

# Carroll County Buildable Land Inventory

## Residential

### Residential Lot Yield Methodology

#### Process

The following process outlines the steps taken to calculate the medium range potential lot yield on residential land by parcel based on the underlying zoning and land use designations. The zoning BLI is calculated separately for each of the eight municipalities within their corporate limits and is also calculated for the “County Unincorporated” regions. The land use designation BLI estimates are calculated separately within each of the DGA’s and for the County outside the DGA’s. The calculations are done separately as each town has unique zoning and land use designations and associated code.

**Step 1: Identify Constraints to Development**-This includes both absolute constraints and partial constraints. Absolute constraints usually encompass the entire parcel and include:

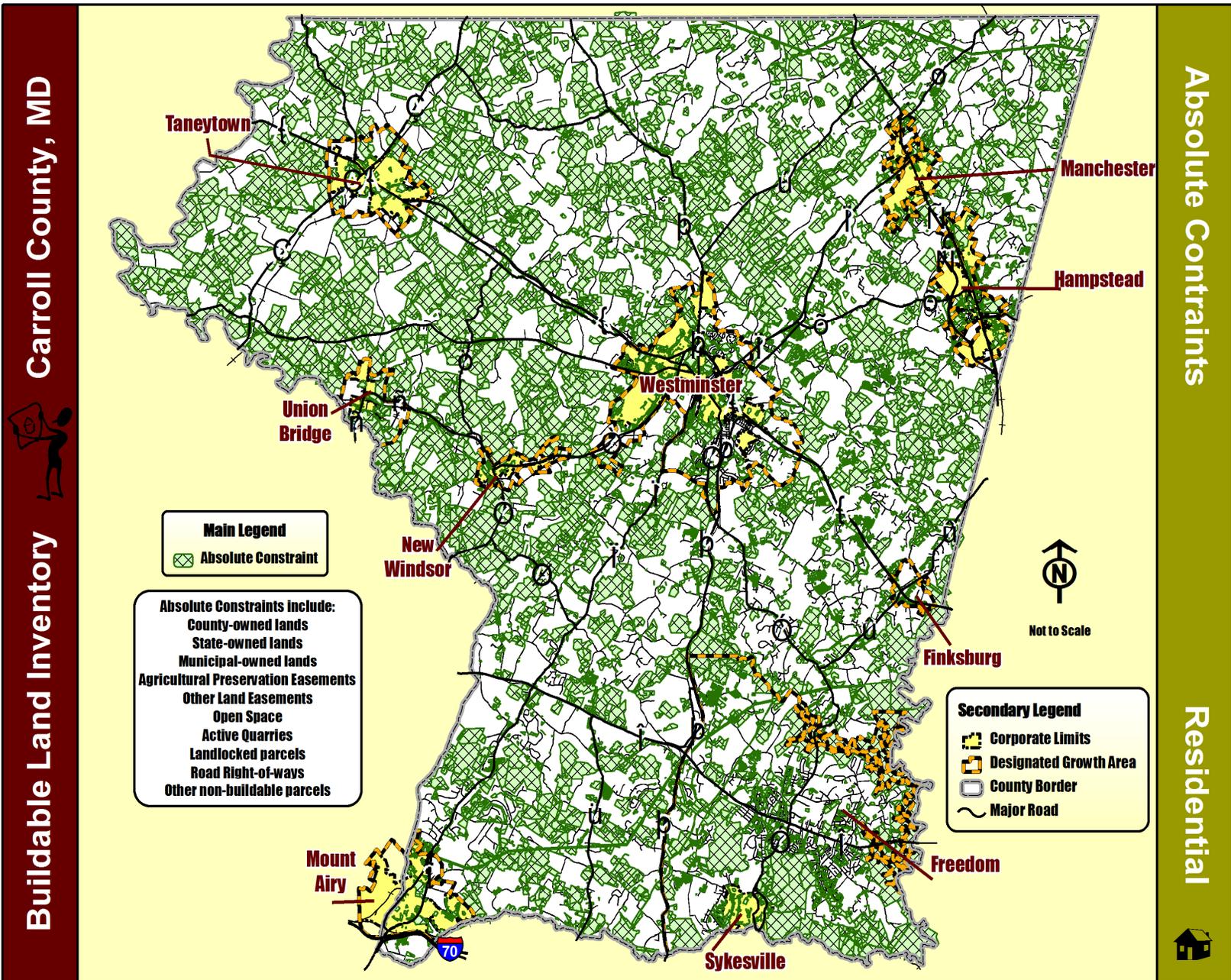
- Municipal-owned lands-lands owned by county, state, city or towns
- Agricultural Land Preservation Easements
- Agricultural Remaining Portions without further subdivision rights

- Road Right-of-ways
- Open Space
- Quarries
- Land-locked parcels
- Public Use
- Forest Conservation Easements
- Floodplain Easements
- Water Resource Protection Easements
- Other non-buildable parcels

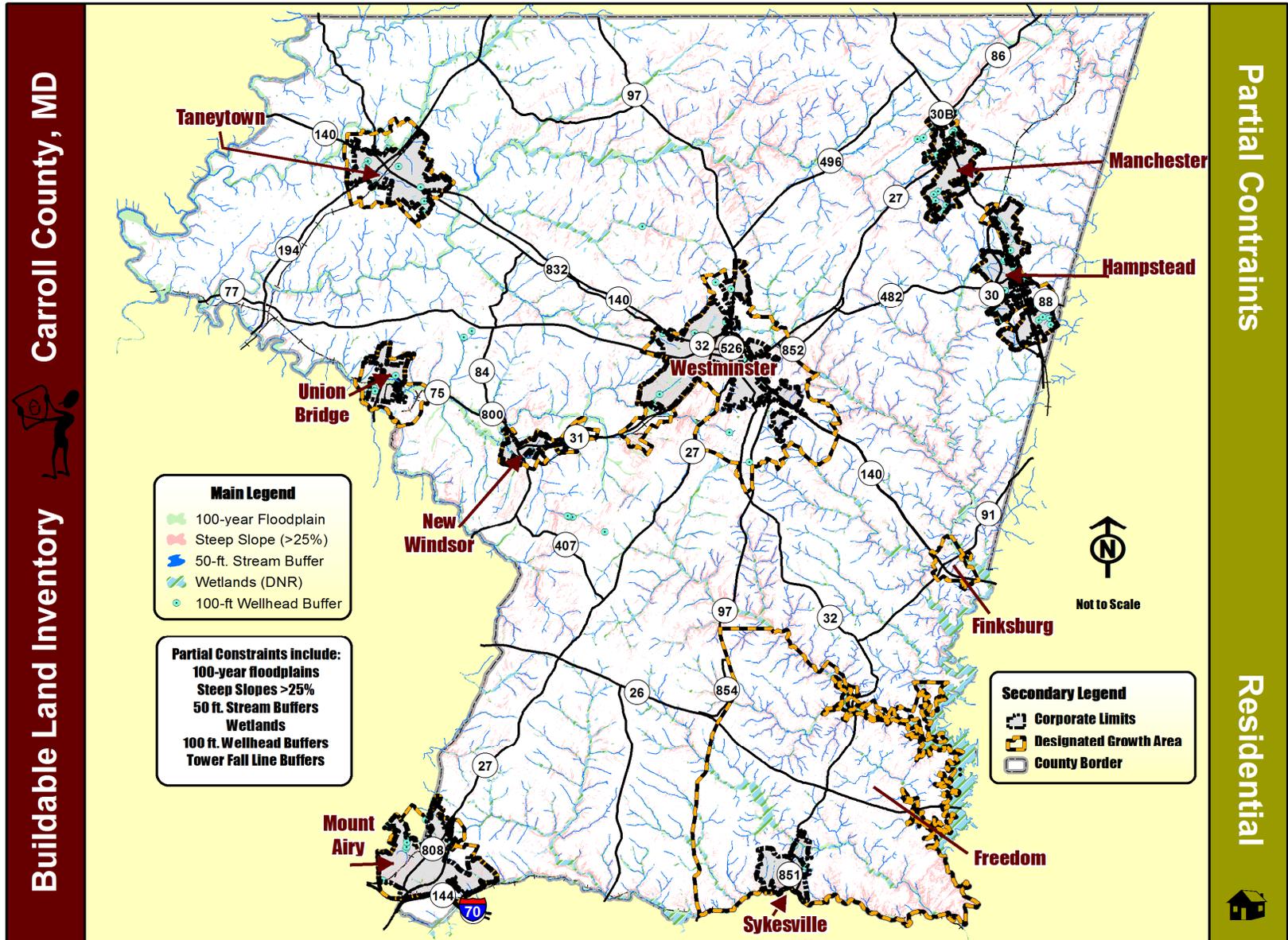
Partial Constraints generally only impact a portion of a given parcel and include:

- Streams and stream buffers
  - FEMA 100-year floodplains
  - Steep Slopes
  - Wetlands
  - Wellhead Buffers
  - Communication Towers
- See Appendix B for a more detailed description of the absolute and partial constraints.

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**Step 2: Subtract Absolute Constraints from the Parcel Data-** After merging all absolute constraints into a single file; these absolute constraints are erased from the parcel layer as they have no future development potential.

**Step 3: Union the Parcel Data with the Zoning or Land Use Designation Data,** this will allow you to relate each parcel with a zoning or land use designation district. If a given parcel is split by multiple districts, the union process will create multiple parcels.

**Step 4: Identification of All Parcels that are Zoned Agriculture, Residential and Conservation.** All parcels zoned for commercial or industrial are deleted from the data, the remaining parcels are used to calculate the residential buildable land.

**Step 5: Apply Multipliers to each Zoning or LUD District** to populate a buildable acreage field. See Appendix A for detailed information regarding how the multipliers were determined and used for each zoning category.

**Step 6: Identify Improved Parcels-**The county's address points data were used to determine if each individual parcel is improved or unimproved. Created a new field in the database and assigned the value of 1 to improved and 0 to unimproved parcels.

**Step 7: Calculate Potential Lot Yields** based on the parcels zoning and lud's district for each buildable parcel in the county and adjust for improved parcels and those within the Viable Recovery Area. Each developable parcel within the a VRA that is zoned residential or agriculture receives twice the amount

**Step 8: Repeat-Steps 3-7 for each Municipality** using their specific zoning and land use designations.

**Step 9: Repeat Process for the Low and High estimates.** Generally the high estimates do not use the multipliers while calculating the buildable acreages and the low estimates remove the partial constraints from the buildable acreages (along with the absolute constraints). Mt. Airy and Sykesville are calculated differently; see these sections for a further explanation.

## Range

- High – These figures are derived from a straight density calculation applied to land identified as buildable after absolute constraints are removed.
- Medium – These figures are derived from calculations after absolute constraints are removed and then a multiplier is applied to the land identified as buildable. See Appendix A, Residential Multipliers, which describes how multipliers were determined and used.

- Low – These figures are derived from calculations after the absolute and partial constraints are removed and the multiplier is applied to the buildable lands. Thus if a parcel does not contain any partial constraints, the low range BLI estimate would be identical to the Medium range estimate.

All estimates shown in the main report are the Medium range calculations. The High and Low range estimates can be found in Appendix D.

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As part of the BLI update, the County compared 2005 BLI estimates with actual lots approved by our Bureau of Development Review during the subdivision process. We compared the total number of lots created by 44 new subdivisions that had been approved since 2005 to the medium-range BLI estimates (based on LUD) that correlate to the parcels that were subdivided. The actual number of lots approved for these 44 developments is 1,579, while the medium-range potential lot yield estimated by the 2005 BLI was 1,550. Thus overall the BLI medium range estimate is slightly low, but underestimated by only 29 lots, which is less than a 2% difference.

Even though the 2005 medium range BLI estimates were slightly low, it was concluded that the medium range estimate based on designated land uses is the most accurate estimate to use.

When comparing the numbers, most of the time the medium range estimates were too high. Of the 44 subdivisions

Reviewed; BLI estimates were too high on 29, too low on 12 and identical on 3 of the subdivisions. If you remove the highest and lowest values, the two outliers, then approved lots would equal 1,130 and the 2005 BLI estimate was 1290 for the remaining 42 subdivisions. Thus shows a medium-range BLI overestimate of 160 lots after removing the highest and lowest points.

The subdivisions that had lot yields much higher or lower than the estimated BLI occurred because of issues discussed in the Limitations and Assumptions in Appendix C. BLI underestimates can occur if the property is rezoned, approved variances or zoning regulations were changed to allow retirement housing at higher densities, property eligible for multiple off-conveyances...While over estimates can occur if the property is: developed without annexation into one of the municipalities, rezoned or if site specific constraints are encountered.

## Limitations and Assumptions

A number of assumptions and limitations were factored into the BLI estimates. See appendix B for a detailed description of each. The estimates presented in this report draw from the best available data and refer to the adopted zoning and comprehensive plan land use designations as of October 2011.