

Campbell Creek 2007 Special Sediment Study, by Dick Hecock

Campbell Creek is known to carry heavy sediment and nutrient loads to North Floyd (Mud) Lake, causing severe algae blooms and general deterioration. As the District moves to undertake remedial action in the Campbell Creek basin, in 2007 Campbell Creek received special emphasis within the District's overall monitoring program. Special studies included and expanded nutrient and sediment sampling, a special sedimentation rate study, an inventory of erosion and stream blockages.

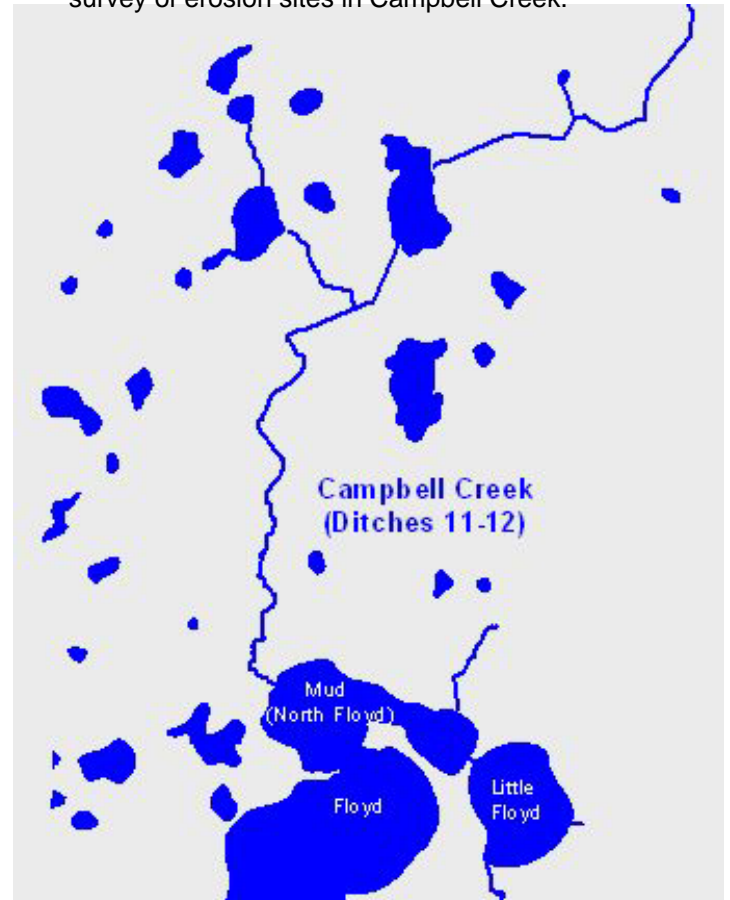
Interns Ryan Stoltenburg and Ben Langworthy carried out the field work for these efforts.

The sedimentation study was undertaken under the direction of Peter Cooper of the U.S. Department of Agricultural Natural Resource and Conservation Service and involved the collection of large quantities of sediment-laden water shortly after storm events. Fifty gallons were vigorously stirred then sampled at 20 minute intervals to ascertain the contents of the sediments and the rates at which they settled out. It was discovered that even as sediments settled out of the water, the nutrient level remained high. Nutrients are either dissolved or carried in very fine sediments. Such findings strongly suggest that the nutrient problem in Campbell Creek derives from fertilizer or other easily dissolved nutrient sources. This finding has important implications for treatment options.

A detailed field survey of erosion and field runoff sites along Campbell Creek and Ditch 11-12 also was conducted.



Ryan Stoltenburg records observations during detailed survey of erosion sites in Campbell Creek.



Nutrients and fine sediments in Campbell Creek seem to be associated with field runoff.



Erosion sites in Campbell Creek.