

The Connection Between Land Use and Water Quality

What is Non-Point Source Pollution?

Unlike pollution from factories and sewage treatment plants, non-point source pollution comes from many different areas with no particular place of origin. It is caused by rainfall or snowmelt moving over and through the ground. As the runoff travels, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, creeks, rivers, and wetlands.

These pollutants include:

- ☛ Excess fertilizers, herbicides, and insecticides from golf courses, farms, city and suburban lawns
- ☛ Oil, grease, and toxic chemicals from parking lots and streets
- ☛ Sediment from improperly managed construction sites, crop and forest lands, and eroding stream banks
- ☛ Bacteria and nutrients from livestock, pet waste, and faulty septic systems



Over 60% of water

pollution comes from runoff or non-point sources such as leaking oil, fertilizer from farms and lawns and failing septic systems.

We are all downstream from someone!

Everything we do impacts our watershed, even when the activity is not directly associated with or near a water body. Land uses from any part of the watershed -- such as polluted runoff from homes, forests and farms - - eventually affect the health of the watershed. Proper planning and adequate care in implementing projects can help ensure that one activity within a watershed does not detrimentally impact the downstream environment.

In a healthy watershed,

vegetation and wetlands are present to intercept and slow the flow of water as it travels through the watershed, removing sediment and allowing large quantities of water to enter the soil and percolate into the groundwater or aquifer. Most human activities and development have the potential to adversely affect the overall health and quality of a watershed. Timber harvest on unstable slopes can cause erosion. Agricultural activities can increase levels of harmful bacteria and overload runoff with nutrients. Also, poorly planned residential and industrial growth can cause many of the same problems as farming and timber harvest. Even seemingly harmless activities such as rural development and recreational activities along rivers and creeks can be harmful, impacting the watershed's sensitive

riparian vegetation, which is important for water quality protection and wildlife habitat.

When viewed individually, most human activities have little effect on the general health of the watershed. However, the effects of numerous activities within a watershed are cumulative and when combined can greatly diminish the watershed's overall health. *As people place more demands on a watershed, greater efforts must be made to reduce these cumulative effects.* This will require communities to work together to ensure that activities do not negatively impact those downstream.

The municipalities in Cass and Berrien Counties will be working together to ensure cleaner and safer water in the Lower St. Joseph River Watershed.

We will need your help, to learn more about these efforts visit

<http://www.swmicomm.org/SWMC/watersheds.htm>.