

Fingerprinting Water!

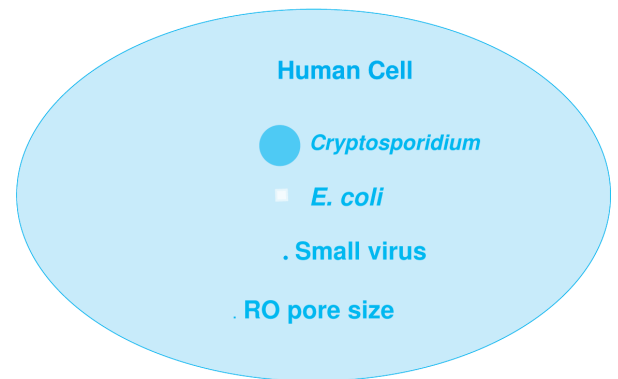


To be able to take correct action in terms of treating drinking water it is essential to have good test data from which decisions can be made. When evaluating existing water treatment systems it is also essential to clearly define what the water treatment system is capable of removing. Chemical, physical, and biological analyses as well as treatability need to be carried out to understand what processes can be used to make the water safe. From these datasets it will then be possible to determine limitations of drinking water treatment technologies and make recommendations for how a community can move forward towards safe drinking water. This "fingerprinting" of drinking water will be developed both in the field and in the laboratory through different testing scenarios, and guidance in terms of approaches will be sought from the scientific literature as well as from discussions with scientists, water operators etc.

The outcome of the above will be the generation of cost-effective yet scientifically defensible water quality testing that can be used by community drinking water treatment plants both in aboriginal and non-aboriginal communities. As we try to help as many communities as possible, publications of the data will be available through the Safe Drinking Water Foundation's web site as well as in both peer-reviewed and popular science/general magazines. This project will be carried out in collaboration with the Advanced Aboriginal Water Treatment Team and we expect rapid implementation of developed protocols.

There may also be opportunities to increase the scope and effort of this entire project. In that respect please consider the following. INAC gives Health Canada's Saskatchewan branch \$7 million per year with a large part targeted for water testing. SDWF was able to secure more than 7,000 pages of water quality test data generated by Health Canada (data from the past ten years). SDWF students scanned and put all of this data in a database with the intention to be able to use it to determine if water treatment systems work or not. Unfortunately, it was then realized that Health Canada only determines water quality in the distributed water and it is not possible to determine treatment effectiveness from this data. This flaw in the federal government's testing will hopefully be fixed. Therefore, there is an urgent need to get even the basic water quality data to be carried out both on raw and treated water so that functioning and non-functioning water treatment processes can be established. This year, we are committed to work with more than ten communities to extensively analyze both the raw and treated water sources.

Size of Different Particles



This project has been generously supported by the George Weston Foundation (SuperStore) for a three year commitment. Additional financial partners in this project would help to move forward at a faster pace, and increase the ability to include more communities.