

# Models & Guidelines Summary: Development Capacity Analyses

- Through the Maryland Municipal League (MML) and the Maryland Association of Counties (MACo), local governments committed to include a development capacity analysis as part of their comprehensive plans. An executive order committed the State, through the Maryland Department of Planning (MDP), to assist local entities in this effort.
- Local governments may conduct their own analysis per the Taskforce's guidelines or work with MDP to generate the analysis.
- Working with MDP on the analysis can be as simple as sharing data, providing input on key development issues, and reviewing rough draft analyses.
- This document outlines how to get started and cites the key parts of the Task Force Final Report and a models and guidelines document to provide guidance on how to conduct the analysis.
- The Development Capacity Task Force Report (July 2004) is available on MDP's web page ([www.mdp.state.md.us](http://www.mdp.state.md.us)) and outlines the methodologies, data, uses, and background for the analysis and its justification.

In 2004, the **State of Maryland** and **local governments** (represented by the Maryland Municipal League and the Maryland Association of Counties) committed themselves to conducting development capacity (i.e., buildout) analyses of all local jurisdictions in the State.

Local governments committed to include these analyses in their comprehensive plan updates, while the State, under an Executive Order from **Governor Robert L. Ehrlich, Jr.**, agreed to assist in performing the work necessary to prepare such analyses.

Although, some local entities will do their own analysis, most will initially use the **Maryland Department of Planning's** analysis or a modified version thereof.

This document is a guide for local governments to use when performing such analyses. It is primarily written for local government planners.

The development capacity initiative and this guidebook are based on the findings and recommendations of the **Governor's Development Capacity Task Force Final Report**, which can be downloaded from MDP's website at [http://www.mdp.state.md.us/develop\\_cap.htm](http://www.mdp.state.md.us/develop_cap.htm).

This guidebook is not intended to be a manual of instructions for doing an analysis. Rather, it provides overall guidance for data, methodology, and analysis reporting. The Task Force's final report was fairly specific in many cases regarding various aspects of the analysis and is reflected in these guidelines.

## Step 1 – What is a 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.

There are many different ways to do a development capacity analysis. Several valuable examples include:

- Final Report of the Development Capacity Task Force by the Maryland Department of Planning,
- Best Practices Section of the Models & Guidelines for Development Capacity Analysis (Washington, Oregon, Ft. Collins examples),
- Carroll County's Report (<http://ccgov.org/plan-d/bli/index.html>)

## Step 2 – Data Collection and Analysis Cooperation

Each jurisdiction will always have unique sets of data and slightly different methods of using the data. However, there are several basic data elements that should be used in any development capacity analysis. These data are available to every Maryland local government via the Maryland Department of Planning (in cooperation with the local jurisdiction).

MDP will perform its own development capacity analysis for every local jurisdiction in Maryland. This analysis will be used for many purposes and programmatic responsibilities within MDP, including maintaining statewide Geographic Information System (GIS) data and information.

**Table 1** contains a listing of the key pieces of data used in a capacity analysis. The MDP Default Specifications reflect basic data that MDP maintains, however, local governments are encouraged to share more extensive data such as zoning, sewer and protected lands with MDP. The more a jurisdiction and MDP work in cooperation, the better the analysis becomes.

## Step 3 – Present Findings

Local governments have committed to include capacity analyses in their comprehensive plans. It could be a chapter or an appendix of the plan, including all of the suggested elements of a capacity analysis. There should be a link from growth policies to the findings of the development capacity analysis.

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.

*Please note:* It is also acceptable to refer to an external report that includes all of the suggested elements of a capacity analysis. If the analysis is not presented in the comprehensive plan directly, an explanation of how capacity analysis is used in the local planning process is recommended.

At a minimum, these analyses should estimate residential development capacity in and out of the Priority Funding Areas (PFAs). Additional geographic subsets of this analysis could include sewer service areas, development districts, zoning districts, etc.

**Table 2** illustrates the recommended manner for summarizing these subsets of the analysis.

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

## Table I. Data Needs for Capacity Analysis

Requirements	MDP Default Specifications	Possible Enhancements made by Local Government
(1) Parcel Data	<ul style="list-style-type: none"> <li>• MDP generates annual updates of MdProperty View, a geo-referenced database for every piece of land in Maryland.</li> <li>• MDP has a “GIS Data Partnership” where a jurisdiction supplies MDP with planning datasets in exchange for licenses of MdProperty View or FINDER. Refer to the “GIS Data Partnership” document for details.</li> </ul>	<ul style="list-style-type: none"> <li>• Where jurisdictions have superior parcel data, such as a parcel polygon GIS file, they are encouraged to use it in their development capacity analysis.</li> <li>• These data can be shared with and run through MDP’s development capacity model.</li> </ul>
(2) Zoning Maps and Estimates of Zoning Yield	<ul style="list-style-type: none"> <li>• Maps of zoning districts (a guide to where and what type of future development is allowed).</li> <li>• Maximum density allowed in each zoning category.</li> <li>• Expected zoning yield (actual achieved density of development in each zoning district).</li> <li>• Mix of land uses in “mixed use” zoning districts.</li> <li>• In the absence of better information, an estimate of a 75% yield rate (i.e., 25% reduction from the permitted density) is used.</li> </ul>	<ul style="list-style-type: none"> <li>• Yield is often less than the allowable density of a zoning district, since it accounts for land that is needed to build roads, on-site environmental features (steep slope, wetlands, etc.), market conditions, or other considerations when development projects are actually approved.</li> <li>• Local governments should examine factors that prevent developments from obtaining a zoning yield of 100% of allowable density per zoning district.</li> <li>• Some jurisdictions may want to consider several estimates of yields and other inputs to the analysis to produce a range of capacity estimates given certain conditions (development scenarios).</li> </ul>
(3) Protected Land and Lands with Environmental Constraints	<p>MDP accounts for the following types of protected and constrained lands:</p> <ul style="list-style-type: none"> <li>• Protected lands (land preservation easements, parks, homeowner association lands, historic preservation easements, etc.)</li> <li>• Critical Areas</li> <li>• Wetlands</li> </ul>	<p>Local jurisdictions could include other potential constraints such as:</p> <ul style="list-style-type: none"> <li>• Floodplains</li> <li>• Historic, cultural, or archeological areas</li> <li>• Steep slopes</li> <li>• Other areas as deemed appropriate and measurable</li> </ul>
(4) Local Water and Sewer Plans	<ul style="list-style-type: none"> <li>• Maps of existing and planned sewer and water service.</li> <li>• Descriptions of each sewer and water service category (i.e. time frames for when new service is expected to be available).</li> </ul>	
(5) Local Planning Expertise	<p>MDP incorporates this knowledge when planners from jurisdictions work directly with MDP staff:</p> <ul style="list-style-type: none"> <li>• Location and information related to small area plans or sector plans (TOD areas, mixed use centers, etc.).</li> <li>• General policies and procedures within the jurisdiction that may have an impact on capacity analysis (subdivision requirements, anomalies of water and sewer plans or zoning categories, etc.).</li> <li>• Trends and market impacts on realized density within the local jurisdiction.</li> </ul>	<ul style="list-style-type: none"> <li>• Often in local jurisdictions there are plans, policies or trends that are not captured in empirical GIS data but are nonetheless valuable to any capacity analysis. This local planning expertise should be integrated into analysis by adjusting key inputs, such as zoning yield, sewer service assumptions, protected lands status, etc.</li> <li>• Other information about zones or issues that may affect future development, such as infrastructure issues.</li> </ul>

## Table 2. Analysis Summary Table

Result	Process	Acres	Number of Parcels	Capacity
Total Acres in Parcels and Lots				
	Subtract land zoned for nonresidential use (commercial, industrial)			
Residentially Zoned Acres				
	Subtract tax exempt land (tax exempt code)			
	Subtract protected lands and environmentally sensitive parcels (ag easements, wetlands, HOA land, etc.)			
	Subtract other parcels without capacity (built out areas, etc.)			
Acres and Parcels with Capacity	Total capacity			
Capacity Inside PFA				
Capacity Outside PFA				
<b>Subsets of the Analysis of Interest (these are not additive)</b>				
Acres and Parcels with capacity associated with Underdeveloped land.	Improved Parcels (> \$10,000), less than 5 acres.			
Acres and Parcels Associated with Small parcels.	Parcels <2 acres in size (improved or unimproved)			
Acres and parcels associated with larger, undeveloped parcels.	Includes unimproved parcels, greater than 2 acres with capacity and improved parcels greater than 5 acres with capacity.			



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