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 2009
(Public Law 111-11)

PROGRAM ANNOUNCEMENT No. G20AS00005

For Fiscal Year 2020

ISSUE DATE: September 09, 2019

CLOSING DATE & TIME

November 19, 2019 at 3:00 p.m. EST

PLEASE READ THE ENTIRE ANNOUNCEMENT CAREFULLY AND NOTE ANY CHANGES

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LIST OF ATTACHMENTS

Proposal Submission Forms and their Instructions

A. EDMAP Proposal Summary Sheet

B. Budget Sheets (Total Proposal and Individual Projects)

C. Special Terms and Conditions; Program and Financial Contact Information

D. State Geological Surveys - Contact Information

E. USGS Project Chiefs - Contact Information

F. Current (FY2018) Edmap Projects

G. Forms required during and at the end of the project period (form is online only)

SF-425 – Federal Financial Report (due at the end of project period and submitted electronically through FedConnect). This form is no longer attached but can be downloaded from: https://www.grants.gov/forms/post-award-reporting-forms.html.

PROGRAM ANNOUNCEMENT CHANGES

Part I, D: Added recommendation to work with supporting State geological survey to publish EDMAP maps.

Part I, D: Added additional requirement for map deliverables: “All maps submitted under EDMAP also must show the bounding coordinates, in DMS notation”

Part I, D: Recommended and provided resources for GeMS geologic map database schema: “We recommend that you follow the FGDC Cartographic Standard and the GeMS database schema. Additional resources on GeMS can be found at https://ngmdb.usgs.gov/Info/standards/GeMS/.”

Attachments D, E, and F have been updated.

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 (NCGMP). The Act has been re-authorized three times since then, most recently by the 111th Congress in 2009 (Public Law 111-11, sec. 11001). 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/about/.

The objectives of the NCGMP as outlined in the Act are to:

1. Determine the Nation's geologic framework through the systematic development of geologic maps; such maps will contribute 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.

In 2016-2017, NCGMP went through a process of renewing its vision and mission by developing a new strategic plan. The vision of the USGS NCGMP is to create an integrated, three-dimensional, digital geologic map of the United States and its territories to address the changing needs of the Nation by the year 2030. The mission of the USGS National Cooperative Geologic Mapping Program is to characterize, interpret, and disseminate a national geologic framework model of the Earth through geologic mapping and associated research in order to support the responsible use of land, water, energy, and minerals and to mitigate the impact of geologic hazards on society, thereby facilitating national security and economic growth through informed earth resource management.

The EDMAP program continues to carry out NCGMP's mission and address the Department of Interior's Secretarial priorities by developing a national geologic framework through student geologic mapping. Geologic mapping supported by EDMAP provides the foundational information necessary to manage the Nation's land and water resources, adapt to changes in the environment, and secure the Nation. Geologic maps and associated EDMAP products provide geologic data necessary to assess our natural resources and hazards, support the development of modern infrastructure and inform land-use planning. In addition, EDMAP support helps to maintain strong academic geologic mapping programs which in turn produce a healthier workforce at geological surveys throughout the Nation.

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 undergraduate and graduate students in academic research projects that involve geologic mapping as a ***major*** component. Through 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 the USGS and State Geological Surveys) and geologic mappers in the academic community. We hope that this improved communication will have two results: 1) 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. As of 2019, EDMAP has funded 1,290 students from 165 universities.

For more information about the USGS NCGMP EDMAP program please visit: http://ncgmp.usgs.gov/about/. A list of currently funded EDMAP projects can be found in Attachment F.

C. EDMAP Proposals

Proposals are to be submitted for a 12-month continuous project effort. Each proposal should show a 1:1 Federal/University funding match. Only one proposal will be accepted from an individual Principal Investigator (PI) (Professor or faculty advisor), although more than one proposal can be accepted from a single university if authored by different Principal Investigators. The Principal Investigator is required to write and submit the proposal. The primary emphasis of the proposal must be on student mapping in the field. All proposals must inform or coordinate with a State Geological Survey or a Project Chief in the USGS National Cooperative Geologic Mapping Program or other USGS projects that have a significant geologic mapping component. (To obtain contact information for State Geological Surveys see **Attachment D** or visit: http://www.stategeologists.org/). To obtain contact information for USGS Projects see **Attachment E.** Even if you do not seek active participation by the State Geological Survey or the USGS, letting them know that you are planning a project in their state or field area fulfills this requirement. **A written letter of acknowledgement or support from a State Geologist and/or USGS Project Chief must accompany all proposals** (see proposal criteria *1. Coordination* below)**.** As part of this coordination and planning process, the method of eventual geologic map publication should be discussed very early in the planning process. However, receiving EDMAP funds does not constitute a guaranteed publication of any map.

Funding Request Limits

EDMAP allows funding requests of up to $17,500 for each graduate student primary mapper and $10,000 for each undergraduate primary mapper per year. A primary mapper is defined as the lead student mapper on an individual project and is responsible for his/her first-authored geologic map that is required to be delivered to the Program at the end of the project. Assistant geologic mappers are encouraged, but costs for assistant mappers are included in the overall

request per primary mapper (for example, for one undergraduate primary mapper and two field assistants, the total request is still limited to $10,000). A proposal may request funding for multiple primary mappers (for example, one undergraduate primary mapper and one graduate primary mapper for a total request not to exceed $27,500), but **each primary mapper is responsible for a separate first-authored map**, and multiple deliverable maps are required in this case. For any questions regarding request amount limits per student, please contact the Program Officer. NOTE: EDMAP funds are not intended to support field camps.

D. Geologic Map Products

According to the new NCGMP strategy, the preferred optimal operational NCGMP definition of a "geologic map" is one supported by a robust material-properties-based geologic framework model database of geological features and strata that is regularly-updated, well-coordinated, multi-resolution, seamless, and three-dimensional (3D), and that can be interpreted into various customized and user-friendly derivative map products. At the minimum, a geologic map should include: (1) a clear and legible base (include base map credit and map projection), (2) scale (fractional and bar) and contour interval, (3) north arrow and magnetic declination, (4) title, authorship, publisher (or the University that carried out the mapping), and date, (5) index map showing mapping contributions by the student author(s) and by previous mappers, (6) field data or field data stations, (7) description of map units, (8) explanation of map symbols, (9) unit symbols on map. All maps submitted under EDMAP also must show the bounding coordinates, in DMS notation. A geologic map may also include correlation or sequence of map units, stratigraphic columns, cross sections, other down-hole or three-dimensional data, derivative maps, and text, but these additions are not required. Geologic maps in digital form also may contain a variety of point data for specific sites, essentially comprising a 3D database.

Deliverable geologic maps will consist of new data acquired during the award period and mapped at a scale deemed appropriate for the geologic problem being addressed. It is hoped that students will learn the techniques of detailed field mapping, and emphasis is on the development of *new* geologic maps. Principal Investigators must plan mapping projects in coordination with other mapping projects in your field area since the NCGMP will not fund two maps of equitable scale from both EDMAP and STATEMAP/FEDMAP programs. All EDMAP deliverables are required to be delivered as a high quality digital Portable Document Format (PDF or GeoPDF) files that address the minimum requirements for map components and notation as described in the previous paragraph. Any GIS or desktop-publishing files that were developed during the preparation of the PDF should be included in the deliverable. At the end of an awarded cooperative agreement period of performance, your EDMAP deliverables are required to be delivered to the EDMAP Program Officer. Deliverables will be submitted electronically through the EDMAP Dropbox. A link to the EDMAP Dropbox will be provided by the Program Office prior to project end dates.

Because your student's maps are a significant component of the NCGMP, we will post all EDMAP deliverable geologic maps to the USGS National Geologic Map Database (NGMDB) website (http://ngmdb.usgs.gov/), which currently provides access to more than 100,000 geoscience publications (see http://ngmdb.usgs.gov/Prodesc/proddesc_81551.htm for an example

EDMAP deliverable). In addition to the map, we will archive any source files (e.g., ArcGIS, Adobe Illustrator) for future use by other geologists, upon written request. If you do not want your student's map deliverable posted to the NGMDB website indicate that to us in your transmittal letter when you submit your deliverable. Unless otherwise indicated, your student's map will be uploaded to the website with a disclaimer watermark identifying the map as an unpublished EDMAP deliverable. Since many EDMAP products do not get published, we feel that this is an excellent way for map users to find these geologic maps as well as a way for students to show their good work. We recommend that you work with your supporting State Geological Survey toward publication of your student's map.

To assist the student and Principal Investigator in map preparation, various general and NCGMP-supported resources for cartography and database design are available at https://ngmdb.usgs.gov/Info/standards/. This site is the recommended starting point for preparation of EDMAP products. We recommend that you follow the FGDC Cartographic Standard and the GeMS database schema. Additional resources on GeMS can be found at https://ngmdb.usgs.gov/Info/standards/GeMS/. Please contact Dave Soller (drsoller@usgs.gov) with any questions about these resources.

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

A. Timetables

Proposal Announcement Date: September 9, 2019.
Closing Date and Time for Proposal Submission: November 19, 2019 @ 3:00 p.m. (EST)

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 agreements are intended to fund upper level (junior and senior) undergraduate and graduate (Masters and Doctoral) students conducting geologic mapping in the field. Undergraduate students must have received mineralogy, petrology and structural geology training prior to the time they are to begin the proposed geologic mapping project. While it is proper for the Principal Investigator or faculty advisor to ask for some logistical support so that they may mentor 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 agreements do not support faculty salaries nor do they support student tuition.**

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 (transmittal letter, geologic maps, and technical reports) due. Failure to meet previous award requirements will be grounds for ineligibility.

Student Eligibility

Although EDMAP proposals are for one year of funding, students are eligible to apply for two

different years of funding. Although the program envisions that students may be funded for two consecutive field seasons, a student may receive an EDMAP award from two different institutions, degrees, or Principal Investigators. However, the student is only eligible for two years of funding cumulatively. The Principal Investigator must indicate in the proposal if the student has received any prior EDMAP funding. NOTE: The panel will only review one-year projects, so two-year projects are not eligible for funding.

C. Proposal Format Instructions

Proposals must be arranged according to the format and order provided below. Following this format ensures that every proposal contains all essential information, and is evaluated equitably. **All documents must be combined and submitted as one Portable Document Format (PDF) file.**

All proposals **must** 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. Standard Form 424A, Budget Information – Non-Construction Programs **(mandatory form provided in grants.gov)**.

3. Standard Form 424B, Assurances - Non-Construction Programs (**mandatory form provided in grants.gov**)

4. 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. New regulations (2 CFR 200.414) went into effective in 2015 stating that a recipient must provide a federally approved negotiated rate agreement or their indirect costs cannot exceed 10%. The language states the agency will comply with the recipients approved rate, however, that is exempt for individual program regulations that have restrictions regarding indirect costs. The program authority for EDMAP has a cap of 18%. **If you request fringe benefits that are not referenced in your approved rate agreement or if you do not have a rate agreement to provide please include a reference on how your fringe benefit rate(s) are determined for your university/organization.**

5. Support letter from State Geologist or USGS Project Chief. A letter of acknowledgement or support from the State Geologist in the state that you are proposing to conduct field mapping and/or a USGS Project Chief is mandatory. It is highly recommended that discussions occur with the State Geologist and/or the USGS Project Chief prior to the request of a letter of support. Informing them of your proposed field mapping and research is of benefit to everyone. If other organizations are supporting your proposed project, letters of support are welcome. See Attachments D and E for State and USGS

contacts. For questions related to coordination with USGS Project Chief and/or State Geologists, please contact the Program Officer.

6. EDMAP Proposal Summary Sheet (**Attachment A**).

7. Proposal Technical Section. This section of the proposal is limited to 10 single-spaced pages, no smaller than 11-point font size, and 1-inch margins. Remember that a graphic is worth a thousand words, and the Proposal Evaluation 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.) The technical section of your proposal includes the following:

   a. Abstract. The abstract must be no more than 350 words and include: (1) a statement of purpose, objective, or hypothesis, (2) research methods to accomplish the goal, (3) expected scientific or societal impacts of your research, (4) expected conclusions or outcomes, and (5) identify the state and quadrangle or areas that you will be mapping in. Please be clear and concise to briefly describe what you propose to do in your project. Do not include personal information. This abstract will be used to acknowledge EDMAP cooperative agreement awardees and post to the USGS EDMAP website.

   b. Introduction. The introduction is a brief description of the problem and background. Particular reference should be made to any earlier mapping, or mapping going on nearby at present time. If the PI has received prior EDMAP funding in recent years, discussion of previous projects, results and impacts of previous results, and if/how this work relates to the work being proposed should be included. Please be as specific as possible, and include a bibliography of previous EDMAP products. Please state if this project is a significant part of a thesis. The introduction is a good place to discuss coordination with a state geological survey or USGS.

   c. Location and geologic setting. A clear, readable map (with scale) showing the location (**with coordinates**) of your project area should accompany the text. Please keep in mind that the Proposal Evaluation Panel may not know your proposed field area's geography as well as you.

   d. Purpose and Justification. This section should answer a few simple, but important questions. Why are you doing this mapping? What scientific questions are you addressing? What benefits will society receive from the mapping? If you have previously proposed similar research convey how the current proposal ties into it and how it is different. Please avoid boilerplate proposals from year-to-year.

   e. Strategy for Performing the Geologic Mapping. This section should explain how your student will achieve the scientific results presented in the previous section through geologic mapping. If multiple primary mappers are involved, please be specific about the roles and individual mapping projects of each student. A short discussion about the digital cartography and GIS component of the mapping is also

beneficial. If the objectives can only be accomplished with the support of drilling, or other analytical services such as geochronology or geochemistry, please describe these activities here. **Keep in mind that most of the budget request should go toward getting the student in the field, and that these support investigations (drilling and analytical services) should be limited to less than 20 percent of the overall budget request.**

f. Mentoring strategy and timetable. Provide a realistic mentoring approach and timetable for completing the mapping project. A table embedded in your proposal can be a clear and concise way of conveying this information. Explain how much time the Principal Investigator/faculty advisor will spend in the field with the primary student mapper and what his/her specific role will be. Clearly discuss how the Principal Investigator/faculty advisor will **mentor the student before, during, and after the fieldwork**. If the student has experience in geologic mapping (for example, a second year EDMAP student), then explain why you may have a more flexible mentoring schedule versus working with a junior or senior undergraduate student. If the Principal Investigator plans to be in the field with the student mapper for the entire duration of the mapping project, then please explain how the student will gain independent mapping experience. If applicable, explain how the Principal Investigator will mentor any field assistants, and explain exactly what the assistant(s) role will be. Will there be any student interaction with or mentorship from State Geological Survey staff or USGS scientists? The program considers project review by USGS and State Geological Survey partners an important part of EDMAP Projects and sharing your project plan with them is beneficial.

g. Deliverables. You must provide a list all maps (with scale) and accompanying technical reports by quadrangle, portion of quadrangle, or area (indicate bounding coordinates), that will be produced by this project. Keep in mind that the primary student mapper will be the first author of the map deliverable while mapping assistants will be secondary authors or acknowledged on the map. If two primary mappers are funded on a project, then two separate map deliverables and a breakdown of which map deliverable will be authored by which student are required. All EDMAP deliverables are required to be delivered as a high quality digital Portable Document Format (PDF or GeoPDF) files. See Part IV, Section F for more information about Project Deliverables.

h. Project Personnel. Proposed personnel must include the name of the Principal Investigator, other supervising professor(s), and student(s). Clearly list the primary student mapper(s) and those that will be mapping assistants. A short biography of each will assist the Proposal Evaluation Panel to judge both the qualifications of the professor(s) and the ability of the student(s) to complete the geologic mapping project. The Principal Investigator should include educational information about the student's prior geologic mapping experience (field camp or other mapping projects), and any course work that would help significantly in geologic mapping. The Principal Investigator and other supervising professors should include teaching experience of geologic mapping or related courses, prior geologic mapping

publications, and other geologic mapping experience. NCGMP strongly encourages geologic mapping projects to be a buddy system approach to promote safe field practices.

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 graduate students. Proposals submitted that do not identify the actual students who will do the mapping are allowed. However, the name, contact information, and vitae (qualifications) of ALL (primary mappers and assistants) students must be submitted to the USGS, before the Office of Acquisition and Grants formally issues the cooperative agreement. This should give professors several 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 vitae of the student(s) are not included in the proposal, it must be made clear whether the student is an undergraduate, a Masters, or a Doctoral student, and the minimal educational requirements and qualifications for the student. Otherwise the Proposal Evaluation Panel will not be able to determine if the students are qualified to do the described level of work.

i. Other support. If the student has pending requests for support from other institutions, these requests should be listed.

j. Budget explanation and justification. It is important that the Proposal Evaluation Panel understand your budget in order to determine if it is adequately justified for the proposed mapping project. The budget justification section should explain in detail the itemized budget in the included Budget Sheet (Attachment B).

8. USGS Data Management Plan

Proposals submitted to USGS must include a supplementary document of no more than two pages labeled "Data Management Plan" (DMP). This supplementary document should describe how the proposal will conform to USGS policy on the dissemination and sharing of research results and associated data. A valid DMP may include only the statement that no detailed plan is needed (e.g. “No data are expected to be produced from this project”), as long as the statement is accompanied by a clear justification. This supplementary document may include:

- the types of data, samples, physical collections, software, curriculum materials, and other materials to be produced in the course of the project;
- the standards to be used for data and metadata format and content (where existing standards are absent or deemed inadequate, this should be documented along with any proposed solutions or remedies);
- policies for access and sharing including provisions for appropriate protection of privacy, confidentiality, security, intellectual property, or other rights or requirements;
- provisions for re-use, re-distribution, and the production of derivatives; and

plans for archiving data, samples, and other research products, and for preservation of free public access to them.

Additional guidance on data management plans is available from the USGS Data Management web site here: https://www2.usgs.gov/datamanagement/plan/dmplans.php

9. 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 may be useful to submit separate, individual budget sheets. **Itemize budget sheets and include rates for salary and travel logistics.** If there is a cost item that represents a large proportion of your proposal budget, the Proposal Evaluation Panel will want to know details. Please include a description of the cost share (cash vs. in kind). Examples of cost share (university costs) include the 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. **Note: EDMAP allows the total of Direct and Indirect charges to equal $17,500 for each primary graduate mapper and $10,000 for each primary undergraduate mapper per year.**

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:

k. Salaries. Include all students (**list number of students, salary rate and amount of time on project for each student)**. Federal EDMAP funds **do not** support Teaching Assistantships (TA). Research Assistantships (RA) are allowed but only for students working exclusively on the proposed geologic mapping project. No faculty salary is allowed.

l. Fringe Benefits. Propose your rates/amounts. If rates are audit approved, include a copy of the audit agreement and/or the name of the audit agency.

m. Field Expenses. 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**).

n. Miscellaneous. Federal EDMAP funds **are not** allowed for the purchase or rental of capital equipment, such as GPS units, rock hammers, Brunton compasses, hand lenses, cameras, or other nonexpendable items. 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 expendable field and office supplies. List any contractual services and associated costs. Use this section to itemize costs that are not identified elsewhere on

the budget sheet**. (Provide an estimated breakdown to include number and cost for each item)**.

o. Drilling and analytical expenses. Drilling and analytical laboratory (e.g. geochemistry and geochronology) expenses are to be capped to less than 20 percent of your total proposal costs. Remember that a primary goal of the EDMAP program is to train students in the skills of geologic mapping and interpretation in the field.

p. Non-allowable Expenses

i. Tuition and course fees. Federal EDMAP funds **are not** intended to pay tuition or course fees, and use of tuition waivers as matching funds is not acceptable. Tuition remission is not an acceptable match.

ii. Teaching assistantships. Federal EDMAP funds **are not** intended for teaching assistantship salaries. Federal EDMAP funds may be used to support student research assistantships as long as the student is working exclusively on the EDMAP project.

iii. Professional meetings. Federal EDMAP funds **are not** intended for travel or registration to professional meetings nor are they an acceptable Federal match.

iv. Software. Software licenses and maintenance contracts are non-allowable expenses.

v. Overhead expenses. It is not permissible to use items or facilities (computers, computer facilities, plotters, rock lab, office space, etc.) as match that are already a university/department overhead expense. These items should be covered by indirect costs.

q. Total Direct Charges**. Total for items a – e. Total direct charges MUST have a 1:1 Federal/University match. Failure to do so will result in automatic ineligibility and your proposal will not be further evaluated. The match side may be higher but it must meet the 1:1 match requirement.**

r. 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. **NOTE: The 2009 Reauthorization of the National Geologic Mapping Act (Public Law 111-11) states that the USGS and recipients of EDMAP grants shall not use more than 15.25% of the Federal funds to pay indirect, servicing, or program management charges (which is equivalent to 18% of total direct costs).**

s. Matching Funds. 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. If a University chooses (or is required) to show a higher than 18% rate on the University's indirect cost line it can be listed under "uncollected indirect costs" on the University side, the result will be a higher University budget total than the Federal budget total. If the University approved rate is less than 18%, the approved rate must be used. This also applies to subcontracts. If you have a sub-award issued for a portion of your project the same rules apply to the 18% cap for indirect costs on the federal side.

NOTICE OF MATCH AMOUNT - Please note that in accordance with the program announcement a 1:1 match is required. If you, the recipient chooses to provide an over match exceeding the 1:1 match requirement it is to your discretion but by doing so you will be held to meet that match amount referenced in your application. A modification will not be issued to reduce the match amount. An increased match does not increase your chances of award.

The following is a summary of what is required for the 1:1 match:

(i) A 1:1 Federal/University match is required for "TOTAL DIRECT COSTS" (salaries, fringe benefits, field expenses, misc. supplies)

(ii) A 1:1 Federal/University match is required for "TOTALS" (Total Direct Costs + Indirect Costs)

Both "Totals" must meet the 1:1 match requirement. Failure to meet the matching requirement will result in automatic ineligibility and your proposal will not be further evaluated.

Examples of allowable match include the following:

(i) Salary: Faculty, student, RA's, field assistants.
(ii) In-kind support: For example, the time a co-advisor from outside the institution spends with the primary student or contracting costs supporting the project. Information documenting amounts for in-kind support should be included.
(iii) Field expenses, analysis costs, drilling costs.

Please contact the Program Officer for any questions regarding matching funds.

t. Total. Total for items g and h. NOT TO EXCEED $17,500 FOR EACH PRIMARY GRADUATE STUDENT AND $10,000 FOR EACH PRIMARY UNDERGRADUATE PER YEAR.

PLEASE NOTE THAT THE ABOVE COST CATEGORIES (Direct and Indirect Charges) MUST BE BROKEN DOWN AS DESCRIBED ABOVE.

D. Proposal Evaluation

EDMAP proposals will be reviewed by a 9-member panel in early January. Four (4) members will be professors. Two (2) members will be State Geologists chosen by the Association of American State Geologists. Two (2) members will be USGS geologists. The EDMAP Program Officer will serve as Chair and will choose the USGS and academic members. All members will serve 3-year terms. No panelist may review, or take part in any discussion with other panel members prior to or during a panel meeting about a proposal that originated from her/his university, or for which other potential conflicts of interest are recognized.

Evaluation Criteria. All proposals for funding will be considered using the criteria outlined below. Successful proposals will be funded in full (in some rare cases, partial funding grants may be awarded). Each reviewer will complete a review for each proposal, and these reviews will become part of the official proceedings of the Proposal Evaluation Panel meeting. Panel feedback will be provided to PI's in the decision letters.

1. Coordination (*10 points*). Has the PI discussed or planned their mapping project with the appropriate State Geologist or USGS Project Chief? Is a letter of support from the State Geologist and/or USGS Project Chief included with the proposal? What is the degree of this coordination? Are geologists from other organizations, such as the USGS or State Geological Surveys, included in the project?

2. Justification (*20 points*). How well does the proposed geologic mapping project answer any significant scientific questions? How well does the mapping project address a problem that has any significant societal value? How well does the proposed mapping address Secretarial priorities and the goals of the National Geologic Mapping Act?

3. Technical quality (*30 points*). Are the scientific objectives clearly stated? How well does the proposal stress what is important and new? How does the proposal address necessary support data, such as paleontologic or geochemical information, if that data is critical to the success of the geologic mapping? How well does the mapping strategy focus on developing student mapping skills? Does the student appear to be capable of accomplishing the objectives stated, and in the time allowed? Is the proposal well-written and concise?

4. Mentorship (*25 points*). What is the level of faculty mentoring and will the faculty member be spending adequate time advising the student on geologic mapping techniques and other aspects of the project? How well does the proposal address details on mentoring activities including time before, during, and after the fieldwork? What is the degree of communication between the Principal Investigator and student geologic mapper? If there are assistant mappers, are they being mentored as well?

5. Budget (*15 points*). 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 in-kind 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 a 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 learn and perform geologic mapping? Is the amount of faculty advisor support modest and reasonable? Is the budget well itemized and explained and justified in detail?

PART III. Proposal Delivery and Submission Instructions

Applicants are held responsible for the proposal to be electronically submitted into GRANTS.GOV (www.grants.gov) by November 19, 2019 @ 3:00 p.m. (EST). This website includes step by step instructions for GRANTS.GOV. Please be aware that the electronic submission system is relatively complex for first-time users and involves several preliminary registration steps to be taken before the proposal can be submitted (go to www.grants.gov and click on the "Register" link at the top 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 proposal submission due date. Please contact your Office of Sponsored Programs as 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 notified immediately.

All grant programs are required to use GRANTS.GOV to advertise program announcements. Any form that is not available online may be submitted as attachments at the end of the proposal through the online application process.

PART IV. General Provisions

A. General Provisions of the National Cooperative Geologic Mapping Program

By accepting Federal assistance, your organization agrees to abide by the provisions of the National Cooperative Geologic Mapping Program, namely the National Geologic Mapping Reauthorization Act of 2009, Public Law 111-11 (http://ncgmp.usgs.gov/), and OMB Circular A-16 "Coordination of Surveying, Mapping and Related Spatial Data 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. Copies of these Circulars can be obtained from the Internet at: http://www.whitehouse.gov/omb/grants_docs.

1. 2 CFR Part 200, *Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards*, as implemented by the Department of the Interior in 2 CFR Part 1402 and 43 CFR Part 12.

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 Officer 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 Officer.

D. Publication

1. Publication of any map produced under EDMAP is contingent upon final acceptance by the State Geological Surveys and the USGS and is not based on having received an award. Map content and design guidance is available at http://ngmdb.usgs.gov/Info/cartores/. 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. 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." [Include award number and year funded]

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 Federal/University match. Recipients shall match each Federal dollar with a non-Federal dollar **(both direct and grand total to include 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 FY2020 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. A Principal Investigator may apply for EDMAP funds for the same student two years in a row (a student in eligible for a total of two years of EDMAP funds); awards are only issued one year at a time, and a new proposal must be submitted for competition in the second year. **Funding for the first year does not guarantee funding in the second year.** We anticipate issuing awards in the spring of 2020, therefore you should plan project start dates between April 15, 2020 and September 15, 2020.

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 fulfill 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.

5. Requests for no-cost extensions, not to exceed 90 days, shall be forwarded to the Grant Specialist/Contracting Officer for consideration not later than 30 days prior to the effective proposal end date. After discussion with EDMAP Program Officer, the Grant Specialist/Contracting Officer will make a final decision on a case-by-case basis and notify the Recipient in writing. Asking for a no-cost extension in no way jeopardizes the success of a future proposal. However, if a Principal Investigator asks for a no-cost extension, it cannot extend past a date 30 days in advance of the EDMAP Proposal Evaluation Panel meeting for the *next* funding cycle.

SPECIAL NOTE: A cooperative agreement issued by the USGS Office of Acquisition and Grants, approved and released 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 an approved cooperative agreement will be at the risk of the university. Once the cooperative agreement for a successful proposal has been approved and released through FedConnect by the USGS Contracting Officer, the university may incur costs.

F. Project Deliverables

All geologic map deliverables (transmittal letter, technical report, and geologic map) must be sent to the EDMAP Program Officer **before the last day of the performance period**. All geologic maps and accompanying technical reports must include all student authors' names (identify funded EDMAP students) and the statement of EDMAP Program Credit including the award number and year funded (Part IV, Section D.3).

All EDMAP deliverables are to be electronically delivered as a high quality digital Portable Document Format (PDF or GeoPDF) files. At the time the transmittal letter, geologic map, and accompanying technical report are submitted to the EDMAP Program Officer, a copy should be sent to the appropriate State Geological Survey and/or USGS Project Chief for their files. Deliverables will be submitted electronically through the EDMAP Dropbox. A link to the EDMAP Dropbox will be provided by the Program Office prior to project end dates.

EDMAP Program Officer:

U.S. Geological Survey
Attn: Darcy K. McPhee
EDMAP Program Officer
908 National Center
12201 Sunrise Valley Drive
Reston, Virginia 20192
Email: dmcphee@usgs.gov

-- END OF PROGRAM ANNOUNCEMENT –

ATTACHMENT A

USE THE FOLLOWING FORMAT

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. LIST OF 7.5-MINUTE QUADRANGLES, OR PARTS OF QUADRANGLES, THAT WILL BE MAPPED IN EACH PART OF THIS PROPOSAL: _____

_____

_____

6. NAME OF CONTACT/COOPERATOR AT *EITHER* A STATE GEOLOGICAL SURVEY OR USGS: _____

_____

7. HAS ANY STUDENT ON THIS PROPOSAL RECEIVED PREVIOUS EDMAP SUPPORT?: _____

Attachment B

USE THE FOLLOWING FORMAT

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 Requested	Proposed University Amount
SALARIES:		
Student(s)	$	$
Faculty Supervisor	----------	$
	$	$
(provide salary rate & time for each)	$	$
	$	$
Total Salaries:	$	$
FRINGE BENEFITS:		
Supported by negotiated rate agreement check one: ( ) yes ( ) no	$	$
	$	$
Total Fringes:	$	$
FIELD EXPENSES		
Per Diem	$	$
Vehicle cost	$	$
Mileage	$	$
(provide number & rate for each)	$	$
	$	$
Total Field Expenses	$	$
MISCELLANEOUS SUPPLIES		
Office and laboratory supplies (itemize)	$	$
Drilling/Analytical	$	$
Other	$	$
(breakdown the above costs)	$	$
Total Miscellaneous Supplies	$	$
Total Direct Cost:	$	$
Indirect Cost (__%)*	$	$
Uncollected Indirect Cost	----------	
TOTALS	$	$

*Not to exceed 18%

Attachment B

USE THE FOLLOWING FORMAT

University: _____
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	----------	$
	$	$
(provide salary rate & time for each)	$	$
	$	$
Total Salaries:	$	$
FRINGE BENEFITS:		
Supported by negotiated rate agreement check one: ( ) yes ( ) no	$	$
	$	$
Total Fringes:	$	$
FIELD EXPENSES		
Per Diem	$	$
Vehicle cost	$	$
Mileage	$	$
(provide number & rate for each)	$	$
	$	$
Total Field Expenses	$	$
MISCELLANEOUS SUPPLIES		
Office and laboratory supplies (itemize)	$	$
Drilling/Analytical	$	$
Other	$	$
(breakdown the above costs)	$	$
Total Miscellaneous Supplies	$	$
Total Direct Cost:	$	$
Indirect Cost (__%)*	$	$
Uncollected Indirect Cost	----------	
TOTALS	$	$

* Not to exceed 18%

ATTACHMENT C

I. SPECIAL TERMS AND CONDITIONS

SECTION A – ASSISTANCE ADMINISTRATION DATA AND DELIVERABLES

A.1. Cooperative Agreement Administration

This cooperative agreement will be administered by:

U.S. Geological Survey
Office of Acquisition and Grants
Kimberly L. Dove, Grants Specialist
12201 Sunrise Valley Drive, MS 205
Reston, VA 20192
Telephone (703) 648-7487

Written communication shall make reference to the Cooperative Agreement number and shall be mailed to the address above or email to kdove@usgs.gov.

A.2. Consideration

1. The recipient's proposal as identified on Page 1, Block 10 is incorporated by reference. The total estimated cost of the USGS share for the performance of this cooperative agreement is the total amount indicated in Block 13. Costs hereunder shall in no event exceed that amount without prior written approval of the CO.

2. Prior approval of the CO is not required for transfer of funds between direct cost categories when the cumulative amount of the transfers during the performance period does not exceed ten (10) percent of the total USGS cash award. Prior written approval is required from the CO for transfers in excess of the ten (10) percent limitation.

A.3. Payment

Payments under financial assistance awards must be made using the Department of the Treasury Automated Standard Application for Payments (ASAP) system (www.asap.gov).

1. The Recipient agrees that it has established or will establish an account with ASAP. USGS will initiate enrollment in ASAP. If the Recipient does not currently have an ASAP account, they must designate an individual (name, title, address, phone and e-mail) who will serve as the Point of Contact (POC).

2. With the award of each grant/cooperative agreement, a sub-account will be set up from which the Recipient can draw down funds. After recipients complete enrollment in ASAP and link their banking information to the USGS ALC (14080001), it may take up to 10 days for sub-accounts to be activated and for funds to be authorized for drawdown

in ASAP.

3. Inquiries regarding payment should be directed to ASAP at (855) 868-0151.

A.4. Definitions

1. Grant Agreement

A grant agreement is the legal instrument reflecting a relationship between the Federal Government and a state or local government or other recipient whenever:

a. the principal purpose of the relationship is the transfer of money, property, services, or anything of value to the state or local government or other recipient in order to accomplish a public purpose of support or stimulation authorized by Federal statute, rather than acquisition, by purchase, lease, or barter, of property or services for the direct benefit or use of the Federal Government; and

b. no substantial involvement is anticipated between the executive agency, acting for the Federal Government, and the state or local government or other recipient during performance of the contemplated activity.

2. Cooperative Agreement

A cooperative agreement is the legal instrument reflecting a relationship between the Federal Government and a state or local government or other recipient whenever:

a. the principal purpose of the relationship is the transfer of money, property, services, or anything of value to the state or local government or other recipient to accomplish a public purpose of support, or stimulation authorized by Federal statute, rather than acquisition, by purchase, lease, or barter, of property or services for the direct benefit or use of the Federal Government; and

b. no substantial involvement is anticipated between the executive agency, acting for the Federal Government, and state or local government or other recipient during performance of the activity.

3. Grantee/Cooperator

Grantee or cooperator means the nonprofit corporation or other legal entity to which a grant or cooperative agreement is awarded and which is accountable to the Federal Government for the use of the funds provided. The grantee or cooperator is the entire legal entity even if only a particular component of the entity is designated in the award document. For example, a grant or cooperative agreement award document may name as the grantee one school or campus of a university. In this case, the granting agency usually intends, or actually requires, that the named component assume primary or sole responsibility for administering the grant-assisted project or program. Nevertheless, the naming of a component of a legal entity as the grantee or cooperator in a grant or cooperative agreement award document shall not be

construed as relieving the whole legal entity from accountability to the Federal Government for the use of the funds provided.

The term "grantee" or "cooperator" does not include secondary recipients such as sub grantees, contractors, etc., who may receive funds from a grantee pursuant to a grant.

4. Recipient

Recipient means grantee or cooperator.

5. Principal Investigator

The Principal Investigator is the individual designated by the Recipient (and approved by the USGS) who is responsible for the technical direction of the research project. The Principal Investigator cannot be changed or become substantially less involved than was indicated in the Recipient's proposal, without the prior written approval of the Contracting Officer.

6. Program Officer

a. The Program Officer will work closely with the Principal Investigator to ensure that all technical requirements are being met. The Program Officer's responsibilities include, but are not limited to, providing technical advice on the accomplishment of the proposal's objectives; reviewing the technical content of reports and the other information delivered to the USGS; determining the adequacy of technical reports; and conducting site visits, in coordination with the Regional Coordinator, Deputy Chief for External Research, and the Contracting Officer, as frequently as practicable.

b. The Program Officer is **Darcy K. McPhee, U.S. Geological Survey, 908 National Center, 12201 Sunrise Valley Drive, Reston, VA 20192.** The Program Officer does not have the authority to issue any technical direction which constitutes an assignment of additional work outside the scope of the award; in any manner cause a change in the total cost or the time required for performance of the award; or change any of the terms, conditions, or general provisions of the award.

7. Contracting Officer (CO)

Contracting Officers are individuals who have been delegated in writing by the USGS Office of Acquisition and Grants as the sole authority designated to obligate Federal funds and create terms and conditions of awards. They are the only individuals who have authority to negotiate, enter into, and administer awards resulting for this program. Contracting Officers have responsibility to ensure the effective use of Federal funds.

Functions of the Contracting Officer/Grant Specialist include but are not limited to:

a. Issuing the grant/cooperative agreement program announcement in coordination with the program officer.

b. Receiving grant/cooperative agreement proposals and related documents in response to a program announcement. The Grant Specialist as receiving official shall mark all proposals with a control number.

c. Approving the program manager's Technical Evaluation Plan, which describes in detail the evaluation process for a competitive grant/cooperative agreement program. The Contracting Officer/Grant Specialist shall ensure the openness and fairness of the evaluation and selection process.

d. Serving in an advisory capacity at peer review panel meetings. She shall interpret grant/cooperative agreement management policies to panel members.

e. Negotiating, as necessary, the final grant/cooperative agreement budget.

f. Issuing grant/cooperative agreement awards and revisions to awards.

g. Receiving all requests for changes to an award. The Contracting Officer/Grant Specialist shall serve as the mandatory control point for all official communications with the grantee which may result in changing the amount of the grant/cooperative agreement, the grant/cooperative agreement budget, or any other terms and conditions of the award.

h. Receiving financial reports required by the terms and conditions of the award.

i. Closing out grant/cooperative agreement awards when all applicable award requirements have been complied with.

A.5. Reporting Requirements

1. Required reports/documents. The Recipient shall submit the following reports/documents:

Report/Document	Submit To	Due Date
1. Transmittal Letter, Maps, plus accompanying technical report	Program Officer (see page 2 of Award Document)	On or before the last day of the 12-month project period.
2. Transmittal Letter	Grant Specialist, see Section A.1 of terms & conditions	On or before the last day of the 12-month project period.
3. SF 425- Federal Financial Report	Electronically thru FedConnect or via	SEE SECTION A.5(2&3) BELOW

	email to Grant Specialist (A.1)	
4. *Publications	Program Officer (same as above)	Immediately following publication.

*** Publication means any book, report, photograph, map, chart, or recording published or disseminated to the scientific community.**

2. Annual Financial Reports

a) The Recipient will submit an annual SF 425, Federal Financial Report, for each individual USGS award. The SF 425 is available at *https://www.grants.gov/forms/post-award-reporting-forms.html*. The SF 425 will be due in accordance with the following schedule. USGS acknowledges that this annual reporting schedule may not always correspond with a specific budget period.

Award Performance Start Date	Annual Interim Report End Date (year following start date)	Annual Interim Report Due Date (90 days after report end date)
January 1- March 31	March 31	June 30
April 1- June 30	June 30	September 30
July 1- September 30	September 30	December 31
October 1 – December 31	December 31	March 31

b) The SF 425 must be submitted electronically through the FedConnect Message Center (www.fedconnect.net) or, if FedConnect is not available, by e-mail to SF425@usgs.gov with a cc to the Contracting Officer. Recipient must include the USGS award number in the subject line of all correspondence. If, after 90 days, Recipient has not submitted a report, the Recipient's account in ASAP will be placed in a manual review status until the report is submitted.

3. Final Financial Report

a) The Recipient will liquidate all obligations incurred under the award and submit a final SF 425, Federal Financial Report in accordance with C.3.b. no later than 90 calendar days after the Agreement completion date.

b) Recipient will promptly return any unexpended federal cash advances or will complete a final draw from ASAP to obtain any remaining amounts due. Once 120 days has passed since the Agreement completion date, USGS shall unilaterally de-obligate federal funds as reflected in the Final SF 425.

c) Subsequent revision to the final SF 425 will be considered only as follows:

i. When the revision results in a balance due to the Government, the Recipient must submit a revised final SF 425, Federal Financial Report, 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 reimbursable costs claimed by the Recipient, a revised final SF 425 may be submitted to the USGS Contracting Officer with an explanation. If approved, the USGS will either request and pay a final invoice or reestablish the ASAP 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 425 covering additional expenditures after that date and will return any late request for additional payment to the Recipient.

4. Report preparation instructions. A **final technical report** is due at the end of the award's 12-month performance period. The technical report should be formatted on single-spaced on 8 ½ -inch by 11-inch pages and include the following:

a. A cover page of the technical report shall contain the award number, Principal Investigator's name and title of the Recipient's application, and the students that were funded by the cooperative agreement award.

b. The technical report shall contain an abstract that summarizes the observations and conclusions of the report.

c. The main body of the final technical report shall document and summarize the results of the recipient's work over the 12-month project period. The report shall include an adequate but brief description of activities and overall progress which summarizes the results of the entire award. The final report may include tables, graphs, diagrams, sketches, etc., as required to explain the results achieved under the award. The report may also include recommendations and conclusions based upon both the experience and the results obtained.

d. The report shall also contain a bibliography of all publications resulting from the work performed during the 12-month period. Copies of the publications are required if the Recipient has not previously submitted them to the Program Officer.

e. Submit this report electronically to the Project Officer (dmcphee@usgs.gov) and Program Analyst (mmarketti@usgs.gov).

5. Maps. One copy of each map with all accompanying explanatory information shall be electronically submitted to the Program Officer by the end of the award's end date and, subsequently, the updated map when published. Instructions on electronic delivery will be

provided to the PI prior to the project end date. Publication of maps shall follow guidelines in Part IV, Section D of this Program Announcement.

F. Transmittal Letter. A transmittal letter shall also accompany the maps that are forwarded to the Program Officer. The letter should identify the award number, Recipient's name, Principal Investigator's name, title of the Recipient's application, and a description of the map being submitted. A **copy** of the transmittal letter shall be sent to the Grant Specialist (kdove@usgs.gov) identified in Section A1.

7. Adherence to reporting requirements. A Recipient's failure to submit the required reports/documents, in a timely manner, may result in withholding of payment, termination of the award, or delay or non-issuance of new awards.

A.6. Adherence to Original Research Objectives and Budget Estimates

1. Any commitments or expenditures incurred by the Recipient in excess of the funds provided by this award shall be the responsibility of the Recipient. Expenditures incurred prior to the effective date of this award cannot be charged against award funds unless provided for in this award.

2. The following requests for change require advance written approval by the issuing office at the address on page two of your award. Your request must be submitted directly to the Grant Specialist **at least 30 calendar days** prior to the requested effective date of the change or prior to the expiration date of the award:

   a. Changes in the scope, objective, or key personnel referenced in the Recipient's proposal.

   b. Transfer of funds between direct cost categories when the cumulative amount of transfers during the project period exceeds 10 percent of the total award.

   c. Acquisition of nonexpendable personal property (equipment) not approved at time of award.

   d. Change in the project period. The Recipient shall include in the request the cause of the needed extension, a description of the remaining work to be completed, the proposed date of completion, the amount of funds remaining, and a revised budget for the remaining funds. If all funds have been disbursed to the Recipient, this must be indicated in the request. A request for an extension that is received by the Grant Specialist after the expiration date shall not be honored.

      For continuing work, an extension shall delay the award of a follow-on agreement until such time that the first agreement has been completed. An extension for any time period beyond the original expiration may, in unusual circumstances, result in the cancellation of intended subsequent agreement awards.

e. Creation of any direct cost line item not approved at time of award.

f. Any other significant change to the award.

3. The Grant Specialist will notify the Recipient in writing within 30 calendar days after receipt of the request for revision or adjustment whether the request has been approved.

A.7. Pre-agreement Costs

Pre-agreement costs are not authorized under this program. Costs must be obligated during the performance period.

A.8. Site Visits

Site visits may be made by USGS representatives to review program accomplishments and management control systems and to provide technical assistance, as required.

A.9. Violation of Award Terms

If a Recipient materially fails to comply with the terms of the award, the Contracting Officer may suspend, terminate, or take such other remedies as may be legally available and appropriate in the circumstances.

A.10. Award Closeout

Awards will be closed out once all requirements have been met. Maps, Technical and Financial reports must be submitted on time as specified in Section 5 of these Special Terms and Conditions. Failure to adhere to the reporting requirements may result in the delay or denial of further awards.

A.11. Government Involvement Statement

1. Substantial involvement is anticipated through the term of the cooperative agreement between the USGS and the Recipient.

2. The USGS and the Recipient will collaborate and participate in program planning for each phase of the project.

A.12. Modification

This award may be modified in writing by mutual consent of the Recipient representative and the Contracting Officer.

SECTION B – GENERAL PROVISIONS

B.1 Cost Principles, Audit, And Administrative Requirements

The Recipient shall be subject to the following regulations, which are incorporated herein by reference. Copies of these regulations can be obtained from the Internet at: *http://www.whitehouse.gov/omb/grants_docs*

Educational Institutions / State and Local Governments / Non-Profit Organizations

2 CFR Part 200, *Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards*, as implemented by the Department of the Interior in 2 CFR Part 1402 and 43 CFR Part 12.

B.2 Additional Regulations

This award is subject to the following additional Government-wide regulations:

- 2 CFR 180, Government-wide Debarment and Suspension (Non-procurement)
- 2 CFR 182, Government-wide Requirements for Drug-Free Workplace (Financial Assistance)

This award is subject to the following additional regulations of the U.S. Department of the Interior:

- 2 CFR Part 1400, Non-procurement Debarment and Suspension
- 2 CFR Part 1401, Requirements for a Drug Free Workplace (Financial Assistance)
- 43 CFR Part 17, Nondiscrimination in Federally Assisted Programs of the Department of the Interior
- 43 CFR Part 18, New Restrictions on Lobbying
    - Submission of an application also represents the applicant's certification of the statements in 43 CFR Part 18, Appendix A, Certification Regarding Lobbying
- 43 CFR Part 41, Nondiscrimination on the Basis of Sex in Education Programs or Activities Receiving Federal Financial Assistance *[Applies only if this award provides assistance to an education program or student(s)]*

B.3 Additional Articles Required For Compliance with Statute or Regulation

a) The Seat Belt Provision (Executive Order 13043)

Recipients of grants/cooperative agreements and/or sub-awards are encouraged to adopt and enforce on-the-job seat belt use policies and programs for their employees when operating company owned, rented, or personally owned vehicles. These measures include, but are not limited to, conducting education, awareness, and other appropriate programs for their employees about the importance of wearing seatbelts and the consequences of not wearing them.

b) Federal Leadership on Reducing Text Messaging while Driving (Executive Order 13513)

Recipients are encouraged to adopt and enforce policies that ban text messaging while driving, including conducting initiatives of the type described in section 3(a) of the order. (http://www.whitehouse.gov/the_press_office/Executive-Order-Federal-Leadership-on-Reducing-Text-Messaging-while-Driving/)

c) Use of U.S. Flag Air Carriers (49 USC Section 40118)

Any air transportation to, from, between or within a country other than the U.S. of persons or property, the expense of which will be paid in whole or in part by U.S. Government funding, must be performed by, or under a code-sharing arrangement with, a U.S. flag air carrier if service provided by such a carrier is "available" (49 U.S.C. 40118, commonly referred to as the Fly America Act). Tickets (or documentation for electronic tickets) must identify the U.S. flag air carrier's designator code and flight number. See the Federal Travel Regulation §301-10.131 - §301-10.143 for definitions, exceptions, and documentation requirements. (See also Comp. Gen. Decision B-240956, dated September 25, 1991.)

d) Trafficking in Persons (2 CFR Part 175)

a. *Provisions applicable to a recipient that is a private entity.*

1. You as the recipient, your employees, subrecipients under this award, and subrecipients' employees may not—

i. Engage in severe forms of trafficking in persons during the period of time that the award is in effect;

ii. Procure a commercial sex act during the period of time that the award is in effect; or

iii. Use forced labor in the performance of the award or subawards under the award.

2. We as the Federal awarding agency may unilaterally terminate this award, without penalty, if you or a subrecipient that is a private entity —

i. Is determined to have violated a prohibition in paragraph a.1 of this award term; or

ii. Has an employee who is determined by the agency official authorized to terminate the award to have violated a prohibition in paragraph a.1 of this award term through conduct that is either—

A. Associated with performance under this award; or

B. Imputed to you or the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR part 180, "OMB Guidelines to Agencies on Government-wide Debarment and Suspension (Nonprocurement)," as implemented by our agency at *[agency must insert reference here to its regulatory implementation of the OMB guidelines in 2 CFR part 180 (e.g., "2 CFR part XX")].*

b. *Provision applicable to a recipient other than a private entity.*

We as the Federal awarding agency may unilaterally terminate this award, without penalty,

if a subrecipient that is a private entity—

1. Is determined to have violated an applicable prohibition in paragraph a.1 of this award term; or

2. Has an employee who is determined by the agency official authorized to terminate the award to have violated an applicable prohibition in paragraph a.1 of this award term through conduct that is either—

i. Associated with performance under this award; or

ii. Imputed to the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR part 180, "OMB Guidelines to Agencies on Government-wide Debarment and Suspension (Nonprocurement)," as implemented by our agency at *[agency must insert reference here to its regulatory implementation of the OMB guidelines in 2 CFR part 180 (e.g., "2 CFR part XX")]*.

c. *Provisions applicable to any recipient.*

1. You must inform us immediately of any information you receive from any source alleging a violation of a prohibition in paragraph a.1 of this award term.

2. Our right to terminate unilaterally that is described in paragraph a.2 or b of this section:

i. Implements section 106(g) of the Trafficking Victims Protection Act of 2000 (TVPA), as amended (22 U.S.C. 7104(g)), and

ii. Is in addition to all other remedies for noncompliance that are available to us under this award.

3. You must include the requirements of paragraph a.1 of this award term in any subaward you make to a private entity.

d. *Definitions.*

For purposes of this award term:

1. "Employee" means either:

i. An individual employed by you or a subrecipient who is engaged in the performance of the project or program under this award; or

ii. Another person engaged in the performance of the project or program under this award and not compensated by you including, but not limited to, a volunteer or individual whose services are contributed by a third party as an in-kind contribution toward cost sharing or matching requirements.

2. "Forced labor" means labor obtained by any of the following methods: the recruitment, harboring, transportation, provision, or obtaining of a person for labor or services, through the use of force, fraud, or coercion for the purpose of subjection to involuntary servitude, peonage, debt bondage, or slavery.

3. "Private entity":

i. Means any entity other than a State, local government, Indian tribe, or foreign public entity, as those terms are defined in 2 CFR 175.25.

ii. Includes:

A. A nonprofit organization, including any nonprofit institution of higher education, hospital, or tribal organization other than one included in the definition of Indian tribe at 2 CFR 175.25(b).

B. A for-profit organization.

4. “Severe forms of trafficking in persons,” “commercial sex act,” and “coercion” have the meanings given at section 103 of the TVPA, as amended (22 U.S.C. 7102).

e) Reporting Subawards and Executive Compensation Information (2 CFR Part 170).

a. *Reporting of first-tier subawards.*

1. *Applicability.* Unless you are exempt as provided in paragraph d. of this award term, you must report each action that obligates $25,000 or more in Federal funds that does not include Recovery funds (as defined in section 1512(a)(2) of the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5) for a subaward to an entity (see definitions in paragraph e. of this award term).

2. *Where and when to report.*

i. You must report each obligating action described in paragraph a.1. of this award term to *http://www.fsrs.gov.*

ii. For subaward information, report no later than the end of the month following the month in which the obligation was made. (For example, if the obligation was made on November 7, 2010, the obligation must be reported by no later than December 31, 2010.)

3. *What to report.* You must report the information about each obligating action that the submission instructions posted at *http://www.fsrs.gov specify.*

b. *Reporting Total Compensation of Recipient Executives.*

1. *Applicability and what to report.* You must report total compensation for each of your five most highly compensated executives for the preceding completed fiscal year, if—

i. the total Federal funding authorized to date under this award is $25,000 or more;

ii. in the preceding fiscal year, you received—

(A) 80 percent or more of your annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and

(B) $25,000,000 or more in annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and

iii. The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at *http://www.sec.gov/answers/execomp.htm.*)

2. *Where and when to report.* You must report executive total compensation described in paragraph b.1. of this award term:

i. As part of your registration profile at *https://www.sam.gov.*

ii. By the end of the month following the month in which this award is made, and annually thereafter.

c. *Reporting of Total Compensation of Subrecipient Executives.*

1. *Applicability and what to report.* Unless you are exempt as provided in paragraph d. of this award term, for each first-tier subrecipient under this award, you shall report the names and total compensation of each of the subrecipient's five most highly compensated executives for the subrecipient's preceding completed fiscal year, if—

i. in the subrecipient's preceding fiscal year, the subrecipient received—

(A) 80 percent or more of its annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and

(B) $25,000,000 or more in annual gross revenues from Federal procurement contracts (and subcontracts), and Federal financial assistance subject to the Transparency Act (and subawards); and

ii. The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at *http://www.sec.gov/answers/execomp.htm.*)

2. *Where and when to report.* You must report subrecipient executive total compensation described in paragraph c.1. of this award term:

i. To the recipient.

ii. By the end of the month following the month during which you make the subaward. For example, if a subaward is obligated on any date during the month of October of a given year (*i.e.,* between October 1 and 31), you must report any required compensation information of the subrecipient by November 30 of that year.

d. *Exemptions*

If, in the previous tax year, you had gross income, from all sources, under $300,000, you are exempt from the requirements to report:

i. Subawards,

and

ii. The total compensation of the five most highly compensated executives of any subrecipient.

e. *Definitions.* For purposes of this award term:

1. *Entity* means all of the following, as defined in 2 CFR part 25:

i. A Governmental organization, which is a State, local government, or Indian tribe;

ii. A foreign public entity;

iii. A domestic or foreign nonprofit organization;

iv. A domestic or foreign for-profit organization;

v. A Federal agency, but only as a subrecipient under an award or subaward to a non-Federal entity.

2. *Executive* means officers, managing partners, or any other employees in management

positions.

3. *Subaward:*

i. This term means a legal instrument to provide support for the performance of any portion of the substantive project or program for which you received this award and that you as the recipient award to an eligible subrecipient.

ii. The term does not include your procurement of property and services needed to carry out the project or program (for further explanation, see Sec. __ .210 of the attachment to OMB Circular A-133, "Audits of States, Local Governments, and Non-Profit Organizations").

iii. A subaward may be provided through any legal agreement, including an agreement that you or a subrecipient considers a contract.

4. *Subrecipient* means an entity that:

i. Receives a subaward from you (the recipient) under this award; and

ii. Is accountable to you for the use of the Federal funds provided by the subaward.

5. *Total compensation* means the cash and noncash dollar value earned by the executive during the recipient's or subrecipient's preceding fiscal year and includes the following (for more information see 17 CFR 229.402(c)(2)):

i. *Salary and bonus.*

ii. *Awards of stock, stock options, and stock appreciation rights.* Use the dollar amount recognized for financial statement reporting purposes with respect to the fiscal year in accordance with the Statement of Financial Accounting Standards No. 123 (Revised 2004) (FAS 123R), Shared Based Payments.

iii. *Earnings for services under non-equity incentive plans.* This does not include group life, health, hospitalization or medical reimbursement plans that do not discriminate in favor of executives, and are available generally to all salaried employees.

iv. *Change in pension value.* This is the change in present value of defined benefit and actuarial pension plans.

v. *Above-market earnings on deferred compensation which is not tax-qualified.*

vi. Other compensation, if the aggregate value of all such other compensation (e.g. severance, termination payments, value of life insurance paid on behalf of the employee, perquisites or property) for the executive exceeds $10,000.

f) <u>System of Award Management and Universal Identifier Requirements (2 CFR Part 25)</u>

a. *Requirement for System of Award Management*

Unless you are exempted from this requirement under 2 CFR 25.110, you as the recipient must maintain the currency of your information in the SAM until you submit the final financial report required under this award or receive the final payment, whichever is later. This requires that you review and update the information at least annually after the initial registration, and more frequently if required by changes in your information or another award term.

b. *Requirement for Unique Entity identifier Numbers*

If you are authorized to make subawards under this award, you:

1. Must notify potential subrecipients that no entity (*see* definition in paragraph C of this award term) may receive a subaward from you unless the entity has provided its unique entity identifier number to you.
2. May not make a subaward to an entity unless the entity has provided its DUNS number to you.

c. *Definitions*

For purposes of this award term:

1. *System of Award Management(SAM)* means the Federal repository into which an entity must provide information required for the conduct of business as a recipient. Additional information about registration procedures may be found at the SAM Internet site (currently at *http://www.sam.gov*).

2. *Unique entity identifier* means the identifier required for SAM registration to uniquely identify business entities.

3. *Entity,* as it is used in this award term, means all of the following, as defined at 2 CFR part 25, subpart C:

i. A Governmental organization, which is a State, local government, or Indian Tribe;
ii. A foreign public entity;
iii. A domestic or foreign nonprofit organization;
iv. A domestic or foreign for-profit organization; and
v. A Federal agency, but only as a subrecipient under an award or subaward to a non-Federal entity.

4. *Subaward:*

i. This term means a legal instrument to provide support for the performance of any portion of the substantive project or program for which you received this award and that you as the recipient award to an eligible subrecipient.
ii. The term does not include your procurement of property and services needed to carry out the project or program (for further explanation, see 2 CFR 200.330).
iii. A subaward may be provided through any legal agreement, including an agreement that you consider a contract.

5. *Subrecipient* means an entity that:

i. Receives a subaward from you under this award; and
ii. Is accountable to you for the use of the Federal funds provided by the subaward.

g) Prohibition on Members of Congress Making Contracts with Federal Government (41 USC Section 6306)

No member of or delegate to the United States Congress or Resident Commissioner shall be admitted to any share or part of this award, or to any benefit that may arise therefrom; this provision shall not be construed to extend to an award made to a corporation for the public's general benefit.

h) Enhancement of Recipient and Subrecipient Employee Whisleblower Protection (41 USC Section 4712)

a. This award and related subawards and contracts over the simplified acquisition threshold and all employees working on this award and related subawards and contracts over the simplified acquisition threshold are subject to the whistleblower rights and remedies in the pilot program on award recipient employee whistleblower protections established at 41 U.S.C. 4712 by section 828 of the *National Defense Authorization Act for Fiscal Year 2013* (P.L. 112-239).

b. Recipients, and their subrecipients and contractors awarded contracts over the simplified acquisition threshold related to this award, shall inform their employees in writing, in the predominant language of the workforce, of the employee whistleblower rights and protections under 41 U.S.C. 4712.

c. The recipient shall insert this clause, including this paragraph (c), in all subawards and contracts over the simplified acquisition threshold related to this award.

i) Prohibition on Issuing Financial Assistance Awards to Entities that Require Certain Internal Confidentiality Agreements

Section 743 of Division E, Title VII of the Consolidated and Further Continuing Resolution Appropriations Act of 2015 (Pub. L. 113-235) prohibits the use of funds appropriated or otherwise made available under that or any other Act for grants or cooperative agreements to an entity that requires employees or contractors of such entity seeking to report fraud, waste, or abuse to sign internal confidentiality agreements or statements prohibiting or otherwise restricting such employees or contractors from lawfully reporting such waste, fraud, or abuse to a designated investigative or law enforcement representative of a federal department or agency authorized to receive such information.

Recipients must not require their employees or contractors seeking to report fraud, waste, or abuse to sign internal confidentiality agreements or statements prohibiting or otherwise restricting such employees or contractors from lawfully reporting such waste, fraud, or abuse to a designated investigative or law enforcement representative of a federal department or agency authorized to receive such information.

Recipients must notify their employees or contractors that existing internal confidentiality agreements covered by this condition are no longer in effect.

B.4 Additional General Terms and Conditions

a) Research Integrity

1) USGS requires that all grant or cooperative agreement Recipient organizations adhere to the Federal Policy on Research Misconduct, Office of Science and Technology Policy, December 6, 2000, 65 Federal Register (FR) 76260. The Federal Policy on Research Misconduct outlines requirements for addressing allegations of research misconduct, including the investigation, adjudication, and appeal of allegations of research misconduct and the implementation of appropriate administrative actions.

2) The Recipient must promptly notify the USGS Project Office when research misconduct that warrants an investigation pursuant to the Federal Policy on Research Misconduct is alleged.

b) Access To Research Data

1) Recipients that are institutions of higher education, hospitals, or non-profit organizations are required to release research data first produced in a project supported in whole or in part with Federal funds that are cited publicly and officially by a Federal agency in support of an action that has the force and effect of law (e.g., regulations and administrative orders). "Research data" is defined as the recorded factual material commonly accepted in the scientific community as necessary to validate research findings. It does not include preliminary analyses; drafts of scientific papers; plans for future research; peer reviews; communications with colleagues; physical objects (e.g., laboratory samples, audio or video tapes); trade secrets; commercial information; materials necessary to be held confidential by a researcher until publication in a peer-reviewed journal; information that is protected under the law (e.g., intellectual property); personnel and medical files and similar files, the disclosure of which would constitute an unwarranted invasion of personal privacy; or information that could be used to identify a particular person in a research study.

2) These requirements do not apply to commercial organizations or to research data produced by State or local governments. However, if a State or local governmental grantee contracts with an educational institution, hospital, or non-profit organization, and the contract results in covered research data, those data are subject to these disclosure requirements.

3) Requests for the release of research data subject to this policy are required to be made to USGS, which will handle them as FOIA requests under 43 CFR 2.25. If the data are publicly available, the requestor will be directed to the public source. Otherwise, the USGS Contract Officer, in consultation with the affected Recipient and the PI, will handle the request. This policy also provides for assessment of a reasonable fee to cover Recipient costs as well as (separately) the USGS costs of responding.

c) Conflict of Interest

The Recipient must establish safeguards to prohibit its employees and Subrecipients from using their positions for purposes that constitute or present the appearance of a personal or organizational conflict of interest. The Recipient is responsible for notifying the USGS Contracting Officer in writing of any actual or potential conflicts of interest that may arise during the life of this award. Conflicts of interest include any relationship or matter which might place the Recipient or its employees in a position of conflict, real or apparent, between their responsibilities under the agreement and any other outside interests. Conflicts of interest may also include, but are not limited to, direct or indirect financial interests, close personal relationships, positions of trust in outside organizations, consideration of future employment arrangements with a different organization, or decision- making affecting the award that would cause a reasonable person with knowledge of the relevant facts to question

the impartiality of the Recipient and/or Recipient's employees and Sub-recipients in the matter.

The USGS Contracting Officer and the servicing Ethics Counselor will determine if a conflict of interest exists. If a conflict of interest exists, the USGS Contracting Officer will determine whether a mitigation plan is feasible. Mitigation plans must be approved by the USGS Contracting Officer in writing. Failure to resolve conflicts of interest in a manner that satisfies the government may be cause for termination of the award.

Failure to make required disclosures may result in any of the remedies described in 2 CFR § 200.338, Remedies for Noncompliance, including suspension or debarment (see also 2 CFR Part 180).

d) Program Income

1) If the Recipient is an educational institution or nonprofit research organization, any other program income will be added to funds committed to the project by the Federal awarding agency and Recipient and be used to further eligible project or program objectives, as described in 2 CFR 200.307(e)(2).

2) For all other types of Recipients, any other program income will be deducted from total allowable costs to determine the net allowable costs before calculating the Government's share of reimbursable costs, as provided in 2 CFR 200.307(e)(1).

e) Government Furnished Property Or Property Authorized For Purchase

Title to nonexpendable personal property acquired wholly or in part with Federal funds shall be vested in the Recipient unless otherwise specified in the award document. The Recipient shall retain control and maintain a property inventory of such property as long as there is a need for such property to accomplish the purpose of the project, whether or not the project continues to be supported by Federal funds. When there is no longer a need for such property to accomplish the purpose of the project, the Recipient shall use the property in connection with other Federal awards the Recipient has received. Disposal of nonexpendable personal property shall be in accordance with 2 CFR 200.313.

There is no non-expendable personal property authorized on this grant/cooperative agreement.

-- End of Agreement --

ATTACHMENT D

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ATTACHMENT E

Contact Information for USGS Project Chiefs and Ongoing Projects of the National Cooperative Geologic Mapping Program

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Gregory Walsh	Northeast Bedrock Mapping Project	NY, NH, VT, CT, ME	802-828-4528	gwalsh@usgs.gov
Kyle House	Lower Colorado River System Project	AZ, CA, NV	928-556-7179	khouse@usgs.gov
Ren Thompson and Joe Colgan	Intermountain West Geologic Framework Integration Project	CO, NM, WY, NV	303-236-0929	rathomps@usgs.gov; jcolgan@usgs.gov
Mark Hudson	Ozark Dome – Arkoma Basin – Ouachita belt Transect (ODABOuT)	MO, OK, AR, TX	303-236-7446	mhudson@usgs.gov
Robert E. Powell	San Andreas Fault System in Southern California (SAFSOC-2)	CA	520-670-5505	rpowell@usgs.gov
Victoria Langenheim	Southern Pacific and Sierra Earthquake and Water Studies	CA	650-329-5313	zulanger@usgs.gov
Jon Hagstrum	North Pacific Border, Cascades and Columbia Plateau Project	OR, WA, ID	650-329-4672	jhag@usgs.gov
Ric Page	US-Mexico Borderlands Geologic Framework	AZ, CA, NM, TX	303-236-1141	rpage@usgs.gov
Andy Cyr	Western Basin and Range- Eastern California Shear Zone	CA, NV	650-329-4820	acyr@usgs.gov
Kevin Schmidt	GeoMapping for Integrated Science	CA	650-329-5302	kschidt@usgs.gov
Cal Ruleman	Denali Hazards Mapping Project	AK	303-236-7804	cruleman@usgs.gov
Chris Swezey	Great Lakes and North Central Lowlands Project	WI, IL, MI, IN	703-648-6444	cswezey@usgs.gov
Mark Carter	Blue Ridge and Piedmont Project	VA, NC, TN	703-648-6035/703-648-6910	mcarter@usgs.gov
David Weary	Valley and Ridge/ Appalachian Basin Project	WV	703-648-6897	dweary@usgs.gov
Wright Horton	Coastal Basement Geology of the SE U.S.	SC, GA	703-648-6933	whorton@usgs.gov

ATTACHMENT F

Current (FY2019) EDMAP Projects

University	PI	Project Name	State	Email Address
University of Wyoming	Carol D. Frost and B. Ronald Frost	The Earth's Earliest Crust: A Geologic Map of the Archean Rocks of the Northern Laramie Mountains, Wyoming	WY	frost@uwyo.edu
Illinois State University	David Malone	Geologic Map of the Cloud Peak 7.5-Minute Quadrangle, Wyoming	WY	dmalone@ilstu.edu
Montana Tech of the University of Montana	Larry Smith	Geologic mapping of portions of the Dunkleberg Creek, Griffin Creek, Pikes Peak, and Rock Creek Lake 7.5′ Quadrangles, Powell County, Montana	MT	lsmith@mtech.edu
Montana Tech of the University of Montana	Chris Gammons	Geologic map of the Hog Heaven mining district in the Kofford Ridge 7.5 minute quadrangle, northwestern Montana	MT	cgammons@mtech.edu
University of Mississippi	Ron Counts	The Surficial Geology and 3D Geologic Framework of the Charleston 7.5-minue Quadrangle, Tallahatchie County, Mississippi	MS	rcounts@olemiss.edu
University of Missouri-Kansas City	Richard Gentile	The Independence Paleovalley	MO	gentiler@umkc.edu
Michigan Tech University	James DeGraff	Keweenaw Fault Geometry, Related Structures, and Slip Kinematics along the Lac La Belle-Mohawk Segment, Michigan	MI	jmdegraf@mtu.edu
Kent State University	David Hacker	Geology of Parts of Cow Creek and Deep Creek 7.5-Minute Quadrangles, Utah	UT	dhacker@kent.edu
University of Cincinnati	Craig Dietsch	Bedrock Geologic Mapping of the southern half of the 7.5 minute Stamford, Connecticut, quadrangle	CT	dietscc@ucmail.uc.edu

Missouri State University	Matthew McKay	Geologic mapping of the Jacksonville East 7.5-minute quadrangle, northeast Alabama: fault sequencing along the trailing edge of the Appalachian fold and thrust belt	AL	matthewmckay@ missouristate.edu
Idaho State University	Glenn Thackray	Surficial Geologic Mapping of the Lower Fall Creek Drainage, Standhope Peak and Big Black Dome 7.5' Quadrangles, Central Idaho	ID	thacglen@isu.edu
Florida State University	James Tull	Geologic mapping in the southern Appalachian Inner Piedmont of Georgia: tracing a major tectonic boundary	GA	jtull@fsu.edu
College of William and Mary	Christopher Bailey	Geology ofthe Gladstone 7.5' quadrangle, Virginia: Deciphering the geologic historic of a terrane triple point in the central Appalachians	VA	dmbail@wm.edu
North Carolina State University	Karl Wegmann	Characterization and Geochronology of Climatically-Triggered Landslides along the southern Blue Ridge Escarpment of North Carolina via Surficial and Bedrock Geologic Mapping	NC	kwwegman@ncsu.edu
University of Oregon	Josh Roering	Importance of shear on crustal faults in the Cascadia forearc: Examining tectonics and seismic hazard in the southern Willamette Valley, Oregon.	OR	jroering@uoregon.edu
University of Southern California	Scott Paterson	Mapping the southern Santa Rita Flat Pluton in the White-Into Range, California: a test of crustal response to magma additions	CA	paterson@usc.edu
University of South Alabama	David Allison	Undergraduate bedrock mapping of metamorphic units in the Hollins, Al, Quadrangle with emphasis on economic crystalline graphite-bearing units	AL	dallison@ southalabama.edu
Missouri State University	Gary Michelfelder	Geologic Map and Stratigraphy of Rocks from the Bearwallow Mountain Quadrangle, New Mexico	NM	garymichelfelder@ missouristate.edu
University of Nevada-Reno	Stacia Gordon	Burial of sedimentary rocks into the deep levels of the Cretaceous–Eocene North Cascades arc: Insights from the structure and metamorphism of the northeastern Skagit Gneiss Complex	WA	staciag@unr.edu

Portland State University	Martin Streck	Mapping at the mountainous, northern margin of the Harney Basin: The geology of the Big Canyon 7.5' quadrangle	OR	streckm@pdx.edu
University of Michigan	Nathan Niemi	Geologic map of the Titus Canyon Formation, CA and NV	CA, NV	naniemi@umich.edu
University of Alaska-Fairbanks	Elisabeth Nadin	Geological Mapping in Remote Alaska to Guide Hyperspectral Imaging Applications to Mineralization	AK	enadin@alaska.edu
Purdue University	Kenneth Ridgway	Establishing a Structural Framework for Denali National Park and Preserve, Alaska: Geologic Mapping of Cretaceous-Eocene Strata	AK	ridge@purdue.edu
University of Alabama	Rebecca Minzoni	Geology of the 1:24,000 Coatopa, Alabama, Quadrangle	AL	rminzoni@ua.edu