



UNITED STATES DEPARTMENT OF THE INTERIOR U.S. GEOLOGICAL SURVEY

-- EDMAP --

The Educational Component of the National Cooperative Geologic Mapping Program

Authorized by The National Geologic Mapping Reauthorization Act of 1999
(Public Law 106-148)

OBJECTIVES

- O Provide funding for graduate students, and selected undergraduate students, in academic research programs, through cooperative agreements that involve geologic mapping as a major component.
- O Expand the research and educational capacity of academic programs that teach earth science students the techniques of geologic mapping and field data analysis.
- O Facilitate the publication and distribution of geologic maps generated in field-based academic research programs.

PROGRAM ANNOUNCEMENT No. 08HQPA0004

For Fiscal Year 2008

ISSUE DATE: September 13, 2007

CLOSING DATE & TIME

November 15, 2007 at 3:00 p.m.

PLEASE READ THE ENTIRE ANNOUNCEMENT CAREFULLY AND NOTE THE MANY CHANGES

TABLE OF CONTENTS

	<u>Page</u>
Table of Contents	i
List of Attachments	ii
PART I. Public Law, Program Priorities, and Geologic Map Products	1
A. The National Geologic Mapping ActB. EDMAP Component of the NCGMPC. EDMAP ProposalsD. Geologic Map Products	1 1 2 2
PART II. Timetables, Eligibility, Format Instructions, and Proposal Evaluation	3
A. TimetablesB. Eligibility—Who May Submit a ProposalC. Proposal Format InstructionsD. Proposal Evaluation	3 3 4 8
PART III. Proposal Delivery and Submission Instructions	10
PART IV. General Provisions	10
 A. General Provisions of the National Cooperative Geologic Mapping Program B. Office of Management and Budget (OMB) Circulars C. Rights in Technical Data D. Publication E. Funding F. Project Deliverables G. Method of Payment H. Financial Reporting Requirements 	10 10 11 11 12 13 14

LIST OF ATTACHMENTS

Proposal Submission Forms and their Instructions

- A. EDMAP Proposal Summary Sheet
- B. Budget Sheets (Total Proposal and Individual Projects)

Contact Information

- C. State Geological Surveys Contact Information
- D. USGS Project Contacts

Forms required during and at the end of the project period

E. SF-269A – Financial Status Report (due at the end of project period) (*download in grants.gov*)

PART I. Public Law, Program Priorities, and Geologic Map Products

A. The National Geologic Mapping Act

The 102nd Congress recognized that the USGS and the State Geological Surveys needed a coordinated program to prioritize the geologic mapping requirements of the Nation, and to increase production of these geologic maps. The National Geologic Mapping Act (Public Law 102-285) was signed into law in 1992 and created the National Cooperative Geologic Mapping Program. The Act has been re-authorized twice since then, most recently by the 106th Congress in 1999 (Public Law 106-148). The Act recognizes that geologic maps are the primary database for virtually all applied and basic earth-science investigations. To read copies of the original act and the two reauthorizations, visit: http://ncgmp.usgs.gov/ncgmp/ncgmpabout/.

The objectives of the National Cooperative Geologic Mapping Program (NCGMP) as outlined in the Act are to:

- 1. Determine the Nation's geologic framework through the systematic development of geologic maps, such maps to be contributed to the National Geologic Map Database.
- 2. Develop complementary national databases (e.g., geophysical and paleontologic databases) that provide value-added information to the National Geologic Map Database.
- 3. Apply cost-effective mapping techniques that assemble and disseminate geologic-map information, and that render such information of greater application and benefit to the public.
- 4. Develop public awareness of the role and application of geologic-map information to the resolution of national issues of land use management.

For a more detailed look at the NCGMP 5-Year Plan visit: http://ncgmp.usgs.gov/ncgmpabout/

B. EDMAP Component of the NCGMP

The primary objective of the EDMAP component of the NCGMP is to train the next generation of geologic mappers. To do this NCGMP provides funds for graduate and selected undergraduate students in academic research projects that involve geologic mapping as a *major* component. Through these cooperative agreements NCGMP hopes to expand the research and educational capacity of academic programs that teach earth science students the techniques of geologic

mapping and field data analysis. Another important goal is to increase the level of communication between the Nation's geologic surveys (both State Geological Surveys and the USGS) and geologic mappers in the academic community. We hope that this improved communication will have two results: 1) that the academic mapping community will learn more about the societal needs that drive geologic mapping projects at the USGS and State Geologic Surveys, and 2) more geologic maps produced in academia will eventually be made available to the public.

C. EDMAP Proposals

Only one proposal will be accepted from an individual principal investigator (Professor or faculty advisor), although more than one proposal will be accepted from a single university if authored by different principal investigators. Although EDMAP awards are intended to support student mapping in the field, the student's faculty advisor must write the proposal. All proposals should be coordinated with a State Geological Survey or with a project in the USGS National Cooperative Geologic Mapping Program or other USGS projects that have a significant geologic mapping component. (To obtain contact information about State Geological Surveys visit: http://www.stategeologists.org/ or see **Attachment C**; to obtain contact information for USGS Projects visit: http://ncgmp.usgs.gov/ or see **Attachment D**). As part of this coordination and planning process, the method of eventual publication should be discussed very early in the planning process. However, receiving EDMAP funds does not constitute a guarantee publication of any map. A written letter of support from a State Geologist or USGS Project Chief must also accompany all proposals."

D. Geologic Map Products

The geologic maps will consist of new data acquired during the award period and should be at a scale of 1:24,000 or larger. If smaller scale geologic mapping is proposed, it should be well justified. It is hoped that students will learn the techniques of detailed field mapping, and in most cases reconnaissance mapping and compilation is not considered appropriate. Emphasis is on the development of *new* geologic maps.

Geologic maps shall be submitted in paper format. *Interim geologic maps (end of 1st field season) can be draft "field sheet" quality, as long as there is clear evidence that the student has made significant progress.* A geologic map is defined as a map that depicts the geographic distribution at the earth's surface of bedrock and/or surficial geologic materials and structures, on a published base map showing topography, hydrography, culture, cadastral, and other base information. The geologic map generally includes most of the following: an explanation, a description of map units and symbols, a location index map, a clear and legible base, and cross sections. Examples of items or maps that are *not* considered

appropriate substitutes for geologic maps include: structure contour maps, isopach maps, stratigraphic and/or facies diagrams, aquifer maps, gravity or magnetic anomaly maps, and element-distribution geochemical maps. If these types of derivative maps are to be produced, they must be in addition to a basic geologic map as described above.

At the discretion of the Principal Investigator, geologic maps submitted to the EDMAP program can be served to the public, via the National Geologic Map Database's Map Catalog. See the method of presentation at http://ngmdb.usgs.gov/Prodesc/proddesc_81551.htm and at http://ngmdb.usgs.gov/Prodesc/proddesc_81552.htm; at this site, map images can be made available for viewing, PDFs and images can be available for download, and GIS files can be archived. To assist the student and PI in map preparation, a Cartographic Resources website is under development (http://ngmdb.usgs.gov/Info/cartores/).

PART II. Timetables, Eligibility, Format Instructions, and Proposal Evaluation

A. Timetables

Proposal Announcement Date: September 13, 2007. Closing Date and Time for Proposal Submission: November 15, 2007 @ 3:00 p.m. (Eastern Standard Time)

B. Eligibility - Who May Submit a Proposal

U.S. accredited university Geoscience or related Departments are eligible for EDMAP funds. University professors must write and submit the proposals. EDMAP cooperative grants are intended to fund students doing geologic mapping in the field. While it is proper for the professors/advisors to ask for some logistical support so that they may be with their student(s) in the field for a credible amount of time, the bulk of the award is intended to support the student's mapping efforts. **EDMAP cooperative grants do not support faculty salaries.** Masters and Doctoral students of Geoscience or related Departments at accredited United States colleges and universities are eligible applicants to the EDMAP Program. In addition, qualified undergraduate Juniors and Seniors are also eligible. These undergraduates should have received some basic mineralogy, petrology and structural geology training prior to the time they will do the geologic mapping proposed in this proposal.

NOTE: Since the timing of proposal submission comes soon after the beginning of the school year, we appreciate that it is sometimes difficult to identify the student(s) who will do the mapping, especially in the case of new Masters candidates. Proposals to be submitted that do not identify the actual

students who will do the mapping will be allowed. *However*, the name and vitae (qualifications) of ALL students must be submitted to the USGS, before the Office of Acquisition and Grants formally issues the cooperative agreement. This should give professors two or more extra months to identify student mappers. It is preferred that *most* students will be identified in the original proposals. Finally, even if the name and vita of the student(s) is not included in the proposal, it must be made clear whether the student is an undergraduate, a Masters candidate, or a Ph.D. candidate. Otherwise the Review Panel will not be able to determine whether the students are qualified to do the described level of work.

Universities that have been previously funded under EDMAP must be in compliance with requirements specified in previous EDMAP awards and must have no outstanding deliverables (Geologic maps) due. Failure to meet previous award requirements will be grounds for ineligibility.

C. Proposal Format Instructions

Arrange your proposal according to the format provided below. Following this format ensures that every proposal contains all essential information, and is evaluated equitably.

All proposals shall include the following documents.

- 1. Standard Form 424, Application for Federal Assistance (**mandatory form provided in grants.gov**). The person who electronically submits the SF-424 must have the authority to bind the University to the terms of the assistance award.
- 2. SF-424B Assurances Non-Construction Programs (mandatory form provided in grants.gov)
- 3. Negotiated Rate Agreement. (Most States and Universities have a rate agreement. They are usually titled "State and Local Rate Agreement" or "Colleges and Universities Rate Agreement." The document provides the rates approved for use on grants, contracts and other agreements with the Federal Government. Some may have an individual audit agency review and provide an agreement. It is basically the documentation that is used that determines the indirect cost rate that is listed on your budget. You can include this as an attachment at the end of your proposal.
- 4. Support letter from State Geologist or USGS Project Chief. It is highly recommended that discussions occur with the State Geologists and

USGS prior to the request of a letter of support and the proposals reviewed by the State or USGS prior to submission. If other organizations are supporting this project, letters of support are welcome.

- 5. EDMAP Proposal Summary Sheet (**Attachment A**).
- 6. Proposal Technical Text. This text must be no longer than 10 pages, no smaller than font size 11, and have 1-inch margins. Remember that a good figure (graphic) is worth a thousand words, and the Review Panel has many proposals to read. The 10-page limit includes *all* text, figures, references, and vitae. (The attachments and budget sheets are *not* included in the 10-page limit.) Exceeding the page limit will *not* be to your benefit. The text should include the following:
 - a. <u>Introduction</u>. Should be a brief description of problem. Particular reference should be made to any earlier mapping, or mapping going on nearby at present time. If the student has received an EDMAP award in a previous year, results of that work should be briefly summarized in a paragraph or two. Please state if this project is a significant part of a thesis.
 - b. <u>Location and geologic setting</u>. Should contain a clear index map with scale, latitude and longitude, other pertinent information, and exact location of map area. Remember that the EDMAP Review Panel does not know the geography of your state as well as you do.
 - c. <u>Purpose and Justification</u>. This main section should answer a few important questions. Why are you doing this mapping? What important scientific questions may be answered by your mapping? What benefits will society enjoy from the mapping? Avoid boilerplate or major exaggeration.
 - d. <u>Strategy for Performing the Geologic Mapping</u>. This short section should explain how you plan to achieve the scientific results presented in the previous section. If the objectives can only be accomplished with the support of drilling, or other support investigations such as geochronology or geochemistry, please mention them here. Keep in mind that most of the budget request should go toward getting the student in the field, and that these support investigations should be a limited percentage of the overall request.
 - e. <u>Timetable and mentoring strategy</u>. Provide a realistic timetable

and approach for completing the mapping project. Explain how much time the faculty advisor will spend in the field with the student. Will there be any interaction, such as a field trip, with representatives from the State Geological Survey or USGS? The program considers project review by USGS and State Geological Survey partners an important part of EDMAP Projects.

- f. <u>Deliverables</u>. List all maps, and their scale, that will be produced by this project.
- g. Project Personnel. Project Personnel. Proposed personnel must include name of student(s) and supervising professor(s). The Review Panel will judge both the qualifications of the professor, and the ability of the student to complete the geologic mapping project. Students should include prior geologic mapping experience (field camp or other mapping projects), and any course work that would help significantly in geologic mapping. The mentoring faculty should include teaching experience of geologic mapping or related courses, prior geologic mapping publications, and other geologic mapping experience. Clarify if secondary students are field assistants or undergraduate investigators. NCGMP strongly encourages geologic mapping projects to be a team approach to promote safe field practices.
- h. <u>Other support</u>. If the student has pending requests for support from other institutions, these requests should be listed.
- 7. Budget Sheets (**Attachment B**). Only one budget sheet per proposal is required, but if, for logistical reasons, the budget request for one student is significantly different than another student, it would be helpful to submit separate budget sheets. Itemize budget sheets and include rates for salary and travel logistics. If there is an item that represents a large proportion of your proposal, the Review Panel will want to know some details. Please include a description of the cost share (cash vs. in kind). Examples of cost share include principal investigator salary, student salary or assistantships, travel expenses, laboratory analysis, or other non-Federal support. If cost share includes support from another organization outside of the university, include a letter from that organization as evidence. The Panel looks favorably on proposals that fund students for fieldwork. Request for tuition and use of tuition waivers as matching funds is not recommended. Please read each category description below and provide the detailed breakdown that is required for each. This will help avoid possible delays in processing a funded proposal, as an award will not be issued until

all required information is provided. The budget should contain the following:

- a. <u>Salaries</u>. Include all students (list salary and amount of time on project). No faculty salary allowed.
- b. <u>Fringe Benefits</u>. Propose your rates/amounts. If rates are audit approved, include a copy of the audit agreement and/or the name of the audit agency.
- c. <u>Field Expenses</u>. Briefly itemize the estimated travel costs (i.e., number of people, number of travel days, per diem rate, mileage rate, airfare or other transportation, and any other travel costs). Note: travel to professional meetings is not an acceptable expense.
- d. <u>Miscellaneous</u>. Federal EDMAP funds are not intended for the purchase of capital equipment, such as computers, GPS units, cameras, etc. Matching funds may be used for this purpose, provided they are directly related and essential to the project. Itemize supplies such as base maps, aerial photographs, petrographic thin sections, film, and other field and office supplies. List any contractual services and associated costs. This is the section to itemize costs that are not identified elsewhere on the budget sheet.
- e. <u>Total Direct Charges</u>. Total for items a d. Total direct charges MUST have a 1:1 Federal/University match. Failure to do so could result in ineligibility.
- f. Indirect Charges. Show proposed rate and amount. Proposals must include a copy of the Indirect Negotiated Cost Rate between the institution and the Federal Government. Important Note: The 1999 Reauthorization of the National Geologic Mapping Act (Public Law 106-148) states that the USGS and recipients of EDMAP grants shall not use more than 15.25 percent of Federal funds to pay for indirect, servicing, or program management charges. This is equivalent to 18% of your total direct costs or charges.

Regardless of the university's federally negotiated indirect cost rate, a university **MUST** show a 1:1 match of the **total direct costs** and no more than 18% on the Federal indirect cost line. Up to 18% of a university's total direct costs may be used as a

university match on the university's indirect cost line. Universities with a federally negotiated indirect cost rate higher than 18% may not use the higher rate to generate an additional university match. If a university chooses (or is required) to show a higher than 18% rate on the university's indirect cost line, the result will be a higher university budget total than the Federal budget total.

g. <u>Total</u>. Total for items e and f. NOT TO EXCEED \$15,000 FOR ONE YEAR, FOR EACH GRADUATE STUDENT AND \$7,500 FOR UNDERGRADUATES.

PLEASE NOTE THAT THE ABOVE COST CATEGORIES MUST BE BROKEN DOWN AS DESCRIBED ABOVE.

NOTE: Summary of what is required in regards to the 1:1 match.

- A 1:1 Federal/State match is required for TOTAL DIRECT COST for each Proposed Individual Project Budget
- A 1:1 Federal/State match is required for TOTAL DIRECT COST on the Proposed Total Budget
- A 1:1 Federal/State match is required for each Proposed Individual Project Budget TOTAL
- A 1:1 Federal/State match is required for the TOTAL on the Proposed Total Budget

D. Proposal Evaluation

EDMAP proposals will be reviewed by a 10-member panel. Five (5) members will be professors. Two (2) members will be State Geologists chosen by the Association of American State Geologists. Three (3) members will be USGS geologists, including the Associate Coordinator for EDMAP who will serve as Chair, and who will choose the other two USGS members. All members will serve 3-year terms. The professors will act as lead reviewers. No panelist may review, or take part in any discussion with other panel members, prior to or during a panel meeting, a proposal that originated from her/his university, or for which other potential conflicts are recognized.

Evaluation Criteria. All proposals for funding will be considered using criteria outlined below. Each reviewer will complete an evaluation form for each proposal reviewed, and these forms will become part of the official proceedings of the review panel meeting. A summary of the review panel comments will be provided to the principal investigators for all proposals reviewed. The criteria are:

- **1. Coordination.** Does the proposal show that the faculty advisor and student geologic mapper have planned their mapping project in consultation with the appropriate State Geologist or USGS Project Chief? What is the degree of this coordination? (15 points)
- **2. Justification.** Will the proposed geologic mapping project answer any significant scientific questions, either pure or applied? Does the mapping project attack a problem that has any significant societal value? (15 points)
- **3. Technical quality of the Proposal.** Are the scientific objectives clearly stated? Are the figures easy to read and clearly explained. Does the proposal stress what is important and new? Does the proposal address how the student will obtain necessary support data, such as paleontologic or geochemical information, if that data is critical to the success of the geologic mapping? Is the student capable of accomplishing the objectives stated, and in the time allowed? (40 points)
- **4. Reasonableness of the Budget.** Is the proposed budget commensurate with the level of effort required to accomplish the objectives? Is the cost reasonable relative to the anticipated results? Are non-Federal funds or inkind services available to *at least equally match* the requested Federal funding amount. (For example, this could consist of documentation showing salary paid or intended to be paid to graduate student for any work relating to the field project. In addition, university stipends for RA (Research Assistant) work paid to the student for any work related to the research project during the year can be used as the university match. Alternatively, match can be shown as money paid to undergraduate field assistants during work on the research project.) Is the budget designed primarily to get the student into the field to conduct the geologic mapping? Is the amount of money budgeted to support the faculty advisor modest and reasonable? (15 points)
- **5. Mentorship.** Does the proposal show that the faculty advisor will be spending adequate time advising the student on geologic mapping techniques and other aspects of the project? Does proposal provide details on mentoring? (15 points)

PART III. Proposal Delivery and Submission Instructions

Hard copies of the proposals are no longer required. Applicants are held responsible for the proposal to be electronically submitted into grants.gov (www.grants.gov) by November 15, 2007 @ 3:00 p.m. (Eastern Standard Time). To obtain step by step instructions for grants.gov please visit the following website: http://www.usgs.gov/contracts/grants/grantsgov.html. Please be aware that the electronic

submission system is relatively complex for first-time users and involves several preliminary registrations steps to be taken before the proposal can be submitted (go to www.grants.gov and click on the "Get Registered" link in the red Applicants section on the left side of the page). Be advised that it is virtually impossible to begin the process of electronic submission for the first time if you start just a few days before the due date. If you are from a university, contact your Office of Sponsored Programs. They may already have completed the registration process and should work with you to submit the application. Please allow sufficient time for the proposal to be submitted electronically and allow time for possible computer delays. It is strongly advised not to wait until the last minute for submission. A proposal received after the closing date and time will not be considered for award. If it is determined that a proposal will not be considered due to lateness, the applicant will be so notified immediately.

All grant programs are required to use grants.gov to advertise proposals. Any form that is not available online may be submitted as attachments at the end of the proposal.

PART IV. General Provisions

A. General Provisions of the National Geologic Mapping Program

By accepting Federal assistance, your institution agrees to abide by the provisions of the National Cooperative Geologic Mapping Program.

- 1. The National Geologic Mapping Act of 1999, Public Law 106-148.
- 2. OMB Circular A-16 Coordination of Surveying and Mapping Activities http://www.whitehouse.gov/omb/circulars/a016/a016 rev.html
- B. Office of Management and Budget (OMB) Circulars

By accepting Federal assistance, your organization agrees to abide by the applicable OMB Circulars in the expenditure of Federal funds and performance under this program. A university can, however, propose other circulars in their proposal if these circulars are not applicable. Copies of these Circulars can be obtained from the Internet at: http://www.whitehouse.gov/omb/circulars/index.html.

- 1. 2 CFR 220 "Cost Principles for Educational Institutions" (OMB Circular No. A-21)
- 2. OMB Circular A -110, "Uniform Administrative Requirements for Grants and Other Agreements with Institutions of Higher Education, Hospitals, and Other Nonprofit Organizations"
- 3. OMB Circular A-133, "Audits of States, Local Governments, and Non-Profit Organizations."

C. Rights in technical data

The U.S. Government may publish, reproduce, and use all technical data developed as a result of this assistance award in any manner and for any purpose, without limitation, and may authorize others to do the same. The Program Coordinator agrees to contact the authors of any EDMAP product for review and coordination in the release of technical data. Full credit for authorship will be given. Every effort to protect the scientific integrity of newly gathered data will be made by the EDMAP Program Coordinator.

D. Publication

1. Publication of any map produced under EDMAP is contingent upon final acceptance by the State Geologist and USGS *and* is not based on having received an award. Publication may be in conventional format in paper copy, reproducible mylar or similar material, and electronic format as digital files on computer readable disk or CD-ROM. Guidelines for publication of digital map products can be found at:

http://ncgmp.usgs.gov/ngmdbproject/standards/dataexch/guidelines.html. Maps with explanatory information submitted to journals, professional organizations, or commercial firms, for publication shall be accompanied by the following notation:

"This map and explanatory information is submitted for publication with the understanding that the United States Government is authorized to reproduce and distribute reprints for governmental use."

- 2. A copy of each map with all accompanying explanatory information shall be submitted to the Project Officer simultaneously with its submission for publication. If a map has been prepared as an electronic digital data file (or files), the cover letter accompanying the maps should state how a copy of these files could be obtained if needed by either the USGS or state geological survey. One reprint of each map shall be submitted to the Project Officer immediately following publication. One reprint should also be sent to the appropriate state geological survey.
- 3. Program credit. All geologic maps resulting from any project carried out under this assistance award resulting wholly or in part from the cooperative agreement will bear the following credit statement in the map header, on the title page of an accompanying explanatory text, and in the acknowledgments that accompany the map or any resulting report: Support (or partial support) provided by the U.S. Geological Survey, National Cooperative Geologic Mapping Program.
- 4. Disclaimer. All maps and explanatory text submitted for publication by

professional societies or commercial firms shall carry the following notation:

"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."

E. Funding

- 1. The EDMAP program is designed to be carried out on a 1:1 match. Recipients shall match each Federal dollar with a non-Federal dollar (direct and indirect costs). The non-Federal share may be contribution of funds or services. Such services can include those related to the student research project or cash provided to contractors. The source(s) of the university contribution must be listed in the proposal. The matching requirement must be met annually. If other non-Federal funds are used as match, a letter or item of evidence should be included with the proposal to support these funds.
- 2. USGS funds cannot be used for the purchase of equipment.
- 3. Funds for the 2008 National Cooperative Geologic Mapping Program and in turn, EDMAP funds will not be available until enactment of USGS appropriations. Student awards will be made in the form of cooperative agreements to the supervising faculty member and the institution. Within the total award, a maximum of 15 percent of total direct costs may be included for support of the supervising faculty member. Student mapping projects may last up to two years; awards are only issued one year at a time, and a proposal must be submitted for competition in the second year. **Funding for the first year does not guarantee funding in the second year.** A new proposal must be submitted for the second year. We anticipate issuing awards in the spring of 2008. Start dates should be between March 15, 2008 and September 15, 2008.
- 4. If a university or college has been awarded a cooperative agreement for several students, and one or more of those students are unable for any reason to do their geologic mapping project, those funds awarded to the student(s) must be forfeited, and cannot be reallocated to the remaining students doing mapping at that institution.

SPECIAL NOTE: A cooperative agreement issued by the USGS Office of Acquisition and Grants, signed by the USGS Contracting Officer, obligates USGS funds. Notification of a successful proposal does not constitute authority to incur costs. Costs incurred prior to receipt of a signed cooperative agreement will be at the risk of the university. Once the cooperative agreement for a successful proposal has been signed by the USGS Contracting Officer, the university may incur costs.

F. Project Deliverables

All geologic map deliverables should be sent to the following address before the last day of the performance period:

Randall Orndorff, Associate Program Coordinator U.S. Geological Survey 908 National Center 12201 Sunrise Valley Drive Reston, Virginia 20192.

To make filing easier, we request that you fold the maps so they will fit in a standard size $(10^{\circ} X 13^{\circ})$ manila envelope.

Maps and explanatory information must be (at a minimum) large-format plots made with scale-stable reproducible topographic base maps. Digitally produced colored geologic maps are preferable. First year or interim map products can be of "in progress" or "field sheet" quality, but field data and other map information should be included so an evaluation of the progress of the project can be made.

Please include author names on the Geologic Map and identify students funded by EDMAP.

At the time the map and accompanying explanatory information are submitted to the Associate Program Coordinator, a copy should be sent to the appropriate State Geological Survey for their files.

Requests for **no-cost extensions** shall be forwarded to the Contracting Officer for consideration not later than 30 days prior to the requested effective date; and, shall be forwarded so as to be received in the Office of Acquisition and Grants at least 30 days prior to the expiration of the agreement. Requests for extensions (including late deliverables) will be handled on a case-by-case basis by the Contracting Officer.

G. Payment

(a) Method of Payment

The U.S. Geological Survey (USGS) is using the Health and Human Services (HHS) Payment Management System (PMS) to provide electronic invoicing and payment for assistance award recipients. The Recipient has established or will establish an account with PMS. With the award of each grant/cooperative agreement, a sub-account will be set up from which the Recipient can draw down funds. The sub-account number will be shown in block 4 of the face page of each

award or modification.

Payments will be made available through the PMS. The PMS is administered by the

Department of Health and Human Services (DHHS), Division of Payment Management

of the Financial Management Service, Program Support Center. The DHHS will forward instructions for obtaining payments to the recipients. Inquiries regarding payment 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. Problems or

questions with electronic draw down procedures should be directed to the help desk at (877) 614-5533, Fran Odgers at (301) 443-2090 or PMSSupport@psc.gov.

- (b) Payment may be drawn in advance only as needed to meet immediate cash disbursement needs.
- H. Financial Reporting Requirements

(a) STANDARD FORM 272, FEDERAL CASH TRANSACTIONS REPORT

This completed form is required quarterly for each PMS subaccount. Quarterly reports are due 45 days after the end of each fiscal quarter. Instructions for submitting SF 272 can be found at the following website:

http://www.dpm.psc.gov/grant_recipient/psc_272_reports/psc_272_reports.aspx?explorer.event=true

If after 45 days, recipient has not submitted a report, the account will be placed in a manual review status. Funds may be withheld for accounts with delinquent reports.

- (b) STANDARD FORM 269, FINANCIAL STATUS REPORT (original and 1 copy) is required annually and is due 90 calendar days after the end of the annual budget period.
- (c) FINAL FINANCIAL STATUS REPORT. The recipient will liquidate all obligations incurred under the award and submit a final SF 269 Financial Status Report no later than 90 calendar days after the grant/cooperative agreement

completion date. Recipient will promptly return any unexpended federal cash advances or will complete a final draw from PMS to obtain any remaining amounts due. Once 120 days has passed since the grant/agreement completion date, the PMS subaccount for this award may by closed by USGS at any time.

- (d) Subsequent revision to the final SF 269, Financial Status Report, will be considered only as follows -
 - (i) When the revision results in a balance due to the Government, the recipient must submit a revised SF 269 and refund the excess payment whenever the overcharge is discovered, no matter how long the lapse of time since the original due date of the report.
 - (ii) When the revision represents additional reimbursement costs claimed by the recipient, a revised SF 269 may be submitted to the Contracting Officer with an explanation. If approved, the USGS will either request and pay a final invoice or re-establish the PMS subaccount to permit the recipient to make a revised final draw. Any revised final report representing additional reimbursable amounts must be submitted no later than 1 year from the due date of the original report, i.e., 15 months following the agreement completion date. USGS will not accept any revised SF 269 report covering additional expenditures after that date and will return any late request for additional payment to the recipient.

-- END OF PROGRAM ANNOUNCEMENT -

Paperwork Reduction Act Statement

The Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et. seq.) requires us to inform you that this information collection is being conducted for the EDMAP component of the National Cooperative Geologic Mapping Program (NCGMP). We estimate the public reporting burden averages 20 hours per response. This includes time (1) to write and review the proposal and submit it through Grants.gov. The response to this request is voluntary but required to receive funding. We understand an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number. Comments regarding the burden estimate or any other aspect of this collection of information should be directed to: Randall Orndorff, Associate Program Coordinator (STATEMAP and EDMAP), National Cooperative Geological Mapping Program USGS Geological Survey 12201 Sunrise Valley Drive, MS 908 (mail); at 703-648-4316 (telephone); or rorndorff@usgs.gov (e-mail).

USE THE FOLLOWING FORMAT ATTACHMENT A EDMAP PROPOSAL SUMMARY SHEET

(University/College, City & State)
1. PROPOSED PROJECT TITLE:
2. PRINCIPAL INVESTIGATOR(s)/SUPERVISING FACULTY:
Name:
Address:
Phone:
E-mail:
3. STUDENT NAME(s)/DEGREE PROGRAM:
4. AUTHORIZED INSTITUTIONAL REPRESENTATIVE
Name:
Address:
Phone:
E-mail:
5. BRIEF PROJECT DESCRIPTION (1 paragraph):
6. BRIEF PROJECT JUSTIFICATION (1 paragraph):
7. LIST OF 7.5-MINUTE QUADRANGLES, OR PARTS OF QUADRANGLES, THAT WILL BE MAPPED IN EACH PART OF THIS PROPOSAL:
8. NAME OF CONTACT/COOPERATOR AT <i>EITHER</i> A STATE GEOLOGICAL SURVEY OR USGS:

9. HAS ANY STUDENT ON THIS PROPOSAL RECEIVED PREVIOUS EDMAP

SUPPORT?:		
	USE THE FOLLOWING FORMAT	Attachment B
	University:	
	Proposal Short Title	

National Cooperative Geologic Mapping Program Educational Geologic Mapping Program Element Proposed Total Budget

Note: Must include totals of all requests for MS and PhD funded students from a University or College.

Budget Category	Amount	Proposed
	Requested	University
		Amount
SALARIES:		Amount
Student(s)	 \$	\$
Faculty Supervisor	φ 	
1 active Supervisor	\$	
	\$	
	- \$	
Total Salaries:	\$	\$
FRINGE BENEFITS:	т -	τ
Supported by negotiated rate	\$	\$
agreement check one:	'	'
() yes () no		
	\$	\$
Total Fringes:	\$	\$
FIELD EXPENSES		
Per Diem	\$	\$
Vehicle cost	\$	\$
Mileage	\$	\$
	\$	\$
	\$	\$
Total Field Expenses	\$	\$
MISCELLANEOUS SUPPLIES		
Office and laboratory supplies	\$	\$
(itemize)		
Drilling	\$	<u> </u>
Map digitizing costs	\$ \$	\$
Other		\$
	\$	\$
Total Miscellaneous Supplies	\$	\$
Total Direct Cost:	\$	\$
Indirect Cost (_%)*	\$	\$
Uncollected Indirect Cost		_
TOTALS	\$	\$

^{*}Not to exceed 18%

	l	Jn	i۷	'e	rs	ity	/ :
_						_	

Proposal Short Title: National Cooperative Geologic Mapping Program Educational Geologic Mapping Program Element Proposed Individual Project Budget

Note: Must include totals of all requests for MS and PhD funded students from a University or College.

Budget Category	Amount Requested	Proposed University Amount
SALARIES:		
Student(s)	\$	\$
Faculty Supervisor		\$
	\$	\$
	\$	\$
	\$	\$
Total Salaries:	\$	\$
FRINGE BENEFITS:		
Supported by negotiated rate agreement check one: () yes () no	\$	\$
-	\$	\$
	\$	\$
Total Fringes:	\$	\$
FIELD EXPENSES		
Per Diem	\$	\$
Vehicle cost	\$	\$
Mileage	\$	\$
	\$	\$
	\$	\$
Total Field Expenses	\$	\$
MISCELLANEOUS SUPPLIES		
Office and laboratory supplies (itemize)	\$	\$
Drilling	\$	\$
Map digitizing costs	\$	\$
Other	\$	\$
	\$	\$
	\$	\$
Total Miscellaneous Supplies	\$	\$
Total Direct Cost:	\$	\$
Indirect Cost (%)*	\$	\$
Uncollected Indirect Cost		
TOTALS	\$	\$
* Not to avocad 100/		

^{*} Not to exceed 18%

ATTACHMENT C

CONTACT INFORMATION FOR STATE GEOLOGICAL SURVEYS

Nick Tew Alabama Geological Survey P.O. Box 869999 Tuscaloosa, AL 35486-9780

Lee Allison Arizona Geological Survey 416 West Congress Street, Suite 100 Tucson, AZ 85701

John Parrish
Department of Conservation
California Geological Survey
Division Headquarters
801 K Street, MS 12-30
Sacramento, CA 95814-3531

Margaret Thomas
State Geol. & Nat. History Survey of
CT
Dept of Environmental Protection
Environ. & Geographic Information
Center
79 Elm Street, Store Level
Hartford, CT 06106

Walter Schmidt Florida Geological Survey 903 W. Tennessee Street FSU Campus, Gunter Building Tallahassee, FL 32304-7700 Robert Swenson State Geologist & Director Div. of Geol. & Geophysical Surveys 3354 College Road Fairbanks, AK 99709-3707

Bekki White State Geologist & Director Arkansas Geological Commission 3815 West Roosevelt Road Little Rock, AR 72204

Vince Matthews Colorado Geological Survey 1313 Sherman Street, Room 715 Denver, CO 80203

John Talley Delaware Geological Survey DGS Building University of Delaware Newark, DE 19716-7501

William Smith Georgia Geologic Survey Environmental Protection Division Suite 400 19 Martin Luther King Jr. Drive, S.W. Atlanta, Georgia 30334

Roy Breckenridge Idaho Geological Survey Morrill Hall, Third Floor William W. Shilts Illinois State Geological Survey 121 Natural Resources Building 615 East Peabody Drive Champaign, IL 61820-6964

Robert Libra Iowa Geological Survey Department of Natural Resources 109 Trowbridge Hall Iowa City, IA 52242-1319

James Cobb
Kentucky Geological Survey
228 Mining & Mineral Resources
Building
University of Kentucky
Lexington, KY 40506-0107

Robert G. Marvinney
Maine Geological Survey
Department of Conservation
22 State House Station
Augusta, ME 04333-0022

Stephen Mabee
Department of Geosciences
University of Massachusetts
611North Pleasant Street
Amherst, MA 01003

Harvey Thorliefsen Minnesota Geological Survey University of Minnesota 2642 University Avenue W., St. Paul, MN 55114-1057

Mimi Garstang Geological Survey and Resource Assessment Division P.O. Box 44314 University of Idaho Moscow, ID 83843-3014

John C. Steinmetz Indiana Geological Survey 611 North Walnut Grove Bloomington, IN 47405

William Harrison Kansas Geological Survey 1930 Constant Avenue West Campus University of Kansas Lawrence, KS 66047-3726

Chacko J. John Louisiana Geological Survey Louisiana State University 3079 Energy, Coast & Environment Bldg. Baton Rouge, LA 70893

Jeff Halka Maryland Geological Survey 2300 St. Paul Street Baltimore, MD 21218-5210

Harold Fitch Geological and Land Mgmt Division Department of Environmental Quality Box 30256 Lansing, MI 48909

David Dockery Mississippi Office of Geology Department of Environmental Quality P.O. Box 20307 Jackson, MS 39289-1307

Edmond G. Deal Montana Bureau of Mines & Geology 1300 West Park Street Department of Natural Resources Division of Geology and Land Survey P.O. Box 250 Rolla, MO 65402 Montana Tech, Main Hall Butte, MT 59701-8997

Mark Kuzila Nebraska Geological Survey Conservation and Survey Division School of Natural Resources University of Nebraska 102 Nebraska Hall 901 N. 17th Street Lincoln, NE 68588-0517

Jonathan G. Price NV Bureau of Mines & Geology University of Nevada Mail Stop 178 Reno, NV 89557-0088

David Wunsch New Hampshire Geological Survey Department of Environmental Services P.O. Box 95 Concord, NH 03302-0095 Karl Muessig New Jersey Geological Survey Division of Land Use Management Department of Environmental P.O. Box 427 Trenton, NJ 08625

Peter Scholle NM Bureau of Geol & Mineral Resources New Mexico Tech 801 Leroy Place Socorro, NM 87801 William Kelly New York State Geological Survey State Museum, Empire State Plaza 3140 Cultural Education Center Albany, NY 12230

James Simons
North Carolina Geological Survey
Dept of Environment & Natural
Resources
Division of Land Resources
1612 Mail Service Center
Raleigh, NC 27699-1612

Edward Murphy North Dakota Geological Survey 600 East Boulevard Bismarck, ND 58505-0840

Larry Wickstrom
Ohio Geological Survey
Department of Natural Resources
4383 Fountain Square Drive
Columbus, OH 43224-1362

Charles J. Mankin Oklahoma Geological Survey 100 E. Boyd, Room N-131 Norman, OK 73019-0628

Vicki McConnell Oregon Department of Geology & Mineral Industries, Suite 965

Jay Parrish Pennsylvania Geological Survey Dept. of Conservation and Nat. Res 800 N.E. Oregon Street, No. 28 Portland, OR 97232

3240 Schoolhouse Road Harrisburg, PA 17105-8453

Ruth Velez Departmento De Recursos Naturales Y Ambientales Negociado de Geologia Pda. 3 12 Ave, Munoz Rivera P.O. Box 9066600 San Juan, PR 00906-6600

William Clendenin South Carolina Geological Survey 5 Geology Road Columbia, SC 29212

Ron Zurawski Tennessee Division of Geology Life & Casualty Tower 401 Church Street, 13th Floor Nashville, TN 37243-0445

Richard Allis Utah Geological Survey 1594 West North Temple, Suite 3110 Salt Lake City, UT 84116

Ed Erb VA Dept. of Mines, Minerals, & Energy Division of Mineral Resources 900 Natural Resources Drive P.O. Box 3667 Charlottesville, VA 22903

Michael Hohn West Virginia Geological Survey Mont Chateau Research Center P.O. Box 879 Morgantown, WV 26507-0879 John C. Boothroyd Rhode Island Geological Survey Department of Geology 315 Green Hall University of Rhode Island Kingston, RI 02881

Derric L. Iles
South Dakota Geological Survey
USD Science Center
414 East Clark Street
Vermillion, SD 57069-2390
Scott Tinker
Texas Bureau of Economic Geology
The University of Texas at Austin
University Station, Box X
Austin, TX 78713-8924

Laurence R. Becker Vermont Geological Survey Agency of Natural Resources 103 South Main Street Waterbury, VT 05671-0301

Ronald Teissere Department of Natural Resources Division of Geology & Earth Resources 1111 Washington Street, S.E. Box 47007 Olympia, WA 98504-7007

James M. Robertson Wisconsin Geological Survey University of Wisconsin Extension 3817 Mineral Point Road Madison, WI 53705-5100 Ronald Surdam Wyoming State Geological Survey P.O. Box 1347 Laramie, WY 82073

Attachment D

Ongoing Projects of the National Cooperative Geologic Mapping Program

Project Chief	Project Name	States	Phone Number	Email Address
Greg Walsh	Geologic Mapping and Hydrogeology of Crystalline Rocks	CT, MA, NH, NY, NC,	802-828-4528	gwalsch@usgs.gov
		VT		
Mark Hudson	Geologic Framework of Rio Grande Basins	CO, NM	303-236-7446	mhudson@usgs.gov
Greg Gohn	Chesapeake Bay Impact Crater	VA	703-648-6953	ggohn@usgs.gov
David Weary	Karst Applied Research Studies	AR, MO, VA, WV	703-648-6897	dweary@usgs.gov
Jon Matti	Basins & Landscape Co-Evolution (BALANCE)	CA	520-670-5577	jmatti@usgs.gov
George Billingsley	Geology of Parks and Federal Lands of the Southwest	AZ, CA, CO, NV	928-556-7198	gbillingsley@usgs.gov
Janet Stone	Glacial Aquifer Systems Stratigraphy	IL, IN, MA, MI, NH,	860-405-9288	jrstone@usgs.gov
		OH, RI		
Scott Southworth	Appalachian Blue Ridge Landscape	MD, NC, PA, TN, VA	703-648-6385	Ssouthwo@usgs.gov
Victoria Langenheim	Understanding Geohydrologic Systems from Geologic Framework and	CA, NV, OR	650-329-5313	zulanger@usgs.gov
	History			
Russ Graymer	3D/4D Mapping of the San Andreas Fault Zone	CA	650-329-4988	rgraymer@usgs.gov
Ray Wells	Pacific Northwest Urban Corridor Geologic Mapping	CA, OR, WA	650-329-4933	Rwells@usgs.gov
Charles Blome	Framework Geology of Mid Continent Carbonate Aquifers	OK, TX	303-236-5682	cblome@usgs.gov
Ric Page	US-Mexico Border Geologic Framework	AZ, CA, NM, TX	303-236-1141	rpage@usgs.gov
Robert Bohannon	Integrated Geological, Geochemical and Geophysical Studies of Big	TX	303-236-1245	rbbohannon@usgs.gov
	Bend National Park			
Geoffrey Phelps	Geophysical and Geologic Investigations in the Great Basin	CA, NV, UT	650-329-4922	gphelps@usgs.gov
Richard Pike	Debris Flow Studies in San Francisco Bay Region	CA	650-329-4947	rpike@usgs.gov
Marith Reheis	Paleohydrologic History of Mojave Desert Region	CA	303-236-1270	mreheis@usgs.gov
Scott Lundstrom	Missouri River Geologic Framework	IA, MO, MT, NE, ND,	303-236-7944	sclundst@usgs.gov
		SD		
Susan Cannon	Wildfire-Related Debris Flow and Landslide Hazards	CA	303-273-8604	cannon@usgs.gov
Margaret Hiza	Navajo Land Use Planning Project	AZ	828-556-7366	mhiza@usgs.gov
David Miller	Neotectonics of the Northern Mojave Desert	AZ, CA, NV, UT	650-329-4923	dmiller@usgs.gov
Karl Kellog	Central Colorado Assessment	CO	303-236-1305	kkellogg@usgs.gov
Art Schultz	Geologic and Geomorphic Framework Studies of Atlantic and Gulf of	GA, MD, NC, SC, VA	703-648-6327	aschultz@usgs.gov
	Mexico Watersheds			
Johathan Stock	Quarternary Evolution of the Sacramento Valley: Mountain to Marsh	CA	650-329-4968	jstock@usgs.gov