



United States Department of the Interior

GEOLOGICAL SURVEY  
RESTON, VA 22092

*USGS*  
*Coop Nov 94*

In Reply Refer To:  
Mail Stop 404 (35001)

NOV 30 1994

Dr. Robert W. Whalin, Director  
Department of the Army, Corps of Engineers  
Waterways Experiment Station  
Attn: Hydraulics Laboratory  
3909 Halls Ferry Road  
Vicksburg, Mississippi 39180-6199

Dear Dr. Whalin:

Enclosed is a fully executed copy of a Memorandum of Understanding (MOU) between the U.S. Army Engineer Waterways Experiment Station and the U.S. Geological Survey (USGS). This MOU establishes the framework between the USGS, the U.S. Army Corps of Engineers, and other Federal agencies cooperating in the Federal Interagency Sedimentation Project (FISP).

The USGS is pleased to perform this work for the Army. It is understood that the results of this work will be available to the USGS for publication and use in connection with related work.

Sincerely yours,

Catherine L. Hill  
Acting Assistant Chief Hydrologist  
for Operations

Enclosure

**MEMORANDUM OF UNDERSTANDING  
BETWEEN PARTICIPATING AGENCIES IN THE  
FEDERAL INTERAGENCY SEDIMENTATION PROJECT**

**PURPOSE**

The purpose of this memorandum of understanding (MOU) is to establish the framework for cooperation among the responsibilities of the U.S. Geological Survey (USGS), the U.S. Army Corps of Engineers (USACE), and other participating Federal agencies that may wish to cooperate in the Federal Interagency Sedimentation Project (FISP). The MOU supports common goals, interests, and responsibilities regarding research, development, procurement, calibration, distribution, sales, and repair of equipment and methodologies regarding the collection, analysis, testing, storage, distribution, and interpretation of information related to sedimentation and the sampling of surface waters and sediments for analysis of their chemical, biological, and physical properties. This MOU is in accordance with guidelines set forth in the Office of Management and Budget Memorandum No. M92-01 on Coordination of Water Resources Information. Nothing in this MOU alters the statutory authorities of any of the signing agencies. This MOU is consistent with and subordinate to all provisions in the charters of the Interagency Advisory Committee on Water Data (IACWD) and the Subcommittee on Sedimentation.

**BACKGROUND**

Sediment discharge measurements in the United States began in 1838 when Captain Talcott sampled flows in the Mississippi River. In 1843, J.L. Riddle started another sampling program on the Mississippi River. He assumed that surface samples represented the full depth, thus making it unnecessary to design special sampling equipment. In 1851, the validity of this assumption was questioned and shown to be incorrect by the collection of samples at discrete depths. In the late nineteenth century, sediment sampling activities increased rapidly as Federal agencies organized civil-works programs. For the most part, engineers in charge of these programs developed their own sampling equipment. By the 1930's, agencies had started to develop equipment for use by their agency, but there was no consistency between agencies. As sampling progressed, managers realized the accuracy and usability of sediment data was affected by lack of standardization in equipment and techniques. In 1939, the U.S. Department of Agriculture, the Bureau of Reclamation, the Office of Indian Affairs, the USGS, the USACE, and the Tennessee Valley Authority created what has become known as FISP.

In its 50-plus-year history, FISP and its staff have produced over 80 reports and papers. Its equipment and techniques are the standards used by most Federal, State, and local agencies, and by many private concerns collecting sediment data in the United States. Samplers developed by the project have been used by the World Meteorological Organization as controls for comparing suspended-sediment samplers developed by several foreign countries.

From the time of its conception until the present day, FISP has functioned under several different authorities. These include the Interdepartmental Committee, the Federal Interagency River Basin Committee, the Interagency Committee on Water Resources, and the Water Resources Council.

Since 1978, the FISP has been guided by the Subcommittee on Sedimentation of the Interagency Advisory Committee on Water Data (IACWD), an advisory committee to the Secretary of the Interior and administratively organized by the USGS's Office of Water Data Coordination.

## **OBJECTIVES**

The basic objective of FISP is to seek solutions to problems within the field of sedimentation that are of common concern to the participating agencies and that are of a nature that solution through cooperative action by the interagency group offers distinct advantages. Areas of interest and activities include, but are not limited to, the following: development, modification, and testing of sediment-sampling equipment; procurement and calibration of sediment samplers; sediment sampling methods; laboratory analysis of sediment samples; and automatic measurement of sediment in streams.

## **ORGANIZATION**

The FISP is an independent, interagency project responsible and responsive to the Technical Committee of the Subcommittee on Sedimentation. Organizational lines and inter-relations are discussed in the following paragraphs.

Interagency Advisory Committee on Water Data: This is the parent committee under which the Subcommittee on Sedimentation resides. The IACWD may request the Subcommittee to undertake and coordinate activities related to special problems in the field of sedimentation that are of concern to the member agencies of the IACWD.

Subcommittee on Sedimentation: This is a standing subcommittee of the IACWD and provides guidance on all aspects of national problems involving sedimentation. The Subcommittee is an interagency organization that fosters the coordination of agency activities in the collection, analysis, and interpretation of sedimentation information. It provides a forum for the exchange of ideas among agencies, for discussing the more important needs of the agencies, for disseminating information pertaining to the field of sedimentation, and for developing programs and undertaking activities for the solving of common problems. Such actions include the formation of detailed proposals for organizing and financing cooperative efforts. The Subcommittee's function is to effect top level coordination of such efforts rather than the detailed supervision of cooperative ventures. Therefore, with regard to FISP, the Subcommittee will work with the Technical Committee on the following activities:

1. Determination of common needs of agencies with respect to cooperative projects.
2. Formulating and recommending, to the Technical Committee, cooperative proposals, including the stipulation of basic objectives, provision of financial support, limitation on expenditures, division of costs among agencies, and broad plan of operation.
3. Exchange and distribution of pertinent data and reports.

**Technical Committee:** This is a committee of the Subcommittee on Sedimentation and provides executive direction to the technical phases of the FISP. The section titled "Technical Committee," describes, in detail, its membership and function.

**Central Offices of the Participating Agencies:** Any cooperative projects proposed by the Subcommittee or Technical Committee for FISP support must be acceptable to the participating agencies. To avoid misunderstanding, any proposal formulated by either committee that involves the commitment of funds, personnel, or services to a cooperative project will be submitted, in writing, by the respective committee chair to each contributing agency for concurrence. Once formal agreement has been reached by the contributing agencies, they are each responsible for obtaining necessary funds and personnel and for making other arrangements for carrying out the plan in accordance with the agreements. It is understood that all funding is subject to agency authorization and appropriations.

## **TECHNICAL COMMITTEE**

**Membership:** The Technical Committee will be limited to contributing agencies of the Subcommittee on Sedimentation. Each contributing agency shall be entitled to one representative and one alternate and shall have one vote on the Committee.

The term "contributing agency" refers to those agencies that make substantial direct contributions of funds, personnel, or services to FISP. In-like services to be considered as contributions must be approved by the Technical Committee. These contributions may be to either the FISP base or special project level of funding (see Funding section).

Occasional participation of agency personnel in field conferences or visits to the project is not considered as contributions in the sense referred to above, but are welcomed and encouraged when the concerned agencies or the project activities can benefit from it.

In addition to the project contributions referred to above, contributing agencies are expected to bear transportation costs, per diem and salaries of personnel of their agency who serve as representatives (or alternates) on the Technical Committee as well as other incidental costs not directly associated with FISP operations.

**Officers:** The chair will rotate annually among contributing agency representatives. Any agency may decline to serve, in which case the chair will pass to the next in order. (Note: Because the membership of the Technical Committee can change from year to year, no formal rotation list can be developed; however, an agency list can be developed, skipping over those agencies not currently on the Technical Committee.) The vice-chair will serve as secretary to the Committee and record the minutes of the meeting. The contributing agency representative who is next in line to serve as chair will serve as vice-chair/secretary. The Office of Water Data Coordination will appoint a non-voting liaison to coordinate activities among the Technical Committee, the Subcommittee on Sedimentation, and the IACWD. The FISP chief will be appointed by the Subcommittee on Sedimentation upon recommendation by the Technical Committee.

**Oversight:** The Technical Committee is authorized and requested to formulate an appropriate program of studies, tests, and other activities to be carried out by the FISP staff, other participating agencies, and/or by contract with educational institutions or others, with the purpose of accomplishing the stated objectives of the FISP in the most effective and efficient manner.

**Approval:** The Technical Committee will, by a majority vote of the contributing agencies, formally approve or accept any new equipment or methodology to be recommended for use by the Federal agencies in the collection or analysis of sedimentation data.

**Meetings:** The Technical Committee shall hold two regular meetings annually and may hold additional meetings, as needed, in connection with program activities.

**Reporting:** The Technical Committee shall report annually to the Subcommittee on Sedimentation. The report shall include a summary of their activities, to include, projects undertaken by the FISP, equipment developed or modified, financial status of the FISP, and plans for the upcoming year. This report shall be submitted to the Subcommittee on Sedimentation in October of each year.

## **LOCATION**

The activities and staff of the FISP will be located at the USACE Waterways Experiment Station (WES) in Vicksburg, Mississippi. It is the intent of all participating agencies who have full-time staff working on FISP technical activities, to the extent possible, to locate their personnel at WES.

## **FUNDING**

Responsibilities for budgeting funds, engaging personnel, and accounting for property will be consistent with existing authorities of the participating agencies. This MOU does not obligate any transfer of funds between the agencies. Any funds that are transferred between

the agencies will be accomplished through execution of a separate agreement. The FISP will be funded at two levels, base and special project.

Base level funding will consist of funds that will cover calibration, procurement, marketing, and a portion of the basic research and development program. Base level would fund the basic operations of FISP but not special research and development projects. The base level funding will be estimated for the coming year by the Project Chief and submitted to the Technical Committee at the spring meeting. At the fall meeting, the participating agencies will approve the budget and commit their respective agency funds for support of this level of funding. If insufficient funds are available to support the base level activities, the agencies, in consultation with the Project Chief, will modify the Project's base activities to bring them into line with the available funds. Notwithstanding the provisions herein, all work carried out pursuant to this agreement will be subject to the availability of appropriated funds.

Project level funding will be based on special project proposals submitted to the Technical Committee by participating or potentially participating agencies for their evaluation and approval. The initiating agency would submit a special project plan to the Technical Committee by circulating the plan at least one month prior to the meeting at which the plan will be presented. The special project plan will include at least the following:

1. Purpose of the special project;
2. Deliverable(s);
3. Schedule;
4. Estimated cost;
5. Cost sharing, if appropriate; and
6. Staff time commitment.

Discussion of the project will become an agenda item for the Technical Committee. The Technical Committee will review the proposal, approve or disapprove of the special project as one to be performed under FISP, set priority for its work, and establish a schedule to carry out the project. The agencies participating in the special project would be responsible for their portions of the funding, personnel, and other resources needed to carry out the project. Funding for special projects might include work funded under the base funding, if the Technical Committee felt this was appropriate.

## **BASE FUNDING**

As part of the base funding level, the following agencies agree to provide the indicated services and/or personnel:

U.S. Army Corps of Engineers: USACE agrees to provide all space requirements for the FISP personnel and staff and to provide staff support for these personnel and activities above. Included in this support will be at least 2 FTE (Full Time Equivalent) to be used in

the research and development and equipment support functions. The USACE will be responsible for the FISP funds not directly administered by individual participating agencies.

U.S. Geological Survey: The USGS will provide three FTE to FISP. These will include, but are not limited to, the Project Chief, one researcher and one clerical. The USGS will supply the funds for salaries, travel, and other incidental costs to support these individuals (excluding space at WES, which will be provided by the USACE). All sales of FISP equipment and procurement of replacement inventory will be handled by the USGS.

Other Participating Agencies: The other participating agencies will be responsible for informing the FISP staff of the level of funding that they will be contributing to the base funding level of FISP and for transferring such funds to USACE in a timely manner that will allow FISP to use these funds wisely. Other participating agencies are encouraged to place staff on a full or part-time basis at WES to work on FISP projects.

## **PATENT AND OTHER INTELLECTUAL PROPERTY RIGHTS**

Each party to this MOU shall retain custody and administration to the patent and other intellectual property rights, in this or any foreign country, of inventions made solely by the parties' own employees under this MOU. The agency exercising its right to file patents on inventions made by its employees shall notify the other agencies herein within ninety (90) days upon making the election to file a patent application. The agency filing for a patent agrees to grant, to the remaining agencies, a non-exclusive irrevocable, paid-up license in the patent to practice or have practiced throughout the world.

The party having the right to retain title and file patent applications on a specific invention may elect not to file patent thereon, provided it so advises the other parties within ninety (90) days from the date it reports the invention to the other parties. Thereafter, the other parties may elect to file patent applications on such invention, and the party initially reporting such invention agrees to assign its right, title, and interest in such invention to the other parties and cooperate in the preparation and filing of patent application thereof. The assignment of the entire right, title, and interest to the other parties pursuant to this paragraph shall be subject to the retention by the party assigning title of a non-exclusive, irrevocable, paid-up license in the patent to practice or have practiced throughout the world.

The expenses attendant to the filing of patent applications, as specified above, shall be borne by the party filing the patent application. Each party shall provide the other parties with copies of the patent application it files, along with the power to inspect and make copies of all documents contained in the official patent application files by the applicable patent office.

## **DISPUTES**

Any dispute arising under the MOU that cannot be readily resolved shall be submitted jointly to the signatories of this MOU with each party agreeing to seek in good faith to resolve the

issue through negotiation or other forms of non-binding alternative dispute resolution mutually acceptable to the parties. A joint decision of the signatories, or their designees, shall be the disposition of such dispute.

**MISCELLANEOUS**

It is expressly understood and agreed that no party to this MOU will be considered the agent of any of the others for any purpose under this MOU. The parties hereto neither assume any liability nor undertake any obligation or duty (in tort, contract, strict liability, or otherwise) to one another or any third party for damages to property (real and personal) or personal injury (including death) arising out of or in any way connected with the acts or omissions of any of the others or any other persons.

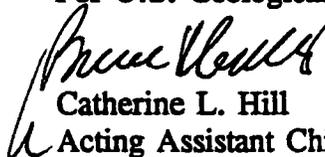
No member of or delegate to Congress or Resident Commissioner, or any officer, employee, special Government employee, or agent of any of the parties shall be admitted to any share or part of this MOU or to any benefit that may arise therefrom, but this provision shall not be construed to extend to a corporation or unit of Government contracting for its or for the public's general benefit.

**MODIFICATION AND TERMINATION**

This MOU becomes effective on the date of its signature and continues in effect until modified by mutual consent or terminated by any party on 60 days written notice. At a minimum, this MOU will be reviewed by the parties every 3 years to determine if the MOU should be modified or terminated. Any other Federal agencies wishing to take part in this project will be added by amendment to this original MOU. Any amendment will require execution by the USGS, WES and any new party to the MOU.

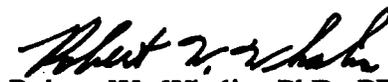
IN WITNESS WHEREOF, the parties hereto by their duly authorized representatives have executed this MOU as of the last date written below.

For U.S. Geological Survey:

  
Catherine L. Hill  
Acting Assistant Chief Hydrologist for Operations

Date: 11/22/94

For U.S. Army Corps of Engineers:

  
Robert W. Whalin, PhD, PE  
Director, Waterways Experiment Station

Date: 7 Nov. 1994