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Associate Director for Water

WATER RESOURCES DISCIPLINE POLICY MEMORANDUM NO. 2008.01

Subject: Water Resources Discipline Policy on Accepting Furnished Records

This memorandum documents the policy of the U.S. Geological Survey (USGS) regarding acceptance of hydrologic data collected by other agencies into the USGS National Water Information System (NWIS). The USGS NWIS data base is primarily intended to provide a processing, storage, and data delivery system for hydrologic data collected by the USGS. It is a long-standing policy and practice that the USGS will accept data into NWIS that are collected (in all or in part) by other agencies, provided that the USGS quality assures the data; can attest that the data are collected using methods that result in data that have an accuracy comparable to the data collected by the USGS; and the data contribute useful information about the water resources of the Nation. We refer to these non-USGS data in NWIS as “furnished record.”

At the present time the USGS accepts and serves furnished continuous streamflow data from over 600 streamgages, and stage records at over 300 lakes, reservoirs and streams. USGS accepts furnished ground-water level records at several thousand sites including over 4,000 in the State of Nebraska. In several other States, the majority of the NWIS groundwater level data is furnished. For water quality, there are both individual sample data furnished from others and continuous record of parameters such as stream temperature, specific conductivity, or pH. The amount of water-quality data furnished by others is relatively small compared to the USGS data; however, areas such as Texas have more than 2,000 samples with over 45,000 determinations furnished by others that are stored in NWIS.

The NWIS data base is managed in a distributed manner by the 48 USGS Water Science Centers located throughout the country following national guidelines and procedures. The decision to accept furnished records is made at the USGS Water Science Center (WSC) level and the final authority and responsibility rests with the Water Science Center Director. The decision to accept or not accept furnished data must balance several factors including the benefits and costs associated with accepting the specific furnished data.

The benefits of accepting furnished records are: 1) expanding the data used and available for describing the water resource conditions of the Nation, 2) cost savings realized in bringing larger

amounts of water resource data together in a single system to simplify access by all data users, 3) saving effort on the part of the collecting agency by not having to create and maintain a data storage and delivery system, and 4) the value added to the data by having it quality assured by the USGS.

In many cases the USGS requests reimbursement from the agency that furnishes the record to cover the cost of quality assurance, data entry, and data storage. USGS staff invest time and effort in (1) bringing the data into the NWIS database (including considerations of working with ever-more-complex computer security firewalls), and (2) quality assuring the data. There also are costs related to maintaining computer hardware and communications bandwidth to serve the furnished records. There is no simple formula for determining the level of such reimbursements and the cost is negotiated at the WSC level.

The USGS has technical manuals and memoranda that define data collection, data processing, and quality assurance standards for each of the major data types collected in USGS Water Programs (stage, streamflow, water level in wells, water quality, sediment, and biota). These are available from the WSCs and are crucial to the process for evaluating whether the USGS should accept specific furnished records. USGS Technical Offices and Regional Technical Specialists are available to provide guidance and support to WSCs in evaluating appropriate data collection procedures for furnished records.

Recent advances in computer technology are now beginning to open up some new options with respect to data sharing across organizations. In particular, "data portal" systems offer new possibilities. A data portal is a system whereby any user can pose an inquiry to find data of interest that may reside in one of many different databases that the portal is able to search. Such a system has the advantages that the organization which has collected the data maintains ownership and responsibility for the data, each data system maintains its own data integrity, and any errors found can be corrected by the owner.

The USGS is working with other organizations, including both the Consortium of Universities for the Advancement of Hydrologic Sciences Incorporated (CUAHSI) and the U.S. Environmental Protection Agency, to foster the advancement of the portal approach to data sharing. These portal approaches offer the advantage that they enhance the availability of data from many sources, streamline data delivery and quality assurance processes, and don't obscure the issue of data ownership. The USGS and its partner organizations are currently investigating funding levels required to support data portals and the options and opportunities for providing those funds.

The USGS is committed to working with our partners to deliver high-quality hydrologic data from multiple sources, and we will continue to pursue innovative approaches to data portals that can serve a wide community of data providers and data users. Comments from agencies and individuals on these policies and approaches are welcomed as we continue to move towards implementing new approaches to hydrologic data storage and delivery.

This memorandum supersedes OWI Technical Memo.2002.10

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