LDEQ Engineer to talk about riparian modifications

LDEQ Engineer Chuck Berger will present "The River and the Why: How Do Rivers Work?" at 11 a.m. Wednesday, Jan. 21, at the Lake Providence Rotary Club meeting courtesy of the Lake Providence Watershed Council. The meeting will be at Lake Providence Country Club, 190 La. Highway 134 in Lake Providence. Berger's talk will focus on analysis and integration of data about a river's natural processes into human planned modifications.

"Rivers are dynamic systems with their own set of rules for building and maintaining themselves. They take many years to build their channels based on a given set of conditions. They may be reacting and adjusting to changing conditions and anthropogenic activities that have occurred over the past 100 to 200 years. It is important to know how rivers build and maintain their channels in nature and the functions these channels provide. We must understand how and why a particular river channel takes on a particular shape and the factors that determine that shape," Berger said.

"It is critical that we fully understand these natural processes before we conduct activities that will alter the plan (view from above), profile (view from the side), slope, cross section or riparian vegetation of our rivers. Before any restoration or improvement activities are conducted, every effort should be made to categorize both unimpacted (reference) and impacted reaches as well as evaluating what activities or processes may have led to channel degradation/aggradation. Were the changes caused by natural processes or by human activities? Are there any adverse impacts to water quality? Has there been any loss in stream functions or recreational uses?" High on the list of concerns are unintended adverse impacts such as increased flooding, poor water quality or loss of habitat that could result from a proposed project, he said.

Berger is the Senior Engineer in the LDEQ Water Planning and Assessment Division. He joined LDEQ's Total Maximum Daily Load (TMDL)/Engineering staff in 1996. He oversees the development of TMDLs and TMDL alternative plans as well as provide guidance on hydrologic issues as they relate to water quality. He also provides permit support relating to TMDL implementation.

Berger is pursuing the use of process nature-based corridor design as a form of TMDL alternative. He provides education throughout Louisiana regarding stream process nature-based corridor design and its associated benefits. If you would like to attend "The River and the Why: How Do Rivers Work?" or get more information, contact Berger at (225) 219-3217 or chuck.berger@la.gov.