Through Watershed Eyes

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Through Watershed Eyes, with Dr. Nancy Mesner

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Nancy is a Professor in the Department of Watershed Sciences as well as the Extension Specialist in Water Quality. She is known for her extension program of citizen monitoring known as “Utah Water Watch”, developing curriculum for grades three through high school, and research on the best ways to monitor and characterize the water environment.

In this episode, we sit down with Dr. Nancy Messner, Professor of Watershed Sciences at Utah State University. She explains to us how rivers run through urban areas and affect the pollution, as well as algae blooms running over Utah Lakes.

What are things you notice while you walk along a river or lake? Is there shade? What things fall off the trees? The waters change depending on a variety of things: vegetation, the snowmelt, base flow, and urbanization. Look in the water, do you see Algae? Algae are a type of microscopic plant with no internal structures that love turning sunlight into sugar. When types of algae produce too fast the water may turn green or brown, until microscopic organisms eat it away. Certain types of algae bloom produce toxins. Some of these toxins, such as neurotoxins, can kill livestock, dogs or other animals that drink out of the water within an hour. Liver toxins are also deadly but take longer to produce an effect.

Pollution comes from many forms, including broken pipes, laundry detergent, animal treatment operations. There are many ways to help waters, like testing soil to check phosphorus levels. When these nutrients are not used by the plants because it’s too concentrated, the excess nutrients run off into the water and further pollute. Through the citizen extension program of water monitoring Mesner runs called “Utah Water Watch”, volunteers are able to test the pollution levels and collect data to help teach citizens about the bodies of water around them. This provides tools to heighten awareness, take preventative measures, and help Utah clear its waters.