

Background Reading #1

Report on Development Outside the PSA

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(Prior to the 2003 Comprehensive Plan update)

Report to the Steering Committee on Non-Rural Development Outside the Primary Service Area

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Contents

SUMMARY OF FINDINGS

This section contains a summary of existing conditions, and preliminary recommendations, based upon the analysis contained in the Appendix. The recommendations are aimed at stimulating and focusing further discussion during the plan update process by identifying the most promising choices for the County, recognizing the technical, financial and political "trade-offs" inherent in each choice.

APPENDIX

Part I. Review of Existing Conditions

This section includes a brief review of recent development trends in the County's rural areas and identifies the tools currently in use by the County to manage rural development. (This review is based upon readily available data and thus is not an exhaustive analysis).

Part II. Additional Available Tools That May Hold Promise

This section includes updated evaluations of the potential tools that may be useful and applicable to the County to further concentrate development within the PSA, to help protect the outlying areas and to achieve the County's long term planning goals.

For each available tool, a brief, updated description is provided, as well as an assessment of the advantages and disadvantages of the tool and the prospects for success if used in James City County. The contents of the 1999 Rural Lands Protection Study serve as the baseline framework for this report; new and updated information is included where appropriate.

SUMMARY OF FINDINGS

SUMMARY OF EXISTING CONDITIONS

Although the County does not appear to face a development crisis in the rural areas, the current tools should not be expected to protect the rural area over the course of time. So far, these tools appear to have been generally successful, which is due in part to their effectiveness, but also to current market supply and demand. If the market demand for rural residential development increases substantially in the future, the current tools will not be sufficient to prevent the development of the rural area, resulting in a substantial conversion from a rural character to an urban or suburban character. (Additional discussion of existing conditions is included in Part I of the Appendix of this report).

RECOMMENDATIONS

An analysis and general evaluation of the pros and cons of each of the identified tools is contained in Part II of the Appendix of this report. Following are the preliminary recommendations for the tools that appear to offer the best prospects for success in James City County at this time, based upon the analysis.

These recommendations may be refined through follow-up discussions as the County moves forward with preparation of the updated Comprehensive Plan.

Below is a list of recommended policies, regulations and programs, followed by a more detailed explanation of each item.

Recommended Policies

1. Re-affirm the Current Urban Growth Boundary (Primary Service Area)

Recommended Regulations

1. Strengthen the Subdivision and Zoning Regulations for the A-1 District:
Establish Stronger Incentives for Low Density Rural Subdivisions and Stronger Regulations for Higher Density Rural Subdivisions
2. Refine the Rural Cluster Zoning Provisions
3. Refine the Zoning Regulations for Non-Residential Uses in the A-1 District
4. Consider Implementing a Lot-Cap or Sliding Scale Zoning Provision in A-1

Recommended Programs

1. Continue the Use Value Assessment and AFD Programs
2. Continue the PDR Program
3. Promote and Facilitate Easement Donation
4. Provide Assistance for "Limited Development Plans"

Recommended Policies

1. Re-affirm the Current Urban Growth Boundary (Primary Service Area)

This policy tool appears to be largely effective so far, in concentrating development in the County's defined urban area.

The County should reaffirm its commitment to the PSA concept and the firmness of the boundary. The PSA is a fundamental planning policy and is the underpinning to all other implementation measures.

As part of this affirmation, the County should do three key things:

1) *Establish a strong identity for the rural area by giving it a compelling name or geographic designation.*

The Plan now designates the rural area as "Rural Lands." While this is a perfectly good and accurate name, it lacks a compelling specificity. Prince William County has the "rural crescent," Loudoun County has the "Loudoun Valley", and Rockingham County is currently proposing the "Agricultural Reserve".

2) *Re-affirm the expected "life span" of the PSA in terms of its capacity to absorb additional growth for a defined future planning period.*

The PSA should be designed to absorb the expected growth for at least the next 10 years. Based upon the recent study of development potential/capacity within the PSA (the "Development Potential Analysis"), this standard has been met. The new Comprehensive Plan should cite this finding, thus affirming the viability of the PSA as an urban growth area. In conjunction with this, the boundaries of the PSA should be affirmed to be rational and defensible.

According to the DPA study, the current PSA can absorb an additional 13,000 to 20,000 potential dwelling units, which indicates a 20 year "life-span" at current rates of development. This does raise the fundamental issue, however, of what happens after the year 2023? Does the County maintain its rural area as a permanent resource, or does the rural area eventually become absorbed into the PSA which ultimately consumes all land in the County? The current policy is that the rural areas are to be maintained indefinitely, reflected in the commitment to the program of purchasing development rights. Given the capacity of the PSA and the importance of the rural areas to the County's quality of life, this is a sound policy.

3) **Adopt or Re-Affirm Policies for maintaining and/or expanding the PSA over the course of time.**

Looking ahead, the County has several policy options for maintaining the PSA as an effective urban growth boundary. In light of current conditions in the County and the thrust of the planning policies as they are taking shape, the preferred choice is option "a" below, which is similar to the County's current policy. There are trade-offs with each option, so the other options are also listed below. While these others are not the preferred options, elements of them may be incorporated into the final set of policies that is adopted.

- a. Maintain a firm PSA boundary in accord with the boundaries established during this plan update.

The term "firm" means that no change would be made unless and until an amendment to the Comprehensive Plan was adopted to change the boundary and/or breach it with major utility line extensions.

To the extent that it is politically feasible, the PSA boundary should be drawn to include all areas with central sewer service and exclude all areas without such service. The boundary of central sewer service is the de facto PSA boundary. Thus, it should only be able to be changed through an amendment to the Comprehensive Plan. This approach would help to maintain the integrity and consistency of the PSA boundary concept, as well as to make sure that policy decisions affecting the life-span of the PSA are made in the context of the entire County and region, via the Comprehensive Plan.

Advantages of maintaining a firm PSA boundary include:

- Provides predictability, certainty and clarity to citizens at large, landowners, county officials and the private land market, regarding future land uses outside the PSA
- *Strongly discourages* incremental changes to the PSA boundary which could undermine the integrity and effectiveness of the PSA over the course of time
- Encourages an efficient allocation of central sewer service within the PSA
- Tends to discourage speculation on land outside the PSA, thereby reducing some of the pressure to expand the boundary
- Promotes a rigorous approach to monitoring land capacity within the PSA

Disadvantages include:

- The Board of Supervisors may chafe at the lack of flexibility; and a rigid line may "break" if it can not "bend"
- Reduces the hope and expectation of landowners outside the PSA of getting central sewer service in the near term

- b. Plan for orderly expansion of the PSA by establishing clear policies and procedures for deciding when, where and how much the PSA can be expanded, but without showing specific locations.

The major advantages of defining expansion policies are that it provides landowners on the edge of the PSA with the potential chance of obtaining future utility services and higher densities.

The major disadvantages are that it reduces the level of predictability, certainty and clarity that is provided by a "firm" boundary and may even encourage landowners to exert pressure for incremental changes to the PSA.

- c. Plan for orderly expansion of the PSA by mapping potential "future expansion" areas, along with clear and firm policies, criteria and procedures for when and how the PSA would be expanded into those areas.

The major advantages of mapping future PSA expansion areas are that it provides some predictability, certainty and clarity, regarding future land uses outside the PSA (although to a lesser degree than a firm boundary would) and it relieves some of the political pressure by providing landowners with expectations of future utility service and higher densities.

The major disadvantages are that it might increase the pressure on the Board of Supervisors to "open up" the expansion area ahead of schedule, thus undermining the effectiveness of the PSA and it "commits" the County to a larger PSA in the long term future, even though that need is not certain at this point in time (could constitute an over-commitment to urban service areas)

- d. Establish a permanent "transitional area" between the PSA and the Rural Lands. Such a transitional area may be a "hybrid" area with some of the land use and infrastructure characteristics of both the rural and urban areas, thereby taking some of the pressure off the boundary dividing rural and urban.

The major advantages of establishing a transitional area are that it helps support the concept of a "firm" boundary and thus provides predictability, certainty and clarity, yet it relieves some of the political pressure from landowners in the future expansion areas by providing "transitional" areas outside the PSA that might have slightly higher densities and intensities of land use than the rural areas would

The major disadvantage is that it might undermine the PSA concept by "blurring" the distinction between urban and rural and it risks creating a larger "de facto" PSA that would include both the PSA and the Transitional Area, thereby over committing the County to a larger PSA in the long term future, even though that need is not certain at this point in time

With any of these options, it will be useful for the County to clarify the definitions of rural, urban and suburban land uses. Generally density and infrastructure are the basis for such definitions.

Regarding infrastructure, urban and suburban uses are sometimes combined into one term, since the differences between them are often subtle in metro-fringe counties like James City. Urban and suburban uses would typically be those served by central sewer systems, and/or central water. Ideally, all areas of a county would be served by both public water and sewer or by neither. However, like James City County, many jurisdictions have areas served by only one utility or the other, but not both. Rural uses are typically defined as not having public utilities, or having only small communal systems.

Regarding development density, rural lot sizes can be defined in relation to the lot size that is not feasible to be served by central utilities, or it can be defined on the basis of the lot size that supports agricultural uses. Since most agricultural areas also have a lot of residential uses, it is typically more practical to define "rural" in terms of residential use rather than agricultural use. Thus, rural uses might be defined as lots of two or three acres or larger, while suburban and urban areas would be densities above that. (Note however, that although residential lots of two or three acres might be rural in and of themselves, a broad pattern of three acre lots over an extensive area will create a de facto suburban area. Thus, "rural" residential might best be expressed by overall densities such as one unit per 10 or 20 or more acres, rather than individual lot sizes. If clustering is used, densities as low as one unit per 10 acres can maintain a rural landscape; without clustering, lower densities of 20 acres or more would be preferred).

Urban and suburban uses can be most easily distinguished in terms of gross densities over a larger area, such as an entire neighborhood or planned community. Suburban densities are typically in the range of two to four units per acre, gross. Urban densities would be higher. However, the County may prefer to distinguish between urban and suburban by the development pattern rather than density, with urban areas distinguished by pedestrian-oriented streetscapes and suburban areas distinguished by auto-oriented streetscapes.

In addition to the above three key steps, the County should also:

- 4) ***Specify all of the critical resources outside the PSA that the County seeks to preserve, and the County's rationale for protecting those resources from urban development. This should include adding a discussion of agricultural and forest resources in the Comprehensive Plan or in a companion document.***
- 5) ***Tie the PSA to the Zoning Ordinance by stating in the ordinance which districts are appropriate for land within the PSA and which districts are appropriate only for land outside the PSA. (The A-1 District does now reference the PSA). This is a routine action that could also include adding to the Comprehensive Plan clear and firm policies that prohibit rezonings outside the PSA that would undermine the goals for the rural areas.***

- 6) **Continue to regularly re-examine James City County's role in the region, in terms of its capacity for absorbing future residential and non-residential growth.** The County is not an isolated island of growth, but rather is an integral part of the region, and the role of both its urban and rural areas needs to have a logical relationship to development patterns and land resources in neighboring jurisdictions.

Recommended Regulations

- 1) **Strengthen the Subdivision and Zoning Regulations for the A-1 District: Establish Stronger Incentives for Very Low Density Rural Subdivisions and Stronger Regulations for Higher Density Rural Subdivisions**

The current A-1 District is not really a "large lot" district per se, because a three-acre minimum lot size will not, by itself, protect the rural area in the long term. This is due to the relatively high density that it allows, in conjunction with the currently weak cluster provisions of the A-1 District. Thus, the County should retain the A-1 District designation, but strengthen its provisions in several ways (including subdivision regulations as applied in the rural areas), discussed below.

The County should amend its zoning and subdivision ordinances to create the maximum possible incentive for rural landowners to choose the option of dividing the property into a very low density subdivision, combined with disincentives for maximizing the density permitted through conventional A-1 subdivisions.

If the incentives and disincentives have the right balance, many landowners will choose the very low density option and thus voluntarily create a permanent "downzoning" of much of the rural area. (The formal differentiation between conventional three-acre lot subdivisions and very low density, such as 20 or 25-acre density subdivisions, could be accomplished by definitions in the zoning and subdivision ordinances).

(Note that when the very low density option is selected, it is important that the owner be required to record a permanent conservation easement at the time of final plat, which prohibits further subdivision of the site. Otherwise, this option could be a loophole to avoid the more stringent subdivision requirements. The possible exception to this recommendation is if the County wishes that such very low density subdivisions to be available for urban development in the long term future. In that case, the County may wish to permit a 20, 30 or 50 year easement, depending on the location of the subdivision in relation to potential PSA expansion.

Incentives and disincentives could include combinations of the following:

For conventional, three-acre lot subdivisions in the A-1 District:

- Strengthen the requirements for infrastructure, including:
 - increase road design standards – since public roads are already required for major subdivisions in the A-1 District, the only practical increases in standards may be tighter restrictions on the length of cul-de-sacs, firm requirements for providing inter-parcel access, and ensuring that the maximum feasible right-of-way is required for all roads.
 - increase minimum road frontage on existing and new public roads – for a three acre lot it would not be unreasonable to require a width of 225 feet or even 250 feet.
 - increase the obligation of the developer in financing the costs of communal water systems (also noted in fourth bullet below)
 - increase engineering design standards for communal water systems
- Adopt strict standards for protecting critical environmental features of the site, such as poor soils, flood prone areas, critical wildlife habitats, wetlands, stream valleys, watercourses and groundwater recharge areas. This could be achieved by requiring that such resources be identified in detail during the site design process and that greater minimum building setbacks be provided from such resources.
- Require applicants to submit an environmental impact report as part of the subdivision application, including proposals for mitigating such impacts, in conjunction with the preceding bullet item.
- Strengthen utility policies and regulations in the rural areas
 - continue the policy of not approving waivers for central well systems
 - increase the level of financial responsibility for these central well systems to be placed on the developer and/or end user (home buyer) by requiring the developer/subdivider to establish an escrow account sufficient to fund the additional operational costs for these systems for a defined period of time into the future or change the JCSA rate policy for isolate systems.
 - waive the central well requirement only for developments with a density consistent with rural areas (the “low-density” option described herein, which would presumably have an average density in the range of 20 to 25 acres per lot)
- Continue to require communal water systems for major subdivisions
- Consider strengthening the restrictions on rural subdivisions by:
 - Reducing the number of lots that qualify a subdivision as “major” (three lots or more for example)

- Limiting the number of lots allowed in a major subdivision without requiring a rezoning to a residential district (which would now be contrary to rural area policy)
- Limiting the frequency or scale of subdivisions that can be done without getting a rezoning to a residential district (while limiting residential districts to areas within the PSA)
- Limiting the number of minor subdivision lots to say, one per year.
- Change the definition of “lot” to exclude any area within the 100 year floodplain or body of water such as lake, pond, stream, etc.
- Increase the setback requirements for typical 3-acre lots in the A-1 District from 50 to 100 feet.
- Consider requiring a Special Use Permit for all non-very low-density subdivisions, and providing by-right, streamlined review of low-density subdivisions (20 or 25 acres per lot average)

For the very low density option (such as 20 or 25 acre minimum lot size/density):

- Ease the requirements for infrastructure, including allowing private roads and private access easements, reduce public road frontage requirements, allow individual wells rather than communal water systems and require no hydrogeologic tests, etc.
- Provide a greater number of permitted uses for the very low density option, including rural business uses (this idea is discussed in item #3 below)
- Streamline the review and approval process for such very low density subdivisions by combining preliminary and record plats and other such means (as noted above)

2). Refine the Rural Cluster Zoning Provisions

The County should refine the rural cluster zoning provision for the A-1 District. Ideally, this would be a mandatory provision, but from a practical political standpoint, it may have to be provided only as an option. The cluster provision must be simple and should not make the review and approval process longer or more complex.

In fact, it has been suggested that the review and permitting process for the cluster option could be made easier and quicker than for the conventional large lot A-1 subdivision, thereby providing greater incentives to use the cluster option. This would be a valid approach, although the logic for a “by-right” review would be inherently stronger for the low-density subdivision option, than for a cluster, which tends to actually be more complex than a conventional subdivision.

However, rationale for a less restrictive process for cluster review and a more restrictive process for conventional could include the desire to ensure maximum protection of open space and environmental resources. *Note also* that last year the General Assembly passed legislation that requires that cluster zoning provisions be “by-right” unless they involve an increase in density.

Key cluster provisions should include:

- A minimum amount of open land that must be preserved in perpetuity through the recordation of a conservation easement at the time of record plat (normally this is expressed as a percentage of the total original tract area).
- At least two-thirds of the site should be preserved as permanent open space, either as a commonly owned open space lot of at least 20 or 25 acres, or as part of a developable “conservation lot” as described below.
- Lots should be either “cluster” lots of one acre in size, or they should be “conservation” lots of at least 20 or 25 acres or greater in size. (No lots should be permitted between one to 1.5 acres and 20 or 25 acres in size).
- The large “conservation lots” should be able to “count” toward the open space requirement, but those lots should be a minimum of 20 or 25 acres each (the precise size of the conservation lots needs further discussion).
- On the conservation lots, building “envelopes” must be identified on the plat and no structures can be built outside of those defined areas on the lot.
- Septic fields should not have to be located on the lot they serve; septic field easements to adjacent lots should be permitted, in order to provide design flexibility.
- Permit the cluster option as a “by-right” option, and do not require a special exception permit. (*note comment about recent state legislation above*)
- Require the “conservation design” process for cluster subdivisions, as described in writings by Randall Arendt and summarized in the Appendix of this report. Consider requiring such a process for all A-1 subdivisions.
- Coordinate the cluster provisions with the improved subdivision requirements and large lot incentives discussed below in order to ensure a logical “continuum” of incentives

3). **Refine the Zoning Regulations for Non-Residential Uses in the A-1 District**

Consider eliminating some of the uses that present the greatest threat to the rural area such as convenience stores, mobile home parks, and schools. Consider adding others that may help add value without threatening the integrity of the district, including rural resorts (possibly similar to “retreat facilities” now permitted), bed and breakfast inns and country inns. Also consider expanding the range of uses permitted as rural home occupations. (Most of these uses would likely need to be by Special Use Permit).

Such uses might be focused on agricultural support businesses, tourist-related businesses, and low-impact professional or technical services, including research labs, training and conference facilities, etc. The key to these is that they be *low intensity* and/or *dispersed* activities in relation to the site on which they are located.

(Note as an example that Loudoun County's new rural zoning regulations permit a much wider range of rural business uses as partial "compensation" for the downzoning of residential lot sizes)

4). Consider Implementing a Lot-Cap or Sliding Scale Zoning Provision in A-1

(Note that if the County chooses to implement this option, many of the changes cited in items 1 through 3 above would not be as important, because limiting the allowable overall density within the A-1 district would largely solve the major impacts of residential development in the rural areas).

Instead of strengthening the subdivision and zoning regulations for 3-acre lots, the County could amend the A-1 District by adding either a lot-cap or a sliding scale provision. The lot-cap provision would provide a maximum number of lots per parent parcel, such as five lots, regardless of the size of the parent parcel. Sliding scale might provide a minimum lot size of three acres only for parent parcels of less than 20 acres, with a larger minimum lot size for larger parcels. The most appropriate lot numbers and sizes for either of these tools will require additional analysis of the range of sizes among the existing parcels in the A-1 District.

Recommended Programs

1) Continue Use Value Assessment and AFD Programs

The County should continue these programs. Minor refinements may be useful but should not be undertaken unless the stronger measures described in this report are not pursued.

2) Continue the PDR Program

This tool holds great promise for James City County, in part due to the relatively small size of the rural areas. The County should continue to allocate funds for its PDR program at the maximum extent possible, and preferably at a uniform annual amount. At current funding levels, the County could preserve nearly 10,000 acres of farmland over a 30-year period. This would be an incredible achievement.

3) Promote and Facilitate Easement Donation

The County should expand the scope of its conservation easement efforts by establishing an ongoing program to inform rural landowners about the benefits of donating conservation easements as part of their personal tax planning and estate planning efforts. Sponsoring seminars and even conducting private work sessions with key individual landowners could be a very cost-effective effort for the County to undertake. A public/private partnership

with non-profit land conservation groups in such efforts could be effective in making best use of limited public funds.

4) Provide Assistance for "Limited Development Plans"

In conjunction with promoting easement donations, the County should also provide assistance to landowners in preparing site planning and resource management plans for their properties. Such plans could entail a combination of easement donations, forest or agricultural management plans, and "limited" or "conservation" development plans of very low density residential uses which preserve substantial environmental and open space assets of the property. Such assistance would help landowners make long term plans for their property that optimize land preservation goals as well as financial goals for the landowner's estate.

In conjunction with the limited development program, the County could establish a revolving fund in which it would:

1. purchase easements or fee simple ownership,
2. design a low-density conservation subdivision, and
3. sell the property for development under the very low density provisions, thereby recouping most or all of the original public investment.
4. use those funds to purchase another property and continue the process

APPENDIX

Part I. Review of Existing Conditions

This section reviews the highlights of the 1999 Rural Land Protection Study in order to provide context for this report, and provides a brief review of current trends and tools now being implemented by the County.

Highlights of the 1999 Rural Land Protection Study (with Updated Observations)

The major objectives of the 1999 Study were to:

1. Evaluate the effectiveness of the County's current zoning and plan implementation efforts in the rural, agricultural areas of the County
2. Identify and evaluate various available implementation tools that might be more effective in achieving the agricultural goals of the Comprehensive Plan
3. Offer general recommendations as to which new or additional techniques might offer the best prospects for further pursuit by the County

Relevant highlights and updated observations include:

1. The County's use of the Urban Growth Boundary technique is an excellent underpinning of a strong growth management strategy. In James City County, the UGB defines the "Primary Service Area". This tool provides a strong framework for any additional or refined tools the County may choose to implement.
2. The County has followed through on some elements of the 1999 report, one being to determine the development capacity of the land within the PSA. A recent study of residential development capacity on land within the current PSA shows a land capacity for 13,060 - 13,790 additional dwelling units based on existing zoned parcels, and 19,290 - 20,475 potential dwelling units based on the current land use map and associated designations.

If the County adds 1,500 people per year (above recent trends of 1,300), this amount of capacity would provide for 20 to 30 years of growth. (1,500 people @ 2.4 people per unit = 625 dwellings annually; $13,000 \text{ units} / 625 \text{ units per year} = 20.8 \text{ years}$; $20,000 / 625 = 32 \text{ years}$).

If the population increases 38% per decade as it did during the 1990s, then this amount of capacity would provide for 16 to 22 years of growth. (At a pro-rated growth rate of 38% per decade, 13,000 dwellings would last for approximately 16 years and 20,000 dwellings would last for roughly 22 years).

The “flip side” of this calculation is to identify viable, long-term future uses for land outside the PSA. The new Comprehensive Plan should offer a clear policy vision for how land in the rural areas should be used during the next 10 to 20 years and beyond. The development capacity of the rural areas could also be estimated in order to be certain of its relationship to the capacity of the PSA. Assumptions about growth rates and average lot size can be based upon recent trends, or upon expectations of the average density that would be realized if the A-1 District regulations are changed in some way as to promote lower density or a slower rate of development.

It is important to note again that compared to many surrounding counties, James City County does not have a large agricultural industry. In part this is due simply to the small area of the County, limiting the magnitude of the County’s agricultural production. Yet this should be taken into account when selecting the tools for preserving agricultural and/or rural land resources. Of note, too, is the fact that the current Comprehensive Plan has no section on agriculture or forest uses, nor on the agricultural/forest economic sector (although it does contain goals and actions for those resources).

Following is a comparison of the statewide rankings of James City County to other nearby counties in terms of overall agricultural production, according to the 1997 Census of Agriculture. This is only one way of measuring the local farm economy and clearly favors geographically large counties, as well as counties with intensive products such as poultry. However, it is still relevant to any analysis of the County’s agricultural sector.

County	Statewide Ranking Among Counties for Agricultural Production
James City	93rd
Surry	31st
Gloucester	80th
Isle of Wight	12th
New Kent	87th
Mathews	85th
Westmoreland	29th

3. A rather unique challenge facing James City County is that the area outside the PSA - the “rural crescent” - isn’t much farther away from the urbanizing area than the land within the PSA, simply due to the geography of the region. Thus, the rural area is nearly as accessible as much of the PSA, and therefore subject to similar market pressures. This is in contrast to many other localities where the rural area is much farther from the urbanization pressures than the designated growth areas.

4. A three-acre minimum lot size or a three-acre average, overall density in the A-1 District is not a large enough lot size (or low enough density) to preserve the rural or agricultural character of the area, in and of itself. Other tools are necessary.

Finally, although not discussed in the 1999 Report, it would be beneficial for the County to define what it means by "rural" vs. "urban" residential development and land use. This will be helpful in implementing and defending any of the tools described in this report, and to making any refinements to the County's existing regulatory framework.

Recent Trends in Rural Development Activity in James City County

Data Sets Reviewed

- Table of Subdivisions Greater than 5 lots Outside the PSA 1990-1999
- Map of Subdivisions Greater than 5 lots Outside the PSA 1990-1999
- Residential Permits for Single Family Units 1988-98
- Residential Certificates of Occupancy 1988-98
- Map of parcels >100 acres
- Text of "Primary Principles for Rural Lands in James City County"

Analysis

The above data do not show precisely the proportion of residential development that is within vs. outside the PSA. However, a general indication of this ratio can be seen by comparing the number of lots subdivided outside the PSA to the total number of residential permits in the County. This is not a precise comparison of "apples to apples" since subdivided lots in major subdivisions do not equate to building permits. However, over the period of a full decade it does reveal a general relationship.

Proportion of Residential Activity Outside the PSA. A total of 4,911 Residential Permits were granted for Single Family Units from 1989-98, compared to only 188 total lots in subdivisions of more than five lots ("major" subdivisions) outside the PSA from 1990-1999. Thus, the lots outside the PSA were less than 4% of the total. (Note that the data on subdivisions outside the PSA does not include minor subdivisions of five lots or less, which likely causes the proportion of rural lots to be somewhat understated here.)

Capacity of Area Outside the PSA. A more detailed analysis based upon more complete data is necessary in order to make estimates of the development capacity of the area outside the PSA and to calculate its potential "life span" as a truly rural area. However, the following analysis might shed some light on this question, while falling short of providing a precise estimate.

If one assumes that the land within the PSA includes roughly 65% of the total area of the county, that would mean that approximately 50 square miles or about 32,000 acres lies outside of the PSA. (staff can provide more precise figures). If one assumes that about 30% of this area is not available for future development because it is either already developed or undevelopable, that would leave approximately 22,000 acres available for future development outside the PSA.

The above analysis does not address non-residential uses, but from a land consumption standpoint, they would be expected to represent only a fraction of the area converted for residential uses.

Assuming a gross density of five acres per lot, the *current rate* of rural residential subdivision activity would consume less than one percent of this land area each year. (Of course, the rate of subdivision could accelerate as the supply decreases and the demand increases). However, despite this apparently slow rate of conversion of rural land, it must be recognized that as the percentage of developed land increases, it could increase the pressure and rate of conversion at an increasing rate rather than a steady rate.

Thus, while the County does not face an urgent "crisis" of rural development, it does not likely have a 100-year supply of rural land. At some relatively early point in time, the proportion of developed rural land could break through a "threshold" that could cause the County to expand the PSA to include much of the rural area, ending its life as a truly rural area.

Such a "threshold" could be broken if the amount of developed land outside the PSA reached the point where the activity on it caused neighboring undeveloped properties to lose their value for non-intensive uses such as agriculture and forestry in relation to their value for intensive development. If this point was ever reached, the County might determine that preserving the small amount of rural land uses in this area no longer served an important public purpose. Pressure on the County to make such a determination could increase as land values for development increase, which would result in part by the continued development of land outside the PSA to more intensive uses. In effect, a "snowball" effect could take place.

Tools Currently in Use by James City County

Following is a summary of the major tools now used by the County for managing growth in the rural areas with a brief assessment of their use in the County to date. Note that the following summary is very general, for the purpose of providing context for this report. Each of these tools is also discussed in greater detail in Part II, following.

Urban Growth Boundary (PSA)

The Primary Service Area constitutes a de facto Urban Growth Boundary, even though a few utility lines, including community water systems are located beyond the boundary. As a practical matter, the PSA boundary separates urban land from rural land.

Large Lot Zoning (A-1)

The County's A-1 District requires a minimum lot size of three acres, which is not, strictly speaking, a "large lot" density, but is a fairly typical lot size for rural, agricultural areas in Virginia. As discussed later in this paper, a three-acre lot size has the effect of reducing or dispersing the impacts of development, but it will not, in and of itself, preserve the rural character of the district, or preserve the agricultural land resource. This is because a three-acre density is simply too high to maintain a truly rural landscape, unless a very large-scale cluster pattern was achieved (which is not practical). Over the course of time, a density of one lot per three to five acres will simply become a low density suburban or exurban residential area.

Non-Residential Uses in the A-1 District

The County's A-1 District currently permits a number of non-residential uses – some as permitted uses and others by Special Use Permit. This use list could be adjusted somewhat in order to add some potential value to land within the district, while still protecting the rural character.

Rural Cluster in A-1

The County's A-1 District currently contains a provision that permits clustering. However, it has not been used, due apparently to the requirement for a Special Use Permit approval, rather than a "by-right" subdivision process. It does permit a higher density (up to two acres per lot, rather than the base density of three acres), and does not contain a specific minimum requirement for open space, which would seem to be attractive features for a developer. If the County wishes for the cluster provision to be used, it will likely be necessary to make it a "by-right" option. If this change is made, it should include a minimum percentage of open space as well. These issues are discussed in greater detail in Part II of this report.

Rural Preservation Development Policies in 1997 Comprehensive Plan

The County's 1997 Comprehensive Plan includes a set of policies for rural development that would be more environmentally compatible than conventional A-1. These policies contain many excellent features, including the concept of permanent conservation easements on the open space areas, designing the lot layout in response to environmental features, etc. However, these policies have not been translated into zoning regulations. Again, as with the existing cluster provisions in the A-1 District, the challenge would be to incorporate these elements into the zoning regulations without creating a disincentive for using them.

Subdivision and On-site Utility Regulations

The County has several subdivision and infrastructure elements that appear to have some effectiveness in regulating rural development. These include distinguishing between major subdivisions (six or more lots) and minor subdivisions (less than six lots), and requiring stricter standards for the major subdivisions such requiring central wells.

Further refinements could make these regulations even more effective, including incentives for doing lower density development and stricter regulations for doing conventional subdivisions. These issues are discussed in greater detail in Part II of this report.

Use Value Assessment

The County currently has a Use-Value Assessment Program. (As discussed later in this report, forest land in James City County must be in an Agricultural and Forestal District (AFD) in order to qualify for use-value taxation).

Agricultural and Forestal Districts (AFD)

The County currently uses the AFD Program, with 15 active districts with a total of over 17,900 acres currently enrolled.

Conservation Easement Acquisition

Purchase of Development Rights (PDR) Program. The County has recently taken steps to implement a PDR program. The program was funded with \$1,000,000 in Fiscal Year 2002 and \$523,500 in FY 2003. Initial applications total 1,185 acres of land, although no easements have been purchased to date. It is impossible to estimate precisely how much land could be preserved at these funding levels. However, if current land valuations are maintained, one could assume an easement value of roughly \$3,000 per acre, which would preserve about 10,000 acres of land over a 30 year period, or roughly half of the land outside the PSA.

Open Space Fund. The County also has a separate fund that is used to purchase permanent and temporary conservation easements such as timber buffers and visual easements, as well as fee simple acquisitions. Usually, these acquisitions are made to preserve environmentally sensitive or aesthetically important parcels to meet the County's goals for protecting community character.

Part II. Additional Available Tools That May Hold Promise

Generally speaking, tools for managing development in rural areas can be classified into three broad categories:

- Planning Policy Tools
- Regulatory Tools
- Financial and Programmatic Tools

This analysis builds on the content of the 1999 Study, and focuses on tools that are enacted at the local level, rather than the state level. Many tools are used at both the state and local levels, and many others are authorized at the state level for actual implementation by localities at their discretion. The focus here is on all the tools that are available for use by James City County, if it chooses. Following is a list of tools identified, including those contained in the 1999 Study, with notations indicating which items are new additions and which have been updated from the 1999 Study.

•Planning Policy Tools

1. Urban Growth Boundaries / Urban Service Areas
2. Planning Policy Areas

•Regulatory Tools

1. Large Lot / Agricultural Zoning
2. Sliding Scale Zoning
3. Lot-Cap Zoning (“modified sliding scale”)
4. Rural Cluster Zoning
5. Variations on Rural Cluster Zoning
 - Conservation Design
 - Percent of Land Developed
 - Lot Size Averaging (Zoning)
 - Maximum Size of Building Lots
6. Subdivision Regulations
 - Road Access and Infrastructure Standards
 - Hydrogeologic Testing Requirements
 - Review and Approval Procedures
 - Subdivision Timing Restrictions
7. Performance Zoning
8. Overlay Districts
9. Land Use Guidance System Zoning
10. Density Transfer through Conditional Zoning

Financial and Programmatic Tools

1. Use-Value Assessment
2. Agricultural and Forestal Districts
3. Acquisition of Conservation Easements
 - Purchase
 - Lease
 - Donation
4. Rural Economic Development Initiatives
5. Special Service Districts
6. Community Development Authorities
 - Combinations of Tools
 - State Programs

Note that several tools discussed in the 1999 Report are not included in this report, including impact fees and adequate public facilities ordinances (APFO), because State enabling legislation has not been granted. While these are not rural conservation programs per se, they are tools that can help reinforce a rural conservation strategy. These are not discussed in this report because they are not yet available, although continuing efforts are being made to persuade the General Assembly to grant localities the authority to enact them, including several bills under consideration in the current legislative session.

Planning Policy Tools

1. Urban Growth Boundaries / Urban Service Areas

Designating Urban Growth Boundaries (UGB) in the Comprehensive Plan is one of the major planning policy tools for growth management, farmland and open space preservation in Virginia and throughout the U.S.

Generally, Urban Growth Boundaries are lines that separate areas that are planned for urban services (particularly water and sewer lines) from areas that are planned to remain rural in nature, without utilities or other major public facilities. Localities use a range of slightly variant names for these areas, including Urban Service Areas, Service Areas, Urban Growth Areas, Urban Development Areas, Primary Service Area, etc.

The UGB technique is a simple and cost effective tool that is becoming widely used. It serves the general planning purposes of growth management and environmental conservation, as well as farmland protection, by limiting the geographic extent of public utilities and facilities, thereby helping to concentrate new urban development in a more compact, less sprawling pattern, than might otherwise occur.

James City County currently uses this tool through its designation of the Primary Service Area (PSA). This technique is clearly a central component of the County's growth management strategy. Currently, the County uses the PSA urban growth boundary as a de facto permanent boundary separating urban growth areas from agricultural/rural areas. The County has the option of keeping this as a firm/permanent boundary, or establishing methods for an orderly expansion over the course of time. As discussed in this report, the "life" of the PSA is sufficient to maintain the boundary as a de facto permanent line. However, at some point in time, the County will need to make a "final" determination as to whether the rural areas of James City County are indeed to be forever rural.

Examples of UGB in Virginia:

- James City County
- Amelia County
- Augusta County
- Fauquier County
- Isle of Wight County
- Loudoun County
- Powhatan County
- Prince William County
- Stafford County
- Rockingham County (draft)

2. Planning Policy Areas

Planning Policy Areas are similar to Urban Growth Boundaries in concept, but may include not only those areas designated for urban services, but also rural areas to which special policies, regulations and programs may pertain.

Typically, when a coordinated scheme of planning policy areas is established in the Comprehensive Plan, every place in the locality is designated as being within one policy area or another, whether it is urban or rural in nature. The policy areas provide the framework for implementing a range of tools to achieve the desired outcome for development and conservation in all areas - urban, suburban and rural.

Examples of Planning Policy Areas in Virginia:

Amelia County
Augusta County
Loudoun County
Montgomery County
Powhatan County
Rockingham County (draft)

An example that illustrates planning policy areas is *Amelia County's Comprehensive Plan*. This plan divides the entire county into distinct geographic areas, to which different sets of land use and infrastructure policies apply. These policy areas are:

- Village Development Areas
- Corridor Development Areas
- Agricultural and Residential Development Areas
- Agricultural Areas
- Conservation Areas (floodplain, wetlands, etc)

Each of these areas has a distinct set of policies for land uses, development density, road standards, utility service, etc. These policies function as guidelines for public service decisions, rezoning decisions, and other related public policy choices. In this plan, the Village Development Policy Area also constitutes a de facto Urban Growth Boundary, as it is the designated area for public sewer and water as well as higher density development. Also, in this plan, the proposed development densities are higher in the Agricultural and Residential Development Areas than in the Agricultural Areas, the latter being the preferred area for intensive agricultural activities.

Another variation on this approach can be found in Loudoun County's Comprehensive Plan, which designate three large planning policy areas – suburban, transitional and rural. Suburban areas are essentially “urban” in that they are planned for relatively high development densities, mixed land uses and central water and sewer service. The transitional areas have lower densities and can have independent, communal water treatment facilities. Rural areas have very low residential densities, no public water or sewer service and mainly agricultural land uses.

Regulatory Tools

1. Large Lot / Agricultural Zoning

Overview of the Technique

Large lot zoning is one of the techniques in a larger category called agricultural zoning or agricultural protection zoning. Large lot zoning is simply a regulatory measure in which the minimum lot size in a designated rural zoning district is set at a large enough size so as to protect the existing agricultural activities and economy from excessive encroachment of residential and other non-agricultural land uses.

The American Farmland Trust defines a “large lot” for the purposes of agricultural protection as being 20 acres or more. This analysis, however, considers any zoning density of 10 acres or larger to qualify as a “large lot” measure. (Strictly speaking, James City County’s A-1 District is not a large lot district. Although in relative terms, it is a large lot district because it requires much larger lots than the County’s residential districts.)

In Virginia, several counties use large lot zoning and the minimum lot sizes range from 10 acres (Powhatan, Fauquier, Prince William), to 50 acres (portions of Loudoun County, adopted January 6, 2003). Except for Prince William and Loudoun Counties, most of these localities are characterized by one or more of the following features:

- The large lot zoning was established a relatively long time ago, before development pressures became intense
- The locality is not experiencing high growth pressure, and thus lot size is not a huge issue
- The agricultural industry is large, valuable and intensive and farm owners and operators actually want real protection from encroachment of residential uses

A key exception to the some of the above features is Loudoun County, which just recently adopted very rigorous rural zoning standards after three years of planning study. The thrust of Loudoun’s effort is to protect its remaining rural land base in spite of the growth pressures coming to it from the east.

(It is important to note however, that while Loudoun is experiencing high growth pressures and rising land values, it does have a viable agricultural industry and economy. While the agricultural industry has changed dramatically in the past three decades, from large cattle and dairy farms to smaller part-time specialty farms, it remains one of the leading counties in Virginia in certain agricultural products including horses and hay production).

Also note that Loudoun’s new zoning rules provide density incentives for clustering. In the areas now zoned 20 acres per lot, owners can develop at an overall density of 10 acres per lot if the lots are clustered to save open space, and in the areas zoned 50 acres, owners can develop at an overall density of 20 acres per lot if the lots are clustered.

In some other states, the minimum lot size in large lot / agricultural protection districts is even larger than in Virginia. In the Midwest and in California, for example, there are counties with minimum lot sizes of over 100 acres. Again, these tend to be in areas that have relatively little development pressure in relation to farmland values and agricultural productivity/income, or in areas where farms are very large and extensive due to soil or climate conditions. (Note also that in some localities in Virginia where a version of sliding scale zoning is used, the effective minimum lot size and/or density is 40 acres or more per unit, but these examples are discussed under the Sliding Scale technique below).

Non-Residential Uses

In addition to residential lot sizes, another concern for agricultural zoning districts is non-residential uses. The County's existing A-1 district provides a substantial number of non-residential uses, many only by Special Use Permit. Some of these uses may not be compatible with a long-term rural environment, such as lumber and building supply stores, manufactured home parks (individual mobile homes must be permitted) and others.

Yet, some other non-residential uses may be appropriate to add, including rural resorts, country inns and bed and breakfast inns and additional non-residential uses as home-occupations. Further, some counties have developed detailed provisions for allowing greater intensity of rural home occupation uses.

The list of permitted and permissible uses should be based on the compatibility that each use will have with a rural environment. Uses that have high traffic generation, require large amounts of water, create noxious outputs, or other similar kinds of impacts, would generally not be appropriate for the rural areas. Two ways to allow more flexibility in uses are to require larger amounts of land for any use that has the potential of creating negative impacts on adjacent rural properties. By requiring more land, the effective intensity of the use is reduced, thereby helping to mitigate the impact. The other way is to require a Special Use Permit process, which allows the County to impose conditions.

In determining what uses to allow in the rural areas, the County might generate an exhaustive list of potential uses, based upon likely economic opportunities in the local area and the experiences of the County as well as other counties in the region. Then each use can be examined to determine the potential type and magnitude of impacts. Based upon that analysis, the County can judge whether the use should be allowed by-right, by SUP or excluded from the rural areas (A-1 District).

Examples of Large Lot Zoning in Virginia

- Fauquier County (10 acre minimum)
- Hanover (10 acre minimum)
- Prince William (10 acre minimum)
- Rappahannock County (25 acre minimum)
- Loudoun County (20 acre and 50 acre minimums with cluster incentives)

Advantages of Large Lot Zoning include:

- Inexpensive - it helps protect farmland from encroachment of residential development through use of the police power, and thus at a low public cost
- Reduces conflicts between farms and non-farm neighbors
- Helps prevent sprawl and reduces public infrastructure costs
- Can be used in combination with other tools such as easement purchase, clustering, etc.
- Simple - it is relatively simple to implement and easy to explain
- Can help limit land speculation by stabilizing land values and development expectations
- Most effective in areas where the farm economy is strong and farmers want protection from development

Disadvantages of Large Lot Zoning include:

- It is often difficult to implement without support of the farming community, due to the potential impact on the market value of the land. It is typically controversial in areas where the value of the land for development is far higher than its value for farming, and where farmers have the “impermanence syndrome” or the expectation of selling the land for development in the foreseeable future.

Note that in Loudoun County, the recent downzoning was indeed controversial, but political support came from a broad range of non-farm interests that were politically stronger than the now smaller farm population.

- Not permanent - it is a temporary measure and can be changed easily by local legislative action
- Does not preserve farms or farming, per se, but rather merely provides the setting to allow farming to continue with less disruption
- Unless a strong cluster provision is included (as discussed below) large lots will consume more farmland per unit than smaller lots. However, if the lots are large enough, the lot itself may be considered to be a small farm, and thus is not actually consuming farmland, but simply making farming activities more intensive.

2. Sliding Scale Zoning

Overview of the Technique

Sliding Scale zoning essentially requires that the larger the initial size of the parent parcel prior to subdividing, the lower the permitted density. The permitted density decreases on a “sliding scale” as the size of the parent parcel increases. The rationale for sliding scale is that higher densities should be allowed on smaller tracts because they are difficult to farm and may have already passed out of agriculture into the residential land market.

This can best be illustrated by an example from Clarke County, as follows:

<i>Size of Tract of Land</i>	<i>Number of Single Family Detached Dwellings Permitted</i>
0 - 14.99 acres	1
15 - 39.99 acres	2
40 - 79.99 acres	3
80 - 129.99 acres	4
130 - 179.99 acres	5
180 - 229.00 acres	6
230 - 279.99 acres	7
280 - 329.99 acres	8
330 - 399.99 acres	9
400 - 499.99 acres	10
500 - 599.99 acres	11
600 - 729.99 acres	12
730 - 859.99 acres	13
860 - 1,029.99 acres	14
1,030 or more	15

Minimum Lot Size is 1 acre; maximum lot size is 2 acres

Using the above scale, a landowner with an existing parent parcel of 200 acres would be permitted to divide it into six lots for dwelling units, for an average density / lot size of 33.33 acres. Each new lot would have to be no greater than two acres, with the remainder of the tract (188 acres) remaining in open farmland or forest land.

Examples in Virginia

Clarke County
Fauquier County
Montgomery County

Advantages of Sliding Scale Zoning include:

- Limits development of a farm tract; allows residential development to occur on the site without unduly encroaching on farm activities
- Focuses protection on the large tracts which are typically most important for farming
- Uses the police power, and thus protects land at a low public cost
- Can be used in combination with other tools such as maximum lot sizes, clustering, etc.
- Relatively simple to implement
- Most effective in areas where the farm economy is strong and farmers want protection from development

Disadvantages of Sliding Scale Zoning include:

- Often difficult to implement without support of the farming community, due to the restrictive nature of the tool
- Temporary measure - can be changed easily by local legislative action (note however, that sliding scale ordinances may require that upon recording a sliding scale subdivision, a permanent easement must be placed on the tract, "locking in" that low density subdivision).

3. Lot-Cap Zoning

A variation on sliding scale zoning the "lot cap" technique is used in several jurisdictions in Virginia. It is known by various other names, including "conservation lots", "one step system", and "fixed-lot", among others. (In the 1999 report it was referred to as "modified sliding scale".)

Essentially, this technique establishes a maximum number of lots that may be subdivided from a given parent parcel, regardless of the size of the parcel. In some versions, a fixed number of lots is permitted for the land area up to a given amount, and then for the remainder of land on a larger parcel, a large lot size such as 40 acres is required of all subsequent subdivided lots.

An example of this approach is shown in the table below. If the maximum number of permitted lots for any parent tract is five and the minimum lot size of the subdivided lots is 3 acres, the effective permitted density for a range of parent tract sizes would be as follows:

<i>Size of Tract of Land</i>	<i>Number of Single Family Detached Dwellings Permitted</i>	<i>Effective Average Density</i>
10 acres	3	1 unit per 3.33 acres
20 acres	5	1 unit per 4 acres
50 acres	5	1 unit per 10 acres
100 acres	5	1 unit per 20 acres
200+ acres	5	1 unit per 40+ acres

Examples in Virginia

- Albemarle
- Isle of Wight
- Bedford County
- Spotsylvania County

The pros and cons of these various versions of lot caps are similar to the sliding scale provision, except that these modifications are simpler and easier to understand. Further, depending upon the specific provisions, this provision can be made either more or less restrictive than a conventional sliding scale ordinance.

4. Rural Cluster Zoning

Overview of the Technique

Rural cluster zoning essentially provides that when a rural residential subdivision is created, it be designed so that the dwelling units are clustered together on a relatively small portion of the tract, leaving the remainder available for agricultural and other open space uses. There are many variations on this theme, in Virginia and other states. The range of options includes, but is not limited to the following:

- Rural cluster provisions can be voluntary options within a rural or agricultural zoning district.
- Rural cluster provisions can be mandatory, or the only permitted subdivision option within such a district.
- Rural cluster provisions can require rezoning in order to implement (Loudoun’s Rural Village provision and Isle of Wight’s rural cluster with density incentives, described below).

Examples in Virginia:

Loudoun. Voluntary rural cluster. Previously, a “Rural Hamlet” cluster was permitted as a by-right subdivision in the old A-3 District (3-acre density); a larger “Rural Village” with a slightly higher density is permitted through a rezoning process. After the County’s recent downzoning, density incentives are provided to encourage clustering.

In the area now zoned 20 acres per lot, owners can develop at an overall density of 10 acres per lot if the lots are clustered to save open space. In the areas zoned 50 acres, owners can develop at an overall density of 20 acres per lot if the lots are clustered. The larger, more intensive Rural Village provision has been eliminated from the rural areas.

Hanover . Mandatory rural cluster to obtain maximum permitted density. Sixteen clustered lots are permitted per each 100 acres with a minimum of 70% open space required. If cluster is not used, minimum lot size / density is 10 acres per dwelling in the agricultural zone.

Isle of Wight . Voluntary with density incentives. In order to get a higher density than the restrictive agricultural zone allows (about 40 acres per lot), the owner may cluster the subdivision lots and achieve a density of 1 per 10 acres if 50% of the tract is preserved in open space, 1 per 8 acres if 60% is preserved, and 1 per 5 acres if 70% is preserved.

Potential advantages of Rural Cluster include:

- May achieve essential County goals for resource preservation while still meeting the desires of rural landowners to obtain a high development value for their property.
- May allow roads and dwellings to be sited with less disruption to views from the public road right-of-way and/or with greater buffer distances between neighboring properties.
- May help meet County's need to protect its groundwater supply, yet does not overly restrict development potential because it may allow dwellings to be sited on smaller lots while the septic fields are dispersed into the surrounding open land.
- May help to reduce the costs of development by requiring less grading and road construction, thus keeping housing costs to a minimum.
- May provide greater capability for the County to "retrofit" communal water or sewer lines in the event that such facilities are ever necessary.

Potential disadvantages include:

- Doesn't completely "solve the problem" of preserving agriculture or rural character, especially at an overall density of one dwelling per three acres. At that density, even rural clustering may produce a more "suburban landscape" over the course of time and leave little if any agricultural activities or even truly rural views.
- Market demand is uncertain for smaller lots surrounded by open space as opposed to larger individual lots. Developers often fear that smaller, clustered lots surrounded by permanent open space and protected views can not compete in the market against conventional, larger, "estate" lots because the demand for rural estates may be driven by the desire for privately controlled "space," rather than for preserved views and convenient life style.

- Additional design effort is required to lay out the cluster subdivision
- There are inherent conflicts in land use needs - good farmland is often the best for septic fields, causing conflicts between managing waste disposal and preserving good land.
- Technical concerns - although many cluster ordinances have resolved most of the technical issues, concerns can still arise regarding such items as:
 - Who will own and maintain the preserved open space that surrounds clustered lots?
(solution: allow it to be in large lots with permanent conservation easements prohibiting further subdivision)
 - How will it be kept from being eventually developed, thus destroying the purpose of the cluster?
(solution: require permanent conservation easements prohibiting further subdivision)
 - Who will maintain the roads?
(solution: require public roads or strong HOA)
 - How will water supply and wastewater disposal be handled?
(solution: allow off-lot septic easements; strict well requirements; community water systems)

5. Variations on Cluster Zoning

Conservation Design

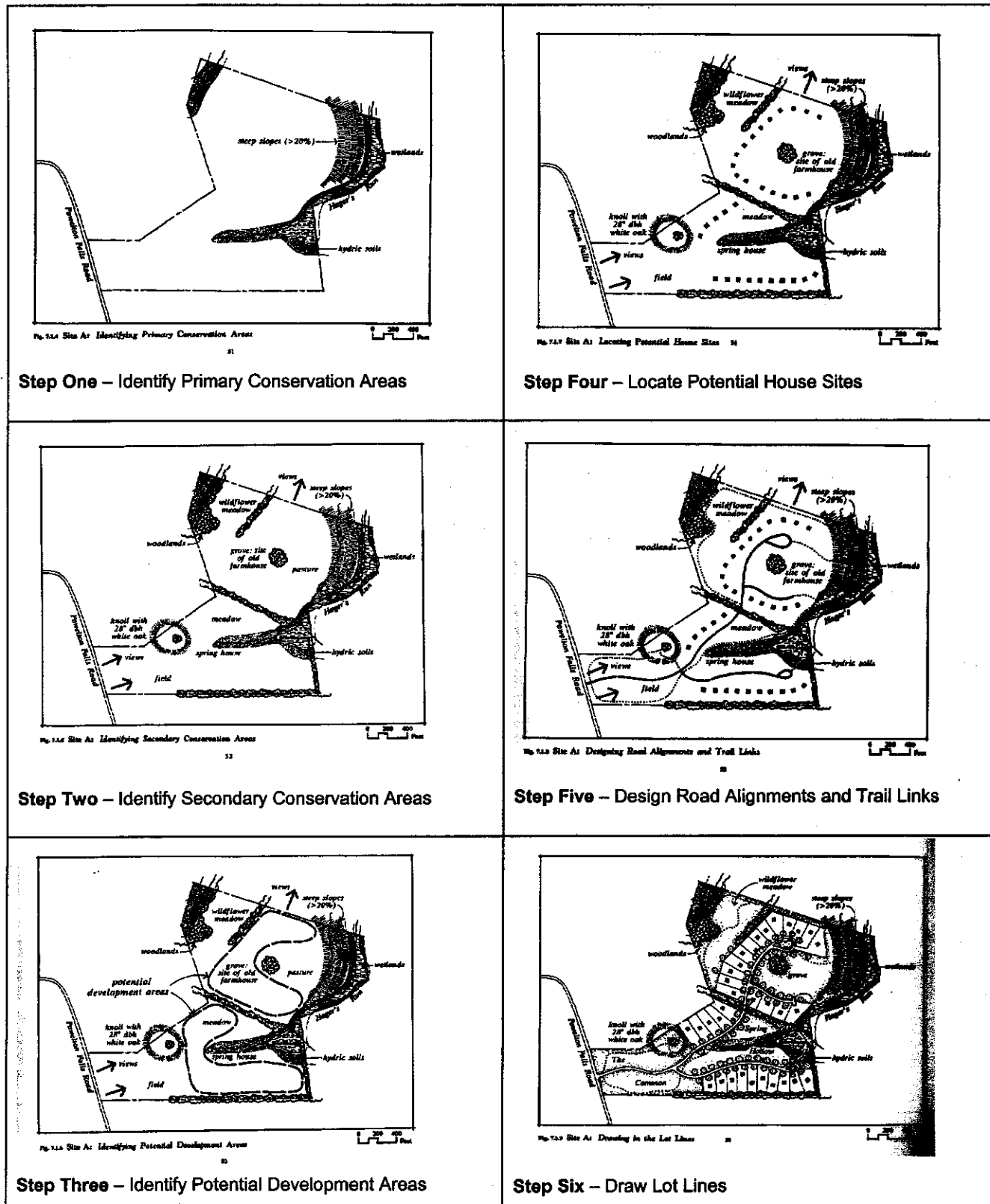
A recently conceived variation of rural clustering has been proposed in the writings of Randall Arendt, which he calls *Conservation Design*.

The purpose of this design process is to ensure that a property's natural and historic features are preserved to the greatest extent during the layout of the subdivision. It would entail a mandatory design process that involves county review staff in the design process at an early stage to ensure that the subdivision designers have identified all important natural and historic resources of the site and have maximized their preservation prior to submission of a subdivision plat to the county for formal review. "Primary conservation areas", including steep slopes, river corridors, sensitive mountainside areas, must be preserved. "Secondary conservation areas", including prime agricultural soils, forests, historic structures, scenic corridors and views, and planned greenways/trails, are to be protected if their protection does not require the landowner to exceed the total open space set aside requirement for the district.

The major steps in the design process envisioned by Arendt are shown in the following graphic.

Major Steps in Designing "Open Space Subdivisions"

Excerpted from "Designing Open Space Subdivisions" by Randall Arendt, 1994



Percent of Land Developed

One variation on rural clustering is to specify a maximum percentage of the parent parcel or tract that can be converted to non-agricultural or non-open space uses. Such a provision can be relatively simple and may permit a great deal of flexibility to the developer in terms of lot size and unit type on that portion of the land that is permitted to be converted.

Examples in Other States:

East Hopewell Township, PA. The ordinance limits development to 10 percent of the total tract area and sets a minimum lot size of one acre.

Lot Size Averaging (Zoning)

Another variation on rural clustering is to specify the average minimum lot size for a rural subdivision, but permit the developer to achieve that average by creating some lots that are larger and some smaller. Again, the advantage of this variant is to provide more design flexibility in order to respond to unique site conditions and to the market demand. Potential disadvantages include the risk that the small lots will be grouped near the existing public road, creating the perception of greater overall density than actually exists.

Example in Virginia:

Powhatan County. In the rural, agricultural zoning districts, the Zoning Ordinance establishes a minimum lot size (for example two acres) and a different average lot size (for example five acres) so that, for example, each three acre lot must be "off-set" by the creation of a seven acre lot so that the average remains no less than five acres.

Maximum Size of Building Lots

Another variation on the rural cluster concept is to set a *maximum* rather than *minimum* lot size for rural subdivisions. This in effect forces a clustered layout, with some percentage of open space remaining after subdivision. The percentage of open space that remains will be determined by the actual maximum lot size required in relation to the maximum overall site density required.

One potential disadvantage of this approach is that it would require that the open space be held in common and/or be a strictly agricultural parcel with no "development rights" remaining on it. From a practical, long term administrative standpoint, this approach may be less practical than allowing open space parcels to have one dwelling unit on them, with a permanent easement that prohibits further subdivision or additional dwellings.

Examples in Virginia:

Clarke County (in conjunction with sliding scale zoning). Typical overall density of 15+ acres per unit, with a maximum lot size of two acres per unit.

6. Subdivision Regulations

There are various ways to restrict and control rural development through the use of the subdivision ordinance, either solely or in combination with the zoning ordinance. Two prominent examples include:

Incentives for Lower Density

This approach can take many different forms and use a wide range of provisions in various combinations. The basic concept is to establish more stringent requirements on rural subdivisions that have higher densities, and fewer requirements on those with lower densities. This can create a substantial difference in the cost and risk of subdividing at lower densities versus higher densities, and thus create a powerful incentive for landowners to choose to develop at a lower density. Examples of the kinds of provisions that can vary in accord with density in order to create these incentives include the following:

Road Access and Infrastructure Standards. Low-density rural subdivisions can have less stringent standards for on site roads, including permitting private roads and/or access easements as opposed to state standard roads; low-density subdivisions can also have less stringent road frontage requirements on public roads. Another similar incentive is to require communal water or sewer systems for conventional or standard rural subdivisions, and not require them for low-density subdivisions.

Hydrogeologic Testing. Low-density rural subdivisions can be exempted from normal testing requirements for groundwater supply, or subject to less stringent requirements.

Review and Approval Procedures. Low density rural subdivisions can be exempted from the normal subdivision procedures or be subject to less stringent review procedures compared to regular subdivisions, thereby providing a quicker and cheaper approval process.

These and other subdivision requirements, when applied in carefully designed combinations, can create powerful incentives for landowners to voluntarily choose the lower density option. Note that a critical requirement of this approach, however, is that when the low density option is selected, a permanent open space easement that prohibits further subdivision of the tract must be recorded in conjunction with the final record plat.

Minor Subdivision Timing Restrictions

A variant on the idea of providing differential approval procedures for minor subdivisions is to restrict the number of lots that can be divided from the parent parcel in any one year time period using the minor subdivision process. Some localities actually prohibit subdivisions in the agricultural zoning district (other than family subdivisions as required by state law) and require that in order to subdivide, the land must be rezoned to a residential district. These types of restrictions have not yet been tested in court.

Examples in Virginia:

Loudoun (Incentives for Lower Density)
Augusta (Minor Subdivision Timing Restrictions)
Rockingham (Limits on Major Subdivisions)

Various combinations of subdivision and zoning incentives and disincentives may be worthy of further consideration by James City County at this time. These are discussed further below.

7. Performance Zoning

The basic concept of performance zoning is that the regulation of land uses is based upon the actual physical characteristics of the land use in relation to established, measurable criteria and standards. Performance criteria factors can include traffic generation, noise, stormwater runoff, etc. In theory, any use could locate in any area, as long as the development standards are met so that impacts are within established acceptable ranges. Thus, the regulations are not focused on limiting uses, as much as they are focused on controlling the quality and type of site planning and construction to limit off-site impacts.

For example, Buckingham Township, Pennsylvania, has a performance-based ordinance based on the Kendig model ordinance which establishes regulations for density, floor/area ratios, open space ratios, impervious surface ratios and minimum site areas. As long as the minimum ratios are met, the developer has a great deal of flexibility as to use and unit type.

In theory, performance standards should be simple measurements of impact, such as noise levels at the site boundary, quality and quantity of water run-off, number of vehicle trips per day, etc. The advantage of this approach is that the level of regulation is limited to controlling the actual impacts of the development, rather than what "might" happen or what happens "typically". However, the disadvantages are practical ones, including the difficulty of:

- Setting a reasonable but effective quantitative standard for every impact of every type of development

There are dozens of kinds of development impacts that performance standards could control. Performance standards are sometimes used to control just a few key impacts and are combined with conventional zoning regulations. Regardless, the challenge is to determine the appropriate measurable standard of impact for each issue and for each type of development or land use district. Noise, quality of water run-off, vehicle trips per day, air quality impacts, etc.

- Monitoring compliance to the set standards

Because performance standards require continuous compliance, monitoring is more important than it is for conventional zoning regulations. In conventional zoning regulations, the land use density, building setbacks and buffers are fixed numbers and are expected to indirectly control impacts. So monitoring is relatively simple. With

performance standards, violations of the ordinance are only evident by measuring ongoing site activity rather than just initial structural improvements.

- Correcting violations

If violations do occur, it can be more difficult to enforce corrections, because the structures that produce the impacts may already be in place.

*Examples in Other States:
Buckingham Township, PA
Franklin County, MA*

8. Land Use Guidance System Zoning

The Land Use Guidance System (LUGS) is a version of performance zoning. It was adopted in Bedford County, Virginia in 1989 and worked rather well. However, in late 1998, the Board of Supervisors rescinded LUGS, in part because the process was too time consuming and cumbersome. The Board replaced it with a more conventional zoning ordinance that uses a modified sliding scale provision in the rural areas, as described above.

Like other performance standard techniques, the LUGS system was aimed at mitigating impacts rather than segregating them geographically. A development applicant was required to have a pre-application meeting with the staff to identify potential issues prior to submitting a formal application. Once an application was received, it was scored by the staff in accord with Comprehensive Plan criteria on a scale in which a perfect score was 200 and a passing score was 100. Following this evaluation, a "compatibility hearing" was conducted to allow public review and comment. This was not a public hearing, per se, but rather an informational meeting, with no voting taken at the meeting. The results of this process led to decisions as to necessary mitigation techniques. One advantage of this type of process is that it tended to "weed out" unsuitable projects and allowed all stakeholders to work toward consensus. Most applications were ultimately approved and most approvals were compatible with the Comprehensive Plan since Plan criteria were such a major component of the scoring system.

The Fort Collins, Colorado and the Hardin County, Kentucky ordinances use variations on the scoring system, using established criteria. Both allow virtually any use in any location as long as the criteria are met.

*Examples in Virginia: Bedford County (recently replaced by a modified sliding scale system)
Examples in Other States: Hardin County, KY; Fort Collins, CO*

Some types of performance standards may merit further pursuit by James City County at this time, as discussed further below.

9. Overlay Districts

Overlay Districts are zoning districts that are applied to defined areas as additions to the zoning regulations established by the underlying "base" zoning district. Overlays are typically used to provide additional protection for special environmental resources such as floodplains, historic sites, and steep slopes. Various types of overlay districts are used throughout the commonwealth and by localities in other states.

The location and extent of an overlay district can be mapped (such as historic sites) or it can be defined through a performance definition (such as slopes in excess of 25%). Often, overlay provisions do not affect the permitted uses or development densities of the underlying base district, but rather provide additional standards for review and approval that must be met in order to develop land within the overlay area.

In James City County's rural areas, the major road corridors might be candidates for corridor overlay districts that would provide special requirements for access management, building setbacks, landscaping, etc. Another possible candidate for an overlay district would be groundwater recharge areas. If these can be mapped, special requirements for hydrogeologic testing within these areas might be provided by an overlay district, as well as increased provisions for setbacks from well sites or limits on the intensity of land uses to protect recharge areas.

10. Density Transfer through Conditional Zoning

Density Transfer is a concept that was derived from the same principles as Transferable Development Rights (TDR), which is discussed below. Density Transfer is a way of circumventing the lack of enabling legislation for TDRs in Virginia. Density Transfer is accomplished by combining two tools that localities are currently permitted to use under existing provisions of the Virginia Code. These are conditional zoning and open space easement acquisition.

Density Transfer is accomplished by allowing (encouraging) applicants for a rezoning of land in designated urban areas to "proffer" permanent open space easements on farmland in designated rural areas, as part of the approval for the urban rezoning. In return for proffering the open space as a way of mitigating the impacts of the proposed development, the developer is then granted additional density than would otherwise be approved.

Effectively, this technique functions like a TDR program, except that it has to be voluntary because it relies on the conditional zoning process. However, if the density incentives established in the Comprehensive Plan to guide the review and approval of density transfers are sufficient, density transfer has the potential to be an effective rural land preservation tool.

The only example of using density transfer for farmland preservation in Virginia in a programmatic fashion is in Loudoun County which saved a few thousand acres through this program. The main disadvantage to the program which has constrained its success in Loudoun, is that a developer will tend to "proffer" on-site amenities that will not only satisfy County policies but will also help market his development, rather than proffer open space that may be located miles from the site and thus provide little if any benefit to the development project itself. The developer will tend to make proffers of roads, school sites and other infrastructure, and the County will tend to accept these, as a practical matter, rather than push for open space preservation at the expense of such practical amenities.

Given the complexities and difficulty of implementation, Density Transfer is not worthy of a significant effort by James City County at this time.

Example in Virginia: Loudoun County

Financial and Programmatic Tools

1. Use-Value Assessment

Currently used in James City County, Use Value Assessment (also commonly known as "land use") is a state guided program available to localities in which the locality can tax farmland and open space land at its "use" value rather than its fair market value. In most rapidly growing jurisdictions, this typically reduces the real estate tax on the land by a significant amount, thus making it easier to continue a farming business. The program is voluntary to the landowner and typically requires a small minimum qualifying acreage and minimal requirement for annual gross sales of agricultural products.

Use Value is used in nearly every state and in most counties in Virginia. However, it has not been proven effective in stopping or inhibiting sprawl development and farmland conversion in localities that are under great market pressure for suburban development. It is a good and important tool, but a relatively weak one.

2. Agricultural and Forestal Districts

Currently used in James City County, Agricultural and Forestal Districts are also a state-guided program available to localities. Like Use Value Assessment, AFDs are voluntary. They are established at the request of landowners who must assemble at least 200 acres of contiguous land and be approved for a district by the Board of Supervisors. Districts last from 4 to 8 years in Virginia and can be renewed. Being in a district ensures a landowner that his land will continue to be eligible for Use Value Assessment, even if the program is otherwise rescinded by the locality. The AFD also provides some extra protection against certain public infrastructure improvements. In and of itself, an AFD does not change the zoning within its borders, although an AFD can be a factor in the locality's zoning decisions and planning policies. Like Use Value, AFDs are an important but relatively weak tool for farmland preservation.

Note that currently in James City County, forest land must be in an AFD in order to qualify for use-value taxation, and the terms of the AFDs are typically on the shorter end of the spectrum rather than the longer end.

3. Acquisition of Conservation Easements

- Purchase
- Lease
- Donation

Purchase of Development Rights (PDR)

James City County is now pursuing a PDR program. The County currently has \$1,523,000 funded for the PDR program. Fourteen applications covering 1,185 acres were received from landowners. The first purchase proposal went to the Board of Supervisors in December, 2002. This tool was discussed in the 1999 Report, but since this program is now underway, it is not discussed in detail here. Since 1999, Loudoun, Albemarle and Fauquier Counties have also instituted PDR programs.

Examples:

*James City County, VA
Loudoun County, VA
Albemarle County, VA
Fauquier County, VA
Virginia Beach, VA
Suffolk County, NY
King County, WA
Howard County, MD*

Lease of Development Rights (LDR)

Lease of Development Rights (LDR) is the same as Purchasing Development Rights except that the term of the easement can be as short as five years, under amendments to Virginia's Open Space Land Act made in 1981 at the urging of officials from Loudoun County. To date, no Virginia locality has enacted an LDR program, but the concept has the potential to be a good alternative to Use Value Assessment, because the locality can set the terms of eligibility, easement duration and restrictions, and compensation, whereas under Use Value, the state sets all the rules. However, like Use Value, an LDR program is a temporary solution to the problem of farmland and open space conversion. However, it could be far more effective and fair than Use Value and could "buy time" for a County to put additional programs in place.

Donation of Development Rights / Tax Incentives (Federal and State) / Limited Development

Both the Federal and State governments provide estate and income tax incentives for donating conservation easements on land. For landowners in the upper tax brackets, these provisions can be quite lucrative. Counties can promote the donation of easements as a way of helping landowners plan their estates and reduce their tax burden. Such efforts can be combined with PDR programs as noted above.

Another related approach to easement acquisition is to encourage landowners to plan their entire properties for a combination of conservation easement sale or donation and limited residential development. The objectives would be to help landowners maximize the value of the ultimate disposition of their property through a combination of easement sale or donation and low density, sensitively designed development of the tract, thereby preserving the long-term agricultural integrity of the land resource.

Examples in Virginia:

Fauquier and Loudoun Counties have had thousands of acres of conservation easements donated to the Virginia Outdoors Foundation by landowners interested in preserving their land and/or taking advantage of the state and federal tax provisions.

Albemarle County has a program of actively working with landowners to facilitate the donation of easements.

4. Rural Economic Development

Another type of program for agricultural land protection is to strengthen the farm economy so that farmers can remain in business and thus keep their land in agricultural rather than be forced to sell it for development. Often these programs are aimed at sponsoring marketing efforts for local products, promoting educational and recreational services provided by farmers ("agri-tourism"), fostering "branding" efforts for local goods, and sponsoring farmers markets to give growers direct access to customers.

Information was obtained from the Agricultural Development Officers in the following jurisdictions:

- Loudoun County, Virginia [Louis Nichols]
- Fauquier County, Virginia [Peter Mitchell]
- City of Virginia Beach [Melvin Atkinson]
- Montgomery County, Maryland [Jeremy Criss]

Loudoun County, Virginia

The Agricultural Development Officer is a staff member within the County's Department of Economic Development, and reports to the Director of Economic Development. The major duties of the Agricultural Development Officer in Loudoun involve public relations and marketing efforts for the local agricultural industry. The Agricultural Development Officer helps local farm businesses identify and develop new markets and products, as well

as strategies for delivering to those new markets. This is in contrast to the role of the local cooperative extension office which focuses more on technical issues of product development, including crop and livestock production. The Agricultural Development Officer is the only employee in this office.

Specific duties of the Agricultural Development Officer are as follows:

- The Agricultural Development Officer oversees program development for the County's agricultural industry by planning, coordinating, implementing and evaluating agricultural development programs and services; assessing needs and capabilities of agricultural land use; gathering, analyzing and disseminating research data on the local agricultural industry, including production, marketing, fiscal and economic factors and the impact of local, regional and national trends and resources; managing automated database of farms, farm products and product values.
- The Agricultural Development Officer promotes the local agricultural industry by developing and managing a marketing plan; writing, editing and designing promotional materials and research reports; coordinating activities with other County departments, private groups and merchants involved with the agricultural industry; planning, coordinating and implementing agricultural industry tours and other projects, programs and activities.
- The Agricultural Development Officer establishes and coordinates communication between the Agricultural Advisory Committee, the Board of Supervisors, County agencies and the agricultural community by acting as staff liaison and providing staff support to the Agricultural Advisory Committee.
- The Agricultural Development Officer assures compliance with federal, state and local laws, regulations and grants standards by developing, recommending and analyzing County agricultural policy, preparing and monitoring the Program budget; and encouraging individual local farmers, private organizations, businesses, prospective farmland purchasers and agricultural related businesses to locate or expand in the County.

Major Job Components of the ADO's work for FY 99 include the following:

Job Component #1:

Promote Loudoun Agriculture and Related Agricultural Businesses (30% weighting)

- Develop and implement a marketing plan (the "Loudoun Valleys Initiative") to promote Loudoun agriculture and to develop new markets for agricultural products.
- Support efforts to develop the biotechnology industry within the County.
- Participate in relevant local and regional events that promote Loudoun agricultural interests.
- Maintain and improve an agricultural development home page for the World Wide Web.
- Complete a major agri-tourism marketing initiative.
- Establish and promote events that are consistent with the marketing plan.

Job Component #2:

Enhance Existing Markets and Develop New Markets for Loudoun's Agricultural Products (15% weighting)

- Promote and strengthen the Eastern Regional Farmers Market.
- Encourage the entry of new farmers and increase the customer base attending the market.
- Conduct targeted market research aimed at the eastern area of the County to determine the perspective of eastern residents of agriculture so that the farmers may know how to better market their products.

Job Component #3:

Provide Staff Support for the Rural Economic Development Plan (40% weighting)

- (Attend REDP meetings and provide other staff support for producing the plan)

Job Component #4:

Provide Support and Evaluation of Policy Issues to the Agricultural Advisory Committee (10% weighting)

- Attend AAC meetings
- Serve as representative from the Economic Development Department and provide technical support, agendas and minutes.

Fauquier County, Virginia

In Fauquier County, the Agriculture Development Officer is a new position, established in September, 1998, and reports to the County Administrator. The Officer's work is guided by a Board-appointed Agricultural Advisory Committee, established in 1995. The Agricultural Development Officer is the only employee in this office. The main tasks of the Officer focus on marketing efforts. These include:

- 1) developing markets and finding products to meet market demands
- 2) public education, including farm tours
- 3) business development and agricultural retention

Specifically, the Agriculture Development Officer:

- Provides staff support and liaison to the Agricultural Advisory Committee
- Serves as primary contact for public, media and community groups regarding Agricultural Advisory Committee and County's Agricultural Development Program; produces press releases and establishes media relations to reach non-farm public; speaks to public and community organizations
- Implements programs to increase agricultural awareness, including working with schools; develops agriculture page on Fauquier web site
- Compiles and analyzes information relating to agriculture and impact of agri-business on the local economy

- Develops and recommends strategies designed to assist in the creation and retention of local markets for locally grown and/or manufactured agricultural products; develops mailing list for direct marketing guides; produce directory of Fauquier ag products
- Works with Chamber of Commerce and agricultural community to develop farm tours and other programs to promote agri-tourism
- Researches PDR and LDR programs
- Monitors relevant local, state and federal policies and programs relating to agriculture
- Monitors and evaluates local taxation policies as they relate to agriculture
- Investigates methods to promote the family farm in Fauquier County; reviews land transfer ordinances

Some recent activities include:

- Annual fall farm tour which attracts 4,000 visitors
- Created logo for Fauquier County farm products
- In July will have a farm dinner with all Fauquier County food products, including Fauquier produced beef, peppers, tomatoes, cucumbers, sweet corn, etc.
- Looking at land preservation, including PDR and estate planning efforts
- Maintain close relations with cooperative extension service

City of Virginia Beach

In Virginia Beach, the Agriculture Director oversees a separate Department of Agriculture. The Director reports directly to the City Manager and oversees a technical assistant. The purposes of the Department are to serve as a "pathway" for rural issues to be presented to the City Council; to serve as a voice for the rural and farming community; provide staff support to the Council-appointed Agricultural Advisory Commission (established in 1994); provide recommendations to the Council on rural matters; administer the City's Agricultural Reserve Program (Purchase of Development Rights); and generally provide recommendations and advice to the City Council on rural issues.

Montgomery County, Maryland

Montgomery County was one of the first communities in this region to establish the position of Agricultural Development Officer, which was done in the 1970's. It was this office that served as the inspiration and model for Loudoun County to establish its own similar office in the 1980's.

The office is now the Agricultural Services Division within the Department of Economic Development. The Director of the Agricultural Services Division is what we have known previously as the "Agricultural Development Officer". The Division is physically located together with Cooperative Extension, Soil Conservation District and other agricultural agencies in order to facilitate close working relationships. The Director oversees a technical assistant and an administrative aide.

The major duties of the Division are:

- Provide advice on land use review processes to farmland owners
- Provide staff support to the Agricultural Preservation Board which oversees the Purchase of Development Rights program
- Administer the Purchase of Development Rights program
- Provide staff support to the Agricultural Advisory Committee which monitors agriculture legislation issues
- Coordinate efforts and funds for control of noxious weeds
- Provide technical assistance in administration of the Transferable Development Rights program
- Coordinate 12 farmers markets
- Coordinate annual farm tour of 20 farms
- Provide advice on potential new agricultural products and markets

Summary of Agricultural Development Officers

While they vary greatly in the precise scope of their duties, the common features of these offices include:

- Providing staff support to an Agricultural Advisory Committee or Commission
All four officers perform this function.
- Public relations and education - promoting local agriculture and educating the public
This function is most important in the Loudoun and Fauquier offices.
- Identifying and developing new markets and products, including Agri-Tourism
This function is most important in the Loudoun and Fauquier offices. This is not a major function of the Virginia Beach office.
- Developing and administering land protection programs
This function is most important in the Virginia Beach and Montgomery County, Maryland offices.

5. Special Service Districts

The Code of Virginia provides localities with the power to establish service districts within the locality to provide “additional or more complete services of government than are desired in the [jurisdiction] as a whole.” The purpose is to allow certain designated areas within the locality to receive (and pay for) additional levels of service than are desired by other areas of the locality. These services can include such things as solid waste disposal, parks, and public utilities, etc. This is a way of recognizing and providing for different levels of service demand in a diverse community and allowing the local tax burden to reflect that difference.

This provision can be used to fund community water systems or to acquire and preserve open space, or other similar kinds of public purposes that could enhance the viability of designated rural areas so as to reduce the pressure to develop them more intensively.

Special Service Districts may be created by the governing body of a county, city or town by adopting an ordinance which sets forth the following provisions:

- Name and boundaries of the proposed district
- Description of facilities and services proposed within the district
- Proposed plan for providing such facilities and services
- Description of the benefits which can be expected from the facilities and services provided within the district

Special Service Districts have been used in many localities in Virginia for a variety of targeted public improvements, such as sewer and water facilities, providing street lighting to certain neighborhoods, providing extra security, refuse service, and maintaining sound barriers between residential areas and major highways.

In James City County's rural areas, special service districts could be used to raise money from specific areas to support the Purchase of Development Rights program, or to localize the operational costs of communal water systems, for example.

Advantages of Special Service Districts include:

- Local option; relatively easy to adopt by the governing body
- Funds are raised from the immediate beneficiaries rather than the public at large

Disadvantages of Special Service Districts include:

- Funding comes from higher real estate taxes on a relatively small number of landowners.

6. Community Development Authorities

The Code also allows for the creation of Community Development Authorities which have some of the same powers provided for Special Service Districts. However, Community Development Authorities are specifically given the power to fund public school buildings to issue revenue bonds and to purchase conservation easements.

Community development authorities, which may be created by local governments pursuant to Section 15.2-5152 of the Code of Virginia, are relatively new, but potentially powerful tools in Virginia. The community development authority (CDA) concept differs from the service district concept in a number of significant ways. A CDA may be created by the governing body only after petition of at least 51% of the land area or assessed value of land within the proposed boundaries of the authority.

A CDA can also issue revenue bonds payable solely from revenues received by the authority, whereas the service district cannot enter into long-term bonded debt. This makes the CDA potentially more flexible and able to generate a higher amount of funding to devote toward purchase of development rights.

The Community Development Authority provision has also been used widely in Virginia to help finance and provide services and infrastructure required for specific development projects, sometimes ones located in a part of the County that would otherwise not be developed or provided with significant public infrastructure or services.

Examples are the Dulles Town Center Mall in Loudoun County and the Celebrate Virginia project in Stafford and Spotsylvania Counties. The CDA approach may be most useful in open space preservation if targeted toward the purchase of development rights in geographically limited resource protection areas, such as mountainside areas, public water supply watersheds or groundwater recharge areas.

Advantages of Community Development Authorities include:

- Local option
- Funds are raised from the immediate beneficiaries rather than the public at large
- Bonding authority

Disadvantages of Community Development Authorities include:

- Limits the funding source to a smaller pool of landowners
- Requires petition of majority of the land area to establish

7. Combinations of Tools

Most of the above tools can be used in various combinations. For example, it common for Agricultural protection zoning to be used as an underpinning for a PDR program.

Most of the zoning and subdivision techniques are also combined in various combinations as well, particularly rural cluster development, and the various subdivision regulations that treat low-density rural development differently than higher density urban development. The potential combinations of the tools identified in this report are too numerous to list exhaustively.

8. State Programs

As noted above, these are not discussed in this report. They include Right-to-Farm Laws, State Tax Incentives, State-funded PDR programs, and other rural resource conservation programs and regulations.

Concluding Points

Many questions will likely arise as the County considers the various options for managing rural development. Among these is the issue of whether or not any of these potential tools might accelerate the rate of development in the rural areas. Several observations can be made regarding this issue:

First, it is clear that the tools that are focused purely on conservation such as Purchase of Development Rights are not likely to increase the rate of development. The same can be said of those options that clearly put additional constraints on rural development, such as significant increases in minimum lot size. However, those tools that offer a compromise or middle ground between development and conservation, such as cluster development, could have the effect of encouraging development, even if that development is in a form that is more compatible with long term rural conservation.

Second, the concern about the rate of rural residential development should be kept in context with the County's overall goals for the rural area. For example, one of the recommendations in this report is to discourage 3-acre lot development while encouraging larger lot development (as well as clustering). To the extent that incentives are provided for very large lots and disincentives are provided for conventional lots, it is possible that an increase in the rate of rural lot formation could occur. However, even if such increases occurred, the larger lots would be designed to maintain a rural environment, even if they are developed. Thus, the accelerated rate of development might actually serve the County's long term goal of maintaining a permanent rural area. For if large tracts of land remain open and available for development, there is the risk that they might someday be served by sewer extensions from the PSA, which would cause the conversion of the rural area to an urban area. This balance and trade-off should be kept in mind when assessing the potential impact of these tools.

Third, even for those tools that appear likely to cause an increase in rural development activity, it is difficult if not impossible to know for sure whether that will indeed happen. Thus, a very diligent monitoring effort needs to be carried out subsequent to adoption of any of these tools.

In fact, this question is a useful "guiding principle" with which to judge these tools. The test can be stated as follows: *If the tool is fully and totally effective and used to the maximum extent, will the result be consistent with the County's long term goals for the rural area?* Certainly very large lots would meet this test. Small cluster lots might meet the test. Conventional 3-acre lots would clearly fail the test.

