

Smart Growth, Clean Water, and Sustainable, Competitive Economic Development

Principles Linking Smart Growth and Stormwater

Much attention is focused on the severe decline in the Chesapeake Bay and the rivers and streams that feed it. Stormwater runoff from farms and development gouges out streams and pours pollutants such as farm and lawn fertilizers, livestock waste, and oil and gasoline from cars and trucks into the very water we drink and depend on for food and recreation. As our communities have spread out and our daily activities have become increasingly separated and car-dependent, we have consumed thousands of acres of forest and farm land for parking lots, roads and highways to accommodate our vehicles. This explosive increase in land consumption for paved or impervious surface has exacerbated and continues to exacerbate the stormwater runoff problem throughout the Chesapeake region. Fortunately, it is possible to accommodate healthy population and economic growth in the Chesapeake region while reducing the consumption of land for car-dependent purposes.

Clean water and a clean, healthy environment overall are critical to attracting people and jobs to any region, including our own. Well-designed, compact and walkable communities linked by transit – key components of smart growth – will meet the growing market demand for this type of development, while reducing traffic-congestion, reducing infrastructure costs and the local tax burden for public services, and providing the basis for healthy and stable local economies. Combining smart growth with much improved stormwater management will help our region become more sustainable, competitive and attractive even as we add millions of people over the coming decades.

Smart growth encompasses:

- Urban and suburban revitalization and redevelopment
- Transit-oriented development
- Mixed-use, mixed-income communities
- Expanded transit, bicycle and pedestrian facilities and interconnected local street networks
- Parks, public spaces, and other green infrastructure
- Compact development that reduces land consumption
- Conservation of forests, farms, streams and natural habitat

Smart Growth addresses a number of challenges including:

- Air and water pollution
- The high combined household cost of housing and driving
- Human health
- Loss of forests, farms and natural habitat for native plants and animals
- Energy consumption and oil dependency
- Limited infrastructure funding for transportation, water and sewer systems

- Access to opportunities for lower income households
- Climate change
- Traffic congestion and commute times

Through compact development and redevelopment and reduced highway and parking needs, smart growth can result in lower overall impervious area and a reduced runoff pollution burden for the Chesapeake watershed, thereby substantially reducing the stormwater impacts from future population growth. At the same time, smart growth enhances the livability of our communities through the incorporation of green buildings, parks, trails, healthy streams, and other green infrastructure. Of course, ensuring clean water for current and future generations throughout the watershed, and the protection of the Chesapeake Bay itself, will require not only a shift to compact development and redevelopment, but also the restoration of our streams and rivers, improvements in overall stormwater management from both redevelopment and greenfield development, and the retrofitting of existing buildings and infrastructure.

With the above in mind, the following principles are designed to integrate and promote smart growth and better stormwater management:

1. Forests, wetlands, headwaters, stream buffers and other sensitive areas should receive maximum protection through regional policy, local zoning, and public and private land conservation initiatives.
2. Well-managed, sustainable farming and forest resources should be protected by planning and zoning initiatives, and farmers should be offered assistance to reduce runoff.
3. New growth should be directed to existing impervious sites with a particular focus on cities, towns, suburban commercial corridors, and transit-station areas.
4. Well-designed, higher density development can be good for the environment, especially when located in areas that are already developed, are walkable, and are served by transit. Good design includes parks and low impact development for stormwater management.
5. New development should result in no degradation of water quality, and should be required to retain on-site virtually all runoff from the site; EPA's guidance for implementing the Energy Independence and Security Act that projects achieve "pre-development hydrology" of the site "to the maximum extent feasible" provides a useful guideline for such a requirement.
6. Redevelopment of existing impervious sites should result in a net improvement to water quality, and should achieve retention of at least the 90th percentile storm event. A flexible system for redevelopment, such as allowing off-site compliance, offsets, and fee-in-lieu approaches is appropriate where site conditions make on-site compliance infeasible. Additionally, expedited planning and review, and prioritized public infrastructure spending should be employed to promote redevelopment and infill.

7. Existing infrastructure and buildings must be retrofitted as part of a comprehensive stormwater control strategy if water quality goals are to be achieved.
8. Scarce public resources should be used first for retrofitting existing infrastructure and buildings rather than to support conversion of greenfields for new development.
9. Public rights of way and other public areas are excellent opportunities for retrofitting with low impact development techniques and green infrastructure. These areas should be made available for stormwater management for adjacent redevelopment and infill projects as a way of both promoting the retrofitting of public space and reducing on-site stormwater management costs for these projects.
10. Public highways are significant contributors to stormwater runoff, and must be retrofitted or constructed to reduce runoff to the maximum extent technologically feasible. In many cases, alternatives to highway construction will obviate the need to build or expand a highway in the first place.
11. More funding is needed for watershed planning and implementation in order to assure rational, sustainable growth that minimizes stormwater impacts and protects open space. Total Maximum Daily Load and Watershed Implementation Plans should include smart growth land use for reducing runoff.
12. Achieving clean water through effective stormwater management will require a sustained partnership of developers, residential and commercial tenants, and local, regional, state and federal governments. A combination of regulatory requirements for site development, private investment, stormwater utility fees, and local, state, and federal public investment in stormwater retrofits on public streets and land will be required.