

CONSERVATION CLIPS

When it comes to streams, size doesn't matter!



A few years ago I was talking about the Delaware River with a group of young campers when a particularly intuitive camper asked where the river started. Without batting an eye I replied, "Hancock, New York." But continuing with my talk, I realized the answer is much more complex than one geographical location.

Few of us are aware that Pennsylvania is second only to Alaska in number of stream miles. Lake Wallenpaupack's watershed alone holds over 400 of Pennsylvania's 83,000-plus stream miles. Of these, an estimated 80 percent are "headwater" streams. More often having a width measured in inches rather than feet, a headwater stream drains a relatively small area and may only flow during wetter times of the year. In Pennsylvania, activities that encroach on even the smallest of streams are regulated, and despite the lack of perennial flow in some of these reaches, they should be treated as any typical larger stream. It's in these sinuous brooks and tiny rivulets that our rivers are born, and it's here we need to pay special attention in our efforts to protect them.

The size of these small tributaries in no way dictates the extent of their influence. Their contributions are anything but minor and their condition greatly influences the quality of downstream waters. If intact, these streams provide numerous services to the natural world and humans alike. Along with associated small wetlands these streams have the ability to provide natural flood control, recharge groundwater supplies, trap and filter pollutants, process nutrients, and provide nutrition and habitat for hundreds of plant and animal species. The benefits and services provided by these streams, however, are greatly reduced or eliminated entirely, when these watercourses are disturbed. For example, headwater streams provide for extensive interaction between surface and ground water sources.



Microbial communities and geological materials found within stream bank areas naturally process and filter pollutants from water during groundwater exchange.

This allows for infiltration of surface water and recharge of aquifers. The microbial communities and geological materials existing in the stream beds and banks are thereby enabled to process and filter this water as it's exchanged. When a headwater stream is rerouted, filled, re-graded, or piped, there are significant reductions in natural processes resulting in negative impacts to water quality. When improperly managed, land-use changes including development, resource extraction and agriculture in our headwater regions are the main culprits, ultimately leading to degraded water quality in downstream aquifers, rivers and lakes. In northeast Pennsylvania, approximately 60 to 80 percent of the water flowing in streams is provided by groundwater. The overwhelming majority of us enjoy the luxury of withdrawing our drinking water directly from groundwater aquifers without the need for treatment. It's therefore paramount to protect our surface and ground water resources as one and the same.

These consumptive uses are not the only reason to protect our headwater streams and their environments. The tiny streams, expansive forestlands and rolling fields of the Lake Wallenpaupack Watershed are what make it such a wonderful and beautiful place to live, work and recreate. It is, indeed, our duty as stewards of the environment and good neighbors, to maintain our watercourses in a way that guarantees their endurance for centuries to come.

Remember, we all live downstream.

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*Lake
Wallenpaupack
Watershed
Management
District*

MISSION STATEMENT

The Lake Wallenpaupack Watershed Management District, a community-based nonprofit corporation founded in 1979, is committed to protecting, maintaining and enhancing the water quality of Lake Wallenpaupack and its tributaries through leadership, public education and promotion of public awareness, scientific studies, and development and implementation of a comprehensive watershed management program, including the installation of watershed improvement projects. This will ensure high quality of life in the community, the protection of the natural environment, and the sustainability of the regional tourism and recreation economy.