

# Environmental Update ...

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## *Protecting Water Quality*

**H**uman activity can have a significant negative impact on both our groundwater and surface water resources in Prince Edward Island. Last week's column, the first in a three-part series examining this issue, used nutrients to illustrate how land use can impact on groundwater quality. This week, we turn our attention to surface water quality.

Groundwater and surface water are actually closely connected. Elevated levels of nitrates in groundwater are a major source of excess nutrients in surface water. That's because a high proportion of the water in streams originates from groundwater (known as base flow). In fact, during drier times of the year, base flow is often the only water in our streams.



*Preventing soil erosion is key to protecting water quality in Prince Edward Island.*

**I**n addition to nitrates from groundwater, another source of excess nutrients in surface water is runoff from agricultural land. Soil erosion continues to be one of the most significant environmental challenges in Prince Edward Island. Not only does it lead to excessive siltation of streams, but as soil is washed into waterways, it often carries with it contaminants. This includes pesticides which kill fish and other aquatic life, and fertilizers which contribute to excess nutrients. Elevated levels of nutrients in a waterway trigger intense growth of algae. When the algae decays, it uses up oxygen, smothering life within the aquatic system. Unfortunately, such problems have been experienced in many Island watersheds over the past number of years.

Many Islanders are taking action to address these challenges. That includes implementing crop rotation, adhering to buffer zone requirements, and practicing soil conservation techniques such as terracing. Next week's column will take a closer look at how these and other measures help protect water quality.

*This week's Environmental Update was prepared by*



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