

Greenbrier County Comprehensive Plan

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Woody Hanna

County Planning Commission

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Sherman McClung, Member-at-Large

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Hanno Kirk, Member-at-Large

Courtney Jesser, Member-at-Large

County Staff

Ellie Weikle, Planning and Permits Office Administrator &

Assistant to the Planning Commission

Robert Ford, Building Inspector

Greenbrier County Comprehensive Plan

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This Comprehensive Plan was developed according to West Virginia State Code Chapter 8A.

Introduction

One function of a Comprehensive Plan is to determine what the residents want the community to look like in the future and then to develop a methodology that will allow the community to promote and maintain that vision. During the development of this Comprehensive Plan, a future vision for Greenbrier County was developed by residents. With the proper implementation of this plan, over the next twenty years, it is envisioned that the following statement would be true in 2034:

In 2034, Greenbrier County values the past while looking towards the future. Greenbrier County has a long history of valuing both the natural and built environments: from clear streams, unobstructed mountain ridges, and an incomparable cave network, to farms, homes, and communities that tell the history of the development. Greenbrier County is known for its pristine environment in both the Greenbrier River and Meadow River watersheds, its vibrant arts and cultural community, its thriving economy, its high quality of life, and for the strength and diversity of its communities.

Economic development in Greenbrier County is as vibrant as the arts and cultural activities and as diverse as the communities. In the past 20 years, Greenbrier County has exemplified the melding of tradition and innovation. A center for high tech and internet-based companies, Greenbrier County is also known for its agricultural industry; for its wide range of small industries creating value-added products from local mineral and timber resources; and for its craftsmen, artisans, and artists.

The County's diverse tourism industry continues to attract new visitors and old friends alike. In addition to the State Fair, held in Fairlea, visitors come to Greenbrier County to hike the county-wide trail network, float the blue trails on the Greenbrier and Meadow Rivers, explore the caves, enjoy the festivals and fairs that celebrate local and regional culture and heritage, tour the historic sites, and enjoy the revitalized downtowns in Lewisburg, White Sulphur Springs, Alderson, Ronceverte, Rainelle, and Rupert. Agricultural tourism has encouraged visitors to explore not only the towns, the rivers, and the mountains, but also to visit the farms, where they can buy local produce, visit "pick-your-own" sites, and learn about the County's agricultural heritage.

Greenbrier County is known for green approaches to development and industry. By encouraging low impact development techniques, green building techniques, and the development of alternative energy resources, Greenbrier County continues to set the standard for environmental quality and innovation in West Virginia, and has led to Greenbrier County's designation as one of the best places in West Virginia. Innovative approaches to development in Greenbrier County have helped to insure the long term health of the natural environment. By protecting source water, both in the streams and rivers in Greenbrier County and in the karst areas of the Greenbrier River Watershed and the wetlands of the Meadow River watershed, Greenbrier County has sustained the environmental qualities that attract new business and maintain the exceptionally high quality of life.

I. Planning Assumptions

a) Despite the downturn in new construction in 2008 and 2009, building permits for new construction will have an estimated annual growth rate between 6% and 8%, over the next 20 years. Some residential developments, especially in the Lewisburg Area, can be attributed to former residents returning to Greenbrier County to retire. The construction number could increase above 8% if Greenbrier County is successful in marketing itself as a retirement destination.

b) Retirees will represent a minimum of 30% of the overall population by 2025. As the "Baby Boom" generation reaches retirement, especially those who have lived and worked in primarily larger urban areas, an increasing number will move back to Greenbrier County because of a lower cost of living in combination with quality of life, geographic convenience, and medical care. Currently, residents 65 and older account for slightly more than 17% of the overall population. The Baby Boom generation accounts for 30% of the overall population and 47% of the workforce.

c) The cost of living ratio between Greenbrier County and the national average will remain relatively constant over the next 20 years, depressed in part by costs in the western end of Greenbrier County. The cost of living ratio between Lewisburg and the national average will narrow. Given the lower cost of living and the higher level of amenities, Greenbrier County will continue to attract retirees, but the majority of new development will be created outside of the Lewisburg city limits. Retiree preferences for "green" or "open space" views, proximity to recreational facilities, and convenient access to amenities and health care facilities means that most, if not all of the retiree-based growth will occur north of Lewisburg in the Central-North Designated Growth Area and the Residential Transition Areas, or to the east and west of 219 in the Lewisburg-Fairlea Residential Transition Areas. In either these areas, farmland is likely to continue to disappear under housing developments.

d) Depending on the economic development choices made by Greenbrier County over the next 10 to 20 years, population growth is likely to increase to 1.2 to 1.4% per annum. At a minimum, to fill existing gaps, Greenbrier County can expect to grow a minimum of 17% (population of 42,089) between 2010 and 2030, with the majority of growth occurring between 2020 and 2030. While Greenbrier County does not currently have a 1% growth rate per annum, it would be wise to plan for the higher growth rate that is likely to occur within the next decade. Currently, starting per job wages/ per hourly wages are relatively low in Greenbrier County and are the primary contributing factor to the loss of younger workers and higher skilled workers. The majority of private sector jobs (70.83%) in Greenbrier County are in the service industry and have an average weekly wage of \$542 (approximately \$28,184 annually). Economic redevelopment in Greenbrier County, with a greater emphasis on industries not prone to boom and bust cycles and higher pay scales may encourage a greater number of younger workers to either stay, return, or relocate to

| Cost of Living and Quality of Life Index: Comparison to US Rates (US=1.00) | | | | | | |
|-------------------------------------------------------------------------------|-----|-------------------|-----------|----------|------------|-----------------------|
| Cost of Living Indicator | WV | Greenbrier County | Lewisburg | Rainelle | Ronceverte | White Sulphur Springs |
| Overall cost of living | .78 | .81 | .87 | .75 | .85 | .74 |
| Cost of food | .98 | .95 | .95 | .95 | .96 | .96 |
| Cost of utilities | .97 | .73 | .73 | .74 | .73 | .73 |
| Cost of housing | .68 | .93 | 1.19 | .69 | 1.09 | .64 |
| Property tax rate | .45 | .38 | .38 | .38 | .38 | .38 |
| Miscellaneous (goods and services) | .98 | .94 | .94 | .94 | .94 | .94 |

Source: Sperling's Best Places, 2007

Notes:

1) A number above 1.00 means that the cost is higher than the median or average cost for the United States. While most of the cost of living rates are well below national average, housing costs in Ronceverte and Lewisburg are well above national rates. With the exception of housing costs, Greenbrier County and environs have significantly lower costs of living than either the United States or the State of West Virginia as a whole. Although not included in the cost of living indicators, home appreciation in Greenbrier County is well above the home appreciation rate for West Virginia (.27%), but well below the national average (9.8%).

2) Overall cost of living calculation is based on "the total of all cost of living categories weighted subjectively as follows: housing (30%), food and groceries (15%), transportation (10%), utilities (6%), health care (7%), and miscellaneous expenses such as clothing, services, and entertainment (32%). (Sperling, 2007)

the County. Growth in the population of Greenbrier County based on changes in the patterns of economic growth remains to be seen, but an additional 6,000 workers, with varying degrees of experience, above those created through natural increase, will be needed over the next 20 years to fill the gap created by retiring Baby Boomers. A portion of the employment gap will be filled by in-commuters from surrounding jurisdictions. Service sector jobs, especially those which cater specifically to the retirement population (medical, social service, retiree services) will need to increase to fill future needs.

e) Because of the presence of the West Virginia School of Osteopathic Medicine, in Lewisburg, and the Greenbrier Valley Medical Center, in Fairlea, the majority of retiree population is likely to locate in the 219 corridor, including the Greenbrier Central Designated Growth Areas and the Residential Transition Areas east, west, and north of Lewisburg. Retiree housing, both in terms of rental units, retiree communities, and long-term care facilities will need to be developed over the next 10 years to address anticipated needs. Typically, retiree residential facilities are located within a five minute response time radius of medical facilities, which would suggest

adding additional development lands to the west side of 219 between 219 and Houfnagle Road to provide ample development space. Based on current development patterns, Greenbrier will need an additional 2,900 acres of residential land, county-wide, to accommodate growth over the next 20 years (assuming an average lot size of 1 acre), assuming that no residential development or redevelopment occurs within the existing urban areas. An emphasis on urban redevelopment and on high density development in urban transition areas, designated growth areas, and existing urban areas could decrease land requirements by as much as 60%, although a continuing desire for large lot subdivisions will persist and may continue to encroach on existing agricultural lands.

f) Source water concerns, especially in terms of the carrying capacity and water quality of karst-based and surface source water systems and the impact of storm water, necessitates spreading development into areas other than the Greenbrier River Valley. In order to maintain overall quality and quantity, given increasing residential impacts in central Greenbrier County, industrial and commercial development should be focused in the Meadow River watershed, which does not have the same constraints. A shift in the location of industrial and commercial development will also shift at least a portion of the residential development to the western end of Greenbrier County and relieve some of the pressure on the 219 Corridor. Effective storm water management, through the use of Low Impact Development techniques, are essential for the long-term maintenance of Greenbrier County's source water resources, especially in light of heightened levels of pollution in the Greenbrier River, necessitating a TMDL (Total Maximum Daily Load) plan, and state and federal regulations and requirements.

g) Without shifts in economic development, Greenbrier County's economy will remain prone to "bust and boom" cycles, especially in the tourism/service sector and natural resource sectors, although retiree related industries, including medical, are likely to grow as needs expand.

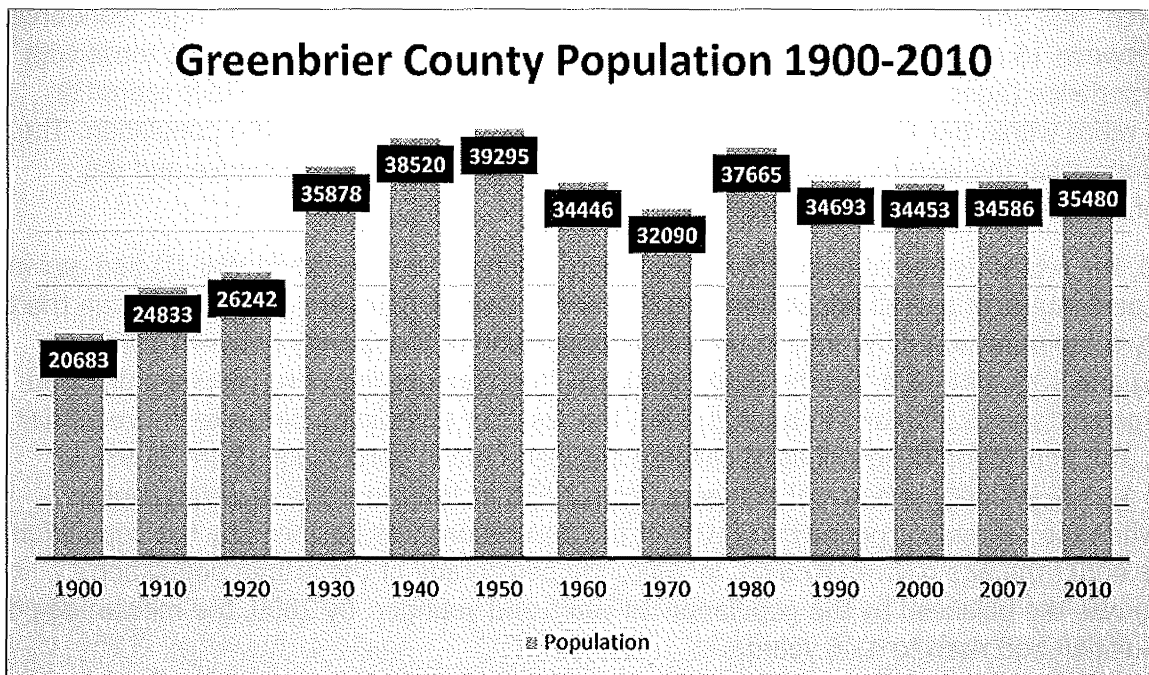
2. Greenbrier County: A Brief Overview

Greenbrier County, located in southeastern West Virginia, was created by an act of the Virginia General Assembly in 1777 from lands that were originally part of Botetourt and Montgomery Counties (Virginia). Until the early 1800s, most of the development in the Greenbrier River Valley followed organic crossroad settlement patterns, organized around an economic or transportation-related focal point: a trading post, a crossroads, or a mill, a river or a rail yard. The original road network in the four towns, two cities, and in the unincorporated portions of Greenbrier County evidences this pattern of development. As the population grew, and more structures were added, a loose road grid developed in each of the communities and became more pronounced in the communities with higher populations and more diversified economies. The rural road network developed to connect the growing number of farms with the central population points and the transportation hubs, which provided access to markets outside of Greenbrier County.

Until the coming of the railroad, the economy of Greenbrier County relied on a combination of necessary and supporting trades and industries (commercial enterprises, construction trades, blacksmiths, etc.), government and legal professions, agriculture, and tourism (most notably connected to the "springs"). While the construction of the railroad and the establishment of the system of depots in the early 1900s broadened the economic landscape in Greenbrier County, it

also heralded a significant east/west split in the economic landscape. While the eastern and central portions of Greenbrier County maintained a balance between the public and private sectors, with a continuing emphasis on agriculture commerce, and tourism all of which were relatively stable economic sectors, the western portion of the County focused on timber and coal, both of which were prone to boom and bust cycles. The disparity between the two regions continues into the present and is most evident in the housing stability, quality, and occupancy rates; out-migration patterns; and census data.

3. Population Trends: 1960 to 2010



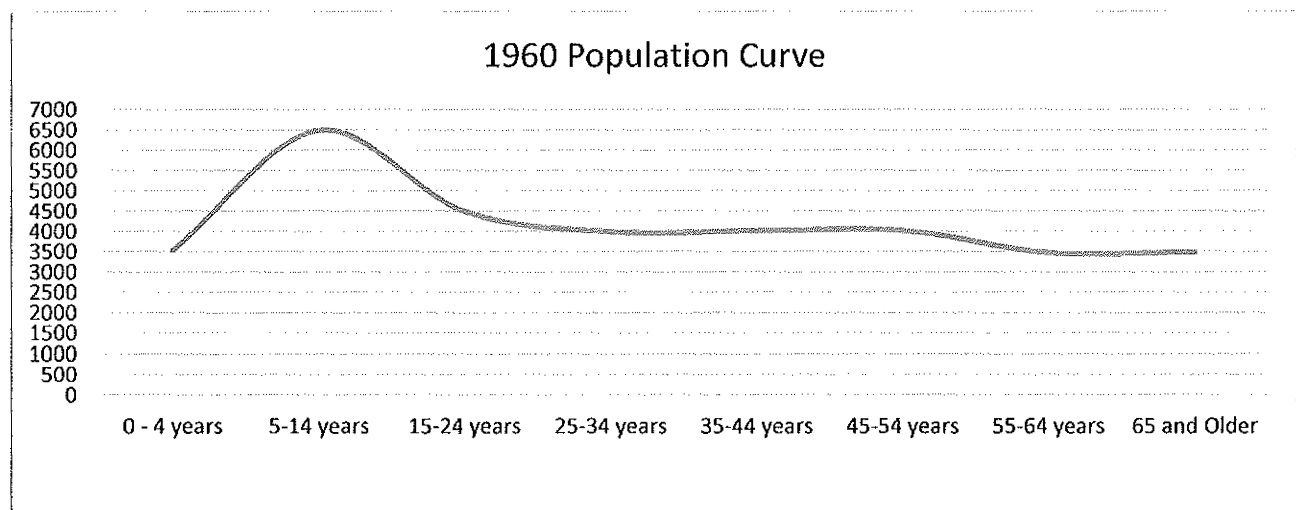
In 1960, the population in Greenbrier County was 34, 446, only seven fewer than lived in Greenbrier County in 2000. Greenbrier County has a long history of boom and bust cycles. The number of mining and tourism related jobs fluctuated, mirroring national trends. Between 1900 and 1950, as the coal industry grew, the population of Greenbrier also grew, topping out at 39,295. Following the war, and the shift away from coal as a primary source of power, coal jobs disappeared and the County's population dropped off, bottoming out in 1970 at 32,090. A second, smaller boom occurred in the late 1970s and early 1980s, as reflected in an additional 5000 in population in 1980, before the downturn in coal employment in the mid-1980s. The population growth and loss are clearly connected to economic circumstances, especially since 1960, rather than patterns of growth based on natural increase. The population of Greenbrier County has remained relatively flat since 1986, despite some dramatic shifts within the population's makeup over the past fifty years. Since 1960, the retirement aged population has grown both in size and in percentage of overall population at same time the birth rate and the number of children 14 and younger has dropped.

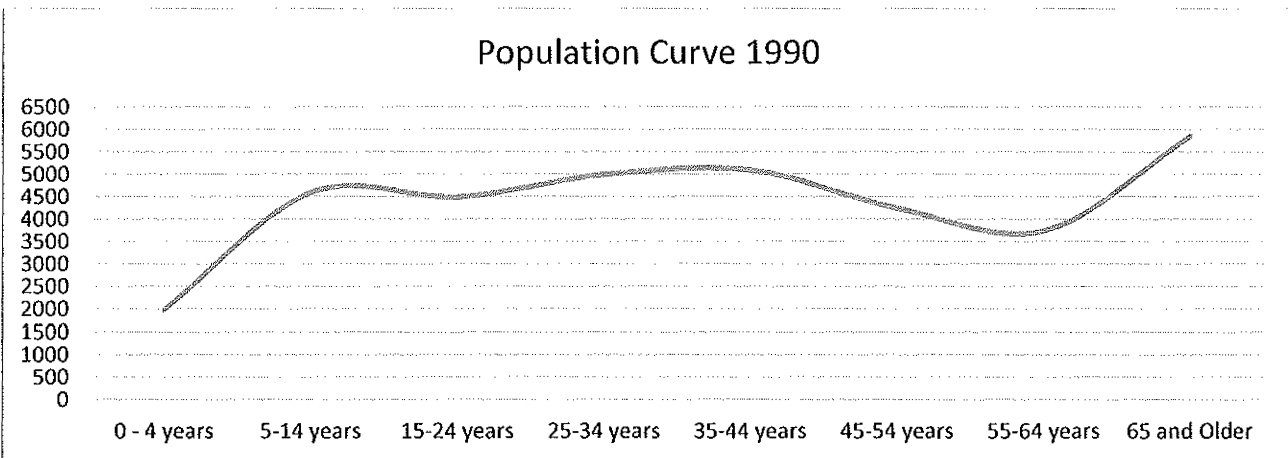
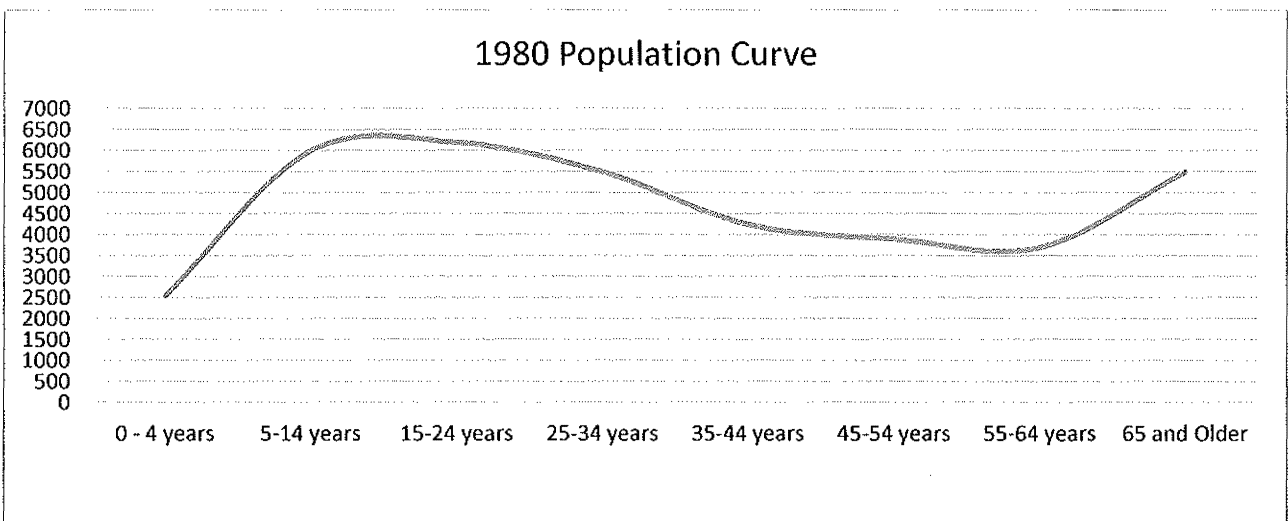
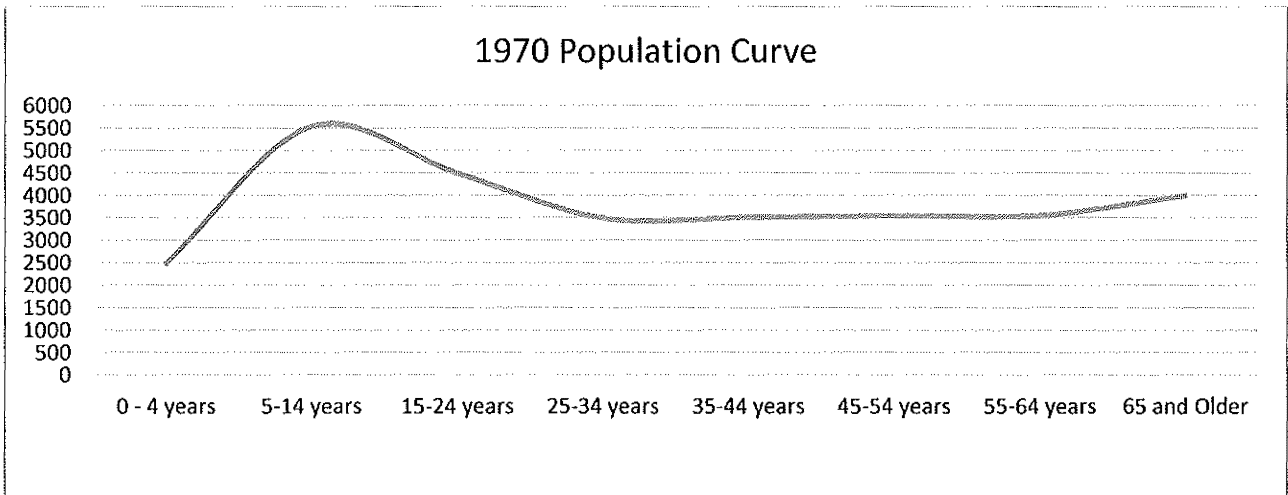
In 1960, retirees and children under the age of five accounted, each, for approximately 10% of the overall population in Greenbrier County. The median age in the County was 29.0 years overall all, 28.3 years for males and 29.6 years for females. On the whole, the two generations

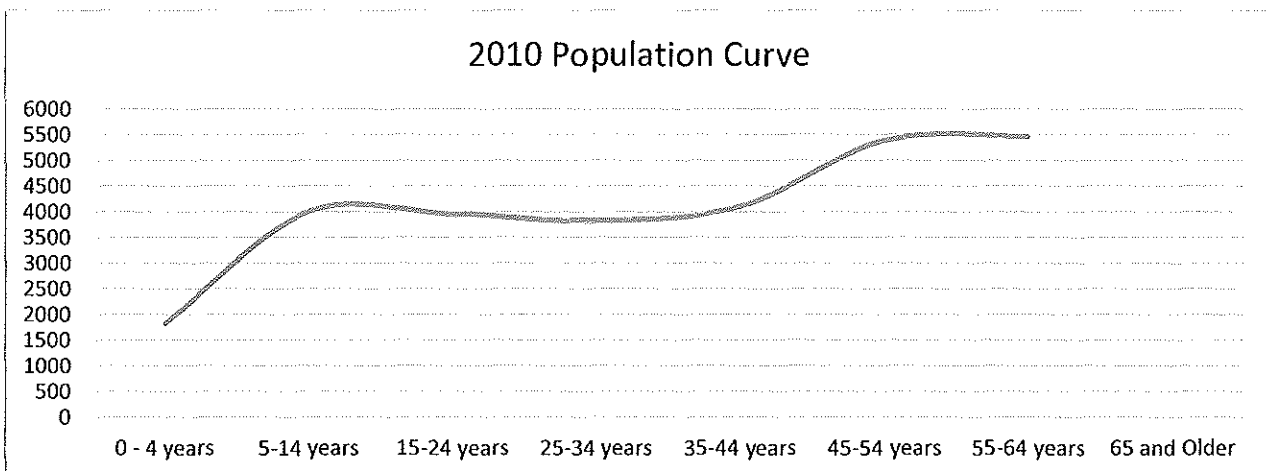
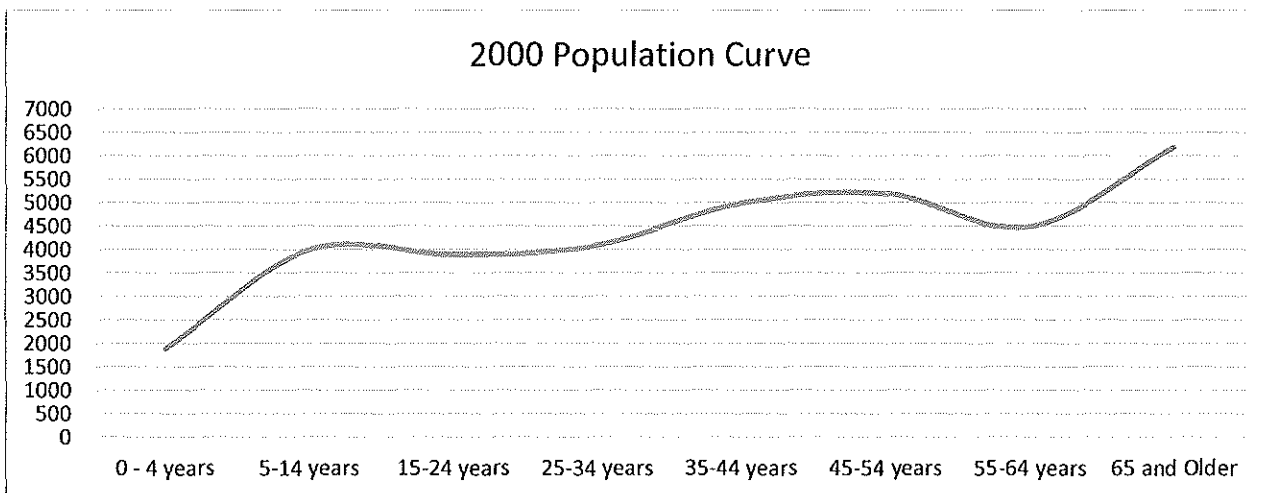
born before the Great Depression, representing the portion of the population between ages 35 and 64 in 1960 accounted for approximately 33% of the population; the generation born just prior and during the Great Depression and during World War II (ages 15 to 34) represented 24.5% of the population, and what has since become known as the Baby Boom Generation (those under the age of 15) represented 32.4%. By the end of the Baby Boom in 1964, the generation represented 34.6% of the population in Greenbrier County.

In 1960, school aged children (ages 5 to 14) represented 21.9% of the overall population, young adults (ages 15 to 24) represented 13.4% of the population, those within the "workforce" age group (25 to 64) represented 44.1% of the population. The younger workforce, those between 15 and 34 years of age, represented 24.6% of the population, while those with more experience (ages 35 to 54) represented 24% of the population. Those either retired or likely to retire within the 10 year span of the census represented 18.9% of the population. The population within the workforce suggested a fairly even distribution of experience and the ability of the population to maintain skill levels.

By 2000, the retirement aged population (those born during or before World War II) had grown both in percentage of overall population (17.7%) and in overall numbers (6101), although there was only a seven person difference in the actual population of the County between 1960 (34,446) and 2000 (34,453). On the other hand, children younger than five years old dropped both in percentage (5.5%) and in total (1,904), the result of a declining birthrate in Greenbrier County. The population of school aged children declined both in percentage (from 21.9% in 1960 to 12.2% in 2000) and actual numbers (from 7,538 in 1960 to 4,195 in 2000). Unlike 1960, when the retirement population (10% of the population) was balanced by the population of those under the age of five (10.5%), in 2000, the percentage of the retiree population (17.7%) was the balanced by the population 14 years and younger. By 2000, the median age of the population had risen to 41.6 years.







Employment Population

The makeup of the workforce in 2000 also showed some significant shifts, with fewer younger workers (22.8%) and a greater percentage of both experienced workers (30.2%) and workers who were either retired or near retirement (29.2%). In short, there is not the population at the younger end of the scale to fill in for those at the higher end of the scale, creating, in essence, a non-sustainable workforce.

Part of the shift in the population is due to the loss of employment opportunities locally and slow wage growth, both of which are discussed in greater detail in the discussion of economic development trends and conditions. One could argue that economic issues were and are the primary driving force in the population shifts in Greenbrier County and in West Virginia as a whole. Between 1960 and 1970, the workforce changed as the mines closed and Greenbrier County experienced an economic downturn. The population in the county dropped from 34,446 in 1960 to 32,090 in 1970, a 7% decrease. At the same time, specific age groups showed a greater decrease. Workers in both the younger age range (15 to 34) and the experienced age range (35 to 54) decreased 3% and 11% respectively. Only the pre-retirement group (55 to 64) showed any growth, with an increase of 21%.

For a brief time between 1975 and 1986, the mines returned to, if not full employment, at least higher rates of employment, with a 7.5% increase in the experienced workforce, 44.8% increase in the younger workforce; and a 22% increase in the overall workforce. According to the US Census Bureau decennial data, 1980 was the peak year for workforce size in Greenbrier County. According to the Bureau of Economic Analysis, actual salary and wage employment peaked in 1982 with 11,463 jobs. Despite the drop in overall population since 1982 the number of jobs has continually increased since 1986, even as the population decreased and then flattened. It should be noted that the data from the Bureau of Economic Analysis does not distinguish between full-time and part-time employment. Again, for a fuller discussion of economics, please see the section on economic development trends and conditions.

Since 1980, the workforce has declined, although the overall numbers are higher than in 1960. The makeup of the workforce is not, however, the only contributing factor in the population distribution of Greenbrier County. In fact, the numbers clearly mirror the impact, both historically and currently, of the "Baby Boom" generation. In 1980, the County saw a peak in younger workers primarily because of a generational peak. By 1980, the majority of the "Baby Boom" generation had entered the workforce. According to the Census Bureau, the peak year of the "Baby Boom" was 1957, and the workers born in 1957 would have been 23 in 1980. Workers born in 1945, the first year of the "baby boom," would have been 35 years old and would just be entering experienced workforce. By 1990, well over half of the "Baby Boomers" (those born between 1945 and 1955) would have been in the experience workforce, while the other half would still be in the younger workforce. By 2000, the entire "baby boom" generation had entered the experienced workforce, with those born in 1945 in the pre-retirement workforce. It is expected that at least half of those in the experienced workforce, (roughly 5,000 workers) will shift to pre-retirement by 2010 and nearly three quarters will be at or past retirement (approximately 7,000 workers) by 2020.

As the "Baby Boom" generation has aged through the stages of employment, the generations behind the Baby Boom have declined in overall population. The younger workforce, those age 15 to 34, has declined in overall numbers by 34% since 1980. Given the decline of the birthrate in Greenbrier County, discussed below, which mirrors the rest of West Virginia, this trend is likely to continue. In addition, because of a shrinking younger workforce, the overall number entering the experienced workforce between 2000 and 2020 is also likely to decline, resulting in employment and experience gaps.

The Graying of Greenbrier: Retirement Trends

In a statistical brief released by the West Virginia Health Statistics Center, researchers from the West Virginia Department of Health and Human Resources observed that:

West Virginia's birth rate is shrinking rapidly. The state averaged over 46,000 births per year in the 1950s, compared with only 17,000 deaths. As time went by, resident deaths increased slightly. Births, on the other hand, have dropped substantially, from an annual average of almost 33,600 in the sixties, to 29,000 in the seventies, under 25,000 in the eighties, and just 21,400 in the nineties. West Virginia has, in fact, actually experienced more resident deaths than births every year since 1997, the first state to have a natural decrease.

The researchers concluded that "Much of the state's out-migration has been younger people who have been forced to move away to find work in other regions because of fewer economic opportunities in the Mountain State. They marry and raise their families elsewhere. Then, after they retire, many West Virginians come back home to enjoy life in the Mountain State. The "Graying of America" has already started in West Virginia." (HCS Statistical Brief, No. 8, 2002)The "graying" of Greenbrier County matches the trend in West Virginia, and is evidenced by the gradual increase in median age in Greenbrier County since 1960. In 1960, the median age in Greenbrier County was 28.3 years for males and 29.6 years for females. While there was some increase in the median age for both males (30.4 years) and females (34 years) between 1960 and 1980, the increase was not nearly as significant as the increase between 1980 and 2000. By 2000, the median age had risen to 40.1 years for males and for females to 43 years. To put these numbers in perspective, the median age of males in the United States is 35.4 years and the median age for females is 38 years.

According to a study commissioned by the National Association of Home Builders in 2006, "52% of Baby Boomers between the ages of 45 and 54 and 57% of Boomers between the ages of 55 and 64 expected to purchase some form of retirement, investment or second home." While the study provided a five year time frame for purchases, the development of second homes and retirement properties has probably been slowed by the current credit crisis. The study, conducted by ProMatura LLC, also found that:

Other questions about location showed that over 25 percent of those who said they were likely to move, reported they were interested in "fresh water" and "green space." They either want to buy real estate directly on, or with a view of, fresh water such as a lake, river or pond. Nearly 12 percent want to buy real estate surrounded by "green space" -- parklands, fields or trees -- and 27.1 percent want to see green space out their windows...Boomers reported that a key factor in their decision about where to move will be the presence of high-amenity facilities for physical activity, workouts, sports and fitness. One out of every four boomers 45 years and older wants to be able to walk -- not drive -- to a fitness center. Twenty-seven percent want to be able to walk to either bicycling or hiking areas. (ProMatura, 2006)

4. Population Projections: 2010 to 2030

Natural Growth and Net Migration

One method of judging changes in population and projecting future population is to look at natural increase or decrease (births minus deaths), and net migration patterns relative to the beginning and end populations for a set period of time, typically a decade. A positive net migration number indicates more people moved to the County than moved away; a negative net migration number indicates precisely the opposite. In the traditional framework of population projections, projected increases are based on existing trends population trends in terms of births, deaths, and net migration, where:

Growth rate = crude birth rate - crude death rate + net migration rate.

Based on the traditional model, Greenbrier County's rate of growth, per decade, is likely to remain at or less than 3%, which would translate to a population of 37,792 by 2030.

As noted above, Greenbrier County's population in 2000 is only slightly higher (seven people) than 1960. On its face, it would seem Greenbrier has changed, in terms of population, very little in the past 47 years. In fact, Greenbrier has changed a great deal. Since 1960, there have been a total of 22,331 births and 19,940 deaths, or a natural increase of 2,391 residents. If there had been no in- and out- migration, during the period of time, the Greenbrier County population would be 36,837. This is clearly not the case. The number of births, by decade total, has declined by 58% since

1960. In the same period of time, the number of deaths, per decade, has decreased by 2%, reflecting local improvements in the healthcare system. Until the 1990s, Greenbrier County had a positive net natural increase in population, although the rate of natural increase had been steadily declining since the 1960s. After 1990, the mortality rate surpassed the birth rate, resulting in a natural decrease, a trend that has strengthened after 2000.

According to the data, the net migration between 2000 and 2006 was 1068, approximately a .21% increase per annum in the net migration rate, which means that Greenbrier County picked up 1068 more residents than were lost to out-migration. Based on the population estimate, the county is gaining 22 residents per year; however, based on net migration numbers, the County is gaining closer to 170 new residents per year. Net migration has been steadily rising since 1990, and in the past six years has increased 230% above the rate established in the 1990s.

Building permit data certainly supports the conclusion that Greenbrier County is, in fact, growing despite a relatively flat population number. Since 2000, the County has issued a total of 941 building permits for single family, stick-built housing. According to the Permits Office, many of those permits were for second-home construction, which would indicate that the net migration trends are likely to continue to grow at a higher rate over the next 20 years, especially given "Baby Boomer" retirement trends.

Projected Rates of Growth, 2010 to 2030

| | Low Estimate Assuming a traditional population growth model (GR=B-D+NM): Maintains Growth Rate of .03 | Medium Estimate Assuming no increase in retirees and no increase in economic development, but replacement of existing Baby Boom population in workforce (Growth Rate .08) | High Estimate Assuming increase in retirees, increase in senior services and industries, assumes .21 annual increase in net migration between 2010 and 2020 (Growth Rate .18 beyond 2010.) |
|------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2010 | 35,480 | | |
| 2020 | 36,692 | 38,972 | 43,912 |
| 2030 | 37,792 | 42,089 | 51,812 |

Given the focus on Greenbrier County, and especially Lewisburg, in the national press over the past decade and the relatively low cost of living, the County is likely to remain one of the

primary retirement destinations in West Virginia. Depending on current marketing efforts to attract new retirees to Greenbrier County and the future mobility of the "baby boom" retirement population, Greenbrier County's growth rate could range between 3% (current growth rate) upwards to 18% (assuming a constant .21 increase, per annum, in net migration over the next 20 years, no substantial increase in the birth rate, and a relatively constant death rate). Worker replacement for retiring Baby Boomers could add as many as 6,000 new workers, to fill existing positions. The increase in demand for workers in senior-focused industries could drive an additional increase in the population between 25 and 55 as could the expansion or development of new non-senior related industries and businesses. While there is little indication that birthrates are likely to increase beyond the current .56 rate, the population under the age of 15 is likely to increase because of the increase in the child-bearing population.

5. Organization of the Plan

The design of the Greenbrier County Comprehensive Plan was based on one key assumption: the plan needed to be universally accessible at a reasonable cost. While plans are historically print documents, because of the prohibitive cost of printing and limited public accessibility, the traditional approach to the development of the plan was set aside in favor a hybrid approach which combined print and electronic media. The "official" plan, the version, which will be submitted to the State of West Virginia, has a print document, which includes the introduction, the core plan, the future land use map, and a cd of the online version, which includes the electronic version of the print plan, as well as the public input materials, supporting materials, maps, references and resources, glossary, and other documents.

The electronic version of the plan (the portion included on the accompanying CD-ROM) is designed so that it can be easily uploaded to the County's website in order to provide universal access, at minimal cost, to current and future residents, the development community, future employers and entrepreneurs, and other stakeholders. Where possible, hyperlinks have been provided to the original data, state code, federal regulations, and other background materials. Where goals, objectives, or strategies in one subject have connections to another subject, a link between the applicable pages has been included. The online version of the plan is designed to provide citizens with greater access not only to the plan but to the relevant background materials, planning information, and other resources. The Online Plan is designed, primarily, as a reference and educational tool for the citizens of Greenbrier County. The core plan is identical to the print version, in text, but provides citizens with far greater access to the broad range of information and data that provides the basis for the plan.

6. Greenbrier County Comprehensive Plan- Planning Process and Methodology

The Greenbrier County Comprehensive Plan planning process has been conducted in four stages: 1) the community survey and community meetings; 2) the community workshops; 3) the drafting process for the core plan; and 4) development of the online planning website and information CD-ROM.

Phase I: Greenbrier County Comprehensive Plan Community Survey and Community Meetings.

A survey process was conducted between August and December 2008. By the time the survey process closed, 479 citizens had completed the survey. A print version of the survey was distributed through the six public libraries in Greenbrier County.

Community Meetings.

Six community meetings were held between September and October 2008. Additional community meetings were held in May 2014.

Phase II: Community Workshops.

Six community workshops were held between the middle of October 2008 and the middle of March 2009. A total of sixty-two residents attended the six community workshops, four of which were held between the middle of October and early November 2008. While the workshop participants covered all of the topics required by the State of West Virginia, their work, generally, focused on four primary areas: land use, the environment, economic development, and public water and sewer.

Phases III & IV: Core Plan

A core plan was developed following the community workshops and public input.

7. Legal Framework and Current Planning Conditions in Greenbrier County

In §8A-1-1, the State of West Virginia established the legal framework and the intent of planning, based on the legislative findings, for West Virginia Counties and Municipalities. According to the Chapter 8A, Article 1, the West Virginia Legislature identified nine key findings:

- (1) That planning land development and land use is vitally important to a community;
- (2) A planning commission is helpful to a community to plan for land development, land use and the future;
- (3) A plan and a vision for the future is important when deciding uses for and development of land;
- (4) That sprawl is not advantageous to a community;
- (5) A comprehensive plan is a guide to a community's goals and objectives and a way to meet those goals and objectives;
- (6) That the needs of agriculture, residential areas, industry and business be recognized in future growth;
- (7) That the growth of the community is commensurate with and promotive of the efficient and economical use of public funds;
- (8) Promoting growth that is economically sound, environmentally friendly and supportive of community livability to enhance quality of life is a good objective for a governing body; and
- (9) Governing bodies of municipalities and counties need flexibility when authorizing land development and use.

Based on the findings, the Legislature recommended and encouraged Counties and Municipalities to:

- (1) The goal of a governing body should be to have a plan and a vision for the future, and an agency to oversee it;
- (2) A governing body should have a planning commission, to serve in an advisory capacity to the governing body, and promote the orderly development of its community;
- (3) A comprehensive plan should be the basis for land development and use, and be reviewed and updated on a regular basis;
- (4) A goal of a governing body should be to reduce sprawl;
- (5) That planning commissions prepare a comprehensive plan and governing bodies adopt the comprehensive plans;
- (6) Governing bodies, units of government and planning commissions work together to provide for a better community;
- (7) Governing bodies may have certain regulatory powers over developments affecting the public welfare; and
- (8) Based upon a comprehensive plan, governing bodies may:
 - (A) Enact a subdivision and land development ordinance;
 - (B) Require plans and plats for land development;
 - (C) Issue improvement location permits for construction; and
 - (D) Enact a zoning ordinance.

Current Conditions.

Greenbrier County has a geographically-limited zoning ordinance, a cell tower ordinance, a county-wide subdivision ordinance, an adopted county-wide building code, an existing Comprehensive Plan, an established Planning and Building Department, and a Farmland Protection Board. In short, the basic planning framework is present; however, there are significant limitations in Greenbrier County's current approach.

As evidenced above, the State of West Virginia has placed an increased emphasis on best practices in planning to address significant land use issues, including sprawl, the cost of services, agricultural protection, and quality of community. The emphasis on good planning practice, articulated in §8A-1-1(b)(1), underscores the need for an effective, professional approach to planning issues. At this time, Greenbrier County lacks the professional framework, through the established agency, to oversee the implementation of the plan through the development of appropriate ordinances and programs and to provide professional level advice to the existing advisory and legislative bodies

8. Implementation and Financing Options and Recommendations

Planning Training and Professionalism. It is recommended that the County do the following:

1. Provide Planning Commission training to all Planning Commissioners. There are a variety of training programs available, most notably through the American Planning Association;
2. Provide appropriate planning training and access to professional networks to all planning staff and administration

While the State of West Virginia sanctions many of the more innovative approaches to planning, many of the approaches, including impact fees, are not available to Greenbrier County. The State requires an average 1% per annum population growth (average over a five year span) and a county-wide zoning ordinance. While building permit data indicates significant growth in the County in the homeownership and "second home" population (35 and older), the population growth has not been strong enough to much more than offset the loss of residents between 18 and 34, who generally do not build new homes.

§8A-3-8. Adoption of comprehensive plan by governing body.

(a) Within the latter of ninety days or three scheduled meetings after the submission of the recommended comprehensive plan to the governing body, the governing body must act by either adopting, rejecting or amending the comprehensive plan.

(b) If the comprehensive plan is adopted by the governing body, then the governing body may adopt the comprehensive plan as an ordinance or designate what other effect the comprehensive plan may have.

(c) If the comprehensive plan is adopted by the governing body and an ordinance is published, the comprehensive plan may be incorporated by reference in the ordinance and the full text of the comprehensive plan does not have to be published. (State Code of West Virginia)

The Planning Commission recommends that this Comprehensive Plan not be adopted as an ordinance.

Capital Improvements Program. The capital improvements program (CIP) provides jurisdictions with a method for planning for future "facilities" expenditures. Although typically tied to population increase and the introduction of impact fees, capital improvement programs (CIPs) are authorized by the State of West Virginia in the Local Powers Act (§7-20-1 et al.).

Implementation Steps, Timeframe, Cost Estimate, and Responsibility. While the state law provisions require implementation steps, time frame, a list of responsible parties, and cost estimates, it is not practical in Greenbrier County due to a limited budget and lack of staffing

Annual Comprehensive Plan Work Program, Quarterly Reports, and Annual Report. Starting in 2016, during the January meeting of each year, the comprehensive plan will be reviewed in a systematic manner by the Planning Commission.

Revision and Update Policy. Greenbrier County should review the full plan every five years and adjust or amend provisions as needed. The plan should be fully revised every 10 years.

This plan is not meant to preclude the update or adoption of other related plans, ordinances, or maps, from Federal, State, or Local agencies which shall be made consistent with this plan to the extent possible.

Greenbrier County

Comprehensive Plan

Planning and Land Use

I. Summary

Planning and Land Use focuses on land use and growth policies for Greenbrier County, including:

- Future Land Use Planning Policies Areas for both rural (Natural Resource and Rural Communities and Villages) and urban (Residential Transition and Designated Growth Areas) lands;
- Criteria and guidelines for evaluating new development;
- Neighborhood and community design standards (traditional neighborhood design, low impact design, LEED design standards, Earthcraft Design); and
- Best planning practices (planning programs and tools: flexible land use ordinances, capital improvements, impact fees, impact analysis and mitigation plans, and transfer/purchase of development rights) and professional planning framework.

II. Planning and Land Use Policies, Goals, Objectives, and Strategies

(Policy) Proactive Planning. Greenbrier County will adopt a proactive approach to planning in order to ensure the long term viability and sustainability of the communities, the heritage, and the environment, recognizing a responsibility to both current residents and property owners and to future generations of residents and property owners.

(Policy) Consistency. All growth and development, both public and private, in Greenbrier County shall be consistent with the comprehensive plan.

(Policy) Critical Features. All growth and development requests will be evaluated with respect to their impact on the critical, sensitive, or special, environmental, cultural, community, or historic resources shown on the Greenbrier Critical Features Maps included in this plan.

(Policy) Future Land Use Map and Policy Changes. In order to minimize the potential impact from sprawl and inconsistent development patterns, comprehensive plan amendments and changes to the future land use map will only be approved after a detailed review of the proposal and the potential impacts and will only be considered if the requested change in designation is for property adjacent to a different land use category. If a property is surrounded by properties with the same designation, then the property's future land use cannot be changed. The purpose of this policy is to prevent inappropriate spot development.

(Policy) Land Use and Utilities. Recognizing that growth follows the expansion of public utilities and that not all areas are suitable for growth, all moderate and high impact development should be limited to specified growth areas, including incorporated transition/expansion, designated growth areas, and existing municipalities, and should be served by both public water and sewer.

(Policy) Focused Growth. Focus growth into specific development areas and transition zones which either have, or can reasonably have, adequate resources and services to support growth in order to maintain Greenbrier County's natural resources, environmental integrity, and cultural and historic heritage.

PLU 1.0 Planning Policy Areas. Establish boundaries for planning policy areas and identify preferred development patterns for each planning area to (i) promote sustainable growth where it can be supported by infrastructure improvements; (ii) maintain existing community character; and (iii) preserve agriculture, forestry, and related uses where most appropriate based on natural resources and where existing development and land use patterns support the continuation of these uses.

PLU 1.1 Urban Growth Boundaries. Establish urban growth boundaries around each of the urban centers, including adjacent designated growth areas, and the urban transition areas.

Possible implementation steps:

- See PLU 4.1.1 ; UBG maps for each of the four development areas
- White Sulphur Springs municipal boundary and Greenbrier East Growth Development Area.
- 219 Corridor, including the municipalities of Ronceverte and Lewisburg, the Greenbrier Central-North Growth Development Area, the Greenbrier Central-South Growth Development Area, and the Incorporated Transition/Expansion Area to the west of Lewisburg and Fairlea.
- The Alderson Growth Area, including the municipality of Alderson and the Incorporated Transition/Expansion Area to the north of Alderson on Route 12.
- The U.S. 60 Corridor, including the municipalities of Rainelle and Rupert and the Greenbrier West Growth Development Area.

PLU 1.2: Natural Resource Areas. Natural Resource Areas are generally defined as rural areas of the County.

1) National Forest Land, National Wildlife Preserves, state lands, private preserves, and other locally important open spaces, including mountain ridges and other areas of local importance;

2) Areas that have high resource value, including agricultural (crop and grazing), forestal, mining and other areas with significant natural resources;

Natural Resource Areas are the least densely developed of the five planning areas, include the largely undeveloped areas of Greenbrier County, and are least appropriate for large scale or non-natural resource based development.

PLU 1.2.1 Natural Resource Land Uses.

(a) Preferred Land Uses:

- Natural resource based uses, including agriculture, silvaculture, horticulture, mining and quarrying.
- Agri-business, agri-tourism, and other agricultural related uses.
- Heritage tourism based businesses.
- Eco-tourism and environmental tourism based businesses.
- Outdoor recreational uses
- Uses directly related to the support of the preferred land uses.

Implementation:

- Ongoing support for the Farmland Protection Board.
- Work with local residents and non-profit agencies including "Greenbrier Land Conservation Trust" and work with the West Virginia Land Trust and the WVDOF Forest Legacy Program to develop conservation easements on important parcels which may not qualify under farmland protection due to size or other features.

(b) Right-to-Farm and Best Management Practices: Greenbrier County recognizes the importance of the natural resource-based industries, especially in terms of agriculture and silvicultural uses and supports the adoption of a Right-to-Farm ordinance and the use of agricultural, forestal, mining, and other related, environmentally-based best management practices for lands in the Natural Resource Areas.

Implementation:

- Right-to-Farm Ordinances (Preservation of Agricultural Production) are authorized under West Virginia Code §19-19-1 et al.

PLU 1.2.2 Natural Resource Community Design

(a) Density. Density in Natural Resource Policy Areas should be limited to .05 dwelling units per acre gross density (density for entire policy area at full build out) and .1 dwelling units per acre net parcel density.

(b) Minimum Lot Size: 10 acre minimum lot size; 2 acre minimum for family subdivisions.

(c) Non-Farm New Development. All new development should incorporate conservation design principles in order to preserve on-site and surrounding natural, cultural, historic, scenic, open space, or environmental resources. Conservation design principles include the use of low impact development (LID) techniques.

(d) Strip Development. Strip development along public roadways should be discouraged. New developments should be served by an internal road that connects to a public roadway in order to minimize the number of driveways on the existing road.

(e) Impact Mitigation Plan. All development and redevelopment proposals should be accompanied by an impact mitigation plan. (see ENV 1.1)

(f) Dark Skies Initiative. Given the impact of unshielded lights in rural and resources stewardship areas and in residential neighborhoods in rural communities, villages, urban transition areas, and development areas, all outdoor lighting shall conform to Dark Skies Initiative guidelines, including shielding requirements, as established by the County Commission.

Implementation:

- Work with local state law makers to pass a dark skies initiative in West Virginia.
- Require shielding for outdoor lights either as part of the land use ordinance or as a separate ordinance.

PLU 1.2.3 Natural Resource Community Facilities and Utilities

(a) Public Water and Sewer. Public water and sewer will not be supplied in Natural Resource areas unless there is an existing and verifiable threat to public health or there is a necessity to connect existing public water systems. All development in Natural Resource areas will be supplied by private wells and septic systems. In areas where there are environmentally sensitive features, including significant karst topography or wetlands, and where contamination from private septic systems may pose a significant impact on public waters (groundwater and surface water), alternative waste water treatment systems should be used.

(b) Transportation Access and Improvements. Transportation access and improvements shall be limited to only those necessary. Any new roads or driveways should meet state standards for sight distance and construction.

PLU 1.3 Rural Communities/ Rural Villages. Small unincorporated communities and villages characterized by smaller lots, denser development, and the presence of community-oriented businesses and small scale, light industry. Generally, rural villages are somewhat larger, have a defined commercial center, at least one public facility, provide a "historic" point of reference (a place people claim as a home town), and may currently be served by public water, public sewer, or both. Rural Communities share many of the same features as Rural Villages without the presence of a community or public facility or public water or sewer.

PLU 1.3.1 Rural Communities and Villages: Land Uses.

(a) Preferred Land Uses:

- Residential, small scale, village or community oriented development
- Community-oriented businesses which serve local needs or which provide services or goods to visitors.
- Small scale, community-based, light industrial uses
- Infill development consistent with development patterns of existing rural community or village.

(b) Residential Uses: Residential development, including infill development, should be in the scale of existing development and should be consistent with and complement the existing community or village.

(c) Commercial Use: Commercial uses should be limited to community-oriented (local) businesses which serve the needs of local residents and visitors.

(d) Industrial Uses: Small-scale, light industrial uses should be allowed, but should require a careful consideration of potential impacts on the surrounding community. Large scale industrial and commercial uses are not appropriate for or consistent with the established development patterns in rural communities and villages.

PLU 1.3.2 Rural Communities and Villages: Community Design

(a) Density: One (1) dwelling unit per gross acre (density for entire policy area at full build out) and net parcel density and bulk requirements established by community standards and the presence of public water and sewer

(b) Minimum Lot Size: Variable, based on community standards and presence of public water and sewer.

(c) Community Standards: Development should be of the size and scale of existing development and be consistent with local standards. Community standards may vary based on existing lot sizes and coverage. Some villages may have predominantly half acre (.5) lots, where another may have quarter acre (.25) lots. New and infill development should clearly "fit" with the existing development patterns in order to maintain the integrity of the rural community or village. Large scale development, especially commercial and industrial uses, would be prohibited because they would be out of scale with the existing development and would potentially impact existing property standards and values.

(d) Impact Mitigation Plans: New development and redevelopment proposals should be accompanied by an impact mitigation plan in order to mitigate potential impacts on the existing rural community or village.

(e) Permitted Uses and Environmental Quality: Permitted uses which are likely to have a substantive impact on environmental quality, specifically impacts on groundwater, surface water, and/or air quality, should require a special use permit and a full environmental impact mitigation plan. Substantive impacts include the introduction of heavy metals and other non-organic substances or the introduction of high concentrations of organic substances to either

the water or air supply, or development which is likely to have a significant visual impact on the surrounding area.

(f) Dark Skies Initiative: Given the impact of unshielded lights in rural and resources stewardship areas and in residential neighborhoods in rural communities, villages, urban transition areas, and development areas, all outdoor lighting shall conform with Dark Skies Initiative guidelines, including shielding requirements, as established by the County Commission.

PLU 1.3.3 Rural Communities and Villages: Community Facilities.

(a) Public Water and Sewer: Public water and sewer may be supplied to rural communities and villages under specific circumstances;

- Rural communities and villages located in one of the four development areas;
- Rural villages where the existing density warrants the cost of expansion of public water and sewer; and
- Rural communities and villages where there is an existing and verifiable threat to public health or there is a necessity to connect existing public water and sewer systems.

(b) Public Facilities: Community and public facilities, such as schools, community centers, post offices, or other structures or facilities which serve a local public need, may be located in rural communities and villages.

PLU 1.4 Urbanizing Areas and Urban Growth Boundaries. Establish urban growth boundaries around the existing incorporated jurisdictions to include Transition Policy Areas and the Designated Growth Policy Areas. Urban Growth Boundaries will designate the outer edge of areas which are deemed appropriate for medium and high density residential development, and medium and high impact commercial and industrial uses. The Urbanizing Areas should include enough acreage to accommodate anticipated growth

PLU 1.5 Transition Policy Areas. Designated areas on the borders of the existing towns and cities not included in one of the four development areas. These are areas generally designated for residential growth or natural growth from the city or town and where developments require public water or sewer. Policies governing development should be seamless with the policies of the neighboring jurisdictions where possible. Density in Transition Policy Areas should be limited to 2 dwelling units per acre gross density (density for entire policy area at full buildout) and/or meet the WV Department of Health Standards. Net parcel density and bulk requirements are established by community standards from the bordering jurisdiction in order to create seamless development. Developments must be served by public water and/or sewer and should be encouraged to incorporate low impact and traditional neighborhood design standards.

PLU 1.5.1 Transition Policy Areas Land Uses.

(a) Preferred Land Uses:

- Major and minor mixed use, mixed income developments
- Traditional neighborhood design (TND) developments

- Secondary dwellings (garage apartments, mother-in-law apartments, etc.)
- Planned manufactured housing developments.
- Multi-family housing developments
- Infill residential development
- Community-oriented business (i.e. businesses serving a local population rather than a regional population)
- Business and office parks and live-work developments.
- Public parks and other regional public facilities.

(b) Residential Uses: Residential development, including infill development, should be in the size and scale of existing development and should be consistent with and complement the existing development patterns when possible. Traditional neighborhood design (TND) developments will be encouraged. Secondary dwelling units will be allowed, but must be of smaller scale than the primary dwelling on the property. Planned manufactured housing developments will be permitted, but must meet minimum development standards, including active community recreation space, a playground, and appropriate landscaping with lot sizes no smaller than .15 acres. Gated communities should be discouraged because they undermine the cohesiveness of the community.

c) Commercial Uses: Commercial uses should be limited to community-oriented (local) businesses which serve the needs of local residents and visitors. Transition Policy Areas are ideally suited for professional office development and live-work developments.

PLU 1.5.2 Transition Policy Areas: Community Design.

| Dwelling Units Per Net Acre (Parcel as a whole-17%) | Percentage Open Space |
|-----------------------------------------------------|-----------------------|
| 1 d.u./acre | 0% |
| 2 d.u./acre | 15% |
| 3 d.u./acre | 25% |
| 4 or more d.u./acre | 40% |

(a) Development Standards:

1. Environmentally Sensitive Areas: Areas which are unsuitable for development based on environmental or physical characteristics, including wetlands, karst features, in low density development (1 d.u./2 acres), 15% in median density development (1 to 2 d.u./acre) and 10% in high density development (3 or more d.u./acre). With the exception of steep slopes, a minimum of a 25 foot buffer should be added for lands adjacent to streams, sinkholes and other karst features, and wetlands to mitigate potential runoff.

2. Required Buffers: Low impact development uses buffers to allow storm water to infiltrate rather than run-off. In areas where there are significant hydrologic concerns, buffers are an essential part of the design of any new development, regardless of development type. There are two types of required buffers: hydrologic buffers and use buffers. 1) Hydrologic buffers separating development from environmentally sensitive areas, including streams, wetlands, and karst features. Hydrologic buffers should be a minimum of 50 feet in width in areas with slopes of 14.9% or less and a minimum of 75 feet in width in areas with slopes of 15% or more. 2) Use buffers are required for all new industrial and commercial development and for new residential development adjacent to existing commercial and industrial uses. Use buffers should be a minimum of 25 feet and include appropriate landscaping to minimize the visual and noise impact of non-complimentary uses. Use buffers are not required between 1) new or new and existing residential developments or 2) new TND (traditional neighborhood design) neighborhoods and new and existing TND or residential neighborhoods.

3. Open Space Requirements: Required open space areas may include environmentally sensitive areas and required buffers, but a minimum of 30% of the required open space area must be suitable for active recreational use, whether as a neighborhood park, a location for recreational trails, or a relatively level area for outdoor activities. In other words, open space areas must include more than lands with environmentally sensitive areas or areas otherwise unsuitable for development.

(b) Community Standards:

- The county will encourage high quality residential and low-impact non-residential design in Urban Transition/Expansion Policy Areas Development proposals shall be compatible with existing communities and uses and designed to minimize negative impacts on existing neighborhoods. Such neighborhoods should be designed to provide a "seamless transition" from existing development to new development.
- New development should be mixed use (combine office, commercial, residential, recreational uses into a single development) and mixed type (range of housing styles and options, including universal access housing, single-story housing to accommodate seniors and owners with disabilities, and multi-family housing).
- New development should be pedestrian-oriented and transit friendly, with strong connections between all sites and uses, especially pedestrian access along the public street network.
- All new development should provide neighborhood scale open space. Such open space areas should not be "left over" acreage, but rather key, central focal points of the neighborhood and designed as community spaces, including park facilities (walking paths, playground, benches, etc.).

(c) Dark Skies Initiative: Given the impact of unshielded lights in rural and resources stewardship areas and in residential neighborhoods in rural communities, villages, urban transition areas, and development areas, all outdoor lighting shall conform with Dark Skies

Initiative guidelines, including shielding requirements, as established by the County Commission.

PLU 1.5.3 Transition Policy Areas: Community Facilities.

(a) Public Water and Sewer: New development should be served by both public water and sewer.

(b) Transportation Access and Improvements: New roads should interconnect with the existing road network (c) Public Facilities. Community and public facilities, such as schools, community centers, post offices, or other structures or facilities which serve either a local or a regional public need, may be located in the transition areas.

PLU 1.6 Designated Growth Areas: Designated Growth Areas are most suited to commercial and industrial development, denser residential development, and focused development of public utilities and facilities to encourage cost-effective development. Specific development standards vary by policy area due to limitations specific to each area, including the presence of the Quiet Zone in the East Development Policy Area, karst features and topography in the two Central Development Policy Areas, and wetlands in the West Policy Area. The limitations do have an impact on both gross and net density and on development types.

PLU 1.6.1 Greenbrier East Designated Growth Area: Greenbrier East Designated Growth Area is located along Route 92 corridor north of White Sulphur Springs. Recommend that both public water and sewer be extended in the east designated growth area.

a) Development Restrictions: Given the scenic nature of the corridor and the prevalence of inclement weather during the winter, any expansion of or redevelopment of existing telecommunications and power grid infrastructure should be buried.

PLU 1.6.2 Greenbrier Central--North Designated Growth Area: Greenbrier Central--North Designated Growth Area is located along the Route 219 corridor between the northern boundary of the City of Lewisburg and the Greenbrier Valley Airport. Recommend that both public water and sewer be extended into the north designated growth area. Since the north designated growth area is located in a significant karst area, all development proposals should be accompanied by a geotechnical study.

PLU 1.6.3 Greenbrier Central--South Development Area: Development area located along the 219 Corridor between Lewisburg and Ronceverte, including Fairlea, the northern portion of Davis-Stuart, and the lands between 219 and Houfnagle Road. Recommend that both public water and sewer be extended into the south development area. Since the south designated growth area is located in a significant karst area, all development proposals should be accompanied by a geotechnical study.

a) Development Restrictions: Development restrictions for the Greenbrier Central-South Development Area are similar to those for the Greenbrier Central-North Development Area.

PLU 1.6.4 Greenbrier West Development Area. Development area located along the US 60 Corridor from Sam Black to Rainelle, including the I-64 interchange and the towns of Rainelle, Rupert, and Quinwood and the villages of Charmco, McRoss, Hines, Crawley, and Route 20

south of Rainelle. Recommend that both public water and sewer be extended into the west development area.

a) Development Restrictions: All development in the U.S. 60 corridor from Sam Black to Rainelle should conform to Storm water Management.

PLU 2.0 New Development. The County will promote sound fiscal planning and good design principles by applying consistent standards to evaluate the design and impact of proposed development. All development will be governed by the Greenbrier County Subdivision Ordinance and West Virginia State Law.

PLU 3.0 Neighborhood Design and Community Design Standards. Encourage and promote innovative, environmentally responsible development through the use of Traditional Neighborhood Design, Low Impact Design, LEED Design and Development Standards and Earthcraft Design.

(Policy) Neighborhoods. Encourage the development of safe, community-centered neighborhoods through the use of innovative traditional neighborhood design (TND), village techniques, and safe neighborhood design strategies, including providing pedestrian facilities, neighborhood recreational open-space, mixed-income housing, mixed-use approaches to allow for a live-work core, and other design approaches which create neighborhoods rather than disconnected subdivisions.

PLU 3.1.1 Traditional Neighborhood Design. Adopt traditional neighborhood design standards for new residential development in the Incorporated Transition Areas and the Designated Development Areas to minimize the impact of development on adjacent jurisdictions and the environment and minimize the cost of providing public facilities and services by creating more compact developments

PLU 3.1.2 Low Impact Design. Encourage the use of low impact design standards (LID), which control stormwater at the source, for all new development and redevelopment in order to minimize potential impacts on hydrologic systems and other significant resources, on local communities, and on neighboring parcels. Low impact design standards may include any of the following:

(a) Hydrology: Use hydrology as integrating framework in order to create a hydrologically functional landscape which control stormwater at the source, uses simple, nonstructural methods for controlling runoff, and creates a multi-functional landscape.

(b) LID Tools and Techniques. Encourage the use of LID tools and integrated management practices, including minimized grading, impact mitigation, and maintenance of infiltration capacity, storage, and longer time concentration of runoff during and following storm events. Sensitive Hydrologic Features and Areas. Identify and preserve sensitive areas affecting hydrologic functions, including floodplains, streams, wetlands, high-permeability soils, woodland conservation areas, sinkholes and other karstic features, and steep slopes.

PLU 3.1.3 LEED Design Standards. Encourage the use of LEED design standards for all new major commercial and industrial developments (developments with impervious surfaces larger

than 20,000 square feet, including structures and parking areas). Encourage LEED design standards for projects under 20,000 square feet.

PLU 4.0 Best Planning Practices. Promote the wise use and long term sustainability of resources in Greenbrier County through the use of best planning practices and approaches to new development, substantial redevelopment, and the provision of public facilities and services.

PLU 4.1 Planning Programs. Adopt programs, policies, and approaches, including necessary planning tools, to promote effective and efficient planning throughout Greenbrier County, including: 1) minimizing the fiscal impact of new development on taxpayers; decreasing the loss of viable farmland to non-agricultural uses; and protect essential resources, including water.

PLU 4.1.1 Professional Planning Framework. In line with the recommendations of the West Virginia State Legislature, establish and maintain a professional approach to planning in Greenbrier County, including providing significant training to the Planning Commission and planning staff.

Implementation

- Provide sufficient planning training to the current Planning Commissioners, to future Planning Commissioners, and to Planning Staff to ensure that the planning decision making process meets the requirements for quality and professionalism recommended by the State of West Virginia;
- Formally adopt a professional approach to planning and land use decisions in order to avoid the appearance of arbitrary and capricious decision-making and minimize the fiscal impact of lawsuits on County taxpayers.

PLU 4.1.2 Prior Plans: According to Legislative Rule 207 from July 31st, 2009; citing authority §5B-2A-12, a master land use plan shall be prepared under the advisement of the Division of Energy/Office of Coalfield Community Development primarily to establish acceptable land uses for redevelopment of surface mine sites. A plan was completed June 30, 2003 by Edwards Kelcey addressing surface mine redevelopment with input from a citizen committee; however, that plan was never adopted by the County Commission. It appears with the information available, that the potential future land use designations assigned to the existing surface mining sites identified in the 2003 plan are fairly consistent with the proposed Greenbrier County Comprehensive Plan. The development of infrastructure component standards and land use classifications developed to comply with Legislative Rule 207 should be coordinated with the County Planning Commission and be consistent with the elements defined in the Greenbrier County Comprehensive Plan.

Greenbrier County Comprehensive Plan

Planning & Government

I. Planning and Government Policies, Goals, Objectives, and Strategies

(Policy) Open Government. Greenbrier County will follow an "open" participatory government approach to governance, including:

- Emphasis on active public outreach and public input to increase citizen participation in planning and government processes;
- Effective representation of all citizens and regions in Greenbrier County, including citizens living in the rural areas as well as those who reside in the County's cities, towns, villages, and rural communities;
- Transparency in the decision making process;
- Accountability on the part of elected and appointed officials and on government staff;
- Open access to public documents, background and educational materials, press releases, and other outreach materials;
- Provide training for citizens appointed to Boards and Commissions to prepare them for their official duties.

(Policy) Inter- and Intra-governmental cooperation. Greenbrier County, where and when possible, will seek cost effective, multi-jurisdictional approaches to the provision of public programs, services, and facilities.

(Policy) Effective and Efficient Government. Greenbrier County actively supports the effective, efficient, and open provision of public services to County residents and visitors.

(Policy) Government and Ethics. Members of public boards and commissions shall conduct themselves in their official capacity in accordance with State Ethics Laws and shall, in cases of conflict of interest, recuse themselves from influencing or voting on the issue.

PNG 1.0 Open Government. Actively support "open government" initiatives, including effective public outreach programs, public input initiatives, and other programs and policies which encourage full citizen participation in local government, increase transparency and accountability, and improve service, accessibility, and representation.

PNG 1.1- Encourage responsible citizen participation and input into the deliberation of various governmental bodies. Restrictions on public speech should be based only on considerations of citizens making possible libelous or defamatory statements that might be broadcast over public media.

PNG 1.2 Public Outreach and Open Government. Improve public outreach and education programs that provide citizens with timely, relevant, and appropriate information.

Implementation

- Establish a clearly defined public information and FOIA policy for Greenbrier County.
- Expand use of the Greenbrier County website to provide access to public documents, including studies and reports, agendas, minutes, budget documents, and other relevant materials.

PNG 1.2.1 County Web Presence as a Public Information Tool. Expand the use of the County's website to provide citizens access to information specified under the Freedom of Information Act and the Open Government Act of 2007, as well as informational studies, background data, application materials, and other documents which are considered public information.

(a) E-Government Initiative. In-order to streamline the delivery of county services, build on the current e-government processes (forms) used by Greenbrier County to allow for online submission of forms, payments, and requests.

Implementation

- Add an effective 311 (faq) element to the current County website.
- Expand access to public documents covered by FOIA (W Va Code §29B-1-1 et al.), including plans, public reports, minutes, and other applicable materials.
- Develop web-GIS system.
- Add an online payment component to the County website.

(b) Documents and Forms. Adopt standards for online documents to allow full access to government documents regardless of computer platform (example: use of pdf format rather than .doc format).

(c) Public Library Information Stations. Work with the public libraries to establish dedicated computer access to public documents and e-government processes in all of the public libraries in Greenbrier County for residents who do not have computer access at home. (See HCE 3.1 and HCE 3.3).

Implementation

- Establish a dedicated computer in each of the six public libraries for public information and government documents (federal, state, and local).

PNG 2.0 Effective Governance. Establish and maintain effective, professional approaches to governance and the provision of public services.

PNG 2.1 County Management. Improve the efficacy and efficiency of County Government.

PNG 2.1.2 Consolidated Government Services. Encourage the various jurisdictions in Greenbrier County to evaluate the consolidation of services, notably in management, utilities, planning, parks and recreation, gis, and information services.

PNG 3.0 Inter- and Intra-Jurisdictional Cooperation. Recognizing that some major issues facing Greenbrier County, the Cities, and the Towns are regional in nature rather than local, develop inter-jurisdictional approaches, where and when appropriate and cost effective, to addressing issues and formulating solutions. Inter-jurisdictional approaches may involve a combination of Greenbrier County, incorporated areas within Greenbrier County, and other jurisdictions bordering Greenbrier County, including Monroe, Summers, Fayette, Nicholas,

Webster, and Pocahontas Counties in West Virginia, and Bath and Highland Counties in Virginia. Inter-jurisdictional approaches are most effective in addressing the provision of public water and sewer and other utilities, education, transportation, planning and land use, environmental concerns, social services, housing, and economic development.

Greenbrier County Comprehensive Plan

Cultural & Historic Resources

I. Summary

Cultural and Historic Resources focuses on cultural enterprises, historic preservation, and cultural and heritage tourism policies for Greenbrier County, including:

- Providing active support for the expansion of creative enterprises and cultural tourism; and
- Encouraging historic preservation and the expansion of the heritage tourism industry.

II. Cultural and Historic Resources: Policies, Goals, Objectives, and Strategies

(Policy) Actively support and enhance Greenbrier County's cultural and heritage resources.

CHR 1.0 Cultural Facilities and Resources. Provide ongoing support for the arts and for historical and cultural events, activities, and facilities, county-wide, including the support of tourism, in Greenbrier County.

CHR 1.1 Arts and Cultural Based Tourism. Encourage programs, products, and facilities to increase arts and culture-based tourism in Greenbrier County, focused on the Greenbrier River Valley.

Implementation

- Continue support of Greenbrier County Convention and Visitors Bureau;
- Encourage the expansion of Economic Development opportunities for tourism and cultural related business in Greenbrier County;
- Encourage "non-tourism" industrial development in areas outside of primary tourism corridors;

CHR 1.1.1 Tourism Strategic Plan. Encourage the Greenbrier County Convention and Visitors Bureau to implement the specific strategic plan recommendations from the 2006 comprehensive travel study

CHR 2.0 Historic Preservation. Encourage historic preservation and support preservation efforts by individuals and groups to identify, evaluate, study, and designate significant historic resources, including historic structures, buildings, objects, archaeological sites, and natural heritage sites throughout Greenbrier County.

CHR 2.1 Certified Local Government. Establish Greenbrier County as a Certified Local Government (CLG).

Implementation

- Follow the required steps, established by the West Virginia Division of History and Culture, including: Establish a Historic Landmarks Commission (completed 8/08); County-wide survey and historic context statement (2009-2012), public information (ongoing)

CHR 2.2 Historic Landmarks Commission. Provide ongoing support for the inter-jurisdictional Historic Landmarks Commission, established in August 2008 in line with the requirements established under the Certified Local Government Program.

CHR 2.2.1 Historic Context Statement. Work with the Greenbrier Historical Society, local historical groups, and volunteers to develop a historic context statement, a document that provides a context for interpreting history and historic resources by grouping historic sites by common theme, architectural style, date, geography, and other elements in order to provide a basis for understanding and interpreting historic trends within Greenbrier County. Generally, the historic context statement is used as the basis for identifying, evaluating, nominating, and treating historic sites and structures.

Implementation

- Work with the Greenbrier Historical Society to develop a historic context statement, which provides clear direction and guidelines for evaluating and protecting significant historic resources. It is, in part, a planning document to guide public and private actions and direction.
- Document should be presented to the County Commission, duly adopted, and published on the County website.

CHR 2.2.2 Public Information and Outreach. Support a public information and education outreach program to:

- Provide information on historic sites and background information to property owners;
- Provide preservation guidelines and tax benefit information to property owners;
- Develop educational materials and programs for realtors and other stakeholders;
- Develop educational materials and programs for use in the public schools at the elementary, middle, high school and post-high school levels; and
- Develop educational materials and programs in conjunction with the Greenbrier County Convention and Visitors Bureau.

Implementation

- Develop an ongoing public information and outreach program for historic preservation.

CHR 2.2.3 Historic Preservation Technical Assistance Program. Encourage technical assistance for landowners interested in historic preservation, specifically in terms of the historic preservation nomination process and in applying for historic preservation tax credits and other financial incentives.

Implementation

- Subsection of the public information and outreach program. Technical assistance may include providing copies of site specific historic evaluations from the County-wide survey, access to required forms, and technical advice.

CHR 2.3 Heritage GIS Database. Encourage the development of a heritage site map layer and information database for the Greenbrier County GIS system when available.

Implementation

- Develop a heritage layer for the County's GIS system, which tracks the age and location of all historic structures and sites in the unincorporated and incorporated areas of Greenbrier County.

CHR 2.3.1 Oral History GIS. Using a grant from the Kellogg Foundation and the Greenbrier County public schools, develop an oral history GIS layer, which would link oral histories from community members, recorded in a database, to GIS parcel data. As properties age, passing the fifty (50) year requirement for historic preservation, the historical details for the property would be readily available for the nomination forms and would require less research because the research would already have been completed.

Implementation

- Initial phase: part of the County's Heritage GIS database, with information supplied by Greenbrier County Historical Society. Additional materials may be added by citizens and as part of oral history projects in the Public Schools.

CHR 2.4 Heritage and Cultural Tourism. Actively encourage the development and expansion of the heritage tourism industry in Greenbrier County, including economic enterprises which maintain or enhance the historic and natural heritage of Greenbrier County, including the development of tourism based industries (bed and breakfasts, antique shops, gift shops, and other attractions) and opportunities for local craftsmen and craft-based industries.

CHR 2.4.1 Heritage Tourism Initiative. Encourage the Economic Development Authority, the Tourism Bureau, and the State of West Virginia to develop a tourism initiatives to provide new and existing entrepreneurs technical support, training, and marketing support for developing new heritage tourism based businesses and expanding existing businesses, including:

- Development of new attractions;
- Expansion and redevelopment of existing attractions;
- Development of new tourism-related businesses, including retail, accommodations, entertainment, and food service;
- Development of new and expansion of existing heritage craftsman industries, including clay, wood, metal, stone, and needle-based;

- Development of local "showcase" (local version of Tamarack) and business incubator for heritage craftsman industries; and
- Expansion of existing heritage tourism related marketing through the tourism bureau.

CHR 2.4.2 Driving and Walking Tours. Encourage the Historic Landmarks Commission, the Greenbrier County Historical Society, the Greenbrier County Convention and Visitors Bureau, marketing classes at the New River Technical Community College, and the Cities and Towns to develop a series of driving and walking heritage tours of Greenbrier County. Tours should highlight specific aspects of Greenbrier County's built and natural heritage, including historic eras and events (Post-Colonial, Civil War), industrial movements (timber, mining), architectural style or specific builders, and geologic or other natural features. Tours should not only include relevant historic sites, but also suggestions for restaurants, places to stay, non-historic sites of interest, cultural events, and retail opportunities.

CHR 2.4.3 Historic Signage. Encourage the Greenbrier County Historical Society and the Historical Landmarks Commission to establish a systematic program, through the West Virginia Division of Culture and History, a Local Marker program, to provide historic markers, town markers, city markers, natural history markers, and other appropriate historical signage, as well as an online and printed guide to the local markers, throughout Greenbrier County in order to preserve the built and natural history of the area and promote the development of a viable heritage-based tourism industry.

Greenbrier County Comprehensive Plan

Economic Resources

The basic economy of Greenbrier County is currently driven by agriculture, natural resources, tourism, education, and medical facilities. The county had limited ability to attract major industrial or manufacturing entities without direct support and intervention of state government. It is therefore important to build our economy on what we know and do best.

Approximately 90% of the land in Greenbrier County is devoted to agriculture or natural resource production. By providing open space and forest land these industries help promote tourism and our current quality of life.

This economic development section is focused primarily on agriculture with an eye toward future development opportunities that will diversify and grow our economy in other areas. It is adapted from a 2013 report by the Greenbrier Valley Economic Development Corporation (GVEDC) entitled "Marketing Greenbrier County".

Overview

The primary objective of this study is to provide community leaders in Greenbrier County with an assessment of the current economic base and an analysis of future economic development opportunities that will help grow and diversify its economy over the next five to ten years.

The Greenbrier County Economic Development Corporation (GVEDC) was established to provide economic development assistance and job creation to the three counties that make up that region which includes the West Virginia counties of Pocahontas, Greenbrier and Monroe.

Studies of this nature should be designed with long-term value in mind. Structured for adaptability and evolution, this document should be used as a daily guideline for economic growth. The adjustment required to keep it relevant to the changes the community will inevitably undergo is important. Community leaders should review this study initially and periodically thereafter to maintain its relevancy.

Maintaining an effective economic development marketing strategy that is both workable and sustainable is desirable. Today's world of highly varied and quick-changing communications systems allow for immediacy and intimacy with target markets never available before. The use of social media is not only an accepted practice in today's marketing effort, it is vital if an organization is to be effective and competitive. What is important, what appears to be the key to creating a particularly successful marketing effort is, the combination of a complete awareness of a community's strengths (and weaknesses), pinpoint identification of businesses that match these assets, knowing exactly what to tell them and how and identifying exactly how (and how often) and when to deliver that message.

The following narrative will explore all of these issues and offer suggestions on the creation of a comprehensive marketing program for Greenbrier County.

SWOT Analysis of Greenbrier County

A Strengths, Weaknesses, Opportunities and Threats (SWOT) study is a well-known method used by organizations and communities to assess their competitiveness within whatever market circumstances they find themselves.

A list of economic development related assets for any community can be divided into categories such as:

- Natural assets
- Transportation Assets
- Communications/Data Transmission Assets
- Talent Pool
- Existing Business Clusters
- Educational Institutions
- Tourist Attractions

The data compiled will focus on the list above beginning with the natural assets of the county. Included in this will be land used in agricultural applications, either for tilling and cultivation and grazing.

A study was recently completed by DownStream Strategies (DSS) of Morgantown, WV and Ken Meter of Crossroads Resource Center of Minneapolis, MN documenting the food systems resources in the Greenbrier County area.

The study documented agricultural resources, specifically land and its use. It allows for an improved potential for production. DSS identified not only the amount of land available for agricultural use but the nature of that land, with the end result being an optimization of its use by matching soil types with specific crops. In addition, the amount of land available was analyzed for use; tillage versus grazing and slope, matched to current and potential uses.

Greenbrier Valley Economic Development Corporation has a Food Systems Program to improve the business growth potential of farmers and other agri-business related enterprises. With food and fresh water becoming issues of significant importance globally, and in Greenbrier County, the retention and expansion of agricultural businesses and farms become a specific goal of the GVEDC.

Lowering the costs of energy to farms is a goal of the GVEDC. While the GVEDC does not promote any specific type of alternative or sustainable energy, it is currently involved in research and policy development. Wind, solar and cellulosic based renewable energy are examples of natural resources we will catalogue for use in this marketing program.

Greenbrier County SWOT Chart

| STRENGTHS | WEAKNESSES |
|---------------------------|---------------------------------|
| Quality of Life | Geological Substructure |
| Infrastructure | Aged Population |
| Workforce Skill | Inadequate Broadband Access |
| Natural Resources | University Level Research Group |
| Economic Diversity | |
| Leadership | |
| Location of Major Markets | |

| OPPORTUNITIES | THREATS |
|-------------------------------------------------------------|---------------------------------------------------|
| Growth of Electronic Measurement And Testing Businesses | Mismanagement of Natural Resources |
| Expansion/Diversification of Agriculture Segment | Failure to Provide Quality Education and Training |
| Growth of Renewable Energy Businesses | Aging Population/Loss of Younger Population |
| Expansion of Tourism/Entertainment Businesses | Lack of New Business Starts (Entrepreneurs) |
| Growth of Wood Products Businesses | Failure to Replace Aged Infrastructure |
| Growth of Medical Service, Supplies and Research Businesses | Failure to Retain/ Expand Existing Businesses |
| Community College Work Force Training | |

Strengths- SWOT

Location to Major Markets

Greenbrier County is located with access to major markets in this country. Highway access via Interstate 64 (I-64) and U.S. Route 219 connects with I-77, I-81 and I-75. Approximately sixty-five percent (65%) of the U.S. population is within 500 miles or eight (8) hours direct truck delivery time of the Lewisburg and White Sulphur Springs interchanges. In addition, excellent rail and air services available.

Workforce Skill

A high level of skilled workers are found in certain economic segments of Greenbrier County. The presence of two major technological manufacturers, with a third now starting up, new energy companies, farming operations, a variety of small manufacturing and processing firms and a solid secondary educational system augmented by a growing community and technical college are testaments to high level of skill in the available workforce.

Quality of Life

Most communities will claim to have an exceptional quality of life component to the assets they market. Greenbrier County, with its proximity to the rest of western Virginia and southeastern West Virginia, actually possesses one of the great lifestyles in the country. The area is beautiful, it boasts the world-renown Greenbrier resort, the Greenbrier River and within an hour's drive world class skiing at Snow Shoe Mountain Resort, white water rafting, mountain biking, rock climbing and hiking.

Natural Resources

West Virginia has, historically, been a repository of natural resources open to the nation. For decades, coal and timber were exported from West Virginia for use elsewhere. Coal and timber are still primary natural assets, now supplemented by wind, solar and geothermal energy. For example, West Virginia is ranked twelfth among states for wind energy potential. Water resources are not abundant on the eastern end of the county and need to be protected.

Economic Diversity

Most communities try to acquire and or maintain economic diversity, knowing there is an inherent strength in an economy with a variety of disparate components. Greenbrier County has such diversity with business sectors including tourism, agri-business, precision measuring instrument development and manufacturing, education including the West Virginia Osteopathic School of Medicine and wood products manufacturing.

Leadership

The presence of good leadership is vital to the continued growth and development of any community. The managers of business, along with elected and appointed public officials and educators in the Greenbrier County area demonstrate a high and consistent level of leadership, one that moves the organizations they are affiliated with forward.

Weaknesses SWOT

Infrastructure

The presence of adequate infrastructure also includes the conditions of the current infrastructure within a community. In Greenbrier County as in most communities in the Mid-Atlantic region of the country, aging infrastructure, its replacement or repair, is an on-going issue of some size. While I-64 is a significant asset, there is the need for additional exits to

secondary roads which would mitigate the intense traffic that develops along Rt. 219 through Lewisburg twice daily. The secondary roads need repair and water and sewer, specifically in the western end of the county, need significant investment.

Geological Substructure

The central and eastern sections of Greenbrier County are areas of karst topography, where sink-holes and frequent land depressions are found. The presence of soluble bedrock such as limestone or dolomite, washed away by water, results in the topography found in Greenbrier County. The region also has numerous large caves and caverns below the surface. This has done little to inhibit business development over the years, specifically agri-businesses.

Aged Population

West Virginia is in the top five states with the oldest populations. The 2000 Census states the percentage of the U.S. population age 65+ is 12.4 percent. West Virgin's 65+ percentage is 15.3. Greenbrier County's 65+ percentage is 17+, making it one of the oldest counties in West Virginia. It's population ages 19-24 is 7.7 percent. Well below the U.S. percentage of 9.6 and West Virginia's 9.5.

Low Population Density

The Greenbrier County has a population density average of 24.7 persons per square mile according to the 2000 U.S. Census, one of the lowest in the state. Low population density becomes an issue when discussing the availability of labor.

Broadband Access

The lack of broadband access and the quality of the broadband available in Greenbrier County is a serious issue when business retention and expansion and new business recruitment. Numerous businesses in Greenbrier County have expressed concern over access to broadband of a capacity sufficient to allow them to conduct business as needed. Some have indicated this will influence future decisions on any potential expansion plans their company may have for this area.

Lack of University Level Research Group

There are many examples of areas and regions of the country that have flourished as a result of having a university level research group in the community. Greenbrier County does not have such an organization. However, the presence of a medical and the potential for the expansion of a local medical clinic which includes research in specific recreational activities can create new opportunities.

Opportunities SWOT

Growth of Electronic Measuring and Testing Devices

As mentioned earlier in this study, the presence of business clusters can spark growth within that sector through expansions, spin-offs or the development of supplier networks. Greenbrier

County is home to three strong manufacturing operations, one a division of a global giant and the other two are locally owned firms doing business internationally. All manufacture high-end, electronic gas measuring devices. Their strength in the global market bears examination for potential growth opportunities.

Expansion and Diversification of the Agricultural Segment

The GVEDC has implemented a Food Systems Program with the goal of expanding the market available to local food growers and producers regionally. The primary focus has been on analyzing readily available market opportunities such as farmer's markets, locally controlled retail food outlets and restaurants. As mentioned earlier, a food systems assessment identified the current deployment of food production resources, new or different products that will increase production, new technologies and practices which will increase production, potential organizational structures to maximize capacity, processes to be developed on a regional basis and public policies which will growth agri-enterprises. This study, paired with current programs and private sector practices, will form the base from which program development will continue.

Growth of Renewable Energy Business

Renewable energy is a subject of significant importance everywhere, including Greenbrier County. With coal reserves still available, significant wood resources, viable wind and solar capability, this county can be a manufacturer of renewable energy, while examining its potential to manufacture the components used in the production of energy. Energy sources that lower the cost of food production play an important role in keeping food affordable.

Expansion of Tourism and Entertainment Businesses

Few communities in America have the combination of tourist attraction and outdoor activities Greenbrier County has. The Greenbrier, a world renowned resort, supports the tourism industry while the Greenbrier River, with its hiking and biking trails, offers wholesome outdoor recreation to its visitors. In close proximity to the Greenbrier is Snow Shoe Mountain Resort with some of the nation's best snow skiing, white water rafting, camping, hunting and scenic beauty. The opportunities to expand tourism related businesses in Greenbrier County include those directly supporting or servicing tourism. Combining segment opportunities such as tourism and wood products, the manufacturing of products used in recreation (tourism related) will be examined for opportunities.

Growth of Wood Product Businesses

The GVEDC will begin the examination of wood and its use as a basic component of manufacturing a variety of products both for other manufacturing and for direct sales to consumers.

Medical Services, Supplies and Research

The presence of the West Virginia School of Osteopathic Medicine, the Greenbrier Clinic and other medical facility and research organizations, must be considered as drivers for economic growth. The development of new medical services, the production of equipment and products used by the medical community and medical research are all opportunities for economic growth.

Threats SWOT

Mis-management of Natural Resources

One of the major strengths of Greenbrier County may become a weakness without the proper care and management required. The use of natural resources as an economic development driver is a goal of the local economic development group. Sustainability and utilization are goals that require planning. Decisions as to assets and their use must include the users and managers of these resources as well as community leaders. The impact of Marcellus Shale drilling and its impact on water quality and availability, specifically as regards the future of agriculture in the Greenbrier County is an example of the issues surrounding the management of natural resources.

Failure to Provide Quality Education and Training

One of the primary concerns facing today's small and large businesses in the availability of an educated, trained and capable workforce. As a recruitment tool, a pool of educated, trained and experienced workers can give a community a distinct edge of its competition, specifically if it is paired with a business development strategy that offers good jobs to those who are trained. One of the weaknesses found in many communities, including Greenbrier County and the state of West Virginia, is a fully developed technical education system. Some states like Ohio and North Carolina, have developed a system of both vocational high schools and technical colleges offering courses that are structured to the needs of local and regional businesses and economic development recruitment programs.

An Aging Population/Failure to Maintain a Younger Population

The trend toward an aging population has a corresponding symptom; the loss of a younger population. While an aging population offers a steady, experienced workforce which current statistics indicate, many employers are taking advantage of, a decline in populations segments under thirty-five years of age, limits the diversity and, therefore, the competitiveness of a community's business recruitment program.

Lack of New Business Starts

New business start-ups within a community are essential to its continued economic viability. Nurturing entrepreneurs and providing an atmosphere that encourages new business starts is a necessary component of any economic development program. There are examples of programs supporting entrepreneurship all over the world. From Guatemala to Anchorage, Alaska, communities recognize the importance of nurturing new business and encouraging those that possess the courage and vision needed to start a new business. When a community fails to grow new business, there is, ultimately a greater amount of stagnation and, eventually, decline in business growth. Greenbrier County needs to establish an aggressive entrepreneurial development program.

Failure to Replace Aging Infrastructure

The replacement of a community's basic infrastructure, specifically water, sewer and roads, is absolutely necessary if it is to remain competitive in the retention or recruitment of business. It

is common practice for communities of all sizes to delay this investment until the extent of the deterioration becomes such that communities cannot afford the cost. Even systems less than thirty years old are now failing due to shoddy installations and inferior materials. Enacting higher taxes as a solution to the cost hurts any business recruitment effort.

Failure to Retain and Expand Existing Business

The single most important component of any economic development plan is the retention of existing business. Not losing ground is, generally, easier than gaining ground in the practice of economic development. Maintaining businesses in a community also allows the possibility of expanding that business. Job creation through expansion of existing business has a higher probability of occurring than creating jobs through business recruitment and is certainly less costly.

Cataloging and Evaluating Assets

A thorough knowledge of a product gives any salesperson an edge over the competition. This is especially true in a highly competitive marketplace. There is no more competitive marketplace than business recruitment and expansion. It is global. The factors impacting a company's decision to select a site for business development vary with the prioritized needs of the company. Generally, a skilled and well-educated workforce, access to markets (either physical or electronic) and a good to excellent quality of life are the standard requirements when a company is considering a substantial investment in a community, including the one it is in. For a community to be and remain competitive, it must know itself well, understand its competition thoroughly, prepare itself to be more attractive to businesses than any other community it deems a direct competitor and determine which business groups are matches to its assets. The greater the match, the greater the degree of success it will have.

The GVEDC will use existing industry clusters as a springboard to achieve immediate results in business development. This method often relies heavily upon the expansion of existing businesses but can also be used to mine for suppliers to these industries or to create new business starts involving current or former employees who see an opportunities to create a business for themselves. The industry clusters found by GVEDC

Agriculture

- Livestock
- Produce
- Agri-Forest
- Organic
- Medicinal
- Alternative Fuels Research/Production
- Agri-business Systems Management

Aviation

- Aerospace Fabrication
- Maintenance
- Fuel Management/Distribution

Coal

- Alternative Fuels Research/Production
- Carbon Fiber Production
- Alternative Mining Research and Development
- Mining Machinery, Equipment and Parts Manufacturing
- Coal Industry Parts and Maintenance

Environmental

- Wind Turbine Production
- Testing and Monitoring Machine Production
- CO₂ Management
- Water Quality Testing Equipment Production
- Water Quality Management

Technology/Information/Data Management

- Computer Information Management
- Computer Technology Research and Production
- Technology Science Research
- Wireless Technology Research
- Communications Equipment Production

Wood Products

- Outdoor Recreation Manufacturing
- Architectural Wood Products Design/Manufacturing
- Construction Product Manufacturing
- Sustainable Fuels Research
- Vehicle Component Design
- Forestry Management

Tourism/Travel

- **Outdoor/Hunting Related Manufacturing**

A more concerted attempt will be made to educate the businesses and entrepreneurs in the GVEDC service area about the programs available to them for expansions and new starts. Again, networking and effective communications become a key to the success of this effort. This will alert those businesses and individuals active within targeted industry clusters to the tools available to them should they care to start a new business or expand an existing one. The GVEDC will create a page on its website to promote its BR&E effort as well as information targeting its industry cluster groups.

Some solutions are simple and easily accessible. For instance, the Greenbrier County Chamber of Commerce can provide access to its 300 plus member e-blast list for a fee of \$25.00. This is a good solution to the problem of obtaining an e-blast list targeting our local industry clusters.

The Marketing Plan

The proposed marketing plan for Greenbrier County has three (3) primary components:

- 1) Website/internet Marketing/Social Media
- 2) Public Relations/Brand Development
- 3) Piggybacking

Website/Internet Marketing

Website development as an effective means of outreach as has ever been available to economic development programs. It allows communities to craft an image and organize information in ways never before imagined. Creativity is unlimited. The key is the manner in which the information is organized and presented based upon the target markets. Flair and a concise, data enriched presentation will draw the eye and interest of the targeted decision maker. This approach, married to a well planned and executed public relations/branding campaign will produce results. The beauty of this system is its cost-effective, flexible nature; as the market changes, the message can change without the cost in money and time that more traditional advertising campaigns required.

Public Relations/Brand Development

The use of public relations is neither new to economic development programs nor readily accepted. It is, however, perhaps the best approach for creating and controlling the message or story an economic development organization tells about its program and the community it represents.

The use of public relations allows for the control of the message being sent to targeted markets, its content and the timing of its release. The message can be staged with a "time-release" effect, the story layered to provide a steady, controlled message. A competent public relations professional can sell this campaign to a variety of media outlets, all selected to gain

maximum access to the target market. The beauty of this system is two-fold. The acceptance of the message by independent media outlets is a readily recognized “third party endorsement” or validation of message and, by implication, the program. In addition, those same messages and their use by the media (endorsement/validation) can be used on the website.

The economic development program can have a branding component for the community it represents. Depending on the profile of the community and its assets, branding can provide a uniqueness other communities cannot duplicate, giving an edge to the program and its ultimate effectiveness. The branding is specific components of a program, such as the products of a beef growers cooperative, can be part of the overall approach to the creation and management of brands. Public relations are an excellent way to create the image and the message that image implies to the target market.

Piggybacking

Piggybacking is simply taking advantage of the marketing/outreach efforts of others, specifically the West Virginia Development Office (WVDO). This is especially effective if there is any attempt to coordinate efforts. Another example is the Boy Scout program taking place in the region.

Conclusion

A marketing program is an essential tool for any economic development program. The Greenbrier County with its many assets and wonderful lifestyle can bring a substantial return on any funds invested in a quality marketing program.

Greenbrier County

Comprehensive Plan

Environmental Resources

I. Summary

Environmental Resources focuses on environmental policies for Greenbrier County, including:

- Wise stewardship, through sustainable approaches to development, in order to maintain the long term integrity of environmental resources in Greenbrier County;
- Protection of vital sourcewater resources and interconnected environmentally sensitive areas, including karst and wetlands, through a comprehensive watershed approach; and
- Development models which balance growth, economic development, and environmental responsibility.

II. Environmental Resources: Policies, Goals, Objectives, and Strategies

(Policy) Environmental Resources. Recognizing that a healthy environment is central to citizens' health, welfare, and quality of life, Greenbrier County strongly supports the wise stewardship of our natural environment, including air and water resources, agricultural and forestal resources, and geologic resources, with special emphasis on the protection of environmentally sensitive areas and features (springs, sinkholes, caves, other karst features, floodplains, and wetlands) which contribute to overall environmental health and citizens' quality of life.

ENV 1.0: Sustainability and the Stewardship of Resources. Maintain and enhance, where possible, the environmental resources in Greenbrier County, including groundwater, surface water, air, mountain and timber lands, areas of prime soils, mineral resources, and environmentally sensitive areas (karst, and wetlands), recognizing that wise stewardship of environmental resources means that while each generation has the right to use the resources, they also have the responsibility to ensure the future viability of the resources for the generations that follow.

ENV 1.1 Development and Externalities. Anticipate the side effects created by development and minimize the impact on the well-being of non-consenting parties.

ENV 2.0: Surface and Groundwater Resources. Maintain, protect, and enhance surface water and groundwater resources, including rivers, streams, wetlands, springs, karst features, and other contributing groundwater sources, in order to preserve the environmental integrity and water quality of regional and local springs, streams, and rivers to ensure long-term human health, habitat vitality, and recreational opportunities.

ENV 2.0.A: Source Water: Given that clean water is a finite resource and is essential to the long-term health, welfare, and quality of life of Greenbrier County residents, it is important to

minimize the impact of growth on essential source water resources, including the broad interconnected network between groundwater and surface water, especially in the karst areas of the Greenbrier River Valley and the wetlands bordering the Meadow River and tributaries. Maintain, protect, and enhance source water resources, including significant karst recharge areas, water filtration areas, floodplains, and wetlands, in order to preserve water quality and quantity throughout Greenbrier County.

ENV 2.3 Best Management and Best Development Practices. Use best management and best development practices in source water areas, including the karst areas along the 219 corridor and the wetlands bordering the Meadow River and tributaries.

ENV 2.3.2 Agricultural Best Management Practices. Encourage the use of best management practices in agricultural and forestal uses in coordination with Natural Resources Conservation Service, West Virginia Division of Forestry, West Virginia Department of Agriculture, and Greenbrier County Soil Conservation Service.

- Techniques prescribed in §61CSR22B and §61CSR22C, including §61-22B-3 (Protection of Groundwater from Point Sources); §61-22B-4 (Protection of Groundwater from Non-Point Sources, including provisions for sinkholes, fractured bedrock, wellheads, and 25 year (minimum) flood zones.
- Techniques included in the federal Rural Clean Water Program, which is targeted at addressing non-point source pollution in both ground and surface waters and includes significant cost-sharing so that owner/operators are not asked to foot the full bill for implementation.
- Other Agricultural BMPs. Use of other BMPs, including riparian grass and riparian tree buffers (35 feet), nutrient management plans, animal waste management systems, fencing, and off-stream / off-karst watering systems.

ENV 2.3.3 Development/Urban Best Management Practices. Encourage the use of best management practices (Low Impact Design, LEEDs development, and Earthcraft), in urbanizing development, including commercial and industrial developments and in residential developments to control point and non-point source pollution in karstic areas, floodplains, and wetlands which contribute to the County's source water, both ground and surface, including:

1. Development of wet ponds and wetlands;
2. Dry extended detention ponds;
3. Infiltration practices
4. Filtering practices (swales, rain gardens, etc.)
5. Erosion and sediment control;
6. Natural area conservation;
7. Stream restoration;

8. Septic denitrification (where applicable);
9. Urban and mixed open nutrient management;
10. Riparian forest buffers; and
 - Tree planting.

ENV 2.4 Watershed Approach. Recognizing that development in one portion of a watershed has consequences downstream, work with the jurisdictions, watershed organizations, and other stakeholders in the Greenbrier River Watershed and the Meadow River Watershed to address pollution, water usage, and development issues.

Implementation

- Provide active and ongoing support for the programs and activities developed and implemented by the Meadow River Watershed Association and the Greenbrier River Watershed Association. Support should include provide "support letters" for grant applications, financial support for local matching requirements, and logistical support for specific projects.

ENV 2.4.1 Water Monitoring. Continue to support water monitoring in Greenbrier County to measure water quality and quantity in the Greenbrier River and the Meadow River and support ongoing efforts by the Greenbrier River and the Meadow River Watershed Committees.

ENV 2.4.2 Regional Stormwater Management Plan. Support the implementation of a regional stormwater management plan, as part of the larger hazard mitigation plan, in accord with state and federal regulations, and adopt an implementable stormwater ordinance to minimize the impact of construction and development on watershed resources, decrease the impact of flooding, and control sedimentation, bacterial impairment, and the introduction of heavy metals in area surface and groundwater resources.

ENV 3.0 Environmentally Sensitive Areas. Maintain, protect, and enhance environmentally sensitive areas, including: karst hydrologic systems (caves, springs, and infiltration features such as sinkholes) and wetland hydrologic systems, the protection of which is critical to long term water quality and quantity in Greenbrier County, through the use of environmental overlay districts which provide additional protections during the development process.

Implementation

- Include environmentally sensitive features (karst hydrologic features, wetland hydrologic features, and steep slopes) in the list of required issues to be addressed in the Impact Analysis and Impact Mitigation Plans for new developments and redevelopment projects.

ENV 3.1 Karst. Adopt measures for karst areas in order to protect source water quality and insure against future subsidence and potential property damage on structurally unsound lands, recognizing that surface failure (subsidence) is often the result of blasting, intensive uses, excessive weight, or land uses or land use changes which change local water tables, including modification of natural drainage patterns, inadequate stormwater management, and well pumping can accelerate sinkhole subsidence and increase sinkhole-based flooding.

ENV 3.1.1. Karst Overlay Districts. Encourage additional development standards for significant limestone areas with either visible or underlying karst features (sinkholes, caves, and springs) including:

- Karst feature buffers (typically a fixed radius or delineator area around a feature or varying buffer requirements based on associative hazards);
- Low Impact Development Standards which require onsite stormwater management and maintenance of existing drainage and predevelopment runoff qualities and quantities, wellhead protection, and stricter septic system effluent standards where appropriate.

ENV 3.1.2 Karst Education. Support the Greenbrier River Watershed Association, the West Virginia Division of Environmental Protection, other agencies, and other interested organizations to create a karst education and outreach program targeted at residents and property owners in the Greenbrier River Watershed.

ENV 3.1.3 Karst Terrain and Cave Mapping. Support the Greenbrier River Watershed Association, the West Virginia Association for Cave Studies and the West Virginia Division of Environmental Protection to update existing karst terrain maps.

ENV 3.1.4 Essential /Historical Karst Features. Protect important karst features which have contributed to the development of the tourism industry in Greenbrier County and/or which have important historical significance, including Lost World Caverns and Organ Cave.

ENV 4.0: Floodplains and Wetlands. Protect, maintain and, where necessary, enhance the integrity of FEMA designated floodplains in Greenbrier County.

ENV 4.1 Floodplain Management. Support the floodplain management program and adopt the regulatory standards, as prescribed by FEMA, in order to maintain eligibility in the NFIP and qualify for flood insurance discounts under the Community Rating System.

ENV 5.0: Air Quality. Maintain, protect, and enhance air quality by focusing on low impact and green residential, economic, and industrial development models.

ENV 5.1 Air Quality Monitoring. Encourage the Greenbrier County Public Schools to establish two air quality monitoring stations, one each at the two high schools, as part of a hands-on approach to science and to provide more accurate air quality data for Greenbrier County.

ENV 6.0 Light Pollution. Actively decrease potential impacts of light pollution in Greenbrier County. Light pollution degrades visibility, especially in locales adjacent to and in urbanizing areas; creates glare, which can impact driving safety at night; creates high operating costs and increased environmental pollution; and creates light trespass on neighboring properties.

ENV 6.1. Dark Skies Initiative. Work with state lawmakers to adopt a state-wide dark skies initiative to address light pollution issues.

ENV 6.2. Shielding. Require all new development to incorporate low impact shielded lights and work with existing property owners who are interested in outdoor lights to install shielded lights in order to avoid light trespass.

ENV 7.0: Environmental Resources and Development. Encourage economic and industrial development which incorporates environmentally-responsible approaches to the development of value-added industries that use locally harvested or produced resources and create products with small environmental footprints, while minimizing impacts on environmentally sensitive features. (See Economic Development)

ENV 7.1 Agriculture and Forestry. Support a healthy agricultural and forestal industry by minimizing the impact of development on significant agricultural and forestal lands, supporting a "right to farm" ordinance, a "right to practice forestry" ordinance, and reinforce the Silvicultural Best Management Practices (BMP's) found in the State Code at 19-1B and encouraging the use of best management practices, especially in resource management and protection.

ENV 7.2 Agricultural and Forestal Lands. Preserve viable agricultural and forestal acreage and land uses by discouraging growth in agricultural districts.

ENV 7.2.1 Development and Sprawl. Develop a map showing agricultural lands worthy of protection from encroachment by non-agricultural and incompatible uses.

Implementation

- The County should use this map to guide future land use planning decisions.
- Develop educational programs designed to educate landowners about the Farmland Protection Program.

ENV 7.2.2 "Right-to-Farm." Adopt a "Right-to-Farm" ordinance in Greenbrier County to protect local farms from unreasonable nuisance complaints. See PLU 1.2.1[B]

ENV 7.2.3 "Right-to-Practice Forestry." Adopt a "Right-to-Practice Forestry" ordinance in Greenbrier County to protect local foresters from unreasonable nuisance complaints.

ENV 7.2.4 Farmland Protection Board. Provide active ongoing support for the Farmland Protection Board and for the Forest Legacy Program.

ENV 7.2.5 Soils of Local Importance. Use NRCS map as an official list of the soils which play a key role in Agriculture in Greenbrier County.

ENV 7.3 Agricultural and Forestal Industry. Encourage the development of agricultural and forestal products, value-added products, industries, and product markets in order to provide ongoing support of the agricultural industry in Greenbrier County.

Greenbrier County

Comprehensive Plan

Housing, Neighborhoods, Community Design, and Redevelopment

I. Summary

Housing, Neighborhoods, Community Design, and Redevelopment focuses on housing and community facilities and service policies for Greenbrier County, including:

- Creation of a broad range of housing options and approaches;
- Support of community programs and facilities, including education and public schools, public libraries, recreation and wellness programs, and public safety and law enforcement.; and
- Development of an inter-jurisdictional mechanism for Parks and Recreation.

II. Housing, Neighborhoods, Community Design, and Redevelopment: Policies, Goals, Objectives, and Strategies.

(Policy) Quality of Life. Greenbrier County supports a sustainable, fair, and equitable approach to quality of life issues, including housing, health, social services, education, economic development, transportation, livable and safe communities and neighborhoods, and the provision of community facilities.

(Policy) Sustainable and Livable Communities and Neighborhoods. Promote development patterns in Greenbrier County which enhance quality of life and recognize the interrelatedness of land use, economic development, quality of life, social, health, and environmental issues; and enable the development of a livable and sustainable communities and neighborhoods for all citizens.

(Policy) Community Facilities and Services. Equitably distribute new, county-sponsored or funded facilities, services, and programs, including cultural resources, recreation, health, social services, education, and housing throughout Greenbrier County in order to provide greater access and opportunities to all residents.

HNC 1.0. Housing and Neighborhoods

(Policy) Quality Neighborhoods. Encourage the development of safe, community-centered neighborhoods through the use of innovative traditional neighborhood design (TND), village techniques, and safe neighborhood design strategies, including providing pedestrian facilities, neighborhood recreational open-space, mixed-income housing, mixed-use approaches to allow for a live-work core, and other design approaches which create neighborhoods rather than disconnected subdivisions.

Implementation

- Modify the existing zoning ordinance to be consistent with the above paragraph.
- See PLU 3.0

HNC 1.1. New Housing. Development of a variety of housing types and values to meet the current and future needs of county residents.

HNC 1.1.1 New Home Ownership. Homeownership should be the cornerstone of our community. There should be affordable housing for all working families in our community. Programs for low-moderate income and disabled families should be encouraged and supported by the County.

- Greenbrier County Housing Authority. Provide ongoing support for homeowner programs through the Greenbrier County Housing Authority to provide access to affordable housing programs.

HNC 1.1.2 New Rental Units. There is a great need in the community for new affordable rental units. The Greenbrier Housing Authority provides rental assistance and Southeastern Appalachian Rural Alliance, Inc. can apply for grants to provide affordable rental units. The County should encourage the construction of these units as well as low income tax credit projects.

HNC 1.1.3 Accessory Housing. Allow the development of accessory or secondary housing in residential neighborhoods to provide a mechanism for providing cost-effective, affordable rental housing and senior housing while providing first time home owners a cost-effective method of developing their properties.

Implementation

- Add provisions to the Subdivision Ordinance and the Zoning Ordinance to allow for Accessory (Secondary) Dwellings on existing and new lots;

HNC 1.2 Redevelopment and Adaptive Reuse. Encourage redevelopment and adaptive reuse of structures to increase housing stock in the incorporated areas in order to lessen the need for new residential development in the unincorporated areas.

Implementation

- Revise tax policies that would encourage redevelopment, renovation, and/or adaptive reuse of existing structures rather than new development outside of the urban cores.

HNC 1.2.1 Alternative/Emergency Housing. Consideration should be given to the provision and location of single room occupancy, emergency shelter, homeless shelter, and transitional housing.

HNC 1.3 Property Maintenance. Encourage property owners to maintain their properties in order to sustain neighborhood property values, decrease safety hazards created by trash, and maintain the visual appeal of Greenbrier County.

HNC 1.4 Regional H.O.M.E. Consortium. Continue to support SARA, which is a HOME Community Housing Development Corporation.

HNC 1.5 Senior Housing, Services, and Facilities. Actively encourage the development of housing, services, and facilities to address senior needs.

Implementation

- Identify specific areas which would be ideal for senior housing facilities and development (preferably within five minute response time to medical facilities);
- Work with local or other developers to create senior specific housing developments, such as: "Over 55" Communities, Continuing Care Retirement Community (CCRC), Skilled Facilities, and Mixed Housing
- Continue to market Greenbrier County as a retirement destination; and
- Work with the Greenbrier County Committee on Aging to expand services, including that would be tasked with providing a point office for developers interested in creating senior or mixed generational housing developments and marketing Greenbrier as a retirement destination. The program would be established as a cooperative effort between Greenbrier County, social service departments, the Greenbrier County Housing Authority, and the Economic Development Authority.

HNC 1.5.1 Senior Housing. Given the increase of retirement-aged residents, encourage developers to include senior, single-story, and universal housing in new subdivisions, especially for new developments within a 10 minute radius of hospitals and critical care centers.

HNC 1.5.2 County Office on Seniors. Continue to actively support the Greenbrier County Committee on Aging.

HNC 2.0 Educational Facilities, Services, and Programs. Provide high quality, lifelong educational opportunities and facilities throughout Greenbrier County that address the educational needs of the 21st Century.

Implementation

There are some programs the County could encourage and adopt that would strengthen the relationship between the County and the County Schools, including:

- Government in the Public Schools, which builds connections between Local Government and the Public Schools through cooperative programs, including mentoring, page and internships, and co-GIS projects and data sharing;
- Youth Commission: a youth based planning/government commission made up student representatives from each of the seven jurisdictions and staffed by students, which teaches students about local government and provides students with hands-on experience;
- Establish a summer, community-level, mentorship and internship program for middle and high school students.

- Work with the County Department of Parks and Recreation, the Public Libraries, and the Public Schools to develop a summer community-level “day-camp” program that emphasizes education, wellness, and social interaction;
- Establish a summer community-service program for teens.

HNC 2.1 Educational Facilities and Resources. Work with the State of West Virginia, the Greenbrier County School Board, interested citizens, and other stakeholders to develop new, community-based, educational facilities and maintain existing facilities responsibly, paying close attention to the impact of new facilities and the impact of revitalized or endangered facilities on community, environmental, and historic assets.

HNC 2.2 Community-Based School and Public Facilities Initiative. Work with the public schools, health providers, social service providers, and others to provide satellite offices for public agencies and greater access to health care, mental health care, and social services in the schools.

HNC 2.2.1 Youth and Wellness Program. Work with the appropriate agencies to develop a broad-based wellness program for children and youth to combat obesity in children and young adults.

HNC 2.3 Workforce Education. Increase the efficacy of workforce education programs at the secondary and post-secondary levels to address current and future employment needs and opportunities.

HNC 2.3.1 Career Counseling. Improve counseling services in the schools to 1)improve relational skills, and 2) provide improved counseling for non-college bound students.

HNC 2.3.2 Apprenticeships. Work with local businesses, tradesmen, and craftsmen to establish paid apprenticeships for non-college bound students in order to encourage students to learn a craft, a trade, or a skill.

HNC 2.3.3 Technical Education. Expand technical and trade training and opportunities for secondary and post-secondary students

HNC 2.4 Lifelong Learning. Strengthen the relationship between the Greenbrier County Public Schools, NRCTC, Carnegie Hall, and Shepherd’s Center and residents of Greenbrier County, while supporting lifelong learning.

HNC 2.5 Public Access Distance Learning Computer Labs. Encourage public schools and the Board of Education to establish public access to staffed, school-based computer labs to allow citizens access to distance learning opportunities via high speed internet, career counseling, and literacy programs.

HNC 3.0 Health and Wellness. Encourage development and maintain high quality, affordable health and retirement services, programs, and facilities and throughout the county.

HNC 4.0 Libraries. Maintain ongoing and active support of the libraries in Greenbrier County, including the six public community libraries in Alderson, Lewisburg, Rainelle, Ronceverte, Rupert, and White Sulphur Springs with predictable and sufficient funding to qualify for

matching funds from the state. Develop new partnerships between the County and the public libraries to better and more effectively serve the long-term needs of residents of Greenbrier County.

HNC 4.1 Library Facilities, Services, and Standards. Actively support needed construction and upgrade of public library facilities, holdings, services, and programs to meet the needs of the 21st Century, while supporting the public libraries in Greenbrier County to meet and exceed state standards and the standards established by the American Library Association.

HNC 4.2 Public Information in the Libraries. Work with the public libraries and the US Department of Agriculture to purchase and set up appropriate facilities space equipment and training for a public information access point or portal to be used for agreed upon services between the County and each of the six public libraries in Greenbrier County as staffing permits. Public libraries should provide public access to Wi-Fi services.

HNC 4.2.1 Grant Opportunities and Support. When possible, provide technical and financial support for e-government and public information grants through the State of West Virginia and the Federal Government, including grant writing assistance, population data and analysis, GIS services, and financial matching funds.

HNC 4.2.2 Access to E-Government Services. Work with the US Department of Agriculture, the public libraries, and the County to create e-government computer stations in each of the libraries to allow residents pay tax bills, request services, submit applications, and other essential e-government- based functions without having to travel to Lewisburg or take time off from their jobs during standard business hours.

HNC 4.3 Public Information for the Libraries. Work directly with the public libraries to establish an ongoing presence on the Greenbrier County website and on the Convention and Visitors Bureau website which would allow for the cross-marketing of library-based cultural events and offerings, including special readings, literacy training, and book clubs.

HNC 5.0 Public Safety and Hazard Mitigation. Promote and facilitate superior law enforcement and public safety (fire, rescue, hazard mitigation) services in Greenbrier County, including support of staff training, equipment, program and service development, vehicles, and facilities.

HNC 5.1 Hazard Mitigation Plan. Fully implement the 2009 Hazard Mitigation Plan.

HNC 5.2 Law Enforcement. Actively support the provision of adequate law enforcement facilities, services, and programs, through the Sheriff's Department, in Greenbrier County.

HNC 5.3 Fire and Rescue. Actively support the provision of adequate public safety (fire and rescue) facilities, services, and programs, in Greenbrier County

Greenbrier County

Comprehensive Plan

Public Utilities, Infrastructure, & Energy

I. Summary

Public Utilities, Infrastructure, and Energy focuses on infrastructure for Greenbrier County, including:

- Development of an inter-jurisdictional Public Service Authority;
- Promotion of a county-wide high speed broadband network and technology infrastructure; and
- Promotion of expanded alternative energy, both public and private.

II Public Utilities, Infrastructure, and Energy: Policies, Goals, Objectives, and Strategies

(Policy) Greenbrier County recognizes that there is a clear linkage between the presence of public utilities and growth. Limit the expansion and provision of public water and sewer to designated growth areas, urban transition areas, and existing urban areas. Public water and sewer may be provided on a restricted basis to rural communities and villages if there is a clear and demonstrable need for the services.

(Policy) Support intra-jurisdictional approaches to the provision of public utilities and infrastructure development and redevelopment.

(Policy) Greenbrier County supports the development of practical green approaches to wastewater treatment, solid waste disposal, including recycling, and energy generation.

UTL 1.0 Public Water and Sewer. Abide by WV State Health Department standards for facility development, management, and maintenance of public water and sewer to provide public water and sewer in designated growth areas in order to minimize the impact of growth, provide a cost-effective method of system upgrade and expansion in order to address current and future system needs, and promote the clustering of services and orderly residential, commercial, and industrial growth.

UTL 1.1 Service and Facility Improvements and Upgrades. Provide improved public water and sewer service and mitigate current environmental impacts, while controlling costs.

UTL 1.1.1 Regional Public Service Authority. Provide a coordinated approach to the provision of public water and sewer.

UTL 2.0 Technology Infrastructure. Actively support and encourage the county-wide expansion of new communications technologies.

UTL 3.0 Energy and Mineral Resources. Actively support and encourage the development of alternative energy sources to serve Greenbrier County's long term energy needs.

UTL 3.1 Alternative Energy Sources. Work with power companies and with individuals to encourage the development of alternative energy sources, specifically wind and solar, in order to lessen the impact of energy sources which create greenhouse gasses and lessen the environmental impact of mineral resource recovery.

UTL 3.2 Mineral Resources

UTL 3.2.1 Natural Gas. Actively discourage the development of natural gas fields and installations which utilize source water resources and have a significant impact on environmentally sensitive areas.

UTL 3.2.2 Coal Production. Recognize that coal production and mining plays an important role in the economy of Greenbrier County.

UTL 3.2.3 Quarrying. Recognizing that quarry stone is a significant resource in Greenbrier County, support environmentally responsible quarrying enterprises.

UTL 4.0 Solid Waste. Maintain high quality solid waste disposal facilities, while continuing to encourage innovative methods of addressing the disposal of solid waste in the future.

Implementation

- Identify, purchase, and landbank property for a new landfill, using funding from the County's or Solid Waste Authority's Capital Budget.

UTL 4.1 Greenbrier County Solid Waste Authority Master Plan. The Greenbrier County Solid Waste Authority should fully implement their Master Plan, including active support of the future development of a methane transfer and composting facility and other innovations.

Implementation

- Provide active support, through the provision of Commissioner Support letters and public funds, where and when needed, to help cover local matching requirements for grants.

UTL 4.3 Recycling. Continue to emphasize and encourage county-wide recycling through ongoing support and expansion of the Greenbrier Recycling Program, administered by the Greenbrier County Solid Waste Authority.

UTL 4.3.1 Recycling Facilities and Locations. Encourage the expansion of the number of recycling locations to include all of the incorporated jurisdictions and the western and northern ends of Greenbrier County.

Greenbrier County

Comprehensive Plan

Transportation

I. Executive Summary

Transportation focuses on multimodal and trail policies for Greenbrier County, including:

- Adopting of a county-wide systemic multimodal approach to transportation; and
- Development of a County-wide trail and blue trail system.

II. Transportation: Policies, Goals, Objectives, and Strategies

(Policy) County-wide Transportation Infrastructure. Promote and encourage a county-wide transportation infrastructure, including roads, rail, air service, park-n-ride facilities, public transit, and bikeways, walkways, and trails in-order to improve the movement of people, goods, and services.

TRN 1.0 Multimodal Transportation System. Taking a systemic approach, work with the West Virginia Department of Transportation and the towns and cities in Greenbrier County, to create an inter-jurisdictional, county-wide, multi-modal transportation plan that looks at the full range of transportation needs and addresses the full range of transportation modes (including, roads; air; rail; bikeways, walkways, and trails; and transportation alternatives (including park and ride facilities, ride-sharing, and public transit)).

TRN 1.1 Highways and Roadways. Improve highway access and quality within the designated development areas.

Implementation

- Access and road quality for Rt. 92 north of White Sulphur Springs.
- Improved highway transportation access and flow from I-64 to Fairlea, either by an improvement of US 219, the construction of a completely controlled access bypass, or a combination of both.
- Improved highway quality, width, and location of U.S. 60, from Sam Black to Rainelle, to facilitate increased access from Interstate 64 to the incorporated communities of Rainelle, Rupert, and Quinwood.

TRN 1.2 Road Improvement and Maintenance Plan. Actively work with the West Virginia Department of Transportation, District 9 office to identify needs and develop an annually updated road construction and maintenance plan for Greenbrier County.

TRN 1.2.1 Secondary Roads. Upgrade secondary (County) roads, both collector and arterial, which have Daily Vehicular Trips (VHT) equal to or in excess of 500, which provide key

connections between developing areas of Greenbrier County, or which are necessary for the expansion of rural tourism-related industries.

TRN. 2.0- Rail Facilities and Services. Greenbrier County is serviced by the CSX Transportation Network. Both the eastern and western sections of the County have rail service, which is a direct link to the Southeast, Gulf of Mexico, Midwest, Ohio, and Mississippi Rivers, and northeastern United States. In addition, this transportation network provides export capabilities through Hampton Roads, VA, Baltimore, MD, the Great Lakes, and Gulf of Mexico ports.

TRN 2.1. The railroad traverses the western section of the County, from Alderson to Ronceverte, along the Greenbrier River. From there it goes to the White Sulphur Springs area, where it exits the State. This part of the CSX is the east-west mainline. There are several sidings, or areas for sidings, which can provide a transportation catalyst for economic growth. Passenger service is also available at White Sulphur Springs and Alderson, allowing access to the large metropolitan areas of the East and Midwest.

TRN 2.2. The western section of the county is also serviced by CSX. The Meadow Creek/Rainelle subdivision provides rail service to the towns of Rainelle, Rupert, Hines, and Quinwood. Several economic development sites exist near, and contiguous with the rail line. This can provide a competitive advantage to enhance business development, especially for individuals and corporations that export products.

TRN 2.3. The Greenbrier County Commission should take a proactive approach to the following:

1. The Commission should acknowledge the present and future economic importance of existing rail lines to the County.
2. The Commission should acknowledge that present rail line locations are the only places they can be economically and topographically located.
3. Should CSX decide to abandon any portion of existing rail lines, objection should be filed by the County Commission with the appropriate Federal agency. Presently it is the Surface Transportation Board.
4. Should such agency approve abandonment, the County should purchase the right-of-way for the primary purpose of future economic development which requires rail service.
5. Prior to converting a rail line to a trail, it should be acknowledged the right of way will be rail banked, a method by which it will be reserved for future rail use. If any future economic development requires rail service, the right-of-way would revert back to its original rail line use.
6. If a rail line is abandoned, the feasibility of conversion to a tourist railway should be examined.

TRN 2.4 Alternative and Mass Transit. Expand the use of alternative and mass transit opportunities, services, and facilities in Greenbrier County.

TRN 2.4.1 Public Transit. Encourage public transit, through public-private partnerships with the business community, to efficiently transport residents from residential areas to commercial and industrial areas, to increase cross-county access to public services, and to serve the development areas and the incorporated jurisdictions in Greenbrier County.

TRN 2.4.2 Park and Ride Facilities. Recognize park and ride facilities at major interchanges, county-wide, to encourage ride-sharing and other co-commuting opportunities, and to improve access to public transit.

Implementation

- Encourage the development of a ride sharing program, including a ride-sharing database and online information site.

Greenbrier County

Comprehensive Plan

Recreation

Greenbrier County offers a broad range of recreational opportunities. Camping, bicycling, hiking and water sports, including boating, fishing, and swimming, are easily accessible. Hunting and trapping and a wide range of shooting sports are available. Youth leagues exist for softball, baseball, basketball, football, and soccer. Bowling, golf, tennis, caving, and horseback riding are available for all ages. A vibrant arts community, fairs, festivals, and other activities provide employment and add to the quality of life in Greenbrier County. A large acreage of State and Federal public lands exist in the County which the public has access for some of the above activities.

This section will focus on the development of trails for hiking, bicycling, and equestrian activities.

REC 1.0 County Recreation Department. Encourage the establishment of an Inter-jurisdictional County Recreation Department to develop and maintain recreational programs and facilities designed to encourage physical activity, active participation, and wellness, especially for seniors and for children and youth.

REC 2.0 Recreation and Wellness Master Plan. Work with, the incorporated jurisdictions, fitness/wellness providers, , and other stakeholders to develop an inter-jurisdictional recreation and wellness master plan for Greenbrier County, including a long range facilities plan for facilities provided by a combination of public, private, and non-profit organizations and providers.

Implementation

- Develop a recreation and wellness master plan that details the range of programs that are offered by a inter-jurisdictional Recreation Department, the municipalities, and non-profit and for-profit organizations.

REC 3.0 Wellness Programs and Facilities. Secure local, state, and federal grant monies for wellness programs and facilities.

REC 4.0 Recreation. Actively encourage and support the development of recreation in Greenbrier County, with an emphasis on physical, cultural, creative, and intellectual recreational opportunities.

REC 4.1 County Recreation. Expand recreational facilities, programs, and services in Greenbrier County.

REC 4.1.1 Bikeways, Walkways, and Trails. Work with community volunteers, applicable local agencies, the incorporated Towns and Cities, and the West Virginia Department of Transportation to develop a county-wide bikeway/ walkway/ trail system plan which connects significant destinations, including schools, libraries, town and city centers, government buildings, employment areas, state and federal recreation areas, and river access points. The plan should contain:

1. A trail classification (shared roadways, paved shoulders, sidewalks, separated trails, rails-to-trails facilities, and so forth);
2. Road crossing standards;
3. Trail standards (width, paving material, cost per linear foot);
4. Appropriate signage (wayfinder, shared roadway, informational signage for natural and built heritage sites, and so forth); and
5. Prioritization list and Implementation schedule.

REC 5.0 Recreation and Tourism. Work with the Greenbrier County Convention and Visitors Bureau to develop and strengthen the connections between outdoor and cultural recreation and tourism, especially in terms of environmental tourism (caving, cycling, equestrian, canoeing, kayak, fishing, and hiking), special events, and other outdoor activities.

REC 6.0 Cooperative Approaches. Implement co-operative approaches to the provision of recreational opportunities through multi-jurisdictional, public-private, and multi-agency agreements, including co-sponsored programs, events, and facilities with organizations , the public schools, the community-based public libraries, and private providers, including The Greenbrier Hotel.

REC 7.0 Non-athletic Recreation. Recognizing that recreational opportunities and programs are supplied by the public schools, the public libraries, and other cultural public, private, and non-profit agencies, develop partnerships to offer a broad range of non-athletic recreational opportunities, including community gardens, for all ages, interests, and levels of skill.

REC 8.0 Alternative Transportation Facilities, Services, and Programs. Actively promote the development of and use of alternative transportation facilities, service, and programs.

REC 8.1 Bikeway/Walkway/Trail System. Develop an "arc and node" county-wide, trail system and pedestrian network that connects significant public, quasi-public, and private community sites and areas, including schools, public libraries, parks, shopping areas, employment areas, museums, etc. with existing and future trail facilities. (See HNC 8.1.2 and HNC 8.1.3)

REC 8.2 Meadow River Trail System. Develop the Meadow River Trail System connecting Sam Black to Fayette County.

Phase 1. Meadow River Rail to Trail (Rainelle to Nallen, Fayette County), following a 16.5 mile stretch of a former CSX rail line

Phase 2. Rainelle to Rupert Extension (located on south and east side of the Meadow River and providing access to the western most section of the Meadow River Wildlife Management Area).

Phase 3. Rupert to Sam Black Extension (located on the south side of the Meadow River and connecting the three eastern sections of the Meadow River Wildlife Management Area).

REC 8.3 Greenbrier River Trail System. Extend the Greenbrier River Trail System to provide access to the primary population centers in central and eastern Greenbrier County.

Phase 1. Rainelle Extension. Location to be determined.

Phase 2. Alderson Extension. Location to be determined.

Phase 3. Lewisburg Extension. Location to be determined.

Phase 4. White Sulphur Springs Extension. Location to be determined.

REC 8.4 Midland Trail System. Develop a connecting trail system between the Greenbrier River Trail and the Meadow River Trail Systems.

REC 8.5 Greenbrier River and Meadow River Blue Trail Systems. Develop blue trail systems on the Greenbrier River and the Meadow River to encourage the additional development of river-based recreational resources.

Implementation

- Work with the Meadow River Watershed Association to develop a Meadow River Blue Trail and associated facilities, including restoration of the Western Greenbrier Youth Park:
 - Construction of an outdoor classroom and river access for environmental education;
 - Construction of an educational walking trail;
 - Construction of a boat launch, developed in partnership with the WV Division of Natural Resources;
 - Construction of a new playground; and
 - Other facilities as needed.
- Develop a GIS map of the Meadow River in Greenbrier County, in partnership with the Meadow River Watershed Association, showing significant environmental features, public and private facilities, and historic sites and other sites of interest.
- Write and adopt a resolution from the County Commission supporting the activities of the Meadow River Watershed Association.
- Provide an annual grant of support to the Meadow River Watershed Association.
- Provide similar support to other organizations interested in developing river-based and blue trail facilities in Greenbrier County.

Greenbrier County

Comprehensive Plan

Financing

Due to a limited budget, it is not practical at this time for Greenbrier County to implement many of the recommendations in this plan. As funds become available in the future, the county may prioritize, fund, and implement these recommendations as conditions permit or demand. With any proposed implementation, benefits should outweigh costs, and any property rights impacted should be compensated.

Greenbrier County

Comprehensive Plan

Appendix A- Glossary

Note: Where possible, the definitions included in this glossary were taken, verbatim, directly from the West Virginia Code and links to the code have been provided at the end of the definition.

A

Agri-business. Although the term is generally denote large scale or corporate farming operations, in this plan, agri-business is defined as family-owned or relatively small scale, locally owned, agricultural based businesses, such as wineries connected to vineyards, breweries connected to hop farms, a dairy products operation or retail outlet connected to a dairy farm, greenhouse operations, produce market or stand, a "pick your own" operation, and so forth.

Agri-tourism is tourism centered on agricultural activities, events, and locations. Many of the agricultural businesses fall under the heading of agri-tourism, including "pick your own" operations, pumpkin patches, crop mazes, farm stores, agricultural fairs and festivals, educational programs, operation tours, and farm petting zoos. The State Fair of West Virginia is a large scale example of agri-tourism. While many of the events and activities are either free or fairly inexpensive, agri-tourism, through the sale of produce, value-added products, and souvenirs, represent a method for farmers to participate in and benefit from the tourism economy. See the Economic Development References and Resources page.

Alternative Energy Sources. Sources of energy that do not involve the burning of fossil fuels and are generally considered to include solar, wind, geothermal, biomass, hydro, and nuclear.

Alternative Septic (Waste Water) Systems. Technically, any system other than the simple gravity design is considered an alternative system. The West Virginia Department of Health and Human Resources allows four primary alternative systems: home aeration systems, low pressure dosing systems, holding tanks, and recirculating sand filters.

B

Best Practices. Practices, policies, techniques, methods, and approaches which work exceptionally well, are widely recognized because they are effective and efficient, and result in net positive results rather than net negative.

Bioswales are wide, relatively shallow, open channels designed to slow down the water flow after storms and remove pollutants and silt from stormwater runoff. Bioswales typically have a gentle slope and are landscaped with plant materials known for their ability to absorb water

from soils and withstand periods of inundation. Depending on choice of vegetation, bioswales can be used as an integral landscaping feature. See Environmental Resources: References and Resources for more information

Broadband. For the purposes of this plan, broadband refers to hard-wired high-speed internet, or faster internet capabilities, than are available through a direct-dial modem. Because of the presence of the Quiet Zone, hard-wired broadband is preferable to satellite broadband because of potential interference.

C

Capital Budget is a budgetary planning document, part of the budget process, which details proposed capital expenditures (water and sewer, schools, other facilities) and the means for financing them. In general, a capital budget and capital funds are handled separately from a jurisdiction's operating budget and involves a multi-year Capital Improvements Plan (CIP).

"Capital improvements" means the following public facilities or assets that are owned, supported or established by county government:

- (1) Water treatment and distribution facilities;
- (2) Wastewater treatment and disposal facilities;
- (3) Sanitary sewers;
- (4) Storm water, drainage, and flood control facilities;
- (5) Public primary and secondary school facilities;
- (6) Public road systems and rights-of-way;
- (7) Parks and recreational facilities; and
- (8) Police, emergency medical, rescue, and fire protection facilities.

"Capital improvements" as defined herein is limited to those improvements that are treated as capitalized expenses according to generally accepted governmental accounting principles and that have an expected useful life of no less than three years. "Capital improvement" does not include costs associated with the operation, repair, maintenance, or full replacement of capital improvements. "Capital improvement" does include reasonable costs for planning, design, engineering, land acquisition, and other costs directly associated with the capital improvements described herein. (West Virginia Code, §7-20-3 (a))

Citizens Advisory / Action Committee (CAC). A citizen advisory/action committee is appointed by the County Commission to address a specific issue or inter-related set of issues. Along with Citizen Study Circles, Citizen Advisory /Action Committees are one of the most effective methods of garnering public input and for providing citizen support. CACs range in size from a minimum of seven members up to membership in the mid-twenties. Membership for a CAC is generally drawn from stakeholders and from concerned citizens.

Community Character. Qualities and attributes that define the character of a community and make the place different from other places. For example, the narrow streets and large brick homes in Lewisburg, the commercial district fronting the railroad yards in Ronceverte, and the West Virginia Fairgrounds and strip commercial development in Fairlea. Community character can be positive or negative and is influenced by the choices made by residents and by outside forces. For example, the commercial development on the north side of Lewisburg has changed the nature of the place.

Community Standards. Community standards are the established patterns of development within a specific community. They may be related to the distance homes are set back from the street, the size of lots, the size of commercial structures, the width of roads, and the range of uses. Requiring new development to meet community standards means that new development must visually and in terms of use "fit in" with existing development rather than "look out of place" or be a disruptive influence on the larger community. For example: a Walmart in Frankford or a six story building in downtown Alderson.

Comprehensive Plan means a plan for physical development, including land use, adopted by a governing body, setting forth guidelines, goals and objectives for all activities that affect growth and development in the governing body's jurisdiction. (West Virginia Code, §8A-1-2(c))

Conservation Design. Sustainable, controlled growth, development techniques, including Low Impact Development (LID) and clustering and compact development that provide protection to sensitive environmental features and the natural landscape. Typically, conservation design neighborhoods include 50% open space, subsequently set aside in a conservation easement or co-managed through a partnership between the property owners, land trusts or other conservation organizations, and local government. Conservation design developments are one method of protecting source water resources while accommodating new residential development and are most appropriate in the Rural Policy Areas, in karst areas, and along the streams and rivers in Greenbrier County. See Planning and Land Use References and Resources for more information.

Conservation Easement. The Greenbrier County Farmland Protection Board defines conservation easements as:

"A conservation easement is a legal document which becomes a permanent part of a deed, once it is placed on a parcel of real estate. The concept is similar to that of mineral or timber rights ownership, wherein one person may own the land, but another may own rights to the timber or minerals it contains. When a conservation easement is placed on property, the owner agrees to relinquish (either by sale or donation) his or her right to use it for most commercial purposes, other than agriculture. Certain tourism related functions are exempt from this restriction, and the definition of agriculture is broad, including such things as tree farming and aquaculture. The owner may sell the property at any time as a whole, but it cannot be sold in parcels, except as provided for in the original terms of the easement.

The restrictions placed on property by a conservation easement are not limited to the original owner. The easement remains in effect from heir to heir, if the property is passed on in this

fashion; and from former owner to new owner, whenever the property is sold. Easements, as such, are considered permanent attachments, and can rarely be reversed. "

In West Virginia, conservation easements are established through two separate programs: The Farmland Protection Board and the West Virginia Division of Forestry, through the Cooperative Forest Legacy Program, and in partnership with the West Virginia Land Trust. See Environmental References and Resources for more information

Consistency means that land uses are in line with both the letter and the intent of the comprehensive plan. For example, in order to maintain the agricultural integrity of Greenbrier County, the comprehensive plan designates most of the significant agricultural areas as resource stewardship and strongly discourages the creation of residential developments, which generally are sited on agricultural lands. A proposal for a residential subdivision would not be consistent, or in line with the intentions of, the resource stewardship areas, any more than a livestock market in the center of Lewisburg would be consistent with existing land uses. Consistency in land use maintains property values and minimizes negative impacts.

Critical Features. Critical features are critical, sensitive, or special features which impose restrictions on land use. Critical features may be historical (sites, buildings, or objects), environmental (caves, sinkholes and other karst features, streams and rivers, springs, wetlands, floodplains, endangered species, or steep slopes), or community facilities (schools, fire/rescue squad facilities, parks, etc.). In general, they are features that have been locally-defined as important or have restrictions imposed by state or federal law.

D

Dark Skies. An initiative to reduce light pollution and make the night sky more visible, reduce energy usage, and diminish the impact of non-natural light on the environment.

Density. The limit on the number of units that can be placed on an acre of land. A density of 1 d.u. per acre, means that one primary dwelling unit (du), per acre is allowed. A density of 4 du would allow four dwelling units per acre, while a density of .05 du would allow 1 dwelling unit per twenty acres. Density requirements or restrictions apply to residential uses. Commercial and industrial land coverage is based on floor area ratio (FAR)

Density, Gross. Gross density refers to the total acreage of a particular area, whether a parcel or a land use district. Gross density for communities refers to the density of a community at full-buildout. For example, Renick has 400 acres. The density is 1 dwelling unit per acre, or 400 dwelling units, within the community at full buildout. Density is not the same as lot size. For example: Renick may only have 100 acres of land that is actually suitable for residential development, which means that the 400 dwelling would be located on the 100 acres. Some of those dwelling units might be located on a 1 acre parcel; others may be part of an apartment complex which may average 8 dwelling units per acre.

Density, Net. Net acreage refers to a parcel after the required acreage for roads, utilities, and open space have been removed. Excluding open space requirements and environmentally-sensitive areas, such as wetlands, required acreage typically accounts for 17% of a parcel's area. For example, a parcel that has 100 gross acres, would have, 83 acres (net) of developable

land. Open space requirements are calculated on the gross acreage and added to the required development total to produce developable net. The 100 acre parcel with no open space and no environmental restrictions would allow for the development of a maximum of 83 units, assuming a 1 acre lot per unit. The same 100 acre parcel, with a 25% open space set aside, would allow for the development of a maximum of 174 units, assuming a 1/3 acre lot per unit.

Density transfer, as the name implies, is the transfer of density (development rights) from one parcel or landowner to another. It provides landowners in rural and resource stewardship areas a method of making money from development by selling their density to a property in an area where dense development is encouraged. The density transfer should be coupled with the placement of the property under a conservation easement. For example, a 100 acre farm near Renick could be subdivided into ten 10 acre parcels. The development of the 100 acres is not highest and best use of the property, but the farmer or his or her heirs may not feel that there are any other options. Under a density transfer program, the development rights, either through a transfer of development rights (TDR) or a purchase of development rights (PDR) program, the 10 lot rights could be sold and transferred to a property in either the Transition Policy Areas, the Designated Growth Areas, or one of the Rural Communities or Villages and would add 10 lots to the total number of lots that could be developed on the receiving property. The developer in a growth area would benefit by gaining the right to develop 10 additional lots on the property, and the landowner in Renick would benefit through the sale of the development rights without the expense of developing. Finally, the land would remain agricultural, under a conservation easement. See Land Use and Planning References and Resources for more information on PDRs and TDRs.

Depth to Bedrock. The distance, in linear feet, between the surface and the underlying bedrock.

Designated Growth Area. Designated Growth Areas are areas or districts which are deemed to be appropriate for the full range of development (commercial, residential, industrial), are served by public water and sewer, and are adjacent to major transportation corridors.

E

Ethics of Reciprocity. More typically referred to as the Golden Rule. In planning and land use, the ethics of reciprocity dictates that neighbors and landowners consider the impact of their land use decisions on their neighbors and actively work to minimize the impacts, such as shielding lights, mitigating stormwater runoff, addressing nuisances, and maintaining property. Essentially, it means being a responsible neighbor.

Externalities. Externalities are the side-effects, by-products, or impacts of an action on non-consenting parties, who gain no benefit from the action. For example, a developer creates a 40 lot subdivision in a rural area with karst terrain. The subdivision introduces 40 additional septic tanks and 40 additional wells, the potential for an additional 24 children (assuming .6 children per household) in the public schools, and an additional 400 car trips (10 per household per day) on a rural road. The development introduces more traffic on a rural road, more children into a crowded school, and more runoff into the groundwater, from yards, roads, and, potentially septic systems. These impacts are externalities and have an impact on neighboring properties

and the broader community. In addition, they generate costs (expansion of the road network, an additional teacher in the local school, lower groundwater levels that mean redrilling neighboring wells) that are paid for, in large part, by the broader community rather than the developer, even though the community does not gain financial benefit from the development.

F

Factory-built homes means modular and manufactured homes. (West Virginia Code, §8A-1-2(i)). It should be noted that manufactured homes and modular homes are not the same. Manufactured Homes must meet HUD standards and are completely constructed in the factory, while modular homes must meet building code standards and are partially constructed and completely finished onsite.

Farmland of Local Importance. In some local areas, there is concern for certain additional farmlands for the production of food, feed, fiber, forage, and oilseed crops, even though these lands are not identified as having national or statewide importance. Where appropriate, these lands are to be identified by the local agency or agencies concerned. In places, additional farmlands of local importance may include tracts of land that have been designated for agriculture by local ordinance. (657.5[d]).

Farmlands, Prime, "Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses (the land could be cropland, pastureland, rangeland, forest land, or other land, but not urban built-up land or water). It has the soil quality, growing season, and moisture supply needed to economically produce sustained high yields of crops when treated and managed, including water management, according to acceptable farming methods. In general, prime farmlands have an adequate and dependable water supply from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, acceptable salt and sodium content, and few or no rocks. They are permeable to water and air. Prime farmlands are not excessively erodible or saturated with water for a long period of time, and they either do not flood frequently or are protected from flooding." (657.5[a])

Farmland of Statewide Importance. This is land, in addition to prime and unique farmlands, that is of statewide importance for the production of food, feed, fiber, forage, and oil seed crops. Criteria for defining and delineating this land are to be determined by the appropriate state agency or agencies. Generally, additional farmlands of statewide importance include those that are nearly prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Some may produce as high a yield as prime farmlands if conditions are favorable. In some states, additional farmlands of statewide importance may include tracts of land that have been designated for agriculture by state law. (675.5[c]).

Farmland, Unique. "Unique farmland is land other than prime farmland that is used for the production of specific high value food and fiber crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality and/or high yields of a specific crop when treated and managed according to acceptable farming methods. Examples of such crops are citrus, tree nuts, olives,

cranberries, fruit, and vegetables. (657.5[b]) Local examples, in Greenbrier, may include lands ideal for growing hops, grapes, or other crops specific to an industry.

Farmland Protection Board. A program established by the State of West Virginia in 2000 under the Voluntary Farmland Protection Act (8A-12-21) in order to help sustain farms in West Virginia, control urban expansion and the impact of growth, preserve farmland as openspace, promote tourism, and support and protect "worthwhile community values, institutions and landscapes which are inseparably associated with traditional farming" (West Virginia Farmland Protection, 2009)

Flexible (Flex) Land Use Ordinance. Under traditional zoning ordinances, one size fits all. A residential district has setbacks of a set amount and are applied to all new development, single home or a 100 lot subdivision, regardless of whether the setbacks match the setbacks for existing properties. Flexible ordinances are designed to work with citizens and developers, communities and neighborhoods to maintain their community character and development patterns while accommodating new development. Flex land use ordinances rely on a combination of consistency, both with the comprehensive plan and community standards, performance standards, and impact mitigation. Because they are not as rigid as the more traditional approaches, they require significantly more staff and planning commission time to implement and maintain. Performance standards may include low impact development, LEED, conservation, green development, or other mitigation requirements meant to improve the overall quality of the development.

Floodplain. A flat or slightly sloping plain adjacent to a stream or river. A flood zone, which includes both the flat and slightly sloping areas that are prone to flooding, has two parts: the floodway (the area of the plain that floods on a regular basis) and the flood fringe (the area of a floodplain that does not flood during a 1 year, five year, or even a 20 year storm event, but does flood during a 100 year flood event).

Flood-prone area means any land area susceptible to repeated inundation by water from any source.(West Virginia Code, §8A-1-2(j))

Floor Area Ratio. Floor area ratio (FAR) is the ratio between the size of a building and the size of the parcel, both of which are typically calculated in square footage (1 acre - 43,560 square feet) and used to limit the size of a commercial or industrial structure on a property or in an area. For example: a FAR of .4 means that 40% of a parcel can be covered by a commercial or industrial structure or structures. If the parcel is one acre (43,560 square feet), then the structure or structures on the property may not exceed more than 17,424 square feet. Floor Area Ratio is not the same as percentage of impervious surface. If a property has required open space or a limit on the amount of impervious surface, there may be further limitations on the size of the structure or structures.

Focused Growth is a specific approach to growth management. As the name implies, a focused growth approach focuses growth into specific designated areas in order to 1) minimize the cost of development overall, including infrastructure costs; and 2) minimize the impact of development in areas where development is less suited or unsuited. A focused approach can be general (new development should occur in designated growth areas and existing communities)

or it can be far more specific (new industrial development should be focused in a specific designated growth area, while residential development should be focused in a different growth area). A general approach assumes that all designated growth areas are similar and are equally well suited; a specific approach recognizes differences between designated growth areas or differences in the types of growth that are or will be occurring in neighboring jurisdictions. The Greenbrier County comprehensive plan utilizes a specific focused growth approach rather than a general approach due to environmental and development pattern differences.

Foreign Trade Zones (FTZ). There are two types of foreign trade zones: general purpose and subzones. According to the International Trade Administration: "State or local governments, port authorities, nonprofit organizations, or economic development agencies typically sponsor general-purpose zones. General-purpose zones involve public facilities that can be used by more than one firm, and are most commonly ports or industrial parks used by small to medium sized businesses for warehousing/distribution and some processing/assembly. Subzones, on the other hand, are sponsored by general-purpose zones, but typically involve a single firm's site which is used for more extensive manufacturing/ processing or warehousing/distribution that cannot easily be accomplished in a general-purpose zone." A good example of a general purpose foreign trade zone is located at the New River Valley Airport in Dublin (Pulaski County), Virginia and is administered by the Economic Development Authority. For more information, see Economic Development References and Resources.

G

Geographic Information System (GIS). Computer-based mapping system that combines geographically referenced information (roads, streams, population, and so forth) with a graphic capabilities in order to produce maps. The GIS program allows the user to capture, store, update, manipulate, analyze, and display, in the form of maps, geographically-based information.

Geotechnical Study or Report are engineering studies / reports which address the issue of the carrying capacity and characteristics of soil, bedrock, and other subsurface conditions, assess potential risks for a specific site, including the potential for subsidence, and set of circumstances, and design engineering solutions for foundations, earthworks, pavement subgrades and so forth.

"Growth county" means any county within the state with an averaged population growth rate in excess of one percent per year as determined from the most recent decennial census counts and forecasted, within decennial census count years, by official records of government or generally approved standard statistical estimate procedures: Provided, That once "growth county" status is achieved it is permanent in nature and the powers derived hereby are continued. (West Virginia Code, §7-20-3 (e)).

H

Heavy Metals. Relatively high density, metallic chemical elements that are either toxic or poisonous at low concentrations. Examples include mercury, cadmium, lead, chromium, zinc, and manganese. Some heavy metals naturally occur in surface, others are from anthropogenic

(human) sources or actions (e.g. lead pipes, stormwater runoff from parking lots, or by-products of mining).

Historic district means a geographically definable area, designated as historic on a national, state or local register, possessing a significant concentration, linkage or continuity of sites, buildings, structures or objects united historically or aesthetically by plan or physical development. (West Virginia Code, §8A-1-2(l) or "a group of buildings, structures, or sites that taken together make up a coherent whole with similar historic or architectural meaning that is listed in the National Register of Historic Places (West Virginia Code §11-21-8g(a)(4)). For more information on historic districts in Greenbrier County, please see Cultural and Historic Trends and Resources and References.

Historic landmark means a site, building, structure, or object designated as historic on a national, state or local register. (West Virginia Code, §8A-1-2(m)).

Historic site means the location of a significant event, a prehistoric or historic occupation or activity, or a building or structure whether standing, ruined or vanished, where the location itself possesses historical, cultural or archaeological value regardless of the value of any existing structure and designated as historic on a national, state or local register. (West Virginia Code, §8A-1-2(n)). For more information on historic districts in Greenbrier County, please see Cultural and Historic Trends and Resources and References.

I

Impact Analysis. An impact analysis examines a proposed land use in terms of its impact on environmental resources, neighboring land uses, historic resources, community facilities and services (such as schools, fire and rescue, and public safety), the transportation network, and public utilities. It is important to recognize, up front, that all land uses have some impact. For example, a new residential subdivision may introduce different land use patterns in a neighborhood. The subdivision will generate increased traffic (calculated by multiplying the number of proposed dwelling units by 10) and will introduce new students into local schools (calculated by multiplying average family size, minus 2, by the number of proposed units). A subdivision of 100 new dwelling units, in a jurisdiction with an average family size of 2.6, then, would create an additional 1000 car trips per day and introduce an additional 60 students into area classrooms. If the local roads are under utilized or have relatively high levels of service (LOS), then the additional car trips may have negligible impact. The same is true for the schools. However, if the subdivision is developed on a road that is not designed to accommodate the new level of traffic or is located in a school district with near, at, or above capacity schools, then a mitigation plan should be submitted for how the developer plans on mitigating the impacts of their development. A detailed impact analysis will tell both the developer and the planners whether the proposed location is suitable for a specific type of development before the developer has over-invested or will provide a guide for determining impact mitigation steps before negative impacts have occurred which cannot be easily corrected.

Impact fees means any charge, fee, or assessment levied as a condition of the following: (1) Issuance of a subdivision or site plan approval; (2) issuance of a building permit; and (3)

approval of a certificate of occupancy, or other development or construction approval when any portion of the revenues collected is intended to fund any portion of the costs of capital improvements for any public facilities or county services not otherwise permitted by law. An impact fee does not include charges for remodeling, rehabilitation, or other improvements to an existing structure or rebuilding a damaged structure, provided there is no increase in gross floor area or in the number of dwelling units that result therefrom. (West Virginia Code, §7-20-3 (g))

Impact Mitigation Plan. An impact mitigation plan provides specific detailed steps for mitigating the impact of a proposed development. For example, a developer proposes creating a subdivision in an area with stormwater runoff problems and a narrow, unpaved access road. The impact mitigation plan would detail how the developer proposes to address post development stormwater and erosion, sediment, and stormwater problems during development, and upgrade the access road to meet the expanded needs created by his or her development. The primary purpose of both the impact analysis and the impact mitigation plan is to lessen the cost of development, both in terms of physical and financial costs, on the general public (also known as public subsidization) and transfer the costs of development back to the developer who is, ultimately, profiting from the development.

Impervious Surface. A surface (pavement, roofs, and other land coverage) which does not allow the infiltration of water (the flow or seepage of water through the surface). An impervious surface requirement limits the amount of impervious surface on a parcel and is typically expressed as a percentage. Semi-pervious surfaces (for example, gravel driveways) may allow some seepage through the surface and are not counted as impervious surface; however, they do not count as part of the open space requirements. For example, an industrial property may have a floor area ratio of .4, 20% open space requirement and an 80% impervious surface requirement on a 1 acre parcel (43,560 square feet). This means that 8,712 square feet must be treated as open space and 34,848 square feet may be covered with impervious surfaces. If the floor area ratio is .4, then the structure or structures may take up 17,424 square feet, leaving 17,424 square feet for pavement, sidewalks, and other impervious surfaces. If the impervious surface requirement is less than 80%, then the amount of pavement or the size of the structure may need to be reduced or a semi-pervious surface may need to be used in place of solid pavement.

Infill Development is the development of 1) vacant lots within currently developed areas or 2) lots with development within currently developed areas which cannot, realistically, be rehabilitated or restored. In general, infill development should fit with the character of the neighborhood or community in which it is being developed in order to visually "fit." An example of poor infill development would be constructing a "modern" office building with no porch and a paved parking lot in front of the structure in a neighborhood of 1920s bungalows with porches and front yards. Development that is visually "at odds" with surrounding properties have a visual impact on the cohesiveness of the neighborhood and will lower property values in the long run. Requiring community standard and development pattern provisions are two ways of addressing potential issues created by infill development.

K

Karst. 8 Rivers Safe Development defines karst as " an erosional landscape in which all rainfall drains underground through sinkholes and sinking streams into caves and underground rivers. Karst terrains usually form on limestone where cracks and fissures become enlarged through solution and water drains to springs on land or in rivers." In simpler terms, the karst system in the central portion of the county functions as, essentially, a plumbing system. The sinkholes and fissures are the equivalent of drains, the caves pipes, and the spring's outlets into the larger drainage system. Anything that is put down a drain will, eventually, come out the tap. In Greenbrier County, the majority of water for the City of Lewisburg and the Towns of Ronceverte and Alderson comes from Davis Spring and the Greenbrier River, which are the outflow points for the plumbing system. Contaminants introduced through the drains (sinkholes and fissures) will, invariably, end up in the drinking water supply, not only in Greenbrier County, but in the counties downstream.

L

Land Trust. A non-profit organization or charitable corporation focused on conserving land, in the public interest, through the purchase of or through the acceptance of conservation easements and other forms land transactions and land donations.

Land Use Policy Areas. Comprehensive planning policy designation, a land use policy area is not a zoning district and are not written in ordinance language. Land use policy areas are typically fairly large and are provided as a way of identify lands by broader definitions of use and general characteristics rather than the more specific definitions and restrictions incorporated into zoning and subdivision ordinances. For example, Frankford is designated as a rural village, a broad definition of the village as a whole. Under a zoning ordinance, Frankford would be divided into different zones. The village might have an industrial area designated as M1 (heavy industrial) or ML (light industrial), a commercial district designated as CB (community business) or GB (general business), and a variety of residential areas with different designated densities, some allowing quarter acre lots, others requiring one acre lots. One of the residential districts may allow manufactured housing, another may prohibit single-wides and duplexes. Under the land use planning policy, residential development and village-scale commercial and industrial development are deemed appropriate, as long as they fit with the character of the community and do not undermine the integrity of the community or present hazards.

Leapfrog Development. Development beyond the boundaries of areas of existing development. If leapfrog development is tied to the provision of public water and sewer, the land between the new development and the existing jurisdiction will develop over time because of access to public utilities and infrastructure.

LEED (Leadership in Energy and Environmental Design). The LEED Green Building Rating System" is a benchmark system for design, development, construction, and operation high performance green buildings, which use sustainable construction methods and materials. For residential development, the LEED rating system insures that a home is both energy efficient and resource efficient. In 2008, The National Association of Home Builders (NAHB)

approved the National Green Building Standards, based on the American National Standards Institute (ANSI). The NAHB standards are similar to the LEED standards, although they are not as stringent.

Low Impact Design / Development (LID) "A sustainable landscaping approach that be used to replicate or restore natural watershed functions and/ or address targeted watershed goals and objectives." (EPA 2008). Low Impact Design techniques include: bio retention (rain gardens, swales, green roofs, permeable pavers, rain barrels and cisterns, soil amendments, tree box filters.

M

Manufactured home means housing built in a factory according to the federal manufactured home construction and safety standards effective the fifteenth day of June, one thousand nine hundred seventy-six. (West Virginia Code, §8A-1-2(r))

Modular home means housing built in a factory that meets state or local building codes where the homes will be sited. (West Virginia Code, §8A-1-2(s))

O

Open Government means that government is open to all levels of public scrutiny and oversight. The basic premise of open government is that public business should be public and should avoid the perception of doing business "behind closed doors." At the local level, open approaches to government emphasize public involvement, public information, and public education.

P

Performance Standards. Regulatory requirements designed to insure a specific outcome and are generally used to address stormwater issues or potential nuisances.

Pocket Service Areas. Pocket service areas are geographically limited public water and sewer systems that are part of a larger public service authority's operations, but are not connected to the broader system due to distance or terrain.

Preferred development area means a geographically defined area where incentives may be used to encourage development, infill development or redevelopment in order to promote well designed and coordinated communities. (West Virginia Code, §8A-1-2(y))

Proactive and Reactive Planning. Planning can be proactive or reactive in nature. For most rural jurisdictions, planning typically is reactive in that Planning Commission, County Commissions, staff, and citizens react, after the fact, to a specific situation or set of circumstances: a subdivision sited on a locally important piece of land, a high-impact commercial, industrial, or recreational use, such as a shooting range, constructed in an area that is predominantly residential or agricultural, and so forth. Reactive planning means that land development is being controlled by and guided by outside forces (developers, corporations, etc.) and local jurisdictions and citizens are left to react to the changes and have no recourse to either stop the development or mitigate the impacts. Proactive planning provides citizens,

neighborhoods, and local government with the tools to guide development and mitigate potentially negative impacts before the development occurs.

Public place means any lots, tracts or parcels of land, structures, buildings or parts thereof owned or leased by a governing body or unit of government. (West Virginia Code, §8A-1-2(y))

Purchase of Development Rights (PDR). See density transfer.

Q

Quiet Zone. The National Radio Quiet Zone, established by the Federal Communications Commission and the Interdepartmental Radio Advisory Committee in 1958, is 13,000 square mile area surrounding the National Radio Astronomy Observatory in Green Bank, WV and the radio receiving facility for the US Navy in Sugar Grove West Virginia. According to the National Radio Astronomy Observatory, radio astronomy studies electromagnetic radiation, emitted by celestial bodies, outside of earth's atmosphere. In order to work, man-made interference must be either eliminated or controlled. For more information on the National Radio Quiet Zone, please see the information from the National Radio Astronomy Observatory.

R

Rain Gardens. A depression or low area, planted with native perennial plants, designed to slow peak flow and absorb stormwater runoff from impervious surfaces, including parking lots, roofs, driveways, walkways, roads, and so forth. Common plants used in rain gardens include: irises, day lilies, cardinal flower, ironweed, sedge, elderberry, silky dogwood, and others. While rain gardens may have some specialty or ornamental grasses, grass, in general, should not be used because the root system does not do well in prolonged wetness.

Right-to-Farm. According to the American Farm Trust:

Right-to-farm laws are designed to accomplish one or both of the following objectives: (1) to strengthen the legal position of farmers when neighbors sue them for private nuisance; and (2) to protect farmers from anti-nuisance ordinances and unreasonable controls on farming operations. Most laws include a number of additional protections. Right-to-farm provisions may also be included in state zoning enabling laws, and farmers with land enrolled in an agricultural district may have stronger right-to-farm protection than other farmers. A growing number of counties and municipalities are passing their own right-to-farm legislation to supplement the protection provided by state law.

While right-to-farm acts and ordinances offer some protection against nuisance complaints, it should be noted that they do not protect farmers from laws or ordinances meant to protect public health, safety, or morals or actions that may damage public resources, like water supplies.

Roads, Classification (See Streets). Road classification definitions are taken from the 2001 "As a Matter of Fact," West Virginia Department of Transportation.

- Expressways (X) – connect metropolitan areas and provide service to major interstate and intrastate travel
- Trunklines (T) – intrastate network intended to serve smaller cities

- Feeders (F) – serve smaller towns and industrial and recreational areas not served by the higher systems, while collecting traffic for the higher systems
- State Local Service (SLS) – localized arterial and spur roads which provide access and socio-economic benefits to abutting properties; due to the large range of service this classification provides, it is necessary to further sub-classify as follows:
- Essential Arterial – provides primary access between small population centers or localities
- Collector – collects travel from the lower systems and distributes it to the higher systems
- Land Access – provides access to any land area or associated improvement; also includes the following two subsystems:
- Home Access Road Program (HARP) – the HARP system was established in 1998 to provide maintenance for those public roads serving as mail routes, school bus routes, etc., which were not (at that time) under the jurisdiction of the Division of Highways;
- State Park and Forest Roads – provide access within these areas for recreational and/or commercial (e.g., logging, mining, etc.) purposes; responsibility for the construction and maintenance of roads on publicly-owned lands within State parks and forests, and public hunting and fishing areas, was transferred from the Department of Natural Resources to the Department of Highways by legislative action in 1972
- Occasional Use – lowest classification of a local road; provides access to a rural area on a low-volume basis.

Roads, Internal. Internal roads are new roads which service a specific development and can either be privately owned or publicly dedicated.

Roads, Private. Roads which are not part of the WVDoT system, are privately owned, and maintained either by the developer, through a neighborhood agreement, or by a homeowners association. Maintenance includes resurfacing, easement maintenance, and snow removal.

Roads, Public. Roads which are part of the WVDoT system and are publicly owned and maintained, including resurfacing, expansion, easement maintenance, and snow removal.

S

Shrink-Swell Soils. Soils that change in volume based on moisture content.

Sight Distance. Sight distance is a function of design speed (miles per hour), so new driveways and new street/road intersections connecting to an existing road with a lower speed limit will have a shorter required sight distance than for those connecting to an existing road with a higher speed limit. For example, a new intersection on a road with a speed limit of 25 mph will have a stopping sight distance (the distance required to come to a full stop on the existing road) of 155 feet in either direction. A new intersection on an existing road with a speed limit of 40 mph is 305 feet and with a speed limit of 55 mph is 495 feet in either direction.

Slope. The grade of a geographic or physical feature, like a hill or a ramp, calculated by dividing rise (height or elevation) by run (distance). Land with slopes below 8% are far more likely to have prime farm soils. In development, as in farming, land with a slope of 8% or less is suitable for medium or higher intensity uses. As the grade increases above 8%, allowable

density decreases. Slopes above 25% should not be developed because of the potential for damaging runoff, among other reasons.

Small Farm. A farm where the farmer or farm family participates in the day-to-day labor and management of the farm, and owns or leases its productive assets.

Solid Waste. According to the definition provided by the Greenbrier County Solid Waste Authority, solid waste includes "includes but is not limited to newspaper, bottles, garbage, trash, discarded household furniture, appliances, tires, carcasses of dead animals, cigarette butts, shingles, construction and demolition waste and other waste materials." It does not include "gas tanks, batteries, asbestos, oils, anti-freeze, free liquids, tanks or drums that have not been rinsed and crushed, and hazardous waste of any kind."

Sprawl means poorly planned or uncontrolled growth, usually of a low-density nature, within previously rural areas, that is land consumptive, auto-dependent, designed without respect to its surroundings, and some distance from existing development and infrastructure. (West Virginia Code, §8A-1-2(aa))

Streets means streets, avenues, boulevards, highways, roads, lanes, alleys and all public ways. (West Virginia Code, §8A-1-2(bb))

Subsidence. Subsidence, the either gradual sinking or abrupt collapse of the ground, can happen naturally (in the case of sinkholes and caves) or can be the result of human activity (mining or other underground activity). While subsidence can occur over a long period of time, specific actions will increase the likelihood of an abrupt collapse, including introducing increased weight (typically a structure) that is greater than the structural capacity of the underlying geology, it can also occur as a result of the extraction of natural gas and groundwater.

Sustainable Development. Sustainable development is development that meets current needs while preserving the environment and non-renewable resources to meet future needs.

T

Traditional Neighborhood Design (TND). While TND is a fairly recent buzzword, it is not a new concept. Drive into Lewisburg or Ronceverte or any other town, city, or village in Greenbrier County and look around. You are looking at a TND. TNDs are characterized by a mixed use approach to development that creates a core made up of mixed commercial, residential, and public uses, and surrounded by mixed residential neighborhoods with smaller lots, narrower roads, smaller setbacks, sidewalks, neighborhood "pocket" parks, and other "neighborhood" amenities.

Transition Area. See Planning and Land Use 1.5.

Transfer of Development Rights (TDR). See density transfer.

U

"Unincorporated area" and "total unincorporated area" means all lands and resident estates of a county that are not included within the corporate, annexed areas or legal service

areas of an incorporated or chartered municipality, city, town or village located in the state of West Virginia. (West Virginia Code, §7-20-3 (i))

Urban Growth Boundaries. Urban Growth Boundaries (UGB) are a planning tool to help counties contain urban sprawl by concentrating development into specific areas. The Greenbrier UGBs should provide enough land to accommodate 20 years of growth and should be reviewed by the Planning Commission and the County Commission every five years. For UGBs to work, they must be treated as "fixed" boundaries and should not be arbitrarily changed to accommodate single development requests. Requests for medium and high density and high impact development outside of the designated growth areas should be denied. Typically, UGB's only work if they accompanied by other policies which encourage redevelopment and infill development within existing jurisdictions and provide enough developable land to balance citizens' and government's desire to control growth and the residential, commercial, and industrial development requirements.

Utility means a public or private distribution service to the public that is regulated by the public service commission. (West Virginia Code, §8A-1-2(ff))

Utilities and Equipment, Essential means underground or overhead electrical, gas, communications not regulated by the federal communications commission, water and sewage systems, including pole structures, towers, wires, lines, mains, drains, sewers, conduits, cables, fire alarm boxes, public telephone structures, police call boxes, traffic signals, hydrants, regulating and measuring devices and the structures in which they are housed, and other similar equipment accessories in connection therewith. Essential utility equipment is recognized in three categories

- (1) Local serving;
 - (2) Nonlocal or transmission through the county or municipality; and
 - (3) Water and sewer systems, the activities of which are regulated, in whole or in part, by one or more of the following state agencies:
 - (A) Public service commission;
 - (B) Department of environmental protection; or
 - (C) The department of health and human resources
- (West Virginia Code, §8A-1-2(f)).

W

Wetlands. An area where the soil that is typically saturated with ground or surface water, such as bogs, marshes, or swamps.

Z

Zoning means the division of a municipality or county into districts or zones which specify permitted and conditional uses and development standards for real property within the districts or zones. (West Virginia Code, §8A-1-2(gg))

Zoning map means a map that geographically illustrates all zoning district boundaries within a municipality or county, as described within the zoning ordinance, and which is certified as the official zoning map for the municipality or county. (West Virginia Code, §8A-1-2(hh))

Zoning ordinance, non-traditional means an ordinance that sets forth development standards and approval processes for land uses within the jurisdiction, but does not necessarily divide the jurisdiction into distinct zoning classifications or districts requiring strict separation of different uses, and does not require a zoning map amendment. (West Virginia Code, §8A-1-2(t))