10 Ways to Promote Low Impact Development

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#1. Make a List.

Provide a comprehensive inventory of natural resources and environmental features in your Master Plan. If your community wishes to protect natural resources and the environment through local land use regulations, then it must have a solid inventory in which to base planning and zoning regulations. Refer to these resources during all major development reviews.

#2. **Go Native!**

Provide specifications in your landscape design and maintenance standards for native landscaping materials. Plants naturally found within your community have many advantages, including hardiness to Michigan weather, resistance to pests and disease and longer root systems that naturally retain and absorb stormwater while minimizing soil erosion. Require native landscaping along lakes and streams and steep slopes to filter pollutants and reduce soil erosion. In areas where lands have been cultivated, such as farming operations, include provisions to re-establish the natural vegetation.

#3. Choose Green Over Grey.

Impervious areas, such as rooftops or parking lots, prevent or slow down the entry of water into the soil, creating greater quantities of water runoff which carries with it sediment, oil and salts into nearby creeks and drains.

- Enact deferred parking and shared parking provisions where peak usage occurs at different times of the day.
- Utilize a 'maximum' number of parking spaces, instead of a 'minimum.'
- Remove excess parking spaces when a commercial use changes that has a lower parking requirement.
- Include provisions for seasonal parking on grass covered areas.
- Include parking areas and buildings into the definition of total lot coverage.

Reducing pavement will increase rural appeal, as well as reduce storm water runoff.

#4. Preserve Your Open Spaces.

Conservation Development Zoning is a type of cluster development that emphasizes a planned unit development for preserving open space, wetlands, natural landscaping, floodplains, or other prioritized resources as well as for preventing stormwater runoff.

#5. Minimize Land Disturbances.

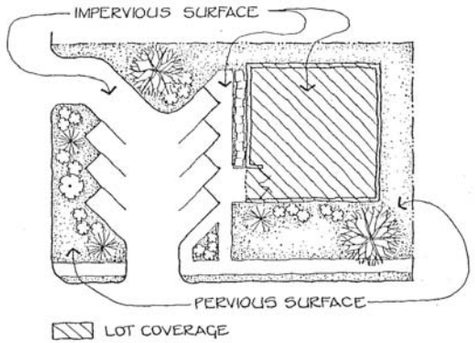
Groundcover is the most important factor in terms of preventing erosion. Trees and other vegetation protect the soil as well as beautifying the site after construction.

- Limit clearing and grading of forests and native vegetation at the site to the amount needed to build lots, allow access, and provide fire protection.
- Include provisions to prohibit clearing of land without zoning approval.
- Require a protection plan for on-site vegetation be in place, along with a performance guarantee, prior to the issuance of a building permit.
- Where existing vegetation cannot be saved, consider staging construction, temporary seeding or temporary mulching.

#6. Protect Your Natural Systems.

Soils, which can filter water at a rapid rate, swales and wetlands, are all naturally operating systems that provide natural, onsite stormwater management.

- Enact local protection measures to eliminate unnecessary filling and draining of these systems.
- Require applicants to submit an environmental assessment detailing the impacts of the proposed development on the natural resources.
- Preserve wetlands and natural drainageways.



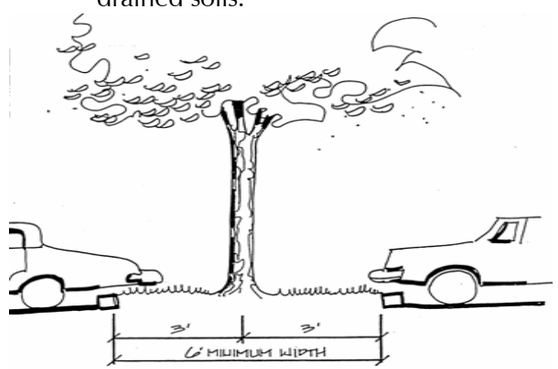
#7. Review it BEFORE They Build It.

Site Plan Review is a very powerful planning and natural resource protection tool. Projects should demonstrate sensitivity to both natural setting and neighborhood context. A basic site analysis should be incorporated into the site plan review process. Typical information should include location, size and species of trees and other significant vegetation; topography, with steep slopes highlighted; patterns of surface drainage; location of floodplain or riparian areas; soil capability, wetlands, and groundwater recharge locations. While most ordinances automatically call for site plan review of industrial, office, commercial and multi-family uses, you can require, where sensitive natural features exist, site plan review for other uses.

#8. Decentralize Stormwater at its Source.

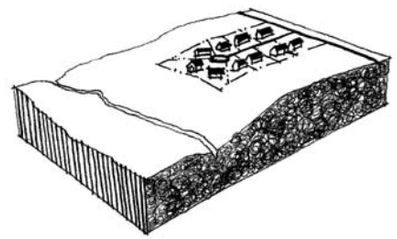
In order to manage stormwater effectively, both stormwater quantity and quality should be considered. Waterfront buffers and building setbacks slow the rate and content of stormwater runoff into lakes and streams. Additional environmental benefits can be achieved and hydrologic impacts reduced by disconnecting the unavoidable impervious areas as much as possible. For example:

- Direct flows from paved areas such as driveways to stabilized vegetated areas. Require parking lot islands and landscaping for lots with over 10 parking spaces; require that parking lot landscaping be depressed instead of elevated.
- Disconnect roof drains and direct flows to vegetated areas.
- Break up flow directions from large paved surfaces.
- Encourage sheet flow through vegetated areas.
- Locate impervious areas so that they drain to natural systems, vegetated buffers, natural resource areas, or well-drained soils.



#9. Lot Size Does Matter.

An alternative to reduce impervious surfaces is to group development into higher densities on smaller lots. Clustering development and permanently preserving open space can dramatically reduce impervious surfaces. When appropriate, provide development incentives to encourage developers to provide buffers and greenspace in exchange for increased development density .



#10. Watch Your Wellheads.

Providing wellhead protection measures minimizes the potential for contamination by identifying and protecting the area that contributes water to municipal water supply wells and avoids costly groundwater clean-ups. Plugging abandoned water wells, pollution prevention at small commercial and industrial operations and educating the public about groundwater protection are all valuable tools for a rural community to have to ensure development occurs where it can have the least impact on the community.