A Summary of Land Use Trends in Maryland
The Maryland Department of Planning
2010 Land Use/Land Cover product

As Marylanders we enjoy a rich and diverse landscape: coastal beaches in the east, mountains in the west and in between the vast diversity of communities, agriculture, forests, streams, rivers and bays. Our lands have provided us a quality of life among the highest in the nation. However, these natural resources are finite, and as the population continues to grow, development pressure on them will present major challenges.

Maryland is the fifth-most densely populated state in the nation. Its 2010 population of 5,773,552 people lives on 6.2 million acres of land with requisite needs for housing and business, parks and recreation areas, agriculture, conservation areas, and public infrastructure like schools, roads, power plants, and hospitals.

Maryland has developed in total more than 1.6 million acres, a significant increase from the approximately 654,000 developed acres in 1973. This rate of development continues to outpace population growth, between 1973 and 2010 developed lands increased by 154 percent while the population grew by only 39 percent. Large-lot development continues to dominate the landscape, comprising more than half of the developed land in Maryland, while only accounting for 15 percent of State's nearly 2.4 million housing units. This trend has resulted in the loss of over 1 million acres of agriculture and forest lands since 1973.

Maryland's population is projected to grow nearly 16 percent over the next 25 years, adding an additional 1 million people, 500,000 households and 600,000 jobs. How we accommodate this growth within a rapidly changing social, economic and environmental climate will be critically important for the future and sustainability of Maryland. If we do not reverse the trends of sprawling development and resource consumption, the impact on land resources, communities, air and water quality and rural and natural resources will be to the detriment of our quality of life.

Land Use/Land Cover Report

This report accompanies the Maryland Department of Planning's (MDP) release of the 2010 Land Use/Land Cover (LULC) product. The agency created the first LULC map in 1973 and has updated it periodically. The last update was in 2002. The map classifies the land area of Maryland into *13 distinct types of land use* (i.e. low to high density residential, commercial, industrial) or land cover (i.e. agriculture, forest), and is used by MDP other state agencies and public and private stakeholders to follow trends in land development and consumption of resource land over time. Mapping these changes is a key tool in addressing future smart growth issues in the State.

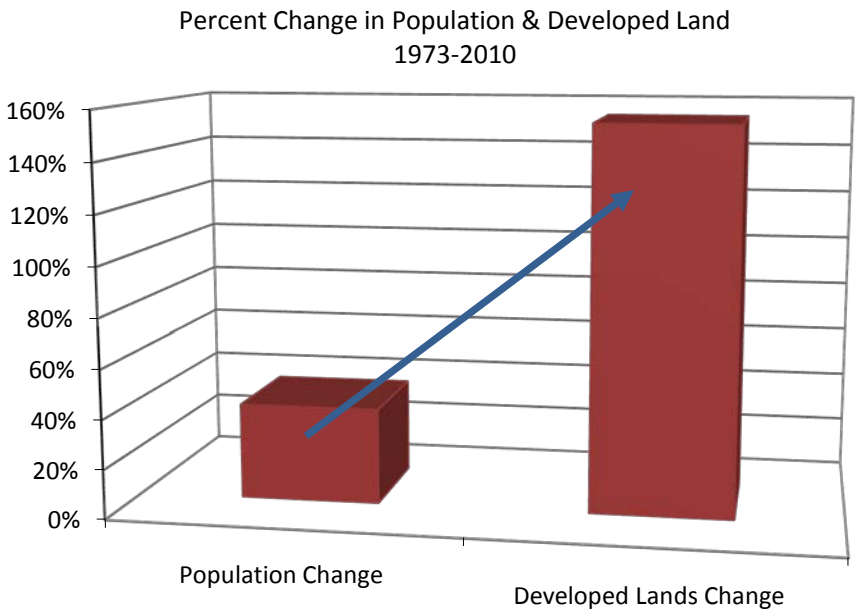
The 2010 update of the LULC includes several enhancements that facilitate a more accurate interpretation of land use categories and changes in the state. Among them are:

- Statewide and county maps that illustrate the change in developed lands since 1973.
- Detailed tables displaying the change in a tabular and graphical form.
- An *interactive web mapping application* that provides users the ability to zoom into the map and view changes in land use on MDP's website. Also provided are documents describing the MDP Land Use/Land Cover data and *mapping process*.

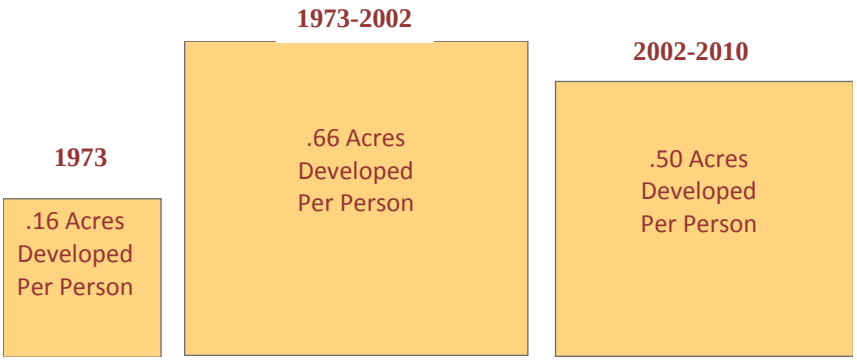
Land Use/Land Cover Trends

The 2010 Land Use/Land Cover data provides a view of where people, jobs and industries in Maryland are located. It shows a number of significant trends when compared to data from earlier years, including the rate at which land is being consumed and the dispersion of development across the State. Among the trends:

The rate of development in Maryland continues to outpace population growth.
Between 1973 and 2010, Maryland's total acreage of developed land grew by 154 percent from 654,000 to 1.6 million acres. During this same time frame, the population increased by 39 percent.



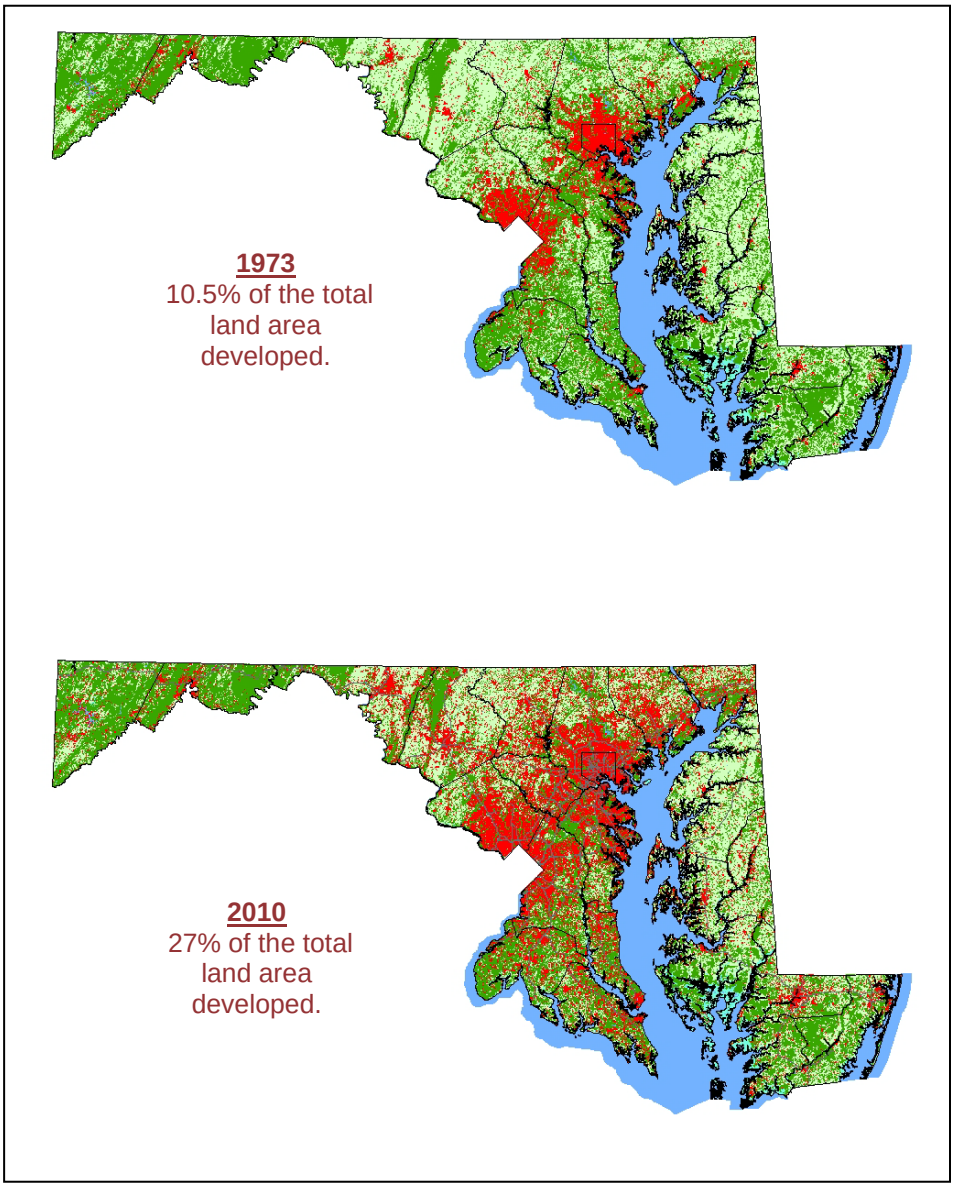
The number of developed acres per person has increased by more than 80 percent since 1973. In 1973, there were about 1/6 acre (0.16 acres) of developed land per person (for homes, work space, restaurants, retailers, schools, hospitals, houses of worship, etc.). By 2010, developed land per person had increased to about 3/10 of an acre (0.29 acres), an 84-percent gain. More recently, however, in the period from 2002 to 2010, the average number of acres developed per each person, 0.50 acres, while still above historical levels from 1973, is down slightly from the amount of developed land per person between 1973-2002 (0.66 acres). It is important to recognize that while land consumption per person has decreased slightly, about 68 percent of residential units developed since 2002 have been located inside Priority Funding Areas (PFAs). PFAs are designated by local jurisdictions for growth and typically have public infrastructure available and zoning with allowable densities of at least 3.5 dwelling units per acre.



Large lot development continues to dominate our landscape, comprising more than half of developed lands, a substantial increase from 1973 (30%). Large lot developments are defined as lots between one-half and 20 acres in size and are classified as land use codes 11- low density residential and 191/192- very low density residential. These land-use patterns have many social, environmental and economic consequences, including water quality impacts from proliferation of septic systems, increased impervious cover, the need for greater infrastructure investment to reach areas further from development centers, loss of natural resource based economies and the overall loss and fragmentation of resource lands making them less viable for farming and forestry.

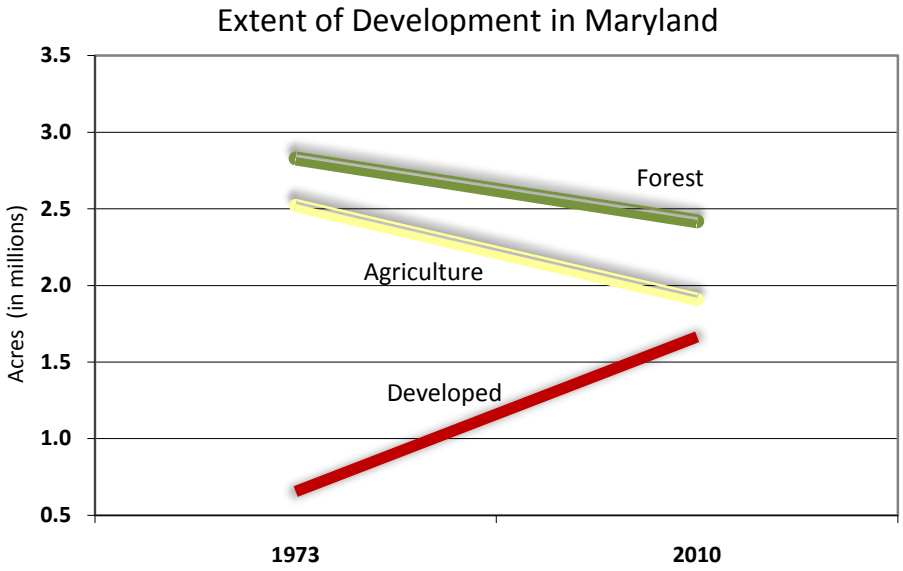
Development on large lots consumes land at a significantly faster rate than other more concentrated land use types. According to the 2010 LULC map, large lot development has consumed 879,000 acres, roughly half of the total developed land while only accommodating 15 percent of the State's total housing units. This is equivalent to the combined land area of Anne Arundel, Baltimore and Howard counties.

More than 1.6 million acres, or 27 percent of the total land are, in the State is currently developed; a substantial increase from the 654,000-acre total in 1973 (10.5%). The maps below show the dispersion of growth across Maryland's landscape since 1973 (development is shown in red).



Over 1 million acres of forest and agricultural lands have been developed since 1973. Nationally recognized efforts and successes by the state and many of Maryland's counties to preserve farms and forests were offset, to some degree, by the conversion of a significant amount of land to development.

An average of 27,630 acres of agriculture and forest lands annually between1973 and 2010 have been lost, primarily to development. The loss in resource lands along with the proliferation of large lot development in the State has had a significant impact on the viability of our rural resource-based economies, as these lands are becoming increasingly fragmented and are no longer viable for farming or forestry.
More information on these trends can be found in *Maryland Land Preservation Parks and Recreation Plan 2009.*



Trends by Jurisdiction

Detailed land use statistics and maps are available by jurisdiction. These provide an in depth look at the raw and change numbers for each of the distinct land use (i.e. low to high density residential) and land cover (i.e. agriculture, forest) categories for 1973, 2002, and 2010. (The 2002 map has been revised for better comparability to the 2010 product.) More about this process is available in the *mapping process and methodology* documents

Conclusion

While the drivers of change are much different today than in the past, it is clear that without changes in how we manage land, Maryland will continue to lose resource lands to large lot, low density development. The state will become increasingly decentralized, having a profound impact on the environment, economy and communities. Some of these impacts are:

- Infrastructure costs to serve low-density residential development are higher than to serve high density residential development per unit.
- Low density residential development increases vehicle miles traveled, congestion, air pollution and demand for new roads.
- Low density development results in the loss and fragmentation of forest land which decreases ecological diversity, economic benefits and recreational value.
- Low density residential development converts agricultural land and diminishes the viability of operating agricultural uses by inserting incompatible uses nearby.;
- Water quality and biodiversity decrease as impervious surface increases with the conversion of resource lands.
- The proliferation of septic systems from low density development reduces water quality and threatens biodiversity.
- The migration of people from older suburban and urban area results in community abandonment, environmental degradation and wasted public investment.