

June 30, 2010

This map was created by Carrie E. Jennings, Minnesota Geological Survey, to fulfill an agreement between the National Center for Earth Surface Dynamics and the Minnesota Geological Survey, both of the University of Minnesota. It was designed pursuant to a subset of objectives outlined in NCED's larger project entitled "An Integrated Sediment Budget for the Le Sueur River basin, Minnesota" sponsored by the Minnesota Pollution Control Agency. The contractor was responsible for producing a compiled surficial geologic map in Arc Map at a scale of at least 1:100,000. This map subdivides the surface into glacial geologic units based on geomorphology, texture and geologic origin. It includes a map legend, data points and links to sample data and photos taken during field work. An attribute table, also in Arc Map, contains all relevant textural data. A summary of methods and interpretations is included in the report that accompanies.

DELIVERABLE PRODUCTS CONTAINED IN THE ZIP INCLUDE:

1. Map of Le Sueur watershed at 1:100,000 with legend and accompanying text.
2. A final report that discusses the glacial geologic history of the watershed.
3. Interpreted cross sections that trend along the three major streams: the Le Sueur, the Maple and the Cobb rivers.
4. shapefiles used in constructing the ArcMap project.

This map of the *Geomorphology and Reconnaissance Surficial Geology of the Le Sueur River Watershed* is being provided as a digital, draft map product and report as an Minnesota Geological Survey Open-File Report, OFR10-03. The maps and data are best viewed in ArcGis 9.3 and Microsoft Office Word 2003, respectively, because these platforms will allow access to electronic data sets. A pdf of the map and cross sections is also included.

To open the map in a ArcGis 9.3, use LeSueur_layout.mxd in the LeSueur Watershed folder. The field data that support the map are presented in attribute tables for the shape files, LeSueur_Textures.xls. These data are accessed through the map by clicking on a data point with the *i* tool and opening the associated tabular information. It can also be viewed as an external table in Microsoft excel. If you do not have ArcGIS 9.3 you can download a free "Explorer" application and manually load the shapefiles: <http://www.esri.com/software/arcexplorer/explorer.html>.

Some data points on the map are linked to digital photographs. When the  (lightning bolt tool) is selected, data points with associated photos will change color. When these points are selected with this tool, a photo, linked by the photo name, will open in the default photo reader. Photos are located in the a folder called [p](#).

If you have questions about the geologic information provided in this map and report, please contact the author, Carrie E. Jennings carrie@umn.edu. If it is a technical question, you should contact Rich Lively lively@umn.edu.