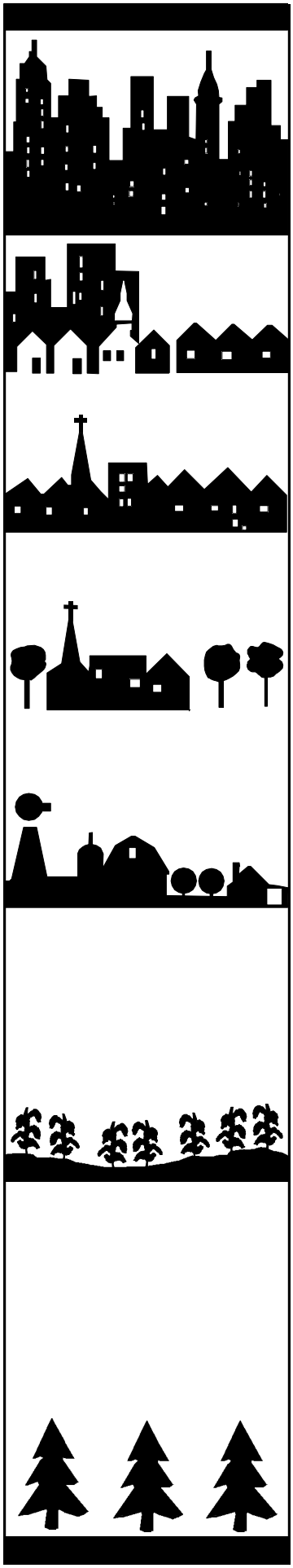

Managing Maryland's Growth

Models and Guidelines

Smart Growth: Designating Priority Funding Areas

This document may not reflect current law and practice and may be inconsistent with current regulations.

The Smart Growth Areas Act of 1997

Maryland Office of Planning

The Maryland Office of Planning

State of Maryland
Parris N. Glendening, *Governor*

Maryland Office of Planning
Ronald M. Kreitner, *Director*

November 1, 1997

This booklet was written by the Planning Assistance and Neighborhood Development Unit of the Maryland Office of Planning as a service to local governments and planning officials. The principal authors are Mike Nortrup and Larry Duket. Graphic design and production by Mark S. Praetorius. Word processing and other valuable support services by Betsy Zentz.

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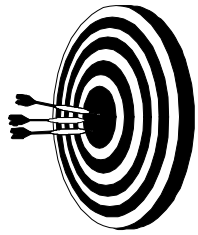
INTRODUCTION

Funding for Growth-Related Projects will be Targeted



Smart Growth: Designating Priority Funding Areas is part of an on-going series of Models and Guidelines produced by the Maryland Office of Planning to provide technical assistance to Maryland's local governments.

The "Smart Growth" Areas Act of 1997, Chapter 759 of the Laws of Maryland of 1997, requires the State to target funding for "growth-related" projects to Priority Funding Areas (PFAs) beginning October 1, 1998. Growth related projects are defined in the legislation and include most State programs which encourage or support growth and development such as highways, sewer and water construction, economic development assistance, and State leases and construction of new office facilities. (See the Appendix for a complete definition of growth-related projects.)

The Act designates specific PFAs throughout Maryland, including municipalities, land inside the Baltimore Beltway, the Maryland portion of land within the Capital Beltway, and enterprise zones.

Counties may also designate PFAs based on land use, water and sewer service, and residential density criteria in the Act. *Smart Growth: Designating Priority Funding Areas* is written to assist counties in this designation process. Included are suggested methods for designating PFAs, procedural and format options for sending PFA maps to the Maryland Office of Planning, model definitions, and additional tools that local jurisdictions can use to implement the "Smart Growth" Areas Act of 1997.

The Act gives local governments flexibility to identify and determine the boundaries of the communities, rural villages, and other public investment centers that will constitute Priority Funding Areas. This includes the adoption of methodologies for calculating land capacity, future land needs, and residential densities. Flexibility is intended to encourage innovation and to give local governments discretion on how to designate PFAs. Thus, definitions and methodologies in *Smart Growth: Designating Priority Funding Areas* should not be interpreted as “official" State guidelines. Local jurisdictions may use the information contained in this publication, modify it, or develop independent approaches, consistent with the law.

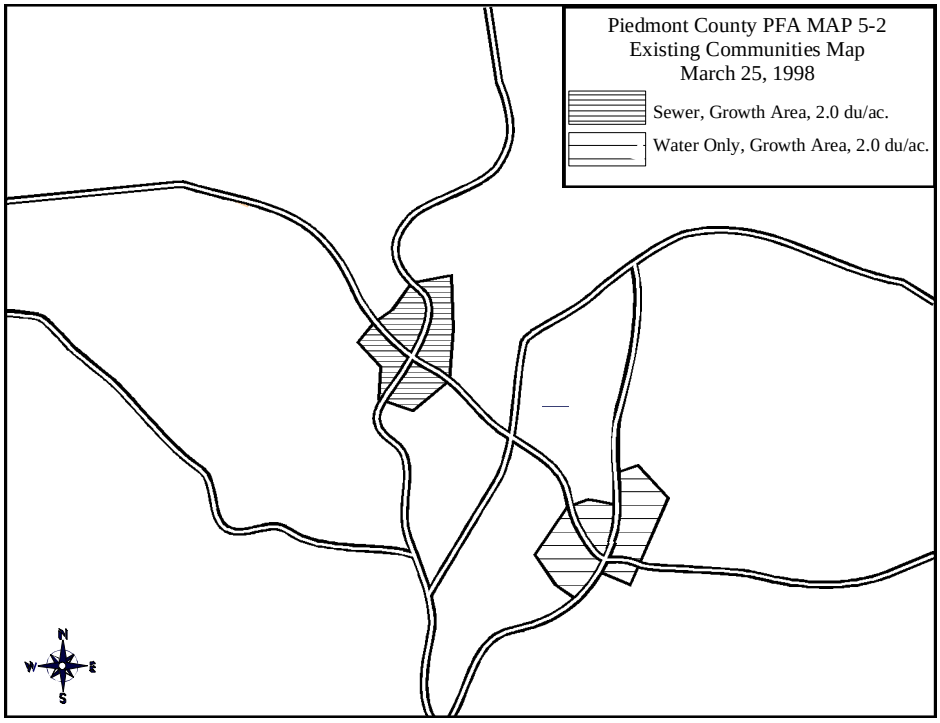
Use the Comprehensive Plan as a Guide

As a matter of general advice, local governments should have a formal PFA mapping and certification program housed within the local Planning Department. Decision-making rules and procedures should be established where needed, and these rules should be applied consistently, with flexibility for unusual or uncommon circumstances. The Comprehensive Plan should be used to guide the mapping of PFAs in order to avoid arbitrary or capricious designations.

Coordination is Important

One area in which a coordinated State-county strategy seems prudent involves the format and procedure for submitting PFA certifications and maps. This booklet includes model certification letters and identifies mapping standards most helpful to the Maryland Office of Planning as it undertakes the task of producing standardized maps for use by State funding agencies. This booklet also includes specific guidance for transferring electronic map data to the Maryland Office of Planning.

Chapter One summarizes the PFA designation criteria and includes model definitions. Chapter Two contains models for determining density. Chapter Three addresses the special case of designating "rural villages." Chapter Four elaborates on limitations placed upon the type of growth-related project that may be funded in a community with water only and a rural village. Chapter Five deals with the Act's overall requirement that the PFA designation process be based on an analysis of land capacity and demand. Chapter Six suggests a format and procedures for submitting PFA certifications and maps to the Maryland Office of Planning.



CHAPTER ONE:
PFA CRITERIA AND TERMINOLOGY

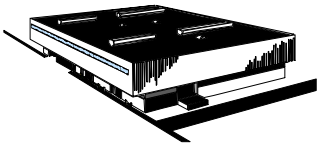
Some PFAs are Designated in the Act

Several specific types of PFAs are designated by the Act. These are Municipal Corporations, including Baltimore City; Designated Neighborhood Business Development Areas (per Article 83B §4-202); Enterprise Zones (per Article 83A §5-402); Certified Heritage Areas (per Financial Institutions Article §§13-1101 and 13-1111) that are located within locally designated growth areas; and areas inside the Capital and Baltimore Beltways.

Also, Counties May Designate PFAs

The Act also enables counties to designate Priority Funding Areas. The boundaries of these PFAs will be drawn by counties using land use, developed density, zoning density, and water and sewer service criteria contained in the Act. Counties will send PFA maps and certifications to the Maryland Office of Planning. This information will then be applied in a standardized format by the Office to prepare State PFA maps for use by State funding agencies. PFA designation criteria are grouped into categories of "types" of eligible areas, as shown in the Table below.

Types of Areas that may be Eligible for PFA Designation (See Section 5-7B-03 of the Finance and Procurement Article, Annotated Code of Maryland)
Areas Zoned (in Garrett County, Areas Classified in the Plan) for Industrial and Employment
Existing Communities with Sewer
Existing Communities with Water Only
Areas Beyond the Periphery of the Developed Portion of an Existing Community
Areas Other Than an Existing Community
Rural Villages

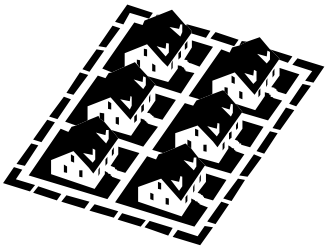


Industrial and Employment Areas

Areas zoned principally for industrial use as of January 1, 1997 may be designated as a PFA; there are no additional criteria. In Garrett County (where county-wide zoning does not exist), areas that are classified as industrial in the Comprehensive Plan as of January 1, 1997 may be designated as PFAs.

An area zoned or classified as industrial after January 1, 1997 must be served by an existing public or community sewer system and must be located within a locally designated growth area in order to qualify as a PFA.

In addition, an area zoned or classified for employment uses and located within a locally- designated growth area may be designated as a PFA provided there is existing public or community sewer service, or, plans for service are included in the approved 10-Year Water and Sewer Plan. These uses will generally occupy a majority of the area or, in terms of activity and intensity, will be the principal or dominant uses on the land. Zoning categories that qualify may permit commercial, office, manufacturing and research uses. Mixed-use, transit-oriented development, planned unit development, and comprehensive design zones may also feature significant employment uses.



Existing Communities With Sewer

PFA designation criteria differentiate between existing communities and those areas that may become communities in the future. "Existing communities" refers to the built environment as of January 1, 1997, and, in particular, to existing residential and mixed use development and associated support activities and land uses. An existing community may be designated as a PFA provided it is served by a public or community sewer system and is within a locally designated growth area. The portion of the community designated for residential use or development must have an average density of at least 2.0 units per acre.

The Act recognizes that not all of an existing community may be fully developed. Undeveloped portions of the community may be designated as a PFA provided there is a permitted average density of not less than 2.0 units per acre.

An existing community can be an unincorporated area that may be large or small. While it has no official boundaries, a boundary of sorts may be formed by highways, natural features, or a significant stretch of undeveloped land that is considered part of the community's edge. While communities often feature mixed uses, their dominant use is residential. County residents from within and beyond the community generally recognize it as a distinct entity and can generally identify where it begins and ends. Communities are intra-connected in the sense that residents use primarily the same local shopping areas, schools, recreational sites, and cultural amenities. Examples of communities are such well-recognized, traditional settlements as Lutherville in Baltimore County, Finksburg in Carroll County, and Arnold in Anne Arundel County.

Existing Communities With Water Only

If an existing community has water service, but not sewer service, it may be designated as a PFA if it is within a locally-designated growth area and if the portion of the community designated for residential use or develop-

ment has an average developed density of at least 2.0 units per acre. However, the Act places two restrictions on the kinds of State projects that can be funded since these areas generally occur in rural and slow-growth areas. Fundable projects must serve to maintain the character of the community, and must not serve to increase the growth capacity of the community except for in-fill and limited peripheral development.

Because there are restrictions on what the State may fund in these PFAs, county certifications and maps should specifically identify PFAs that have only water service to ensure that funding requests are processed in an appropriate manner. The terms "maintaining character" and "limited peripheral development" are discussed in Chapter Four.

Areas Beyond the Periphery of Developed Portions of an Existing Community

The Act also allows counties to certify areas "beyond the periphery" of the developed portion of existing communities if these areas receive public or community sewer. The existing community must be within a locally designated growth area, and the area beyond its periphery that is to be designated as a PFA must have a permitted average residential density of at least 3.5 units per acre to qualify. Under the Act, the Maryland Department of the Environment may fund a sewer system prior to the time the area is actually certified as a PFA by the county, if the system will serve an area that has a permitted average density of at least 3.5 dwelling units per acre.

Areas Other Than Existing Communities

The Act contains criteria for certifying PFAs that are not associated with, and are removed from, existing communities. To be eligible, areas must be within a locally designated growth area, within the planned sewer and water service area as delineated in the approved 10-year Water and Sewer Plan, and, in that portion of the area designated for residential use or development, there must be a permitted average density of not less than 3.5 units per acre. Finally, the designation of such areas must reflect a long-term development policy for orderly growth and an efficient use of land and public services (these concepts are discussed below, at Terminology and Concepts; see "long-term development policy").

Rural Villages

The last category of eligible PFAs is the rural village. There are many small unincorporated communities in Maryland that are logical centers for rural development that supports the surrounding rural economy and landscape. There are no sewer, water, or density requirements that must be met for designating rural villages as PFAs. However, the rural village

must be identified in the county Comprehensive Plan as of July 1, 1998. This can be done in either map form or as a simple listing of rural villages by name and location. If an area is not identified as a rural village by July 1, 1998, it cannot be certified as a PFA. The boundary of a rural village PFA is to be defined by the periphery of the developed portion of the village as of July 1, 1998. For suggestions on how to define and map this boundary, see Chapter Three.

Rural villages, by definition, exist as part of a larger rural setting, thus (as in the case of communities with water only) the law contains limitations on the growth-related projects that may be funded. Fundable projects must serve to maintain the character of the community, and must not serve to increase the growth capacity of the community except for in-fill and limited peripheral development. Because there are restrictions on what the State may fund in these PFAs, county certifications and maps should specifically identify PFAs that are rural villages to ensure that funding requests are processed in an appropriate manner. The terms "maintaining community character" and "limited peripheral development" are discussed below and in Chapter Four.

Terminology and Concepts

As local governments plan for PFA designation, certain terms, phrases, and concepts in the "Smart Growth" Areas Act of 1997 may require operational definition in order to apply the process in a rational, equitable, and consistent manner. The following model definitions may be used or adapted. Statutory references are included and refer to the Finance and Procurement Article of the Annotated Code of Maryland.

[A PFA Designation must be based on an] "Analysis of the land area needed to satisfy demand for development at densities consistent with the Master [or Comprehensive, General, or similar term] Plan." § 5-7B-03(g)(2).
The county's determination of the amount of land needed to accommodate the projected population growth at densities consistent with the Comprehensive Plan. Chapter Five contains suggested methods for the analysis. Modified or alternative methods are encouraged, particularly where adaptations are needed to account for specific local conditions, experience with other methodologies, and availability and nature of data.

"Approved 10-year Water and Sewer Plan." § 5-7B-03(c)(1)(ii), et. seq.
A functional Plan developed under State law that is certified as consistent with the Comprehensive Plan by the Planning Director, adopted by the county governing body, reviewed by the Maryland Office of Planning, and

approved by the Maryland Department of the Environment under the Environment Article, Title 9, Subtitle 5. Several criteria in the Smart Growth Areas Act of 1997 are based on the Water and Sewer Plan. Related terms include:

"*Area is served"* by sewer, see e.g., § 5-7B-03(b)(2), means that public or community sewer is immediately available to the PFA in terms of the timing and sewer service maps articulated in the Water and Sewer Plan.

"[P]lanned to be served" in the approved 10-year Water and Sewer Plan, see e.g., § 5-7B-03(e)(1)(i), means that a public or community sewer or water system is planned for the PFA or may reasonably be expected to serve the PFA within 10 years of State approval of the Plan or amendment to the Plan.

A "*Public or community water and sewer system"* includes publicly or privately-owned water and sewer systems that serve at least two lots.

Area where the principal uses are for employment. § 5-7B-03(c)(1) and (2).
An identified area within which the primary function is to provide jobs through one or more of the following land uses, or uses similar to these: offices, commercial establishments, industrial processing, and manufacturing. These uses will generally occupy a majority of the area or, in terms of activity and intensity, will be the principal or dominant uses on the land. Certain employment areas may qualify for designation as a PFA.

Average density and permitted average density. § 5-7B-03(d)(1)(i) and (d)(3)(i).
"Average density" describes developed residential areas within a community according to the average number of dwelling units per acre on a parcel or group of parcels devoted to residential use. "Permitted average density" describes undeveloped areas according to the average number of dwelling units permitted by zoning. See Chapter Two for suggested models.

[Analysis of the] Capacity of land areas available for development. § 5-7B-03(g)(1).
The product obtained by multiplying the amount of vacant, in-fill, and redevelopable acreage available for growth and development in each zoning classification, times the density that the zone allows. Land constrained by physical and environmental conditions, easements, or other development-limiting factors, does not figure into this calculation. See Chapter Five.

Dedicated for public use by easement in perpetuity or fee acquisition. Sec 5-7B-03(h)(1)(i).
Land which has been purchased outright or preserved through permanent easement that runs with the land, and which will be used for a public facility or a public purpose. Such land must be excluded when calculating residential densities. See Chapter Two.

Dedicated recreational use. § 5-7B-03(h)(1)(ii).
Land specifically designated for recreational use through a deed, subdivision plat, site plan, comprehensive plan, functional plan, or other document which lends either legal or policy authority to such designation. Such land must be excluded when calculating residential densities. See Chapter Two.

"Excluding land" § 5-7B-03(h).
Density is calculated "excluding land" that is dedicated for public use by easement; dedicated for recreational use; under an agricultural easement under the State program or a State-certified local program; used for cemetery purposes; identified by local government as a stream and buffer, steep slope, habitat, or 100 year floodplain on which development is prohibited by local ordinance; or is delineated by local government as a non-tidal wetland on which development is prohibited by State or local law or ordinance. See Chapter Two.

In-fill development. § 5-7B-03(g)(1).
Construction, reconstruction, conversion, erection or similar activity on land, which in most cases, is partially or completely surrounded by lands that are already developed. The potential for in-fill development is a required component of the analysis of land capacity. See Chapter Five.

Limited peripheral development. § 5-7B-03(d)(2)(ii) and (f)(2).
The first of two special tests that pertain to existing communities that have water but no sewer, and to rural villages. In these PFAs, the State may not fund a project that serves to increase the growth capacity except for "limited peripheral development" and in-fill. Limited peripheral development is defined at §5-7B-01(e) of the Finance and Procurement Article and means "development that is contiguous to an existing community and does not increase the size of the existing community or village by more than 10 percent of the existing number of dwelling units." See Chapter Four.

Locally-designated growth area. § 5-7B-03(C)(2) et. seq.
Section 5-7B-01(B) defines this term as "...an area determined by the county to be suitable for development in compliance with Article 66B, §3.05 of the [Annotated] Code." Growth areas may be identified in the county Comprehensive Plan through statements or maps in the Plan.

[PFA designation represents a] Long-term development policy...for... orderly growth and an efficient use of land and public services. § 5-7B-03(e)(2).
A rule that applies to "areas other than existing communities" in determining whether they qualify for PFA designation. The phrase means that the PFA designation is consistent with a growth policy that scales and paces both developed acreage and availability of infrastructure capacity to the specific demands of future population, with the goal of preventing either shortages or excess capacities that may prevent planned development or cause sprawl, leapfrog, or other inefficient patterns of development or use of public services.

The phrase also means that the location, size, land use, and development density of these PFAs is consistent with the recommendations and standards specified in the Comprehensive Plan. Consistency with the approved 10-year Water and Sewer Plan is also important in determining if the designation of a PFA meets the required policy.

"Orderly growth" adheres to the pattern, scale, use, and timing of development that is recommended in the Comprehensive Plan. It generally proceeds outward from the leading edge of existing developed areas in concert with the phased extension of public infrastructure.

PFAs designated under this section of the law should be based on an analysis of land that will be required by population growth under densities recommended in the Comprehensive Plan. That is, the size of PFAs in each locale should be scaled to meet the needs of the population anticipated in that locale. Scaling PFAs in this manner helps to illustrate that the designation is consistent with the long term development policy that is required in the Act.

To show that the designation of PFAs represents an efficient use of land and public services, PFAs should be areas planned for the full range of public services and should have a density of at least 3.5 units per acre, preferably under a flexible form of zoning that allows the full density to be realized. Finally, PFA designations that may encourage expansion of existing sprawl or strip development should be avoided.

Periphery of the developed portion of the village. § 5-7B-03(f)(1(ii).
The legal basis for drawing the PFA map boundary for rural villages, constituting an imaginary line generally linking the outer tier of developed lots, as of July 1, 1998, by connecting those parcels' lot lines, or an imaginary line drawn after field study, based on a perceptual analysis of what reasonably constitutes the village. See Chapter Three.

Projects that maintain the character of the community. § 5-7B-03(d)(2)(ii) and (f)(2).
The second special test that pertains to existing communities that have water, but no sewer, and to rural villages. In these areas, otherwise fundable projects are limited to those that serve to maintain community character.

Community character is a function of the physical attributes of a developed area including its street pattern; land use composition, pattern, and density; setbacks and housing type; architecture and materials; and public places.

The State will consider the impacts that project funding may have on community character including significant changes in the community's size, land use composition, road network, and scale and mass of buildings. Planning issues such as zoning stability, land subdivision, and growth pressure will be considered. Funded State buildings, such as offices, must be sensitive to community character.

Ideally, each Comprehensive Plan that identifies communities and villages should include information about their physical character. The Plan should contain policies about certain aspects of community character that are to be protected and recommendations on how to achieve protection.

The Act imposes no requirement that subsequent private development served by the funded project, directly or indirectly, be of a certain character. However, local governments are encouraged to require adherence to design, site planning, and other tools aimed at maintaining or improving community character.

See Chapter Four for more discussion on community character.

CHAPTER TWO: DETERMINING RESIDENTIAL DENSITY

Introduction

The law places density requirements on certain PFAs. For example, communities in existence prior to January 1, 1997, may qualify as a PFA if there is an average density of at least 2.0 units per acre in portions of the community designated by the local government for residential use or development. Areas other than existing communities must have a density of at least 3.5 units per acre to qualify as a PFA. In developed areas, actual average density is determined, while in undeveloped areas, the permitted average density is determined.

The local zoning ordinance defines areas and establishes densities for residential use and development and will be an important tool for designating PFAs. In Garrett County (because there is no county-wide zoning), land classified for residential use in the County's Comprehensive Plan will guide the PFA mapping process.

Residential zoning is generally an expression of the maximum density permitted by right. In calculating permitted density, planners may assume the maximum allowed, unless local practice, preference, or judgment differs.

Certain zones, such as mapped planned unit development, transit overlay, and comprehensive design zones may yield a range of densities, depending on future development scenarios, land use mixes, and other factors. Counties may derive density for such zoning categories based on experience, detailed study, or common-sense guidelines developed specifically for the PFA process.

The Act requires that certain lands protected by easement and local ordinance be deducted from the density calculation; see the definition of "excluding land" in Chapter One. Planners seeking to determine even more precise residential densities may also "deduct" from calculations land used for roads, sidewalks, and utilities. In no case should density calculations include "double-counting" of acreage excluded and deducted.

The following model and examples show how to determine if an existing community meets the 2.0 unit per acre density requirement for certification as a PFA.

Models for Density Calculations

EXISTING COMMUNITY

Calculations may be approached as a series of screening tiers through which the most obvious areas meeting PFA density criteria are identified first, with simple calculations and little effort, except for recording the results for use in the certification process. Many counties, particularly

those with geographic information systems (GIS), community planning sections, and sub-area and small-area plans will already have much of the density data needed to certify PFAs.

The screening approach assumes that counties have both factual and intuitive understandings of the density ranges that exist in the built environment and can thus make quick judgments for many portions of the county using easily accessed data. The objective is to "weed out" existing areas that simply don't require (or justify) a lot of research and analysis to determine whether density is at least 2.0 units per acre. This should allow more time to identify "closer calls" in areas having lower developed density and in areas with large occurrences of excluded land. (Note: the law states that excluded land *shall* be deducted from density calculations; this booklet treats the deduction as a required step that becomes moot if the density threshold is met by preliminary calculations.)

Example: Tier One
The screening method would first address communities having considerably higher built density than 2.0 units per acre, and that are predominantly residential in nature. Here, a simple formula based on the "number of dwelling units" divided by the "acreage in the community" may be adequate for reaching the 2.0 units per acre threshold.

> Assume the following:
> Acreage comprising the community: 200
> Number of units: 500
> 500 divided by 200 = 2.5 units per acre

Here, the developed density meets the 2.0 units per acre requirement, thus there is no need to use a more complex procedure such as that shown in Tiers Two or Three.

Example: Tier Two
As the built density gets closer to the 2.0 unit-per-acre-floor, it will become more important to use more accurate calculations. Tier Two involves a deduction from the "acreage in the community" of land not used for residential purposes. The method and formula needed here are:

1. Delineate the boundaries and acreage of the residentially-developed portions of the community.

2. Determine the total number of residential units within the area. Partially constructed units should be included in that total.

3. Divide the total number of units by the total acreage of residentially developed land and determine whether the result meets the 2.0 units per acre criterion.

> Assume the following:
> Acreage in the community: 200
> Residentially developed acreage in the community: 170
> Number of units: 375
> 375 divided by 170 = 2.2 units per acre

Example: Tier Three

An even more accurate method is to base the calculation on just the developed residential acreage within the community, with exclusions for things such as cemeteries and lands protected by local ordinance, with an option to also deduct acreage dedicated to roads, sidewalks, and utilities. The steps in determining average density under this method are:

1. Delineate the boundaries of the residential portions of the community.

2. Identify acreage of areas allowed by law to be excluded from density (see Chapter Two, definition of "excluding land").

4. Estimate, if needed, acreage used for roads, sidewalks, and utilities. Estimates can be based on local experience; a 10 to 20 percent deduction is a guideline that can be used.

5. Determine the acreage remaining after excluded lands and lands used for roads and utilities are deducted.

6. Determine total residential units on the remaining acreage

7. Divide remaining acreage figure by residential units to determine if the area meets the density test.

Assume the following:

Residentially developed acreage in the community:	200
Acreage dedicated for public use (meeting hall and day care center):	2
Recreational acreage (ball diamonds):	5
Acres of locally delineated non-tidal wetlands and locally regulated stream buffer:	3

Acres developed with dwellings: 200 minus 10 = 190

Number of units on those acres: 360
360 divided by 190 = 1.9 units per acre

With optional deduction for sidewalks, roads and utilities:
190 acres minus 15% = 162 acres
360 divided by 162 = 2.2 units per acre

This area meets the 2.0 units per acre test by using the optional deduction.

UNDEVELOPED AREAS

The law requires that the undeveloped portion of existing communities and areas other than existing communities must have a certain "permitted average density" in order to qualify as a PFA. Permitted densities are those allowed by the zoning, usually expressed as a maximum number of dwelling units per acre, but also expressed as a range of densities, as well as a certain percentage allowance or allocation over a portion of a large-tract project, such as may be the case with a planned unit development zone.

The zoning ordinance and map is used in delineating PFAs in the undeveloped portions of existing communities and in areas other than existing communities. Again, the acreage of excluded land may be discounted when calculating permitted density. A methodology for determining “permitted average density” follows.

1. Use the zoning map and ground or GIS surveys to determine the boundaries of vacant, residentially-zoned land that lies within locally designated growth areas. Acreage zoned for mixed use or planned unit devel-

opment (or similar zones) may be included and should reflect an acreage figure that represents the maximum proportion that can be devoted to residential development under zoning.

2. Determine total acreage of vacant residential land in each zoning category.

3. Identify the acreage in each zoning category that is to be "excluded."

4. Subtract that acreage from total residential acreage in each zoning category.

5. Multiply vacant residential acreage in each residential zoning classification, times the units allowed by that classification.*

* For mixed-use, planned unit development, TDR receiving areas, comprehensive design zones, or other types of zoning classifications in which the allowable residential densities may vary, the county may assume maximum permitted residential density for each classification in determining density. Local governments may assume lower densities but should consistently interpret permitted density in calculating average densities, holding capacity, and land demand.

6. Add the products to determine the total acreage and residential units allowed.

7. Divide total residential units allowed by the total residential acreage to yield the permitted average density.

Again, simple calculations can be used if all vacant acreage under consideration as a Priority Funding Area can be residentially developed.

Example:
Assume that the vacant land under consideration has the following residential zones, permitted densities, and vacant acreage:

Land Zoned R-2: 2 units per acre, 100 acres = 200 units permitted
Land Zoned R-4: 4 units per acre, 100 acres = 400 units permitted

Total vacant acreage: 200 acres
Total unit's permitted: 600 units

600 divided by 200 = 3.0 units per acre average density.

This undeveloped land would have insufficient permitted average density to qualify as a Priority Funding Area under the 3.5 units per acre test

required of "areas other than an existing community." It would meet, however, the 2.0 units per acre test required of undeveloped portions of an existing community.

A more complex model is needed if there are lands that should be dropped from consideration in the density calculation because they are dedicated for recreational use or excluded purposes.

Example:
Assume that the vacant land under consideration has the following residential zones, allowed densities, and acreage:

R-2	2 units per acre	100 acres
R-4	4 units per acre	100 acres

Land excluded:

R-2	45 acres of sensitive areas and public open space (55 acres remain)
R-4	5 acres of dedicated public open space (95 acres remain)

Adjusted residential acreage and permitted units:

R-2	55 acres x 2 units per acre =	110 units
R-4	95 acres x 4 units per acre =	380 units
Totals	150 acres	490 units

490 divided by 150 = 3.26 units per acre permitted by existing zoning.

If this area is part of an existing community with sewerage service, it would be considered part of a PFA because it meets the 2.0 units per acre test. If it lies beyond the periphery of the developed portion of an existing community that receives sewerage, or is an area other than an existing community, it would have insufficient density to qualify as a PFA because it does not meet the 3.5 units per acre density criterion established for these areas.

CHAPTER THREE:
RURAL VILLAGES AS PRIORITY FUNDING AREAS

IDENTIFYING RURAL VILLAGES IN THE PLAN

The "Smart Growth" Areas Act allows counties to certify rural villages as Priority Funding Areas if they are designated in the Comprehensive Plan by July 1, 1998.

The Act defines a rural village as an "...unincorporated area that is primarily residential, including an area with historic qualities, that is located in an otherwise rural or agricultural area and for which new growth, if any, would derive primarily from in-fill development or limited peripheral expansion." Each county has an opportunity to certify rural villages as PFAs without having to the meet density and infrastructure requirements that the law requires of other county- certified PFAs.

In the Comprehensive Plan by July 1, 1998

The county may designate a rural village as a PFA if these villages are identified by name in the Comprehensive Plan. It may also use the Land Use Plan Map or another map to indicate the locations and names of these villages. The Plan or Plan amendment in which the rural villages are identified must be approved and adopted by the county legislative body as of July 1, 1998.

The county's Comprehensive Plan may vary in its treatment of rural villages. Some villages may be recommended for preservation and little growth, while others may serve as minor growth centers. These may be needed to absorb development that would otherwise occur on agricultural or other rural lands. Villages designated as receiving areas for Transferrable Development Rights (TDRs) are examples of villages that will act as minor growth nodes. A county should consider designating rural villages in its Plan and certifying them as PFAs if it foresees a future need for State-funded infrastructure or other projects to serve limited additional growth planned in those settlements.

DELINEATING THE DEVELOPED PERIPHERY OF A RURAL VILLAGE

Identify the Developed Periphery

Rural villages, by definition, are unincorporated. Because there is no jurisdictional boundary, some other form of identifiable edge is needed to define the area within which growth-related projects may be funded. The "Smart Growth" Areas Act states that the PFA boundary in a rural village shall be the "periphery of the developed portion" of the village.

The village's developed periphery is a planning line drawn around the aggregation of residential, commercial, and institutional structures, along with formal community open spaces, that are logically inter-connected

and generally perceived as forming the village and exhibiting common characteristics.

The county can begin delineation of a rural village PFA by using property maps to examine the size, shape, and pattern of land parcels in the general area. Many rural villages exist in the form of a small collection of residential lots surrounded by larger parcels that tend to be agricultural, rural open space, or forested land. Property records or a visual survey will identify developed parcels MDProperty View, a computerized visual system that can show vacant and occupied parcels, land use, acreage, and other data, should be of assistance.

However, additional analysis is needed to ensure that the PFA delineation does not miss good in-fill opportunities that are logical and efficient users of fundable growth-related projects. A field-based visual analysis of what reasonably constitutes the periphery of the developed portion of the rural village is helpful in adjusting the initial boundary that was based on maps and data alone.

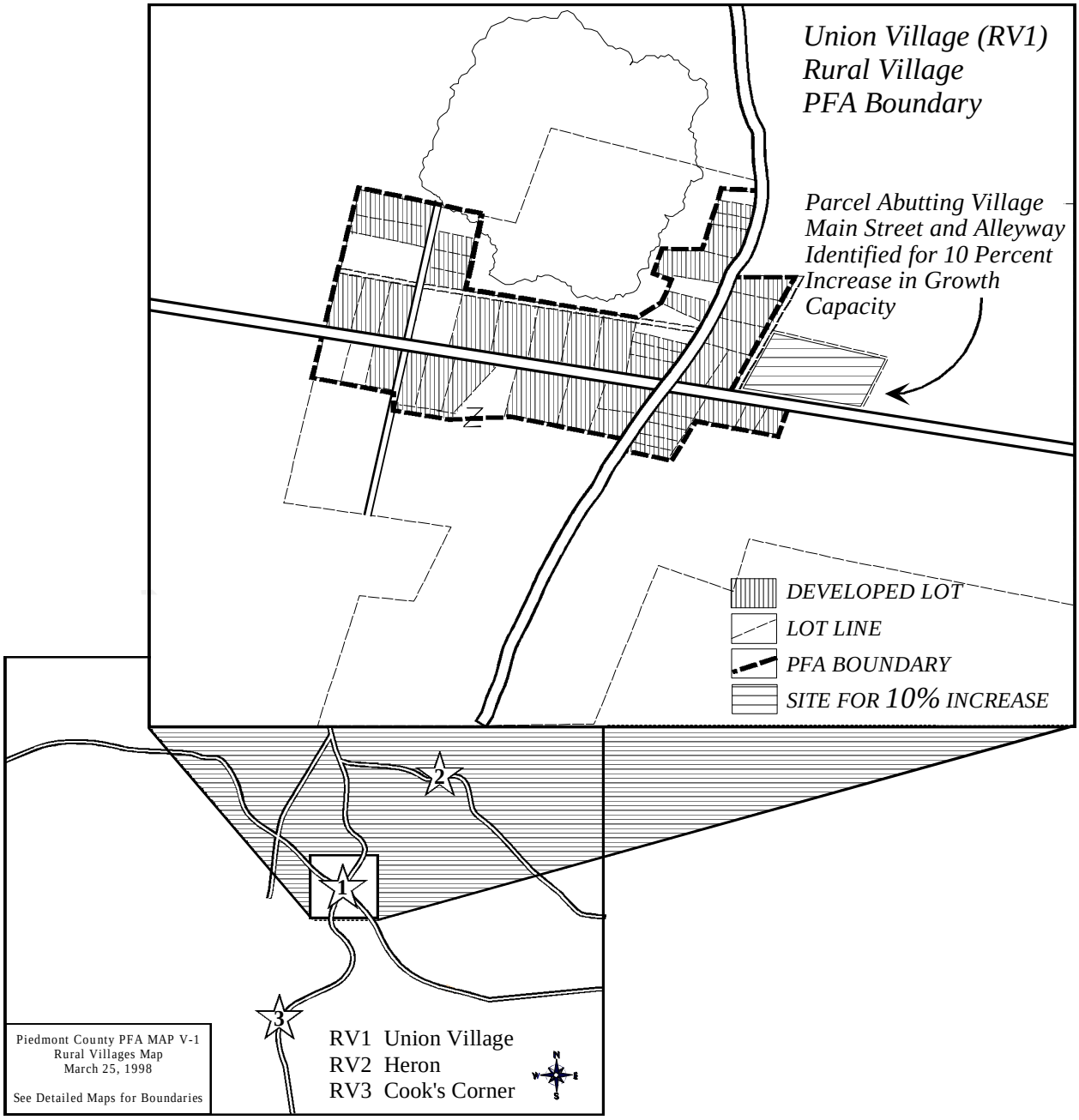
The field method allows the evaluator to judge the village's bounding components without regard to lot lines. Here, primary and accessory structures, fences, and other visual indicators of the developed periphery of the village can be considered in arriving at the PFA boundary. Vacant lots that are a logical part of and connected to the village should not be excluded.

It is best not to include large adjacent, vacant parcels as part of the rural village PFA if this land can accommodate enough buildings to increase the number of dwellings by more than ten percent. However, small frontage portions of much larger parcels can be severed from the "back forty acres" and included in the PFA if it makes good planning sense in terms of village character and the efficiency of land use and use of public services.

Counties may want to sharpen the focus on village protection by strategically delineating the PFA boundary to exclude adjacent development and buildings that do not conform to the character of the village and are not logically connected to its street system. An example of such development is recently built single-family, suburban detached homes on half-acre lots that lie adjacent to a street lined with attached homes built in the 1890's. Excluding this "modern" area from the village PFA may discourage additional incompatible development near the village.

OTHER REQUIREMENTS FOR RURAL VILLAGES

The "Smart Growth" Areas Act of 1997 limits the type of growth-related projects that may be funded in a rural village. There are two tests that must be met if a project is to be funded. First, the project must serve to maintain community character and second, it must not serve to increase growth capacity except for limited peripheral development and in-fill. These tests are discussed in Chapter Four.



CHAPTER FOUR:
COMMUNITY CHARACTER AND LIMITED DEVELOPMENT

AREAS WITH WATER ONLY AND RURAL VILLAGES

In PFAs that have water, but no sewer, and in rural village PFAs, the "Smart Growth" Areas Act of 1997 places two restrictions on the type of growth-related project that may be funded. First, funding for growth-related projects will be allowed only if the project serves to maintain the character of the community. Second, the project may be funded only if it does not serve to increase the growth capacity in the area, except for limited peripheral development and in-fill.

Funded Projects Must Maintain Community Character

Community Character

The most recognizable aspect of community character is the physical appearance of buildings and their relationship to each other and to the streets. Many components comprise community character, including:

road network
land use
building orientation
setbacks: front, side and rear
facade widths
distances between buildings
roofs: shape and pitch, chimneys
colors and textures
lot sizes and shapes
range of lot widths and depths
porches
building materials
building height/bulk
massing
doors and window arrangement

Surveying these elements within each settlement to be designated as a PFA will give the local jurisdiction an idea of the general style and types of features that define community character. The potential impacts of growth-related projects on the street pattern, land use, building types and other visual aspects of a community should be factored into local requests for funding in rural villages and in communities with water, but not sewer.

A growth-related capital project constructed by the State will have to be designed to protect community character. Construction, rehabilitation, and expansion projects funded by the State will have to maintain community character. However, it is important to note that the Act does not impose the "community character" requirement on private sector development that may use, or be served by, the funded growth-related project. On the other hand, reasonable concern by a State agency that a requested project will impair character because of likely incompatible spin-off private development, could be a basis for not approving the project's funding.

Local governments are encouraged to adjust zoning, subdivision, and other local laws to protect community character from the impacts of private

development. In certain cases, having such tools could possibly be regarded as a favorable factor in deciding whether requested funding complies with the "Smart Growth" Areas Act of 1997; examples follow.

Model Zoning Concepts for Community Character

Examples and ideas for zoning tools that help maintain community character are featured in *Design Characteristics of Maryland's Traditional Settlements* (publication 94-05, Maryland Office of Planning). The Town of Sykesville's Ordinance No. 196, an amendment to the Town's zoning ordinance, is another good source. It contains specific design provisions that guide new development to resemble the character of existing development to as great a degree as possible. Below are some model provisions that also serve this purpose.

Conducting visual studies and surveys will generate typical block lengths, house front-to-house front distances, and other specific measures that can be used to write zoning provisions specifically tailored to a particular community or village. The intent of this first grouping is to require new development to link with the existing street network.

1. Villages should have a continuous network of interconnected streets.

2. Roads in new development should replicate the existing street geometry.

3. Roads should link in a grid pattern to facilitate blocks.

The second grouping consists of model zoning provisions that can be used or adapted to ensure that new buildings are consistent with the built environment:

1. A consistently high quality of architecture should be used throughout the village.

2. New buildings should be comparable in size, scale and mass with buildings and architectural style prevalent in the village.

3. Building frontages should face the street whenever possible.

4. Exterior materials and building detail should closely replicate those already existing.

5. If new dwellings are located immediately adjacent to existing dwelling units, the front yard setbacks of the new dwellings should follow the pattern established by the already-existing units.

6. The maximum house front-to-house front distance should be consistent with that already existing.

The Ten Percent Rule

Limited Peripheral Development and In-fill

The second test that must be applied to funding requests in communities with water only and in rural villages is that the project must not serve to increase growth capacity. Limited peripheral development and in-fill are allowed, however. In-fill is characterized by new development on vacant parcels typical in size and shape to developed parcels in the community. Limited peripheral development is defined in the law and means development that is contiguous to the community and limited in scope to no more than 10 percent of the number of existing dwelling units.

State agencies will consider, as part of deciding on funding requests, the impact of proposed growth-related projects on growth capacity in these PFAs. Counties can develop strong zoning controls for the areas surrounding communities and villages which will limit growth capacity. They can also plan for limited peripheral development and indicate possible locations on the PFA Map. Locations, densities, and housing types for limited growth should be integrated into the Comprehensive Plan and zoning ordinance.

CHAPTER FIVE: ANALYZING LAND CAPACITY AND DEMAND

INTRODUCTION

PFAs Must Be Based on an Analysis of Supply and Demand

Counties can certify their own Priority Funding Areas under the Smart Growth Areas Act. However, the Act requires that the designations be "based on an analysis of the capacity of land areas available for development, including in-fill and redevelopment; and an analysis of the land area needed to satisfy demand for development at densities consistent with the Master [Comprehensive, General] Plan." § 5-7B-03(g) of the Finance and Procurement Article.

This Chapter contains models that counties can use to conduct these analyses of land capacity and demand, both for the present and the future. The discussion emphasizes residential land demand, which is the greatest component of land consumption. The models in this chapter are simplified. Counties can develop more complex methodologies to meet their individual requirements for calculating land capacity and needs.

These models can be used for a county as a whole, or for its subareas if sufficiently detailed data are available. Subarea analyses are particular useful in making sure that PFAs are properly sized and located to meet needs in various parts of the county. With data on land availability and consumption at its disposal, the county can use its comprehensive plan, along with its zoning and other implementing ordinances, to make necessary adjustments in the location and amount of developable land that should be included within a PFA.

This Chapter discusses the calculation of land capacity, explains population projection techniques, and shows how increases in population affect the demand for housing and the demand for land. Most of the methodologies discussed in this Chapter are adapted from technical material supplied by the States of Oregon and Washington.

TASK ONE

DETERMINING LAND CAPACITY

Land capacity can be estimated by using the holding capacity of vacant land to determine how the existing or proposed zoning pattern accommodates growth. Conducting this analysis county-wide and for appropriate subcounty areas, provides a detailed view of a number of factors:

1. The locations of growth capacity throughout the county.

2. This capacity's relationship to the demands of future population.

3. Whether proposed Priority Funding Areas are based on that demand for land

This analysis may show that PFAs must be increased in size or number to meet demands in different parts of the county. It also may show that there are too many PFAs designated, with too much growth capacity. The latter could invite sprawl or other forms of inefficient development.

An examination of holding capacity provides a comprehensive view of the maximum amount and types of growth that may occur under the Comprehensive Plan and Zoning Ordinance.

The following land capacity models can be used for the entire county, special planning areas, minor civil divisions, other subcounty units, or for Priority Funding Areas themselves.

The steps involved in determining holding capacity are:

Step 1. Multiply the maximum residential density allowed in "units per acre" for each residential zoning* category, times vacant acreage in that category, times average household size. This operation yields the total population and number of dwelling units that can be accommodated. Add the products to determine gross acreage, dwelling unit and population capacity totals (i.e., the sum of all zoning categories).

Step 2. Use an appropriate factor to yield net developable acreage and other net values.

Step 3. Consider "underbuild" factors.

Step 4. Consider effects of redevelopment and in-fill.

* For mixed-use, planned unit development, TDR receiving areas, comprehensive design zones, or other types of zoning classifications in which the allowable residential densities may vary, the county may assume maximum permitted residential density for each classification in determining density. Local governments may assume lower densities but should consistently interpret permitted density in calculating average densities, holding capacity, and land demand.

Step One: Determine Zoning Potential and Population on Vacant Land
Assume an average household size of 2.8 persons per dwelling unit and the following acreage and zoning data. Assume that all acreage is unconstrained by local ordinance, State law, or engineering limitations. In the

example used, the total holding capacity, as indicated in the Table below, is 600 dwelling units with a population of 1680, distributed over 275 vacant acres.

STEP ONE: DETERMINE ZONING POTENTIAL AND POPULATION ON VACANT LAND

Zoning	Vacant Acreage	Density	Total Units	Persons Per Household	Population
R-1	100	1 unit per acre	100	2.8	280
R-2	100	2 units per acre	200	2.8	560
R-3	50	3 units per acre	150	2.8	420
PUD	25	6 units per acre*	150	2.8	420
TOTALS	275		600		1680

*In this PUD zone, 6 units per acre is the maximum density permitted in a range of possible densities

Step Two: Determine Net Values

Subtracting for acreage consumed by streets, sidewalks and utilities yields the net density. Assuming that 20 percent of the developed land in each zone will be dedicated or reserved for public use, only 80 percent of the acreage in each zone could actually be developed with homes. This results in the adjusted values for the number of units and population growth shown in the Table below.

Net Buildable Acreage: 275 gross acres x .80 = 220 net acres
Net Holding Capacity: 600 units x .80 = 480 units
Net Population Accommodated: 480 units x 2.8 persons per unit = 1344

Step Three: Factor in Underbuild

The land capacity based on zoning may have to be reduced by underbuild factors because properties can develop at lower densities than the zoning allows. As a result, the net acreage available for development may not, in reality, accommodate the number of residential units that its zoning would indicate.

Each county may have different experience with underbuild, but where there is a significant amount, the county should allot more acreage for future development. Because underbuild can lead to inefficient land development and sprawl, it is important to keep it to the minimum necessary, even while factoring it in to future land availability considerations. Evidence of significant underbuild should trigger an analysis of development regulations. Flexible regulations including TND (traditional neighborhood design), density zoning, and clustering can be used to lower the incidence of underbuild.

In deciding whether and how to account for underbuild, an examination of existing and platted projects can provide an excellent data base of how actual developed density relates to the theoretical density in the zoning ordinance.

If, for example, land in a county usually develops at only 80 percent of the permitted density, the remaining 20 percent is underbuild and should be considered in calculating "the capacity of land areas available for development." Because underbuild tends to correlate with zoning categories, a more precise method would be to develop experience-based underbuild factors for each residential zoning district.

Step Three: Factor in 20 percent Underbuild (i.e., 80 percent of Net Values)

Net Holding Capacity of 480 units x .80 (for underbuild) = 384 units
Net Population Accommodated of 1344 x .80 (for underbuild) = 1075

The effect of underbuild on determining future land requirements can be substantial. A county may initially calculate that its residential zoning densities would allow it to accommodate all future population increase on 5000 acres of land. However, if a 20 percent underbuild rate continues, that 5000 acres would accommodate only 80 percent of the projected population increase. Thus, an additional 1250 acres would actually be needed, or a total of 6250 acres.

Step Four: Consider Redevelopment

The effects of redevelopment on the capacity of land to accommodate development varies. It has the most potential impact in older areas where

certain parcels may be under used or occupied by inappropriate, deteriorating or inefficient buildings and where redevelopment could add significantly to their ability to accommodate and stimulate growth. Redevelopment has the least significance in newer residential areas where the existing land use makeup can be expected to continue.

The first task is to identify parcels where redevelopment is likely to occur. Then, the following steps should be completed for these properties, by zoning category:

1. Calculate the redevelopable acreage in each category.
2. Determine gross zoning density.
3. Determine allowable net density. (Because streets and other amenities are generally already present, the amount of reduction for these will be less than for vacant land.)
4. Subtract the dwelling units already built on the properties; the remainder is the number of additional dwellings the properties can absorb.

Example: An inventory reveals that there are 10 acres of redevelopable land in the R-5 townhouse zone, which allows 8 units per acre, and 10 acres in the R-6 apartment zone, which allows 20 units per acre. These lands have scattered homes and deteriorating commercial structures, some vacant areas, and a closed warehouse. The redevelopment potential could be calculated as follows:

Zone	R-5	R-6
Acres	10	10
Density	8	20
Gross units allowed	80	200
Reduction for amenities	.10	.10
Net allowable density	72	180
Minus existing residential units on properties	(22)	(50)
Additional development capacity	50 units	130 units

While these properties could theoretically hold an additional 180 residential units (50 plus 130), it is probable that they would be redeveloped at a somewhat lower density, and arguably, may not be redeveloped for some time, depending on factors beyond the county's control. The following factors may militate against a complete buildout on redeveloped land:

1. zoning restrictions governing setbacks, parking and other requirements

2. development constraints presented by the nearby street pattern and other aspects of the surrounding built environment

3. neighborhood opposition

4. lack of market demand for homes on redeveloped land

For these reasons, it may be necessary to reduce that 180-unit "additional development capacity" figure by an additional percentage to take these buildout-limiting considerations into account. This example illustrates how to consider redevelopment when calculating the potential capacities of land for growth, but each county must determine how to gauge the likelihood of redevelopment and what weight to give it.

Step Five: Consider the Effects of In-fill

In-fill parcels are vacant, skipped-over properties located in otherwise built-up areas. These should also be identified and their holding capacity calculated. Again, because these lie in already built- up areas, their ultimate development potential will likely be lower than the zoning allows. Therefore, after calculating gross and net holding capacities of in-fill parcels, it may be necessary to reduce the resulting residential development potential by a certain percentage to take these factors into account.

Step Six: Consider Municipal Capacity

The county's analysis of land capacity should also consider the role that municipalities have in providing areas for the county's population growth. This factor can be based on past trends or upon municipal projections of holding capacity. The analysis should also reflect any recent major changes in county or municipal growth policy that create reasonable potential for absorption of more (or less) growth within municipalities than indicated by past trends.

The next task is to project the population for the appropriate target date and determine if the available land satisfies the demand that will be generated by the population. The land demand is compared to existing capacity to identify if, where, and to what extent the land available for development should be increased or reduced in delineating the PFA. The next section explains population and dwelling unit projection techniques and how to relate population and dwelling unit needs to the supply of developable land.

TASK TWO PROJECTING POPULATION

Section 5-7B-03(g)(2) of the Finance and Procurement Article requires county-designated Priority Funding Areas to be based on "an analysis of the land area needed to satisfy demand for development at densities consistent with the master plan."

The first step is to select the target year that will be used as the point in time in which to compare land demand with the available supply to determine if this supply is appropriate. That target year is determined by the time frame of the Master, or Comprehensive Plan.

Before establishing PFAs, the county must project population for the county as a whole, as well as for the applicable subareas, including municipalities. This booklet assumes that counties will use the population and household projections developed jointly by the Maryland Office of Planning and county governments. The following discusses how to project population in subareas of the county.

Allocating Shares of County Population Growth

Following are methods of allocating the overall county population, and its changes, to subcounty divisions such as planning areas, growth areas, rural areas, minor civil divisions, or other portions of the county over a particular period of time.

Constant Share

One way is to calculate the subcounty areas' current shares of population and assume they will maintain the same shares of population at future points in time. Therefore, if a particular sector now holds 25 percent of the county's population, assume it will capture that same percentage in the year 2000, 2010, and so on.

Example: Assume the following 1990 population of 100,000, subcounty area population shares given, and an overall county population projection of 120,000. The share method allows the county to estimate 2000 population for each Planning Area.

	1990 Population	1990 Share	2000 Population
Planning Area I	25,000	25%	30,000
Planning Area II	25,000	25%	30,000
Planning Area III	50,000	50%	60,000
TOTALS	100,000	100%	120,000

Share Trends

A more sensitive method is a fluid approach that takes changes among subarea population growth rates into account when projecting subarea population. For example, if a particular subarea had 10 percent of the county population in 1980 and 12 percent in 1990, it will be assumed to have 14 percent in the Year 2000 and 16 percent in 2010.

These share percentages should be multiplied times the projected county population at certain points to get a subarea's projected population for a particular year. This method is sensitive to change, although it assumes the actual rate of that change will remain constant.

Example: Assume that the county population grew from 100,000 in 1980 to 120,000 in 1990, and the changes in its three planning areas were:

	1980 Pop.	Share	1990 Pop.	Share	Change in Share
Planning Area I	25000	0.25	27000	.225	(.025)
Planning Area II	25000	0.25	29000	.242	(.008)
Planning Area III	50000	0.50	64000	.533	.033
TOTAL	100,000		120,000		

If the projected county population is 140,000 in the Year 2000 and 160,000 in 2010, and the shares of the three planning areas continue to

change in the same amount they did from 1980-1990, the following populations can be expected in those three areas in the years 2000 and 2010.

	2000 Population	Share	2010 Population	Share
Planning Area I	28,000	.200	28,000	.175
Planning Area II	32,760	.234	36,160	.226
Planning Area III	79,240	.566	95,840	.599
TOTAL	140,000		160,000	

Creating subarea population projections allows a view of future population in various portions of the county. Combined with a review of the holding capacity of land in these locations, it reveals whether the amount of available land and capacity meets the needs of the population that can be expected there at a particular point in time. The share method can be used to examine proposed Priority Funding Areas throughout the county and compare their respective holding capacities with future population increases and acreage demands. This way, the land capacity of designated PFAs will be scaled to the land needs generated by population changes.

These methods assume that the existing policy structure responsible for the current distribution of population and rate of change, will stay in place. Revising the Comprehensive Plan or zoning could alter this policy structure and hence, population growth. A policy change that results in a new Priority Funding Area in one subarea of the county, could increase the population growth rate and the unused holding area in that portion of the county, and possibly decrease it in others. Factoring in such policy changes directly affects the proportions of population throughout all county subareas.

TASK THREE DETERMINING EXISTING AND FUTURE LAND NEEDS

Residential Land

The Smart Growth Areas Act requires a determination of land needed to satisfy demands for development at densities consistent with the Master Plan. This determination involves analyses of local zoning and population projections.

The population must be projected for the target year established by the Comprehensive Plan. The population in that future year is divided by the appropriate persons-per-household average to determine the number of dwelling units that will need to be accommodated. Comparing that demand with the holding capacity will reveal if the holding capacity is sufficient, whether it needs to be expanded, or reduced.

Example:
Assume an existing (1990) population of 100,000 occupying 35,714 units, and the following projected population growth, along with a steady ratio of 2.8 persons per household. The target year established by the Comprehensive Plan is 2010.

1990:	100,000	100,000/2.8 = 35,714 units	
2000:	125,000	125,000/2.8 = 44,643 units	(8,929 increase)
2010:	150,000	150,000/2.8 = 53,571 units	(17,857 increase)

These additional dwelling units will create a need for more developable land. Calculating this demand can be done in several ways. The simplest is to use an average dwelling unit-per-acre ratio and carry that into the future. If the average residential development in the county is at a density of 2.0 units per acre, the additional residential acreage needed in years 2000 and 2010 will be as follows:

2000:	8,929 / 2.0 = 4,464 acres
2010:	17,857 / 2.0 = 8,928 acres

Demographic trends in recent years, however, show a decline in household size. Taking such changes into account when projecting future residential needs can be accomplished as follows:

Example:
Assume the following population increases and persons-per-household averages:

1990 - 100,000	2.8 persons per household
2000 - 125,000	2.6 persons per household
2010 - 150,000	2.5 persons per household

Dividing each population total by the persons-per-household average applicable for that decade, and the 2.0 units per acre average, would yield the following additional acreage needs in the years 2000 and 2010:

1990: 35, 714 units

2000: 48,077 units (12,363 increase), 12,363 / 2.0 = 6,182 acres

2010: 60,000 units (24,286 increase), 24,286 / 2.0 = 12,143 acres

These models can be used to calculate dwelling unit and acreage needs on a county-wide or subcounty basis.

This additional acreage demand is then compared with the existing or anticipated holding capacity. The latter, of course, is determined by combining the capacity of vacant land, redevelopment, and in-fill parcels. It is then possible to determine if this holding capacity is sufficient to accommodate the demand for acreage.

However, the actual acreage ultimately reserved for future development should be somewhat higher than the specific amount calculated in the preceding models. This higher amount is needed to reflect market forces and the desire of buyers to chose among multiple sites. The actual land required to accommodate residential development should be 15 to 20 percent higher than the acreage figure obtained by dividing anticipated additional dwelling units by anticipated overall density. (Fifteen percent represents Portland, Oregon's guideline and 20 percent is based on the American Planning Association's Report No. 440: *Staying Inside the Lines.*) This adjusted acreage demand total should be the figure which is actually compared to available land capacity in order to determine if there is sufficient acreage in the county, its various subareas, or its planned PFAs to meet the need.

Non-Residential Land Uses

Non-residential land uses will play a relatively small part in the land capacity and land demand analyses required by the "Smart Growth" Areas Act of 1997. Comprehensive planning and zoning for these land uses and activities are certainly needed, and they correlate with land demand for residential uses (e.g., population growth associated with a major new employer). The issue that needs to be addressed under the Act, however, is how the Comprehensive Plan's residential densities within PFAs relate to demands of population growth in the PFA.

CHAPTER SIX: CERTIFYING AND MAPPING PFAS

PFA CERTIFICATION

Local Government Shall Certify PFAs

"To be eligible for funding for growth-related projects, a local government shall certify to the [Maryland] Office of Planning any area designated by the local government as a priority funding area under § 5-7B-03 of [the Finance and Procurement Article], which shall be consistent with the local Comprehensive Plan and the [designation criteria]." § 5-7B-08, Finance and Procurement Article.

The law includes opportunity for local governments to work with the Maryland Office of Planning, prior to certification of PFAs, for purposes of technical assistance, agency review and comment, and public review.

When local governments certify PFAs they are required to send to the Maryland Office of Planning "all information necessary to demonstrate the precise location of the [priority funding] area, including a map of the area showing planning and zoning characteristics, and existing and planned water and sewer services as appropriate." § 5-7b-08(c).

The Maryland Office of Planning recommends the use of a "certification letter" with summary data, attached. A model certification letter and format for summary data follows.

Model for Certifying a PFA

Certification Latter

This Model takes the form of a letter to the Maryland Office of Planning and includes a simple format for sending information and a method for calculating residential density (Chapter Two explains density calculations). Terms in [brackets] are illustrative, explanatory, and show options or alternatives that can be used for preparing an actual certification letter.

This approach can be adapted for other types of land uses and types of PFAs. Chapter One discusses the designation criteria for different types of PFAs and land uses, and more detail is included in other Chapters. This booklet can be used by the county to gauge the type and depth of information that should be included with the PFA certification. The county's goal should be to provide adequate information that will enable the Office of Planning to understand the basis for PFA designations in the context of the law.

[March 25, 1998]

Mr. Ronald M. Kreitner, Director
Maryland Office of Planning
301 West Preston Street
Baltimore, Maryland 21201

RE: PFA Certification of [Existing Communities]
[Existing Communities with Water but no Sewer]
[Areas Other Than Existing Communities]
[Rural Villages]

Dear Mr. Kreitner:

The [Executive and Council] of [Piedmont County] offer this letter and enclosed documentation as certification that the Priority Funding Areas on the enclosed maps meet the "Smart Growth" criteria codified at §5-7B-03 of the Finance and Procurement Article of the Annotated Code of Maryland, and are consistent with the [Piedmont] County Comprehensive Plan.

The [Existing Communities] identified on the attached PFA maps qualify as Priority Funding Areas because they are in a growth area designated by the County Comprehensive Plan, were developed as of January 1, 1997, and have public [or community] sewer and an average residential density of at least two dwelling units per acre.

The [Existing Communities with Water but no Sewer] identified on the attached PFA maps qualify as Priority Funding Areas because they are in a growth area designated by the County Comprehensive Plan, were developed as of January 1, 1997, and have public [or community] water and an average residential density of at least two dwelling units per acre. We understand that State funding is limited to growth-related projects that serve to maintain community character and do not serve to increase growth capacity.

The [Areas Other Than Existing Communities] identified on the attached PFA maps qualify as Priority Funding Areas because they are in a growth area designated by the County Comprehensive Plan, have an average permitted density of at least 3.5 units per acre, are planned to be served in the approved 10-year Water and Sewer Plan, and represent a long-term policy for orderly growth and an efficient use of land and public services.

The [Rural Villages] indicated on the attached PFA maps qualify as Priority Funding Areas because they were identified in the County Comprehensive Plan before July 1, 1998. We understand that State funding is limited to growth-related projects that serve to maintain community character and do not serve to increase growth capacity.

Further, we understand that this certification will be filed by the Office, that the Office may include comments as part of the file, and that the Office will coordinate with State funding agencies to inform them about this PFA designation. If you have any questions about this certification, please call [executive or board of commissioners].

[closing, signature, and title]

Attachments: Map and Data (See following for suggested format and method)

Model Priority Funding Area Certification:
Supporting Data and Calculations

[The following Model represents one method of supplying PFA information to the Maryland Office of Planning. Counties may develop an independent format, but should strive to include the basic factual information needed to justify PFA designations. For example, counties may choose not to name each "community" as suggested in the Model and instead, may aggregate the information for the various communities that comprise a growth area in the county. However, it would still be important to provide the average residential density and other qualifying data for the aggregated area. Supporting information can be in text form, separate from the PFA Maps, or can be added to the Map itself.]

I Existing Communities (developed as of January 1, 1997)

A. Community Names (or other means of identifying mapped locations, such as a "PFA ID number")
B. Name of locally-designated growth area (per the Comprehensive Plan) for each PFA Community
C. Public/Community Sewer Service Category (per the 10-Year Water and Sewer Plan) for each PFA
D. Average residential density for each PFA

II Existing Communities with Water Only

A. Community Names (or other means of identifying mapped locations, such as a "PFA ID number")
B. Name of locally-designated growth area (per the Comprehensive Plan) for each PFA Community
C. Public/Community Water Service Category (per the 10-Year Water and Sewer Plan) for each PFA
D. Average residential density for each PFA
E. Special PFA Map notation: "Project Limitations" (fundable projects are limited by impact on community character and growth capacity)

III Areas Other Than Existing Communities

A. Area Names (or other means of identifying mapped locations, such as a "PFA ID number")
B. Name of locally-designated growth area (per the Comprehensive Plan) for each PFA Area
C. Public/Community Water and Sewer Service Category (per the Water and Sewer Plan) for each PFA Area
D. Average permitted residential density for each PFA Area
E. Special Requirement: Brief statement for each PFA Area indicating why it represents a long term policy for orderly growth and an efficient use of land and public services.

IV Rural Villages

A. Village Names (or other means of identifying mapped locations, such as a "PFA ID number")
B. Special PFA Map notation: "Project Limitations" (fundable projects are limited by impact on community character and growth capacity)

PFA MAPPING

The Maryland Office of Planning will use county PFA maps to produce standardized maps for reference by State agencies. The goal of the Office is to have accurate maps delineating PFAs in the hands of funding agencies as soon as possible. In order to keep PFA maps moving along quickly, some basic guidelines and parameters for converting and transferring data to the Maryland Office of Planning are discussed below. These guidelines are not intended to be hard and fast rules, but the suggested formats, technical information, and transfer procedures will help speed data through the Priority Funding Area process.

Format

Data conversion can take a great deal of time - time that could possibly slow down the processing of maps. One way to keep the process moving smoothly and quickly is to send Priority Funding Area data in a ready-to-use format. To date, shape files created for and from ArcView have the most readily compatible format.

If a county or agency has access to MDPropertyView, the process is fairly simple. PFAs can be digitized directly into a new ArcView layer using the 1 to 2,000 scale State Highways Administration (SHA) roads as a background. The SHA roads file is included in the basic MDPropertyView package. Even without access to MDPropertyView, most of today's geographic software packages support the ArcView shape file format. Check the software's output or export documentation for instructions on creating Arc shape files.

Scale and Coordinate System

In order to fit all the data layers neatly together with as little conversion hold-up time as possible, use the State Plane Coordinate System and hold to a minimum scale ratio of 1 to 24,000. This translates to "one unit on the map equals 24,000 units on the ground." Matching the scale accuracy should not be a problem for most counties, as most collect and display their data at a much finer scale than Statewide applications require.

If the Maryland Office of Planning receives paper maps, it will convert these to digital files. However, the data should be collected and displayed at a 1 to 24,000 or finer scale. The scale at which data is received is the scale at which it must be digitized. The data will go into a multi-layered composite with a lot of other data. If information comes from an 8.5 by 11 inch piece of paper, and is then added to a 1 to 24,000 database, the end product and the decisions based on it will likely be compromised. If

the Office will be digitizing county PFA maps or if the source data is not mapped or digitized at 1 to 24,000 or finer scale, the Office of Planning should be contacted as early as possible to minimize problems.

Documentation

Data should be fully documented. If a county has formal metadata, a copy should be sent to the Office along with files. At a bare minimum, the Office needs to know the software package that was used to created the data; the coordinate system, projection, scale, and date of the data; and the code definitions and descriptions used. Tracking down such vital bits of information after county maps and data are transmitted will impede progress. Good documentation, on the other hand, can help avoid delays. It will also be helpful if each jurisdiction designates a single contact person or unit for answering questions that may arise.

Media

There are several options available for transferring data to the Maryland Office of Planning. For digital files, the simplest way is to send the files over the Internet through either E-mail or FTP. The Office of Planning's Internet address for this project is: pfa@mail.op.state.md.us.

If files are too large to transfer properly, most geographic software packages allow breaking files into smaller pieces for transfer. Another option is file compression, using programs such as PKZIP and the UNIX "compress-f" option. If a county does not have access to, or compatibility with, either of these programs, and files are still too large or numerous to transmit to the Office of Planning, please call the Office as follows:

Primary Contact: Mr. Mike Weizorek (410-767-4559)
Secondary Contact: Mr. Tom Nasuta (410-767-4452

Describe the problem and identify the file sizes. If needed, the Office can arrange a temporary increase in the size of its "holding area" sufficient to receive overly large files. The Office of Planning will work with counties to find workable solutions.

If the Internet is not an option, maps and data can be sent via the US Postal Service. Digital files should be copied to high density 3.5-inch disks. The disk should be packaged in an envelope specifically designed to protect it from the rigors of travel, otherwise it may not reach the Office in a useable form.

Hardcopy maps can also be sent through the mail. If the Office is to digitize county maps, the maps should be rolled up and enclosed in a mailing

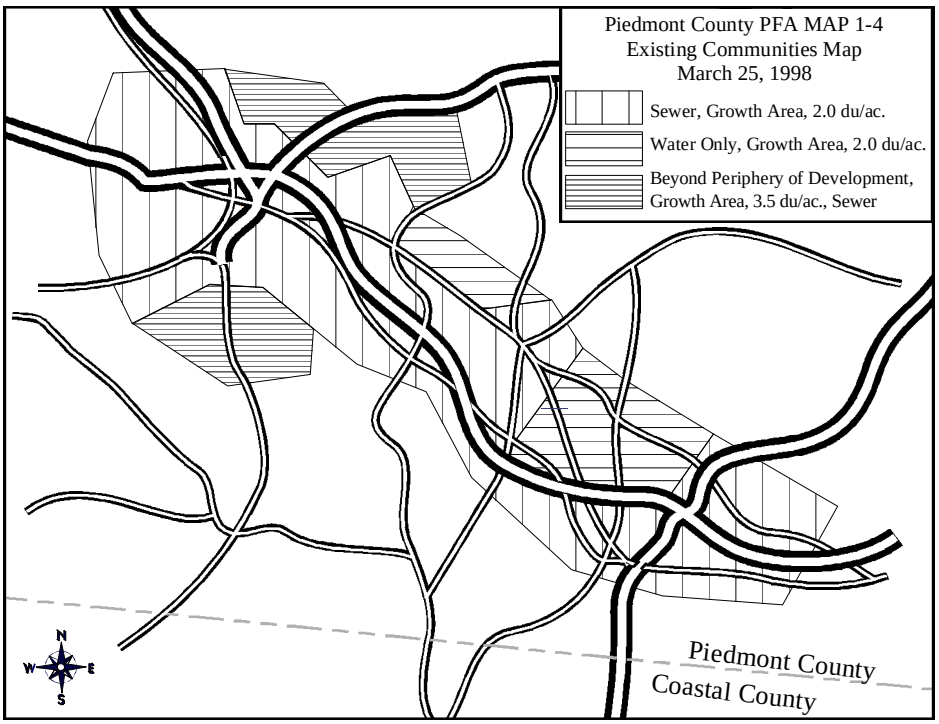
tube. Maps should not be folded because paper creases tend to warp the data placement. If the maps are strictly for verifying digital data that has already been sent (which is a good idea for cross-checking and verifying that the information was properly received), then the paper can be folded into a large manila envelope for mailing. Vellum or mylar maps should always be rolled.

All data, both digital and hardcopy, should be addressed to:

Maryland Office of Planning
301 West Preston Street, Suite 1101
Baltimore, Maryland
21201-2305
Attention: James Noonan

Timing

As in nearly any other project, adequate lead time is extremely important. Please remember that all of Maryland's twenty three counties will be submitting Priority Funding Area data. If all of the data comes in at or just before the final due date, this will create a backup. Submitting your PFA certifications and maps early will help keep the process moving smoothly.



APPENDIX: GROWTH-RELATED PROJECTS DEFINED

The Smart Growth Areas Act defines "growth-related projects" and also identifies specific projects that are not growth-related. Growth-related projects include:

A. Any major capital project as defined in §2-103.1(a)(4) of the Transportation Article, except the following:

Existing transportation facilities projects as defined in §4-101(i) of the Transportation Article.

Project Planning as defined in §8-610(g) of the Transportation Article.

Initial Project Planning as defined in §8-610(h) of the Transportation Article.

B. Department of Housing and Community Development funding for:

Construction or purchase of newly-constructed single-family homes or purchase of loans for newly-constructed single-family homes under Article 83B, §§ 2-201 through 2-208, §§ 2-601 through 2-614, or §§ 2-1001 through 2-1007 of the Code.

Acquisition or construction of newly-constructed multi-family rental housing under Article 83B, §§ 2-201 through 2-208, §§ 2-501 through 2-510, or §§ 2-801 through 2-810 of the Code

State-funded neighborhood revitalization projects under Article 83B, Title 4 of the Code

C. Department of Business and Economic Development funding under the following:

The Maryland Industrial Land Act, authorized under Article 83A, Title 5, Subtitle 7 of the Code

The Maryland Industrial and Commercial Redevelopment Fund, authorized under Article 83A, Title 5, Subtitle 8 of the Code

The Maryland Industrial Development Financing Authority, authorized under Article 83A, Title 5, Subtitle 9 of the Code

The Maryland Small Business Development Financing Authority, authorized under Article 83A, Title 5, Subtitle 10 of the Code

The Maryland Energy Financing Act, authorized under Article 83A, Title 6, Subtitle 4 of the Code

The Economic Development Opportunities Program Fund, authorized under § 7-314 of the State Finance and Procurement Article

D. Department of the Environment Funding for any project under:

§§ 9-1601 through 9-1605 (Water Quality Revolving Loan Fund) of the Environment Article, except for funding non-point source pollution projects

§§ 9-420 through 9-426 (Water Supply Financial Assistance Program) of the Environment Article

The Supplemental Assistance Program authorized under Title 9, Subtitle 3, Part VI of the Environment Article

E. Unless listed under §5-7B-01(D)(2) which governs projects that are not growth-related, procurement or funding of projects by the Department of General Services for:

Leases of property by the State governed by §§ 4-318 through 4-321 of the State Finance and Procurement Article

Public improvements governed by §§ 4-410 and 4-410.1 of the State Finance and Procurement Article

Land Acquisition governed by §§ 4-411 through 4-416 of the State Finance and Procurement Article

Not Growth-Related Projects

The Act also specifies that the following are not growth-related projects:

A. Projects by the Department of General Services for maintenance, repair, additions, or renovations to existing facilities, acquisition of land for telecommunications towers, parks, conservation and open space, and acquisition of agricultural, conservation, and historic easements;

B. Funding by the Department of Housing and Community Development for any project financed with the proceeds of revenue bonds issued by the Community Development Administration if the Secretary of Housing and Community Development determines that not funding the project:

Conflicts with any provision of federal or State law applicable to the issuance or tax-exempt status of the bonds;

Conflicts with any provision of any trust agreement between the Community Development Administration and any trustee; or

Would otherwise prohibit financing of an existing project, or financing provided to cure or prevent any default under existing financing; or the revenue bonds are issued under a transfer of the Maryland State Ceiling to the Administration by a county under Title 13, subtitle 8 of the Financial Institutions Article

C. Any other project, funding, or other State assistance not listed in the Act.

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