CORRINA PARNAPY: IT TAKES A WATERSHED TO POLLUTE A LAKE

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Commentary by Corrina A. Parnapy, District Manager of Winooski Natural Resources Conservation District.

Lake Champlain and other Vermont waters are experiencing impacts to water quality from "pollutants." These "pollutants" take many forms including excessive nutrients, chemicals and heavy metals. Many factors are contributing to the decreased health of our waterways. These factors don't just take place within the lake or even the nearshore area; any activity that takes place within a watershed can cause impacts to our water resources. Even those who don't live along the waters or recreate in them, have an impact.

The economy of regions with lakes and bodies of water is highly based on tourism dollars; this money comes from people visiting to use the waters for recreational purposes, including fishing and vacationing. If the current declining trends in water quality continue, fewer and fewer people will want to visit the areas, thereby impairing the economy. Property values of those who live near the waterways can decline due to impacted water quality. People don't want to live near a body of water that they can't swim in, fish in, drink from or enjoy.

Scientific data is showing declining water quality in our bodies of water from additions of salt (road salt), nutrients (phosphorus and nitrogen), heavy metals, pharmaceuticals and other chemicals. If current trends persist, toxic algal blooms could become more common, waters could become undrinkable/ unusable, invasive species will take hold, cold water fish species could die off (no more trout or salmon) and soils will not provide the benefits for plant propagation.

By working together and implementing projects on private property, farms, schools and municipal property, we can make a difference and protect our natural resources for ourselves and for future generations.

Protecting water quality does not take place within the water, but starts at the highest peak of a watershed. Small headwater streams flow through natural forests in the mountains; these pristine areas are home to native brook trout populations. Protecting the streams from erosion (sediment with phosphorus) by following forestry best management practices and maintaining connectivity (aquatic organism passages) to downstream sections is vital. These headwater streams flow into larger streams and rivers that can be found within suburban and urban areas, as well as near farms. The larger of these streams can be home to naturally reproducing landlocked salmon, while others can contain brook trout. These streams can be protected by implementing proper stormwater and agricultural best management practices.

We need to allow sensible development, with considerations for the natural landscape, including adequate permeable surfaces, storm water protection, upgraded septic systems, rain gardens and homes that are not over-built for the property and environment. The implementation of the new

Required Agricultural Practices and assistance for farmers from agencies across Vermont allows farmers to protect their investment in the land and provide food. The many rivers that flow into Lake Champlain bring "pollutants" that are combined with those that are entering the lake from sources near the shoreline. Maintaining adequate shoreline and riparian buffers along waterways helps filter these pollutants before they enter our water resources.

With the implementation of the Clean Water Act and phosphorus TMDL, there is a lens focused on phosphorus reduction within the Lake Champlain Basin. Efforts are underway by agencies, not-for-profits, conservation districts, regional planning commissions and others to reduce the amount of phosphorus that flows over land, making its way into our waterways and thereby into Lake Champlain. By working together and implementing projects on private property, farms, schools and municipal property, we can make a difference and protect our natural resources for ourselves and for future generations. It takes a watershed to pollute a lake, so it takes a watershed approach to clean it.

We encourage you to partner with the Winooski Natural Resources Conservation District to implement practices on your property or farm. The WNRCD focuses efforts in four core areas: agricultural assistance, forestland enhancement, urban conservation and watershed stewardship. For more information and links to resources please visit the WNRCD website at: www.winooskinrcd.org or email info@winooskinrcd.org.

The Winooski Natural Resources Conservation District is one of 14 conservation districts throughout Vermont. It encompasses all of Chittenden and Washington counties as well as parts of Orange County (Orange, Williamstown and Washington). The district relies on grants and individual donations to complete its conservation work.