

April 21, 2000

To: Water Resources Division

From: Peter F. Rogerson, Senior Chemist
Office of Water Quality

For: LeRoy Schroder, Chief
Branch of Quality Systems

Subject: Approval of a Water Quality Analytical Method for Processing, Taxonomy, and Quality Control of Benthic Macroinvertebrate Samples

The Office of Water Quality has approved a water-quality analytical method by the National Water Quality laboratory (NWQL) for processing, taxonomy, and quality control of benthic macroinvertebrate samples. This water-quality analytical methods approval follows the technical procedure specified in OWQ Tech Memo 98.05. The draft OFR, which will be submitted for Director's approval, is entitled:

"Methods of Analysis by the U.S. Geological Survey National Water Quality laboratory— Processing, Taxonomy, and Quality Control of Benthic Macroinvertebrate Samples" by Stephen R. Moulton II, James L. Carter, Scott A. Grotheer, Thomas F. Cuffney, and Terry M. Short.

This OFR describes U.S. Geological Survey (USGS) method B-9135-00. The fixed-count quantitative portion of this method is similar to the U.S. Environmental Protection Agency (USEPA) rapid bioassessment protocol (RBP) (Barbour, et.al., USEPA Report 841-B-99-002, and Plafkin, et.al., USEPA Report 444/4-89-001.) The method describes sample processing, qualitative species identification, and quantitative species identification and enumeration. It includes quality assurance and quality control procedures that ensure comparable data. Estimates of precision, based upon sub-sampling procedures, are provided. Different levels of identification are also provided for many taxa.

Because of current data system limitations, only limited information is available from the NWQL on-line catalog at: http://wwwnwql.cr.usgs.gov/USGS/USGS_gen.html . For more detailed information prior to release of this OFR, please contact Steve Moulton at the NWQL (smoulto@usgs.gov) (303) 236-3493.) If you have questions or need more information about the methods approval process, please contact Pete Rogerson (rogerson@usgs.gov), (303) 236-1836.