of-way purchased by the National Park Service for the development of a pedestrian friendly hiker/biker trail. There is a short spur of the Western Maryland Railroad that connects the B & O system at Cherry Run to Hagerstown, Maryland and points east.

Air Facilities

The only airport in Morgan County is Potomac Airpark, which is owned and operated by the US Silica Glass Sand Corporation and made available to the public for various purposes. Commercially approved by the Federal Aviation Administration, the Airpark includes a 5,000' paved airstrip located just east of the bridge to Hancock, Maryland. The Airpark is currently available for emergency medical and rescue operations.

Within the region, commercial airports are located at Cumberland, Hagerstown, and Martinsburg. National airports are located further east and north in the Baltimore and Pittsburgh metropolitan areas.

Public Transportation

Morgan County is currently not served by public transportation. However, with the increase in commuter traffic to the metro areas east, the Tri-State Rail Effort Committee, through a grant from the Appalachian Regional Commission, explored expansion of the MARC train system in 1997.

Findings from the report, released in 2000, showed support from CSX to extend the MARC commuter service from its closest existing station in Martinsburg West Virginia to Hancock, West Virginia. A plan for extension included both a Service and Station Concept plan, with estimated capital costs. A market analysis was developed to project how operating impacts would be offset by ridership potential.

The study found that extension of the MARC commuter rail service from Martinsburg to Hancock would be economically feasible with the support of CSX. Improvements would include a weatherized passenger platform, lighted parking facilities, security fencing, and a new switching spur. Given the location of the station in close proximity to adjoining states, it was

concluded that funding might be achieved through federal programs and participation by other states.

Since that study was completed in 2000, additional review of the logistics has returned less positive results. This includes factors which make the prospect much less feasible given the increased capital and operational costs of adding stations and manpower, ongoing difficulties and passenger delay from sharing of lines with the freight carriers, and more pointedly the actual costs per passenger projected to be well beyond initial expectations. Such difficulties have led a majority of the support for this expansion to conclude that it is not probable to proceed at this time.

Two public transportation services in the region include; the Eastern Panhandle Transit Authority, which provides bus service within Berkeley and Jefferson counties but discontinued service to Berkeley Springs in the 1990's due to lack of riders, and also the Amtrak Capitol Limited, which provides daily passenger rail service between Cumberland and Washington D.C. Overall this market continues to lose ridership, declining from nearly 1% in 1990 to less than one half percent in 2000. At the same time commute times for those driving to work continue to increase from over 10% in 1990 to nearly 20% commuting over 60 minutes in 2000.

Goals and Objectives

Goals

Transportation issues, too, are heavily influenced by regional conditions as well as the area's desirability as a tourist destination. Goals must address and try to reconcile the coexistence of through and local vehicular traffic while accommodating pedestrian and other non-motorized or recreational movement. Goals that will tend to improve transportation in Morgan County and address the major issues about which the community has expressed concern include:

- Relieving congestion on major thoroughfares such as WV Rt. 9 and US Rt. 522 and improving local roads so they become a more efficient intra-county network;
- Enhancing the quality and safety of local roads by ensuring that initial local road and related infrastructure construction meets standards, and supporting state efforts to identify and repair deficiencies in existing local roads and bridges;
- Expanding transportation options by promoting public transportation, alternate forms of transportation, public transit-oriented communities, and pedestrian-friendly walking and biking trails;
- Promoting tourist-friendly travel; and
- Facilitating commuter travel.

Objectives

Objectives that will facilitate the achievement of these goals include:

- Developing, evaluating and coordinating with the state priorities for road improvements, particularly those that will help relieve traffic on WV Rt. 9 and US Rt. 522 and provide alternate intra-county routes;
- Establishing a transportation capital improvement program;
- Preparing a county-wide transportation plan that considers all modes of transportation and is coordinated with the Hagerstown Eastern Panhandle-Metropolitan Planning Organization Plan;
- Assessing the need for traffic calming devices in heavy pedestrian areas;
- Developing a plan for a county-wide walking and cycling trail system;
- Exploring the designation of additional main streets and historic byways for inclusion in state and federal funding programs and linking the Eastern Panhandle with the rest of the state;
- Exploring creative and interactive ways to get tourists to and from local attractions;
- Developing sign regulations to keep the locations and features of signs appropriate to their setting;
- To reduce reliance on cars and accommodate the needs of a growing commuter population, assessing the need and developing the concept for a public transportation system, including as components of this system expanded rail service to metropolitan areas and 'park and ride' lots; and
- Cooperate with the West Virginia Transportation Authority.

CHAPTER 4 – PUBLIC UTILITIES AND INFRASTRUCTURE

Introduction

Infrastructure is typically limited to those services found in an urban setting made available under finite conditions. These services include water, sewer, solid waste, electricity, communications, and other related utilities. Most of these services are regulated by the Public Service Commission for rates to the customer and by State Environmental Authorities for capacity limitations and expansion. This arrangement governs the regulated cost to the consumer as well as the physical impacts expansion of such services may have on the community and environment.

This chapter provides an overview of the historic methods of provision and regulation of these services, as well as the current trends experienced by each. It also outlines existing and projected deficiencies in order to establish goals for both corrective measures and adequate realistic projections to ensure that services are extended appropriately for the foreseeable future.

Water

A public water system is defined by the West Virginia Department of Health as any water system or supply which regularly supplies or offers to supply, piped water to the public for human consumption, if serving at least an average of 25 individuals per day for at least 60 days per year, or which has at least 15 service connections. In Morgan County, there are three distinct methods by which water is provided. They include: public systems owned and operated by a government entity, community systems typically owned by an association of users and maintained by private contract, and private wells that are owned and operated to serve a limited number of customers or larger single user.

Public Water Systems

The largest public water system in Morgan County is the Berkeley Springs Water Department (BSWD), located on the corner of Wilkes and Fairfax streets in the Town of Bath. This system, which draws its supply from mineral springs located at the base of Warm Springs Ridge on park property owned by the State Department of Natural Resources, serves more than 20% of the County's residents, including the Town of Bath and surrounding greater Berkeley Springs area.

The Town leases from the State the right to take water from the springs in Bath Square to a maximum amount of 750 gallons per minute. The State rated allocation for this system is one million gallons per day. It is operated by six full time employees and has experienced a significant increase in usage over the past five years from 606,000 gallons per day (gpd) in 2001 to 785,000 gpd in 2005. Due to increased usage the department has identified both operating and capital needs, which include additional staff and replacement of segments of the aged pipes to

begin in 2006. However, these changes do not solve the greater need of this system which is to identify and develop a second source of water to meet the increased demand for hook-ups.

The Town acquired the system from the Mountain State Water Company in 1963. Since that time major improvements were made in 1980 to address storage, treatment, and pumping needs. This included the addition of a 500,000 gallon storage tank and treatment system which was required due to a determination by the West Virginia State Department of Health and Human Resources that the springs are “under the influence of surface water”.

Extension and improvements to the system to serve new development must be approved by the Bath Town Council, with the cost of such extensions borne by the developer. There are no written policies and procedures for new extensions which are subject to a predefined service area determined by the PSD. Growth on the system has increased from 190,000 gpd in 1980 to 785,000 gpd in 2005.

Second largest of the public water systems, the Paw Paw Municipal Water Works was reconstructed in 1981 at which time the Potomac River replaced a series of wells as the source of raw water. This water plant provides chlorination and sedimentation treatment.

The Paw Paw water system serves 524 residents, located within the Town limits. In addition, there are numerous commercial and industrial accounts. Daily metered water usage has averaged nearly 70,000 gpd over the past five years, slightly decreasing over time. This system, which is owned by the Town of Paw Paw, is operated under supervision of the Water Board and receives water through an appropriation from the Potomac River. As there is limited growth currently within this area, there are no immediate plans for expansion of personnel or facilities.

Community Water Systems

Due to a growing number of larger subdivisions and industrial business parks being located along the major transportation routes throughout the County, there has been a continued increase in this type of system within the County. These systems are much like public systems in serving more than 15 connections or 25 people. However, unlike public systems they are owned by the association of users rather than a government entity and are maintained through user fees and contracted services.

Community systems as they exist across the State have experienced some difficulty with long-term maintenance and operation. This has led to increased scrutiny of the continued proliferation of these systems, most recently by the State Legislature under Senate Bill 760.

Individual Wells

There are a total of 19 individual wells that serve less than 15 connections, located throughout the County, that meet the State classification of a water system. Most of these wells serve mobile parks, recreational facilities, or commercial and industrial centers. Given that many of these systems are developed and approved where extension to additional users is limited, or the

infrastructure is antiquated, there is little room for expansion to provide for additional growth on these systems in the areas in which they are located.

Table 4-1 Water Systems (million gpd)

Name	Type	Source	Pop Served	Yield	In Use	Available
Apple Orchard Acres	Community	2 wells	60	0.0570	0.0062	0.0508
Autumn Acres	Community	1 well	75	0.0400	0.0050	0.0350
Autumn Acres	Community	1 well	116	0.0350	0.0070	0.0280
Berkeley Springs Water Dept	Public	Springs	2,440	0.4688	0.7000	-0.2312
Bob's Big Beef	Private	1 well	0	0.0461	0.0002	0.0459
Bowlerama	Private	1 well	0	0.0288	0.0004	0.0284
Cacapon Bed and Breakfast	Private	1 well	0	N/A	N/A	N/A
Cacapon State Park	Private	3 wells	100	0.1380	0.0210	0.1170
Coolfont Mtn. Assoc.	Community	2 wells	0	0.0547	0.0170	0.0377
Coolfont Recreation	Private	2 wells	0	0.0734	0.0000	0.0734
Country Road Restaurant	Private	1 well	0	0.0022	N/A	N/A
Great Cacapon Elementary	Private	1 well	23	0.0259	0.0002	0.0257
Greenwood Elementary	Private	1 well	66	0.0432	0.0012	0.0420
Kat & Rosie Bar	Private	1 well	0	0.0864	N/A	N/A
Morgan Industrial Park	Private	1 well	0	0.0864	0.0000	0.0864
Morgan Village MHP	Community	2 wells	94	0.1771	0.0083	0.1688
Panorama Steak	Private	2 wells	0	0.0202	0.0004	0.0198
Paw Paw Water Works	Public	Potomac	524	0.0605	0.0380	0.0225
Pine Valley School	Private	1 well	0	0.0288	0.0000	0.0288
Pleasant View Elementary	Private	1 well	151	0.0864	0.0011	0.0853
Skyline Village MHP	Community	2 wells	120	0.0187	0.0071	0.0116
The Glens	Private	1 well	0	0.0288	N/A	N/A
Tom Seely	Private	1 well	160	0.0075	0.0008	0.0067
Tri-Lake Campground	Community	2 wells	178	0.1296	0.0085	0.1211
VFW Post	Private	1 well	0	0.0259	N/A	N/A
Waugh's MHP	Community	2 wells	144	0.0864	0.0110	0.0754
Wheel House Restaurant	Private	N/A	0	N/A	N/A	N/A
Total		33 wells	4,251	1.8558	0.8334	0.8791

Morgan County Water Resource Study

The Morgan County Water Resource Study being developed along the same time frame as the Comprehensive Plan update by the Eastern Panhandle Conservation District will be used to recommend the most cost effective means of meeting future water demand through 2030. The study focuses on the priority population areas that would be served by public water sources.

The report, which was in draft form during this Plan update, breaks the County into three priority areas where development potential has increased, and includes approximately 8,000 people. Several assumptions made in the report are based on 75% of the low and high growth scenarios as outlined in Chapter 1 of this report, and that 75% of new growth would occur in the priority areas, with 50% of the ultimate priority area population being served by public water. The report provides further analysis of commercial and industrial water needs as well as water system loss that create an average daily demand of 1.86 million gpd and peak daily demands of more than 2.7 million gpd by 2030.

After identifying projected water demand, the Study evaluated four possible scenarios including impoundment, river intakes, groundwater and purchasing water from a nearby utility with the primary objective of recommending a course of action from one or more of these scenarios to meet future demand.

The study considered four possible alternatives to meet future demand with costs ranging from an estimated nearly 29 million to more than 31 million dollars, with groundwater resources for all three areas scoring the highest of the four scenarios being considered.

The Study also provides for evaluation of meeting future demand through development of groundwater supply. This would allow for independent systems to be located in each of the three identified priority areas. From this approach there were three necessary stages outlined to achieve implementation of this recommendation with the ultimate goal of utilizing six wells within various high yield aquifers. These stages would require identification, testing, and engineering of well resources.

Sewer

A public sewer system is defined by the West Virginia State Department of Health as any sewage collection system with or without treatment facilities with a daily design flow exceeding one thousand (1,000) gallons per day with sub-surface discharge or exceeding six hundred (600) gallons per day with surface discharge serving one or more dwellings or establishments and owned and maintained by one entity. In Morgan County three types of systems fall under this definition. They include: public systems owned and operated by a government entity, community systems typically owned by an association of users and maintained by private contract, and individual systems typically serving a large commercial establishment. A fourth type of sewage treatment system is one which serves only one lot and can include such common methods as a typical septic or, due to unique circumstances of a property, may utilize alternative methods such as sand mounds.

Public Sewer Systems

The largest public sewer system in Morgan County is the Warm Springs Public Service District (PSD). The District is governed by the Warm Springs Public Service District Board, which includes a three-member board appointed by the County Commissioners, covering many areas of the County, excluding the Town of Paw Paw.

The Warm Springs system in Berkeley Springs, serves more than 1,100 customers with an average annual flow of more than 680,000 gallons per day (gpd) between 2001 and 2005. However, this plant which opened in 1980 and received minor upgrades in 1989, 1990, 1994, and 2002, has for those same 5 years exceeded its State rated capacity of 400,000 gpd. It has continued during this time to discharge more than its rated capacity into the Warm Springs Run, and is currently under a State mandated moratorium on new connections except for single-family dwellings. This moratorium is expected to be relieved with the completion of the ongoing project

to upgrade this facility to 1.7 million gpd. This will include further extension and improvements to inflow and infiltration in the system, and allow for approximately 1,000 additional customers.

A smaller sewer system that is also owned and operated by the Warm Springs PSD, is the Great Cacapon Waste Water Treatment Plant, located on Stinebaugh Lane, in Great Cacapon. This system opened in 1999, and serves approximately 145 customers within the unincorporated area of Great Cacapon. The Plant is rated for 60,000 gpd, but receives an annual average flow of 10,500 gpd. There are no current plans for expansion of this system, which has an available capacity of 45,000 gpd, or approximately 180 additional customers.

The Paw Paw Sewer System serves 524 residents located within the Town limits. In addition, there are numerous nonresidential accounts. Average daily flow over the past five years has increased from 29,000 gpd in 2001 to 37,500 gpd, with a spike in 2003 to more than 73,000 gpd and a five year average of nearly 42,000 gpd, slightly decreasing over time. This system, which is owned by the Town of Paw Paw opened in 1964 with upgrades to its lagoon in 1988, line extensions in 2000, and pump station upgrades in 2002. Two employees operate both plants. As there is limited growth currently within this area, there are no immediate plans for expansion of personnel or facilities.

Community Sewer Systems

With the proliferation of larger subdivisions throughout the County, and development of business parks along the major transportation routes, there has been a continued increase in this relatively new type of system. These systems are much like public systems in serving more than one dwelling and/or establishment. However, unlike public systems they are owned by an association of users rather than a government entity and have experienced some difficulty with long-term maintenance and operation. This has led to increased scrutiny of the continued development of these systems, most recently by the State Legislature under Senate Bill 760.

Individual Systems

There are a total of 4 individual septic systems that meet the State classification of a sewer system. Most of these systems serve recreational facilities or commercial and industrial centers. Given that many of these systems are developed and approved where extension to additional users is limited, or the infrastructure is antiquated, there is little room for expansion to provide for additional growth on these systems in the areas in which they are located.

Septic & Alternative Methods

The most common form of sewage service for the more rural areas within the County is by means of individual septic systems. Although the County does allow for alternative methods in certain circumstances, these types of systems have become more obsolete with regulatory measures, technological advances, and decrease in development in sensitive areas.

Table 4-2 Sewer Systems (million gpd)

Name	Type	Discharge Source	Capacity	In Use	Available
Cacapon East	Community	Indian Run	0.0100	0.0000	0.0100
Cacapon South	Community	Indian Run	0.0380	0.0043	0.0337
Cacapon State Park	Public	Indian Run	0.0500	0.0127	0.0373
Camp Harmison	Private	Sleepy Creek	0.0055	N/A	N/A
Coolfont Recreation	Private	Sir Johns Run	0.0560	0.0400	0.0160
Coolfont Mt. Assoc.	Community	Sir Johns Run	0.0195	0.0098	0.0097
Morgan Village MHP	Community	Cherry Run	0.0350	0.0079	0.0271
Paw Paw SS	Public	Potomac River	0.2000	0.0592	0.1408
Ridge View Inc	Community	Dry Run	0.0270	0.0010	0.0260
Skyline Village. MHP	Community	Dry Run	0.0110	0.0061	0.0049
Tri-Lake Campground	Community	Sleepy Creek	0.0300	0.0000	0.0300
Valley Dale Subdivision	Community	Sleepy Creek	0.0100	0.0045	0.0055
Valley View Nurse Home	Private	Sleepy Creek	0.0350	0.0136	0.0214
Warm Springs PSD	Public	Warm Springs Run	0.4000	0.6000	-0.2000
Waugh's Com Home Park	Community	Sleepy Creek	0.0147	0.0061	0.0086
Wayside LLC	Private	Sleepy Creek	0.0050	0.0014	0.0036
522 Industrial Park	Community	Sleepy Creek	0.0250	0.0000	0.0250
Total			0.9717	0.7666	0.1996

Water and Sewer Plan Limitations

Septic Systems

In considering parameters for planning water and sewer facilities, it is informative to review pertinent physical features within the County. These key features, as outlined in Chapter 6, are slope and soils. As slope increases, care must be taken in land development to prevent soil erosion and improperly installed systems. Twenty-five percent slope is the generally accepted limit for structural development and is the regulatory limit in West Virginia for the installation of septic systems. Approximately 21% of Morgan County falls within a slope range of 15 to 25%. An additional 30% of land is between 8 and 15% slope. Only 5% of the County can be considered relatively flat at a slope of less than 8%. This means that nearly 45% of land within the County is greater than the 25% allowable limit under State law.

In addition to slope, soil suitability should be considered when evaluating sites for development. The soil material between depths of 18 inches and 6 feet is evaluated for septic drain field use by means of a Soil Survey. The soils properties considered are those that affect the absorption of effluent and construction and operation of the system. Properties that affect absorption are permeability, depth to water table, and susceptibility to flooding. Slope is a property that affects difficulty of layout and construction and also the risk of soil erosion, lateral seepage, and down-slope flow of effluent.

Limitations of the use of a particular soil for septic system use are expressed as slight, moderate, and severe. A rating of severe indicates the soil has serious limitations that are difficult, though not impossible to overcome. A review of available data for soils present in Morgan County indicates a severe limitation on the use of septic systems for all but less than 1% of the County's land area. When compared to available slope data, nearly the entire County is severely limited

for septic systems. However each site is determined on a case-by-case basis by the Morgan County Health Department based on State review standards.

The number of housing units utilizing septic systems or cesspools has increased from 2,974 in 1980 to more than 4,000 in 2000. This represents a change from nearly 66% of year round housing in 1980 to nearly 70% in 2000. More significant, the number of units utilizing outhouses or listed as having no sewage disposal systems decreased from 410 units in 1980 to less than 100 in 2000. This represents a decrease in percentage of the overall housing stock for such units from nearly 10% in 1980 to less than 1% in 2000.

The lack of adequate sewage disposal systems is typically brought to the attention of the Morgan County Health Department through citizen complaints. The number of complaints received regarding structures with no disposal system has decreased from 30% in the early 1980's to % in 2000. The most frequent complaints of such failures, have occurred along US Rt. 522 south of Berkeley Springs. This is due in part to high water tables and poor percolation in these areas, or aging systems, all of which may be resolved through extension of service to these areas.

Surface Water Quality

Surface water quality in the West Virginia portion of the Potomac River Basin is generally good. Water quality parameters evaluated include dissolved oxygen, pH temperature, metals, and conductivity.

There have been occasional violations for fecal coliform bacteria which is indicative of either human or animal waste entering the streams from failing septic or agricultural activity. Also, the Potomac River is subject to inadequately treated and occasional raw sewage discharge from various public systems both north and south of the County. This includes plants within the County such as the Warm Springs Public Service District WWTP in Berkeley Springs which is currently under a consent order from the State DEP to correct recurring discharge violations due to high wet weather flows.

Water quality of the Cacapon River is considered excellent as reflected by available chemical data collected on a regular basis. Like many of the streams in the Eastern Panhandle that are unaffected by mine drainage, the Cacapon has an excellent pH value and has tested well for acidity, hardness, oxygen levels, and alkalinity. There have been few instances of fecal coliform standard violations, as well as few instances of metal readings exceeding State standards.

The Sleepy Creek watershed is also a major contributor to the Potomac River Basin. Sleepy Creek's source lies near the Hampshire County, West Virginia border at Good, north of Virginia State Highway 127 in Frederick County, Virginia. From Frederick County, Sleepy Creek flows north through Morgan County and drains into the Potomac at Sleepy Creek on the old B & O Railroad mainline. It includes a wide drainage area made up of numerous tributaries including; Bear Garden Run, Hands Run, Breakneck Run, Indian Run, Rock Gap Run, Middle Fork Sleepy Creek, South Fork Sleepy Creek, Mountain Run, Yellow Spring Run, and Meadow Branch.

The potential exists in Morgan County for water quality problems due to sediment and nutrients loadings, which occur after heavy rains in areas of agricultural and construction activities. Sediment often includes organic and inorganic pollutants from fertilizers, pesticides, animal waste, and construction materials. Chemical pollutants may be toxic to fish, and may be retained in fish, which have eaten contaminated organisms. Over a period of time, sediment fills watercourses, covering bottom dwelling organisms and contributing to increased flooding potential. By increasing turbidity, or cloudiness of water, sediment and nutrients reduce light available for growth of aquatic plants and animals. For these reasons, it offers the potential to significantly reduce the health, scenic and recreational value of Morgan County streams.

Storm Water Management

The West Virginia Department of Environmental Protection's Storm Water Permit Team is responsible for administrative and technical review of applications and storm water pollution prevention plans submitted for coverage under storm water general regulations. There are three General Storm Water Permits.

- The Storm Water Construction permit covers all earth-disturbing construction activities that are one acre or greater.
- The Multi-Sector Storm Water permit covers storm water effluent from certain industrial activities.
- The Municipal Separate Storm Sewer Systems permit covers storm water discharges from certain municipalities and other public entities.

Groundwater

Precipitation is the chief source of water in Morgan County. Although precipitation is intermittent, water is continually moving from storage in the underground rock structure to streams and from streams back into the ground. In general, groundwater movement parallels the land surface, moving from ridges to the valleys, where it discharges to springs and streams.

Water is found in practically all rock formations of the Potomac River Basin, of which Morgan County is a part. However, the quantity of water largely depends on the kind, size, and degree of interconnection of the openings in the rock. The largest groundwater supplies are available from areas underlain by sandstone and limestone bedrock, which contain fractures and solutional cavities through which groundwater can move easily. The least water is available from shale, which contains very few openings of this type. Shale is more plastic than sandstone or limestone and at greater depths the weight of overlaying rock squeezes openings shut.

There are two strips of land along either side of Cacapon Mountain where groundwater availability can be reflected in well yields from 100 to 200 gallons per minute. The remaining areas of the County report lower well yields of 0 to 70 gallons per minute due to geologic structure.

The most frequent groundwater quality problem in Morgan County is high mineral content. Groundwater beneath the ridges has a lower concentration of dissolved minerals than beneath valleys because the ridges are mainly recharge areas and the valleys are mainly discharge areas. A well on a ridge draws relatively pure groundwater near the beginning of its flow path. A well in a valley draws comparatively impure groundwater, which is near the end of its flow path, has been exposed to bedrock longer, and has picked up dissolved minerals along the way. Based on available data, the ridges along the west side of Cacapon Mountain have produced higher quality water than the Sleepy Creek Valley to the east. Further, areas east of the Cacapon ridge have experienced excessive iron content and hardness due primarily to the slow movement of water through areas underlain by shale.

There is a greater potential for groundwater contamination in limestone areas because of the presence of solutional cavities and sinkholes through which contaminated water can enter without being filtered through the soil mantle. This type of pollution is more frequently found in the Great Valley of which Berkeley and Jefferson counties form a part. Although such regions are not the only areas susceptible to contamination, the sparsely populated areas underlain by shale and sandstone in Morgan County have not produced any major problems.

Maintaining high quality groundwater is important to Morgan County as the number of residents who rely on groundwater for drinking and domestic use has doubled from nearly 7,500 in 1980 to more than 14,000 in 2000. It is also important for industry and particularly for those enterprises which rely on pure spring water such as the water bottling companies in Berkeley Springs, the Ridge State Fish Hatchery, and the baths of Berkeley Springs State Park.

Chesapeake Bay Initiative

With a land-to-water ratio higher than any estuary in the world the shallow 4,000 square-mile Chesapeake Bay is a delicate natural system especially vulnerable to development and pollution. How the land in the watershed is treated and cared for profoundly affects the Bay's overall health.

The Chesapeake Bay is the largest of the 130 estuaries in the United States. It receives about half of its water volume from the Atlantic Ocean, with the Susquehanna River providing approximately 50 percent of its freshwater. The Chesapeake Bay watershed spans parts of six states (Delaware, Maryland, New York, Pennsylvania, Virginia, and West Virginia) and the District of Columbia. There are about 150 major rivers and streams in the Chesapeake drainage basin, and the basin is home to roughly 16 million people most of which are clustered around the Bay and its tidal rivers. Over the next 30 years, the basin's population is expected to increase by 3.7 million people, or nearly 25 percent.

The Bay supports more than 3,600 species of plants, fish and animals, including 348 species of finfish, 173 species of shellfish, and over 2,700 plant species. In addition, the region is home to 29 species of waterfowl and is a major resting ground along the Atlantic Migratory Bird Flyway. Every year, one million waterfowl winter in the Bay watershed.

Current Restoration Plan

Restoration of the Chesapeake Bay involves a very strong sense of cooperation, with a dominant state role. Goals are set in voluntary agreements between the states through a series of directives and statements which serve as executive orders adopted by each State. Since 1910 there have been more than 100 actions or initiatives that have led to the establishment of a large-scale restoration program in the Chesapeake Bay watershed.

The Chesapeake 2000 Agreement provided goals and objectives for Chesapeake restoration through 2010 and is the current restoration vehicle for the ecosystem. The Agreement outlined over 80 specific objectives to be achieved to restore and protect the Bay's living resources, habitats, and water quality. Commitments focus on the topics of Living Resource Protection and Restoration; Vital Habitat Protection and Restoration; Water Quality Protection and Restoration; Sound Land Use; and Stewardship and Community Engagement. The agreement outlines these initiatives through several primary goals based on the following principles of implementation:

- Restore, enhance and protect the finfish, shellfish and other living resources, their habitats and ecological relationships to sustain all fisheries and provide for a balanced ecosystem.
- Preserve, protect and restore those habitats and natural areas that are vital to the survival and diversity of the living resources of the Bay and its rivers.
- Achieve and maintain the water quality necessary to support the aquatic living resources of the Bay and its tributaries and to protect human health.
- Develop, promote and achieve sound land use practices which protect and restore watershed resources and water quality, maintain reduced pollutant loadings for the Bay and its tributaries,
- Promote individual stewardship and assist individuals, community-based organizations, businesses, local governments and schools to undertake initiatives to achieve the goals and commitments of this agreement.

West Virginia's Role in the Chesapeake Bay

West Virginia's portion of the Chesapeake Bay watershed is the land that drains into the Potomac River and its tributaries and a small area that drains into the James River. Fourteen percent (14%) of West Virginia drains into the Potomac River and on to the Chesapeake Bay. The Chesapeake Bay drainage area in West Virginia includes Berkeley, Grant, Hampshire, Hardy, Jefferson, Mineral, Morgan, Pendleton, and small portions of Preston and Tucker counties. The headwaters of the James River is in Monroe County.

To better protect and restore local water quality in the Shenandoah and Potomac Rivers and the Chesapeake Bay, on June 18, 2002, West Virginia officially committed as a "headwater partner" in the Chesapeake Bay Program. This Memorandum of Understanding created a seven state partnership, and reaffirmed West Virginia's obligation to voluntarily maintain and protect the Potomac River watershed.

Since becoming a "headwaters partner," West Virginia has been an active participant in numerous Chesapeake Bay committees, subcommittees, and workgroups. These groups established water quality objectives for all seven jurisdictions involved in the Chesapeake Bay Program. West Virginia spent one year developing its tributary strategy and anticipates achievement of these objectives by 2010.

The addition of Nitrite, TKN, Total Suspended Solids, Suspended Sediment Concentration and occasional sand/fine splits allows West Virginia to comply with sampling protocols set forth by the Non Tidal Water Quality Workgroup. The new parameters, as well as the existing nutrient analysis, will be applied to samples collected from drains to the North Branch of the Potomac River, the mouth of the South Branch, the Potomac River main stem and its direct tributaries. These samples will be collected monthly through at least 2010.

Like all of the Bay States, West Virginia has been actively involved in pollution reduction programs for over twenty years. Bay program partners agreed to develop and carry out cooperative and voluntary Tributary Strategies to reduce the flow of nutrients and sediment loads to the Potomac River, and ultimately to the Chesapeake Bay. The goal is to improve water quality by 2010 without placing undue hardships on community resources. Throughout West Virginia, communities are voluntarily improving wastewater treatment, upgrading storm water control systems and developing controlled growth plans.

The policies, goals and objectives of this Comprehensive Plan have been developed to meet this effort at the local level given the County's primary drainage pattern flows into the Potomac River, and ultimately the Chesapeake Bay.

Solid Waste

Solid waste services are provided to the residents and businesses of Morgan County through a variety of means. Although the County no longer provides a local landfill, it does have two solid waste haulers and a growing recycling program.

Morgan County Solid Waste Authority

The Morgan County Solid Waste Authority, established by State Legislation in 1988, completed a comprehensive Solid Waste and Litter Control Plan in 2003. This Plan outlined the adequacy of the provision of solid waste disposal services to the County, the separation of source solid waste and its impact on the LCS Waste Services Landfill in Berkeley County, the clean up of open dump sites and litter along roadways, and evaluation of the ongoing recycling program and

its expansion needs. The Plan also provides goals and objectives, prioritization of monitoring of existing services, and development of funding strategies to carry out the plan.

A second study completed by the Morgan County Solid Waste Authority is the Commercial Solid Waste Facility Siting Plan Amendment. This Plan, through criteria established for review of possible acceptable locations for development of a new landfill within the County, determined that there is no present site within the County suitable for location of a land fill, and further that the current use of the LCS Landfill in Berkeley County was sufficient to serve the future projected needs of Morgan County through the Plan period.

A concern identified by the Solid Waste Authority Plans and the 1985 Comprehensive Plan was the proliferation of illegal dump sites. To address this issue the Authority partnered with the West Virginia Department of Environmental Protection and achieved clean up of more than 35 locations to date, reclaiming 49 acres of land and removing 749 tons of waste.

Landfill

Morgan County currently does not have a landfill located within its boundaries. Instead, both haulers and citizens transfer the waste to the landfill located in Berkeley County.

The landfill previously used in Morgan County is located on Milo School Road in Cacapon district. It discontinued operations in 1993 due to changing regulatory issues and State standards that the facility could not practically meet. There was adequate land still available at the time of closure to provide service to the County for the foreseeable future. Since that time, ownership of the “used” portion of the land was transferred to the Morgan County Solid Waste Authority for use as a recycling transfer station, while the County retained the vacant remainder.

Hauling Service

Morgan County is served by two trash haulers both of which haul trash out of the County to the LCS landfill in Berkeley County. The Town of Bath provides trash pick-up within the municipal limits of the town and Morgan Sanitation serves all other areas within the County. Both services are headquartered in the Town of Bath. Unlike the municipal service provided by Bath, Morgan Sanitation is a privately owned company. Morgan Sanitation, being the larger provider, serves more than 3,700 accounts of which more than 100 are nonresidential. The Town of Bath serves nearly 500 accounts, with more than 100 being nonresidential. Based on the Solid Waste Authority report in 2003, the LCS landfill receives waste from US Silica and other haulers which accounts for nearly 20% of waste received from Morgan County under separate direct service contracts.

Table 4-3 Trash Hauling

Year	Population	Morgan San.	Bath	US Silica	Others	Total	Tons/Person
2000	14,943	N/A	652	N/A	N/A	8,512	0.57
2001	15,401	N/A	713	N/A	N/A	8,652	0.56
2002	15,858	6,065	733	10	2,388	9,196	0.58
2003	16,315	6,427	790	22	2,136	9,375	0.57
2004	16,772	6,667	809	29	2,389	9,894	0.59
2005	17,232	6,356	838	71	2,538	9,803	0.57

Recycling

Over the past decade Morgan County has developed a successful recycling program. This program, which was initiated in 1994, is operated under the Morgan County Solid Waste Authority, located on Washington Street in Berkeley Springs. It continues to offer recycling sites and additional permanent containers for cardboard at schools and businesses. The Authority consists of one paid recycle coordinator, five volunteer directors, and nine volunteer assistants.

There are seven self-serve residential recycle drop-off sites for paper, cardboard, glass, metal, plastic and white goods. As the number of sites has increased to serve the increasing population, the program has increased its recycled tonnage from approximately 24 in 1995 to 1,180 in 2004. The highest total in one year occurred in 2003 when 1,245 tons were recycled.

The Authority is considering the addition of a permanent recycle center located near the Town of Bath to be opened four to five days per week, accepting items that are currently accepted at its drop off sites. This plan for expansion of service is expected to occur within the next five years.

In addition to the recycling program, there are two commercial providers of tire recycling within the County, following State legislation regarding this material passed in 2000, and the inception of voluntary programs of these business entities, illegal disposal of tires has greatly diminished in Morgan County as well as elsewhere statewide. This program is further supported through the efforts of the State Roads department which periodically takes tires for recycling as well.

Table 4-4 Recycling Materials (thousand pounds)

Year	Paper	Cardboard	Steel	Aluminum	Glass	White Goods	Plastic	Comm. Service	Total
1995	33.3	N/A	2.3	1.1	8.7	1.5	N/A	N/A	47.1
2000	403	595.6	16.0	2.6	52.4	32.4	3	985	1,106.3
2005	673.3	335.3	18.8	2.3	82.5	0	6	0	1,118.4

West Virginia Solid Waste Management Board

Morgan County is included in Watershed E of the West Virginia Solid Waste Management Plan for 2005. Under this Plan, it is projected that the County's population will increase by more than 17% between 2005 and 2025 for a total projected 20,265 residents. From these projections, the

Plan estimates that the total monthly municipal tonnage for waste will increase from the current 947 tons per month to 1,126 tons per month.

There are several significant factors that do not appear to be included for consideration in the report, such as the efforts of the County to reduce waste through recycling efforts. It also does not address the issue of the LCS landfill in Berkeley County requiring a change in classification once it exceeds 10,000 tons per month, which from the current loads is projected to occur within the Plan period. However, possibly the most important factor in the Plan is its low population projection of only 17% growth. This projection fails to reach even the lowest growth projection outlined in the Growth Scenarios section of Chapter 1 of this Comprehensive Plan, and falls more than 9,000 residents short of the recommended growth scenario for the same period.

Miscellaneous Utilities

Morgan County is served by Allegheny Power.

Morgan County residents receive phone service through the Verizon network.

Natural gas is provided to certain areas of the County by Blueflame, Inc. and Thompson Gas.

Goals and Objectives

Goals

The County's goals concerning infrastructure are aimed at protecting critical water supplies, managing waste and matching growth to the resources available in the County by:

- Evolving reasonable approaches to ensure that patterns of future residential and commercial development are congruent with water and sewer capacity;
- Encouraging the placement of high density development in areas served by central water and sewer systems;
- Recognizing and protecting sensitive groundwater recharge areas and encouraging water conservation;
- Encouraging recycling and discouraging illegal waste disposal; and
- Promoting stable, state-of-the-art communication and other technology infrastructure to provide efficient communication links for citizens and government and make the county an attractive business location.

Objectives

The following objectives will serve to advance these goals.

- Evaluating on an ongoing basis, e.g. via a master plan, the quantity and quality of available water resources and sewer capacity;

- Encouraging expansion of public sewer systems into areas where the condition is not well suited to septic systems;
- Considering the impact of and limitations on commercial sales of water and the conditions under which this might be done;
- Promoting the development of a water and sewer master plan that would include (but not be limited to) components addressing inflow and infiltration flow (I&I) to maximize the efficiency of projected water and sewer capacities, the reservation of corridors for future water and sewer infrastructure, and the merits of merging existing public water and sewer districts;
- Supporting state initiatives to limit homeowners' associations (HOA) ownership and maintenance of community water and sewer facilities;
- Providing impetus for improved management of on-lot wastewater systems.
- Evaluating long term needs for a landfill;
- Supporting the Morgan County Solid Waste Authority Plan, and the Berkeley county plan that directs solid waste disposal in the landfill in that county; Evaluating and promoting methods to reduce littering, including optimum placement of litter receptacles in public areas and an 'adopt a highway' program;
- Investigating ways to increase recycling of solid waste; and
- Supporting development of high speed Internet access throughout the county.

CHAPTER 5 – PUBLIC SERVICES

Introduction

Planning for future growth in Morgan County must take into account the provision of public services. Because all future land use proposals will create a need for expanded public services, the County must evaluate how those services are currently provided in order to ensure adequate provision will be made as growth occurs. If such services are found to be currently inadequate, then the most appropriate first step is to develop solutions to address existing deficiencies.

Due to the absence of zoning designations, it is especially desirable to integrate this chapter into future land use decisions. Without the ability to determine with some certainty the future density and types of proposed land uses, it is important to have an intimate understanding of available public services to determine how each proposal may affect them. These services, which are separate from those outlined in the preceding chapter on infrastructure, typically include general tax funded operations such as schools, police, fire & rescue, libraries, medical, historic & cultural, and local government.

Educational Facilities

Educational opportunities are provided for both youth and adult residents of Morgan County by facilities located within the County and surrounding region. This includes head start programs for toddlers, K-12 public system, vocational institutions, and numerous small colleges and universities.

Morgan County Public Schools

As with most jurisdictions, possibly the largest publicly funded service is the Morgan County Schools system. School systems are required to develop and adopt a Master Plan. For Morgan County, a Plan was developed and adopted in 1998 and is referred to as the Comprehensive Educational Facilities Plan (CEFP). Information from this Master Plan, which covers school projections from 2000 to 2010, will be used in this Comprehensive Plan for the purpose of providing historic and current statistical data, as well as developing from that data and the growth projections located in this Plan goals to address the effect future development will have on the public school system.

It is stated in the CEFP that the primary purpose of this plan is to “establish a planned, organized, systematic approach to providing educational facilities which will support the Morgan County School System in the delivery of the best possible education to its students within the parameter of available resources.” The plan provides an outline of the schools as they existed in 1998, methods to address deficiencies, student population projections, and methods to manage increased enrollment over time.

As growth has escalated significantly in the period after the Plan was completed, the projections used for the period between 2000 and 2010, were exceeded as of 2001. While the CEFPP estimated a total population under age 19 at 3,160 by 2010, the actual population under age 19 for 2000 was more than 3,600. Further, the estimated 2000 population over 65 is less than the CEFPP projected. This would conclude that the projections for school enrollment expected the County to grow at a slower pace, include less school aged people, and be more aged than the current trends would indicate.

The Morgan County Public School system is made up of 8 public schools, which include a total State rated capacity of 3,126 students. Enrollment for the system has increased from the CEFPP 1998 study year of 2,328 students to a 2005 enrollment of 2,584. This includes an increase from 1,084 kindergarten and elementary students to 1,273, a decrease in middle school population from 649 to 572, and increases in high school enrollment from 595 to 739. Based on the 2005 enrollment figures and the State rated capacities of 3,156 seats, there are an estimated 568 available seats within the system, most of which are located in the two high schools of Paw Paw and Berkeley Springs.

Although the middle school appears to show a slight decline in total enrollment since the CEFPP, this number has been steadily increasing from a low of 513 in 2001, due in part to the significant increases of more than 200 additional elementary students in that same period. The high schools have remained static over the past five years showing a net decline of 2 students, with highs peaking in the 2003 and 2004 school years. As the wave of elementary students continues to increase, both middle and high school figures will also be affected.

Table 5-1 Public Schools

School	District	2005 Enrollment	Capacity	%	Seats Available
Morgan Co. Child Dev. Ctr.*	Cacapon	86	N/A	N/A	N/A
Greenwood Elementary	Timber Ridge	55	70	79%	15
Paw Paw Elementary	Cacapon	120	170	71%	50
Pleasant View Elementary	Sleepy Creek	145	147	101%	-2
Widmyer Elementary	Bath	517	525	98%	8
Warm Springs Intermediate	Bath	436	500	87%	64
Warm Springs Middle	Bath	572	672	85%	100
Berkeley Springs High	Bath	645	802	75%	157
Paw Paw High	Cacapon	94	270	35%	176
Total	9 schools	2,584	3,156	82%	568

* Note: Child Development Center is not included in total figures.

The Morgan County Board of Education Office opened in 1956, and is currently located on Harrison Avenue, in Berkeley Springs which was previously operated as North Berkeley Elementary School. Since its original start it added 2 rooms in 1975, and an annex in 1983. Total staffing is currently at 27 full time personnel, and there are no immediate plans for any further expansion.

The Morgan County Child Development Center is located in what used to be the Great Cacapon Elementary School. This program was created in 1975 as a head start for children before entering kindergarten. Its primary service area is the Berkeley Springs attendance zone, and included a 2004 enrollment of 86 children. There are 57 professional staff and 15 service staff who operate the program. There are no plans for expansion of the facilities or operational needs as the overall growth in the program has experienced a minor increase from 79 children in 2001 to 86 in 2004.

Greenwood Elementary School located in the Timber Ridge district opened in 1956, and is located on Winchester Grade Road. It was expanded in 1975, adding both office space and additional classrooms. The State rated capacity is 70, with the school experiencing a decline from 64 students in 2001 to 55 in 2005. However, due to increased growth in this area, the school system is planning to renovate and expand the existing building which is now operated by 8 professional and 4 service staff.

Paw Paw Elementary School is a split school that feeds directly into Paw Paw High School, and serves grades K-6. It is located on Pirate Circle in Paw Paw and has experienced a slight increase in enrollment from 115 in 2001 to 120 in 2005. However, there are no current plans for improvements beyond renovations and site improvements as the school has a State rated capacity of 170 students. The current enrollment is served by 17 professional and 6 service staff.

Pleasant View Elementary School, located on Martinsburg Road in the Sleepy Creek district, is currently over capacity at 147 students. There are no plans for any future additions beyond the single addition completed in 1989, which expanded the school during a period of higher growth in this area of the County. The total staffing is 15 professional and 5 service personnel.

Widmyer Elementary School is the largest elementary school in the County, serving 517 students in grades K-2 in 2005. This attendance area was originally served by North Berkeley Elementary School, until the new Warm Springs Intermediate School opened in 2005 to serve grades 3-5. This school received a new gym in 2005. Although there are no plans for expansion at this time, the growth for this school attendance area, which is up significantly from 305 in 2001 and operating under a State rated capacity of 525, is under review to address the growing enrollment. Also, with growing enrollment and larger facilities the adequacy of the current staff of 37 professional and 18 service will also be reviewed.

Warm Springs Intermediate School, the newest elementary school, which opened on Warm Springs Way in the Bath district in 2004, serves grades 3-5 for total student enrollment of 436 in 2005. This number has decreased slightly from 530 in 2001. Given the limited State rated capacity of this facility at 500, and the increase of student population from the feeder Widmyer Elementary, future expansions may be required. However, there are no plans for expansion at this time. This school, which operates with 34 professional and 12 service staff, serves the Berkeley Springs attendance zone.

Warm Springs Middle School is the only traditional 6-8 middle school in the County. This school is the second most recent addition to the system, opening in 1998 and adding 4 additional classrooms in 2003. Although enrollment has not reached the 672 student State rated capacity, it has steadily increased from 513 students in 2001 to 572 in 2005. It is fed by Warm Springs

Intermediate, Pleasant View, and Greenwood elementary schools. There are no current plans for further expansion to the recently added classrooms or to the 46 professional and 14 service staff.

Berkeley Springs High School is the single largest school in the County system at 802 State rated capacity. At 645 students in its 2005 enrollment figures, it does have some room to accept additional growth in its feeder area. The school is also one of the oldest in the system, opening in 1939 on Concord Street in Bath district. Since that time, it has received numerous upgrades including expansions in 1975 and 2001, Arts and Humanities programs in 1963, a new gymnasium in 1975, and a vocational building in 1986. The school operates with 57 professional and 15 service staff, which is the largest number of personnel at any one school in the system. Its feeder school is the Warm Springs Middle School which, as noted, is experiencing a steady increase in student population due in part to larger numbers of students being received from the various elementary schools.

Paw Paw High School is a joint middle and high school, including grades 7-12. Rated to handle 270 students, this school, which opened in 1956, has a current enrollment of 94 students. The School includes 15 professional and 2 support staff. Its service area includes much of the Cacapon district, which is just starting to experience an increase in growth. The school received an expansion to include shop and band programs in 1960. However, as enrollment has remained steady since 2001 there are no current plans for future expansion.

Table 5-2 School System Services

School	Acreage	Facilities	Professional	Service
Morgan Co. Child Dev. Ctr.	2	1 building	57	15
Greenwood Elementary	8	2 buildings, play fields	8	4
Paw Paw Elementary	15*	1 building, play fields	17	6
Pleasant View Elementary	5	1 building, play fields	15	5
Widmyer Elementary	12	1 building, play fields	37	18
Warm Springs Intermediate	100**	1 Building, play fields	34	12
Warm Springs Middle	100**	1 building, play fields	46	14
Berkeley Springs High	8	5 buildings, 1 varsity field	57	15
Paw Paw High	15*	1 building, 2 varsity fields	15	2
Total	150		286	91

* Paw Paw Elementary and High schools share a campus of 15 acres and fields

** Warm Springs Intermediate and Middle share campus of 100 acres and fields

Vocational Schools

There are two schools that provide alternative educational opportunities for both young and adult students in Morgan County. These include the James Rumsey Center, located in Martinsburg, West Virginia, and the Morgan County Adult and Community Education program.

The James Rumsey Center, located in Berkeley County serves high school students from the Eastern Panhandle and post secondary students from the quad-state region. The Adult Basic

Education Center is available for students to upgrade or enhance their skills as well as prepare for the civil service test, the CDL test, and the GED. Adult and community education classes, along with specialized business and industry seminars are also available.

The Morgan County Adult and Community Education program is a State funded program conducted through the Morgan County Board of Education, providing service to adults.

Colleges

Although there are currently no colleges located in Morgan County, there are several institutions located within 60 miles.

Table 5-3 Local Colleges

College	Location	Distance	Degrees
Shepherd College	Shepherdstown, WV	34	Bachelor, Masters
Shenandoah University	Winchester, VA	28	Bachelor, Masters
Frostburg University	Frostburg, MD	56	Bachelor, Masters
Allegheny College	Cumberland, MD	48	Associate
WVU Eastern Division	Martinsburg, WV	22	Bachelor
Valley College of Technology	Martinsburg, WV	22	Associate
Mountain State University	Martinsburg, WV	22	Bachelor

Libraries

The Morgan County Library, which serves the entire County population, moved to its present location on Congress Street in 1998. It was originally opened in 1979 on Fairfax Street. It is served by 4 part-time staff and 18 active volunteers. Circulation has increased from approximately 25,500 volumes reviewed by more than 15,000 patrons in 2001 to nearly 33,000 in 2005. This is nearly triple the 13,000 volumes circulated in 1983. During this same time period the local budget share, which supports funding of this important community resource, has increased from \$37,000 to \$39,000. The primary funding source however is from State funds of more than \$80,000 per year.

As circulation increases, the Library has determined that it will need additional future operating funds to cover the increasing costs for heating as well as additional shelf space for display of the increasing amount of materials made available to the public.

The Paw Paw Public Library serves western Morgan County and adjacent Maryland areas. The library moved from Winchester Street to Moser Avenue in Paw Paw in 1977 and consists of two part-time staff. Circulation has decreased from approximately 1,068 patrons checking out 16,568 volumes in 1983 to 4,981 patrons circulating just over 11,000 items in 2005. However, given that 2005 was the first year circulation data was kept on computer, the drop may be reflective of simply more accurate record keeping. Since 1983, it has increased its days of operation from four to six.

Over the past five years, the total budget has decreased from \$49,000 to \$39,000, while circulation has climbed from around 7,500 in 2001 peaking at 12,200 in 2004. The building was expanded in 1997 and future plans for further expansion include an addition for a History Room. This will add to the number of resources offered by the library, which include internet access, various reading and viewing media, and story time and summer reading programs.

Police

There are three police departments that serve Morgan County. These departments include the Berkeley Springs Police Department, Morgan County Sheriff's Department, and Paw Paw Police Department. There is also a West Virginia State Police Department office located in Berkeley Springs that provides additional service to the County. Although the Sheriff's Department serves the County as a whole the Berkeley Springs and Paw Paw police departments are limited to being the service provider for the jurisdictions and communities they are governed by.

The West Virginia State Police office provides 4 uniformed officers and 1 secretary to serve Morgan County for the purpose of law enforcement. Its calls for service are more than the average 500 reflected in the provided table as they do not include calls other than investigation of criminal activity and accident reports. The field office is located on Valley Road in Berkeley Springs. There are no current plans for any future expansion.

The Morgan County Sheriff's Department established is located in the Rescue Squad Building on US Rt. 522 south of Berkeley Springs, and provides 1 sheriff and 9 deputies that responded to approximately 4,660 calls for service in 2005. The department serves the entire growing County population both inside and out of the corporate limits of Bath and Paw Paw, by providing such services as law enforcement, court security, transport of prisoner/mental health detainees, and serving of papers. There are no identified needs outlined by this department at the present time.

The Berkeley Springs Police Department is located on Wilkes Street in the Town of Bath. It serves an estimated town population of 700 residents as well as numerous businesses. Call load has significantly increased over the past five years, tripling from 500 in 2001 to more than 1,500 in 2005. However, there is no expansion planned either for personnel or construction.

The Paw Paw Police Department, originally located in the old jail on Lee Street in Paw Paw, dates as far back as 1891. It presently holds office on Winchester Street and consists of one full-time officer occasionally supported by a trainee. Records for calls for service show an increase from 9 in the second half of 2000 to 71 for 2005. This department serves an estimated municipal population of 524, and has no identified plans for expansion in the foreseeable future.

Table 5-4 Police Calls For Service

Department	Personnel	2001	2002	2003	2004	2005
West Virginia State Police	5	646	500	402	464	456
Morgan County Sheriffs	10					4,664
Berkeley Springs Police	3	500	925	1,115	1,455	1,533
Paw Paw Police	1.5	9	47	47	62	71
Total	19.5					6,724

As population grows and development expands across the County, adequate staffing, especially for the Sheriff's department, is the primary concern. A policing standard of 1 police officer per 1,000 persons is typically used to measure police staffing levels. With an estimated 2005 population of more than 17,000 people, being served by approximately 20 police personnel for all departments combined, staffing appears adequate at this time. However, with a projected population increase of more than 11,000 by 2025, under the recommended growth scenario, additional personnel will be needed to address future growth.

To accomplish meeting the long-term needs, especially for the County Sheriff's Department, periodic review of police staffing levels should be conducted to maintain a sufficient number of officers in relation to a growing population. This will ensure that there is adequate staff to provide efficient response times in meeting police emergencies.

Fire & Emergency Medical Service

Morgan County is served by four Volunteer Fire Companies. These companies include Berkeley Springs Volunteer Fire Company, Great Cacapon VFC, Paw Paw Volunteer Fire Company, Inc. and South Morgan VFD. In addition to these companies providing some level of emergency rescue service, the County is also served by the Morgan County Rescue Service, which specializes in EMS operation throughout the County.

The Berkeley Springs Volunteer Fire Company, currently located on North Mercer Street in Berkeley Springs, originally opened in 1893. It moved to its present location and added a new building complete with 3 bays to house necessary equipment to serve approximately 12,000 of the County's 15,800 residents and numerous businesses. There are no paid personnel, but the company has grown from 45 active volunteers in 1980 to an active 75 volunteers who provide qualified fire suppression, emergency medical, and other services to the community. The service area includes the Sleepy Creek Planning Region, much of the northern Central Valley Planning Region as well as the Rt. 522 corridor. Calls for service over the past five years have ranged from a low of 463 in 2004 to a high of 649 in 2005, which is nearly three to four times the call load of 180 in the early 1980's. Expansion efforts for this department include funding for a new engine and updating the turnout gear used to protect volunteers responding to active fire scenes.

The Great Cacapon Volunteer Fire Company is located on Spring Street in the unincorporated town of Great Cacapon. The facility originally opened in 1946 and was expanded in 1969 to add 2 engine bays to the west side of the original building, and again in 1977 to add 3 bays on the

east side. It is served by 28 active volunteers who provide service from Bennett Lane to Fisher's Bridge and West of Cacapon Mountain to the Potomac River. This service area includes an approximate population of 2,000 residents and a small number of businesses in a mostly rural setting. As this area has experienced little growth over time, calls for service have remained steady over the past five years, and there are no plans for additional expansion.

The Paw Paw Volunteer Fire Company Inc., located on Moser Avenue in Paw Paw serves approximately 2,500 to 3,000 residents and numerous businesses in the southwestern region of the County, as well as serving 1,500 to 2,000 residents in neighboring Hampshire County to the west. Service to this growing area and to the Town is accomplished by 23 active volunteers, most of whom are trained in both EMS and Fire response. Although the Company moved from its original 1938 location on Winchester Street, it has identified a need for a new station at its current Moser Avenue location. This would serve to address the increased call load of approximately 200 in 2001 to more than 300 in 2005. Although active volunteers have doubled from 15 in 1980 to 23, the call loads have increased nearly fifteen times that over the same period.

The South Morgan County Volunteer Fire Dept. Inc., located on Winchester Grade Road in southern Morgan County, serves one of the fastest growing areas in the County, which includes the Rock Gap and Timber Ridge districts. The company was created in 1970 and has since made building additions in 1980, 1988, and 1998, as well as added equipment and apparatus in keeping up with the changing regulatory requirements of the State and Federal laws. It currently includes an active volunteer staff of 18. Given the development activity within this area, it appears the most pressing need for immediate future improvements to this necessary public service would be additional personnel.

The Morgan County Rescue Service moved from its original location to Valley Road in Berkeley Springs in 1998. It opened in 1969, with a Volunteer Board of Directors that went from overseeing more than 25 active volunteers to the current 32 career personnel and 4 active volunteers. Much of the decrease in volunteer participation over time was due to the increased changes in certifications required of career personnel responding to EMS scenes, and the recognition by local government of the increased costs of this regulatory process. This department serves the entire County and provides 911 emergency medical service, emergency transport, and limited routine transfers related to all emergency situations and scenes. Its calls for service have steadily increased from 969 in 2001 to 1,707 in 2005. As the need for this service becomes more specialized and additional personnel are required, the department has identified at a minimum operational goals of a full 24/7 second crew and obtaining benefits for retention of employees from competitive counties. Although there may be additional needs for capital expansion of services and infrastructure, none have been identified.

The Morgan County Office of Emergency Services (OES) is the central dispatch for all calls within the County. Opening in 1969, it is located on Valley Road in Berkeley Springs, and includes a total staff of one and a half paid personnel and 4 volunteers. It receives and routes calls for fire, police, EMS, animal control, and other miscellaneous requests for service. During the 2004 and 2005 calendar years, MCOES reported an increase in total call load from 14,853 to 15,609 for a total of 757 additional calls, or a 19% increase. Due to the increasing volume, its

most immediate future need is identified as increased staffing to cover the call volume and ensure adequate staffing for full 24-hour operations.

Table 5-5 Fire and EMS Calls for Service

Department	Personnel	Volunteer	2001	2002	2003	2004	2005
Berkeley Springs VFC	0	75	622	619	521	463	649
Great Cacapon VFC	0	28	286	226	170	189	289
Paw Paw VFC	0	23	200	250	265	280	300
South Morgan VFC	0	18					
Morgan County Rescue	32	4	969	1,197	1,095	1,237	1,707
Morgan County OES	1.5	4	N/A	N/A	N/A	N/A	N/A
Total	33.5	152					

The County operates on a strong volunteer base for fire and a need to expand its paid personnel for rescue services. The major issues as outlined by the various companies include adequate staffing to provide timely response to emergencies and the basic gear and equipment to carry out their duties.

While staffing levels for fire companies appear sufficient to meet current demand in some areas there should be periodic review of service areas to ensure response times keep pace with projected growth. Operating on a system of volunteer service, it will be important for the County to ensure that there are a sufficient number of volunteers properly trained to respond. This could be accomplished through incentives for public employees to respond to daytime calls or retirees interested in supporting fire service.

As outlined by the County Rescue service and Office of Emergency Service, the need for support of additional paid shifts will continue to increase as growth occurs. This is due in part to the location of new development approved in areas where response time is extended and the lack of facilities in proximity or staffing during certain periods to respond to numerous areas at once. To address this issue, funding sources will need to be identified and the number of personnel necessary will need to be evaluated to plan for improvements to the overall network of emergency services.

Medical Services

The Morgan County War Memorial Hospital is located in Berkeley Springs. War Memorial Hospital operates as a county-owned, non-profit facility and is licensed by the State of West Virginia as a Critical Access Hospital (CAH). War Memorial Hospital has 25 swing beds, which can be utilized for inpatient acute medical care or skilled care, as well as a 16-bed extended care unit.

Services include a 24-hour emergency department with on-site physicians, inpatient and outpatient surgery, laboratory, radiology (including mammography, ultrasound, bone densitometry, CT, and mobile MRI), respiratory/cardiopulmonary services, rehabilitation

services (including physical therapy, occupational therapy, speech therapy and cardiac rehab) and home health services. Sub-specialty services are also offered in cardiology, dermatology, ophthalmology, podiatry, and urology on a weekly or monthly basis.

War Memorial's Center for Rehab & Wellness is located in Berkeley Springs. The Center offers outpatient physical therapy, pool physical therapy, occupational therapy, speech therapy, and therapeutic pool classes as well as personal training and fitness programs.

The hospital's active medical staff consists of eight physicians practicing in primary care fields of emergency medicine, family practice, general surgery, internal medicine, and pediatrics. Consulting medical staff includes 25 physicians practicing in fields of cardiology, dental, dermatology, family medicine, ophthalmology, pathology, pediatrics, podiatry, radiology, and urology. The Hospital employs approximately 115 full-time employees and 45 part-time employees.

In fiscal year 2005-2006, War Memorial's utilization increased. The Hospital's average daily census was 8.1 with 518 annual admissions. Other utilization included 5,197 emergency department visits, 215 surgical procedures, 49,208 outpatient procedures, and 4,586 home health visits.

War Memorial operates two medical office practices in Morgan County, Berkeley Springs Internal Medicine and Surgical Services of War Memorial Hospital. Other medical offices in Berkeley Springs include Family Medicine of Berkeley Springs, Graves Medical Practice, and Pediatric and Family Physicians of Morgan County. Mountaineer Community Health Center, a federally qualified health center, operates in Paw Paw.

Other medical services in the community are available at the Morgan County Health Department, Rankin Physical Therapy, and through Shenandoah Valley Medical System. Three dental practices are located in Berkeley Springs. Nursing home care is provided at Berkeley Springs Rehabilitation and Nursing and assisted living is available at Autumn Acres Personal Care Center.

Other healthcare facilities in the area provide services to some Morgan county residents. These facilities include Tri-State Medical Center in Hancock, Md., Winchester Medical Center in Winchester, Va., City Hospital in Martinsburg, and Washington County Hospital in Hagerstown, Md.

Two of the larger medical offices outside of the hospital include Graves Medical Practice and Berkeley Springs Internal Medicine, both of which are centrally located within the greater Berkeley Springs area. Graves is a family practice that opened in 1993 and includes a staff of 11 employees who have served an average of 7,000 patients annually over the past 5 years. Berkeley Springs Internal Medicine is also a similar practice, consisting of 2 doctors and 9 support staff who treat an estimated 1,500 patients per month.

There are also many regional medical centers that provide additional patient care to Morgan County residents. These centers include Tri-State Medical Center in Hancock, Winchester Medical Center, Washington County Health Systems, Jefferson Memorial Hospital, and City Hospital in Martinsburg.

Historic & Cultural

The Morgan County Arts Council created a Cultural Arts and Recreation Plan in 2000. This Plan takes into account the community makeup and includes other services plans that may relate to tourism recreation, education, and economic development. The Plan was funded by the National Endowment of the Arts for the Morgan County Commissioners and developed under the participation of 8 community organizations to ascertain and inventory the cultural and recreational value within the County.

The group used numerous public meetings as well as 32 interviews and 400 entries to evaluate and develop recommendations and action plans to address deficiencies that exist within the County. The Plan recommendations were divided into the eastern Berkeley Springs area and the western Paw Paw area, with specific items identified for improvement. The final recommendation was to continue the existence of the committee in order to carry out the long-term goals of enhancing cultural and recreational activities throughout the County.

Travel Berkeley Springs is the convention and visitors bureau for the County, with its main office located in the Chamber of Commerce office on Fairfax Street in Berkeley Springs, and having nearly 100 members. Half of its budget is funded through hotel/motel tax revenues. From its 2004 report committee members developed several goals and strategies centered around two distinct objectives: protecting the historic character of Berkeley Springs and preserving the scenic wilderness throughout the County by promoting the tourism ambience of a place “caught in time”.

The Town of Bath established the Bath Historic Landmark Commission in 2002. The Commission was charged with initiating the development of an inventory of existing historic structures as part of a detailed preservation plan for the Town. The inventory consists of approximately 150 potentially significant structures with the 75 acres of the town proper as well as areas more recently annexed. Development of an inventory survey allows for the Landmark Commission to proceed in having the area designated on the National Register, establishing guidelines under which such structures within the defined area would be preserved. Preserving the historical structures of the Town is the primary goal of the Landmark Commission of Bath.

In addition to the above County Historic and Cultural Commissions there are more than 70 civic organizations which participate in various capacities throughout the County.

Local Government

Morgan County

Morgan County consists of a Commission form of government, which includes 3 commissioners elected every 6 years at large. It operates on an approximately 3 million-dollar budget which includes many of the public services provided across the County. All other services such as schools and roads are covered by other entities or State funding sources.

Table 5-4 County Government Officials

Name	No. of Officials	Elected/Appointed	Term
County Commission	3	Elected	6 years
County Clerk	1	Elected	4 years
Assessor	1	Elected	4 years
Sheriff	1	Elected	4 years
Circuit Clerk	1	Elected	4 years
Prosecuting Attorney	1	Elected	4 years
Circuit Judges	2	Elected	8 years
Magistrates	2	Elected	4 years
Board of Education	5	Elected	6 years
Public Service Commission	3	Appointed	6 years
Planning Commission	11	Appointed	3 years
Economic Development Corp.	15	Appointed	3 years
Landfill Advisory Committee	3	Appointed	3 years
Hospital Board of Directors	13	Appointed	3 years
Parks and Rec. Commission	11	Appointed	3 years
Library Board	5	Appointed	5 years
Commission on Aging	35	Appointed	2 years
Farmland Preservation	7	Appointed	4 years
Rural Water	13	Appointed	N/A

The Morgan County Board of Education and the Warm Springs Public Service District are considered part of special purpose local government. The elected Board of Education receives funding primarily from local property tax revenues collected by the State. The Warm Springs Public Service District Board is appointed by the Morgan County Commission and oversees the provision of sewer service within the Public Service District, which is supported by customer fees and by State and Federal grants and loans.

Judges of the Circuit Court and Magistrates are elected officials who are funded by the State. Other agencies receive some financial and in-kind assistance from the County Commission, but are primarily funded by other sources such as private donations and State and Federal funds.

Town of Bath

The Town of Bath is governed by a Mayor and five council members who are elected for two-year terms. The Town Recorder, who maintains town records and financial reports, is also elected for a two-year term. The Council is organized into seven functional committees, which are composed of three members each. The committees are finance, public works, water, ordinances, cemetery, grants, and public safety. The Chief of Police is an appointed position without a specified term. There is also an Historic Landmarks Commission made up of six appointed members.

Town of Paw Paw

The Town of Paw Paw is governed by a Mayor and five Council members who are elected for two-year terms. The Town Recorder is also elected for a two-year term. The Council is organized into five functional committees of three members each. These committees are police, water and sewer, streets and alleys, cemetery, and ordinance and grievance. A sixth committee, the finance committee, is composed of all five Council members. A nine-member parks and recreation commission is appointed by the Town Council to oversee operation and maintenance of the municipal park.

Table 5-5 Municipal Government Officials

Name	No. of Officials	Elected/Appointed	Term
Town of Bath			
Mayor	1	Elected	2 years
Council	5	Elected	2 years
Town Recorder	1	Elected	2 years
Chief of Police	1	Appointed	N/A
Historic Landmark Commission	6	Appointed	1 year
Town of Paw Paw			
Mayor	1	Elected	2 years
Council	5	Elected	2 years
Town Recorder	1	Elected	2 years
Chief of Police	1	Appointed	N/A
Board of Zoning Appeals	5	Appointed	N/A
Parks and Recreation Committee	9	Appointed	N/A

Animal Control

The Morgan County Animal Control office is operated by the Morgan County Sherriff's office, which is funded by the Morgan County government.

Goals and Objectives

Goals

The goals for enhancement of public services in Morgan County focus on education, public safety, general government, and the health and welfare of its citizens. They include:

- Increasing educational opportunities across the spectrum of public schools, higher education and technical training institutions;
- Promoting the location of public schools in targeted growth areas;
- Ensuring adequate access to emergency services in areas of new development;
- Promoting expansion of local health care, including mental health services, and recognizing the need to serve both residents and visitors, as well as an aging population; and
- Supporting coordination among local government entities and regional planning organizations in efforts to identify, designate and plan for future public service needs.

Objectives

Furtherance of these goals can be attained by achieving the following objectives:

- Supporting the Morgan County Comprehensive Education Facilities Plan, and encouraging the Morgan County Board of Education to consider the growth management goals and objectives in the Morgan County Planning Commission's Comprehensive Plan;
- Working with the library system to identify the need for expansion of library services and facilities;
- Evaluating and supporting appropriate recommendations from local public safety agencies relating to the integration of public safety services into new development;
- Considering creation of a countywide emergency service system, while promoting smaller, more localized emergency services operational hubs to ensure adequate coverage throughout the jurisdiction;
- Supporting arrangements to improve working relationships among police, fire and EMS organizations both within the county and among local jurisdictions;
- Working toward adequate disaster planning by supporting efforts to provide all public safety services with current homeland security training, and citizens and public officials with necessary information about disaster planning and management;
- Encouraging the updating of countywide hazard mitigation plans;
- Supporting development of a directory of local health care network providers and wellness offerings;
- Encouraging the improvement of medical transport access, and the referral process to major health care centers;
- Promoting the expansion of web-based access to local government information;
- Supporting use of public schools, for non-school related activities;
- Encouraging construction of an improved animal control facility and improvement in the County's animal control operations and regulatory system;

- Supporting development of a global information system (GIS) mapping capability for Morgan County to create charts showing property boundaries, natural features, sensitive areas, infrastructure, and emergency services sites, etc.

CHAPTER 6 – SENSITIVE AREAS

Introduction

The rural areas chapter identifies those sensitive natural environmental features, which merit protection from development. These physical features are delineated based on steep slopes, floodplains, wetlands, sensitive soils, forests, prime agricultural lands, or mineral resources. It is obvious that the intensity of the use of the land is often dictated by the physical attributes of the property. As sensitive areas do not typically follow property lines, these attributes affect numerous adjoining properties, thus creating natural land use patterns. Protection of these attributes may be achieved through incorporation of these features into future development proposals.

Morgan County, by comparison to its adjacent counterparts, has some extensive physical constraints to land use. However, some of these constraints have been overcome or neglected in order to allow development to occur in locations where a more limited approach might be suggested by a site's natural features. This limited approach should require careful development design in order to protect sensitive features and correct existing negative encroachments or prohibitions on development. In order to provide the public with a justifiable understanding of this approach, the ecological and environmental benefits and the potential degradations should be clearly identified and defined. This may ultimately influence what land use types are appropriate for each development proposal.

Steep Slopes

Possibly the most notable and impacting physical feature to future growth and development within Morgan County is the amount of land delineated with steep slopes. Nearly 47% of the County may be classified as having slopes greater than 25%, which is the maximum slope for installation of individual septic systems, and thus the generally accepted limit for structural improvements to property. Another 21% falls within the 15% to 25% range, and nearly 30% is between 8% and 15%. Less than 5% of the County may be classified as relatively flat, containing a slope of less than 8%.

The region most affected by this topographic feature is split between the Cacapon and Central Valley planning regions, along the east and west Cacapon Mountain ridges. The benefit in the Cacapon Planning region exists in the large amount of relatively flat land through its northwest corridor, while the Central Valley Planning region benefits from major water, sewer, transportation and other available services.

While two-thirds of the State land is sloped more than 25%, Morgan County is just under one half, yet more severe than its two eastern panhandle neighbors to the east. The County is located in the physiographic region known as the Ridge and Valley Province. For purposes of describing the topographic conditions, the County may be divided into two types of areas; Mountain Area and Ridge Area.

Mountain Area

The Mountain Area from the west is a series of northeast-southwest rugged mountains separated by narrow valleys. The mountain slopes are gashed by steep runs giving a very rough topography, which continues on to the west.

At the western edge of the Mountain Area is the narrow Potomac Valley, which follows a northeast course parallel to the trend of ridges, but in a meandering channel. This valley is bounded on the Morgan County side by Spring Gap Mountain, Purslane Mountain, and Sideling Hill, which have steep and highly dissected slopes down to the river. The fall from the top of these mountains to the river is 1,220 to 1,400 feet in a distance of one to one and a half miles. In the valley are numerous flat-topped hills rising 800 to 1,000 feet above the valley floor.

Spring Gap Mountain extends from Hampshire County into Morgan County for a distance of three-fourths mile, southeast of Paw Paw. It is a level-topped mountain of 1,800 feet elevation with steep slopes.

Purslane Mountain and Sideling Hill are separated by a high level valley drained by Rockwell Run. Purslane Mountain on the west side of the valley has a level top, 1,700 to 1,800 feet in altitude. The highest point on Sideling Hill is 2,029 feet above sea level located about three miles north of the Hampshire County line. Its west slope is deeply trenched by short steep runs forming very rugged slopes, while on the east; slope erosion has not been as prevalent. The valley on the east side of Sideling Hill is 200 to 300 feet higher than the Potomac on the west. The mountain is cut by a deep gap at the north where the Potomac cuts through.

The valley east of Sideling Hill is separated into two parts by a low transverse divide 800 to 900 above sea level. From this divide, the land slopes generally south to east to the Cacapon River, and north for a distance of five miles to the Potomac River. This valley contains two northeast-southwest ridges, known as Bare and Road Ridges; whose level tops are about 800 feet above sea level.

The east side of the valley is bounded by Tonoloway Ridge, reaching a height of 1,000 to 1,100 feet. Its eastern slopes are almost perpendicular walls to the Cacapon River. It is cut by a wide gap at the south where the river passes through and by a gap three-fourths mile wide at the north where the Potomac cuts through.

The western limit of the Mountain Area of Morgan County is Cacapon Mountain, which is the highest mountain in the area. It begins southwest of Sir Johns Run, on the Potomac, as a ridge 600 feet high and rises over a distance of four miles to 1,545 feet at Prospect Rock. The mountain reaches its highest point in the northern area, at 2,196 feet, five miles southwest of Prospect Rock. It is 2,320 feet high at the Morgan County boundary with Hampshire County.

Ridge Area

The Ridge Area of Morgan County begins at the Cacapon Mountain and extends east across a broad valley broken by parallel low ridges which follow the same course as the mountain. This area exhibits long narrow valleys and ridges as does the area west of Cacapon Mountain; but is dissimilar in that Sleepy Creek cuts across the ridges creating a drainage area of transverse as well as longitudinal valleys. The result of these changes is a very different type of topography than that west of the Mountain.

Warm Spring Ridge extends from the south line of the County north to the Potomac River and beyond into Maryland. The ridge is level topped at 800 to 900 feet at the north and 1,200 at the south. Its slopes are steeper on the east than on the west. The valley between this ridge and Cacapon Mountain is drained to the north by Sir Johns Run and to the south and east to Sleepy Creek Run by Rock Gap Creek. At the south, this valley is drained by Indian Run, which flows north and east to Sleepy Creek.

The eastern slope of Warm Spring Ridge is drained by the north flowing Warm Spring Run. The valley of this run at the north is bounded on the east by Horse Ridge, which is a long level ridge of 800 feet elevation. Further south, this ridge is continued in the form of isolated hills of 900 feet elevation, but natural erosion has destroyed the ridge as a continuous line in the topography.

East of Horse Ridge at the north is the valley of Dry Run, then Pious Ridge, 600 to 800 feet in elevation. The broken continuation of this ridge is Timber Ridge at 900 feet through which Sleepy Creek cuts a gap.

Sleepy Creek Mountain ranges in height from 1000 feet at the north to 1700 feet and ranges from a height of 1800 feet toward the south end of Morgan County. The slopes of this mountain are steep and rugged, but are not cut by run valleys as are the mountains to the west.

Water

Morgan County is located entirely within the Potomac River Basin. All of Morgan County drains north to the Potomac except a small area in the southeast corner.

Rivers and Streams

The Potomac River forms the boundary line between Maryland and West Virginia along the northern line of Morgan County. The River is actually part of the State of Maryland and is under jurisdiction of the Maryland Department of Natural Resources for water quality and river use. From the southwestern corner of Morgan County, the river follows a strongly meandering course northeast 28 miles to the cut through Sideling Hill. The bends are very symmetrical and deeply trenched in the valley. The fall of the river in this section is low, averaging 2.5 feet per mile. From Sideling Hill, the river flows east to Cacapon Mountain for 5 miles of straight channel with a fall of only 1.7 feet per mile. It then turns northeast to Hancock, curving in a small meander around the ridge near Roundtop on the Maryland side. This meander is nearly a half-mile wider

than its former channel. From Hancock, the river flows southeast in a nearly straight channel for 10 miles to the mouth of Cherry Run. The fall of the river from Sir Johns to this point is 1.3 feet per mile.

Along the western end of Morgan County, the streams are small runs which rise on Purslane Mountain and reach the Potomac by short courses. Rockwell Run is the largest of these and follows the high level valley between Sideling Hill and Purslane Mountain, at an elevation of 1,200 to 1,600 feet above sea level, to a transverse gap at the north end of Purslane Mountain, where it turns west toward the Potomac. Its total length is about 5 miles with a fall of 1,140 feet, or nearly 230 feet per mile. Like all of these mountain runs, Rockwell Run averages a relatively small volume of water fed by springs, but in a period of rain becomes a roaring torrent, which can cause rapid erosion.

The Cacapon River is the fourth largest tributary to the Potomac River. Its source is in the highlands of Hardy County, and it follows a northeasterly course across the eastern portion of Hampshire County to the Potomac River at Great Cacapon. The total length of its channel is 100 miles and the average fall is 11.8 feet per mile. Its upper reaches have a steep gradient with some falls and rapids, while the lower third is more sluggish and meandering. Within Morgan County, the Cacapon features a gentle gradient and numerous long pools as it transcribes huge, slow-flowing loops through the mountains. The land cover is primarily forested slopes and flood plain terraces. The Morgan County segment is the most developed and platted stretch of the river, with individual residences, vacation cottages, and large subdivision developments dotting the banks.

Sleepy Creek has its source on the west slope of Timber Ridge in the northeastern part of Hampshire County and follows this ridge northeast to Rock Gap, where it crosses the ridge in the southern part of Morgan County. The length of its channel is 42 miles and the average fall is 17 feet per mile. Its drainage basin is broad, extending from Sleepy Creek Mountain to Pious Ridge on the west for a width of 4 to 5 miles and covering nearly 93,000 acres. Its tributary creeks and runs on the west cut through transverse valleys in the ridges to join the main stream, as in the case of Rock Gap, which has cut a deep gorge through Warm Spring Ridge. This watershed is nearly 50% forested with another third in active agriculture use. On the east side of the main creek, the large tributaries such as Mountain and Meadow Runs follow the rock structure.

Sir Johns Run drains the valley between Cacapon Mountain and Warm Spring Ridge. It follows a course parallel to these ridges for 8 miles at a fall of nearly 70 feet per mile. The valley is narrow, its branches short, and the volume of water is small except after rains.

Warm Spring Run drains the valley between Warm Spring Ridge and Horse Ridge. Its length of nearly 11 miles falls at a rate of nearly 40 feet per mile. It follows close to Warm Spring Ridge and is fed by various springs, especially by the warm springs at Berkeley Springs. On the east it has a number of short tributaries, which extend into the divides separating them from the Sleepy Creek drainage area.

Surface Water Quality

As established above, Morgan County has numerous surface water bodies that traverse various parts of the County. Based on the collection of data over time, most of these surface water sources are in healthy condition. Water quality parameters that are evaluated include dissolved oxygen, pH (acid-alkaline balance) temperature, metals, and conductivity. There have been occasional violations of State criterion for fecal coliform bacteria, which is indicative of either human or animal waste entering the stream from houses, septic systems, or agricultural activities.

Specifically, in reference to the Cacapon River, water quality is considered excellent as evidenced by data collected by West Virginia Department of Environmental Protection. Like many of the streams in the Eastern Panhandle that are unaffected by mine drainage, the Cacapon has an excellent pH value. The average acidity, alkalinity, and hardness values are also indicative of high water quality. Oxygen problems are virtually unknown. Only one instance has been recorded in which the fecal coliform standard was violated; and other than minor infractions of copper, iron, lead, silver, and cyanide levels, the parameters have never exceeded the acceptable limits for all other metals for which the State has standards. The Cacapon remains one of the State's highest quality streams.

The potential exists in Morgan County for water quality problems due to sediment loadings which occur after heavy rains in areas of agricultural and increased construction activities. Sediment often includes organic and inorganic pollutants from fertilizers, pesticides, animal wastes, and construction materials. Chemical pollutants may be toxic to fish and may be retained in fish, which have eaten contaminated organisms. Over a period of time, sediment fills watercourses, covering bottom dwelling organisms and contributing to increased flooding potential. By increasing turbidity, or cloudiness of the water, sediment reduces light available for growth of aquatic plants and animals. For all these reasons, sediment offers the potential to significantly reduce the scenic and recreational value of Morgan County.

West Virginia's water quality standards include a criterion for turbidity. This turbidity limitation applies to all earth disturbance activities by measuring stream quality directly above and below the area where drainage enters the affected stream.

Floodplains

Floodplain areas perform a number of critical ecological functions. They absorb, store, and release large amounts of water to surrounding soils and groundwater systems. Natural vegetation supported by floodplains helps to trap sediment and absorb excess nutrients from upland surface runoff, stabilize stream banks, and reduce soil erosion. Floodplains also provide habitat for terrestrial wildlife and influence stream conditions for aquatic life. Beyond their ecological value, many people value the scenic qualities of floodplain areas, particularly for their wildlife and waters.

In 2005, the West Virginia Flood Protection Task Force presented the first West Virginia Statewide Flood Protection Plan. The multi-agency task force was led by the WV Conservation Agency and the U.S. Army Corps of Engineers. The Plan was developed over a period of three

years and spells out both long and short-term goals, strategies and implementation schedules. The six specific goals the plan addresses are:

- Reduce the unnecessary loss of lives due to flooding
- Reduce private and public property damages due to flooding
- Develop technical and administrative tools to manage flood loss reduction and floodplain management
- Promote technical and legislative tools that will reduce excessive runoff from land conversion activities
- Reduce personal and economic loss due to flooding while supporting state economic growth
- Protect the state’s waterways and floodplain environments

These goals focus around 12 key issues:

- Floodplain management
- Flood Warning System
- Floodplain Mapping
- Flood Damage Assessment
- Impacts of Flooding
- Building Codes, Permitting and Enforcement
- Stream Crossings and Access Roads
- Dredging
- Resource Extraction
- Stormwater Management
- Education
- Existing Flood-prone Structures and Facilities

All floodplains in Morgan County are subject to floodplain regulations as delineated in the Flood Insurance maps developed by FEMA and the County’s ordinances, which are updated to comply with State and Federal regulations. The Flood Insurance Program was established by the National Flood Insurance Act of 1968. and provides previously unavailable flood insurance to property owners within delineated areas. The Act prohibits Federal financial assistance for construction projects within non-participating communities. Although Morgan County does participate in the program, concern has been expressed as to the accuracy of published Flood Insurance Program maps. The Federal Program is expected to update the maps at which time the County will provide details of existing flood control dams that may not have been considered in previous mapping of the Berkeley Springs area.

Due to nearly annual flooding in the Berkeley Springs area from Warm Spring Run, the Town of Bath in a joint effort with the Eastern Panhandle Soil Conservation District completed a watershed flood prevention and protection project in 1962. The project applied conservation land treatment measures to 2,200 acres, changed land use on 2,720 acres, stabilized four miles of critically eroding streambanks, and constructed eight single-purpose flood control dams. The eight dams were constructed upstream from the Town to control runoff of about 35% of the flood producing area. Prior to this project the area experienced severely damaging floods in 1936 and 1954. Since that time, however, the project has reduced flood occurrences to minimal impacts of sediment and debris being deposited into yards and occasional water back-up through sewer lines into basements.

In addition to the instance described above floodplain issues exist generally in three areas of the County. While less than 1% of the County land mass is covered by water, it does include a larger percentage covered by floodplain areas. These areas include the north south corridor of the Cacapon River, the much wider north south drainage area of Sleepy Creek, and the east west shore of the Potomac River. Although much of this land is under private ownership, community efforts and regulatory measures have achieved some positive influence in protecting these sensitive areas.

Wetlands

Wetlands are unique environments that are transitional areas between terrestrial and hydrological systems. As a component of both systems, they perform a variety of important functions and are in a state of constant change. Wetlands help maintain surface stream flow and groundwater recharge. They moderate stormwater runoff and downstream flood crests because they are natural water storage areas. Wetlands provide important habitat for many species of plant and animal life.

There are multiple problems with developing on wetland soils. Wetlands located in floodplains are often flooded. Draining or filling in of upland wetlands removes natural water storage, which yields increased water flows downstream. Wetland soils are sensitive in two ways. First, they are easily compacted, resulting in uneven settling of structures. Second, wetland soils with low permeability and high groundwater tables are not suitable for the installation of on-lot septic systems due to the risk of surface and groundwater contamination. Wetlands are protected by the U.S. Army Corp of Engineers and the West Virginia Department of Environmental Protection.

Groundwater

Precipitation is the main source of groundwater recharge in Morgan County. Although precipitation is intermittent, water is continually moving from storage in the underground rock structures. In general, groundwater movement parallels the land surface, moving from ridges to the valleys, where it discharges into springs and streams.

Water is found in practically all rock formations of the Potomac River Basin, of which Morgan County is a part. However, the quantity of water largely depends on the kind, size and degree of interconnection of the openings in the rock, called fractures. The largest groundwater supplies are available from areas underlain by sandstone and limestone bedrock, which contains fractures and solutional cavities through which groundwater can easily move. The least water is available from shale, which contains very few openings of this type. Shale is more brittle than sandstone or limestone and at greater depths the weight of overlying rock squeezes openings shut.

There are two linear strips of land area on either side of Cacapon Mountain in which groundwater availability is reflected in well yields from 100 to 200 gallons per minute. These areas are coincident with predominately limestone and sandstone bedrock. The remaining areas of the County, which report lower well yields of 1 to 70 gallons per minute are mostly underlain by shale.

The most frequent groundwater quality problem in Morgan County is high mineral content. Groundwater beneath the ridges has a lower concentration of dissolved materials than beneath valleys because the ridges are mainly recharge areas and the valleys are mainly discharge areas. A well on a ridge draws relatively pure groundwater near the beginning of its flow path. A well in a valley draws comparatively impure groundwater, which is near the end of its flow path, has been exposed to bedrock longer, and has picked up dissolved materials along the way. Higher water quality exists among the ridges west of Cacapon Mountain than in the Sleepy Creek Valley to the east. The area east of Cacapon Mountain, where groundwater is characterized as having excessive iron content and hardness, is mostly underlain by shale. Because shale is not very permeable, water moves through it slowly creating the opportunity to dissolve more mineral matter.

The highest possibility of groundwater contamination from surface sources is in limestone areas because of the presence of solutional cavities and sinkholes; through which contaminated water can enter without being filtered through the soil mantle. This type of pollution is more frequently found in the Great Valley of which Berkeley and Jefferson Counties form a part. However, groundwater contamination is by no means limited to limestone areas. Studies in the Potomac River Basin have found high chloride concentrations in water from some wells tapping shale and sandstone near septic tanks and barnyards, indicating that the water may be polluted. Even so, in sparsely populated areas underlain by shale and sandstone, groundwater pollution does not appear to be a major problem.

Maintaining pure groundwater is important for the majority of Morgan County residents who rely on groundwater for drinking and domestic use. It is also important for industry and particularly for those enterprises, which rely on pure spring water such as the water bottling companies in Berkeley Springs, the Ridge State Fish Hatchery, and the baths of Berkeley Springs State Park.

Major Surface Water Bodies

Although there are no major surface water bodies in Morgan County, there are several minor lakes that range in size, and are primarily used for recreational purposes.

Cacapon State Park Lake is located within the 6,000 acre park and includes stocked fishing and non-motorized boating. It is fed by the local stream systems into an impoundment that covers more than 6 acres.

Lake Siri, a 13-acre, spring-fed lake is located between two green mountains adjacent to Coolfont's Treetop House. This private lake is well known for large big mouth bass fishing.

Water Source Protection Organizations

There are numerous residents and groups that recognize the importance of conserving and protecting the County's water resources. These individuals and organizations work to maintain watersheds, not only in Morgan County, but also throughout the region that impacts the Chesapeake Bay. Following is a brief list of some of these organizations.

- The Friends of Cacapon River serve as a resource to the community on issues affecting the Cacapon River watershed. They advocate the establishment of buffer areas along the river to support riparian plants that reduce runoff into the river. This is accomplished by educating land owners to the impact of altering riverbanks, encouraging developers, visitors, and landowners to participate in the stewardship of the river and its watershed and promoting active participation of area schools in developing student programs related to protecting their river. The group monitors activities in the lower Cacapon that could negatively impact the river.
- The Sleepy Creek Watershed Association was formed in July 2000. Its mission is to “protect and preserve Sleepy Creek and its watershed and to educate the community on the value of this precious natural resource in Morgan County, West Virginia.”
- The Interstate Commission of the Potomac River Basin strives to enhance, protect, and conserve the water and associated land resources of the Potomac River basin and its tributaries through regional and interstate cooperation
- The Chesapeake Bay Foundation is a non-profit organization with a mission to improve the Chesapeake Bay watershed. It serves as a watchdog representing the Chesapeake conservation lobby to business, government, and public entities. It also actively restores native habitats and filtering mechanisms such as oyster beds, forests, and other riparian effects.
- The Soil and Water Conservation Society fosters the science of art and natural resource conservation
- The U.S. Fish and Wildlife Service works with others to conserve, protect, and enhance fish, wildlife, and plants in their habitats for continuing benefit of the public. The National Conservation Training Center is located on the banks of the Potomac River adjacent to Jefferson County.
- The West Virginia Rivers Coalition seeks conservation and restoration of West Virginia’s exceptional rivers and streams. It has worked with the WV DEP to help improve public participation components of the NPDES.

Sensitive Soils

Soil associations delineate where two or more soil types occur together in a characteristic pattern over a geographic region. Soil types are often combined because the scale of a map does not provide for easy individual delineation of soils. For this reason delineating soil associations is useful for general planning purposes, but is not suitable for site-specific analysis, unless additional site-specific analysis is conducted. Because soils within an association differ in slope, depth, stoniness, drainage and other characteristics, the actual location of physical improvements to property may differ from the general soils associations provided.

The four major soil associations in Morgan County are classified by their suitability and limitations for various land uses. These limitations allow for flexibility as described above and are most notably measured by their appropriateness for septic systems and erosion control. These soil associations include; Huntington Weikart-Monongahela Association, Lehigh-Berks-Dekalb Association, Berks-Litz-Weikert Association, and Dekalb-Laidig-Buchanan Association.

Huntington Weikart-Monongahela

This soil association consists of deep and shallow, well and moderately well-drained, medium-textured and moderately fine-textured soils of the floodplains shale uplands, and river terraces. Suitability for cropland is good and for woodland is mostly excellent to fair. There are severe limitations to permitting development in these areas with moderate limitations to roads due to the potential periodic flooding in lower areas.

Lehigh-Berks-Dekalb

This soil association consists of moderately deep, well-drained, moderately coarse-textured and medium-textured soils of the uplands. Suitability for cropland is fair, though some soils are well suited to orchards. Suitability for woodlands is fair since dryness and low natural fertility cause severe seedling mortality. Limitations on development and roads are moderate primarily due to slope, limited depth to bedrock, and susceptibility to frost action.

Berks-Litz-Weikert

This soil association consists of moderately deep and shallow, well-drained, medium-textured, and moderately firm-textured soils of shale and siltstone hill uplands. Suitability for cropland is rated very poor and choice of crops is limited due to low water capacity. Suitability for woodland is poor since dryness and low natural fertility cause severe seedling mortality. Limitations to development and roads are moderate to severe due to steep slopes, limitations to bedrock, and susceptibility to frost.

Dekalb-Laidig-Buchanan

This soil association consists of moderately deep, well-drained and moderately well-drained, moderately coarse-textured to fine coarse-textured, mostly very stony soils of the uplands and colluvial slopes (slopes from which soil material, rock fragments, or both, have been moved by creep, slide, or local wash and deposited at the base). Suitability for cropland is very poor because soils are very stony and slopes are mostly steep to very steep. Suitability for woodland is mostly good to fair, although it is poor in dry areas, which create severe seedling mortality. Limitations to development and roads are mostly severe due to steep slopes.

Soil Limitations on Septic Systems

More specific than soil associations are the soil series and soil types within each series. Each soil type is rated according to agricultural productivity and according to properties which affect selected non-farm uses of land.

Chief among non-farm activities is the use of natural soil to renovate sewage effluent from septic drainage fields. The soil material between depths of 18" and 6' is evaluated for septic drain fields by means of a Soil Survey. The soils properties considered are those that affect absorption of effluent and construction and operation of the system. Properties that affect absorption are permeability (the quality that enables soil to transmit water and air), depth to water table or bedrock, and susceptibility to flooding. Slope is a soil property that affects difficulty of layout and construction as well as the risk of soil erosion, lateral seepage, and down-slope flow of effluent.

Limitations on the suitability of a particular soil for septic systems are expressed as slight, moderate, or severe. A rating of severe indicates the soil has serious limitations that are difficult, though not impossible to overcome. A review of all soil-mapping units in Morgan County indicates a severe limitation on the use of septic systems for all but less than 1% of the County's land area.

In practice, the suitability of soil for septic systems is determined on a site-by-site basis by the Morgan County Health Department based upon standards of the State Department of Health. On-site testing includes a percolation test to determine permeability and a 5' excavation to determine depth to bedrock and water table. The excavation must be inspected by the County Health Department Sanitarian to ensure that at least 5' of soil covers the bedrock and seasonal water table. This standard is interpreted liberally in Morgan County where thin layers of soil cover unconsolidated shale, which is often difficult to distinguish from bedrock.

The State Department of Health also sets standards for the use of septic systems to serve subdivisions of two or more lots, and which are less than 2 acres in size with an average frontage of less than 150'. Where a public water system is not available, each lot must be at least 20,000 square feet in area. A minimum 10,000 square foot disposal area must be set aside for installation of the initial absorption field, which includes enough area in reserve for additional absorption fields in case of failure of the initial installation. Disposal area may not be located on slopes exceeding 25%, nor within the limits of the 25-year floodplain. The latter standard has been difficult to evaluate since there is no current mapping of 25-year floodplains for Morgan County.

In 1980, nearly 66% or 2,974 housing units were utilizing septic systems. An additional 9% or 410 housing units were listed as "other", including outhouses and no sewage disposal systems evident. Only 66 housing units remain without proper sewage systems evident many of which are listed as seasonal housing. Given the location of many of these dwelling units along waterways and atop steeper slope areas, it is important to monitor both the continued use of these units as well as the transition of these types of units from seasonal use to year-round permanent occupancy.

The lack of adequate sewage disposal facilities usually comes to the attention of the Morgan County Health Department on a complaint basis. Many complaints involve structures without suitable methods of sewage disposal. The remaining complaints include systems in some degree of failure, generally evidenced by sewage coming to the surface of the ground. Methods to alleviate the impact of these issues include the use of either community or public sewerage systems or replacement with new septic systems.

It is well documented that septic systems which are properly installed following appropriate testing on environmentally suitable sites and which are regularly maintained will function properly for an indefinite period of time. Those septic systems within Morgan County that fail do so because of improper installation, poor soil conditions, high water table, or insufficiently sized soil absorption fields. In Morgan County the site evaluation and septic system installation steps allow for practices which may contribute to future septic system problems. The deficiencies identified include; allowing construction prior to site testing for optimum absorption and percolation testing that is only reported to rather than directly observed by the County Health Department.

Where existing septic systems fail and cannot be replaced, and where new sites are found to be unsuitable, alternative individual systems may be appropriate. State regulations allow for alternative sewage disposal systems which compensate for severe soil conditions under certain circumstances. These systems, which include sand mounds and other types of alternative methods are more costly than standard septic systems.

Soil Erosion

The major types of soil erosion in Morgan County are sheet and rill, streambank, and roadbank. Sheet and rill erosion occurs when water flows over a slope without a defined channel. It is a dominant erosive factor for cropland, pasture, surface mine spoils and refuse piles, and various construction activities. Sheet and rill erosion is accelerated by poor vegetative cover and steep topography.

Streambank erosion is the lateral recession of channel banks due to stream conditions. A stream which has not reached its load capacity will obtain sediment from the channel bottom and banks. Lack of channel bank vegetation increases streambank erosion.

Roadbank erosion results from sheet, rill, and gully erosion of the bank, and channel erosion in the adjoining ditch. Poor vegetation on the bank accelerates roadbank erosion.

Factors affecting soil erosion are the natural erodibility of the soil, slope, rainfall patterns, length of slope, and perhaps most importantly, land cover conditions. Compared to other areas in West Virginia, the Eastern Panhandle has soils with slight erodibility, a low rainfall climate, and gentle topography. However, erosion problems in Morgan County appear to be more severe than in the other two Panhandle counties. More than 20% of the land area in Morgan County is defined as having severely eroded soil.

Severely eroding areas were identified in the Comprehensive Survey of the Potomac River Basin prepared by the West Virginia Department of Natural Resources and the U.S. Department of Agriculture in 1981. Areas identified in Morgan County were streambank erosion along the Cacapon River, Sleepy Creek, Sir John's Run, and Warm Spring Run, and sheet and rill erosion from mining activity.

Other sources of sheet and rill erosion include farmlands and construction sites. The Agriculture Water Quality Management Plan outlined in the 1985 Plan, identified severely eroding farmlands in Morgan County, including 1,341 acres of cropland, 795 acres of permanent pasture, and 53,300 feet of farm roads. Construction sites for new housing and subdivision roads have also contributed to soil erosion in the County, especially where proper erosion control techniques have been neglected or ignored. Erosion from these activities has increased from an average of approximately 10 tons per year as development has increased. This has also increased the previous estimate of 100 tons per year under extreme conditions.

Air Quality

The Clean Air Act provides the principal framework for national, state, and local efforts to protect air quality. Under the Clean Air Act, the U.S. EPA is responsible for setting standards, also known as national ambient air quality standards (NAAQS), for pollutants which are considered harmful to people and the environment. These pollutants include ozone, particulate matter, sulfur dioxide, carbon monoxide, and nitrogen dioxide. The major sources of these pollutants are cars, power plants, and heavy industry. The EPA is also responsible for ensuring that these air quality standards are attained through national standards and strategies to control pollutant emissions from automobiles, factories, and other sources.

The EPA Air Quality Index (AQI) reports on levels of the NAAQS pollutants present in the air. An AQI value is given for each monitoring site and pollutant. The overall AQI for a site is the highest index value of any of the pollutants. Exposure to these pollutants can make it difficult for some people to breathe, especially people with asthma and other respiratory problems. As the level of any of these air pollutants rises beyond health standards, precautionary health warnings are triggered.

In 2003, the West Virginia Department of Air Quality (DAQ) identified the Eastern Panhandle counties of Jefferson and Berkeley as potential non-attainment areas. The counties voluntarily entered into an Early Action Compact which required areas to identify and implement control strategies earlier than would otherwise be required. This is similar to actions being taken by other neighboring counties in neighboring states. Although Morgan County has not been identified at this time as a potential non-attainment area, it is important to remain aware of the effect such regulations may have on future growth within the County and surrounding region.

Forest Resources

Forest resources in Morgan County are valuable in several respects. They provide an attractive and healthy environment for many recreational activities such as camping and hiking, around which many public and private recreational and tourism features in the County are established. Forests provide the necessary habitat for wildlife to thrive. It is also superior to both developed and agricultural land in controlling storm water runoff, which is essential to the natural management of the watersheds.

Based on inventories conducted by the U.S. Geological Survey in 1975, there were 121,650 acres of forest in Morgan County, which made up more than 80% of the total County land mass. Of this total, there were nearly 7,000 acres of non-commercial and 114,000 acres of commercial forestland. Commercial forestland is that which is producing or capable of producing crops for industrial wood which is not withdrawn from timber utilization. A comparison of the 1975 and 1980 aerial photographs indicated further areas of early growth forests on land previously devoted to agricultural use, especially in the Sleepy Creek and Central Valley planning regions. By 2000 the total forested areas within the County decreased by merely 1% to 79% or 117,000 acres, and out of approximately 1,130 acres harvested per year, it is estimated that only 130 acres is clear cut for development and agricultural uses.

While forest areas have increased at the expense of active cropland in the areas east of Cacapon Mountain, forestland has continued to be lost to both permanent and seasonal housing, especially in the southern areas of the Central Valley Planning region. Larger residential subdivisions have cleared forestland for access roads, which has divided forests and created erosion problems.

As losses due to development pressure have continued to increase, the number and funding of various state and federal programs has also increased. One such program that may affect Morgan County in the near future is the U.S. Forest Service's Forest Legacy Program. This program currently includes in its 2006 budget, a total of \$1.8 million for the Potomac River Hills project. Funding of this project would allow the West Virginia Division of Forestry to acquire a conservation easement on a 2,400 acre tract of land owned by The Conservation Fund, for the purpose of protecting sensitive lands on Sideling Hill in the Potomac River watershed. This would add a significant boost to the current 194 acres under similar preservation programs.

From a commercial standpoint, most woodland in Morgan County is considered of low productivity, more suitable for pulpwood than for saw timber. The Oak Site Index for Morgan County soil averages from 45 to 60. This index is the average height, in feet, of a well-stocked oak stand 50 years of age. More than 110,000 acres of the County's land area is classified as having an Oak Stand Index of 65 or less.

There are 32 active tree farms in Morgan County that are certified by the American Tree Farm System. These farms account for the majority of commercial harvesting, and include several Christmas tree farms. However, there are just over 20 people employed in Morgan County in this industry.

Christmas tree production offers significant potential for commercial development. In 1980 there were approximately 12 Christmas tree growers with 2 or more acres of production, accounting for a total of nearly 100 acres. As of 2000 that number had increased to 4 growers on more than 100 acres. The Soils Survey indicates that over 70,000 acres in the County are suitable for Christmas tree growing.

There are 3 active sawmills in Morgan County, which purchase stumpage and sawlogs of mixed hardwoods and produce lumber, railroad ties, and pallets. This includes one on Poole Road and another on Gloyd Lane. The third sawmill, located on Pious Ridge did not operate in 2005.

Mineral Resources

The predominant bedrock in the County consists of various types of shale. They outcrop on long narrow bands on both sides of Cacapon Mountain and are also exposed by erosion on the summit of the Mountain. The USGS Survey indicates that some of these shales may be adaptable to brick manufacture but careful testing would be required to prove the different locations best suited to this endeavor. Also, given the change in environmental regulations, most sites may prove both cost prohibitive and detrimental to preserving the County's quality of life.

Limestone outcrops are present along the east side of Tonoloway Ridge and the upper west slope of Warm Spring Ridge. This limestone was once quarried and crushed at a small plant on the west slope of Warm Spring Ridge near Berkeley Springs. It made good quality lime and also excellent road material. The USGS Survey indicates several places along Warm Spring Ridge where this stone could produce a large tonnage.

The most important glass-sand district in West Virginia is near Berkeley Springs where the Oriskany Sandstone is quarried. This sandstone outcrops on a number of ridges in Morgan County, being usually much iron stained, impure and often quite hard. However, in Warm Spring Ridge it is a snow-white crumbly sandstone especially adapted to use as glass sand and, through subsidiary companies, attapulgate clay. Corporate headquarters are located near the surface mine north of Berkeley Springs. The company's existing mine, and additional land holdings total acres in Morgan County. A second large land holding of 1,995 acres is located on the west slope of Cacapon Mountain. This land is owned by Dresser Industries.

The Baird Field is a small area of gas production in western Morgan County. Two producing gas wells were completed in 1967 in an area just west of Hansrote and since that time additional wells have been completed. These wells are listed by the USGS Survey as producing 800,000 to 1.2 million cubic feet per day at depths of more than 4,800 feet in some places.

Unlike most of West Virginia, Morgan County has very limited potential for coal production. Coal stems on Sideling Hill are quite thin and the coal is high in ash and very crumbly on exposure. Small mines were once opened to supply a small local trade, but even these did not produce enough to continue operations. Coal deposits of the Meadow Branch Field now lie within the Sleepy Creek Public Hunting Area. These deposits are in thicker veins than the Sideling Hill and are of very good quality except for a close admixture of slate.

Agricultural Resources

Agriculture has taken a declining role in Morgan County for many years. In 1940, two-thirds of Morgan County was in some type of agriculture use or classification. In 1982 that proportion had declined to less than one-fifth, and as of 2000 it a little over one-sixth. Although there has been significant decline, it remains important to the County as a basic occupation which brings outside dollars into the local economy. As growth continues to increase throughout the County, it has also become increasingly more important from the standpoint of preservation of natural resources and scenic rural environment.

In 2000, the average farm in Morgan County was significantly less productive than the State average. It ranked 40th among all counties in West Virginia total market value of products sold, and 27th in average market value of products sold per farm. The most significant products in the County's agriculture are cattle and forage, which accounted for more than 75% of the total market value of products sold per farm in 2000.

The character of Morgan County farmland is well suited for orchards, but less suitable for other types of crops. With nearly half of the land in Morgan County exceeding 25% slope, there are few flat areas of the size and type to support other agricultural uses. Although the average farm is 129 acres, many farms have smaller portions devoted to crops. Out of 22,953 acres of farmland in the County in 2000, less than 10,000 were actively farmed. This is a change from 1982 of more than 26,000 acres with over 13,000 acres being farmed.

There are only 54 acres within the County with soil in the Land Capability Class I, which is the very best of prime farmland. Prime farmland is best suited for producing food, forage, fiber, oilseed crops, and also available for other uses, with corn as the indicator crop. There are more than 5,000 acres of prime farmland. Unique farmland used for a specific high value food or fiber crop totals more than 1,000 acres. An additional 15,000 acres are considered of statewide and local importance.

As noted, some farmland is not actively farmed, but has not been precluded from farming. This amount has steadily increased, and is due in part to a lack of continuity on family farms which young people are leaving to pursue other occupations. Also, the growth rate and consequent development pressure driving up the cost of farmland have contributed to this trend, making the purchase of land more practical for development purposes. The average value of an acre of land exceeded the state wide average in West Virginia in 2000. Scattering of residential subdivisions near farming activities creating incompatible uses continues to occur particularly in the Central Valley planning region.

Approximately 178 people listed farming as their principal occupation in 2000, which was an increase from the nearly two-thirds of the total farming population surveyed in 1982. However, of that number it is estimated only 84 are full-time farmers. Most of the farms in the County are small in terms of total acreage, with 132 farms selling less than \$5,000 worth of products. With so many farms operating on a marginal scale, it is anticipated that the trend away from farming will continue.

Rare & Endangered Species

Most of Morgan County's rare plant and animal species are found in the Sleepy Creek watershed. This is also where the County's only endangered species continues to survive. Through the help of such groups as the Sleepy Creek Watershed Association, both protection and education of this sensitive environment remains a priority in dealing with the pressures of increased development.

The Sleepy Creek watershed is home to 23 rare plant and animal species as well as one endangered flower species. These rare species have been monitored by the West Virginia Department of Natural Resources over the past several years, and additional measures have been taken to protect the endangered wood turtle, which is found in only eight counties throughout the State. The endangered wildflower; Harperella also manages to survive in the watershed with Sleepy Creek being one of only ten known populations of this species between Alabama and Maine.

Table 6-1 Rare and Endangered Species

<u>Scientific Name</u>	<u>District</u>	<u>Common Name</u>	<u>2004 Sighting</u>
<i>Acris crepitans crepitans</i>	Sleepy Creek	Eastern Cricket Frog	2
<i>Catocola herodius gerhardi</i>	Sleepy Creek	Pine Barrens Underwing	1
<i>Coragyps atratus</i>	Sleepy Creek	Black Vulture	3
<i>Coreopsis verticillata</i>	Sleepy Creek	Whorled Coreopsis	2
<i>Euchlaena milnei</i>	Sleepy Creek	A Looper Moth	2
<i>Glyceria laxa</i>	Sleepy Creek	Northern Manna Grass	1
<i>Glyptemys insculpta</i>	Sleepy Creek	Wood Turtle	6
<i>Heterodon platirhinos</i>	Sleepy Creek	Eastern Hog Nosed Snake	3
<i>Liparis loeselii</i>	Sleepy Creek	Loesel's Twayblade	2
<i>Neotoma magister</i>	Sleepy Creek	Allegheny Woodrat	2
<i>Oenothera argillicola</i>	Sleepy Creek	Shale Barren Evening Primrose	2
<i>Pandion haliaetus</i>	Sleepy Creek	Osprey	1
<i>Piptochaetium</i>	Sleepy Creek	Blackseed Needlegrass	1
<i>Potamogeton pulcher</i>	Sleepy Creek	Spotted Pondweed	1
<i>Pseudacris triseriata feriarum</i>	Sleepy Creek	Upland Chorus Frog	1
<i>Pseudotriton ruber</i>	Sleepy Creek	Nothern Red Salamander	1
<i>Ptilimnium fluviatile</i>	Sleepy Creek	Harperella	1
<i>Pycnanthemum muticum</i>	Sleepy Creek	Blunt-Mountain Mint	1
<i>Schoenoplectus purshianus</i>	Sleepy Creek	Weakstalk Bulrush	1
<i>Solidago arguta var harrisii</i>	Sleepy Creek	Shale Barren Goldenrod	2
<i>Sorex hoyi winnemana</i>	Sleepy Creek	Southern Pygmy Shrew	2
<i>Sylvilagus obscurus</i>	Sleepy Creek	Appalachian Cottontail	1
<i>Veronica scutellata</i>	Sleepy Creek	Marsh Speedwell	1

Although not rare, it is also home to at least eight species of mussels, which are typically more prevalent near the confluence of the Potomac.

Goals & Objectives

The natural environment and the physical factors affecting it are important to the local quality of life and the local economy. If new development is most efficiently concentrated around existing population centers which provide basic public service and infrastructure, development can occur in the most cost-effective way, while preserving the rural open space, and sensitive areas. Unplanned growth, loss of farmland and open space, and subdivision of rural land, are among the top concerns for Morgan County residents. Since preventive measures to protect the environment are preferable to corrective measures, this Plan should accentuate goals and objectives which will prevent scattered sprawl in the rural areas, loss of open space, and degradation of the environment.

Goals

The main goals concerning natural resources focus on protecting sensitive areas and the wise use of land. They include:

- Encouraging reduction of the contamination of ground water and protection of the recharge areas for the natural springs in the Town of Bath;
- Protecting rivers and streams and the Chesapeake Bay watershed by promoting riparian buffer zones and minimizing the impact of runoff and erosion on stream systems; and
- Working to protect and limit growth in sensitive areas such as those containing steep slopes, prime agricultural soils, flood plains, or endangered species of flora and fauna.

Objectives

Accomplishing the following objectives will ensure progress toward these goals:

- Promoting best resource management practices in farming, including riparian buffers, native landscaping, and forest management techniques;
- Encouraging landowners to preserve land along waterways by committing these areas to land trusts, and to protect farmlands and woodlands through agricultural and preservation easements;
- Participating in the development of programs to curtail erosion and limit the release of sediment and nutrients into streams, and increase public awareness of this issue;
- Supporting implementation of the strategies of the Morgan County Water Resource Study;
- Encouraging maintenance of the National Floodplain Insurance Program 100 year floodplain mapping to reflect more recent knowledge of the designated areas, and promote enforcement of the regulations regarding use of these areas;
- Promoting protection of groundwater by directing residential and commercial development away from recharge areas;
- Supporting programs to educate the public about responsible care of the county's natural areas;

- Encouraging development of a long term park, recreation, and environmental resource protection plan focusing on areas where there is increasing development pressure; and
- Preparing to react to the Air Quality Early Action Compact.

CHAPTER 7 – RECREATION AND TOURISM

Introduction

As the metropolitan areas to the north, south, and east continue to become more heavily populated, pressure of additional population growth will continue to increase in Morgan County. At the same time, the County's recreational and tourism features will continue to attract a growing number of seasonal and transient users. It is important that such growth be guided in concert with maintaining the quality of life such tangible and intangible amenities offer its existing residents.

These qualities are most apparent in the provision of adequate parks and recreation areas, which in turn serve as part of the successful tools of marketing the County's rich tourism heritage. In order to maintain this balance and promote a positive experience by residents, businesses, and visitors, it is important to identify the resources that make up these often interchangeable amenities.

Parks

Morgan County is fortunate to have an abundance of natural, scenic, and historic resources which make it an ideal setting for outdoor recreational activities. With a relatively small and concentrated population, local and State parks and recreation facilities comprise a large part of the County land mass, with a number of local groups actively involved in preserving, protecting, and promoting the values of such spaces both residents and visitors come to appreciate.

Federal Parks

The most important federal facility in the area is the Chesapeake and Ohio Canal National Historic Park, a part of which parallels the Potomac River across from Morgan County on the Maryland side. Although the National Park Service owns a few acres in Morgan County along the abandoned B&O Railroad right of way, the C&O Canal recreational historical attractions are all located in Maryland. Recreation opportunities along this section of the Canal include camping, hiking, biking, and boating. Boat ramps are located at Hancock, Maryland and at Fifteen Mile Creek, located across from Orleans Cross Roads.

One of the most significant attractions of the C&O Canal is the Paw Paw Tunnel, a 3,118 foot brick-lined excavation located across from the Potomac River, just north of the Town of Paw Paw. The Tunnel was constructed from 1828 to 1850 to provide passage for the Canal through a six-mile set of river bends. The National Park Service estimates national visitation of the Tunnel has continued to increase from 10,000 in 1980. There are continuing efforts at the local level to support extending the rail trail efforts of the

National Park Service from Pearre to Cumberland, which would include numerous crossings into Morgan County, for increased recreational use.

State Parks

There are three State parks within Morgan County that total 11,120 acres. Although these parks are owned, operated, and maintained by the State, the County residents and businesses enjoy local ownership of the recreational value that these natural areas offer.

The Berkeley Springs State Park is said to be the oldest State recreational facility in the nation, dating from 1776 when Lord Fairfax conveyed it to the colony of Virginia. Originally used as public green space prior to 1776, when the Town was established and the park was set aside as Bath Square, eventually becoming State property in the 1920s. The small 4.5 acre park, still serves as “village green” in the center of the Town of Bath, and is the site of a series of natural warm springs which have been used since pre-colonial times as a health spa. The Museum, established and operated as a membership organization by volunteers, is located on the second floor of the 1815 Roman Bath House and features exhibits explaining the hydraulics and geology of the famous springs as well as the culture of more than two centuries of bathing. Today the park features 14 Roman baths, a number of conventional tubs, various forms of physiotherapy, and an outdoor swimming pool. Visitors to the baths have increased from nearly 80,000 in the early 1980’s to more than 95,000 in fiscal year 2006.

Cacapon State Park is the largest in the County, covering a long narrow preserve of approximately 6,115 acres, which extends from Virginia north almost to the Potomac River. The park centers around the Cacapon Mountain on which hiking and bridle trails climb 1,400 feet from the activities center to the summit. The Park includes a large 6 acre lake with sand beach, small second lake and reservoir, an 18 hole golf course, a guest lodge, and facilities for picnicking, tennis, fishing, boating, and swimming. It also is home to a volunteer-built Nature Center which houses exhibits and educational activities on the geology, flora, and fauna of the area. Local sandstone boulders and blocks were used in many of the buildings, walls, and gateposts, some of which were built by the Civilian Conservation Corps in the 1930s. The total number of annual users has decreased from 350,000 in 1980 to less than 270,000 today.

The Sleepy Creek Public Hunting Area is a 23,000 acre State preserve, of which approximately 5,000 acres are located in eastern Morgan County. The Hunting Area includes a 205 acre lake, camping sites, and other rustic outdoor amenities. Use of the various activities has increased from nearly 15,000 hunters, fishers and campers since 1980.

Although not considered a State park, the State also owns the 400 acre Widmyer Public Hunting Area just west of Berkeley Springs.

County Parks

There are three County parks within Morgan County that total 34 acres. These parks include space for both passive and active recreational activities, which serve to supplement larger State recreational areas.

The largest County owned park is the Morgan County Recreation Area located along US Rt. 522 south of Berkeley Springs. This park consists of 16 developed acres, that encompass several baseball fields, a concession, parking area, pavilion and playground. It also includes 16 undeveloped acres that are currently under review by the Parks and Recreation Commission for future proposed uses.

The County also owns two smaller parks that provide active recreational value. The first is the David Henry Memorial Park, which is a one acre park with basketball and tennis courts. The second, Harmison Field, is also about one acre in size, and offers a baseball field for little league use.

Local Parks

The Town of Paw Paw owns and operates a 7 acre municipal park which provides a pavilion, baseball field and playground area. There are plans to expand the uses in this park, as funding is made available. It also owns a small recreation area along the Potomac River that provides a boat launch for non-motorized craft into the Potomac River.

There are three small recreation areas in the Town of Bath, which are not maintained by the Town. This includes: a one acre facility on Biser Street which includes two tennis courts and a basketball court, a small baseball field behind the Senior Center on Green Street, and a skateboard park located on the Morgan County Board of Education property behind the old North Berkeley Elementary school.

The Spruce Pine Hollow Park, a roadside park with a pavilion along WV Rt. 9 is owned by the Sons of the Revolution and maintained by Morgan County. The Meadow Branch of Sleepy Creek, which runs along the property boundary shows archeological remains of a mill run. James Rumsey's brother Edward owned this land and legend has it that this is the site of a bloomery and sawmill where James Rumsey may have sawed boards for the summer home Washington contracted with him to build in 1784 on lots Washington owned in Bath. About a year later, Rumsey reported to Washington that his mill burned and the boards for the house along with it. Washington would have ridden past here traveling to Berkeley Springs, another 12 miles west. Today's WV Rt. 9 is the modern version of the noted 18th century Warm Springs Road which went from Alexandria, Virginia to the country's first spa in Bath.

Park Organizations

The Morgan County Parks and Recreation Commission was formed in 1973. The Commission consists of 11 members, which are appointed by the County Commissioners to oversee all of the County parks.

The Paw Paw Parks and Recreation Board is an appointed board created to oversee the operations of the Paw Paw municipal parks. The Board consists of 9 members.

Two important civic organizations, which volunteer efforts to maintain various park and recreational amenities, include the Friends of the Cacapon River and the Sleepy Creek Watershed Association. Both groups were formed to actively serve to protect their respective rivers and streams which empty into the Potomac and form part of the Chesapeake Bay watershed.

The Friends of the Cacapon River is a grassroots environmental group whose mission is to preserve, protect and promote the Cacapon River, a major feeder of the Potomac River. In addition to monitoring activities, it sponsors an environmental camp for kids, educational seminars and tours.

The Sleepy Creek Watershed Association works to protect and preserve Sleepy Creek and to educate the community about the value of the precious natural resources that abound around the Creek. Sleepy Creek, a meandering tributary of the Potomac river, is host to a federally listed endangered plant called Harperella.

Several other local parks and recreation organizations include the Berkeley Springs State Park Foundation, Cacapon State Park Foundation and Potomac Trails Association all of which are made of volunteer efforts to protect and promote the County's recreational amenities.

Board of Education Property

Given that many of the schools within Morgan County are both located within close proximity to a majority of the population and include a large amount of field and active open space which is available for public use, it is important to include this acreage within the overall parks and recreation system. These facilities are outlined in Chapter 5 of this Plan and include a total of 150 acres spread throughout the County.

The most heavily utilized area within the Board of Education as it relates to active recreational park value to the local residents is the walking track located at the Widmeyer Elementary School.

Table 7-1 Parks and Recreation Sites

Park	Activities	Owner	District	Acres
C&O National Historic Park	hiking/biking, camping boating, fishing	US Park Service	Numerous	N/A
Cacapon State Park	basketball, cross country skiing, golf, hiking, tennis, picnics, volleyball, lake, swimming, playground	West Virginia	Numerous	6,115
Berkeley Springs State Park	spa, tubs, bath house, spring house, outdoor pool	West Virginia	Bath	5
Sleepy Creek Hunting Area	hiking, fishing, camping, hunting, boating	West Virginia	Sleepy Creek	5,000
Widmeyer Hunting Area	hunting	West Virginia	Bath	400
Morgan County Rec. Area	ball fields, playground	Morgan County	Timber Ridge	32
David Henry Mem. Park	ball fields	Morgan County	Bath	1
Harmison Field	baseball field	Morgan County	Bath	1
Spruce Pine Hollow Park	pavilion, picnics	Private	Sleepy Creek	2
Paw Paw Municipal Park	ball fields, picnics	Paw Paw	Cacapon	7
Total	10 parks			11,562 acres

The park facilities range from 1 acre to more than 6,000 acres, with ownership at all levels of government, and providing activities that are both passive and active for residents and visitors. The park areas are widely spread throughout the County providing the opportunity for a healthy mixture of recreational activities that are within reasonable distance of existing and proposed development. National Parks Association standards suggest there should be 10 acres of park land for every 1,000 residents. However, there are many factors to consider in developing this ratio which should account for the type of park amenities being provided. At more than 11,000 acres in 10 parks, not including other open space such as schools, the C&O National Park, or private recreational locations, the amount of park space per 1,000 residents is adequate in meeting current and future demands.

Recreation

The County includes a number of community based organizations and commercial entities that provide recreational activities to serve the growing population. These activities include a variety of active, passive, and resort style settings.

Commercial Activities

The largest commercial recreation facility in Morgan County is the private property of the former Coolfont Resort and Conference Center. It consists of 1,800 acres of fields and forests located in the valley between Cacapon Mountain and Warm Springs Ridge near Berkeley Springs. Coolfont includes two spring fed lakes, a restaurant, conference center, cabins, hiking and riding trails, and facilities for tennis, fishing, ice skating, boating, and cross-country skiing. It also features an award-winning solar-purified swimming pool. Coolfont has gone through numerous owners and iterations as a recreational retreat, and was most recently closed and sold for private development investment.

The golf course located in Cacapon State Park is an 18-hole, 72-par championship golf course designed by Robert Trent Jones in the mid 1960s. The course is meticulously maintained, and is one of the regions most popular public courses open for year 'round play. It includes carts, driving range, picturesque putting green, pro-shop, clubhouse and challenging play which includes deer as obstacles and are all part of the course appeal.

There is also a mini-golf and driving range located on WV Rt. 9 east of Berkeley Springs.

Cultural Recreation Facilities

The Ice House, which serves as the center for the Morgan County Arts Council is a four story storage building built in 1910, located in downtown Bath that was gifted to the Council in 1996. The building provides a Great Hall, one classroom, office, darkroom and gallery. The building was called by the name of a similar building in Denver that had also been transformed into an art center -- the Ice House. It is located at the corner of Independence and Mercer Street and is in the process of being renovated to include classrooms, a theater, and dance studios.

The Morgan County Observatory houses a rare Cassegrain telescope, in a cedar-sided observatory with rotating dome that is open for education programs, public viewing and star shows. This unique structure, which was built in 2001, is located on a ridge about 10 miles south of Berkeley Springs on Winchester Grade Road.

The Ridge Fish Hatchery is only one of seven in the state, producing both cold and warm water fish including trout and muskies. The Hatchery is owned and operated by the West Virginia Department of Natural Resources, and has been in existence since 1929. It is located about 12 miles south of Berkeley Springs on US Rt. 522, and is fed by the Breakneck Run Springs.

The Sidling Hill Mountain and Visitor Center is located on US I-68 just west of Berkeley Springs, and was created when a cut was blasted through the mountain in order to make way for I-68. The cut reveals an impressive cross-section of geosyncline-concave layers of sedimentary rock at various layers of the earth's crust. Interpretive exhibits are available free at the visitor's center.

There are shooting range activities available at two locations in the County. This includes sporting clays and trap shooting at Sleepy Creek Sports, which is a National Sporting Clays Association member. This wooded range is located near Berkeley Springs and is fully equipped and staffed. Also, the Sleepy Creek Wildlife Area, which is a State owned facility, has an unattended shooting range.

Public Activities

The Sleepy Creek Hunting and Fishing Area is one of the most diverse natural preserves within the State. It is part of the State owned park, which includes more than 22,000 acres straddling both Morgan and Berkeley counties, with approximately 5,000 acres consisting of more passive recreational activities located on the Morgan County side.

There are two State owned locations which offer hunting and fishing on more than 20,000 acres in two wildlife management areas providing opportunities for hunting everything from white-tailed deer to roaming flocks of wild turkey. There are both spring and fall seasons for various game. These areas include Sleepy Creek Hunting and Fishing Area and Widmeyer Hunting Area. Fishing locations are even more varied with settings for canoeing, fishing and boating found on the Potomac and Cacapon rivers, on area streams and on lakes at Cacapon State Park and Sleepy Creek Hunting and Fishing Area, some stocked by the Ridge Fish Hatchery.

Cacapon River provides for several river access sites. A self-guided boating tour extends from Largent to Great Cacapon where the Cacapon joins the Potomac River. This tour passes many natural and man-made features including historic bridges and unique rock outcrops. This tour is administered by the Friends of Cacapon River, a local nonprofit group that works to preserve, protect, and promote the Cacapon River watershed.

Berkeley Springs includes two pedestrian scenic byways for those who choose to walk to see the sites of this historic area. These walking tours include the Treasure Tour of Berkeley Springs State Park, which features 16 points of interest centered around the nearly five acre park that houses the original Berkeley springs, and the Walking Tour of Berkeley Springs, which includes the sites and structures of 28 locally historic landmarks, most within several blocks of downtown Bath.

Morgan County also provides numerous mountain trail rides originating from Cacapon State Park and the former Coolfont Resort. One of the most popular rides starts in the State park and crosses along the top of Cacapon Mountain for 10 miles to the historically and geologically prominent Cacapon Rocks. This ride offers spectacular views of the Cacapon River Valley. There is also offered for rodeo fans sanctioned events at the outdoor Triple B Arena located along Sir Johns Run. These commercial events include activities such as team sorting, barrel racing and team roping.

Swimming and other water recreation include the lake at Cacapon State park, which offers paddle boating and beaches. There are boat launches on to the Potomac River and Sleepy Creek Lake in the wildlife management area and canoeing, kayaking and tubing

on the Cacapon River. Also, the public swimming pool in Berkeley Springs State Park is open from Memorial Day through Labor Day.

Other major recreational activities spread throughout the County include hiking and biking trails along Cacapon Mountain accessible from both Cacapon State Park and former Coolfont Resort. Other trails include the Tuscarora Trail, which connects to the Appalachian Trail and the C&O Canal provides easy hiking as well as biking.

Recreation Organizations

The Morgan County Master Gardeners is a group of volunteers that serve to beautify and enhance the area with butterfly gardens and other plantings.

The West Virginia University Extension Service operates the seasonal Berkeley Springs Farmers Market on Sundays in the center of the Town of Bath.

The Potomac Valley Audubon Society is a civic organization that serves Morgan County and other nearby areas. Services include sponsoring area children to summer camps for environmental education and establishing local nature preserves.

Throughout the County, there are numerous youth and adult athletic organizations that operate independent of the County, but utilize many of the County's fields and spaces for recreational sports activities.

Tourism

As noted by the Travel Berkeley Springs report submitted to the Morgan County Planning Commission in 2005, tourism is a more than \$42 million industry in Morgan County, consisting of more than 100 businesses that employ more than 650 people. Travel Berkeley Springs is the convention and visitors bureau for the County, with its main office located in Berkeley Springs, and having nearly 100 members. Half of its budget is funded through hotel/motel tax revenues. From the 2004 report committee members developed several goals and strategies centered around two distinct objectives; protecting the historic character of Berkeley Springs and preserving the scenic wilderness throughout the County by promoting the tourism ambience of a place "caught in time".

Noted as one of America's "top 100 small arts towns" by the 4 editions of John Villani's book of that name, the most attractive tourism location in Morgan County are the unique features of the local spas, massage, and warm springs of Berkeley Springs. This location draws a high proportion of couples seeking weekend getaways. There are three full service health and spa centers offered in addition the Berkeley Springs State Park facilities. There are nearly a dozen bed and breakfasts and inns as well as cabins, vacation homes, suites and lodges offering more than 100 lodging choices from elegant rooms to rustic cabins. These and all other tourism related activities are promoted heavily through the Travel Berkeley Springs website and Chamber of Commerce offices.

The Washington Heritage Trail was developed in 1998, and includes a tour of the many locations throughout Morgan County which are associated with the rich historical link it shares with George Washington. The tour covers at least 15 points of interest within the County, from the Town of Paw Paw to a small park in the Sleepy Creek region. The tour is defined as “following his footsteps on the Washington Heritage Trail National Scenic Byway takes you on a tour of the county’s most historic locations” associated with George Washington, who “from the time he was sixteen through the reading of his will in 1799, ate, slept, owned land, and bathed in and around Berkeley Springs”. The tour follows closely along WV Rt. 9, and includes some locations along the southern portion of US Rt. 522.

Also associated with the George Washington Heritage Trail is both a boating and driving tour of the Cacapon River. The boating tour extends from the small hamlet of Largent, located off of WV Rt. 9, east of Paw Paw, and ends at Great Cacapon, where the Cacapon joins the Potomac River. This tour passes many natural and man-made features including historic bridges and unique rock outcrops. The self-guided driving tour follows much the same route, traveling in either direction along WV Rt. 9, which hugs and crosses the river for its entirety through the County. Both tours are administered by the Friends of Cacapon River, which is a local nonprofit group that works to preserve, protect, and promote the Cacapon River watershed.

Given the vast amount of acreage either preserved in public parks or promoted through private recreational ventures, coupled with the County’s relatively rural character and scenic views, a significant amount of tourism activity is also generated for the enjoyment of people from more urban metro areas to the east. This is evident by the continued strong interest in construction and purchase of recreational homes scattered throughout the County.

Goals and Objectives

Goals

Morgan County’s special topography with its mountains, rivers, forests, parks and open land offers appealing recreational options that attract significant numbers of tourists. Goals to help maximize recreational opportunities include

- Preserving the county’s beauty for the benefit of residents as well as tourists;
- Promoting the creation and protection of parks, open and natural spaces, and a variety of recreational and cultural facilities concomitant with new development; and
- Encouraging and providing opportunities for active recreation to enhance physical fitness and enable more people to enjoy what Morgan County has to offer.

Objectives

These goals will be advanced by achieving the following objectives:

- Encouraging the creation of neighborhood parks within developments, and the linking of open spaces among residential developments to create larger, contiguous undeveloped areas;
- Supporting acquisition of additional park land as well as rights of way for hiking and biking trails;
- Protecting existing sites and facilities such as the Widmeyer Running and Walking Track, the Observatory, and the Rt. 522 Ball Complex;
- Encouraging development of a countywide parks and recreation plan to assess future demand for various types of recreation (e.g. golf, swimming, bowling, a community recreation center with an indoor pool, and a separate, safe trail system for recreational ATV's) and prioritize the identified needs;
- Supporting expansion of recreational activities along the county's waterways;
- Encouraging local governments and the school system to coordinate sports activities to ensure efficient use of field space;
- Promoting the Ice House as a site for enrichment classes;
- Evaluating and considering implementation of the goals of the 1998 Youth Summit;
- Supporting completion of the community park and consideration of the creation of an interpretive center and trail system in Paw Paw;
- Supporting the Travel Berkeley Springs Convention and Visitors' Bureau as a means of advancing tourism;
- Promoting the George Washington Heritage Trail through the Corridor Management Plan;
- Continuing to work with the National Park Service on completion of the C&O Canal trail; and
- Developing regulations governing the protection of the community's character, specifically to address issues relating to billboards and signs.

Recreation and Tourism Map

<u>Parks</u>		<u>Recreation</u>	
1	C&O Canal	10	Cacapon State Park Golf Course
2	Paw Paw Municipal Park	11	The Ice House
3	Berkeley Springs State Park	12	Morgan County Observatory
4	Cacapon State Park	13	Ridge Fish Hatchery
5	Sleepy Creek Hunting Area	14	Sidling Hill Mountain Pass
6	Widmyer Wildlife Mngt. Area	15	Sleepy Creek Shooting Range
7	Morgan County Recreation	16	Cacapon River Access
8(a)	David Henry Park	17	Sleepy Creek Sports
8(b)	Harmison Field	18	Washington Heritage Trail
9	Spruce Pine Hollow Park	19	Cacapon Driving Tour

CHAPTER 8 – ECONOMIC DEVELOPMENT

Introduction

Economic development efforts in Morgan County are an ongoing process of adapting to the changes experienced by the community both through demographic growth and employment. In an effort to promote and maintain a stable and growing economy, the planning process must be flexible enough to allow for various types of employment opportunity, but cognizant of the placement of these uses in compatible areas that compliment neighboring citizens and businesses.

There are several types of individual commercial and industrial economic development entities in Morgan County. There are also several locations within the County that have been developed and are promoted as business parks to generate a concentration of employment opportunity. However, it appears that the largest economic development impact that exists within the County is the growing building trades industry, due in large part to the growing number of housing projects under construction.

Labor Force Characteristics

In order to better understand how the economy within Morgan County functions, it is important to outline the dynamics of the workforce. This includes such trends as migration to and from the labor markets, changes in employment sectors and earnings.

Migration

Between 1980 and 2000 the population increased from 10,687 to 14,943 growing by nearly 40%. During that same time the number of persons eligible to enter the work force (16 years of age and older) increased from 8,005 to 11,962, or a 67% increase. Of this total the labor force increased from 4,587 to 6,953, or a 66% increase. The number of employed persons increased nearly 64%, while at the same time the unemployment rate decreased from 7.6% in 1980 to 4.1% in 2000. However the total number of people not employed or seeking employment increased from 3,418 in 1980 to 5,009 in 2000 which represents a 68% increase. As of 2005 the unemployment rate was 4.2%.

In further review of the changes in employment demographics, the number of females in the labor force increased from 38% in 1980 to 51% in 2000. This is nearly 3% above the State average, and 8% below the National average. During this same period the female unemployment rate of 8.4% in 1980 fell to 3.7% in 2000, while the male unemployment rate decreased from just over 7% to 4.4% during the same period.

Table 8-1 Labor Force Characteristics

Statistic	1970	1980	1990	2000	Change 1970-2000
Persons over 16	5,898	8,005	9,652	11,962	67%
Labor Force	2,984	4,587	5,605	6,953	66%
Employed	2,791	4,231	5,269	6,659	64%
Unemployed	193	356	336	294	4%
Not in Labor Force	2,914	3,418	4,047	5,009	68%

In 1980, it was projected that approximately 38% of the workforce living in Morgan County commuted to jobs outside of the County. Most were commuting to Washington County, MD, and Berkeley County, WV. As of 2000, the workforce commuting to jobs outside of the County increased to 61%, with the largest draw continuing to be Washington County. However, there were also significant additional commuters added in Jefferson County to the east, and Winchester City to the south.

Table 8-2 Traveling to County Place of Work

Place of Work	1980	1990	2000	Change 1980-2000
Morgan County	2,321	N/A	2,571	250
Washington County	497	N/A	1,166	669
Berkeley County	342	N/A	890	548
Frederick County, VA	168	N/A	600	432
Winchester City	N/A	N/A	407	N/A
Jefferson County	N/A	N/A	147	N/A
Frederick County, MD	68	N/A	86	18
Montgomery County	N/A	N/A	59	N/A
Clarke County	23	N/A	51	28
Prince George's County	N/A	N/A	49	N/A
All Others	780	N/A	652	-128
Total	4,199	N/A	6,512	2,313

Table 8-3 Traveling from County to Morgan County Place of Work

County	1980	1990	2000	Change 1980-2000
Morgan County	2,321	N/A	2,571	250
Washington County	N/A	N/A	132	N/A
Berkeley County	N/A	N/A	128	N/A
Hampshire County	N/A	N/A	71	N/A
Fulton County	N/A	N/A	57	N/A
Alleghany County	N/A	N/A	48	N/A
Bedford County	N/A	N/A	25	N/A
Jefferson County	N/A	N/A	21	N/A
Frederick County, VA	N/A	N/A	13	N/A
All Others	N/A	N/A	51	N/A
Total	N/A	N/A	3,118	N/A

While commuting population from other counties into Morgan County for employment has not increased dramatically overtime, there has been an increase on overall employment growth, due in part to increasing population creating increasing demands for general services. Another factor influencing employment growth has been the increased interest of the local tourism economy generated by inns and spas as well as seasonal recreation homes.

Employment Trends

While the number of employed persons increased by more than 67% from 1980 to 2000, employment trends within specific sectors of the economy varied widely. All major sectors except mining and wholesale trade increased in employment. The largest net increase in workers occurred in the various categories of general services, which are further broken out in the 2000 Census report. This was due in large part to the apparent expansion of service related needs in the educational, health and social services category as well as the arts, entertainment, and food services. Other significant increases occurred in categories such as construction and real estate reflecting the increase in the housing construction market, which was beginning to escalate significantly in the late 1990s, and should be an even greater percentage of the workforce in the 2010 census.

Table 8-4 Industry of Employed Persons

Industry	1980	1990	2000	Change
Agriculture	118	195	184	66
Mining*	250	N/A	N/A	N/A
Construction	480	381	658	178
Manufacturing	869	296	1,391	522
Transportation, Warehouse, and Utilities	406	N/A	439	33
Wholesale Trade	124	107	112	-12
Retail Trade	543	565	635	92
Finance, Insurance, Real Estate	153	296	368	215
General Services**	1,080	1,099	N/A	N/A
Professional and Management Services	N/A	N/A	432	N/A
Educational, Health, Social Services	N/A	N/A	1,183	N/A
Arts, Entertainment, Food Services	N/A	N/A	658	N/A
Other Services	N/A	N/A	275	N/A
Public Administration	268	N/A	324	56

* Mining is included in Ag count on 2000 census.

** General Services is broken down into several new occupational categories for 2000

In terms of total number of employees in 2000, it appears that the County is most dependent on educational and manufacturing occupations, which is reflected by several of the top 10 employers within the County falling under these fields.

Employment Earnings

The economic success and viability of the County employment capacity depends not only on the creation of jobs, but also the increase in terms of total earnings. Given the apparent increase in costs associated with housing and services, it is important for the County to sustain economic opportunities for employment in all sectors that will provide earnings sufficient to support the ability for the local population to live in the County in which they work. As reflected in Chapter 2 of the Comprehensive Plan, per capita and household income has increased over time climbing above the State average by 12% and 9%, respectively. Due to the County's location in close proximity to employment markets of four other States, of which nearly 50% of the County workforce currently travels to, it is also important to note the rankings of the County in income comparative to these areas.

Table 8-5 Annual Earned Income per Industry (weekly dollars)

<u>Industry</u>	<u>1995</u>	<u>2000</u>	<u>2005</u>	<u>Change</u>
Agriculture	240	N/A	N/A	N/A
Mining	N/A	N/A	N/A	N/A
Construction	283	354	392	109
Manufacturing	308	441	572	264
Transportation, Warehouse, and Utilities	459	366	409	-50
Wholesale Trade	438	362	414	-24
Retail Trade	209	346	380	171
Finance, Insurance, Real Estate	342	402	529	187
General Services	228	N/A	N/A	N/A
Professional and Management Services	N/A	843	574	N/A
Educational, Health, Social Services	211	367	402	91
Arts, Entertainment, Food Services	193	239	237	40
Other Services	N/A	260	N/A	N/A
Public Administration	375	452	496	121

In an effort to show a more relevant change in wage scale for identified occupations, data was collected for 5 year periods from 1995 forward. As noted in Table 8-5 some information for specific classifications may either be represented in other designations or not available for a particular period. From the data available, this Table represents several trends that are reflective of the overall economic climate experienced by the County. It appears that manufacturing and real estate have experienced the most significant increases in earnings between 1995 and 2005, while other sectors such as hospitality services have produced much slower financial growth.

In comparing this data with the increases in industry employment growth or decline, it is evident that manufacturing and real estate have increased in employment base comparably to increases in wages, just as conversely as declines in wholesale are evident for both wage and employment. One correlation that may be beneficial for the County to monitor in future employment growth is the significant increases in total jobs available in general services that are not producing significant increases in wages. If this trend continues, it may become increasingly difficult for those employed in these industries to keep pace with increases in cost of living.

Income Characteristics

Income characteristics are economic indicators, which are most useful when compared to characteristics of like areas. As defined in the 1985 Comprehensive Plan, Morgan County, which is situated within the Cumberland Valley/Shenandoah Valley quad-state region, may be compared to the other 11 counties in this region with respect to median household income, per capita income, percent of the population below poverty level and other statistical economic demographic measurements.

Table 8-6 Regional Income Characteristics

State County	Med. Household Income		Per Capita Income		% Below Poverty	
	1980	2000	1980	2000	1980	2000
West Virginia						
Berkeley County	15,390	32,967	6,376	16,477	13.9	16.3
Hampshire County	11,926	34,813	5,125	14,851	16.9	14.1
Jefferson County	15,803	48,567	6,139	20,441	13.4	9.3
Mineral County	14,662	33,870	5,697	15,384	13.3	13.9
Morgan County	13,632	36,805	6,242	18,109	16.7	11.3
Virginia						
Clarke County	16,649	53,651	7,473	24,844	9.8	6.7
Frederick County	17,110	52,617	6,503	21,080	9.8	6.7
Maryland						
Alleghany County	13,885	32,492	6,049	16,780	12.2	13.5
Washington County	16,623	43,829	6,765	20,062	10.8	9.8
Pennsylvania						
Bedford County	13,167	34,792	5,403	16,316	14.7	10.7
Franklin County	16,911	42,888	6,675	19,339	7.4	8.2
Fulton County	13,573	37,852	5,402	16,409	14.4	9.4
Average	14,944	40,429	6,154	18,341	12.8	10.8

Morgan County ranks second among the five West Virginia counties and seventh overall for median household income. It also ranks second and sixth in per capita income. At the same time it ranks second and eighth respectively for percent of persons with income below the poverty level. All are significant positive changes over its rankings in 1980, and indicates that the County has quickly become second to Jefferson County in the Eastern Panhandle and continues to keep pace with the average income statistics of the region overall. However, as its per capita income has climbed over the average during the past two decades, making it one of the fastest growing counties within the region for individual income earnings, the County remains somewhat behind in comparison to the region for median household income. Perhaps the most significant change and success of the County income characteristics has been the ability for Morgan County to go from the second highest poverty level in the region, in 1980, to the eighth lowest in 2000, reducing the impact by more than 5% during that period.

Morgan County made significant gains in per capita income between 1980 and 2000, increasing from 73% of the US average to 83% in 2000. The most significant increase during this period was between 1990 and 2000. One factor not displayed as part of the table above is the County's regional ranking in terms of total income comprised of transfer income such as welfare and social security payments.

Although the local economy is growing and population is increasing, Morgan County residents continue to spend much of their income outside of the County. This includes residents in the northern part of the County traveling to larger retail centers for food stuffs, essential and secondary needs and durable and non-durable goods in Washington County, MD and Berkeley County, WV. It also includes the growing southern central valley region residents continuing to shop for such goods and services in Winchester, VA. Further, due to geographic proximity of the Cacapon area, most residents in this western part of the County shop and seek employment exclusively in the growing commercial hubs of Allegheny County, MD.

Major Employers

Export industries, or “basic industries”, are an important component to an area’s economy. Basic industries are considered to drive the area’s economy because the goods and services are sold elsewhere, thus bringing revenue into the area. This revenue then supports the non-basic, or service oriented industries in the local economy. Basic industries in Morgan County include, mining, lodging, wholesale trade, agriculture, fabrication, manufacturing, and freight transportation. Since 1980, both basic and non-basic industries as they relate to major employers have changed as indicated on the following comparative table.

Table 8-7 Major Employers 1984 and 2005

Rank	1984	# of employees F/P	2005	# of employees F/P
1	Pennsylvania Glass Sand	290	MC Board of Education	400
2	MC Board of Education	250	US Silica (PA Glass Sand)	168
3	Coolfont Recreation	105/40	Morgan County Hospital	150
4	Vanguard Products	120	Caperton Furniture (Seely’s)	103
5	Valley View Nurse Home	102	Citizens National Bank	70
6	Morgan County Hospital	75/21	Food Lion	68
7	Consolidated Orchards	60/50	Country Inn	60
8	Cacapon State Park	60/20	Cacapon State Park	26/100
9	Country Inn & Spa	59/9	Washington Homeopathic Products	34
10	Seely’s Pine Furniture	62	Eddie’s Tire Service	19
Total		1,183/140		1,098/100

The above table would indicate that over time, while general government employment has grown to include additional jobs, especially in the public education and health fields, overall major employment entities, especially in the manufacturing and service industry sectors has continued to decline, losing approximately 70 jobs among the top 10 employers. This is evident in the fact

that its private sector employment between 1990 and 2000 increasing at 13% ranked as one of the lowest in the region while its government and other public employment rate grew by more than 25% during the same period. Given that the smaller non-basic employment sector is an integral part of the success of the local economic employment industry as a whole, it is important to further explore the make up of those employment opportunities not included in the top ten listed in Table 8-7, as those industries combined produce a significant amount of the labor force.

Non-Basic

Non-basic or commercial development includes those general types of retail and service trades that often reflect the growing or declining pace of residential growth. As Morgan County continues to experience increased growth in the number of new housing units being constructed each year, and thus additional public services required, general commercial types of development will follow closely behind and in close proximity to new residents, especially for those areas of newer large subdivisions that may attract residents relocating from areas where such commercial conveniences may have been more prevalent.

Two examples from very different perspectives provide evidence of this occurring over time, having widely disparate affects on both long time and new employers. Food Lion for example, which was not listed as one of the major employers in 1984, and being built after that year, provides services on a regional level, unlike most smaller grocers that existed in more locations in the 1980s. However, it should also be noted that non-basic services such as Eddie's Tire Service, which employed 50 people in 1984, and was one of only two providers of such services in the County at that time, now employs only 19 people and has been directly affected in part by the proliferation and specialization of similar service providers spread among convenient locations throughout the region, making pricing and service a key component of market competitiveness.

Tourism

Morgan County, as outlined in Chapters 2 and 7, is unique from its surrounding neighbors, with nearly 15% of its housing units designated as recreational homes, and a larger per capita share of tourism related activity. The economic benefits of this element have grown over time as reflected by the increase in employment opportunities, which include the addition of at least one major employer, the Country Inn, to the list above. Efforts must continue to promote the County to tourists and new employers that will nurture the potential for small business growth within the community.

Basic

While the construction industry is on the incline and commuting is made easier over time, there will be a limit to both the amount of new residents the County may adequately provide services for, as well as a finite capacity of the number of people willing to commute to work elsewhere. For these and many other reasons it is important that the County grow, sustain, and diversify its basic economic development industries.

As noted above, basic industry businesses, which make up 20% of County jobs, are of great importance to the long-term sustainability of the area’s economy, driving the local economy with goods and services being sold elsewhere, thus causing dollars to flow back into the local area through consumer exchange in non-basic purchases. As a general rule, it is estimated that a healthy ratio exists when there are two to three jobs created in non-basic services for every one job in basic industries.

Industrial Sites

Of the nine industrial sites identified in the 1985 Morgan County Comprehensive Plan, few exist in the Economic Development Authority (EDA) index today. Factors facilitating this change in direction include; previous sites identified being too small or incompatible with surrounding uses, environmental regulations that have changed over time that would limit the intensity of uses, and outside funding promoting the development of alternative locations.

One of the most prevalent factors in the change in the index from 1985, is community outlook on defining what an industrial site should be. This is highly evident in both citizen feedback during public review of the Plan update as well as the identifier used by the EDA office in promoting the current list of sites on the Index. As citizens appear to be pressing large industrial and manufacturing employers to become both more environmentally aware and aesthetically appealing, the EDA promotes these locations as Business Parks.

Table 8-8 Industrial Business Park Site Index

Site	District	Total Acres	Acres Available
Robert C Byrd	Cacapon	30	17
Wolfe-Deerfield Property	Cacapon	30	25
522 Business Park	Timber Ridge	102	70
Shirley Farms West Site	Bath	40	40
Consolidated Orchard	Cacapon	7	7
Lippert Components	N/A	9	9
Vanguard Building	N/A	10	10
US Silica Property	Bath	2,786	500
Total Acres		3,014	678

The Robert C. Byrd Industrial Park is located along WV Rt. 9 on the southeastern side of Paw Paw. It consists of 30 total acres divided into 8 lots with 17 acres on 6 lots remaining to be developed. Benefits to this site include the extension of available municipal water and sewer service from the Town of Paw Paw.

The Wolfe-Deerfield Industrial Park is also located along WV Rt.9 on the southeastern side of Paw Paw. It includes 30 total acres with 25 acres available for development, and is served by municipal water and sewer from Paw Paw.

The 522 Business Park was is located along US Rt. 522 in the Timber Ridge District, which is located in the Central Valley Planning Region. It is a large Business Park consisting of 102 acres,

with 70 acre available for development on 9 of the 12 total lots. However, given its close proximity to surrounding rural land and natural waterways, not all land within this park is suitable for heavy use. It is served by a private on site water and sewer system.

The Shirley Farms West Site is located along US Rt. 522 in the Bath District, and includes 40 acres of undeveloped property being marketed for industrial business park use. It is served by a private well and septic system and does not currently have internal access roads.

The Lippert Components building is also located along US Rt. 522, and includes a vacant 53,000 square foot warehouse style building. Another building is the Vanguard Building, which is partially occupied. It has nearly 24,000 square feet of space available of its total 95,000 square foot structure, which is broken into several sections for multiple users.

Consolidated Orchard, located in the Town of Paw Paw, consists of an 81,000 square foot building broken into four sections of which three sections totaling 58,000 is currently available. It is located along WV Rt. 9, and is provided with municipal utilities and services.

By far the largest single industrial site in Morgan County, US Silica, which has changed names and ownership over its decades of existence, provides the most potential for continued and future major employment opportunity. Of the 2,786 acres owned by this single entity, only a small percentage is utilized for its major mining operations of Oriskany sand. However, as this natural mineral resource is depleted, it is expected that the company may only have approximately 20 years of productivity remaining. Given the location and importance of this industry within Morgan County, future use of this property must be taken into account in order to ensure that whatever reuse may evolve from this transition it is complimentary to the surrounding community and the goals of the Comprehensive Plan.

Economic Indicators

The Eastern Economic District, made up of the eight eastern most counties in West Virginia, which includes Morgan County, continues to fare better than other parts of the State in such categories as wages and benefits, income earnings, and labor management relationships. Unlike other areas of the State, it has not experienced the dominant influence of the unionized coal industry. It continues to produce a labor pool of high productivity, good mechanical skill and work discipline, and low absenteeism and turnover rates.

Access to the major transportation network continues to be improved as it relates to freight transportation and access to the metropolitan government employers. Although there appears to be some incline in the real estate market, housing costs remain relatively low with a healthy percentage of vacant land and structures for new residents and businesses.

The Morgan County Economic Development Authority monitors the economic climate of the County. It uses the information to identify barriers and promote positive economic growth through both a marketing and policy perspective. Positive factors include proximity to the metropolitan areas, relatively low real estate taxes and rent, low crime rate, and available

structures for new industries. Some barriers that exist include the State Business and Occupation tax on gross income, lack of large accessible parcels of land served by public water and sewer, and lack of State programs offering tax package incentives.

The Authority's strategy in attracting new industry involves a system of priorities in marketing to potential employers. First priority is given to vacant and available buildings in the Berkeley Springs area. These locations are close to existing services, population, businesses, and infrastructure. Second priority is given to identified sites outside of the urban area, most of which are located along US Rt. 522 and having some level of water and sewer services. These industrial business parks as identified in Table 8-10, have been developed to group major employers in similar areas, which allows for sharing of necessary service costs, assurance of compatibility of uses, and larger eligible employment base. Having several business park settings also allows the County to meet its goal of diversifying employment opportunity by offering locations for several smaller employers rather than few large ones, thus protecting the County from the impacts of major layoffs.

A new initiative and growing priority within the County economic development efforts, which is reflective of a growing trend throughout the region is the promotion of business parks that incorporate aesthetically appealing attributes such as more natural surroundings, well landscaped entrance and parking areas, and more environmentally friendly and community compatible practices.

Economic Organizations

The Morgan County Economic Development Authority (EDA) is primarily responsible for promoting job development of major employers seeking to locate in the industrial business parks listed in Table 8-11. The Authority's Plan outlines several strategies in accomplishing sustainable economic growth, including:

- Provide support in accessing funds for community development projects that serve to develop infrastructure and attract business, commercial, and technology industries
- Encourage, recognize, and assist the growth of the existing business base
- Successfully attract new employment opportunities to Morgan County
- Support the efforts to promote tourism throughout the County
- Partner with regional organizations in planning economic development activities
- Provide support to private enterprise in placement of business tenants in sites and buildings, and maintain an inventory of available locations
- Maintain the position of the County's economic development organization
- Expand educational and workforce opportunities for citizens and employees living and working in Morgan County

In addition to the above strategies of the EDA to build the employment base within the County, the Authority has also outlined priorities on a regional level, including:

- Developing strong alliances with Counties of the Eastern Panhandle to promote causes that need a regional perspective and effort to achieve

- Providing attention to the needs of existing businesses within the County through various entrepreneurial assistance initiatives
- Using limited County marketing resources in an efficient manner to attract new businesses to the area that provide quality pay and sustainable job growth
- Maintaining a comprehensive list of properties available for business development and evaluate the need for additional land as properties are developed
- Working to become one of the premier economic development organizations in the State and region while developing a reputation as a community that supports business and industry growth

The Morgan County Chamber of Commerce, located on Fairfax Street in Berkeley Springs was established in 1952. However, it was not until 1978 that the Chamber became fully active with a full time staff person and dedicated office space. Since that time membership in this nonprofit entity has grown to 190 businesses, with services dedicated to a wide array of projects and informational tools, that include a membership and civic organization directory, mapping and relocation information, tourism training, and many other community efforts such as new teacher mentoring and volunteer recognition.

Travel Berkeley Springs is the convention and visitors bureau for the County, with its main office located in Berkeley Springs, and having nearly 100 members. Half of its budget is funded through hotel/motel tax revenues. Its goals and strategies centered around two distinct objectives; protecting the historic character of Berkeley Springs and preserving the scenic wilderness throughout the County by promoting the tourism ambience of a place “caught in time”.

Goals and Objectives

Goals

The vitality of Morgan County is directly related to the health of its business and industry. The commercial sector provides jobs, as well as goods and services, to local residents. The following economic development goals support business and contribute to the well being of the county as a whole:

- Using incentives to locate businesses in appropriate areas with adequate access, including on unimproved land suitable for a range of compatible uses, as infill in existing commercial zones, and in vacant commercial properties and industrial sites suitable for redevelopment;
- Promoting infrastructure improvements in transportation, public services communications, and utilities to attract and retain businesses;
- Encouraging a strong local economy that motivates residents to spend more of their disposable income at businesses in the county;
- Working to attract a variety of new businesses—basic and non-basic—to meet the county’s growing needs, and draw in out-of-county dollars; and
- Encouraging protection of the viability of tourism assets.

Objectives

These goals may be met by accomplishing the following objectives:

- Maintaining an updated list of sites that could be developed by major employers and promoting incentives for locating on those sites;
- Encouraging programs for redevelopment and revitalization of underutilized vacant commercial properties and industrial sites;
- Encouraging incentive programs with the state to attract target employers and large and small businesses;
- Working to enhance the resources of the Morgan County Economic Development Authority and similar groups;
- Coordinating efforts between local government, business associations, and private property owners seeking small business endeavors;
- Encouraging the development of plans that address such issues as marketing, research, financing and location to assist in business start up and retention efforts;
- Promoting training opportunities to meet skill requirements and technology needs of existing and potential businesses;
- Supporting efforts to identify economic growth opportunities for retention and expansion of existing employers;
- Promoting development of an Information Technology building to provide office space to small start up IT businesses;
- Enhancing opportunities to establish cultural and recreational tourism-related businesses;
- Promoting businesses focused on 'green' industry;
- Encouraging creation of an eco-industrial park;
- Promoting the health and wellness industry; and
- Working with the farming community to identify the future role of agriculture and agribusiness industries in Morgan County.

CHAPTER 9 – COMMUNITY DESIGN

Introduction

Although Morgan County is relatively small both in population and total acreage, its rich cultural history can be seen in the built-up environments that compose its population centers. Given the potential commercial tourism and recreational value that have driven the construction of more than 15% of its housing stock as seasonal homes and a thriving 42 million dollar annual tourism industry, it is important to preserve the heritage that exists within each community.

This preservation effort should first include an assessment of the more prominent features that make up the unique character of its many communities, and from that assessment provide direction for outlining measures that will support the continued appearance of each as development continues to proceed across the historical County landscape.

Communities

There are several dominant communities outlined within this Plan that make up much of the population base that exists within the County, residing in close proximity to urban centers that have existed since the creation of the County. These include the towns of Bath and Paw Paw, as well as unincorporated areas such as Great Cacapon and Unger.

Small Towns

The most notable community center is the Berkeley Springs area which surrounds the historic Town of Bath and serves as the County seat. This area, which includes a large concentration of the total County population, is easily identified through several distinct community features. These features, which are prevalent in both natural sites and architectural style, draw much of their attention from the tourism-driven industries of the famous natural warm spring spas and baths, historic inns, and small town shopping appeal.

Considering the nature of this area as the cultural hub within the County, residential and commercial growth is projected to continue, especially along the US Rt. 522 corridor both north and south of the town proper. This will require a comprehensive approach to planning by the County and Town governments as well as residents, businesses and supporting agencies. This approach should allow for all parties to play an active role in the protection and promotion of the existing cultural character which makes this community a uniquely defined area.

The second major area within the County that is also defined as a community of distinct social and cultural activity is the Town of Paw Paw. Unlike Bath, the Town of Paw Paw

is not heavily surrounded by a larger urban area. This provides the Town a greater sense of place, especially as it relates to the provision of public services and activities, making it less dependent than other areas of the County on the Berkeley Springs area to provide public services. The Town, which straddles WV Rt. 9, is located along the Potomac River at the southwestern edge of the County on the opposite side of Cacapon Mountain from Bath, and is much more rural in character with proximity to many of the close natural recreational amenities located in the County.

As described throughout the Plan, Paw Paw is promoted by its sense of place through such features as a shared school campus for all grades, community-provided parks, libraries, and local public safety services. Given its close proximity to Alleghany County, Maryland to the west, which includes the much larger urban center of Cumberland, the residents and businesses of Paw Paw are more accustomed to seeking opportunity and basic needs from this area to the west versus traveling east across the mountains toward Berkeley Springs.

Unincorporated Areas

Great Cacapon is the largest unincorporated community in Morgan County which, includes a surrounding population of more than 1,000 residents and businesses. Great Cacapon takes its name from the Cacapon River which empties into the Potomac River on the town's eastern fringe. It was originally known as the Cacapon Depot on the Baltimore and Ohio Railroad mainline and draws much of its history from its location along the Potomac and Cacapon rivers as well as the railroad system. Its name was changed in 1876 to Great Cacapon to differentiate it from Little Cacapon which was also on the B&O mainline. Located four miles to the west of the Panorama Overlook on Cacapon Mountain, along Cacapon Road (West Virginia State Route 9), it is sufficiently separated from Berkeley Springs by the Mountain to have established its own identity over time, and provides many of the same services to its residents that are found in the incorporated towns.

Unger is a smaller unincorporated community located in southern Morgan County, and distinguished amongst other communities in for retaining an operating post office since one was established in 1853. From 1857 to 1935, it was known as Unger's Store until its name was shortened to Unger. Although the Post Office recently closed, the community established in this area thrives with the potential of new neighboring developments. It is located at the crossroads of Winchester Grade Road (CR 13) and Unger's Store Road (CR 11).

Largent is a unique community located along the Cacapon River. Originally called Hopyard and later Enon, its population increases on weekends and during summer months due to the hundreds of cabins and camps located in the hill around the river. Also, located in Largent is the 120-year-old Enon Primitive Baptist Church where the Cacapon is still used for baptisms.

Significant Features

Not all unique design trends can be found in roughly structured community centers, and in some cases they may exist as a grouping along waterways, single estates of some grandeur, or even publicly owned properties that offer features integral to the character of the community.

Community Themes

The Washington Heritage Trail developed in 1998 includes a tour of the many locations throughout Morgan County which are associated with the rich historical link it shares with George Washington. This includes at least 15 points of interest within the County, from the Town of Paw Paw to a small park in the Sleepy Creek region. These points of interest serve as significant community focal features for the area in which each are located. Just as much of the growth within the County has occurred along US Rt. 522 and WV Rt. 9, the trail follows closely along these routes accentuating the collective importance each site shares in contributing to the identity of these areas.

As noted in Chapter 10, numerous communities sprouted up along the Chesapeake and Ohio Canal and Baltimore and Ohio Railroad. Both being located along the Potomac River during different periods in time fueled the existence of several historic communities that have established identities lasting well beyond the existence of either economic transportation system. Much of the C&O route parallels the Potomac River across from Morgan County on the Maryland side while the B&O route ran more on the Morgan County side. Since their abandonment recreational opportunities have been created along the Canal and Potomac, which have retained much of the pristine character of this area.

Significant Sites

By far the largest single industrial site in Morgan County, US Silica, which has changed names and ownership over its decades of existence, has had a profound affect on the employment and development of the Berkeley Springs area as a County hub. This property consists of more than 2,800 acres owned by a single entity and utilized for its major mining operations of Oriskany sand. However, as this natural mineral resource is depleted, it is expected that the company may only have approximately 20 years of productivity remaining. Given the location and importance of this industry within Morgan County, future use of this property must be taken into account in order to ensure that whatever reuse may evolve from this transition it is complimentary to the surrounding community.

The Ridge Fish Hatchery is only one of seven in the State, producing both cold and warm water fish including trout and muskies. The Hatchery is owned and operated by the West Virginia Department of Natural Resources, and has been in existence since 1929. It is located about 12 miles south of Berkeley Springs on US Rt. 522, and is fed by the Breakneck Run Springs.

Goals and Objectives

Goals

The 'identity' of a community is shaped by its design. The proximity and integration of neighborhoods, shopping, and recreational and cultural activities will determine the extent to which a sense of community evolves. To support the growth of real communities, the following goals are offered:

- Encouraging the formation of pedestrian-friendly rural village centers amid residential development to serve as hubs for community life, reduce the need for auto travel, and keep consumer dollars in the local economy;
- Supporting the enforcement of meaningful building codes to protect the health, safety and welfare of citizens and businesses; and
- Enabling multi-generational community wide activities that involve significant and diverse segments of the population.

Objectives

These objectives will ensure progress in accomplishing the community design goals:

- Discouraging the proliferation of strip mall style commercial centers that create traffic congestion and sprawl;
- Assessing the need for a community fairgrounds/carnival facility to provide an accessible space for community wide activities by local organizations; and
- Encouraging centralized and improved communication with the public about local amenities and activities.

CHAPTER 10 – PREFERRED DEVELOPMENT AREAS

Introduction

There are several areas where development is preferred due in large part to the existence of available public infrastructure features to adequately serve additional growth. These preferred development areas include incorporated towns, existing rural villages, and newer subdivisions that increasingly serve as self-contained communities.

Promoting growth within these preferred development areas must first take into account the ability of the Comprehensive Plan to outline how much additional growth each area may receive based on the adequacy of services to support it. Unlike those areas defined in Chapters 6 and 7 of this Plan, this chapter serves to identify areas in which growth may be promoted through the provision of services to areas attractive to redevelopment, and most importantly preserving those areas of important cultural heritage and recreational value needing protection.

If managed properly, growth will have positive benefits for current and future residents. This will require coordination with transportation improvements and the provision of public utilities, as well as with sensitivity for the County's natural resources.

Incorporated Towns

The most obvious location for future growth is in and around existing municipalities. This is due in large part to the availability of existing public services and infrastructure. It is also the primary location for employment opportunities, social organizations, and other public amenities. There are two incorporated towns within Morgan County that should be promoted as preferred areas for future development to occur.

Town of Bath

The Town of Bath encompasses approximately 384 acres, and is surrounded by the greater urban area commonly referred to as Berkeley Springs. This larger area of primarily developed land stretches north and south along US Rt. 522 and east and west along WV Rt. 9. It is located primarily within the Bath district of the Central Valley Region and includes nearly 5% of the total County population.

Town of Paw Paw

The Town of Paw Paw, located at the southwest tip of Morgan County, along WV Rt. 9, encompasses approximately 320 acres and a population of more than 500, with numerous small businesses and other employment industries.

Table 10-1 Municipal Annexations

Property	Town	Location	Acres	Year
Tritapoe	Bath	Martinsburg Road	0.98	1997
Omps	Bath	Cornelius Avenue	29.241	2000
Gyerik	Bath	Whisner Avenue	0.25	2000
Goller	Bath	Cornelius Avenue	0.2118	2000
Board of Ed	Bath	N. Berkeley School	2.75	N/A
Seely	Bath	US Rt. 522	0.9	2000
Rt. 9 West	Paw Paw	West side WV Rt. 9	3.81	2002

As reflected in the housing and population information, located in Chapter 2, as well as in Table 10-1 above, neither Bath nor Paw Paw has experienced significant increases during the past decade in either land being added to their incorporated limits or population increases due to new growth or redevelopment efforts. As reflected in Chapter 2 population for both towns has continued to decrease since 1980, and there are no current plans for additional major subdivision activity in either corporate limits. However, as both towns provide the necessary public services to promote growth, development will continue to occur in close proximity to these urban centers.

Other Communities

Although there are only two incorporated municipalities in Morgan County, there are numerous other small communities which have been in the past or currently are defined by some centrally located area. These areas typically evolve from the location of some group of services, which in turn creates some concentration of residents who develop additional types of public services over time, and thus become somewhat self supporting communities.

This evolution, as is the case for many small communities in Morgan County, appears to locate around transportation networks such as the Potomac River or the railroad system. However, over time, these networks have been replaced by other types of transportation such as US Rt. 522 and WV Rt. 9. With the exception of Berkeley Springs, population and commercial enterprise have failed to expand significantly beyond the origins of each community, and in some cases have experienced substantial decline.

Recently some of these areas have been supported and changed by the demand from outside interests to purchase and utilize the residences within these older areas for vacation and recreational purposes. This has been especially prevalent in those areas located closest to the County's many natural and scenic waterways and mountains. Even more recent is the increasing interest of larger development plans that are proposed for the more rural undeveloped areas, especially the southern valley area of the Central Valley region. However, both of these examples are areas of concern as the County must account for the ability to provide necessary public services where such services may not have been planned to be extended.

Unincorporated Towns

Great Cacapon is the largest unincorporated community in Morgan County which, according to the 2000 census, included a population of 1,379. Great Cacapon takes its name from the Cacapon River which empties into the Potomac River to the town's east. It was originally known as Cacapon Depot on the Baltimore and Ohio Railroad mainline when a post office was established there in 1848. In 1876, its name was changed to Great Cacapon to differentiate it from Little Cacapon which was also on the B&O mainline. It lies four miles down Cacapon Mountain from the Panorama Overlook along Cacapon Road (West Virginia State Route 9) west of Berkeley Springs. It is also a short distance from the Town of Bath and the surrounding Berkeley Springs area, providing convenient access to public services and other daily needs.

Unger is an unincorporated community in southern Morgan County distinguished amongst other communities in Morgan County for retaining an operating post office since one was established here in 1853. From 1857 to 1935, it was known as Unger's Store until its name was shortened to Unger. Although the Post Office recently closed, the community established in this area thrives with the potential of new neighboring developments. It is located at the crossroads of Winchester Grade Road (CR 13) and Unger's Store Road (CR 11). As new development proposals continue to occur in this area, there will be increasing need for the County to plan for the provision of services to this growing community.

Suburban Neighborhoods

Berryville is a former independent community located south of downtown Berkeley Springs. It sprouted up along US 522 at the beginning of the 20th century; first as a farming community and then as a residential extension of a growing Berkeley Springs. It remains outside the Bath town limits. Berryville includes Berkeley Springs High School, Widmyer Elementary School, and Greenway Cemetery.

Jimtown is another community located in close proximity to the Town of Bath corporate limits and generally considered a neighborhood of Berkeley Springs. The community is located just north of the Town and is also referred to as Jimstown.

Between the Town of Bath and Jimtown is the neighborhood of North Berkeley. Like Jimtown, North Berkeley does not lie within the limits of Bath, but it is generally considered a neighborhood of the town. The community is the location of the Board of Education main offices.

Omps is an unincorporated community that lies along U.S. Highway 522 in Morgan County. Omps previously had its own post office in operation between 1887 to 1973.

Ridersville is an unincorporated community between Berkeley Springs and Stohrs Crossroads along Martinsburg Road (WV 9) on Pious Ridge (804 feet) where Pious Ridge Road (CR 4) and Peter Yost Road (CR 9/8) intersect with WV 9. Ridersville sprang up in the 19th century as a small farming community along the Martinsburg Road with a general store. It had its own

operating post office until it was closed in 1903 due to the community's close proximity to Berkeley Springs. During its period as an independent agrarian town, it was known as Friendship, Rider Store, Riderville, and finally as Ridersville. Today, it is merely a growing residential area of Berkeley Springs.

Rock Gap is an unincorporated community along Valley Road (U.S. Highway 522) located between Omps to its south and Berkeley Springs to its north. Situated between Warm Springs Ridge (1,086 feet) to its west and Timber Ridge (1,355 feet) to its east, Rock Gap takes its name from the "Rock Gap" in Warm Spring Ridge, carved out by Rock Gap Run, a tributary stream of Sleepy Creek. Rock Gap began as a small farming community along Valley Road. It had a post office in operation from 1884 to 1907 and again between 1921 and 1925. Residents of Rock Gap currently have a Berkeley Springs address. Rock Gap is the site of the old Mount Garfield School and Mount Tabor Church.

Sir Johns Run is an unincorporated community at the mouth of Sir Johns Run on the Potomac River northwest of Berkeley Springs. It is bound to its west by the Widmeyer Wildlife Management Area and to its east by Warm Springs Ridge (1,086 feet). While Sir Johns Run was once an operating station on the old Baltimore and Ohio Railroad mainline as an early passenger station for Berkeley Springs, it is primarily a residential community of Berkeley Springs accessible by Sir Johns Run Road (County Route 3). Sir Johns Run had its own post office in operation from 1850 to 1938. Today, the stream and its namesake are a site on the Washington Heritage Trail.

Rural Villages

Cherry Run is a small unincorporated village located along the Baltimore and Ohio Railroad mainline on the Potomac River. The community is named for the stream, Cherry Run, that meets the Potomac in its vicinity. It was originally known as Cherry Run Depot because of the important interchange between the B&O and the Western Maryland Railroad there. Across the Potomac from Cherry Run lies Big Pool on the Chesapeake and Ohio Canal. Cherry Run is reached by Householder Road (County Route 10) from the west and both Cherry Run Road (County Route 5) and Fulton Road (County Route 1/5) from Martinsburg Road (WV 9) to the south. On the B&O mainline, Cherry Run is located between Hancock to its west and Little Georgetown in Berkeley County to its east.

Doe Gully is an unincorporated community along the Potomac River located along the old Baltimore and Ohio Railroad where it bisects a bend in the Potomac by way of the Randolph Tunnel, Doe Gully is only accessible by way of Doe Gulley Lane (County Route 18/2) from Orleans Road (County Route 18/1). It is located southwest of Orleans Cross Roads. The Chesapeake and Ohio Canal National Historical Park crosses the Potomac River onto the West Virginia side to Doe Gulley's west and it also lies directly across the river from it.

Hancock is an unincorporated community located off of Hancock Road (US 522) on River Road (County Route 1) along the Potomac River north of Berkeley Springs. Originally known as Brosius, its post office's name was changed to Hancock in 1948 to reflect its location on the Baltimore and Ohio Railroad mainline across the river from Hancock, Maryland. Located along

River Road from US 522, Hancock is also accessible by way of Fairview Drive (County Route 2) from Berkeley Springs and also Pious Ridge Road (County Route 4) from Ridersville on Martinsburg Road (WV 9).

Hansrote is an unincorporated village located along the old Baltimore and Ohio Railroad mainline on the Potomac River. Hansrote is northeast of Magnolia and southwest of Doe Gully. Stuart Tunnel connected Hansrote and Magnolia by railroad, but today Hansrote is accessible by way of Hansrote Road (CR 12/2) from Magnolia Road (CR 12).

Holton is a small unincorporated community in northeastern Morgan County, located on Martinsburg Road (WV 9) at its junction with Cherry Run Road (CR 5) along Cherry Run and the Berkeley County line. Holton had its own post office in operation between 1889 and 1903.

Johnsons Mill is an unincorporated community in eastern Morgan County on Johnson's Mill Road (County Route 26). It is centrally located between three other small rural villages along Sleepy Creek and is named for the "Johnson's Mill" that once operated here. Smith Crossroads on Winchester Grade Road (CR 13) is to its west by way of Autumn Acres Road (CR 26), New Hope is to its north by way of Spohr's Road (CR 8), and Duckwall is located to its east on Johnson's Mill Road along the western flanks of Sleepy Creek Mountain.

Magnolia is an unincorporated community located northeast of Paw Paw along the Potomac River. It is located along the Baltimore and Ohio Railroad mainline and east of where the Western Maryland Railroad right of way crosses the Potomac, bypassing a series of bends in the river. As a depot and water station on the B&O, Magnolia has been known by a number of names including Magnolia Dale, Magnolia Vale, and sometimes as Water Station Number 12 on the railroad. The community had its own school, Magnolia School, until it was closed in 1952, in favor of sending students from the Magnolia area to attend the schools in Paw Paw. Magnolia also had its own post office in operation from 1867 to 1868 as Magnolia Vale, and then again in 1871 to 1943 as Magnolia, when it too was closed and the residents of Magnolia were assigned Paw Paw addresses. Magnolia can be accessed by way of Magnolia Road (County Route 12). It is located between Paw Paw to the southwest and Jerome to the northwest.

Oakland is an unincorporated community located along Virginia Line Road (CR 8) north of Unger and south of Stotlers Crossroads. Oakland is connected to Valley Road (US 522) by County Route 26 (Oakland and Morton Grove Roads). Oakland sprouted up as a small farming community in the 19th century and established its own post office and school which were both in operation until the early 20th century. The Oakland United Methodist Church remains regularly attended by Oakland area residents.

Orleans Cross Roads is an unincorporated community that lies on the western flanks of Sideling Hill on the Potomac River. To its south, Rockwell Run, a mountain stream fed by springs, empties into the Potomac. Orleans Cross Roads lies along the old Baltimore and Ohio Railroad directly across the river from Little Orleans. It is accessible by way of Orleans Road (CR 18/1) from Cacapon Road (WV 9) via Detour Road (CR 18). Once the site of a functioning station on the B&O, Orleans Cross Roads also had its own operating post office. The community and post office were often known as Orleans Cross Roads or Orleans Crossroads while its station was

known as Orleans Road Station. It is still inhabited today and is the site of the historic Orleans Cross Roads Methodist Episcopal Church, built in the 1850s.

Sleepy Creek is an unincorporated community on the Potomac River, at the mouth of Sleepy Creek. By 1860, Sleepy Creek had a post office and functioned as an important station on the Baltimore and Ohio Railroad. Sleepy Creek is located along River Road (CR 1) east of Hancock and is accessible from Cherry Run to its east by way of Householder Road (CR 10).

Stohrs Crossroads is an unincorporated community along Martinsburg Road (WV 9) to the west of Sleepy Creek. Originally named Spohrs Cross Roads for the Spohr family, its name was eventually changed over the 19th century to "Stohrs". Stohrs "Crossroads" is formed by Martinsburg Road's intersection with the Potomac-Virginia Line Road (CR 8). North of Stohrs Crossroads, CR 8 is known as Potomac Road and south of the crossroads, it is known as Spohr's Road. It reaches the Virginia state line at Unger where it is known as Virginia Line Road.

Stotlers Crossroads is a small unincorporated community in southeastern Morgan County, situated along Winchester Grade Road (CR 13) between the South and Middle Forks of Sleepy Creek on the eastern flanks of Highland Ridge (942 feet). A post office was established here in 1885 and took the name of the Stotler family, a prevalent family in the immediate area. Stotlers Crossroads is the home to several historic sites including the Mount Olivet United Methodist Church (1888) and Ambrose Chapel, which is listed on the National Register of Historic Places. Stotlers Crossroads is a junction of Winchester Grade Road (CR 13) with the Virginia Line and Highland Ridge Roads (CR 8).

Woodrow is an unincorporated community that lies south of Paw Paw along WV 9 in both Hampshire and Morgan Counties. Woodrow lies on the eastern flanks of Spring Gap Mountain with Sideling Hill to its east. Woodrow Union Church has served the community since the late 19th century.

Woodmont is an unincorporated community on the Potomac River located immediately to the west of the community of Great Cacapon.

Several other small neighborhoods and crossroads include Duckwall located in Sleepy Creek just east of Johnsons Mill, Greenwood in southeastern Morgan County, Mount Trimble situated around the crossroads at Michael's Chapel near the confluence of Sleepy Creek and Meadow Branch, New Hope located at the confluence of Yellow Spring Run and Sleepy Creek, Redrock Crossing located on River Road (County Route 1) between the communities of Hancock and Sleepy Creek, and Smith Crossroads at the crossroads of the Winchester Grade Road (County Route 13) and County Routes 26 and 13/1.

Seasonal Home Clusters

Largent is an unincorporated village that lies partly in Hampshire County, located on the Cacapon River, about 18 miles southwest of Berkeley Springs along Cacapon Road (WV 9). Its post office was in operation from 1906 until the 1950s. Residences and businesses in Largent are currently serviced by Paw Paw's post office, therefore, bearing Paw Paw addresses.

Vacated Communities

Campbells is an unincorporated area along the old Western Maryland Railroad line on the Potomac River. Campbells is accessible by way of Doe Gulley Lane (CR 18/2) from Doe Gully to its east. Campbells and the remaining railroad buildings there are within the Chesapeake and Ohio Canal National Historical Park.

Green Ridge is a now uninhabited railroad community located along the old Baltimore and Ohio Railroad mainline where the Western Maryland Railroad crossed the Potomac River from the Stickpike Tunnel in Maryland. Green Ridge was originally known as Baird and was an operating station on the B&O. Today, it is located within the Chesapeake and Ohio Canal National Historical Park. A stretch of the Western Maryland's Right-of-Way from Green Ridge to Jerome is listed on the National Register of Historic Places. Green Ridge is accessible by way of Baird Lane (County Route 12/3) from Hansrote Road (County Route 12/2) at Hansrote. It can also be reached by a number of residential roads in the Nixon Tracts development on Magnolia Ridge from Magnolia to the south.

Jerome is an uninhabited community along the old Baltimore and Ohio Railroad mainline located entirely within the Chesapeake and Ohio Canal National Historical Park on the Potomac River. Jerome is also the site of a stretch of the Western Maryland Railroad Right-of-Way from milepost 126 to milepost 160 listed on the National Register of Historic Places. At Jerome, the train-order office was in use until it was closed on September 1, 1959. When it was abandoned by the Chessie System in May 1975, the office was not torn down and is one of the few buildings that remain today in Jerome. There was also an operating connection with the B&O low line at milepost 137 but it was later removed when the B&O abandoned the lowline in 1961. The community and its station on the railroad are rumored to have been named for Jerome Bonaparte.

Lineburg is an unincorporated area located on the western flanks of Sideling Hill on the Turkey Foot Bend of the Potomac River. The community originally served as a station on the Baltimore and Ohio Railroad, but has since become a location for vacationing weekenders from the Washington, D.C. area.

Commercial Areas

Burnt Factory is an unincorporated area located north of Berkeley Springs. It is located along Sand Mine Road (CR 38/1) off of Hancock Road (US 522) and is the site of the U.S. Silica Company's Berkeley Springs plant. U.S. Silica is a leading producer of high quality ground and unground silica sand, kaolin clay, and aplite. These materials are mostly extracted from Warm Spring Ridge directly across US 522 from the facility in Burnt Factory.

Ridge is an unincorporated area located along Valley Road (US 522) at its intersection with Fish Hatchery Road (CR 38/10) near the Frederick County, Virginia line. Sleepy Creek and Timber Ridge lie to its east with Warm Springs Ridge lying to its west. It was originally known as Birch Grove, then as Timber Ridge, and then finally as Ridge. Its post office was in operation from

1860 to 1953. Ridge is the home to the Ridge State Fish Hatchery which breeds West Virginia trout used to stock local lakes, such as nearby Sleepy Creek Lake.

New Community Developments

The County has experienced increased interest in new development over the past 5 years reflecting a growing trend in the region as a whole. These new development proposals may consist of a large number of mixed types of units in close proximity to other new developments, primarily in the southern area of the Central Valley planning region. As services in this area of the County are required to grow to handle this growth, there is also an increased interest in including commercial components around these developments for local convenience and use.

In total, County records include subdivision over the past several decades of more than 7,000 lots on over 30,000 acres. These subdivisions range from just 2 lots being created to nearly 300, scattered across the County from Paw Paw to Cherry Run. Many of these lots have not been improved as outlined in Chapter 1 of this Plan. These subdivisions total 274 equating to an average of 26 lots per subdivision on an average of 4 acres per lot. Many of these larger subdivisions, which have developed into neighborhoods over time are located on the subdivisions map in Chapter 2 of this Plan.

Goals and Objectives

Goals

Although market demand is the primary factor influencing development, it is important for government to guide growth in a way that makes the most efficient use of public services and infrastructure. Goals that strive to balance planning efforts and development pressures include:

- Supporting the direction of development toward appropriate locations and where there are existing available resources and public services;
- Fostering development initiatives that reduce the need to extend these public services in inefficient ways when such extensions are required;
- Encouraging creation of neighborhood centers in densely populated areas; and
- Encouraging the location of community activities (e.g. parks and recreation facilities) where proper access and services are located.

Objectives

Progress toward achievement of these goals may be accomplished by the following objectives:

- Supporting efficient designs that minimize infrastructure costs;
- Encouraging the creation and use of incentives and disincentives to direct development to locations where public services are already available or may be readily provided;

- Promoting development such that growth and access to public services will be concurrent;
- Encouraging opportunities for compatible mixed-use development.

CHAPTER 11 – RENEWAL AND REDEVELOPMENT

Introduction

Considering that nearly 14% of the total housing stock within Morgan County was constructed prior to 1939, it is a fair assessment that a certain percentage of this aging stock is in need of some revitalization strategy. Further, given the historic character and changing employment opportunities within the County, it is also fair to assume that there are a number of underutilized commercial properties and significant cultural sites that would benefit from redevelopment and preservation programs. In order to develop appropriate programs, policies, and incentives to assist in the redevelopment of these sites and structures, it is important to outline what structures are included throughout the County that may qualify for redevelopment.

Preservation of Town Centers

The term “town centers” used broadly here should apply to many of the areas as outlined in Chapter 10 that provide various places within the County with a sense of community. These include not only the two incorporated municipalities, but also the unincorporated communities and rural villages that bring neighborhoods together around centrally located services within a loosely defined central core.

In defining these areas, communities can better proceed with the preservation and improvement of their existing neighborhoods. While property maintenance may be the responsibility of each individual property owner, some properties for a variety of reasons deteriorate and detract from the neighborhood community. These blighted properties may discourage investment in the neighborhood, thus creating blighted areas.

Berkeley Springs

Berkeley Springs being the larger urban area surrounding the Town of Bath serves as the County seat for Morgan County and includes the largest concentration of public activity in a defined area. This includes a large percentage of the County’s population, much of its historic resources, many of its governmental functions, and a healthy mixture of residential and commercial properties. As the largest defined town center within Morgan County, having both major State routes that cross the County pass through its main streets, many planning tools for redevelopment may be used to focus on this area and duplicated for use in other town centers.

Two other town centers where revitalization and redevelopment strategies should be focused, utilizing tools developed to address efforts in Berkeley Springs, including the Town of Paw Paw and the large unincorporated community of Great Cacapon. As these town centers share similar needs for redevelopment and include many of the same social

and physical attributes as Berkeley Springs, efforts for revitalization of these three major areas may be interchangeable for their respective properties.

Revitalization of Individual Properties

In addition to the generally outlined town centers, there are also a number of significant individual properties within these areas and elsewhere throughout the County that have been identified for redevelopment or revitalization. These properties include residential, commercial and recreational structures and sites that may provide some immediate and long-term public good such as architectural or historic preservation or opportunities for increased employment.

Residential

To facilitate the revitalization and redevelopment efforts of residential properties throughout Morgan County, an inventory to assess the available housing stock that exists within this category should be conducted. As outlined in Chapter 2, this inventory includes various housing types most of which are classified as vacant. However, in review of this information it is important to understand that some structures listed as vacant may be recently built homes or rental properties simply available for occupancy. There are also structures currently in partial or full occupancy, which are in need of significant revitalization efforts. Further, there are a smaller number of properties which are either neglected or abandoned that may require additional regulatory involvement.

Commercial Property

Much like the residential structure analysis, there is also a number of commercial sites and structures that would benefit from the creation, implementation, and promotion of redevelopment initiatives. Unlike residential properties, which are promoted through revitalization programs, commercial properties are often classified as vacant or underutilized and are more often affected by the larger regional economic climate and interests of consumer demand.

As outlined in Chapter 8 of this Plan, existing vacant and underutilized commercial properties are a major priority of the County Economic Development Authority. This is due in part to the fact that many of the vacant structures are located within urban areas where services are more readily available and opportunities for employment would be placed closer to existing population. The Authority also gives priority to vacant tracts in existing industrial and business park settings, thus promoting areas for compatible use, and in underutilized buildings in urban settings that “fill out” the central business districts of towns and rural communities.

Cultural Sites

In addition to the need to promote the revitalization efforts of residential and commercial structures typically located within the more urban areas of Morgan County, it is especially important for a County that includes tourism and recreation as an integral part of its economic base to develop an approach to ensure the viability of historically significant sites and structures located throughout the County. This includes both private and publicly owned properties that are often best supported through grassroots efforts that recognize the long term benefit and value each plays for the identity and heritage of each community.

Table 11-1 Inventory of Property for Redevelopment

<u>Property</u>	<u>District</u>	<u>Description</u>
Residential		
Berkeley Springs	Bath	urban redevelopment area
Paw Paw	Cacapon	urban redevelopment area
Commercial		
Morgan County Landfill	Cacapon	undeveloped county owned property
Coolfont Resort	Cacapon	underutilized private recreational area
Lippert Components	Rock Gap	vacant business industrial building
Cultural		
Ice House	Bath	underutilized community resource structure

Tools for Redevelopment and Revitalization

Tools for redevelopment and revitalization for the purposes of attracting appropriate investment should be implemented through the collective efforts of the various local governments. These tools may be applied through broad programs to address long-range improvements to a town center or other defined area, or may be focused on the efforts of individual projects of either public or private investment to revitalize a single property.

- Redevelopment Planning and Implementation Programs- establish planning and implementation programs that focus on redevelopment and improvement. Merchants groups, property owners and local government would work together to plan and implement redevelopment programs such as street and pedestrian improvements, streetscape improvements, façade treatments, and similar improvements meant to create a theme and provide visual improvement to the neighborhood

- Linking mobility and access with development patterns and design- provide for movement of goods and services, while at the same time providing convenient access to the downtown areas. Access management tools should be used to provide coordinated access, along with protected crosswalk areas and traffic calming principles. Also, provide for adequate parking.
- Promote pedestrian access- make the area safe for pedestrians by providing well marked crosswalk areas and improving sidewalk systems. Institute good streetscapes that beautify and also provide well-marked pedestrian ways that link to parking areas. Use traffic calming principles to slow down vehicular traffic in areas where they are in contact with pedestrians.
- Infill with new buildings that are sensitive to their surroundings- provide design guidelines for new buildings that will enhance community themes. Also, provide guidance for these areas to manage the visual impacts new structures may have on older neighboring structures.
- Promote mixed use development to create livelier communities- encourage the mixed uses and traditional neighborhood design principles to guide redevelopment near older neighboring urban areas. While these centers need function as business and cultural centers, they should also provide opportunities for inclusive residential and commercial needs.
- Brownfield/land recycling- establish a core group of planning and land use techniques that facilitate recycling and redevelopment of former commercial and industrial sites. These sites should be identified, inventoried and prioritized with the top sites selected for more detailed planning analysis to successfully partner in redevelopment efforts.
- Reinvestment- direct public and private investment of funds and resources into neighborhoods to spark revitalization.
- Tax Increment Financing (TIF)- utilize tax increment financing to stimulate the reuse of vacant and underutilized buildings.
- State and Federal programs- leverage appropriate state and federal funding sources related to community economic development to stimulate revitalization efforts.

Goals and Objectives

Goals

The appeal of a community is strongly influenced by the ‘look’ of its neighborhoods. As communities age, this ‘look’ can change dramatically if buildings are allowed to

deteriorate. The result can be a downward spiral reflecting the declining spirit of a once vibrant community. The way to avoid this is to promote conditions that foster the preservation and improvement of existing neighborhoods. Goals toward this end include:

- Encouraging owners to maintain their properties;
- Supporting the removal of unsafe or dilapidated structures; and
- Encouraging active use of and development in older structures and neighborhoods.

Objectives

These objectives will further the aforementioned goals:

- Supporting the development of incentives to motivate owners to keep up their properties;
- Considering the development of regulations providing for the removal of deteriorated and unsafe structures;
- Promoting programs to upgrade substandard housing;
- Fostering movement of residents and businesses to urban centers, particularly those in decline;
- Promoting ways to reuse vacant and underutilized industrial parks;
- Motivating and supporting efforts to clean up illegal dump sites; and
- Providing guidance for redeveloping and revitalizing 'brownfield' areas as a means of preserving 'greenfield' areas.

CHAPTER 12 - FINANCING

Introduction

Although financing is primarily a function of the governing body and its annual review of revenue and expenses as it relates to adequately providing services to the tax base at an affordable rate, it also plays a significant role as Morgan County continues to experience outside pressures for increased growth in the future. In order to ensure that both general tax fund services and enterprise driven utility fund services are adequately funded, it is desirable to develop and maintain a method of planned capital improvements so that funds collected over time include costs associated with both operations as well as capital outlay.

It is important for the County to maintain annual fiscal stability in order to adequately address the service needs that must be met through the revenue and expenditure process. Monitoring this process serves to provide more efficient operations, prioritization of anticipated projects, and better coordination of scheduled improvements that may involve joint funding with the State or other local governments. As growth continues to occur throughout the County, it will also aid in identifying those improvements associated with new growth that may be more appropriately funded by that growth through such mechanisms as impact fees.

The Planning Commission's role as it relates to the fiscal budgetary process should be limited to the planning purposes in which such budgetary priorities may be affected. This Chapter will identify the structural make up of funding revenues, operational expenses, and capital outlay that primarily make up the budget as it relates to services and resources that largely affect current and future planning and development related activities.

Revenues

In order to develop as part of the Comprehensive Plan a component as it relates to finances, the Plan should first identify and understand where revenues are generated. There are generally two types of revenue: those funds collected from taxes, fees, and shared tax revenue which cover costs associated with general fund services; and those funds collected from necessary public facilities, which cover costs associated with those specific public enterprise systems. A third smaller fund is the Coal Severance Fund received from the State.

General Funds

General fund revenue includes funds collected from property taxes, fees, commissions, rents, and interest, with property tax making up the largest percent. The Coal Severance Fund, received from the State also goes into the County general fund, much like other shared revenues received.

Property taxes make up a large part of the total annual revenue. However, the County Commission receives only a portion of the property tax collected. The remaining amount is distributed primarily to the Board of Education, with a small amount going to the State and municipalities.

Other general funds, which include other taxes, fees, commission, rent, interest, and any other miscellaneous revenue, make up the second largest part of the County general fund revenues. As development, employment and population continue to increase over time, this category should increase as well.

The third largest revenue stream includes revenue sharing funds that are provided to the County from the federal government. This revenue makes up a small part of the overall annual budget.

The remaining revenue is provided by the State through the Coal Severance Fund. This fund is paid to the State which in turn provides each County with a portion of the funds received.

Table 12-1 General Fund Revenues

<u>Revenue Type</u>	<u>Fiscal 2005</u>	<u>% of Total</u>
Property Tax	\$2,334,700	49%
Other General Funds	\$2,125,757	45%
Revenue Sharing Fund	\$238,382	5%
Coal Severance Fund	\$46,005	1%
Total	\$4,744,884	100%

Expenses

There are several general categories for expenditures which are further broken down in the fiscal budget. These areas of general operational expenses include general government, public safety, health and sanitation and culture and recreation. As the need for increased services has occurred over time, additional line item expenses have been created to account for such services. However, the two primary areas of expense continue to be general government and the various functions that make up public safety. Public safety includes law enforcement as well as some portion of judiciary and other services. One further line item that has been added to the general fund expenses is the Capital projects expenses.

Table 12-2 General Fund Expense

<u>Expense Type</u>	<u>Fiscal 2005 (millions)</u>	<u>% of Total</u>
General Government	\$2,665,643	57%
Public Safety	\$1,593,399	33%
Health and Sanitation	\$26,204	1%
Culture and Recreation	\$132,485	3%
Capital Projects	\$275,161	6%
Total	\$4,692,892	100%

Municipal Finances

Although there are numerous locations that serve as community centers for neighborhoods throughout the County, there are only two municipalities that function as incorporated local government jurisdictions. These two municipalities are the Town of Bath, located in the Berkeley Springs postal service area, and the Town of Paw Paw, located along the Potomac River in the Cacapon region. Unlike other communities in the County these towns operate under their own charters, which allow them to create ordinances and levy taxes within the corporate limits. This ability also requires that the towns provide necessary public service, which in some cases either duplicate or replace services provided to all County residents by the Morgan County Commission.

Town of Bath

The Town of Bath is governed by a Mayor and five council members who are elected for two-year terms. The Town Recorder, who maintains town records and financial reports, is also elected for a two-year term. The Council is organized into seven functional committees, which are composed of three members each. The committees are finance, public works, water, ordinances, cemetery, grants, and public safety.

Revenues for the Town of Bath include property taxes, license and fees, other taxes, State and Federal funds, and miscellaneous sources. Of these revenues, property and other taxes are 39%; license and fees are 31%, fines and parking meter revenues 18% of the total revenues, categories and other respective share of the total budget outlays.

Primary expenditures are: administrative 20%, public safety 29%, garbage department 24%, and streets 15%. All of these percentages are approximate for 2005.

Town of Paw Paw

The Town of Paw Paw is governed by a Mayor and five Council members who are elected for two-year terms. The Town Recorder is also elected for a two-year term. The Council is organized into five functional committees of three members each. These committees are police, water and sewer, streets and alleys, cemetery, and ordinance and grievance. A sixth committee, the finance committee, is composed of all five Council

members. A nine-member Parks and Recreation Commission is appointed by the Town Council to oversee operation and maintenance of the municipal park.

Revenues for the Town of Paw Paw include property taxes, license and fees, other taxes, State and Federal funds and miscellaneous sources.

Expenditures include administration as the largest portion, followed by streets and police, and the remainder used for street lighting.

Capital Outlay

Each local government is charged with the responsibility to oversee the maintenance and operation of local services. This process includes from time to time the replacement or expansion of local services due to either age of equipment and infrastructure or increase in need. These costs are typically associated with larger expenditures of public funds that are not considered part of the general operations expected to be covered within the fiscal budget. Therefore, most local governments prioritize these items in a long-term capital improvement plan.

Capital improvements should be planned separately from the annual operating budget due to the high cost of such items. Special funds must be borrowed, sought from grants or otherwise set aside in advance. In addition, facilities and major equipment can often be amortized over time, allowing for improvements or replacement to be planned in advance. These projects typically include more permanent facilities such as public buildings, roads, bridges, water and sewer systems. They may also include larger vehicle purchases such as fire and emergency service apparatus or police cruisers.

The method by which these purchases are scheduled is the Capital Improvement Plan, which covers a six-year period. The first year is the budget year under review for funding approval followed by five subsequent years in which funds are prioritized and set aside for future expenses. This plan is designed for review and update as part of the annual budget review and approval process. As each project is implemented, the remaining projects may be reevaluated. This process allows for annual removal of completed projects and addition of new projects, which may alter priorities based on need.

Impact Fees

Chapter 7-20 of the West Virginia State Code provides for the assessment and collection of impact fees to offset the cost of commercial and residential development within counties. This would provide the County with a modicum of persistence in providing for capital improvements and other public services necessary to facilitate additional growth. Morgan County would need to complete the following in order to implement this strategy:

- Provide information demonstrating that past or projected population exceeds one percent growth rate per year over a continuous five year period
- Adopt a countywide comprehensive plan
- Review and update the comprehensive plan at no less than five year intervals
- Draft and adopt a comprehensive zoning ordinance
- Draft and adopt a subdivision control ordinance
- Develop a formal building permit and review process system that regulates permit activity and includes state building code regulations
- Provide an improvement program that includes a list of particular sites within the County for development potential
- Provide an improvement program for capital improvements that will be funded by impact fees
- Develop a comprehensive capital improvements program

From this list it appears that the County does meet several of the mandated criteria as outlined in the State Code and is proceeding with the implementation of a number of other requirements listed. However, at this time it also appears that the two major items that would preclude the County from seeking approval to implement impact fees are the absence of a capital improvements program and comprehensive zoning ordinances.

Morgan County

Buildings which are owned and operated by the Morgan County Commission for general government purposes are the Court House Complex and the Community Services Center in Berkeley Springs. The County also owns the Morgan County War Memorial Hospital building and other buildings that provide the public with various services. In addition the County has increased its participation in addressing the capital needs of other necessary public services that improve the health safety and welfare of its residents.

Table 12-3 Morgan County Capital Improvement Plan

<u>Building or Facility</u>	<u>Deficiency</u>	<u>Proposed Improvement</u>	<u>Cost</u>
Court House Annex			

Total

Municipal

The Town of Bath owns the Town Hall, which is located on the corner of Wilkes Street and Union Street. This building provides a meeting room for the Mayor and Council and office space for the Police Department, Town Clerk, and Water Department. Additional office space is provided for the Warm Springs Public Service District. Located behind the Town Hall is a garage used for equipment storage by the Streets department. The Town owns the Water Department facilities of the Berkeley Springs Water Works on Wilkes Street and the offices of the Warm Springs Public Service District. The Town also owns 3 cemeteries as well as property outside of the Town limits.

The Town of Paw Paw operates most of its municipal services out of its Town Hall. This includes offices for Mayor and Council meetings, Police Department, Water Department, and other administrative services. The Town also owns the water treatment facilities and the original Mayor’s office and jail.

Table 12-4 Municipal Capital Improvement Plan

<u>Building or Facility</u>	<u>Deficiency</u>	<u>Proposed Improvement</u>	<u>Cost</u>
Town of Bath			
Town of Paw Paw			
Total			

Other Government Entities

There are numerous other necessary services as well as public amenities provided throughout the County, which are identified as either private, volunteer, or public, that must be recognized as part of the financial process. These facilities may not be owned, operated, or funded by local government, but may exist through volunteer and donated efforts and/or public funds received through State and Federal sources. Although their make up and operational characteristics are outlined in Chapters 4 and 5, it is important to note in this chapter those capital outlay expenses that may require future funding consideration and possible alternative funding opportunities within the fabric of the government financing process.

These services and amenities can be divided into two distinct categories, which include those enterprise services such as water, sewer, and solid waste which do typically operate on a fee for service basis, and those general services such as libraries, emergency services, schools, and parks which do not typically operate on a fee for service structure.

Table 12-5 Other Public Building and Facilities Improvements

Building or Facility	Deficiency	Proposed Improvement	Cost
Schools			
Greenwood Elementary	Capacity	150 student addition	\$1,508,387
North Berkeley Elementary	Closure	convert to BOE offices	\$150,000
Paw Paw Elementary	Capacity	student addition	\$747,854
Pleasant View Elementary	Closure	close and sell property	0
Widmyer Elementary	Capacity	450 student addition	\$1,573,976
New Elementary School	Capacity	new K-5 elementary school	\$4,819,500
Warm Springs Middle	Capacity	student addition	\$967,404
Berkeley Springs High	Age	expand/improve/renovate	\$3,203,813
Paw Paw High	Capacity	150 student expansion	<u>\$1,397,174</u>
		Subtotal	\$14,368,108
Public Safety			
Libraries			
Parks			
<hr/>			
Total			

Trends in Assessed Valuation and Financing Capacity

Trends in assessed valuation are important in projecting the potential for revenue to fund current and future budgetary expenses. Valuation is the sum of personal property, real estate, and public utility valuations. The total, which is taxable, is determined by subtracting the valuation of all property which qualifies for the Homestead Exemption. Under the 1982 Tax Exemption Amendment, the first \$20,000 of assessed value is exempted from ad valorem taxes for resident owners who are age 65 or over or who are certified as permanently and totally disabled.

In comparing valuation over time it appears it has increased steadily since 1980, primarily as a result of increased assessments due to regional market demand. The taxable total however, increased less rapidly due to the Homestead Exemption. Property which qualifies for the exemption has been expanded over this period from the first \$5,000 to the maximum of \$20,000 of assessed valuation for qualifying properties.

Assessed valuation of public utility property represents the smallest component of the total. In 1980, Morgan County was 53rd among 55 West Virginia counties in property owned by public utilities. This ranking has increased since that time. There was actually a decline in 1980 of nearly \$53,000 in utility property due in large part to the discontinuation of over 30 miles of Western Maryland Railroad track in Morgan County. Since that time public utility valuation has increased.

Personal property valuation increased more rapidly than real estate from 1980 to 1990 and from 1990 to 2000. This increase has been due in large part to a higher disposable income from the in migration of population. This component is subject at times to significant fluctuation due to its dependence on the availability of the average consumer's expendable income.

The most consistently increasing and influential component of total valuation is the value of real estate property. In 1980 the valuation for Morgan County was set at 63% of appraised value, and since that time has continued to increase. Appraised value is periodically reviewed and updated by the County Assessment Office.

Trends in Revenues and Expenditures

The change in general trends of revenues and expenditures over time is most accurately reflected in terms of annual budgetary comparisons and end fund balance. In looking at simply one side of the budgetary process there may appear to be large increases in revenue or expense, but those numbers should be compared within the budget year to better understand how the County has balanced the budget for a given period. Further, it is important to note in this review the percentage to which revenues are being collected as well as to what expenditures they are being applied.

In comparing tables 12-1 and 12-2, revenues continue to outpace expense. However, these tables which are further defined in the County's annual budget do not reflect the direct charges for services which totaled more than \$800,000 in 2005. As development occurs the County will continue to consider and adjust charges for service to ensure that general tax and other revenues are not subsidizing expenses and services that should be covered by separate charges.

Revenues

In reviewing revenue trends for the census years between 1980 and 2000 it appears the revenues from property taxes have produced an increasing proportion of total revenues. This is also true of local revenues from other sources due in part to a decline in revenues received from the State and Federal sources in terms of overall percentage of the budget. However, all sources have combined for an increase in total revenues for each census period. The fiscal health, however, is much better defined in comparing the County reserve or ending balance as it relates to consistency between annual revenues and expenses.

Expenditures

All expenditures are covered by annual revenues collected which is projected as part of the budgetary process. The General Fund, having the most revenue available, is used to cover most of the County's expenses. This includes a large number of line items within administration and other services provided by the County. During the period from 1980 all categories except the shared revenue funds experienced some growth in terms of

overall percentage of each budget year. However, as shared revenue reflects capital outlay, this fund should fluctuate depending on debt needed to finance projects.

Table 12-6 Trends in Revenues and Expenditures

Type	FY 79-80	%	FY 89-90	%	FY 99-00	%	% Change
Revenue							
Property tax	270,081	49	1,027,779	26	1,731,448	53	4
Grants	0	0	0	0	0	0	0
Other	76,079	14	323,100	8	828,022	25	9
Coal Severance	27,653	5	N/A	0	N/A	0	0
Shared Funds	174,390	32	2,646,966	66	701,354	22	-10
Total	548,203	100	3,997,845	100	3,260,824	100	
Expenditures							
General Government	437,628	80	1,138,779	31	1,677,634	55	-25
Public Safety	110,575	20	271,559	7	730,152	24	4
Health and Sanitation	0	0	124,392	3	54,961	2	N/A
Culture & Recreation	0	0	52,503	1	106,796	4	N/A
Capital	0	0	2,193,492	59	441,575	15	N/A
Total Expenses	548,203	100	3,782,670	100	3,011,118	100	

Bonding Capacity

Morgan County, through its County Commission, is empowered by the West Virginia Code to issue general obligation bonds “ for the purposes of acquiring, constructing and erecting, enlarging, extending, reconstructing, or improving any building, work, utility, or undertaking, or for certain other specific purposes relative to libraries, museums, schools, parks, civic arenas, auditoriums, exhibitions halls and theaters.” The Code further states that “ the power to acquire or construct any building, work, or improvement as herein provided shall be deemed to include the power to acquire the necessary lands, sites, and rights-of-way therefore”.

The County is authorized by the Code to become indebted to an amount equal to or more than two and one-half percent of the value of its taxable property as shown by the last assessment. However, an additional debt equal to no more than two and one-half percent of the value of the taxable property may be incurred for the erection and equipment of a courthouse or jail with funds from the government of the United States or any Federal or State government agency. Since the repayment of general obligation bonds is made from local tax revenues, this debt may not be incurred unless it is approved by three-fifths of all votes cast at public referendum.

Pursuant to the Industrial Development and Commercial Development Bond Act, the County is authorized to issue revenue bonds to provide funds to finance commercial and industrial development projects. These bonds are limited obligations of the County, which are payable from revenues received from the financed projects. The amount of

bonds issued by the County in each fiscal year is determined by the programmed need for such funds.

The Table above represents bonded debt for the year specified. However, as the County has bonded debt for other years not listed, the total outstanding County debt as of 2005 was nearly \$600,000.

Alternative Funding Sources

The Governor's Partnership Grant Program provides funding for local capital improvement projects which have received primary funding from other sources and need a secondary allocation from the State to complete the financing. Eligible improvements include labor and construction costs for improvements such as water, sewer, community buildings, and recreation facilities.

The Governor's Emergency Water and Sewer Systems Program is used for emergency equipment and repairs to water and sewer systems that experience disruption in service due to accidents or natural occurrence. Funds are available for 100% of the eligible costs up to a maximum dollar amount.

The Community Development Block Grant Program (CDBG) is provided to small cities to be used for a number of objectives aimed at improving the community character of primarily low and moderate-income neighborhoods. This may be accomplished through acquisition, construction, reconstruction, or installation of necessary services, or other site improvements. For Morgan County, these funds are limited to improvements made in certified CDBG areas.

The Land and Water Conservation Fund is a Federal program under the National Parks Service that provides grants for eligible costs for such projects as parks, playgrounds, swimming pools, ice arenas, and similar outdoor recreational facilities. Eligible costs are limited to those that provide a direct recreation benefit and do not include accessory costs for fencing, stormwater management, or other required improvements.

Goals & Objectives

Goals

The key to achieving the goals outlined in this Comprehensive Plan is financing. Revenue and expense budgets, as well as grants and loans and other fiscal strategies are the means by which progress will be made. Goals include:

- Promoting methods of funding growth;
- Working to create a sound local economy as the fiscal foundation that will underwrite growth.

Objectives

Steps to advance these goals include the following objectives:

- Evaluating and supporting the collection of impact fees on new development;
- Supporting the implementation of programs that will increase government efficiency such as using more fuel-efficient vehicles in public transit (government cars and trucks, school buses, etc.);
- Encouraging the development of local employment opportunities and work force housing to ensure a broad local economic base;
- Considering how land that is set aside is calculated for promotion of farm easements; and
- Supporting creation of a capital improvements plan for capital project outlay.

CHAPTER 13 – HISTORIC PRESERVATION

Introduction

Like many other States over the past several decades, West Virginia has implemented nationally driven strategies to develop and fund programs that protect, preserve, revitalize and promote its historically significant landmarks. This effort is driven by the tangible financial gains that may be experienced through the ever increasing tourism industry, as well as the intangible quality of life benefits that direct local community involvement in maintaining pride in the sense of place that historically significant features create.

Morgan County, like much of the eastern seaboard developed by the earliest of European settlers, boasts numerous historically significant features. In order to achieve the greatest exposure through this Plan to both the potential of available government funds and easy identification to tourist travelers, these features are separated into scenic, archaeological, architectural, and other significant lands or buildings.

Scenic Areas

Significant natural and scenic areas are classified by the Wildlife/Heritage database of the West Virginia Department of Natural Resources. Prominent physical features which expose rock structures and provide unique vantage points for scenic views are classified by the database as Special Landforms.

The most accessible and well-known panoramic overlook in Morgan County is “Prospect Peak”, which is located along WV Rt. 9 just three miles west of Berkeley Springs. This scenic overlook, which was once featured in National Geographic Magazine, is situated on the Cacapon Mountain and provides a panoramic view of the Potomac River and the States of Maryland, West Virginia, and Pennsylvania. There is a second overlook located in Cacapon State Park that provides a scenic view to the east.

Another overlook that provides panoramic views of three States is “Lovers Leap”, which is a high ledge near US Rt. 522 north of Berkeley Springs. A lesser known, but equally inspiring scenic view is “Fluted Rocks”, which overlooks the Potomac and Cacapon rivers at an elevation of 852 ft. Neither of these overlooks, however, is easily accessible or open to the public.

Archeological Features

One of the more significant landforms in Morgan County is “Devil’s Nose”. This feature, which lies on private property, is part of Short Mountain. It is located in the eastern part

of the County and projects at nearly 800 ft. elevation into a nose-like structure that overlooks Meadow Branch.

“Eades Fort” is a historically significant rock formation along the shore of the Cacapon River, named for Thomas Eades, an early settler and farmer who escaped to the rock formation when Indians attacked and burned his barn.

Rock Gap Cave is believed to be the only significant cave in Morgan County. It is located at the north end of a small quarry on the southwest side of Rock Gap. It includes a partially blocked passage that leads to a thirteen foot by six-foot crawlway. It is not accessible to the public.

Natural Spring Areas

Morgan County is most well known in the region for its natural spring areas, the most important of which is found in the Town of Bath. Located at about 800 ft. above sea level, the springs form at the base of Warm Springs Ridge, which rises nearly 450 ft. above the Warm Springs valley. The springs discharge area encompasses five principal sources and numerous smaller ones, all within one hundred yards of one another, producing from 1,000 to 2,000 gallons per minute of clear water at a constant temperature of 74.3 degrees Fahrenheit. The springs have been used since pre-colonial times for health spa uses that continue today.

A second important set of springs is the Breakneck Run Springs located at Ridge in the southern area of the County. The combined flow of these springs measures nearly 1,000 gallons per minute, which supplies water for the Ridge State Fish Hatchery. This is the only fish hatchery in the State that is a combination warm and cold water hatchery, producing cold water golden, rainbow, and brook trout as well as warm water large and small mouth bass and muskies. These free flowing springs are the only source of high quality, pollution free water in the State conducive to the production of trout.

Historic Sites

The most important federal property in the area is the Chesapeake and Ohio Canal National Historic Park, a part of which parallels the Potomac River across from Morgan County on the Maryland side. Although the National Park Service owns a few acres in Morgan County along the abandoned B&O Railroad right of way, the C&O Canal recreational historical attractions are all located in Maryland.

One of the most significant attractions of the C&O Canal is the Paw Paw Tunnel, a 3,118 foot brick-lined excavation located across from the Potomac River, just north of the Town of Paw Paw. The Tunnel was constructed from 1828 to 1850 to provide passage for the Canal through a six-mile set of river bends. The C&O Canal was added the National Register in 1966.

Even though the County has remained relatively undeveloped over time, it has experienced significant interest in its natural resources. The most prominent of these is Berkeley Springs State Park, which was added to the National Register in 1976. The park includes a concentration of historic buildings centering on the mineral springs which once formed the core of the spa attracting some the highest officials and socialites in early colonial times. This attractive natural feature drew so many tourists prior to the American Revolution that in 1776, the Virginia legislature established the Town of Bath on nearly 50 acres adjoining the springs. Although always public land, the park did not achieve its current 4.5 acres until 1881 when the land was razed and sold to the Bath Trustees for the park.

The 34-mile long abandoned Western Maryland Railroad right-of-way from Long Ridge in Washington County, Maryland to Maryland Route 51 was added to the National Register in 1981. Construction of this stretch of the Western Maryland Railroad began in 1903, closely following the C & O Canal and the Potomac River on the northern (Maryland) side. At the Great River Bends between Hancock, Maryland and Paw Paw, West Virginia the railroad cut through the mountains of Maryland and across the river by means of three tunnels and six bridges, transferring seven miles of the right-of-way onto the West Virginia side in Morgan County. Following abandonment of the right-of-way in 1975, it was acquired by the National Park Service in 1980. At the time of purchase, the Service agreed to relinquish fee title to the right-of-way in Morgan County subject to suitable development controls.

Historic Structures

Possibly the most prominent single structure in Morgan County, Berkeley Castle, is a two story stone structure built in the Romantic tradition of the 19th century and positioned against the Warm Springs Ridge along WV Rt. 9 near the center of Berkeley Springs. Also known as Suit Castle, it was built as a summer home by Colonel Samuel Taylor Suit, a successful Maryland businessman who earned his fortune in the securities market. Construction of the castle began in 1885 and was completed in the early 1890's by his wife following the death of Colonel Suit in 1888. The Castle was added to the National Register in 1980. Today it serves as a private residence.

The T.H.B. Dawson House is a large red brick Italian style 19th century residence located on a hillside lot at the corner of Green and Market Streets in the Town of Bath. It is a significant and largely intact example of a substantial house type once commonly assigned to upper middle class businessmen and professionals of America's Gilded Age. The house was built in 1880 for Mr. Thomas Hart Benton Dawson, a native of the community who served in the Union Army during the Civil War, was elected County Clerk in 1886, and was active in the legal profession and insurance business. The House was placed on the National Register in 1982. The house is currently vacant.

The Manor, also known as the Sloat-Horn-Rossell House, is a large two-story Empire style residence located on Fairfax Street in the Town of Bath, the only remaining example of the this style in the area. Constructed in 1879, it is the work of the Hunter family, a prominent local family that was in the construction business. The Manor was accepted onto the National Register in 1984, and has been transformed into a bed and breakfast inn.

The John Herbert Quick House, popularly known as “Coolfont”, was also placed on the National Register in 1984. Coolfont, a 2 ½ story mansion of Colonial Revival style that was built in 1913, is significant for its architecture. More importantly though, it is known as the home of John Herbert Quick, a noted late 19th and early 20th century literary figure and social reformer of national renown. The house is now a private residence separate from the 1800 acre resort located in the valley between Cacapon Mountain and Warm Springs Ridge, just south of Berkeley Springs.

The Berkeley Springs Train Depot, located on North Washington Street, was constructed in 1914 for use by the B&O Railroad. It is a decorative brick structure that was built in the Spanish Revival style and was used by the railroad until 1935. The Depot was purchased by the Town of Bath and converted for use as both the City Hall and correctional facility. It was added to the National Register in 2001. It is currently owned by the Town and is rented for commercial purposes.

The Clarence Hovermale House, located on Wilkes Street in the Town of Bath, was also built by the Hunter family in 1884. Also known as the Allen Mendenhall House, it represents the Queen Anne style period. The house currently serves as a private single residence and was added to the National Register in 2003.

Wisteria Cottage, built in 1872, was home to Judge John W. Wright. Judge John Wright served as a Lincoln appointee to the U.S. Court of Appeals. It is a cubical cottage in Tuscan style located on South Green Street in the Town of Bath. The cottage was added to the National register in 1986, and is currently vacant.

Ambrose Chapel is a single religious structure located on 15 acres along Winchester Grade Road. It was placed on the National Register in 1998.

The Morgan County courthouse is the most recent addition to this growing list, and was placed on the register in 2005. It is located along Washington and Fairfax Street. This building was opened in 1908 and was later added onto in 1923. This structure, which is the third courthouse in the County’s history, was recently damaged by fire and is being demolished.

Table 13-1 Historic Register Sites and Structures

<u>Listing</u>	<u>Type</u>	<u>Year Built</u>	<u>Year Listed</u>	<u>Owned</u>
C&O National Historic Park	Site	N/A	1966	Public
Berkeley Springs State Park	Site	N/A	1976	Public
Western Maryland Railroad	Site	1903	1981	Public
Berkeley Castle	Structure	1885	1980	Private
T.H.B. Dawson House	Structure	1880	1982	Vacant
Manor (Sloat-Horn-Rossell house)	Structure	1879	1984	Private
John Herbert Quick House	Structure	1913	1984	Private
Berkeley Springs Train Depot	Structure	1914	2001	Public
Clarence Hovermale House	Structure	1884	2003	Private
Wisteria Cottage	Structure	1872	1986	Private
Ambrose Chapel	Structure	1850	1998	Private
Morgan County Courthouse	Structure	1908	2005	Public

Aside from the sites already registered with the National Register, there are numerous additional sites that have been identified for eligible inclusion due to their significance as part of the historic architectural and cultural resources within the County. Most of the sites include structures located within the Berkeley Springs area, many of which serve a public purpose.

Table 13-2 Historic Sites and Structures Eligible for the National Register

<u>Listing</u>	<u>Type</u>	<u>Year Built</u>	<u>District</u>	<u>Owned</u>
Old Bath District High School	Structure	1918	Bath	Public
The Bathkeeper's quarters	Structure	1907	Bath	Public
Berkeley Springs Presbyterian Church	Structure	1876	Bath	Private
Dutch Cemetery	Site	1777	Bath	Public
Highlawn Inn (Algernon Unger House)	Structure	1902	Bath	Private
Highspire	Structure	1894	Bath	Private
Hunter's Hardware	Structure	1928	Bath	Private
The Ice House	Structure	1911	Bath	Public
The Inn & Spa at Berkeley Springs	Structure	1933	Bath	Private
The Inn on Fairfax Street	Structure	1903	Bath	Private
Lynette's Café (Eichelberger Residence)	Structure	1915	Bath	Private
Masonic Lodge/Visitor Center	Structure	1907	Bath	Private
Morgan County Public Library	Structure	1870	Bath	Public
Mount Tabor Church and Cemetery	Site	1852	Rock Gap	Private
Perry Office Building	Structure	1948	Bath	Private
Saint Mark's Episcopal Church	Structure	1882	Bath	Private
Saint Vincent de Paul Catholic Church	Structure	1932	Bath	Private
Old School House Lot	Site	1903	Bath	Public
Star Theatre	Structure	1916	Bath	Private
Trump & Trump Law	Structure	1939	Bath	Private

Historic Preservation Organizations

There are several organizations at various levels of government actively involved in the preservation efforts of Morgan County. Many of these government organizations serve as the procedural mechanism for grassroots groups seeking direction on preservation and restoration of significant community structures and sites.

National Register of Historic Places

The National Register of Historic Places is the Nation's official list of cultural resources worthy of preservation. Authorized under the National Historic Preservation Act of 1966, the National Register is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect our historic and archeological resources. Properties listed in the Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. The National Register is administered by the National Park Service, which is part of the U.S. Department of the Interior.

Listing in the National Register contributes to preserving historic properties in a number of ways:

- Recognition that a property is of significance to the nation, the state, or the community
- Consideration in the planning for federal or federally assisted projects
- Eligibility for federal tax benefits
- Qualification for federal assistance for historic preservation, if funds are available

Like many state and federal preservation programs, the interest in National Register listing originates with the property owner. Once approved by the state, the state historic preservation agencies can nominate the property to the national level. Listing does not interfere with a private property owner's right to alter, manage, or dispose of the property. However, it often changes the way communities perceive their historic resources and gives credibility to efforts to preserve these resources as irreplaceable aspects of the community.

Town of Bath Historic Landmark Commission

In 2006 the Town of Bath established an Historic Landmark Commission to facilitate formal identification of historically eligible and significant sites in and around Berkeley Springs. Currently a Historical Survey is in progress centering on the 131 original sites in the Town of Bath as well as several sites contiguous thereto. The survey is empowered to consider any structure or site built or established prior to 1957.

Completion of the survey in 2007 will provide a much more definitive understanding of the historically prominent sites in Bath and the nearby surrounding area.

Goals and Objectives

Goals

Given the age and rich history of Morgan County, historic preservation is an important and widely supported aspect of the local ethos. The following goals will foster this important trend:

- Promoting the preservation of historic sites and structures that define the unique historical and cultural character of the County; and
- Encouraging community development occurring in the vicinity of identified cultural and historic resources to be sensitive to the special nature of the surrounding area.

Objectives

These goals are supported by the following objectives:

- Exploring creation of a tax district with strict regulation of historic preservation efforts;
- Promoting the old Paw Paw train depot as a community museum;
- Fostering programs offering ‘learning vacations’ to unique historical areas of the county;
- Supporting development of an inventory of cultural and historic landmarks and resources and identifying sites to be earmarked for National Register status and/or local protective regulations;
- Promoting creation of a Historic Landmarks Commission for the County;
- Evaluating establishment of a dedicated funding stream to purchase and renovate historically significant structures; and
- Supporting efforts of various local historic preservation groups to promote the County’s historic and cultural assets.