**BENTHIC MONITORING PROJECT**

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Freshwater benthic macroinvertebrates are organisms without backbones that live on rocks, logs, sediment, debris and aquatic plants for at least part of their life cycle and are visible to the naked eye. They include insect larvae, annelids (leeches), Oligochaetes (worms), crustaceans (crayfish), mollusks (clams) and gastropods (snails).

As benthic macroinvertebrates tend to remain in their original habitat, they are affected by local changes in water quality. Some are able to tolerate greater loads of pollution than others. Thus if the pollution is severe, or is moderate but sustained over time, the whole community structure may simplify in favor of tolerant species. Although the abundance of certain species may increase, the diversity and number of species in a given area decreases. By determining the indicator species, diversity and functional groups of the benthic macroinvertebrate community, it is possible to determine water quality.

This project is part of the City of Denton’s Watershed Monitoring Program and the City provides all the supplies needed. Assessing the water quality is important as the streams that flow through Denton all flow into Lewisville Lake, which is the drinking source for the City of Denton.

There are 2 workdays each month:

1. First Friday of each month (see note below) we collect water samples from a pool, a riffle and the side of a bank at the following sites.

Cooper Creek at Burning Tree Lane

Lower Pecan Creek at Woodrow Lane

Upper Pecan at Gay Street

Hickory Creek at Jackson Street near Krum

At each site we spend 30 minutes picking out the macroinvertebrates and placing them in labeled alcohol containers.

**NOTE: If there has been a heavy rain event during the five to seven days preceding the first Friday of the month, collection may be postponed to the following week.**

 2.The following Friday we meet at the City of Denton Laboratory adjacent to the Wastewater Treatment Plant off Mayhill Road to identify the macroinvertebrates. Microscopes, manuals and books are available at the laboratory.

Collection takes about 5 hours, ID 3-4 hours.

For collection wear rubber or hiking boots and clothes suitable for working near muddy stream banks. Also bring water/drinks and snacks.

 If you plan to volunteer for this project please let us know so we can add you to the email list. An email is sent out on the Tuesday prior to the first Friday of each month to confirm the collection date and time. **We do sometimes have to cancel at short notice.**