Update: Sustainable Use of Groundwater in the Little Rock Creek Area

August 2, 2019

Area residents get firsthand view of Little Rock field work

Nearly two dozen central Minnesotans spent a warm July afternoon along the banks of Little Rock Creek northeast of Rice seeing firsthand how the Minnesota DNR is studying the stream to understand its current conditions with an eye toward keeping it healthy into the future.

On Thursday, July 11, field staff with the DNR's River Ecology Unit set up equipment on a narrow trail that crosses Little Rock Creek and set about demonstrating some of the features it monitors. Staff used electrical current to stun fish, making it easier to net them and determine what species are present, recording size information as well. While part of the focus on Little Rock Creek stems from its status as a designated trout stream, trout aren't the only fish present there. In all, about a dozen species of fish have been found in the creek during surveys over the past few years, including brown trout, northern pike, three types of dace, fathead minnows, white suckers, common shiners and creek chub.

DNR staff also showed how they measure stream depth and rate of flow. As part of standard survey protocols, biologists also look at what the stream bed is made up of, and note the presence of vegetation, both in-stream and along the banks. All that information, gathered at different spots along the stream, can be compiled and used to understand the relationship between aquatic habitat and stream flow, and how that might be impacted by groundwater pumping.

"This data collection is a critical component in our efforts to make sure that groundwater use in the Little Rock Creek area remains sustainable, providing economic benefits to the local communities while maintaining healthy ecosystems," said Mark Hauck, DNR manager for the Little Rock Creek sustainable groundwater project. "This information will help us determine if groundwater use is negatively impacting the stream."

This is the second year that DNR's River Ecology Unit has collected data on Little Rock Creek. During most of that time, river flows have been elevated due to heavy precipitation. The team is hoping to get information later this summer on lower-flow conditions. Concurrent with the stream habitat surveys, DNR staff also are updating a groundwater flow analysis with recent data, analyzing groundwater flow near the Sartell Wildlife Management Area impoundment, and working with irrigators in the area on the second year of a two-year study on water use report accuracy.

The DNR worked over about two years with an advisory group made up of local irrigators and other stakeholders to develop a five-year plan that will guide the agency's actions through 2022 to ensure a sustainable groundwater supply while protecting Little Rock Creek. Further data collection and analysis are key components of that plan, as are public outreach and education.

People interested in learning more about that the Little Rock Creek area groundwater plan can visit the project web page at www.mndnr.gov/littlerock,
or contact project manager Mark Hauck, 320-223-7846, Mark.Hauck@state.mn.us.