2. Methodology

Review of Existing Planning Policy Area (PPA) Boundaries

The first step in the development of this scenario was to compare the current PPAs to recent development patterns. This was done in order to understand where the most recent development has been occurring in relation to the established PPAs. Subsequently, the boundaries of the current PPAs were evaluated to determine if any of the recent growth areas should be reclassified into a different PPA category. In areas where growth trends indicated high demand for development, and water and sewer services were available, the PPA was reclassified to a higher category that would allow for more intense development.

The Planning Policy Areas were further evaluated in relation to the known or projected areas of water and sewer service. Information was provided by the Augusta County Service Authority (ACSA)[37] which detailed areas of existing and potential future water and sewer capacity as well as portions of the county that have water or sewer constraints. Proposed boundary adjustments and/or changes in classifications to PPAs were made in areas that were projected to have adequate future capacity by the ACSA. Reclassifications also occurred in areas identified by the ACSA as having limited future development potential during the planning period (2005-2025) due to existing water or sewer system constraints. Assumptions were also made based on available information that water and sewer projects during the 20-year planning period would be limited primarily to those described by the ACSA that support the future water quality requirements for the Chesapeake Bay.

PPAs were then further refined to reconsider areas where pockets of land were designated for low density or conservation uses but surrounded by high density growth areas creating "islands" of land disconnected from other like areas. These areas were also reclassified into higher use categories that could be transition zones for the adjacent PPAs.

Revision of PPA Policies and Creation of New Planning Policy Areas

Upon evaluating the existing PPA designations, boundaries, and policy language it became clear that some portions of the county did not seem to fit the descriptions and policies of the existing PPAs. The creation of a new PPA to address these specific locations along with the revision of some of the existing PPAs (specifically the Community Development and Potential Community

[37] ACSA Memorandum to Becky Earhart from William Monroe, August 22, 2005.

Development Areas) was therefore, incorporated into this scenario. The new hierarchy of PPAs as a result of these changes is:

1. Urban Service Areas
2. Potential Urban Service Areas
3. Community Development Areas (*redefined*)
4. Potential Community Development Areas (*redefined*)
5. Rural Community Development Areas (*new*)
6. Rural Conservation Areas
7. Agricultural Conservation Areas

Revisions to the existing PPAs and a description of the new PPA are provided below. The revisions as presented in this scenario will provide more than enough land to accommodate the projected growth within the 20-year planning period.

Urban Service Areas (USA)

Definitions and policies for the USAs (shown as red on **Map 42**) will remain largely the same. All Urban Service Areas will be expected to accommodate 54 percent of future residential growth and at least 80 percent of future employment growth. A full range of urban land uses will be permitted with priority given to high density residential (*i.e.*, townhouse, duplex, multifamily, higher density single-family), commercial, and employment uses. Parcels zoned for agricultural use (*i.e.*, GA and XA) will be planned to convert to urban uses in the future through rezoning.

Parcels will continue to be designated for two residential density levels: high density areas will be developed at a density of 16 dwelling units per net acre for attached and multifamily units; and medium density areas will be developed at a density of four dwelling units per net acre.

Public water and sewer connections will be mandatory for new development and development of new construction on individual wells and septic fields will not be permitted in the USA. Priority will be given by the ACSA to water and sewer line extensions and treatment capacity expansion projects that serve the USAs.

Potential Urban Service Areas (PUSA)

PUSAs (shown as red stripes on **Map 42**) will be subject to the revised polices of the Rural Community Development Areas until the designation of such areas is changed from PUSA to USA. This is due to the fact that all PUSAs do not currently have both water and sewer services. The evaluation of PUSA land for designation as USA should occur on a scheduled basis and could be influenced by such elements as development patterns, public service upgrades that would increase service areas and/or capacity, developable land needs, and citizen requests for changes.

Insert Map 42

Community Development Areas (CDA)

The redefined CDAs (shown as purple on **Map 42**) were created to address portions of the county that currently have water and sewer service and are anticipated to accommodate new growth at a level which is greater than previously identified by the old CDA definition but not as high as what is described under the USA. Examples of areas that met this definition were west of Staunton on Route 254, Craigsville, and north of Waynesboro along Route 340, Mint Springs, and Greenville.

These areas of the county would not be considered as prime growth centers as in the case of the USAs and would be supportive of mostly new residential development with some convenience commercial (e.g., grocery stores). The CDAs would not be considered appropriate locations for directing large percentages of new employment.

CDAs will be expected to accommodate 20 percent of future residential growth. Residential development in the CDAs would largely be compact single-family residential with densities of an average of 4 dwelling units per acre. As these areas are defined by presence of water and sewer services, new residential hookups would be mandatory as in the USAs. These locations would also have greater potential for future water and sewer system upgrades and extensions.

Potential Community Development Areas (PCDA)

PCDAs (shown as purple stripes on **Map 42**) will be subject to the new polices of the Rural Community Development Areas until the designation of such areas is changed from PCDA to CDA. This is due to the fact that all PCDAs do not currently have both water and sewer services. The evaluation of PCDA land for designation as CDA should occur on a scheduled basis and could be influenced by such elements as development patterns, public service upgrades that would increase service areas and/or capacity, developable land needs, and citizen requests for changes.

Rural Community Development Areas (RCDA)

RCDAs (shown as orange on the **Map 42**) have many of the same defining elements and policies of the old CDAs. These consist mainly of current settlements that have existing water or sewer service, not both. RCDAs are suitable for the majority of the future low-density residential development and should be considered the prime location for the shift of rural residential development from the Rural Conservation and Agricultural Conservation Areas. Due to the fact that these locations are intended to remain residential and at a lower-density scale of one unit per two acres, the RCDAs are not prime locations for water and or sewer extensions, with possible exceptions in areas with public health concerns. RCDAs will be planned to accommodate only 10 percent of the total future residential growth.

RCDA locations also would include many of the historic villages that currently have either water or sewer service. Such locations would be suitable for additional future rural residential development but would also require additional development controls to help ensure that the traditional development patterns and styles are preserved. Zoning overlays for these areas could be developed to accomplish this.

Rural Conservation Areas (RCA)

Definitions and polices for the RCAs (shown as yellow on **Map 42**) will also remain largely the same. These locations will continue to be planned for only rural low density residential development on individual wells and septic systems and active agricultural or forestal operations. In keeping with the rural residential nature of this area there will be limited public facility improvements anticipated. Public water and/or sewer service extension will not be planned for RCA locations. Commercial and/or industrial uses will not be allowed in RCAs with the exception of limited home-businesses and agricultural and/or forestal related businesses.

These areas are considered independently however as they are projected to absorb a lesser amount of the overall future growth. RCAs will continue to be planned to accommodate only 10 percent of the total future residential growth at a rural residential density. In order to accommodate projected new single-family residential development that is rural in character an increased density of one dwelling unit per five acres was modeled in this scenario. RCAs are also not expected to have any residential rezonings and steps would be taken to limit the number of future residential lots created in these areas.

Agricultural Conservation Areas (ACA)

ACAs (shown as green on **Map 42**) continue to be planned to remain in agricultural and forestal uses for the long term future. Approximately 6 percent of the total future residential development is projected to occur in this area. This number is based on the amount of residential subdivision which has already occurred in the agricultural areas of the county as well as recent building trends, and future efforts to reduce residential development in the ACA.

The maximum allowable density for new residential units in the ACAs will be one dwelling unit per ten acres. The creation of new residential lots in these areas would be discouraged. Subsequently, no public service extensions and improvements are expected in the ACA and all new residential development will be required to be served by wells and septic systems. Commercial and industrial uses will be discouraged unless they are compatible with agricultural uses.

2. Projected Development

Under this scenario modified growth and development policies were modeled for each of the existing PPAs and new policies were suggested for the newly created PPAs. **Table 55** shows the existing plan policies and the revised policies used for

this scenario. The growth and development policies are based upon the percentage of new residential development that the area is expected to accommodate over the planning period.

Table 55. Planning Policy Area Growth and Development Policies and Densities

PPA	Existing Policy	Revised Policy	Density
USA	60-70%	54%	16.0 High
			4.0 Medium
PUSA	Up to 20%	20%	4.0 Medium
			0.5 Low
CDA			2
PCDA	--	10%	0.5
RCDA			0.5
RCA	Up to 10%	10%	0.2
ACA	Less than 10%	6%	0.1

Source: Kimley-Horn and Associates, Inc., 2005.

The development polices and densities were then applied to determine the amount of future developed units and acres by PPA under this scenario (see **Table 56**). The constant rate of growth was used as in the previous scenarios to determine the total number of new units developed during the planning period. The allocation of new units across the various PPAs was based on the application of the development policies. The developed acres were derived from the applied density standards in each of the PPAs.

Table 56. Projected Developed Acres and Units by Planning Policy Area, 2005-2025

PPA	Developed Acres	Projected Units
USA	406	4,057
PUSA	334	751
CDA	376	751
PCDA	750	375
RCDA	1,875	375
RCA	3,755	751
ACA	4,520	452
Total	**12,016**	**7,512**

Source: Kimley-Horn and Associates, Inc., 2005.

Map 42 shows the locations of the revised and new PPAs as well as the potential development pattern that would result from the utilization of the specified policies over the 20-year planning period. The individual parcels identified for future development were randomized and were not intended to predict specific development patterns at the parcel level.

3. Implementation

The comprehensive plan update will include the review and revision of the PPA boundaries and locations. If considered appropriate, the recommended policy changes to the future development percentages, densities, and PPA definitions as described in this scenario could be incorporated into the plan update.

The implementation of Scenario 2 would occur largely through the development of the comprehensive plan update and related ordinance changes. The challenge in making these policy changes is in finding the appropriate implementation tools to help carry them forward.

The following changes below could be used to successfully implement this scenario:

Density

The GA, XA, and RR zoning district densities will need to be revised so that the maximum allowable densities support those specified in the policies of the comprehensive plan. These changes would be required only in areas where the GA, XA, and RR districts intersect with the ACA, RCA, and RCDA policy areas. This is due to the fact that GA and XA parcels located in other PPAs would be priority parcels for rezoning.

SF densities should also be revised in order to provide higher density single-family uses in the USA and lower density uses in the other PPAs. Lower density uses should particularly be targeted to areas where the use of well and septic systems would be required.

Minor Subdivision and Family Member Exception

In order to simplify for modeling purposes, lots created through minor subdivision or family member exception were not considered in this scenario. Realistically, a substantial number of lots have already been created in the agricultural districts which would increase the number of future units projected for these districts. This is due to the fact that existing platted lots created through minor subdivision would be "grandfathered" and available for development. In order to reduce the overall numbers of future residential development in the agricultural districts the creation of lots will need to be addressed. In order to limit future lot creation the minor subdivision regulations and family member exceptions will need to be revised to include limits on numbers of lots, minimum/maximum sizes, and frequency.

Rezoning

Establish an average rate of rezoning that must occur within the USA areas each year in order for the high density residential development patterns projected in this scenario to occur.

Other critical rezoning policy decisions that would need to occur include:

- Allow only new high density residential development (*i.e.,* single-family, multifamily, duplex, townhouse) to occur in the USA.
- Allow single family residential development to occur primarily in PUSA, CDA, and PCDA.
- Consider allowing high density residential uses in CDA where compatible with existing development and infrastructure capacity is available.
- Allow rural residential zoning to occur primarily in the RCDA.
- Rural residential development on a lot-by-lot basis in the RCA and ACA would not be allowed.
- Increasing density in the ACA, RCA, and RCDA areas through rezoning would not be allowed.

Water and Sewer
Require mandatory water and sewer hookups for all new residential development in the USA and CDA. Limit the use of wells and septic systems to the PUSA, PCDA, RCDA, RCA, and ACA.

Prioritize future water and sewer upgrades and extensions to the USA, PUSA, CDA, and PCDAs. Limit projects in other areas unless to address large-scale public health concerns.

Historic Overlay
In order to provide an additional level of land use controls that is geared towards preserving historic villages, the creation of historic overlay zones is recommended. The overlay zone could include land use and design standards that would ensure that new development is attentive to the existing historic context.

Implementation Scorecard
One of the components of the comprehensive plan update will be the development of a scorecard to help the county evaluate the overall effectiveness of the plan. The most beneficial implementation scorecard elements are those that can be quantified. Measurable goals such as the number of rezonings by PPA and the number of new residential units by type created by PPA are examples of implementation scorecard elements that would help to achieve the vision of the comprehensive plan under this scenario.

Phased Growth
The county could elect to designate areas of primary and secondary growth using a phased growth approach. Phased growth refers to the technique by which the speed and sequence of development is regulated in accordance with a comprehensive plan. Most often the allowable growth rate is based on the expansion rate of public services and utilities to new areas zoned for development. While traditional regulatory schemes such as zoning deal with land use, phased growth adds two additional dimensions: timing and sequencing —

reinforcing a determined planned sequence of development through a capital improvement schedule.

The designation of phased growth areas could be applied in place of, or in combination with, the existing Planning Policy Area boundaries and descriptions. The addition of phased growth areas would add a timing element to the PPAs that currently does not exist. This would help to encourage development in the designated growth areas and ensure that adequate capacity exists for new development.

The phased growth areas could also act as an overlay to the PPAs. The combination of the PPAs and the phased growth areas would determine which portions of the growth areas are best suited for different types of new development. For example, new DR, TH, and MF residential units would be directed towards the Urban Service Area portions of the short-range growth area.

Level of Service (LOS) Ordinances

Level of service ordinances are a form of growth management that tie or condition development approval to the availability and adequacy of public facilities and services, thus ensuring that new development does not take place unless the infrastructure is available to support it. LOS as a growth management tool is currently being successfully applied in the Cities of Chesapeake and Suffolk, Virginia.

The level of service ordinances are linked to the Capital Improvement Program, which establishes a schedule of public facility construction over a five or six year period and details how they should be financed. The ordinances identify the types and levels of service that are needed to permit new development and establish a policy about when the infrastructure and public services must be in place relative to the impact of development. The developer must demonstrate that the required levels of public facilities and services are, or will be, available to the proposed project.

Potential benefits from this approach include:

- Allows a community to maintain control over the timing and sequence of new development.
- Forces the community to link its comprehensive land use plan with its capital improvement program, a principle of good planning that is often ignored.
- Can encourage contiguous or even infill development because of its proximity to existing urban infrastructure and services. To the extent that land in facility-provided areas is limited, it will encourage developers to build at higher densities.

The major limitation to the LOS is that it may increase the complexity of the development process and the cost of processing development proposals.

Urban Growth Boundaries

An urban growth boundary (UGB) is a "line in the land" drawn around an urban area outside of which development is prevented or highly discouraged. UGBs are usually considered long-term growth-management tools, often established for 15- or 20-year periods. Proponents suggest UGBs can accomplish at least six objectives:

- Preserve open space and farmland;
- Minimize the use of land generally by reducing lot sizes and increasing residential densities;
- Reduce infrastructure costs by encouraging urban revitalization, infill, and compact development;
- Clearly separate urban and rural uses;
- Ensure the orderly transition of land from rural to urban uses; and
- Promote a sense of unified community.

UGBs, however, have potentially negative, if unintended, side effects. By reducing the supply of developable land, for example, housing and land prices could increase, reducing housing affordability and production. According to some researchers, the effectiveness of growth boundaries has been constrained by:

- Persistent preferences for single-family, detached homes by prospective home buyers;
- Poor coordination among local public agencies;
- Housing price increases; and
- Political manipulation by antigrowth interest groups.

This approach is currently being applied in several localities in Virginia and many other areas nationally. Oregon, for example, has a stringent UGB measure that allows localities to prevent almost all development outside their designated urban-growth areas. Whereas some Virginia localities designate urban-growth districts, the implementation is not as restrictive as Oregon's measure. Virginia's urban-growth districts are areas where land-use controls and capital investments are focused.

One example of a stringent UGB in Virginia is Virginia Beach's "green line," which limits infrastructure and places strong development restrictions on the southern section of the city. The northern portion is designated as a growth area and all necessary infrastructure is provided. The "green line" is still in effect in Virginia Beach, but because of political manipulation caused by landowner discontent, the geographic location of the "line" has been altered which may ultimately weaken the UGB concept there.