



**Policy No:** 18-02

**Policy Title:** Protect and Conserve Headwaters

**Policy Statement:** TUC will work to protect and conserve watershed headwaters which are the collector system for water, nutrients and sediments and are essential for a healthy watershed and its streams.

**Principles Applied:** Features that influence and condition natural systems and create the physical, chemical and biological character of streams and their watersheds must be protected or managed to ensure their health and sustainability. Headwaters are the source for water, nutrients and sediment to the larger system and as such ultimately dictate the nature of the watershed. Loss or modification of headwaters can fundamentally affect the health and nature of the rest of the watershed and the biodiversity of animals and plants. Specific principles to achieve this policy statement include:

- Headwaters are defined as the land and water that constitute the source area of streams and are the source of much of the surface water and groundwater discharges found in watersheds;
- Headwaters cumulatively concentrate, transform, collect and modify the quality and quantity of surface and groundwater, its chemical nature, nutrients and sediments;
- Headwater areas, including wetlands, intermittent, seasonal and permanent streams and their adjacent riparian areas are often major nodes of native biodiversity;
- Headwaters play a major role in the management, storage and slow release of waters during spring run-off and high rainfall events thereby maintaining the integrity and health of the rest of the watershed;
- Headwaters are often the major reproduction and rearing area for many species of fish and amphibians;
- Loss of headwaters and their integrity fundamentally affect the health, stability and quality of the rest of the watershed.

**Policy Rationale and Considerations:** It is almost impossible to maintain stream health for aquatic life and for people if the functions of the headwaters are severely damaged or lost. Cumulatively, headwaters determine the overall character, stability and productivity of the downstream streams and the overall watershed by how they manage the collection of both surface water and groundwater; and capture, transform and deliver organic matter and nutrients to the system. In addition, given their small size, they are also critical areas for reproduction and nursery habitat for many species. It is therefore essential to maintain their integrity and the integrity of the riparian areas immediately adjacent to them.

**Objectives of Policy Statement:** TUC, its members and Chapters will emphasize the importance of headwaters and work with other organizations and agencies to ensure their protection and proper management. In addition, TUC will strive to help restore headwater health and integrity through rehabilitation work. Rehabilitation and management of headwaters, whether intermittent, seasonal or permanent in flow, and their connection to the larger streams within the watershed network is important to TUC. This includes: understanding the role of beavers and other natural features in headwaters, proper management of riparian areas adjacent to these features, and proper management and protection of groundwater recharge and discharge active areas or areas in the headwaters with high water tables.

**Implications to Organization:** In order to ensure that TUC chapters and members become strong advocates for headwater management, TUC will ensure that good information, assessment tools and technical support are provided to ensure effective and successful headwaters protection and rehabilitation.

**Delivery:**

TUC will focus efforts towards headwaters projects where appropriate. Where possible TUC staff will work with provincial and federal legislators towards headwaters protection. TUC will ensure educational programming includes material on the role and function of headwaters where appropriate. TUC will provide resource material for our members and chapters to aid in their work to protect and restore headwater features.

**Supporting Information:**

TUC has a number of references that articulate the importance of headwaters. Some of this work has been undertaken by Conservation Authorities in Ontario, by the United States Environmental Protection Agency and by individual researchers.

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