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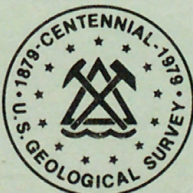
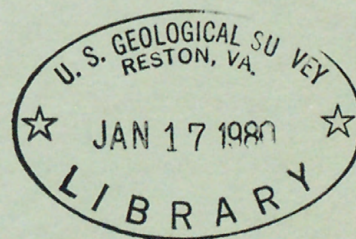
NATIONAL WATER DATA EXCHANGE

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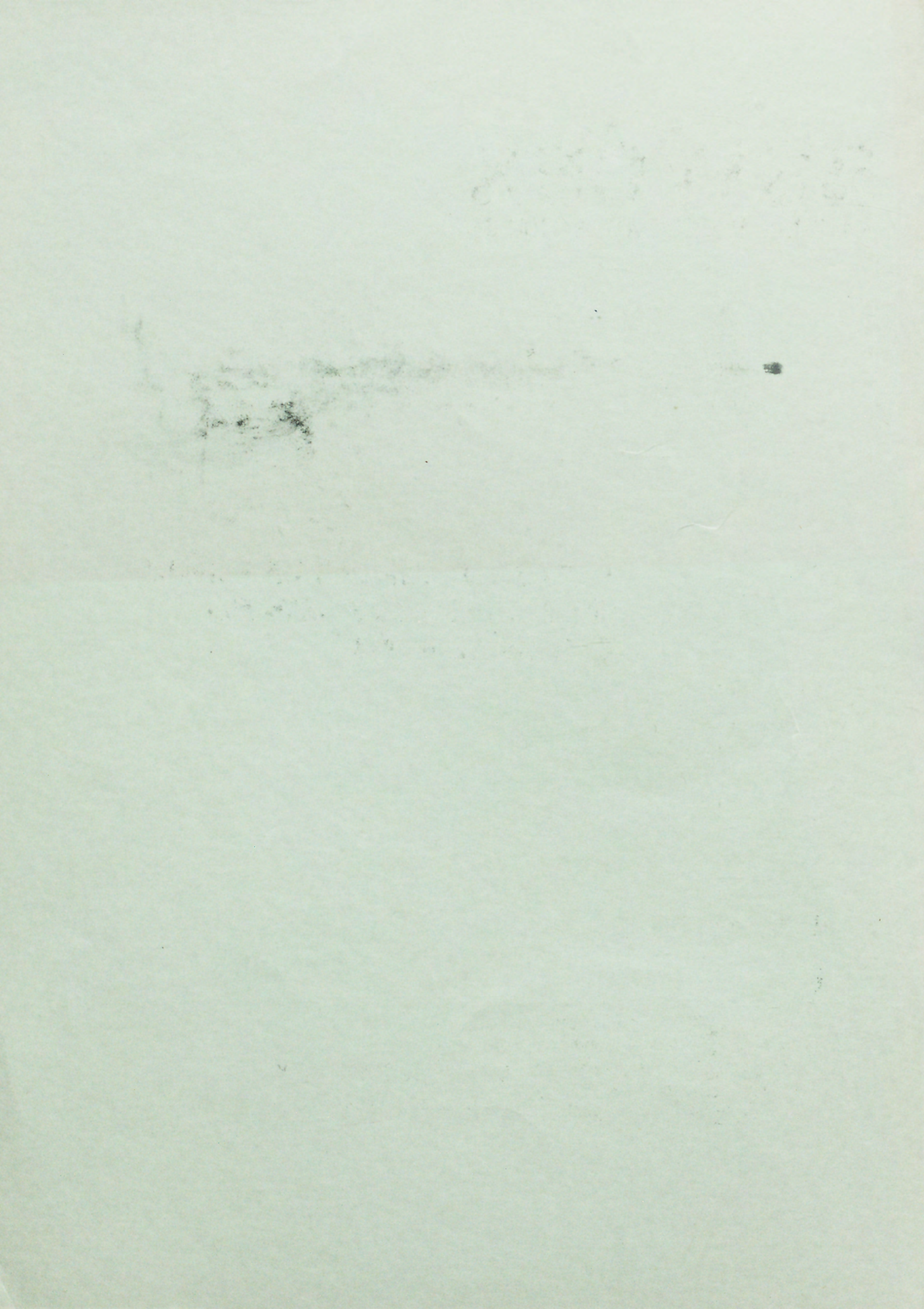
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PROGRAM OBJECTIVES FOR THE NATIONAL WATER DATA EXCHANGE (NAWDEx) FOR FISCAL YEAR 1980



U.S. GEOLOGICAL SURVEY
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PROGRAM OBJECTIVES FOR THE NATIONAL WATER DATA EXCHANGE (NAWDEX) FOR FISCAL YEAR 1980

By MELVIN D. EDWARDS

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PROGRAM OBJECTIVES FOR THE NATIONAL WATER DATA EXCHANGE (NAWDEX)
FOR FISCAL YEAR 1980

By

Melvin D. Edwards

ABSTRACT

This report describes the proposed program objectives of the National Water Data Exchange (NAWDEX) for Fiscal Year 1980. These include NAWDEX program administration, NAWDEX services, water-data indexing activities, systems development, training, and the development of recommended methods for the handling and exchange of water data.

INTRODUCTION

The proposed program objectives for the National Water Data Exchange (NAWDEX) for Fiscal Year 1980 are influenced by the fact that there will be no budget increase in the NAWDEX program for the next year. This will result in less effort than planned in the development of new data bases, indexing systems, and application software for use with existing NAWDEX data bases.

Several of the program objectives are based upon recommendations made at the Second NAWDEX Membership Conference held in New Orleans, La., on May 2-3, 1979. These recommendations are footnoted in the following paragraphs.

PROGRAM ADMINISTRATION, MANAGEMENT, AND COORDINATION

The NAWDEX Program Office will continue efforts to improve its communication and interaction with the member organizations. Emphasis will be placed on improving participation of the member representatives in the management and operational elements of the program by the following:

1. Two advisory subcommittees to monitor and advise the NAWDEX program were established in February 1979: (1) the Subcommittee on Water Data Exchange, working under the (non-Federal) Advisory Committee on Water Data for Public Use and (2) the Subcommittee on Water-Data and Information Exchange, working under the (Federal) Interagency Advisory Committee on Water Data. These subcommittees will review the major objectives of the program, provide advice on the needs and future requirements of the program, serve as a forum to consider recommendations and criticisms presented by member organizations, and serve as a liaison for interfacing the NAWDEX program with the activities of the NAWDEX member organizations. Joint meetings of these subcommittees are planned for October 1979 and May 1980 to discuss immediate and near-future program needs, goals, and objectives. Meetings of the individual subcommittees will be called by the respective chairmen as deemed necessary to advise the NAWDEX Program Office and to discuss specific problems and objectives presented to them.

2. Informal review boards have been established to review publications and documents prepared by the NAWDEX Program Office for implementation and distribution(*). Members of the various boards will be asked, as appropriate, to review documents in the areas of administrative and program documents, computer user manuals, computer overview and technical documents, data-base related documents, and assistance center manuals. These reviews are anticipated to improve the utility of NAWDEX documentation and to allow feedback on anticipated problems and deficiencies in systems and procedures being implemented.

The following additional actions are also planned:

The NAWDEX Program Office will continue to place emphasis on increasing the membership and improving the material available to inform users and potential members of the program.

A new NAWDEX capabilities manual has been developed and is planned for publication in 1980.

The NAWDEX staff will continue to participate to the greatest extent possible in presenting the NAWDEX program at meetings, scientific conferences, and exhibits(*).

Pamphlets and other material describing the program will be made available to enable members to include NAWDEX presentations in their scheduled meetings and conferences(*).

An effort will be made to publish the NAWDEX Newsletter more frequently to keep the members and reader community more aware of new members and program-related activities(*).

The third NAWDEX Membership Conference is tentatively scheduled for the fall of 1980 and current plans are to convene in the Washington, D.C. area(*).

NAWDEX SERVICES

NAWDEX will continue to improve and expand its service capabilities. New Assistance Centers will be added to the current network, as feasible, to assure maximum access to data and services of NAWDEX members and to meet the defined function of the NAWDEX program to improve access to water data and to assist users in the identification, location, and acquisition of needed data(*).

Guidelines for the operation of Assistance Centers have been prepared by the NAWDEX Program Office. After they have been reviewed by the appropriate review board, the guidelines will be distributed to the membership. Also, as an aid to new Assistance Centers, the Program Office has a plan under consideration to allow computer time for training and start-up activities in the use of NAWDEX data systems in an amount not to exceed \$500(*). To help make the NAWDEX program's services more visible to the public, the Program

(*) Recommendation of ad hoc panels at the Second NAWDEX Membership Conference.

Office will provide members with signs and labels containing the NAWDEX logo and portable displays for use by the Assistance Centers(*)).

The Program Office plans to expand its capabilities in 1980 for providing output from the computerized data base in the form of reduced photocopies of the computer printout with forms superimposed on the printout to improve readability. Capabilities will also be expanded for providing information from the Master Water Data Index on microfiche and in machine-readable form. These actions will add greater flexibility in providing information products to the user community.

To help publicize NAWDEX services, members are requested to make these services more visible within their own organization by itemizing these services in their newsletters and other publications, and including statements that NAWDEX should be interrogated for additional data sources.

DATA INDEXING ACTIVITIES

The continued growth of the data-indexing activities is critical to the future success of NAWDEX and the level of services it is capable of providing. Many members are already indexing their data in NAWDEX. Those who have not, are encouraged to establish programs in FY 1980 to index, as a minimum, their most pertinent data holdings in the NAWDEX data bases.

Several enhancements will be made to the indexing procedures during FY 1980:

1. All necessary approvals have been received from the Office of Management and Budget and the General Services Administration for the interagency use of encoding forms and instructions developed by NAWDEX for data-indexing purposes. Encoding forms and instructions for their use will be issued for both the Water Data Sources Directory and the Master Water Data Index during the second quarter of FY 1980. These forms are also being placed in use by the U.S. Geological Survey's Office of Water Data Coordination (OWDC). Thereby, these forms will standardize encoding procedures used by those members that participate in both NAWDEX and OWDC indexing activities.

2. Instructions will be distributed to inform members of the method for submitting information to the Master Water Data Index from their own computer terminals.

3. Work will be completed in the first quarter of FY 1980 on a generalized software transaction system that will allow members to develop and transmit information to the Master Water Data Index via computerized interfaces that the members develop between their computerized data files and the Index(*). Software algorithms for computing frequency codes from stored data and a standard interface format for the transfer of indexing information to the Master Water Data Index will also be provided. The NAWDEX staff will continue to provide technical support to those organizations that wish to develop interface systems.

4. The membership, for the first time, will be invited in late 1980 to submit information to the Water Data Sources Directory pertinent to its water-related data holdings. Work is scheduled to be completed in November 1979 on the first complete review and update of the Water Data Sources Directory. The contents of the Directory will be published after the updating has been completed.

5. Work is currently underway on the review and update of information in the Master Water Data Index for all sites that are active or have been discontinued since 1974. Upon completion of this task, all information contained in the Index for sites discontinued prior to 1975 will be distributed for review and update.

Indexing of data contained in the National Water Data Storage and Retrieval System (WATSTORE) of the U.S. Geological Survey and the Storage and Retrieval (STORET) system of the U.S. Environmental Protection Agency will be continued. In addition, a new system will be implemented for indexing the major water-data files of the Texas Natural Resources Information System (TNRIS).

SYSTEMS DEVELOPMENT

Funding restrictions will limit the development of extensive new systems. However, the following systems development activities are planned:

1. Develop the design specifications for an automated NAWDEX User Accounting System for use in reporting Assistance Center activities and in monitoring the use of the NAWDEX data bases.

2. Develop a file validation system for the Master Water Data Index to identify errors in the data base.

3. Modify the reporting system of the Master Water Data Index to allow for page numbering and interleaving of printed output to provide needed compatibility with available photocopying and microfiche facilities.

4. Modification of the Master Water Data Index data base and related software systems to incorporate efficiency changes and new data elements identified in a systems analysis study performed in FY 1979. Every effort will be made to make these changes to the NAWDEX data base in a manner that will not require extensive changes in the procedures available for its use. No changes in the encoding procedures and formats will be made at this time.

5. Development of a system that will assist in recovering information rejected because of the failure to pass edit checks during large update transactions from WATSTORE, STORET and other computerized interface systems.

The following activities are scheduled and are listed in their order of priority based upon the availability of funds:

1. Analysis of needs for a System 2000 prompter^{1/} to facilitate use of the NAWDEX data bases and to simplify their use by the membership.

2. Analysis of the requirements for modification of the update and retrieval systems used with multiple data files of the Master Water Data Index to allow automatic selection by the systems of the proper data file to be used.

3. Begin development of a system for the indexing of areal-related data.

4. Perform an analysis of recommended changes to the Water Data Sources Directory.

TRAINING

An amended program of training, designed to better tailor the course subjects to the diverse audience of NAWDEX members has been developed by the Program Office. Four courses are planned: (1) the use of System 2000 for NAWDEX and WATSTORE applications, (2) a Seminar for NAWDEX Assistance Centers (2 sessions), (3) a seminar on the use of NAWDEX data systems, and (4) orientation for NAWDEX members (2 sessions). The courses will be conducted in Reston, Va., and Denver, Colo. Attendance at each of these course sessions is limited to 25 persons. Additional sessions will be held, however, if demand warrants them.

The training courses have been announced in the NAWDEX Newsletter(*). The membership will again be informed of the training prior to each session being held.

THE NAWDEX PROGRAM GUIDE

A consolidated Program Guide to bring all major program documents and user manuals together in a cohesive unit for use by the membership has been developed. The Guide will consist of five looseleaf volumes:

1. An Administrative Guide, which will include all program administrative documents and guidelines for Assistance Centers.

2. A Systems Guide, which will include overviews of the NAWDEX computerized systems, System 2000 documents, and computer access instructions.

3. A Guide to the Water Data Sources Directory, which will include all documentation pertaining to the Directory data base.

4. A Guide to the Master Water Data Index, which will include all documentation pertaining to the Index data base.

5. An Appendix, which will include all codes used by NAWDEX, a glossary, and a subject index.

^{1/}The use of the brand name in this report is for identification purposes only and does not imply endorsement by the U.S. Geological Survey.

Distribution of the initial elements of the Program Guide will begin in October 1979. Completion of the Guide is planned by September 1980.

RECOMMENDED METHODS FOR THE HANDLING AND EXCHANGE OF WATER DATA

A technical work group for the development of recommended methods for the handling and exchange of water data was established in February 1979. This group, which works under the Coordinating Council for Water-Data Acquisition Methods of the (Federal) Interagency Advisory Committee on Water Data, is comprised of representatives of 14 Federal agencies. Initially, methods are being developed for water-data indexing and the handling and exchange of surface water, ground water, biologic and bacteriologic, sediment, and physical and chemical quality data.

The first draft of these methods is scheduled for the spring of 1980. All recommended methods will be submitted to the Coordinating Council, the Subcommittee on Recommended Methods of the (non-Federal) Advisory Committee on Water Data for Public Use, and the entire NAWDEX membership for review and comment prior to their publication. The approved methods will be published as Chapter 12 of the "National Handbook of Recommended Methods for Water-Data Acquisition" which is published and maintained by the Geological Survey's Office of Water Data Coordination.

This will be a long-term, continuing project allowing for the development of new recommended methods and the review and amendment of previously recommended methods as needs require.

CONCLUSION

Although limited in new systems development, NAWDEX has an active and extensive set of objectives for Fiscal Year 1980. As in the past, these objectives and tasks will be amended as necessary to achieve maximum benefit from the resources available and to meet short-term and unanticipated needs.

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