



UNITED STATES DEPARTMENT OF THE INTERIOR

U.S. GEOLOGICAL SURVEY

U.S. Geological Survey
Mineral Resources External Research Program

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TABLE OF CONTENTS

	Page
Funding Opportunity and Award Description	3
Two-Year Proposal Option	3
Applicant Eligibility.....	4
Research Topic Eligibility	4
Priority Research Topics	5
Proposal Evaluation Procedure and Criteria	6
Application Procedure	7
Reporting Requirements	11
Agency Contacts	13
Award Terms and Conditions	14

DON'T WAIT!! GET STARTED NOW!!!

Begin your application process by visiting the *Grants.gov* web site and click on the tab in the upper right side of the screen marked, "Get Started." Begin working on the six steps now because it will take time to complete each step. If you wait until the last minute, you will not have enough time to complete the steps before the deadline for receipt of applications. Also, it will take time to become familiar with filling out the electronic versions of the SF 424 forms that must be completed and submitted with your application.

Although no changes to the program announcement are anticipated, check back periodically at *Grants.gov* to make certain no modifications have been issued.

HELP!

For all technical questions about applying through *Grants.gov*, call the *Grants.gov* Help Desk at: 1-800-518-GRANTS

For questions concerning this Program Announcement, please contact Faith D. Graves, Contracting Officer, at (703) 648-7356; fgraves@usgs.gov.

Mineral Resources External Research Program Announcement

Funding Opportunity and Award Description

The Mineral Resources Program (MRP) of the U.S. Geological Survey (USGS) is offering a grant and/or cooperative agreement opportunity to universities, State agencies, Tribal governments or organizations, and industry or other private sector organizations that have the ability to conduct research in topics related to non-fuel mineral resources.

Two-Year Proposal Option

All work that can be completed in one year should be proposed as a one-year project. Applicants should carefully consider their time commitments and request the grant duration and funding required to accomplish the project goals. If the proposed work is such that two years are required to complete the research, then a two-year proposal is appropriate and applicants are encouraged to write their proposals accordingly. However, proposals should clearly define the work to be completed in the first and second years. The MRERP review panel may recommend funding only the first year of a two-year proposal when the proposed research is easily divided into two, one-year projects or when they feel that results from the first year's proposed work will need to be evaluated before a second year of research can be considered.

The second year of funding of a two-year grant is contingent upon the availability of funds and satisfactory progress by the Recipient. Progress will be determined through technical review of a Progress Report by the MRERP coordinator or his or her agent. The Progress Report shall be submitted by the Recipient, in accordance with grant award reporting requirements (see Report Requirements section), 30 days prior to the end of the first year of funding.

Applicant Eligibility

Applications will be accepted from any individual who has the ability to conduct research consistent with the Mineral Resources Program goals (see Research Topic Eligibility section below) and who is not employed by a U.S. Federal agency. Applicants need not be U.S. citizens and can be affiliated (but are not required to be affiliated) with universities, State agencies, Tribal governments or organizations, industry, or other private sector groups.

The following are **ineligible** for consideration under this announcement:

- Proposals from U.S. Government agencies or U.S. Government employees.
- Proposals from Federally Funded Research and Development Centers (FFRDC).
- Proposals in which there is a real or the appearance of a conflict of interest.

Federal employees can be collaborators in proposed research, however, they are prohibited from receiving MRERP funds for salary or other expenses. Collaborative proposals between an external organization and a USGS/MRERP project may be funded as a cooperative agreement or as a grant depending upon the extent and type of involvement of the USGS in the work. Discussion and coordination between internal and external researchers is encouraged; however, USGS personnel are prohibited from helping an external organization prepare its proposal for competitive funding. MRERP reserves the right to fund either part or all of the applicants involved in a collaborative study.

Proposals to fund research in foreign countries will be considered when the proposed research provides knowledge or new techniques leading to a greater understanding of U.S. mineral resource issues. Applications submitted by foreign organizations must be submitted in English and in U.S. dollars. Awards involving foreign governments may require additional coordination and approval by the U.S. Department of State.

Research Topic Eligibility

All proposals must meet two primary criteria to qualify for funding consideration.

Criterion 1: The proposed work must be research; a systematic inquiry to generate new knowledge about a subject of investigation, through a process of interpretation. Data collection and compilation are important early steps in a research project, but do not, alone, constitute research.

Criterion 2: The proposed research must address one of the long-term goals of the MRP, as defined in the MRP Five-Year plan for FY 2006-2010 (http://minerals.usgs.gov/plan/2006-2010/2006-2010_plan.html). These are:

- Long-term goal 1: Ensure availability of up-to-date quantitative assessments of potential for undiscovered mineral deposits
- Long-term goal 2: Ensure availability of up-to-date geoenvironmental assessments of priority Federal lands
- Long-term goal 3: Ensure availability of reliable geologic, geochemical, geophysical, and mineral locality data for the United States
- Long-term goal 4: Ensure availability of long-term data sets describing mineral production and consumption

All proposals that meet the two qualifying criteria will be evaluated based on additional criteria outlined in the Proposal Evaluation section below. **Note that evaluation criteria reward proposals that address one or more of the priority research topics outlined below.**

Priority Research Topics

The USGS MRP conducts research to reduce the uncertainty in nonfuel mineral resource and mineral environmental assessments. As assessments are dynamic, so must be the research that supports them. Each year the MRERP designates research topics as priority for support. As the MRP prepares to embark on a new national mineral resource assessment of the United States in 2012, work is underway to update mineral deposit and mineral environmental models and to improve techniques of assessment for concealed mineral resources.

To support this on-going effort, this announcement solicits research proposals that (1) will improve our assessment for concealed mineral resources in general, or (2) will contribute to accurate and comprehensive mineral deposit or mineral environmental models for deposit types, known or expected to be found in the United States, that are important sources of the following commodities (listed in alphabetical order):

beryllium
 chromium
 cobalt
 iron
 lithium
 manganese
 nickel
 phosphate
 platinum-group metals
 potash
 rare earths
 titanium and TiO₂
 uranium

The MRP also intends to include gold, silver, copper, lead, and zinc in the new national mineral resource assessment, but the MRERP is not soliciting research proposals related to updating models for these commodities at this time.

Applicants are encouraged to contact USGS scientists listed below to discuss collaborative research opportunities, and are strongly encouraged to provide documentation from a USGS scientist illustrating how the proposed research will address MRP research needs. Such documentation will be favorably considered in the scoring of research proposals.

Mineral Deposits Research:

Rich Goldfarb: 303-236-2441; goldfarb@usgs.gov

Mineral Environmental Research:

Geoff Plumlee: 303-236-1204; gplumlee@usgs.gov

Bob Seal: 703-648-6290; rseal@usgs.gov

Kathy Smith: 303-236-5788; ksmith@usgs.gov

Concealed Mineral Resources Research:

Mark Gettings: 520-670-5507; mgetting@usgs.gov

Karen Kelley: 303-236-2467; kdkelley@usgs.gov

Proposal Evaluation Procedure and Criteria

Proposals will be reviewed by a seven-member panel. The panel will be composed of a chairperson (an MRP representative), two reviewers from the USGS, and four reviewers external to the USGS. All reviewers will have expertise in mineral resources. The chairperson is a non-voting member. All proposals that satisfy the two primary qualifying criteria noted in the Research Topic Eligibility section above (i.e., 1- it is research, 2 - it addresses a long-term goal of the MRP) will be further evaluated and scored based on the following criteria:

1. Priority Research Topic (20 points)

How well does the proposed research address one of the research topics designated as priority for support for the current year, and defined in the announcement?

2. Scientific Quality and Impact (40 points)

- (a) How well does the proposed work respond to societal or customer needs at a regional or national level?
- (b) To what extent does this work make fundamental advances in geoscientific research, enhance technology development, or provide fundamental minerals information?
- (c) How well does this work (1) advance our understanding of (a) the occurrence, quality, quantity, and environmental characteristics of mineral resources, (b) the

- fundamental processes that create and modify them, or (c) the life cycle of minerals and mineral materials; (2) contribute to developing objective methods for assessing mineral resources; or (3) help predict the potential environmental impact of mineral development?
- (d) To what extent does this work contribute to resolution of issues involving the economy, sustainable use, land stewardship, environmental impact, or public health?

3. Work Plan (15 points)

- (a) How clear is the strategy and how does it demonstrate success?
- (b) How are the scientific objectives appropriate for proposed time frame?
- (c) How appropriate are the geographic areas selected for study?
- (d) How appropriate are the tools selected for research?
- (e) What documentation is included from a USGS scientist illustrating how the proposed research will address MRP research needs?

4. Experience/Competence of Research Personnel (10 points)

- (a) For previous MRERP award recipients:
- Was publication of project results and data in peer-reviewed scientific or technical journals achieved in a timely manner?
 - Were reporting requirements from previous MRERP awards satisfied?
 - Was the work completed in a competent fashion?
- (b) Have the applicants demonstrated (through bibliographic references, previous experience, awards, etc.) that they are capable of doing the proposed research?
- (c) Have the applicants demonstrated a thorough knowledge of the scientific problem?

5. Budget Justification and Clarity (10 points)

- (a) Is staff sufficient to accomplish the proposed goals?
- (b) Are field expenses, supplies, lab work, and other expenses appropriate?
- (c) Are expenses adequately itemized?
- (d) Is cost-sharing proposed for major budget items (e.g., equipment purchases)?

6. Planned Products and Dissemination of Results (5 points)

- (a) How clearly defined are the final products?
- (b) How likely are these products to be produced in the proposed time frame with resources requested?
- (c) What indication is there that the results will be published in a peer-reviewed form?
- (d) What kind of plan is provided for dissemination of the project results to the scientific community and general user community (i.e., appropriate professional organizations; local, State, regional and federal agencies; and the general public)?

Application Procedure

Applicants are to submit proposals electronically at <http://www.grants.gov/Apply>, no later than September 29 @ 4:00 p.m. EDT. If you have questions concerning the submission process, please contact Faith D. Graves at 703-648-7356 or fgraves@usgs.gov. Applicants will receive an email response from the USGS Office of Acquisition and Grants to acknowledge receipt of submitted proposals.

Proposals submitted through <http://www.grants.gov/Apply> after the closing date and time will **not be considered** for award. If it is determined that an application will not be considered due to lateness, the applicant will be so notified immediately.

Please arrange your application according to the format provided below. Following this format ensures that every proposal contains all essential information and is evaluated equitably. **Failure to follow these guidelines will result in your proposal not being considered.**

1. Proposal Forms

Begin by registering at <http://www.grants.gov> under the “Get Registered” tab in the menu bar on the left side of the home page. Once registered, go to the “Apply for Grant” tab in the menu bar on the left side of the home page. Here you will be required to download the PureEdge Viewer. The PureEdge Viewer will enable applicants to view and complete the following required forms:

SF-424 Application for Federal Assistance
SF-424a Budget Information
SF-424b Assurances – Non-Construction Programs

(The DI-2010 U.S. Department of the Interior Certifications Regarding Debarment, Suspension and Other Responsibility Matters, Drug-Free Workplace Requirements and Lobbying is required but is not yet available through *Grants.gov*. This form will be completed when the grant/cooperative agreement is awarded).

2. Proposal Narrative

a. **Proposal Summary Sheet**

The first page of the proposal must contain the following information:

Project Title:
Principal Investigator(s) (person we can contact, if needed):
Name:
Address:
Phone:
FAX:
Email:

Name of university, state agency, or other organization:

Project Deliverable:

Total Funds Requested: \$ _____

- b. **Proposal Text.** The text (i-vi below, including figures and tables), should be *no longer than 7 pages* when printed on letter-size paper, with 1-inch margins and a font size no smaller than 12 points. The text for two-year proposals may be *up to 10 pages*. All geographic-based proposals must include an index map showing the location of the proposed study area(s). **Proposals not following these guidelines will not be considered.** Please include the following:
- i Statement of Problem. Give a brief introduction to the research problem.
 - ii Objectives. Clearly define goals of project. State how the proposal addresses MRP goals and priority research topics.
 - iii Relevance and Impact. Explain why the work is important. Specify the contribution to science related to mineral resources and the benefits that society will receive from the project. Because MRP is focused on regional and/or national issues related to mineral resources, **proposals should describe why the research is important to regional or national mineral resource issues.**
 - iv Work Plan. This section should include a fairly detailed discussion of the work plan and technical approach. The percentage of your time that you can devote to the proposed work should also be indicated. **You are strongly encouraged to provide a statement from an MRP project scientist documenting how the proposed research will fulfill USGS MRP research needs.**
 - v Prior Work, On-going Work, and Preliminary Results. Provide a brief summary of findings or outcomes of any prior work you or others have completed in this area. If on-going work is being funded through another source of funds, specify what work is already funded and what work will be conducted with funds requested in this proposal.
 - vi Planned Products – Dissemination of Findings. The USGS considers dissemination of research data and results to potential users to be a crucial aspect of projects funded by this program. List product(s) (reports, analyses, digital data, etc.) that will be delivered at the end of the project period to satisfy the Final Technical Report requirement (see Reporting Requirements section below). Identify customers that would benefit from the results of your research. Beyond the requirements for a Final Technical Report, describe your plan for dissemination of project data and results that will result in the greatest possible benefit to customers. **The USGS strongly encourages grant award recipients to publish the results of research in scientific peer-reviewed journals.**
 - vii References Cited. List all references to which you refer in text and references from your past work in the field that the research problem addresses. Be sure to identify references as journal articles, chapters in books, abstracts, maps, digital data, etc.

- viii Project Personnel. List the Principal Investigator first, followed by the names of other individuals. Indicate the role for each participant in the project (geologist, geochemist, field assistant, etc.). Include a **brief** vita for each person. Emphasize previous experience in the field of study that the proposal addresses.
 - ix Continuation projects. List the total amount of funding per year for which support was provided by the USGS, as well as the duration of each increment (including no-cost extensions), and the total number of person months committed by each project participant each year.
- c. **Budget Sheets**. This information will provide more details than what is required under the SF 424A form. Please include the following:
- i Salaries and Wages. List names, positions, and rate of compensation. If contract employees are hired, include their total time, rate of compensation, job titles, and roles.
 - ii Fringe benefits/labor overhead. Indicate the rates/amounts in conformance with normal accounting procedures. Explain what costs are covered in this category and the basis of the rate computations.
 - iii Field Expenses. Briefly itemize the estimated travel costs (i.e., number of people, number of travel days, lodging and transportation costs, and other travel costs).
 - iv Lab Analyses. Include geochemical analyses, age-dating analyses, etc. Briefly itemize cost of all analytical work.
 - v Supplies. Enter the cost for all tangible property. Include the cost of office, laboratory, computing, and field supplies separately. Provide detail on any specific item, which represents a significant portion of the proposed amount.
 - vi Equipment. Show the cost of all special-purpose equipment necessary for achieving the objectives of the project. "Special-purpose equipment" means scientific equipment having a useful life of more than 1 year and having an acquisition cost of \$5,000 or more per item. Each item should be itemized and include a full justification and a dealer or manufacturer quote, if available. General-purpose equipment must be purchased from the applicant's operating funds. Title to non-expendable personal property shall be vested solely with the Recipient. Under no circumstances shall property title be vested in a sub-tier recipient. **The MRERP is not intended to be a major equipment purchase opportunity. If new equipment is critical for conducting the proposed research then cost-sharing with the PI's institution or a third party for equipment purchases is encouraged and is factored in the scoring of the proposal.**
 - vii Services or consultants. Identify the tasks or problems for which such services would be used. List the contemplated sub-recipients by name (including consultants), the estimated amount of time required, and the quoted rate per day or hour.
 - viii Travel (non-field related). State the purpose of the trip and itemize the estimated travel costs to show the number of trips required, the destinations,

- ix Publication costs. Show the estimated cost of publishing the results of the research, including the final report. Include costs of drafting or graphics, reproduction, page or illustration charges, and a minimum number of reprints.
- x Other direct costs. Itemize the different types of costs not included elsewhere; such as, shipping, computing, equipment-use charges, or other services.
- xi Total Direct Charges. Totals for items a - j.
- xii Indirect Charges (Overhead). Indirect cost/general and administrative (G&A) cost. Show the proposed rate, cost base, and proposed amount for indirect costs based on the cost principles applicable to the Applicant's organization. If the Applicant has separate rates for recovery of labor overhead and G&A costs, each charge should be shown.
- xiii Amount proposed. Total items k and l.
- xiv Two-year projects. The Applicant shall provide summary information as well as a detailed budget for the second year. **The SF 424, however, shall reflect support for the one year only.**

Reporting Requirements

The following reports will be required from all award recipients:

Report	Number of copies and format	Submit to	Due
(1) Publication	3 reprints	MRERP coordinator	Immediately following publication. See instructions below.
(2) Final Technical Report	1 Adobe Acrobat PDF file	MRERP coordinator	On or before 60 days after the expiration of the agreement. See instructions below.
(3) Progress Report (for two-year awards only)	1 Adobe Acrobat PDF file	MRERP coordinator	30 days before the end of the first year of funding. Second year funding is contingent on receipt of the report and demonstration of satisfactory progress. See instructions below.
(4) Quarterly SF-272 Federal Cash Transactions	Original + 1	Contracting officer*	On or before 45 working days after the end of each three-month performance period.

Report			See instructions below.
(5) SF-269 Financial Status Report	Original + 1	Contracting officer*	On or before 90 working days after the expiration of the agreement. See instructions below.

* See Agency Contacts section below

Report Preparation Instructions

- (1) **Publication:** Publication means any book, report, photograph, map, chart, or recording published or disseminated to the scientific community. Preprints of articles submitted for publications will be accepted as final reports. All publications that contain work performed during the project period shall include the following statements:

“Research supported by the U.S. Geological Survey (USGS), Department of the Interior, under USGS award number (Recipient, insert award number). The views and conclusions contained in this document are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the U.S. Government.”

- (2) **Final Technical Report:** A final report that includes the findings of the in-depth studies sponsored by the Mineral Resources External Research Program is due within 90 days following the expiration of the grant agreement. The final report should be submitted as a PDF file on a CD-ROM or DVD-ROM to:

External Research, Mineral Resources Program
U.S. Geological Survey
913 National Center
12201 Sunrise Valley Drive
Reston, VA 20192

Format for Final Technical Report

- (A) Title page must contain the following information:

- Award number
- Name of principal investigator(s)
- Title of the report
- Statement that reads as follows:

“Research supported by the U.S. Geological Survey (USGS), Department of the Interior, under USGS award number [insert award number]. The views and conclusions contained in this document are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the U.S. Government.”

- (B) Any figures, tables, or equations should be embedded in the report and included in the PDF file (a tagged PDF). Provide alternative text for each figure, table, and

equation; this text, combined with the caption or title, should convey to the non-sighted person what the image or equation conveys to the sighted person.

- (C) The report should contain a list of citations for all publications (including abstracts) that may have resulted from work funded by the Mineral Resources External Research Program.
- (3) Progress Report: Recipients of two-year awards shall submit a report that summarizes the progress of the project during the first funding period. Work that was proposed for the first year should have been completed in that year. The heading on page 1 of the report should include (a) the MRERP award number, (b) the Principal Investigator's name, and (c) the title of the research project. The progress report shall consist of accomplishments, unanticipated problems encountered, plans for solving unanticipated problems, and any other information pertinent to the progress of the project. Funding expended by the award recipient during year one must also be detailed in the Progress Report. The Progress Report should be submitted as an Adobe Acrobat PDF file via e-mail attachment to: mrerp@usgs.gov with "Progress Report for MRERP award [insert award number]" in the subject line.
- (4) Federal Cash Transactions Report: The award recipient shall submit the SF-272 Federal Cash Transactions Report in order for the USGS Contracting Officer and Project Officer to monitor cash advanced to the award recipient, and to obtain disbursement information about the grant/cooperative agreement. Copies of the SF-269 form can be obtained from the following web site:
http://www.whitehouse.gov/omb/grants/grants_forms.html.
- (5) Financial Report (SF-269): Each award recipient shall use the SF-269 or SF-269A to report the status of funds at the end of the project (projects shall not exceed one year). Copies of the SF-269 form can be obtained from the following web site:
http://www.whitehouse.gov/omb/grants/grants_forms.html.

Financial information shall be reported on an accrual basis. However, if the recipient's accounting records are not normally kept on an accrual basis, the recipient shall not be required to convert its accounting system, but shall develop such accrual information through best estimates, based on an analysis of the documentation on hand.

Agency Contacts

Technical questions concerning the application process at *Grants.gov*:

Grants.gov Help Desk at: 1-800-518-GRANTS

Questions concerning this Program Announcement:

Faith D. Graves, Contracting Officer
U.S. Geological Survey
Office of Acquisition and Grants
National Center, Mail Stop 205G
Reston, VA 20192
Phone: (703) 648-7356
E-Mail: fgraves@usgs.gov

Award Terms and Conditions

Method of Payment

The U.S. Geological Survey (USGS) is using the Department of Health and Human Services (DHHS) Payment Management System (PMS), Division of Payment Management of the Financial Management Service, Program Support Center, to provide electronic invoicing and payment for assistance award recipients. The Recipient must either have an established account or will establish an account with PMS at the time of award of the agreement. With the award of each grant/cooperative agreement, a sub-account will be set up from which the Recipient can draw down funds. The DHHS will forward instructions for obtaining payments to the recipients. Inquiries regarding this payment system should be directed to:

Division of Payment Management
Department of Health and Human Services
P.O. Box 6021
Rockville, MD 20852

The Division of Payment Management web address is www.dpm.psc.gov.

No-cost extensions to the project period

No-cost extensions are discouraged. The MRP awards grants and cooperative agreements for research that extends or supplements the ongoing research within the U.S. Geological Survey. The timely conduct of funded projects is of great importance to the achievement of the goals of the MRP. Applicants should consider their time commitments at the time of applying for a grant. Requests for no-cost extensions will be considered on a case-by-case basis. Applicants should supply documentation supporting their request for an extension.

Dissemination of results

The Principal Investigator is strongly encouraged to disseminate research results promptly to the scientific community and appropriate professional organizations; local, state, regional and federal agencies; and the general public. Research findings must be published in scientific or technical journals, in a peer-reviewed form.

The Government may publish, reproduce, and use all technical data developed as a result of this award in any manner and for any purpose, without limitation, and may authorize others to do the same. Data generated as a part of work funded under this program is not subject to a proprietary period of exclusive data access. Any data generated must be made available to the USGS as soon as it is available. The USGS reserves a royalty-free, nonexclusive and irrevocable license to reproduce, publish, or otherwise use, and to authorize others to use the data for Government purposes. Any project funded in whole or part with funds obtained under this program shall fall under this clause. The USGS Contracting Officer is the sole person to decide which data fall into this category if questions arise.

--End of Program Announcement No. 09HQPA0002--