

Federal Interagency Sedimentation Project

FY2023 Call for Ideas

Submission Deadline: Monday (end of the day), January 23, 2023

Send to Tim Straub (tdstraub@usgs.gov)

This is an announcement (with a format guide) for project ideas consistent with the mission of the Federal Interagency Sedimentation Project (FISP).

FISP Composition: The FISP (<http://water.usgs.gov/fisp/>) is an independent, interagency project overseen and supported by a Technical Committee consisting of representatives from the U.S. Geological Survey, U.S. Bureau of Reclamation, the U.S.D.A.-Agricultural Research Service, U.S. Army Corps of Engineers. The FISP works to unify the research and development activities of Federal agencies involved in fluvial-sediment monitoring and investigations.

FISP Mission: The continuing mission of FISP is to provide leadership in the development of standardized, calibrated equipment and methods to allow consistent and accurate quantification of sediment characteristics and transport in surface waters. FISP activities focus on the measurement, computation, and analysis of suspended sediment, bedload, bed material, bed topography, sediment-sorbed constituents, and other sedimentary characteristics using physical samplers and surrogate technologies.

Request for Ideas: FISP interacts with other organizations including federal agencies, academia, and private industry to promote research and development and improve quality and cost-effectiveness of sediment-based data. To the extent that funds are available, FISP solicits ideas and seeks to leverage funds and resources to cooperatively achieve these goals. Preference will be given to ideas that share development costs, directly or indirectly.

In general, FISP-supported research studies are formulated to (1) identify, develop, or test emerging sediment surrogate technologies or methodologies, or (2) provide improvements to or development of physical samplers. Submission of project ideas relevant to operational monitoring programs is encouraged. At a minimum, FISP project results should be submitted to the Technical Committee in both presentation and draft written summary format. Final reports, papers, and/or instrument drawings may also be included as specified in the successful idea.

The FISP research focus areas for 2023 for which ideas are encouraged (but not limited to) are:

- Four-wheel base and bridge crane enhancement or development of a new apparatus to sample from bridges
- Machine learning applications for detecting or quantifying sediment
- Development or testing of devices that give real-time information on sediment sampler performance and/or position
 - One set of the following equipment is available for loan from FISP: Garmin LiveScope Plus, GC14 Marine Camera, and GPSMAP 1242xsv
- Turbidity or sediment current monitoring in reservoirs
- Improved methods for bedload-transport measurement
- Suspended-sediment acoustic monitoring and calibration
- Laser diffraction testing in the lab and the field

FISP projects are typically funded for 1 year for less than \$40,000. Project durations of up to 2 years will be considered, but funding in a second year may be uncertain. Written support from one or more of the participating Federal agencies may be influential in the idea review process.

Ideas should be submitted directly to the FISP Chief (tdstraub@usgs.gov) as an attachment in the requested format (see page 2 of this file) on or before Monday, January 23, 2023. The ideas will be evaluated by the FISP Technical Committee in late February. **Funding of successful ideas is contingent in part on the federal budget and contracting process (which may include a solicitation process).** Thanks for your time and consideration on behalf of the FISP.

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The form below is complementary to page 1 above and provides the preferred format for ideas to be submitted. The length of the idea should be no more than 4 pages. Supplemental materials such as references that would help the committee evaluate the merit of ideas may be appended as necessary. Ideas are due by the end of the day on **Monday, January 23, 2023**, to Tim Straub, FISP Chief (tdstraub@usgs.gov). Direct any questions to Tim via email at tdstraub@usgs.gov.

FEDERAL INTERAGENCY SEDIMENTATION PROJECT

IDEA FORM

Idea Title:

Principal Investigator (PI):

Additional Investigators:

PI Location and Study Location (if different):

Introduction: General description of services and relation to the FISP mission

Background: Summarize past research or activities and any unresolved problems from the past

Purpose and Scope: Make clear what the primary technical/scientific contribution of your work will be toward the improvement of sediment measurement and/or analysis technology. Please include a brief statement that explains clearly how your and/or any cooperator's experience and background is related to the proposed work. If there is substantial existing or previous work related to your idea, please make clear why the proposed work adds value to existing work.

Technical Requirements: Describe the proposed approach and methods in terms of "what" needs done, not "how" it needs to be done (terminology needed for contracting (possibly solicitation) purposes if idea is favorable). Identify which components of the study approach would be funded by the FISP.

Deliverables: List products for Technical Requirements

Timeline: What is the proposed duration of the project? Most projects are 12 months but duration of up to 2 years will be considered. Please provide a timeline showing major steps that will be taken by the project towards completion (Presented in months following receipt of funds. For example, Months 1 - 3: Literature search and project set-up; Months 4-8: conduct experiments...).

Budget: Provide a budget, including labor, travel, contracts, supplies, equipment purchases, etc. Also indicate any cost share contributions you bring to the project either in kind or direct contributions (e.g., expertise, facilities, funding, partners). If the total funds being requested exceeds \$40,000, break down the tasks into phases so they can be funded separately if needed. All funding is contingent in part on the federal budget. USGS staff should provide a budget based on the fiscal year assuming a start date of March 1st. For private companies, universities, and other federal agencies, complete your budget based on a generic "year 1". Funding of successful ideas is contingent on the contracting process which may include a solicitation process. Both the solicitation process and contracting will affect the successful award and timing of that award.

Unique Qualifications: List unique qualifications to perform the activity based upon a variety of demonstrable factors such as technical expertise, location, property ownership, voluntary support capacity, cost-sharing ability, or other such unique qualifications.

Principal Investigator Contact Information: Address, Phone Number, and Email