

A STEP INTO THE DITCH, A STEP FORWARD IN PROTECTING ROCK LAKE

Although most people might not be very excited to be invited on a “ditch walk,” several RLIA board members were very happy to participate in their second in the last six months, as part of the RLIA grant work continues. Earlier this year RLIA received two grants from the Department of Natural Resources to research ways in which to preserve the quality of Rock Lake. The ditch which flows into the Miljala Channel has been a main focus of the grant projects due to its being the transporter of sediments, nutrient pollution and bacteria that flow into the channel. Sediment deposition, an ongoing problem, has cost homeowners thousands of dollars for dredging in order to keep the channel usable. Along with sediments come excessive nutrients and bacteria, which lead to potential health and ecological issues both in the channel and Rock Lake. This spring, Patricia Cicero, Jefferson LWCD, led several RLIA members up the ditch for their first visit to look for signs of drain tiles indicating drainage to the ditch, other than the known drain that passes under Korth Park. None was found.



On Sept. 17th Dr. Ken Potter and Dr. Jean Bahr of the Department of Civil & Environmental Engineering, University of Wisconsin-Madison, led their graduate students participating in the grant fieldwork on their initial visit to the area. The group was joined by several RLIA board members and Steve Gaffield, the RLIA’s grant consult from *Montgomery Associates:Resource Solutions* at Korth Park’s main parking area. Grant committee chairman Larry Clark, using a large aerial image map of Rock Lake and the surrounding area, put the grants into a historical perspective for the students while also pointing out many of the important features they will be researching, Their

research will provide data needed to find a cause and solutions to our water quality issues addressed in the grants. Everyone then walked to the top of the hill, giving most of the students their first view of beautiful Rock Lake. Moving to Cedar Lane, the students immediately began taking water quality samples and soil cores under the guidance of their professors. Their work continued along the full length of the ditch, including its start in a field on the south side of Korth Lane.

Throughout the afternoon, a constant flow of questions and possible answers were considered by everyone involved. Steve Gaffield summed up the interactions, “During our site visit, I was excited to see the energy of the students and faculty and to exchange ideas about potential solutions to the pollution problem. Even in that short visit, some of the soil and groundwater seepage conditions we saw along the ditch generated ideas about how water and pollutants may be transported and what types of control measures might be effective. For example, we believe we observed the location where the ditch was cut through the hill that once separated the wetland from Rock Lake, and this may be an important place where pollutants are funneled into the ditch and where control practices may be effective. I’m looking forward to working with the workshop and RLIA to test these ideas and figure out how to improve the situation.”



Speaking for himself and Dr. Bahr, Dr. Potter adds, “We and the students had a productive exploratory tour of the area. Based on our observations we developed some preliminary ideas about the drainage ditch and its impact on the groundwater flow system. We will be installing groundwater observation wells in the next few weeks, as well as sampling the sediment trapped behind the sediment curtain so that we can

determine how much is peat and how much is silt. The students are very excited to be working on this project.” The students’ work is scheduled to continue until fall 2012.

Board members clearly enjoyed seeing the students literally dig in and dive into their role in the project. “I thought the walk went well. It was nice that we had good board support, which shows the students we have a strong interest in the project. I think that because we have a real problem that they can help to find a solution to, it makes the project much more meaningful for them,” said Larry Clark.

RLIA president, Ken Hobbs summed up the day, saying, “Great start to a grand plan to collaborate with the University, our consultant (Steve) and the board. I was pleased we had several board members there. The students seemed interested in the project and knowledgeable about testing procedures with the direction of their professors. I am looking forward to the data we will collect from their efforts and the options that will grow from the study. I am glad we have leaders like Larry Clark and Milt Strauss to guide us.”