

## Supporting Statement A

### Mineral Resources External Research Program (MRERP)

OMB Control Number: 1028-0089

**Terms of Clearance: None.**

### General Instructions

A completed Supporting Statement A must accompany each request for approval of a collection of information. The Supporting Statement must be prepared in the format described below, and must contain the information specified below. If an item is not applicable, provide a brief explanation. When the question "Does this ICR contain surveys, censuses, or employ statistical methods?" is checked "Yes," then a Supporting Statement B must be completed. OMB reserves the right to require the submission of additional information with respect to any request for approval.

### Justification

- 1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection.**

Laws, Regulations and Statutes

- Organic Act of March 3, 1879 (43 U.S.C. 31 et seq)
- The Wilderness Act of 1964 (16 U.S.C. 1131)
- The Alaska National Interest Lands Conservation Act of 1980 (16 U.S.C. 3141 et seq)
- The National Materials and Mineral Policy, Research and Development Act of 1980 (30 U.S.C. 1601 et seq.)

The responsibility of the USGS for minerals information and research has evolved considerably since the Organic Act of March 3, 1879 (43 U.S.C. 31 et seq) established the USGS and defined its role as *classification of the public lands, and examination of the geological structure, mineral resources, and products of the national domain*. The Wilderness Act of 1964 (16 U.S.C. 1131), The National Materials and Mineral Policy, Research and Development Act of 1980 (30 U.S.C. 1601 et seq.) and the Alaska National Interest Lands Conservation Act of 1980 (16 U.S.C. 3141 et seq) authorizes and encourages the Secretary of the Interior and the U.S. Geological Survey to be informed about and to assess the mineral resources of the Nation. The responsibilities regarding mineral resources are discharged by the Department of the Interior through a staff of USGS scientists and assigned to the Mineral Resources Program (MRP).

In its 2003 review of the USGS MRP the National Research Council identified four Federal roles in mineral science and engineering: (1) an unbiased national source of science and information, (2) basic research on mineral resources, (3) advisory, and (4) international (undertaking or supporting international activities that are in the national interest). The MRP addresses these four roles through work in two functions: a research and assessment function that provides information for land planners and decisionmakers about where mineral commodities are known and suspected in the Earth's crust, and a minerals information function that collects, analyzes, and disseminates data that describe current production and consumption of about 100 mineral commodities, both domestically and internationally for

approximately 180 countries. Together these activities provide information ranging from that required for land planning decisions on specific management units to that required for national and international economic decisions.

In 2004, the MRP introduced the Mineral Resources External Research Program (MRERP). This is a grant and/or cooperative agreement opportunity available to individuals, universities, State and tribal agencies, industry, or other private sector organizations that have the ability to conduct research in topics related to non-fuel mineral resources that meet the long-term goals of the Mineral Resources Program. The MRERP requires that research proposals be submitted for evaluation by a review panel. The review panel is necessary to rank the merit of submitted proposals for final determination of grant award funding.

**2. Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection. Be specific. If this collection is a form or a questionnaire, every question needs to be justified.**

The MRERP will use Standard Forms: 424 Application for Federal Assistance; 424A Budget Information Non-Construction Programs; and 424B Assurances Non-Construction Programs. Applicants will submit proposals for funding in response to Notices of Funding Availability (NOFA) that we publish on Grants.gov and our program web pages. Applicants submit a proposal through Grants.gov. We collect the following information for each application:

- (1) The proposal narrative including the primary investigator's contact information, applicant organization, collaborating organizations, a short description of the project, the project scope, the technical approach, the skills and capabilities of the applicant, the commitment to the effort, and the organizational and managerial capacity.
- (2) Proposed budget breakdown that provides detailed information about how the funds will be utilized.
- (3) Letters of support and/or commitment that are used to demonstrate the project's viability.
- (4) Complete Standard Forms 424, 424a, and 424b

All research proposals must meet two qualifying 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 Mineral Resources Program, as defined in the current USGS Energy and Minerals Science Strategy (<http://pubs.usgs.gov/of/2012/1072/of2012-1072.pdf> ). These are:

- Goal 1.**— Understand fundamental Earth processes forming mineral resources.
- Goal 2.**— Understand the environmental behavior of mineral resources and their waste products.
- Goal 3.**— Provide inventories and assessments of mineral resources.
- Goal 4.**— Understand the effects of mineral development on natural resources.
- Goal 5.**— Understand the availability and reliability of mineral resource supplies.

Each year the MRERP designates selected research topics as priority for support. For 2012, the MRERP solicited proposals to contribute to the MRP's expanding efforts in critical minerals research on commodities that are of increasing importance to economic and national security but may be subject to disruption in supply.

For the purpose of the solicitation critical mineral commodities were defined as follows (in alphabetical order):

Cobalt  
Gallium  
Indium  
Lithium  
Niobium  
Platinum Group Elements (PGE)  
Rare Earth Elements (REE)  
Rhenium  
Tantalum  
Tellurium

To support this expanded critical minerals efforts, the FY 2012 MRERP solicited research proposals that addressed one or more of the following topics:

- Methods development of critical mineral designation (i.e., criticality and supply risk analysis)
- Regional metallogenic framework studies to understand geotectonic controls on the distribution of critical mineral-bearing systems
- Research to better understand the geology, mineralogy, geochemistry, and geophysical properties of critical mineral-bearing deposits, both conventional and unconventional (e.g., Ga and REE in residual materials, REE-bearing phosphate resources, etc.)
- Research on environmental pathways and biogeochemical behavior of critical and associated metals
- Life-cycle and materials flow analysis of critical commodities

The information collected above ensures that sufficient and relevant information is available to evaluate and select proposals for funding. A panel of technical experts will review each proposal to assess how well the proposed project addresses the requirements and priorities identified in the program's announcement.

All awards granted under this program have a reporting requirement of a final technical report (performance report and copies of all deliverables) and final financial statements due at the end of the performance period.

**3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses, and the basis for the decision for adopting this means of collection. Also describe any consideration of using information technology to reduce burden and specifically how this collection meets GPEA requirements.**

All proposals must be submitted electronically via Grants.gov (<http://www.grants.gov>). All application instructions and forms are available on the Internet for filling and printing by the public.

**4. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purposes described in Item 2 above.**

Due to the unique nature of this program and authorizing legislation no other Federal agency collects this information. No duplication will occur.

**5. If the collection of information impacts small businesses or other small entities, describe the methods used to minimize burden.**

We have made efforts to keep the amount of information requested to a minimum for all of our applicants. The information has to be sufficient to fulfill the requirements of the authorizing statutes, as well as sufficient to make a competitive funding decision. We do not believe the amount of information requested will have a significant impact on small entities, as they will be providing the minimum amount of information needed to compete for financial assistance under these programs.

**6. Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently; as well as any technical or legal obstacles to reducing burden.**

Failure to collect the information or collecting the information less frequently would reduce the MRP's ability to work with external partners to conduct research needed to manage the mineral resources of the nation as mandated by DOI.

**7. Explain any special circumstances that would cause an information collection to be conducted in a manner:**

- \* **requiring respondents to report information to the agency more often than quarterly;**
- \* **requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it;**
- \* **requiring respondents to submit more than an original and two copies of any document;**
- \* **requiring respondents to retain records, other than health, medical, government contract, grant-in-aid, or tax records, for more than three years;**
- \* **in connection with a statistical survey that is not designed to produce valid and reliable results that can be generalized to the universe of study;**
- \* **requiring the use of a statistical data classification that has not been reviewed and approved by OMB;**
- \* **that includes a pledge of confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; or**
- \* **requiring respondents to submit proprietary trade secrets, or other confidential information, unless the agency can demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.**

There are no circumstances that require us to collect the information in a manner inconsistent with OMB guidelines.

**8. If applicable, provide a copy and identify the date and page number of publication in the Federal Register of the agency's notice, required by 5 CFR 1320.8(d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and in response to the PRA statement associated with the collection over the past three years, and describe actions taken by the agency in response to these comments. Specifically address comments received on cost and hour burden.**

**Describe efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.**

**Consultation with representatives of those from whom information is to be obtained or those who must compile records should occur at least once every three years — even if the collection of information activity is the same as in prior periods. There may be circumstances that may preclude consultation in a specific situation. These circumstances should be explained.**

On April 27, 2012, we published a Federal Register Notice (77 FR 25193) announcing that we would submit this collection to OMB for approval. The notice provided a 60-day public comment period ending on June 26, 2012. We did not receive any comments in response to the notice.

In addition to our Federal Register Notice, we solicited comments from several former applicants about the clarity of instruction, the annual hour burden for the application materials and final reports. The names and addresses of the people we contacted are listed below.

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**Names, Titles, Addresses, and Phone Numbers of Individuals Contacted Outside the Agency**

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James A. Saunders, Professor  
Dept of Geology and Geography  
210 Petrie Hall  
Auburn University  
Auburn, AL 36849  
334-844-4884

John Dilles, Professor  
College of Earth, Ocean, and  
Atmospheric Sciences  
104 CEOAS Admin Bldg  
Oregon State University  
Corvallis OR 97331-5503  
541-737-1245

William L. Lassetter, Jr.  
Economic Geology Projects  
Manager  
Virginia Department of Mines,  
Minerals and Energy  
Division of Geology and Mineral  
Resources  
900 Natural Resources Drive, Suite  
500  
Charlottesville, VA 22903  
434-951-6361

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The respondents said that the instructions for the proposal narrative and reports are clear, logical, straightforward, helpful, easy to understand and informative.

**Proposal Narrative**

Reviewer Dilles estimated the time to complete the narrative process including relevant communication would be between 12 and 40 hours. Lassetter said that the completion of the proposal would take 25

hours. Saunders did not suggest the burden in hours, but provided that they would spend 5-7 days working on the proposal.

We believe that this variance results from the time it takes each applicant to gather information they need to prepare the narrative, write the narrative, and the time that it takes to receive supporting feedback (i.e. peer-reviews and letters of support). Based on these responses and our prior experience with similar collections we carefully considered adjusting our estimated burden times. We averaged the time reported by the reviewers [we converted Saunders' working days into 56 hours assuming an 8 hour [multiplied by 7 days] work day]. Based on the average of the three reviews plus our previous estimate [45 hours – amount in our 60 day Federal Register Notice], we believe the burden to complete the application (proposal narrative) is approximately 40 hours.

### **Final Report**

Saunders provided an estimate of 12 hours for respondents to complete the technical report from the beginning if they were not concurrently working on papers with the findings (6 hours in that instance). Dilles provided an estimate of 10-15 hours. Lassetter provided an estimate of 75-80 hours.

The variance in the time to complete the final report is likely based on the level of perceived complexity needed to report findings. Taking an average of the respondent's estimates, using the highest hour count given for a range, we conclude that a burden of 36 hours to prepare a final report is appropriate.

We anticipate awarding an average of 5 grants per year; each award recipient is required to submit a final technical report. We estimate a burden of 36 hours to complete and submit each final report, (totaling 180 hours).

### **9. Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.**

No payments or gifts are other than the remuneration of grantees.

### **10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy.**

No assurance of confidentiality is given to respondents. We will protect information from respondents considered proprietary under the Freedom of Information Act (5 U.S.C. 552) and implementing regulations (43 CFR part 2), and under regulations at 30 CFR 250.197, "Data and information to be made available to the public or for limited inspection." We intend to release the project abstracts and primary investigators for awarded/funded projects only.

### **11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the reasons why the agency considers the questions necessary, the specific uses to be made of the information, the explanation to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent.**

The MRERP application does not ask for information of a sensitive nature.

### **12. Provide estimates of the hour burden of the collection of information. The statement should:**

- \* **Indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated. Unless directed to do so, agencies should not conduct special surveys to obtain information on which to base hour burden estimates. Consultation with a sample (fewer than 10) of potential respondents is desirable. If the hour burden on respondents is expected to vary widely because of differences in activity, size, or complexity, show the range of estimated hour burden, and explain the reasons for the variance. Generally, estimates should not include burden hours for customary and usual business practices.**
- \* **If this request for approval covers more than one form, provide separate hour burden estimates for each form and aggregate the hour burdens.**
- \* **Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories. The cost of contracting out or paying outside parties for information collection activities should not be included here.**

Our estimates are based on our own knowledge plus the outreach described in item 8. We expect to receive approximately 35 applications, each taking the applicant approximately 40 hours to complete. This includes the time for project conception and development, proposal writing and reviewing, and submitting proposal narrative through Grants.gov (totaling 1,400 burden hours). We anticipate awarding an average of 5 grants per year. The award recipients must submit a final technical report. We estimate that it will take approximately 36 hours to complete and submit each report (totaling 180 hours). We estimate that the total burden for this collection will be 1,580 hours (Table 1).

**Table 1. Estimated annual hour burden of the collection of information**

Activity	Number of Annual Responses	Estimated Completion Time per Response	Total Annual Burden Hours
Application	35	40 Hours	1400
Final Report	5	36 Hours	180
<b>TOTAL</b>	<b>40</b>		<b>1580</b>

We estimate an aggregated annual cost to the respondents to be \$53,929 (see Table 2). The hour cost is based on BLS news release USDL-12-1124 of June 2012, for average full compensation per hour including benefits for private industry. The particular values utilized are:

- Individuals. Average hourly wage is \$21.27 multiplied by 1.4 to account for benefits (\$29.78).
- Private sector. Average hourly wage is \$20.25 multiplied by 1.4 to account for benefits (\$28.35).
- States/tribal/local governments. Average hourly wage is \$26.85 multiplied by 1.5 to account for benefits (\$40.28).

**Table 2. Estimated Dollar Value of Annual Burden Hours**

Activity	Annual Number of Applicants	Estimated Completion Time per Applicant	Total Annual Burden Hours	Dollar Value of Burden Hour Including Benefits	Total Dollar Value of Annual Burden Hours
Narrative Preparation					

Individuals	2	40 Hours	80	\$29.78	\$2,382
Private Sector	16	40 Hours	640	\$28.35	\$18,144
State Local/Tribal Gov.	17	40 Hours	680	\$40.28	\$27,390
<b>SUBTOTAL</b>	<b>35</b>		<b>1400</b>		<b>\$47,916</b>
Final Reports					
Individuals	1	36 Hours	36	\$29.78	\$1,072
Private Sector	2	36 Hours	72	28.35	\$2,041
State Local/Tribal Gov.	2	36 Hours	72	\$40.28	\$2,900
<b>SUBTOTAL</b>	<b>5</b>		<b>180</b>		<b>\$6,013</b>
<b>TOTAL</b>	<b>40</b>		<b>1580</b>		<b>\$53,929</b>

**13. Provide an estimate of the total annual non-hour cost burden to respondents or recordkeepers resulting from the collection of information. (Do not include the cost of any hour burden already reflected in item 12.)**

- \* **The cost estimate should be split into two components: (a) a total capital and start-up cost component (annualized over its expected useful life) and (b) a total operation and maintenance and purchase of services component. The estimates should take into account costs associated with generating, maintaining, and disclosing or providing the information (including filing fees paid for form processing). Include descriptions of methods used to estimate major cost factors including system and technology acquisition, expected useful life of capital equipment, the discount rate(s), and the time period over which costs will be incurred. Capital and start-up costs include, among other items, preparations for collecting information such as purchasing computers and software; monitoring, sampling, drilling and testing equipment; and record storage facilities.**
- \* **If cost estimates are expected to vary widely, agencies should present ranges of cost burdens and explain the reasons for the variance. The cost of purchasing or contracting out information collection services should be a part of this cost burden estimate. In developing cost burden estimates, agencies may consult with a sample of respondents (fewer than 10), utilize the 60-day pre-OMB submission public comment process and use existing economic or regulatory impact analysis associated with the rulemaking containing the information collection, as appropriate.**
- \* **Generally, estimates should not include purchases of equipment or services, or portions thereof, made: (1) prior to October 1, 1995, (2) to achieve regulatory compliance with requirements not associated with the information collection, (3) for reasons other than to provide information or keep records for the government, or (4) as part of customary and usual business or private practices.**

There is no non-hour cost burden to applicants under this collection. There is no fee for applications, nor

any fees associated with application requirements.

**14. Provide estimates of annualized cost to the Federal government. Also, provide a description of the method used to estimate cost, which should include quantification of hours, operational expenses (such as equipment, overhead, printing, and support staff), and any other expense that would not have been incurred without this collection of information.**

The total estimated cost to the Federal Government for processing and reviewing information received as a result of this collection is \$27,754 (Table 3). This includes Federal employee salaries and benefits. The table below shows Federal staff and grade levels performing various tasks associated with this information collection. We used the Office of Personnel Management Salary Table 2008-DCB ([http://www.opm.gov/oca/12tables/html/dcb\\_h.asp](http://www.opm.gov/oca/12tables/html/dcb_h.asp)) to determine the hourly rate. We multiplied the hourly rate by 1.5 to account for benefits.

The Administrative Assistant will provide applicants assistance when help is requested, download the applications, and provide the applications to the MRERP Coordinator. The MRERP Coordinator will complete the application initial review process to consider the completeness of documentation and basic eligibility. Two USGS review panel members and four non-Federal specialists will evaluate remaining eligible proposals. Each proposal is evaluated and scored using narrative evaluation factors. Finally, the slate of selected proposals will be submitted to the MRERP Coordinator for final approval. The MRERP Coordinator will serve as reviewer of the final reports submitted by the five grantees.

**Table 3. Federal Employee Salaries and Benefits**

Number of Responses	Position	Grade/ Step	Hourly Rate	Hourly Rate incl. benefits (1.5 x hourly pay rate)	Estimated Time per Response (hours)	Est. Cost per Response	Annual Cost
35	Administrative Assistant	GS-7/5	\$22.25	\$33.38	.50	\$16.69	\$584
40	MRERP Coordinator	GS-15/5	\$67.21	\$100.82	3.5	\$352.87	\$14,114.
35	USGS Review Panel Member	GS-15/5	\$67.21	\$100.82	2	\$201.64	\$7,057
35	USGS Review Panel Member	GS14/5	\$57.13	\$85.70	2	\$171.49	\$5,999
<b>Estimated Total Cost to Federal Government</b>							<b>\$27,754</b>

**15. Explain the reasons for any program changes or adjustments.**

The burden hour estimates were adjusted based on the feedback received in question 8.

**16. For collections of information whose results will be published, outline plans for tabulation and publication. Address any complex analytical techniques that will be used. Provide the time schedule for the entire project, including beginning and ending dates of the collection of information, completion of report, publication dates, and other actions.**

We will maintain data on proposals and resulting grant awards in a database. The final technical reports will be posted on the MRERP website - <http://minerals.usgs.gov/mrerp/reports.html>

**17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.**

Not applicable. We will display the expiration date.

**18. Explain each exception to the certification statement "Certification for Paperwork Reduction Act Submissions".**

We are requesting no exceptions to the certification statement.