

Maryland Department of

Maryland Department of the

Planning

and

Environment

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Introduction

As a service to local governments, the Maryland Department of Planning (MDP) and the Maryland Department of the Environment (MDE) created the following overview of recent trends and key planning tools and programs available to help local governments better manage growth while balancing environmental constraints.

This booklet provides the context for land use planning in Maryland, explaining the legal authority enjoyed by local jurisdictions that fall under either Article 66B, Article 25A or Article 28 of the Maryland Annotated Code. Background on the most significant planning legislation passed in Maryland is covered, including the 1992 Planning Act and the 1997 Priority Funding Areas Act. That historical content is followed by legislation passed by the 2006 Maryland General Assembly, which enacted the most significant planning requirements in nearly a decade.

Two key bills (House Bill 1141/Senate Bill 5 and House Bill 2) will affect local comprehensive plans, annexations and land preservation programs throughout Maryland.

This booklet summarizes the changes made to basic planning and zoning requirements and associated changes made to annexation procedures, agricultural land preservation and the state's Smart Growth programs. These are important changes and this guidebook is designed to help local decision-makers better understand the new planning requirements.

The remainder of the booklet describes an array of land use planning tools and environmental management programs. They include: the local comprehensive plan; the zoning ordinance; use of capacity analysis; Transfer of Development Rights (TDRs) and adequate public facility ordinances—which can be important growth management tools for fast-growing counties and municipalities. An entire section is devoted to environmental

planning tools and the key role environmental protection plays in managing growth in Maryland. Many programs are explained in detail. Telephone numbers are provided for additional follow up. Finally, this booklet contains a glossary of terms and brief profiles of useful publications (guidebooks, manuals, ordinances, etc.) available from either MDP (www.mdp.state.md.us) or MDE (www.mde.state.md.us).

On behalf of Governor Robert L. Ehrlich, Jr., we are pleased to offer this informative, new booklet on recent trends in the State's planning programs. It is an honor and our pleasure to serve Maryland's local governments.

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Why Plan?

Jurisdictions throughout Maryland face a range of important issues that are intimately related to land use, including economic development, community revitalization, infrastructure, housing, transportation, environmental protection, and land preservation. Through land use planning, jurisdictions work with residents and other stakeholders through a collaborative process to articulate the way they want their community to look and function in the future. To help achieve this vision, jurisdictions establish goals and priorities to guide development, revitalization, and preservation, and they institute policies and regulations to govern decision-making.

The creation of a vision, goals, and priorities can be complicated, but it will make planning for a community easier in the long run. In fact, the visioning process is one of the basic requirements of the 1992 Planning Act.

- * The planning process gives the jurisdiction the opportunity to show how a community proposes to achieve a variety of competing goals.
- * This process gives the jurisdiction the opportunity to involve the public, to work through competing goals of different stakeholders, and to achieve consensus before receiving specific development proposals.
- * Though certain things are beyond the control of local government, such as the economy, state and federal laws, and private landowner choices, local governments gain greater control over their own future if they articulate their goals and objectives, and map their policies, to guide decision-making.
- * Further, local governments need to plan if they want to take advantage of certain State funds, programs, and privileges bestowed on local government by the State.
- * Through this process, local governments can communicate their interests and concerns with neighboring jurisdictions, potentially leading to more effective regional solutions for some of the issues they face.

Authority for Planning

The State of Maryland entrusts local jurisdictions with land use planning authority. Article 66B of the Maryland Annotated Code delegates planning and land use regulatory authority to all non-charter counties and all incorporated municipalities outside of Montgomery and Prince George's Counties, as well as specifically identified towns within these two jurisdictions (Barnesville, Brookeville, Gaithersburg, Laytonsville, Poolesville, Rockville, Washington Grove, and Laurel). This statute enables local government to guide growth and development; outlines the responsibilities, roles, and functions of the planning commission; and sets the "ground rules" for operations. Article 25A delegates planning and land use regulator powers to six charter counties (Anne Arundel, Baltimore, Harford, Howard, Talbot, and Wicomico). Article 28 applies to Montgomery and Prince George's Counties and to all incorporated towns within those two counties not covered by Article 66B.

Key Maryland Laws Governing Planning

In addition to becoming familiar with Article 66B, local government officials should be aware of three key Maryland statutes that govern land use planning.

1992 Planning Act

The 1992 Economic Growth, Resource Protection, and Planning Act articulates the State's growth policy through seven visions (the General Assembly added an eighth vision in 2000) centered on concentrating development in suitable areas, protecting sensitive areas, and establishing funding mechanisms to achieve the visions. The Act also requires local jurisdictions to address these same visions in their comprehensive plans. All local jurisdictions, with few exceptions, incorporated these visions into their comprehensive plans on or before July 1, 1997. Under the Act, local governments are required to review, and if necessary, update their plans once every six years.

The Economic Growth, Resource Protection, and Planning policy is codified in §5-7A-01 of the State Finance and Procurement Article of the Annotated Code. The visions are codified in §3.06(b) of Article 66B of the Annotated Code of Maryland.

The following are the eight visions.

- 1. Development is concentrated in suitable areas.
- 2. Sensitive areas are protected.
- 3. In rural areas, growth is directed to existing population centers and resource areas are protected.
- 4. Stewardship of the Chesapeake Bay and the land is a universal ethic.
- 5. Conservation of resources, including a reduction in resource consumption, is practiced.
- 6. To assure the achievement of items (1) through (5) of this section, economic growth is encouraged and regulatory mechanisms are streamlined.
- 7. Adequate public facilities and infrastructure under the control of the county or municipal corporation are available or planned in areas where growth is to occur.
- 8. Funding mechanisms are addressed to achieve these Visions.

1997 Priority Funding Areas Act

The 1997 Priority Funding Areas Act directs State funding for growth-related infrastructure to Priority Funding Areas (PFAs), providing a geographic focus for State investment in growth. PFAs are existing communities and places where local governments want State funding for future growth. Growth-related projects include most State programs that encourage growth and development such as highways, sewer and water construction, economic development assistance, and State leases or construction of new office facilities. The Act legislatively designated certain areas as PFAs - municipalities (as they existed on January 1, 1997), Baltimore City, areas inside the Baltimore and Capital Beltways, Department of Housing and Community Development Designated Neighborhoods - and established criteria for locally designated PFAs. The criteria include permitted density, water and sewer availability, and designation as a growth area in the comprehensive plan.

The PFA Act is codified in §5-7B of the State Finance and Procurement Article of the Annotated Code of Maryland.

Planning and Zoning changes enacted in the 2006 session of the Maryland General Assembly

Water Resources, Priority Preservation Areas, and Municipal Growth Elements

This section provides a brief overview of new laws of note to planners passed during the 2006 session of the Maryland General Assembly. The Maryland Department of Planning (MDP) will provide other products and informational meetings in the future to elaborate on these issues and to receive input from various stakeholders.

The 2006 session of the Maryland General Assembly was the most active session relating to planning and zoning legislation in many years. Two key successful bills (House Bill 1141 and Senate Bill 5 / House Bill 2) will affect comprehensive plans, annexations, land preservation programs. The following document summarize the changes made to basic planning and zoning requirements and associated changes made to annexation procedures, agricultural land preservation, and Maryland's Smart Growth programs.

Annexation Procedures

The Five Year Rule There are two changes here. First, the rule would be applied solely based upon zoning. In the past, the five-year rule could be applied whenever a proposed new zoning classification was substantially different from the use envisioned "in the current and duly adopted master plan." The reference to the master plan is now gone and the issue becomes the degree of change from the current county zoning classification to the proposed municipal classification following

the annexation. When the zoning change is from one residential zone to another," substantially different" now is defined as a density change. The five-year rule will not kick in for a density change unless the proposed zoning is more dense by 50%. For example, if the current zoning permits 1 unit per acre, the new zoning can be subject to the five year rule if it permits anything more than 1.5 units per acre. As before, a municipality may obtain a waiver from the county to avoid the five-year wait until the new zoning classification applies.

This change takes effect on October 1, 2006.

Annexation Plans Required An annexation plan is required that replaces the "outline" for the extension of services and public facilities prior to the public hearing for an annexation proposal. This section contains no additional language for the content of the annexation plan to be adopted, but does require it to be consistent with the municipal growth element for any annexations that begin after October 1, 2009 (unless extended for up to two six-month periods). The Plan must be provided to the county and the State (the Maryland Department of Planning) at least 30 days prior to the hearing. The Maryland Department of Planning is specifically mentioned here, and may require that the Department institute a more formal mechanism for tracking and reviewing the annexation plans.

The requirement for an annexation plan and the requirement that it be provided to the Maryland Department of Planning takes effect on October 1, 2006. The requirement for consistency with the Municipal Growth Element of the comprehensive plan takes effect no later than October 1, 2009.

New Planning Elements

- * The new legislation mentioned above requires four new elements (i.e., chapters) of local comprehensive plans.
- * The first element, the Water Resources Plan Element is required of

all local governments (county and municipal) that exercise planning and zoning authority.

- * The second element, the Municipal Growth Element is required in municipal comprehensive plans only.
- * The third element, the Priority Preservation Area Element enabled by the Agricultural Stewardship Act of 2006 (HB 2). A Priority Preservation Area Element will be required as of July 1, 2008, for county agricultural land preservation programs to remain certified under Maryland's Agricultural Certification Program. This element will be optional for counties without certified preservation programs.
- * The fourth element is Workforce Housing is required for certain grant program eligibility.

The Water Resources Plan Element

This new planning element addresses the relationship of planned growth to water resources for both waste disposal and safe drinking water. It will be required of all county and municipal governments in the State. The element must identify drinking water and other water resources adequate for the needs of existing and future development proposed in the land use element of the comprehensive plan. It must also identify suitable receiving waters for both wastewater and storm water management to meet the needs of existing and projected development proposed in the land use element of the comprehensive plan. The Maryland Department of the Environment will provide available data to identify these resources. Resource issues expected to be addressed in these elements include water resource protection areas, groundwater resources, water quality standards and Total Maximum Daily Loads (TMDLs).

These elements must be included in the Comprehensive Plan no later than October 1, 2009. For more information, please contact MDE's Water Quality Infrastructure Program at 410 537-3574.

The Municipal Growth Element

This element requires a municipality to identify areas for future growth consistent with a long-range vision for its future. The growth element will be developed based on consideration of a comprehensive list of factors including population projections, an assessment of land capacity and needs and an assessment of infrastructure and sensitive areas. Completion of the element will guide future annexation proposals and plans after October 2009. Consultation with the county in which a municipality is located is required, and a joint planning agreement with the county is encouraged.

This element must be included in all municipal comprehensive plans no later than October 1, 2009.

The Priority Preservation Element

House Bill 2 (the Agricultural Stewardship Act of 2006) adds a Priority Preservation Element to the list of additional plan elements that a county may include in its comprehensive plan. However, for counties with certified agricultural land preservation programs, the element becomes mandatory as of July 1, 2008. Requirements for certified counties under this element are described in Section 2-518 of the Agricultural Article and §5-408 of the State Finance and Procurement Article. Examples of requirements: A Priority Preservation Area shall be capable of supporting profitable agricultural and forestry enterprises; be governed by local policies that stabilize the land base so that development does not convert or compromise agricultural or forest resources; and be large enough to support the kinds of agricultural operations that the county seeks to preserve. The element also must include an evaluation of a county's progress toward meeting the goals of the Maryland Agricultural Land Preservation Foundation before they are undermined by development, and identify actions to correct any deficiencies. Beginning in Fiscal Year 2009 a county must have a certified Priority Preservation Element for its agricultural land preservation program to be eligible for certification as an effective program by the Maryland Department of Planning and the Maryland Agricultural Land Preservation Foundation.

Counties must adopt this element by July 1, 2008 so that they may continue to receive certification funds from the Maryland Agricultural Land Preservation Foundation. Certification funds include 42% of agricultural land transfer tax revenues in a county, and any State funding the Foundation receives over and above the agricultural land and real estate transfer tax revenue shares the Foundation currently receives.

Work Force Housing Element

House Bill 1160 established a Workforce Housing Grant Program. A local government (county or municipal) qualifies for participation in the program and its grant monies if it has a HUD approved 5 year consolidated plan or a comprehensive plan with a workforce housing element. The workforce housing element must assess workforce housing needs and must contain goals, objectives and policies that preserve or develop workforce housing. The workforce housing element of the comprehensive plan may include:

- * Preservation or renovation of existing housing stock
- * Redevelopment of existing residential areas
- * Streamlined regulatory process
- * Reduced regulatory fees for construction or renovation and leveraging of Federal financial assistance
- * Financial incentives for construction and renovation
- * Special zoning regulations including inclusionary zoning
- * Efforts to preserve workforce housing stock for subsequent program participants
- * Coordination with neighboring jurisdictions and private sector employers

Other Changes You Need To Know About

Impacts on Local Authority to Re-Zone Land

All of the required elements of Article 66B, new and old, must be adopted and in place on or before October 1, 2009. A county or municipal corporation that is not in compliance "may not change the zoning classification of a property until that county or municipal corporation" has a plan in compliance with these requirements.

Extensions of Deadlines

for adopting new elements of the Comprehensive Plan A county or municipality may request an extension of the deadline for completing the new required elements from the Maryland Department of Planning. A deadline may be extended for "good cause" and may be granted for up to two six-month time periods.

Priority Funding Area changes

Beginning on October 1, 2006 an area certified as a Priority Funding Area by a municipality shall 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 plan. Municipalities should consult the following documents for guidance on acceptable methods for doing these calculations.

- * Managing Maryland's Growth, Models and Guidelines, Smart Growth: Designating Priority Funding Areas http://www.mdp.state.md.us/smartgrowth/pdf/PFA.PDF
- * The Report of the Development Capacity Task Force and the Model and Guideline document that outlines methods and best practices for conducting the analysis http://www.mdp.state.md.us/develop_cap.htm

The Task Force on the Future for Growth and Development in Maryland

House Bill 1141 establishes a Task Force to study current trends and challenges as they relate to population and growth, to analyze the impact of current local policies on infrastructure and the environment, and to make recommendations to implement law or regulations that further best management practices as they relate to future growth and development in the State. A report to the Governor and the Maryland General Assembly is required on or before December 1, 2007.

As mentioned above, MDP will develop additional materials and conduct informational meetings to aid the implementation of these new laws. In the meantime, contact MDP for more information 410-767-4500.

Selected Planning Tools Used in Maryland

The Comprehensive Plan and Zoning Ordinance

Comprehensive Plans, also known as Master Plans, capture how people want their communities to function and grow. In Maryland, local jurisdictions are required to review and, if necessary, to update their Comprehensive Plans every six years, and the Maryland Department of Planning offers technical assistance for these updates. The planning commission must review and, if necessary, revise or amend the comprehensive plan every six years. Article 66B outlines different elements, or subjects (for example, sensitive areas), that the comprehensive plan must address and gives the planning commission the authority to include elements not required by Article 66B, such as a housing element. Generally speaking, comprehensive plans should incorporate all of the elements that are necessary to provide a thorough assessment of issues and course of action.

The Maryland Department of Planning has published two documents on comprehensive plans: Preparing a Comprehensive Plan (#13 in the Models & Guidelines Series) and Revisiting the Comprehensive Plan: The Six Year Review (#20 in the Models & Guidelines Series).

The most fundamental implementation tool is zoning. A zoning ordinance establishes regulations for the use of land and some standards for development within identified zoning district boundaries. A related zoning map identifies properties that fall within different zoning categories. Zoning regulations must be uniform for each class or kind of development throughout each district, but regulations usually differ between districts.

Adequate Public Facilities Ordinance (APFO)

Adequate Public Facilities Ordinances (APFOs) are an effort to phase the provision of public facilities consistent with a locally adopted comprehensive plan. An APFO ties development approvals under zoning and subdivision ordinances to specifically defined public facility standards. They are designed to slow the pace of development or in extreme cases to delay development approvals in an area until adequate service levels are in place or reasonably assured.

In plain English, an APFO says that if the roads are too congested, if the school classrooms are too crowded, if the water system cannot provide enough water, if the sewer pipes or treatment plant are full, or if there are not enough playing fields for recreational use, then development can not be approved until the problem is corrected. At the same time, however, an APFO is not the appropriate tool to stop growth that is otherwise consistent with local zoning. The application of an APFO must be associated with a funding source to remedy whatever the constraint on growth approval might be.

Without such a funding source, an APFO can simply serve as an impediment to planned development that may serve to divert growth to areas where it is not desirable.

Adequate Public Facility Ordinances can be important growth management tools for rapidly growing counties and municipalities. APFOs are also an important and valuable tool for implementing the Eight Visions that are included in every local comprehensive plan and are established in State law as Maryland's development policy. In fact in 2000 the Maryland General Assembly incorporated the goal of adequate public facilities (though not a requirement that local governments adopt an APFO) into those Visions. APFOs are particularly relevant to the first Vision, which calls for concentrating growth in suitable areas. The premise of an APFO is that growth should be directed to suitable areas where facilities are adequate. There is a particularly strong State interest in this issue, because considerable amounts of State funds are directed to constructing schools,

sewer and water facilities, roads and parks. Since the passage of the Smart Growth initiatives in 1997 funding for growth related projects is prohibited outside of areas identified by local governments as their highest priority areas (Priority Funding Areas) for new growth.

Development Capacity Analysis

A development capacity analysis, sometimes also referred to as "build-out analysis" or "buildable lot inventory," is an estimate of the total amount of development that may be built in an area under a certain set of assumptions, including applicable land-use laws, policies (e.g., zoning) and environmental constraints. While this analysis is mostly focused on estimating capacity for new residential development, there is also value in estimating a jurisdiction's capacity to meet commercial and industrial needs, recreational needs or other land use goals.

It is important to have an estimate of the development supply (location, size, density, etc.) in a jurisdiction in order to assure it is adequately planning for future growth. These estimates can be used to evaluate policy considerations and help in making important planning decisions such as infrastructure planning, facilities planning, and assessments of whether or not a jurisdiction has an adequate supply of land for future residential growth. At a minimum, comprehensive plans should include the following development capacity related information:

- * An estimate of development capacity,
- * A clear methodology,
- * A list and explanation of data sources used in the analysis, including information about "zoning yield", and
- * A list of assumptions and caveats related to the capacity analysis.

For more information, refer to "Estimating Residential Development Capacity, A Guidebook for Analysis and Implementation in Maryland" published by the Maryland Department of Planning, August 2005

Transferable Development Rights

The concept of transferable development rights is not difficult to grasp. But for those completely unfamiliar with TDRs it may be necessary to think about property rights in an unaccustomed way. Ownership of a parcel of land confers upon its owner a number of rights: the right to use the property for one or more purposes, the right to cover a certain percentage of the site with buildings, the right to develop a certain number of dwelling units, as well as mineral, water and air rights. Under certain circumstances it is possible to transfer land development rights to another property. When this occurs it is referred to as a transfer of development rights and the rights themselves are transferable development rights or TDRs.

Owners of property are generally not free to transfer development rights among themselves at will. Normally, the transfer of development rights takes place within the context of a TDR program or system set up by local government. TDR programs have been established by eleven local governments in Maryland and a number of programs exist in other states. They have also been established for bi-state and sub-state regions.

TDRs have been transferred across property lines, county lines and even state lines. Some TDR programs are said to be voluntary and others mandatory.

In a sense, all TDR programs are voluntary because property owners are not legally compelled to transfer the rights. Under so called mandatory programs, however, the development rights available for use on the property may be very few, compared with the number of rights available for transfer. A distinction should be mad e between TDR programs "clustering." In a "cluster" subdivision the development rights pertaining to the parent parcel (the original tract being subdivided) are gathered and used in one particular area but never leave the confines of

the parent parcel. With TDRs the development rights are completely severed from the parent parcel and moved to a different geographic area. TDRs always cross property lines, whereas "cluster" development rights never leave the site of the parent parcel.

The details of the operation of TDR programs vary from one jurisdiction to the next, but the basic principle is the same . When rights are transferred from a parcel (called the sending parcel) an easement or other notation is recorded in the land records to indicate that the development rights cannot be exercised any longer on that parcel. The parcel to which the development rights are transferred (called the receiving parcel) is now eligible to exercise additional development rights. Proof of eligibility may take the form of a certificate issued to the purchaser of the development rights, a notation on a subdivision plat, a zoning certificate or some other instrument.

TDR programs are used to preserve agricultural land and historic landmarks, to achieve efficient, concentrated growth patterns, to protect sensitive natural environments, to protect water quality, or simply to provide a convenience to property owners. When TDRs are used to protect a resource, the resource area is officially described (by maps orwords) and this becomes a "sending area" where development rights may be transferred to another property in a designated "receiving area." The easements recorded in the sending area when rights are transferred serve to permanently protect the resource from development.

(For a more extensive overview of TDRs, please see the Maryland Department of Planning's Models and Guidelines publication, "Transferable Development Rights.")

Environmental Planning and Management Tools for Local Governments

Water and Sewerage Plans

State law (Environment Article Title 9-Subtitle 5) and regulation (COMAR 26.03) require the preparation and processing of Water and Sewerage Plans by local and State government. Water and Sewerage (W&S) Plans are required to ensure the provision of safe and adequate water and wastewater systems to meet existing and future demands. The law and regulations specify information to be included and processes to be followed.

W&S Plans must be consistent with county and municipal comprehensive plans. In cases where the county and municipal comprehensive plans conflict, MDE will work with the affected local governments and the Maryland Department of Planning to resolve such conflicts with respect to the W&S Plan approval process.

The county planning agency must certify that the W&S Plan, revision or amendment is consistent with the county comprehensive plan. In accordance with the law, MDE seeks the advice of MDP on the consistency of the proposal with the local comprehensive plan and other appropriate matters. Where MDP and the local government disagree on the consistency of a plan, revision or amendment, MDE requests that the State and local agencies meet to resolve the matter.

The law requires local governments to review the county plan annually and once every three years provide a report of this review to MDE. The county shall adopt and submit to MDE a revision or amendment if the governing body deems a revision or amendment necessary or if MDE requires a revision or amendment. If a County plan is in the process of updating the plan but will not be able to complete the update in three years, a report to MDE indicating progress will suffice to meet the law.

Draft W&S Plan updates, revisions and amendments must be submitted to appropriate multi-county or regional comprehensive planning agencies, MDE, MDP and DNR prior to the local public hearing required by State law before local plan adoption. The submittal of plans in draft form to MDE and MDP helps avoid disagreements on a plan after the local governing body has formally adopted the plan, revision or amendment.

The water and sewerage regulations require the inclusion of information in the W&S Plans about existing and future projected populations, existing and planned water and wastewater facilities, compliance with State effluent limitations and protection of water uses, the water and wastewater system processes, levels and types of treatment, operation and maintenance costs, and means of financing improvements.

Many local governments have sophisticated capital improvement programs (CIP) that annually publish the budget and five year projections for all capital expenditures in the jurisdiction. MDE may accept the excerpted portion of the local CIP that meets the requirements of the regulation, or incorporation by reference of the entire adopted local CIP. Any documents incorporated by reference should be readily available to the public in the same location as the Water and Sewerage Plan.

For more information, please contact MDE's Water Quality Infrastructure Program at 410-537-3574.

Development of Watershed Discharge Permits

The National Pollutant Discharge Elimination Permit (NPDES) program issues permits to industrial and municipal surface water dischargers. The program plays an important role in the implementation of the Chesapeake Bay Tributary Strategies and Total Maximum Daily Load (TMDL) attainment for the mainstem of the Bay. Nitrogen and phosphorus annual loading caps require local governments, private developers and industrial dischargers to be considered together in terms of total loadings on the receiving body of water, whether it is governed by a local TMDL limit or a loading cap imposed for the Bay TMDL.

MDE is looking at the possibility of creating watershed permits for nutrients. Under a watershed permit scenario, a total loading is established and the distribution of that loading will be made based upon purpose and demonstrated need. The establishment of watershed permits will be compatible with any pollutant trading and offset scenario developed, and will be protective of the waters of the State. A watershed permit approach will have a public participation process and will be renewable every five years. MDE will retain the right, as it currently has with NPDES permits, to re-open permits if there are changes in water quality standards or local water quality conditions.

Water and Wastewater Capacity Management Guidances

Environment Article 9-512 requires the State or local approving authority ensure that adequate water and/or wastewater facilities will be available and adequate to serve subdivision plats and building permits that are being approved. MDE has prepared and provided guidance documents to assist local governments and other community water treatment plant (WTP) and wastewater treatment plant (WWTP) owners in Maryland. The guide is designed to assist WTP and WWTP owners in calculating available/ allocable capacity, tracking allocation commitments, and reporting certain information to MDE. More accurate, integrated and real-time allocation and tracking information, combined with information on WTP and WWTP performance and flow, will ensure that WTPs and WWTPs operate within design parameters, do not exceed their ability to properly treat water and wastewater, and provide adequate capacity for planned future development.

The capacity management guidance documents provide all decision makers in a municipality (elected officials, health department, public works, assessment and taxation, etc.) with the information needed to make informed decisions about the capacity of their water and wastewater systems and the ability to accommodate new connections.

Implementation of a Capacity Management Plan may not avoid the occurrence of occasional violations. However, it should reduce the potential for such events to occur as a result of inadequate tracking/monitoring and over-allocation.

For more information on the Water Supply Capacity Management Guidance, please contact MDE's Water Supply Program at 410-537-3702.

For more information on the Wastewater Capacity Management Guidance, please contact MDE's Wastewater Permits Program at 410-537-3599.

MDE Capital Improvement Funding Programs

MDE has numerous grant and loan programs available annually to local governments and some eligible private entities for a wide variety of drinking water and water quality capital improvements. To be eligible for funding, proposed capital projects must be consistent with both the Comprehensive Plan and the Water and Sewerage Plan. Projects are evaluated in accordance with federal and State criteria on the seriousness of public health concerns, the pollution control to be achieved and readiness to proceed, among other factors. Loan funds only may be used for limited growth that is consistent with county and municipal plans.

Every four years, MDE conducts comprehensive Needs Surveys for Drinking Water and Water Quality capital projects, to support Congressional authorization and appropriation of needed federal funds. The participation of local governments in these efforts is critical to the influx of federal dollars into Maryland for water infrastructure projects.

Maryland's Source Water Assessment and Protection Programs Source water is water from rivers, streams, reservoirs, and aquifers that is treated and used for drinking water purposes. A source water assessment is a process for evaluating a public water system's source water and assessing its vulnerability to contamination. A source water protection program provides the first level of protection of a multi-barrier approach to ensure that the water entering a public water system is as safe as possible. Preventing contamination at the drinking water source protects public health and makes good economic sense.

The 1996 Federal Safe Drinking Water Act Amendments required states to develop and implement source water assessment programs for all public drinking water systems that define and evaluate public drinking water system risks. States were required to develop these programs with public input and to submit their programs to the U.S. Environmental Protection Agency (EPA) by February 1999. EPA approved Maryland's Plan in November 1999.

As of March 31, 2006, Maryland has completed source water assessments for all public water systems in the State. Source water assessment reports have been provided to water suppliers and local governments, and have been made available to the public through placement in public libraries. The reports documented that there is a wide range of vulnerability to contaminants among Maryland's water supplies.

Assessing the vulnerability of drinking water supplies is the first step toward protecting public drinking water system sources. Specific recommendations to protect each drinking water supply are included in the source water assessment reports, which were provided to the water systems. Water systems are encouraged to take an active role in protecting their source water.

Many activities that occur on the land surface have the potential to impact water quality in a drinking water source. Protecting a water supply involves coordination and cooperation between various local and state agencies. Some examples of common sense ways to protect source water include: proper location and design of on-site sewage disposal systems, petroleum storage tanks, and other point sources; prohibiting certain activities in close proximity to water supply sources; using zoning

to limit development in water supply watersheds; implementing pollution prevention measures; and adopting appropriate emergency procedures to ensure rapid response to events within a source water assessment area.

MDE produced a model wellhead protection ordinance in 1997 to assist local jurisdictions in protection of their drinking water supplies. The model ordinance allows for the creation of zoning overlay district(s) in which certain activities would be prohibited and other activities allowed only as a conditional use. Several towns have adopted wellhead protection ordinances for protection of their supplies (Middletown, Myersville, Mount Airy, Walkersville, and Aberdeen). In 2004 Carroll County adopted a Water Resource Management Ordinance, of which one component included wellhead protection. Wellhead Protection Areas should also be considered as special areas needing protection in county comprehensive plans. Local participation in wellhead protection is critical since a key component of risk prevention is through managing land use.

MDE has provided funds to several communities and water suppliers for wellhead protection activities and plans. In addition, loans are available for purchase of properties in wellhead and watershed protection areas.

For more information, please contact MDE's Water Supply Program at 410-537-3714.

Regulation of On-site Wells and Septic Systems

In addition to the regulation of large water and wastewater systems, MDE also regulates the siting, design, and construction of wells and septic systems serving individual properties, or in some cases single systems serving more than one property. These systems are permitted in areas of No Planned Service in the County Water and Sewerage Plans. This regulatory program is implemented at the local level, through the delegation of authority from MDE to the local approving authority. A delegation agreement is in place with each local approving authority, giving the local health department or environmental agency the power to approve the siting, testing, inspection and replacement of on-site wells

and septic systems. Such activities are further regulated through the State's Board of Licensed Well Drillers, Registered Environmental Sanitarians and other licensed professionals, such as plumbers, who are qualified to perform the testing and installation work for these systems.

MDE employs regional consultants who provide technical support to the local environmental health staff where issues arise regarding the siting, selection of appropriate system design and failures of on-site soils testing or failures of constructed systems.

The Bay Restoration Fund provides funding to on-site system owners to upgrade their septic systems to enhanced nutrient removal, especially nitrogen. This new program is now underway, with interest expressed by several local governments in managing local programs for the selection, installation, inspection, maintenance, and monitoring of nitrogen-removing on-site systems.

Stormwater Management Program

Maryland is a leader in the management of stormwater runoff from new development, redevelopment, and retrofitting existing developed areas to improve water quality. The State's stormwater authority is found in the Environment Article Title 4, Subtitle 2, Annotated Code of Maryland. In addition, the EPA has regulated municipal storm drainage systems since the early 1990's under the National Pollutant Discharge Elimination System (NPDES) program. The State works with NPDES designated counties and municipalities to implement plans that address the objectives of the Clean Water Act.

The State's stormwater management program remains key to the success of balancing growth and development with the goals of the Clean Water Act and the restoration of Chesapeake Bay. The Maryland Department of the Environment's 2000 Maryland Stormwater Design Manual (Design Manual) has many concepts, approaches, and design criteria that maximize water quality benefits, sound engineering principles, and aesthetics. This program is becoming more critical as a means for meeting Total Maximum Daily Load (TMDL) allocations.

In some cases, the greater use of environmentally sensitive designs found in the Design Manual elicits concerns from designers and local approving authorities regarding things such as road widths, use of curb and gutter, and other engineering practices. More discussion is needed to fully understand these issues so that more sustainable methods of stormwater management can be used without compromising public safety.

The complexity of stormwater management implementation varies depending on the extent and nature of local development. In addition to the Design Manual, MDE has produced a Model Stormwater Management Ordinance that provides assistance to municipalities that are developing new, local stormwater management codes. Local ordinances are approved by MDE and may be crafted to reflect local conditions and development activities.

Another barrier to effective stormwater management is the necessary funding to properly implement runoff control programs. Historically, stormwater management has been financed with general revenues from property taxes, which are often inadequate. Many localities have begun implementing stormwater management utilities as an alternative. MDE can provide additional guidance to municipalities interested in establishing a stormwater utility that produces a dedicated source for stormwater management program support.

For more information, call contact MDE's Sediment Control, Stormwater, and Dam Safety Program at 410-537-3543.

Identification of Priority Wetlands

MDE is preparing a tool to identify priority wetlands for restoration and preservation. A document is being prepared for each county and eight-digit watershed within each county that describes background conditions, known local goals, technical references, and other goals from various management plans. MDE has met with County representatives to receive their input. In addition to this document, MDE is preparing a separate GIS analysis tool to identify priority areas for both water quality and biodiversity. These tools are part of our Chesapeake Bay 2000

commitment for wetland preservation and the wetland conservation plan. It is funded by an EPA grant.

For more information, please contact the MDE Wetlands and Waterways Program at 410-537-3745.

State Wetland Conservation Plan

The State Wetland Conservation Plan was finalized in 2003. It was developed by State, federal, and local government representatives and representatives from agriculture, mining, forestry, utility, development, citizens, and environmental groups. The Plan, funded by an EPA grant, addresses the short- and long-term needs of wetlands resources management. It contains extensive background information on wetland acreage and distribution in Maryland, gains and losses, a description of the major state and local wetland inventories and a summary of State, federal and local regulations that protect wetlands. The plan outlines five major goals: develop a wetland baseline; assess current and potential wetland threats and trends; increase efficiency and effectiveness of wetlands regulation and management in Maryland; identify wetlands for priority protection and restoration; and increase participation in wetland preservation, restoration, enhancement and stewardship.

Implementation currently focuses on development of wetland functional assessment methods; identification of priority areas for wetland restoration and protection; assessing effectiveness of mitigation efforts; improving the effectiveness and efficiency of regulatory programs; and exploration of options for mitigation banking.

For more information, please contact the MDE Wetlands and Waterways Program at 410-537-3745.

Wetland Creation/Shoreline Stabilization

New guidance has recently been completed by MDE for wetland creation as a shoreline stabilization practice for erosion control and habitat. The guidance is being developed based on research conducted by the University of Maryland and MDE. The project was funded by an EPA grant. Additional guidance for other types of shore erosion control practices is expected to be complete by the end of 2006.

For more information, please contact the MDE Wetlands and Waterways Program at 410-537-3745.

Floodplain Mapping

Utilizing funding from FEMA's map modernization program, MDE has begun the process of converting the 100-year floodplain maps from a paper format into a digital data product. This re-mapping effort has also provided the MDE with an opportunity to take a more in-depth look at re-creating the 100-year floodplain layer with the latest rainfall, topology, and digital data layers available. MDE is working with FEMA and local governments to create this data in counties that have not signed their own map modernization agreement with FEMA.

Through this effort, MDE is also looking to develop a method of incorporating our floodplain ordinance review and day-to-day wetlands and waterways permitting activities to maintain the accuracy and completeness of the newly created digital data layers. MDE intends to provide the completed floodplain data layers to each community within the designated floodplain to ensure that the most up to date information is available for planning, zoning, and construction activities.

For more information, please contact the MDE Wetlands and Waterways Program at 410-537-3745.

Non-Coal and Mineral Resources Planning

Environment Art. 15-804 relates to non-coal mining and mineral resources planning. Section 804 requires MDE to review mineral resources plans developed by local planning commissions. The mineral resource plans are required by Article 66B of the State Planning Commission. Only two counties have developed mineral resource plans that recognize mining and set aside mineral resource areas.

Mineral resources are a vital part of our economy in providing the basic essentials of building. Transportation costs are a big part of producing aggregate material used in everyday life. Rapid development in Maryland is making a plentiful resource much harder to obtain as development covers once available resources. MDE working in conjunction with the Office of State Planning can provide comment and experience from across the State in developing effective mineral resource components to local governments.

For more information, please contact the MDE Mining Program at 410-537-3557.

State Implementation Plan Planning

A State Implementation Plan (SIP) is an enforceable plan developed at the state level that explains how the state will comply with air quality standards according to the federal Clean Air Act. A SIP must be submitted by the state government of any state that has areas designated as nonattainment for the federal air quality standards. SIPs include a collection of state and local regulations and plans to achieve healthy air quality under the CAA.

Since the early 1970s, MDE has developed and implemented control programs to reduce emissions to attain the National Ambient Air Quality Standards (NAAQS). These control efforts have required reductions from sources in all sectors of the emissions inventory and ranged from traditional command and control regulations to voluntary programs focusing on emission reductions during significant ozone events. From

a regulatory perspective, few emission sources have not been subject to some form of regulatory control at the state or federal level. For example, over 90% of the sources that were responsible for releasing VOC and NOx emissions in 1990 have been regulated.

SIPs can be considered growth and development documents as part of the SIP development process involves the estimation of future emissions (from mobile, area, non-road, and stationary sources) for the state. MDE uses demographics, economic forecasting, federal forecast data, and models to predict future emissions growth.

Solid Waste Management Plan

Each County and Baltimore City government is required to have an approved County Solid Waste Management Plan that covers a ten-year period and describes how the government will meet the waste disposal needs of its citizens. Counties are required to review their plans at least once every three years, and update their respective plans as necessary.

Environment Article, Sections 9-501 through 521 describe the statutory requirements for County Solid Waste Management plans, including development, content, and the approval process. Additional detail is provided in regulations at COMAR 26.03.03, Development of County Comprehensive Solid Waste Management Plans. Also, municipalities and other entities such as large military installations like Aberdeen Proving Ground can develop their own subsidiary plans that can be incorporated into the County plan.

List of Impaired Waters

Each State must monitor and assess its waters every two years. Those "water segments" not meeting water quality standards, are considered "impaired" and must be identified and submitted to the U.S. Environmental Protection Agency. For most impaired waters a correction plan quantitatively identifying the allowable load of the impairing pollutant must be prepared. This plan is called a Total Maximum Daily Load (TMDL). The TMDL essentially is cap on pollution and indicates where development may be constrained by water quality considerations.

Antidegradation

Under the federal Clean Water Act, states must identify areas with water quality that is better than the minimum requirements and preserve that water quality, i.e., must prevent degradation of high quality waters. Approximately 80 of these high water quality areas have been identified, and new discharges to these areas require additional review to (1) try to place the discharge elsewhere if possible, (2) minimize the impact, and (3) if there must be impact, it must be justified from a social and economic perspective. Careful consideration should be given to development in, or upstream, of these high water quality areas to avoid impacts to sensitive resource areas.

In addition to these summaries, please visit the Maryland Department of the Environment's website at www.mde.state.md.us or call 1-877-mdegoto to obtain additional information on the Department's programs.

Maryland Department of Planning Publications

The Maryland Department of Planning produces a series of publications, called Models and Guidelines, which provide planning information and general guidance to local jurisdictions.

#1 Procedures for Review of Local Construction Projects; Project Review Checklist; Compliance Schedule for Local Government; and Work Program for Updating Comprehensive Plan and Implementation. October 1992.

#2 Procedures for State Project Review Under the Planning Act of 1992

January 1993

This document includes text from the 1992 Economic Growth, Resource Protection, and Planning Policy Executive Order that establishes procedures for review of capital improvement projects for consistency with the State's growth policy.

#3 Preparing a Sensitive Areas Element May 1993

This document covers the four environmentally sensitive areas that require protection under the 1992 Planning Act: streams and their buffers, 100-year floodplains, habitats of threatened and endangered species, and steep slopes. It includes information to aid in identifying and defining sensitive areas and formulating protective goals, objectives, and implementation techniques.

#4 Regulatory Streamlining February 1994

This report contains examples of streamlining tools and discusses procedural and substantive planning techniques.

#5 Achieving Consistency Under the Planning Act April 1994

This booklet describes the consistency requirements of the 1992 Planning Act and recommends immediate and longer-term actions that will help achieve consistency of land use decisions with the Comprehensive Plan and the Planning Act.

#6 Interjurisdictional Coordination June 1994

This report discusses the significance of interjurisdictional planning in local comprehensive plan preparation, describes effective mechanisms for interjurisdictional planning, and reviews the ways in which interjurisdictional coordination is features in local plans.

#7 Design Characteristics of Maryland's Traditional Settlements August 1994

This publication, based on work conducted at the School of Architecture at the University of Maryland, focuses on the detailed design characteristics of several representative towns, villages and neighborhoods in Maryland. The report is richly illustrated with maps, photographs, and streetscape renderings.

#8 Clustering for Resource Protection October 1994

This publication offers practical advice to local governments considering use of clustering, contains several planning and zoning models, and a model conservation easement. (Note: This report is out of print, but it can be viewed at the MDP library or at a public library in Maryland.)

#9 Transferable Development Rights January 1995

This publication offers practical advice to local governments considering use of transferable development rights, describes existing TDR programs in Maryland and other states, and provides guidelines for preparing TDR ordinances and model zoning codes.

#10 Overlay Zones March 1995

This booklet describes overlay zoning as an important growth management tool and includes examples for both resource protection areas and growth areas. Overlay zones can be an effective and efficient method for adding or modifying zoning rules to address a planning issue that does not coincide with the boundaries of existing zones.

#11 Achieving Environmentally Sensitive Design April 1995

This report can help local jurisdictions reconcile protection of sensitive areas and concentrating development. The report describes how regulations can hurt rather than help the environment, offers general design guidelines for protecting forests, wetlands, steep slopes, habitat, and water quality and includes examples of environmentally sensitive projects and flexible ordinances that put innovative projects on a fast track.

#12 Urban Growth Boundaries August 1995

This report examines urban growth boundaries as a technique for concentrating growth in development areas and discouraging it elsewhere. It explains how boundaries are used in Maryland and in other states, outlines the elements that must be present for a growth boundary to be successful, and presents a step-by-step procedure for creating and enacting a boundary.

#15 Mineral Resource Planning March 1997

This booklet provides an overview of planning and zoning issues for mineral resources extraction. The discussion is concentrated on sand and gravel surface mining, but includes coal and stone resources. County level planning is the primary focus, but some municipal mineral extraction programs are addressed.

#16 Smart Growth: Municipal Implementation October 1997

This guide to the "Smart Growth" Areas Act of 1997 offers ways to meet the requirements and take advantages of the benefits of the Act. It includes municipal-county impact fee agreements, school facility standards, and PFA certification models.

#17 Smart Growth: Designating Priority Funding AreasNovember 1997

This publication features strategies and methodologies to determine the boundaries of Priority Funding Areas in response to the "Smart Growth" Areas Act of 1997. It includes models for calculating residential density, land capacity and future land needs, guidelines for designating rural villages, and a format and procedure for submitting PFAs to the Maryland Department of Planning.

#18 Sensitive Areas: Volume II February 1998

This publication contains descriptions of four broad categories of sensitive areas including tidal wetlands, nontidal wetlands and waterways, groundwater and mineral resources, and landscape conservation. It covers definitions, reasons for protection, protective measures, mapping resources, and a detailed biography.

#19 Sizing and Shaping Growth Areas December 1998

This is a resource guide for local governments that are considering the creation or refinement of growth boundaries.

#21 Smart Neighborhoods September 2001

This report provides sample code language that local governments can use to address some of the impediments to smart neighborhood development found in land use regulations. This is a companion report to the Infill and Redevelopment Models & Guidelines.

#22 Big Box Development

December 2001

This publication examines the trends and impacts of big box retail development, regulation strategies, and implications for Smart Growth.

#23 Infill and Redevelopment October 2001

This report includes model zoning codes, examples of existing zoning codes from jurisdictions throughout the country, and a list of minimum requirements that jurisdictions must meet in order to qualify for certain State incentives. This is a companion report to the Smart Neighborhoods Models & Guidelines.

#24 Adequate Public Facilities Ordinances (APFOs) June 2006

This booklet updates the 1996 Adequate Public Facilities Ordinances (APFOs) and provides a definition of APFOs. It offers guidance and direction to local jurisdictions that are considering the adoption or refinement of an APFOs, including how to determine whether an APFO program is appropriate, how to design a program, legal issues, and municipal applications.

Maryland Department of the Environment Publications

The Maryland Department of the Environment (MDE) produces a variety of publications that provide planning information and general guidance to local jurisdictions.

#1 Maryland's TMDL Implementation Guidance for Local Governments (2006)

Achieving and maintaining the goals of Total Maximum Daily Loads (TMDLs) will affect many local government functions including: land use planning, water and sewer planning, stormwater management and all associated financial planning. The guidance was developed to begin educating local governments about many interrelated issues surrounding TMDL implementation. It is intended to provide interim tools that will enable local jurisdictions to maintain high environmental quality of life in their communities, as well as valuable planning concepts to achieve their water quality goals.

#2 Water Capacity Management Guidances (2006)

MDE has prepared and provided guidance documents to assist local governments and other community water plant (WTP) owners in the State of Maryland to assist owners in calculating available/allocable capacity, tracking allocation commitments, and reporting certain information to MDE.

#3 Wastewater Capacity Management Guidances (2006)

MDE has prepared and provided guidance documents to assist local governments and other community wastewater treatment plant (WWTP) owners in the State of Maryland to assist WWTP owners in calculating available/allocable capacity, tracking allocation commitments, and reporting certain information to MDE.

#4 Maryland Stormwater Design Manual (2000)

The Maryland Stormwater Design Manual has many concepts, approaches, and design criteria that maximize water quality benefits, sound engineering principles, and aesthetics.

#5 Model Wellhead Protection Ordinance (1997)

MDE produced a model wellhead protection ordinance in 1997 to assist local jurisdictions in protection of their drinking water supplies. The model ordinance allows for the creation of zoning overlay district(s) in which certain activities would be prohibited and other activities allowed only as a conditional use.

Commonly Used Planning Terms

Adequate Public Facilities Ordinance (APFO): Adequate Public Facilities Ordinances (APFOs) are an effort to phase the provision of public facilities consistent with a locally adopted comprehensive plan. An APFO ties development approvals under zoning and subdivision ordinances to specifically defined public facility standards. They are designed to slow the pace of development or in extreme cases to delay development approvals in an area until adequate service levels are in place or reasonably assured.

Build-Out: A theoretical measure of "full development" for which public facilities are planned.

Capital Improvement Program (CIP): A six-year comprehensive statement of the objectives of capital programs with cost estimates and proposed construction schedules for specific projects. The CIP is submitted annually to the local executive and governing body.

Charrette: A design workshop aimed to gather input from stakeholders, which results in clear guidance about the future development of a particular project or place.

Chesapeake Bay Critical Area: All waters of and lands under the Chesapeake Bay and its tributaries to the head of tide as indicated on the state wetlands maps, and all land and water areas within 1,000 feet beyond the landward boundaries of and heads of tides as indicated on approved Chesapeake Bay Critical Area Overlay Zoning Map Amendments.

Cluster Development: An alternative development technique under zoning and subdivision regulations. A cluster subdivision is basically one in which a number of residential lots are grouped or clustered, leaving some land undivided for common use. Generally the same number of lots or dwelling units permitted under conventional subdivision procedures

are clustered on smaller-than-usual lots. The land remaining from lot reduction is left undivided and is available as common area or open space.

Comprehensive Plan: Also called a general plan or master plan, this is a plan for development of an area that recognizes the physical, economic, social, political, aesthetic, and related factors of the community.

Comprehensive Ten-year Water and Sewerage Plan: A plan required by the state and adopted annually by the county that describes county policy related to water and sewerage planning and delineates geographic areas to be serviced over the next ten years.

Conservation Agreement: A formal agreement that commits a grading or building permit applicant within the Chesapeake Bay Critical Area to the execution of various approved elements of a Conservation Plan, including a stormwater management concept plan, an erosion and sedimentation concept plan, a vegetation management plan, and other plans that may be required by the Department of Environmental Resources or the Prince George's County Planning Board.

Conservation Easement: A nonpossessory interest in land that restricts the manner in which the land may be developed in an effort to preserve natural resources for future use.

Development Regulations: Regulations that limit the size, bulk, or siting conditions of particular types of buildings or uses located within any designated district.

Density: The number of dwelling units or persons per acre of land, usually expressed in units per gross acre.

Downzoning: A popular term for an action that changes a property to a lower density, in effect limiting development to less-intense uses than previously permitted.

Environmental Impact Statement (EIS): A document, prepared by a federal agency, on the environmental impact of its proposals for legislation and other major actions that significantly affect the quality of the human environment. Environmental Impact Statements are used as tools for decision-making and are required by the National Environmental Policy Act. Similar environmental analyses are undertaken by state and local agencies.

Euclidean Zone: A traditional zone in which certain types of land uses with specific regulations are permitted.

Floating Zone: a zone that is more flexible than Euclidean zones in terms of permissible densities, intensities and land uses and overall development design opportunities.

Floodplain: a relatively flat or lowland area adjoining a river, stream, or watercourse, which is subject to periodic, partial or complete inundation.

Geographic Information System (GIS): An organized collection of computer hardware, software and geographic data designed to efficiently capture, store, update, manipulate, analyze and display all forms of geographically referenced information.

Green Area: An area of land associated with, and located on the same parcel of land as, a building for which it serves to provide light and air, or scenic, recreational, or similar purposes.

Green Building: Practices that consider the impacts of buildings on the local, regional, and global environment, energy and water efficiency, reduction of operation and maintenance costs, minimization of construction waste, and eliminating the use of harmful building materials.

Green Infrastructure: A network of large undisturbed land areas (hubs) connected by designated pathways for the movement of wildlife and humans (green corridors).

Greenways: Areas of protected open space that follow natural and manmade linear features for recreation, transportation and conservation purposes and link ecological, cultural and recreational amenities.

Historic District: A group of historic resources comprised of two or more properties that are significant as a cohesive unit and contribute to the historical, architectural, archeological, or cultural values within an area.

Historic Resource: An area of land, building, structure or object that may be significant in American history, architecture, archaeology, or culture. Historic resources are designated as such in the local plan.

Historic Site: An individual historic resource that is significant in American history, architecture, archaeology, or culture and is so designated in the local Historic Sites Plan.

Infill Development: Development that takes place on vacant or underutilized parcels within an area that is already characterized by urban development and has access to urban services.

Infrastructure: The built facilities, generally publicly funded, that are required in order to serve a community's developmental and operational needs. The infrastructure includes such things as roads and water and sewer systems.

Intensity: A term referring to the gross (total) floor area and/or the degree to which commercial and industrial land uses generate traffic, noise, air pollution and other potential problems, for commercial and industrial uses.

Land Use: The types of buildings and activities existing in an area or on a specific site. Land use is to be distinguished from zoning, the latter being the regulation of existing and future land uses.

Master Plan: A document that guides the way an area should be developed. It includes a compilation of policy statements, goals, standards, maps and pertinent data relative to the past, present, and future trends of a particular area of the County including, but not limited to, its population, housing, economics, social patterns, land use, water resources and their use, transportation facilities, and public facilities.

Mixed-Use Zoning: Zoning that permits a combination of uses within a single development. Many zoning districts specify permitted combinations of, for example, residential and office/commercial uses. The term has also been applied to major developments, often with several high-rise buildings, that may contain offices, shops, hotels, apartments and related uses.

Open Space: Areas of land not covered by structures, driveways, or parking lots. Open space may include homeowners' association common areas, parks, lakes, streams and ponds, etc.

Pedestrian-Oriented Design: Land use activities that are designed and arranged in a way that emphasizes travel on foot rather than by car. Elements include compact, mixed-use development patterns with facilities and design that enhance the environment for pedestrians in terms of safety, walking distances, comfort, and the visual appeal of the surroundings. Pedestrian-friendly environments can be created by locating buildings close to the sidewalk, by lining the street with trees, and by buffering the sidewalk with planting strips or parked cars, small shops, street-level lighting and signs, and public art or displays.

Plot Plan: A plat of a lot, drawn to scale, showing the actual measurements, the size and location of any existing structures or structures to be erected, the location of the lot in relation to abutting streets, and other such information.

Record Plat: An official plat of subdivision as recorded in the land records of a Maryland county and the city of Baltimore.

Sensitive Environmental Features: These features include streams, stream valleys, and their associated features; the habitats of state-listed species that are rare, threatened, and endangered; 100-year floodplains; and certain high-priority forests.

Setback: The distance between a building or structure (not including ground-level parking lots or other paved surfaces) from property lines or from other buildings.

Site Plan: A plan, to scale, showing uses and structures proposed for a parcel of land as required by the regulations. Includes lot lines, streets, building sites, reserved open space, buildings, major landscape features-both natural and manmade-and, depending on requirements, the locations of proposed utility lines. Note: Site plans are often required to show wells, septic fields, easements, and other things.

Special Exception: A land use that would not be appropriate generally or without restrictions throughout the zoning division or district but which, if controlled as to number, area, location, or relation to the neighborhood, would promote the public health, safety, welfare, morals, order, comfort, convenience, appearance, prosperity or general welfare. Such uses may be permitted in such zoning division or district as special exceptions, if specific provisions for such special exceptions are made in this ordinance.

Subdivision: The division by plat or deed of a piece of property into two or more lots, plots, sites, tracts, parcels, or other land divisions in accordance with local county code.

Subdivision Regulations: The control of the division of a tract of land by requiring development according to design standards and procedures adopted by local ordinance.

Transfer of Development Rights (TDR): A growth management tool used to protect designated rural and environmentally sensitive areas by allowing development rights to be transferred to properties in other parts of the county.

Transit-oriented Development (TOD): Land uses that are sited, designed and combined to maximize transit, particularly rail, ridership.

Transportation Improvement Program (TIP): A six-year regional schedule for the study, acquisition, upgrading, or development of major highway, transit, bike and pedestrian facilities, and services.

Urban Design: The process of giving form, shape and character to the arrangement of buildings, to whole neighborhoods, or the city. Urban design blends architecture, landscaping and city planning concepts together to make an urban area accessible, attractive and functional.

Variance: A departure from any provision of the zoning requirements for a specific parcel, except use, without changing the zoning ordinance or the underlying zoning of the parcel. A variance is usually granted only upon demonstration of hardship based on the peculiarity of the property in relation to other properties in the same zoning district.

Visioning: A method for defining, sharing and communicating a community's future through intensive public participation at meetings.

Zoning: The division of a city or county legislative regulations into areas, or zones, which specify allowable uses for real property and size restrictions for buildings within these areas. Also, a program that implements policies of the General Plan.

Zoning Amendments: A change in the wording, context, or substance of this title or a change in the zoning or district boundaries of the official zoning map, to be made a part of this title.

Zoning Map: A map that graphically shows all zoning district boundaries and classifications within the city, as contained within the zoning code, which is signed by the community development director and on file in the planning department.