



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

-- EDMAP --

The Educational Component of the
National Cooperative Geologic Mapping Program

Re-authorized in 2019 by the John D. Dingell, Jr. Conservation, Management, and
Recreation Act
(Public Law 116-9)

**PROGRAM ANNOUNCEMENT No. G21ASXXXXX
For Fiscal Year 2021**

ISSUE DATE: October 19, 2020

CLOSING DATE & TIME

December 15, 2020 at 3:00 p.m. EST

PLEASE READ THE ENTIRE ANNOUNCEMENT CAREFULLY AND NOTE ANY CHANGES

Paperwork Reduction Act Approval – OMB control number 1028-0088; Expiration Date 10/31/2021

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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 (FY2020) 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, A: Updated information about the 2019 re-authorization of the Geologic Mapping Act.

Part I, C: Added new guidance in light of the COVID-19 pandemic: “Office mapping” projects are permitted in FY21.

Part I, C, Funding Request Limits: The funding limit cap has been changed from \$17,500 for graduate students to \$25,000, and from \$10,000 for undergraduates to \$15,000.

Part I, D: Included link to current EDMAP projects on the National Geologic Map Database Mapping in Progress page.

Part II B: Clarified guidance that adjunct professors are eligible EDMAP PI’s.

Part II C, 5: Letters of support from State geological surveys may come from the State Geologist or the Head of the State survey’s geologic mapping program.

Part II, C, 9: Included guidance that Federal EDMAP funds may not be used to support services at Federal facilities.

Part II D, 4: Included field safety as part of the Mentorship review criteria.

Updated Attachment A (EDMAP Proposal Summary Sheet) with the requirement to list map deliverables and include study area bounding coordinates.

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 four times since then, most recently by the 116th Congress in 2019 ([S. 47: John D. Dingell, Jr. Conservation, Management, and Recreation Act, sec. 5002](#)). The Act recognizes that geologic maps are the primary database for virtually all applied and basic earth-science investigations.

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 Geological Surveys, and 2) more geologic maps produced in academia will eventually be made available to the public. As of 2020, EDMAP has funded over 1,300 students from over 170 universities.

A list of currently funded EDMAP projects can be found in Attachment F of this announcement. For more information about the USGS NCGMP EDMAP program please visit:
<https://www.usgs.gov/core-science-systems/national-cooperative-geologic-mapping-program/>.

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.

Due to the COVID-19 pandemic, we will be accepting proposals for ‘office’ mapping projects in addition to standard field mapping projects this year. These projects may include (but may not be limited to) those that involve a heavy emphasis on developing GIS-mapping skills, synthesis and compilation mapping projects, and LiDAR-based mapping projects.

Funding Request Limits

EDMAP allows funding requests of up to \$25,000 for each graduate student primary mapper and \$15,000 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 \$15,000). 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 \$40,000), 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 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.

Because your student's maps are a significant component of the NCGMP, we will post all current projects as well as 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 https://ngmdb.usgs.gov/Prodesc/proddesc_109645.htm for an example EDMAP deliverable). Current 'Mapping in Progress' EDMAP projects can be found at <https://ngmdb.usgs.gov/mip/>. 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. NCGMP has adopted the GeMS schema as the standard to be used for all NCGMP-funded map products from USGS and State geological surveys. 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: October 19, 2020.

Closing Date and Time for Proposal Submission: December 15, 2020 @ 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 (including adjunct 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.**

Principal Investigators 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, a primary student mapper may be supported by up to two EDMAP awards. Students may be funded for two consecutive field seasons, or a student may be supported by 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 been supported by 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 (except the SF 424 forms) 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, this 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 (or head of the State geological survey geologic mapping program) 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 personnel information. (The letter(s) of support, attachments, budget sheets and data management plan 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.
 - 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 be familiar with your proposed field area's geography.
 - 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. NCGMP strongly encourages geologic mapping projects to utilize a buddy system approach to promote safe field practices. Please include a discussion of field safety if appropriate.
- g. Deliverables. You must provide a list all maps (with scale) and accompanying technical reports by quadrangle, portion of quadrangle, or study 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. Full CV/resumes are not required as long as sufficient biographical information is provided. 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.

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 biography/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 (but this is not part of the proposal review criteria). Finally, even if the name and background information 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 \$25,000 for each primary graduate mapper and \$15,000 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 (but faculty salary may be used as match).
- 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, geochronology, geophysics) expenses are to be capped to less than 20 percent of your total proposal costs. Please note, Federal EDMAP funds are prohibited from being used to fund analytical work at any Federal facility (matching funds for this are allowed).
- 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, nor are matching funds. 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 (Federal or University match).
 - 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 k – o. 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 (for example, letters of commitment for in-kind support).
- (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 \$25,000 FOR EACH PRIMARY GRADUATE STUDENT AND \$15,000 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 8-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 geochronological 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, as well as field safety? 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 December 15, 2020 @ 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 [S. 47: John D. Dingell, Jr. Conservation, Management, and Recreation Act, sec. 5002](#) (Public Law 116-9).

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 <https://ngmdb.usgs.gov/Info/standards/>. 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 FY2021 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 (including salary, fringe, and travel/field support). A Principal Investigator may apply for EDMAP funds for the same student two years in a row (a student is 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 2021, therefore you should plan project start dates between May 1, 2021 and September 15, 2021.
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).

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. The Program will notify PI's about the delivery method closer to the project end date.

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 DELIVERABLE MAP(S). PLEASE INCLUDE BOUNDING COORDINATES (IN DMS) OF MAP(S) HERE AS WELL:

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 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 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

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

(a) 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.

(b) 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).

- a. 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).
- b. With the award of each grant/cooperative agreement, a sub-account will be set up from which the Recipient can draw down funds. After recipient's 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.
- c. Inquiries regarding payment should be directed to ASAP at (855) 868-0151.

A.4. Definitions

A. 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:

- (1) 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
- (2) 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.

B. 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.

C. Recipient

Recipient means grantee or cooperator.

D. 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.

E. 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 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.

F. 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:

- (1) Issuing the grant/cooperative agreement program announcement in coordination with the program manager.
- (2) 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.
- (3) 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.

- (4) Serving in an advisory capacity at peer review panel meetings. She shall interpret grant/cooperative agreement management policies to panel members.
- (5) Negotiating, as necessary, the final grant/cooperative agreement budget.
- (6) Issuing grant/cooperative agreement awards and revisions to awards.
- (7) 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.
- (8) Receiving financial reports required by the terms and conditions of the award.
- (9) Closing out grant/cooperative agreement awards when all applicable award requirements have been complied with.

A.5. Reporting Requirements

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

Report/Document	# of Copies	Submit To	Due Date
1. Transmittal Letter, Maps, plus accompanying technical report	1 Original	Program Officer (see page 2 of Award Document)	On or before the last day of the 12-month project period.
2. Transmittal Letter	1 Copy	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	SEE SECTION A.5(B) BELOW	Electronically thru FedConnect or via email to Grant Specialist (A.1)	SEE SECTION A.5(B) BELOW
4. *Publications	1 Copy	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.**

B. CASH MANAGEMENT AND FINANCIAL REPORTING REQUIREMENTS

1. 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/web/grants/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.

2. 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 B.1.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 deobligate federal funds as reflected in the Final SF 425.
- c) Subsequent revision to the final SF 425 will be considered only as follows:
- 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.
 - 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.

C. Publication of the results of any project carried out under this assistance award is authorized in professional journals, trade magazines, or may be made by the USGS. The following notation shall accompany manuscripts submitted to journals or professional publications for publication:

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

"Supported by the U. S. Geological Survey, National Cooperative Geologic Mapping Program, under assistance Award No. [Insert the award number from Block 1 of page one]."

(i) One copy of each article planned for publication shall be submitted to the Program Officer simultaneously with its submission for publication. One reprint of each published article shall be submitted to the Program Officer immediately following publication.

(ii) Disclaimer. All manuscripts submitted for publication in magazines, journals or trade papers 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."

(iii) USGS Logo

Use of the USGS logo (also known as "visual identity" or "identifier") constitutes the recipient's agreement to and acceptance of the following terms:

- The USGS identifier is trademarked and not in the public domain.
- Use of the trademarked USGS identifier is authorized by USGS for use only by recipients of USGS funding.
- Use is authorized on information products that result from research funded by the financial assistance award.
- Use the USGS identifier for any other purpose without written permission from USGS is prohibited; doing so constitutes trademark infringement.
- Recipient will adhere to the design requirements, which are as follows:

- The USGS identifier must appear in black, white, or green only.
- The USGS identifier cannot be modified in any way except for proportional sizing.
- The USGS identifier should appear at the same size as logos of other agencies, if any.
- If used on a digital product, the USGS identifier should link to www.usgs.gov

D. Report preparation instructions. The Recipient shall prepare the reports/documents in accordance with the following instructions:

(1). Technical Report. This 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 via email directly to the Project Officer (dmcphee@usgs.gov) and Program Analyst (mmarketti@usgs.gov). A copy of the cover letter should be emailed to the Grant Specialist (kdove@usgs.gov).

E. 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.

- (1) The Publication of the results of any project carried out under this assistance award is authorized in map or publication "series" of State geological surveys. Emphasis is on the prompt release of the geologic map and explanatory information, so that publication includes release of maps or segments of maps with explanatory information in open-file format.

Publication includes conventional format in paper copy, reproducible Mylar or similar material, and electronic format as digital files on computer readable disk, CD-ROM, or similar medium. The following notation shall accompany maps with explanatory information submitted to journals, professional organizations, or commercial firms for publication:

"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."

All publications that contain work performed during the project period shall include the following statements:

"Research supported by the U. S. Geological Survey, National Cooperative Geologic Mapping Program, under USGS award number [Insert the award number]. The views and conclusions contained in this document are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the U. S. Government."

- (2) 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 identified in Section A.1.

F. 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

A. 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.

B. 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:

1. Changes in the scope, objective, or key personnel referenced in the Recipient's proposal.
2. Transfer of funds between direct cost categories when the cumulative amount of transfers during the project period exceeds 10 percent of the total award.

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

4. 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.

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

6. Any other significant change to the award.

C. 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 A.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

- (a) Substantial involvement is anticipated through the term of the cooperative agreement between the USGS and the Recipient.

- (b) 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 Department of the Interior Standard Terms and Conditions

The Recipient shall be subject to the Department of the Interior Standard Terms and Conditions which are incorporated herein by reference and available on the Internet at:

<https://www.doi.gov/grants/doi-standard-terms-and-conditions>

B.2 Additional Articles Required For Compliance with Statute or Regulation

Patent Rights (37 CFR § 401.14)

Unless otherwise provided in the Agreement, if this Agreement is for experimental, developmental, or research work, the following clause (implementing the Bayh-Dole Act, [35 U.S.C. § 200 et seq.]) shall apply. The recipient shall include this clause in all subawards for experimental, developmental, or research activities.

a. Definitions

1. INVENTION means any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the USC, to any novel variety of plant which is or may be protected under the Plant Variety Protection Act (7 U.S.C. § 2321 et seq.).
2. SUBJECT INVENTION means any invention of the recipient conceived or first actually reduced to practice in the performance of work under this Agreement, provided that in the case of a variety of plant, the date of determination (as defined in section 41(d)) must also occur during the period of performance.
3. PRACTICAL APPLICATION means to manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are to the extent permitted by law or Government regulations available to the public on reasonable terms.
4. MADE when used in relation to any invention means the conception or first actual reduction to practice of such invention.
5. SMALL BUSINESS FIRM means a small business concern as defined at section 2 of

Pub. L. 85–536 (15 U.S.C. 632) and implementing regulations of the Administrator of the Small Business Administration. For the purpose of this clause, the size standards for small business concerns involved in government procurement and subcontracting at 13 CFR 121.3–8 and 13 CFR 121.3–12, respectively, will be used.

6. NON-PROFIT ORGANIZATION means a domestic university or other institution of higher education or an organization of the type described in Section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. § 501(c)) and exempt from taxation under Section 501(a) of the Internal Revenue Code (26 U.S.C. § 501(a)) or any domestic non-profit scientific or educational organization qualified under a State non-profit organization statute. b. Allocation of Principal Rights The recipient may retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this Patent Rights clause and 35 U.S.C. § 203. With respect to any subject invention in which the recipient retains title, the Federal Government shall have a non-exclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the U.S. the subject invention throughout the world. If the Agreement indicates it is subject to an identified international agreement or treaty, the U.S. Geological Survey (USGS) also has the right to direct the recipient to convey to any foreign participant such patent rights to subject inventions as are required to comply with that agreement or treaty.

b. *Allocation of Principal Rights*

1. The recipient may retain the entire right, title, and interest throughout the world to each subject invention solely made by recipient subject to the provisions of this Patent Rights clause, including (2) below, 35 U.S.C. §§ 202, 203 and 37 CFR § 401.14. Inventions made under this Agreement jointly by USGS and recipient will be jointly owned by both parties. However, where a USGS employee is a coinventor, the USGS may, for the purpose of consolidating rights in the invention and if it finds that it would expedite the development of the invention:
 - (a) license or assign whatever rights it may acquire in the subject invention to the nonprofit organization, small business firm, or non-Federal inventor in accordance with the provisions of this chapter; or
 - (b) acquire any rights in the subject invention from the nonprofit organization, small business firm, or non-Federal inventor, but only to the extent the party from whom the rights are acquired voluntarily enters into the transaction and no other transaction under this chapter is conditioned on such acquisition.

With respect to any subject invention in which the recipient retains title, the Federal Government shall have a non-exclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the U.S. the subject invention throughout the world. If the Agreement indicates it is subject to an identified international agreement or treaty, the U.S. Geological Survey (USGS) also has the right to direct the recipient to convey to any foreign participant such patent rights to subject inventions as are required to comply with that agreement or treaty.

2. If the recipient performs services at a Government owned and operated laboratory or at a Government owned and recipient operated laboratory directed by the

Government to fulfill the Government's obligations under a Cooperative Research and Development Agreement (CRADA) authorized by 15 U.S.C. 3710a, the Government may require the recipient to negotiate an agreement with the CRADA collaborating party or parties regarding the allocation of rights to any subject invention the recipient makes, solely or jointly, under the CRADA. The agreement shall be negotiated prior to the recipient undertaking the CRADA work or, with the permission of the Government, upon the identification of a subject invention. In the absence of such an agreement, the recipient agrees to grant the collaborating party or parties an option for a license in its inventions of the same scope and terms set forth in the CRADA for inventions made by the Government.

c. *Invention Disclosure, Election of Title and Filing of Patent Applications by Recipient*

1. The recipient will disclose each subject invention to USGS within two months after the inventor discloses it in writing to recipient personnel responsible for the administration of patent matters. The disclosure to USGS shall be in the form of a written report and shall identify the Agreement under which the invention was made and the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding of the nature, purpose, operation, and, to the extent known, the physical, chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale or public use of the invention, whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication, at the time of disclosure. In addition, after disclosure to USGS, the recipient will promptly notify USGS of the acceptance of any manuscript describing the invention for publication, or of any on sale or public use planned by the recipient.
2. The recipient will elect in writing whether or not to retain title to any such invention by notifying USGS within two years of disclosure to USGS. However, in any case where publication, on sale, or public use has initiated the one-year statutory period wherein valid patent protection can still be obtained in the U.S., the period for election of title may be shortened by USGS to a date that is no more than 60 days prior to the end of the statutory period.
3. The recipient will file its initial patent application on an invention to which it elects to retain title within one year after election of title or, if earlier, prior to the end of any statutory period wherein valid patent protection can be obtained in the U.S. after a publication, on sale, or public use. The recipient will file patent applications in additional countries or international patent offices within either ten months of the corresponding initial patent application, or six months from the date when permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications when such filing has been prohibited by a Secrecy Order.
4. Requests for extension of the time for disclosure to USGS, election, and filing under subparagraphs 1., 2., and 3. may, at the discretion of USGS, be granted.

d. *Conditions When the Government May Obtain Title*

The recipient will convey to USGS, upon written request, title to any subject invention:

1. if the recipient fails to disclose or elect the subject invention within the times specified in paragraph c. above, or elects not to retain title, provided that USGS may

- only request title within 60 days after learning of the failure of the recipient to disclose or elect within the specified times;
2. in those countries in which the recipient fails to file patent applications within the times specified in paragraph c. above, but prior to its receipt of the written request of USGS, the recipient shall continue to retain title in that country; or in any country in which the recipient decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in a reexamination or opposition proceeding on, a patent on a subject invention.
- e. *Minimum Rights to Recipient*
1. The recipient will retain a non-exclusive royalty-free license throughout the world in each subject invention to which the Government obtains title, except if the recipient fails to disclose the subject invention within the times specified in paragraph c. above. The recipient's license extends to its domestic subsidiaries and affiliates, if any, within the corporate structure of which the recipient is a party and includes the right to grant sublicenses of the same scope to the extent the recipient was legally obligated to do so at the time the Agreement was made. The license is transferable only with the approval of USGS except when transferred to the successor of that part of the recipient's business to which the invention pertains.
 2. The recipient's domestic license may be revoked or modified by USGS to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions at 37 CFR Part 404. This license will not be revoked in that field of use or the geographical areas in which the recipient has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at discretion of USGS to the extent the recipient, its licensees, or its domestic subsidiaries or affiliates have failed to achieve practical application in that foreign country.
 3. Before revocation or modification of the license, USGS will furnish the recipient a written notice of its intention to revoke or modify the license, and the recipient will be allowed thirty days (or such other time as may be authorized by USGS for good cause shown by the recipient) after the notice to show cause why the license should not be revoked or modified. The recipient has the right to appeal, in accordance with applicable regulations in 37 CFR Part 404 concerning the licensing of Government-owned inventions, any decision concerning the revocation or modification of its license.
- f. *Recipient Action to Protect Government's Interest*
1. The recipient agrees to execute or to have executed and promptly deliver to USGS all instruments necessary to: (i) establish or confirm the rights the Government has throughout the world in those subject inventions for which the recipient retains title; and (ii) convey title to USGS when requested under paragraph d. above, and to enable the Government to obtain patent protection throughout the world in that subject invention.
 2. The recipient agrees to require, by written agreement, its employees, other than

- clerical and non-technical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the recipient each subject invention made under this Agreement in order that the recipient can comply with the disclosure provisions of paragraph c. above, and to execute all papers necessary to file patent applications on subject inventions and to establish the Government's rights in the subject inventions. The disclosure format should require, as a minimum, the information requested by paragraph c.1 above. The recipient shall instruct such employees through the employee agreements or other suitable educational programs on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.
3. The recipient will notify USGS of any decision not to continue prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than 30 days before the expiration of the response period required by the relevant patent office.
 4. The recipient agrees to include, within the specification of any U.S. patent application and any patent issuing thereon covering a subject invention, the following statement: "This invention was made with Government support under (identify the Agreement) awarded by the U.S. Geological Survey. The Government has certain rights in this invention."
 5. The recipient or its representative will complete, execute and forward to USGS a confirmation of a License to the U.S. Government and the page of a United States patent application that contains the Federal support clause within two months of filing any domestic or foreign patent application.

g. *Subcontracts*

1. The recipient will include this Patent Rights clause, suitably modified to identify the parties, in all subcontracts, regardless of tier, for experimental, developmental or research work. The subcontractor will retain all rights provided for the recipient in this Patent Rights clause, and the recipient will not, as part of the consideration for awarding the subcontract, obtain rights in the subcontractors' subject inventions.
2. In the case of subcontracts, at any tier, when the prime award by USGS was a contract (but not a cooperative agreement), USGS, subcontractor, and contractor agree that the mutual obligations of the parties created by this Patent Rights clause constitute a contract between the subcontractor and the Foundation with respect to those matters covered by this Patent Rights clause.

h. *Reporting on Utilization of Subject Inventions*

The recipient agrees to submit on request periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the recipient or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the recipient and such other data and information as USGS may reasonably specify. The recipient also agrees to provide additional reports in connection with any march-in proceeding undertaken by USGS in accordance with paragraph j. of this Patent Rights clause. As required by 35 U.S.C. § 202(c)(5), USGS

agrees it will not disclose such information to persons outside the Government without the permission of the recipient.

i. *Preference for United States Industry*

Notwithstanding any other provision of this Patent Rights clause, the recipient agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject invention in the U.S. unless such person agrees that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the U.S. However, in individual cases, the requirement for such an agreement may be waived by USGS upon a showing by the recipient or its assignee that reasonable but unsuccessful efforts have been made to award licenses on similar terms to potential licensees that would be likely to manufacture substantially in the U.S. or that under the circumstances domestic manufacture is not commercially feasible.

j. *March-in Rights*

The recipient agrees that with respect to any subject invention in which it has acquired title, USGS has the right in accordance with procedures at 37 CFR § 401.6 and USGS regulations at 45 CFR § 650.13 to require the recipient, an assignee or exclusive licensee of a subject invention to grant a non-exclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances and if the recipient, assignee, or exclusive licensee refuses such a request, USGS has the right to grant such a license itself if USGS determines that:

1. such action is necessary because the recipient or assignee has not taken or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use;
2. such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the recipient, assignee, or their licensees;
3. such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the recipient, assignee, or licensee; or
4. such action is necessary because the agreement required by paragraph i. of this Patent Rights clause has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the U.S. is in breach of such agreement.

k. *Special Provisions for Agreements with Non-profit Organizations*

If the recipient is a nonprofit organization, it agrees that:

1. rights to a subject invention in the U.S. may not be assigned without the approval of USGS, except where such assignment is made to an organization which has as one of its primary functions the management of inventions, provided that such assignee will be subject to the same provisions as the recipient;
2. the recipient will share royalties collected on a subject invention with the inventor, including Federal employee co-inventors (when USGS deems it appropriate) when the subject invention is assigned in accordance with 35 U.S.C. § 202(e) and 37 CFR § 401.10;
3. the balance of any royalties or income earned by the recipient with respect to subject

- inventions, after payment of expenses (including payments to inventors) incidental to the administration of subject inventions, will be utilized for the support of scientific or engineering research or education; and
4. it will make efforts that are reasonable under the circumstances to attract licensees of subject inventions that are small business firms and that it will give preference to a small business firm if the recipient determines that the small business firm has a plan or proposal for marketing the invention which, if executed, is equally likely to bring the invention to practical application as any plans or proposals from applicants that are not small business firms; provided that the recipient is also satisfied that the small business firm has the capability and resources to carry out its plan or proposal. The decision whether to give a preference in any specific case will be at the discretion of the recipient. However, the recipient agrees that the Secretary of Commerce may review the recipient's licensing program and decisions regarding small business applicants, and the recipient will negotiate changes to its licensing policies, procedures or practices with the Secretary when the Secretary's review discloses that the recipient could take reasonable steps to implement more effectively the requirements of this paragraph k.4.

1. *Communications*

All communications required by this Patent Rights clause must be submitted through the Office of Policy and Analysis (OPA), U.S. Geological Survey, Reston, VA 20192, gs_usgs_patents@usgs.gov.

B.3 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) Data Availability

- 1) Applicability. The Department of the Interior is committed to basing its decisions on the best available science and providing the American people with enough information to thoughtfully and substantively evaluate the data, methodology, and analysis used by the Department to inform its decisions.
- 2) Use of Data. The regulations at 2 CFR 200.315 apply to data produced under a Federal award, including the provision that the Federal Government has the right to obtain,

reproduce, publish, or otherwise use the data produced under a Federal award as well as authorize others to receive, reproduce, publish, or otherwise use such data for Federal purposes.

- 3) Availability of Data. The recipient shall make the data produced under this award and any subaward(s) available to the Government for public release, consistent with applicable law, to allow meaningful third party evaluation and reproduction of the following:

- a. The scientific data relied upon;
- b. The analysis relied upon; and
- c. The methodology, including models, used to gather and analyze the data.

c) Conflict of Interest

1) Applicability.

- a. This section intends to ensure that non-Federal entities and their employees take appropriate steps to avoid conflicts of interest in their responsibilities under or with respect to Federal financial assistance agreements.
- b. In the procurement of supplies, equipment, construction, and services by recipients and by subrecipients, the conflict of interest provisions in 2 CFR 200.318 apply.

2) Requirements.

- a. Non-Federal entities must avoid prohibited conflicts of interest, including any significant financial interests that could cause a reasonable person to question the recipient's ability to provide impartial, technically sound, and objective performance under or with respect to a Federal financial assistance agreement.
- b. In addition to any other prohibitions that may apply with respect to conflicts of interest, no key official of an actual or proposed recipient or subrecipient, who is substantially involved in the proposal or project, may have been a former Federal employee who, within the last one (1) year, participated personally and substantially in the evaluation, award, or administration of an award with respect to that recipient or subrecipient or in development of the requirement leading to the funding announcement.
- c. No actual or prospective recipient or subrecipient may solicit, obtain, or use non-public information regarding the evaluation, award, or administration of an award to that recipient or subrecipient or the development of a Federal financial assistance opportunity that may be of competitive interest to that recipient or subrecipient.

3) Notification.

- a. Non-Federal entities, including applicants for financial assistance awards, must disclose in writing any conflict of interest to the DOI awarding agency or pass-through entity in accordance with 2 CFR 200.112, Conflicts of Interest.

- b. Recipients must establish internal controls that include, at a minimum, procedures to identify, disclose, and mitigate or eliminate identified conflicts of interest. The recipient is responsible for notifying the USGS Contracting Officer in writing of any conflicts of interest that may arise during the life of the award, including those that have been reported by subrecipients.
 - 4) Restrictions on Lobbying. Non-Federal entities are strictly prohibited from using funds under this grant or cooperative agreement for lobbying activities and must provide the required certifications and disclosures pursuant to 43 CFR Part 18 and 31 USC 1352.
 - 5) Review Procedures. The USGS Contracting Officer will examine each conflict of interest disclosure on the basis of its particular facts and the nature of the proposed grant or cooperative agreement and will determine whether a significant potential conflict exists and, if it does, develop and appropriate means for resolving it.
 - 6) Enforcement. Failure to resolve conflicts of interest in a matter that satisfies the Government may be cause for termination of the award. Failure to make required disclosures may result in any of 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

CONTACT INFORMATION FOR STATE GEOLOGICAL SURVEYS

Nick Tew
Alabama Geological Survey
P.O. Box 869999
Tuscaloosa, AL 35486-9780
ntew@gsa.state.al.us

Phil Pearthree
Arizona Geological Survey
1955 East Sixth Street
PO Box 210184
Tucson, AZ 85721
pearthree@email.arizona.edu

Bill Short
Department of Conservation
California Geological Survey
Division Headquarters
801 K Street, MS 12-30
Sacramento, CA 95814-3531
Bill.Short@conservation.ca.gov

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

Jonathan Arthur
Florida Geological Survey
Florida Dept. of Environmental Protection
3000 Commonwealth Boulevard, Suite 1
Tallahassee, FL 32303
Jonathan.Arthur@dep.state.fl.us

Steve Masterman
Alaska Div. of Geol. & Geophysical Surveys
3354 College Road
Fairbanks, AK 99709-3707
Steve.masterman@alaska.gov

Bekki White
State Geologist & Director
Arkansas Geological Commission
3815 West Roosevelt Road
Little Rock, AR 72204
Bekki.white@arkansas.gov

Karen Berry
Colorado Geological Survey
1313 Sherman Street
Denver, CO 80203
karen.berry@state.co.us

David Wunsch
Delaware Geological Survey
DGS Building
University of Delaware
Newark, DE 19716-7501
dwunsch@udel.edu

James Kennedy
Georgia Geologic Survey
Environmental Protection Division
Suite 1152
2 Martin Luther King Jr. Drive, S.E.
Atlanta, Georgia 30334
Jim.kennedy@dnr.state.ga.us

Claudio Berti
Idaho Geological Survey
Morrill Hall, Third Floor
P.O. Box 44314
University of Idaho
Moscow, ID 83843-3014
cberti@uidaho.edu

Todd Thompson
Indiana Geological Survey
611 North Walnut Grove
Bloomington, IN 47405
tthomps@indiana.edu

Rolfe Mandel
Kansas Geological Survey
1930 Constant Avenue
West Campus
University of Kansas
Lawrence, KS 66047-3726
mandel@kgs.ku.edu

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

Richard Ortt
Maryland Geological Survey
2300 St. Paul Street
Baltimore, MD 21218-5210
richard.ortt@maryland.gov

John Yellich
Michigan Geological Survey
1184 Rood Hall
Department of Geosciences
Western Michigan University
Kalamazoo, MI 49008-5241
john.a.yellich@wmich.edu

Richard C. Berg
Illinois State geological survey
121 Natural Resources Building
615 East Peabody Drive
Champaign, IL 61820-6964
berg@isgs.uiuc.edu

Keith Schilling
Iowa Geological Survey
Department of Natural Resources
109 Trowbridge Hall
Iowa City, IA 52242-1319
keith-schilling@uiowa.edu

Bill Haneberg
Kentucky Geological Survey
228 Mining & Mineral Resources Building
University of Kentucky
Lexington, KY 40506-0107
bill.haneberg@uky.edu

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

Stephen Mabee
Department of Geosciences
University of Massachusetts
611 North Pleasant Street
Amherst, MA 01003
sbmabee@geo.umass.edu

Harvey Thorleifson
Minnesota Geological Survey
University of Minnesota
2642 University Avenue W.,
St. Paul, MN 55114-1057
thorlief@umn.edu

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

John Metesh
Montana Bureau of Mines & Geology
1300 West Park Street
Montana Tech, Main Hall
Butte, MT 59701-8997
jmetesh@mttech.edu

James E. Faulds
NV Bureau of Mines & Geology
University of Nevada
Mail Stop 178
Reno, NV 89557-0088
jfaulds@unr.edu

Jeffrey Hoffman
New Jersey Geological Survey
Division of Land Use Management
Department of Environmental
P.O. Box 427
Trenton, NJ 08625
jeffrey.l.hoffman@dep.state.nj.us

Andrew Kozlowski
New York State geological survey
State Museum, Empire State Plaza
3140 Cultural Education Center
Albany, NY 12230
akozlows@mail.nysed.gov

Edward Murphy
North Dakota Geological Survey
600 East Boulevard
Bismarck, ND 58505-0840
emurphy@state.nd.us

Joe Gillman
Geological Survey
Department of Natural Resources
Division of Geology and Land Survey
P.O. Box 250
Rolla, MO 65402
joe.gillman@dnr.mo.gov

Matt Joeckel
Nebraska Geological Survey
Conservation and Survey Division
University of Nebraska
102 Nebraska Hall
901 N. 17th Street
Lincoln, NE 68588-0517
Rjoeckel3@unl.edu

Rick Chormann
New Hampshire Geological Survey
Department of Environmental Services
P.O. Box 95
Concord, NH 03302-0095
Frederick.Chormann@des.nh.gov

Nelia Dunbar
NM Bureau of Geol. & Mineral Resources
New Mexico Tech
801 Leroy Place
Socorro, NM 87801
nelia.dunbar@nmt.edu

Kenneth B. Taylor
North Carolina Geological Survey
Dept of Environment & Natural Resources
Division of Land Resources
1612 Mail Service Center
Raleigh, NC 27699-1612
kenneth.b.taylor@ncdenr.gov

Mike Angle
Ohio Geological Survey
Department of Natural Resources
4383 Fountain Square Drive
Columbus, OH 43224-1362
mike.angle@dnr.state.oh.us

Jeremy Boak
Oklahoma Geological Survey
100 E. Boyd, Room N-131
Norman, OK 73019-0628
jboak@ou.edu

Brad Avy
Oregon Department of Geology
& Mineral Industries, Suite 965
800 N.E. Oregon Street, No. 28
Portland, OR 97232
brad.avy@state.or.us

Gale C. Blackmer
Pennsylvania Geological Survey
Dept. of Conservation and Nat. Res
3240 Schoolhouse Road
Harrisburg, PA 17105-8453
gblackmer@pa.gov

Brian Savage
Rhode Island Geological Survey
Department of Geology
315 Green Hall
University of Rhode Island
Kingston, RI 02881
savage@uri.edu

William Clendenin
South Carolina Geological Survey
5 Geology Road
Columbia, SC 29212
Clendeninb@dnr.sc.gov

Tim Cowman
South Dakota Geological Survey
USD Science Center
414 East Clark Street
Vermillion, SD 57069-2390
Tim.Cowman@usd.edu

Ron Zurawski
Tennessee Division of Geology
Life & Casualty Tower
401 Church Street, 13th Floor
Nashville, TN 37243-0445
Ronald.zurawski@state.tn.us

Scott Tinker
Texas Bureau of Economic Geology
The University of Texas at Austin
University Station, Box X
Austin, TX 78713-8924
Scott.tinker@beg.utexas.edu

Bill Keach
Utah Geological Survey
1594 West North Temple, Suite 3110
Salt Lake City, UT 84116
billkeach@utah.gov

Jon Kim
Vermont Geological Survey
Dept. of Environmental Conservation
1 National Life Dr., Main 2
Montpelier, VT 05620-3902
Jon.kim@state.vt.us

David Spears
VA Dept. of Mines, Minerals, & Energy
Division of Mineral Resources
900 Natural Resources Drive
P.O. Box 3667
Charlottesville, VA 22903
david.spears@dmme.virginia.gov

David Norman
Department of Natural Resources
Division of Geology & Earth Resources
1111 Washington Street, S.E.
Box 47007
Olympia, WA 98504-7007
dave.norman@dnr.wa.gov

Ken Bradbury
Wisconsin Geological Survey
University of Wisconsin Extension
3817 Mineral Point Road
Madison, WI 53705-5100
ken.bradbury@uwex.edu

Mitch Blake
West Virginia Geological Survey
Mont Chateau Research Center
P.O. Box 879
Morgantown, WV 26507-0879
blake@geosrv.wvnet.edu

Erin Campbell
Wyoming State geological survey
P.O. Box 1347
Laramie, WY 82073
erin.campbell@wyo.gov

ATTACHMENT E

CONTACT INFORMATION FOR USGS PROJECT CHIEFS AND ONGOING PROJECTS OF THE NATIONAL COOPERATIVE GEOLOGIC MAPPING PROGRAM

Project Chief	Project Name	States	Phone #	Email Address
Gregory Walsh	Northeast Bedrock Mapping Project	NY, NH, VT, CT, ME	802-828-4528	gwalsh@usgs.gov
Ryan Crow	Lower Colorado River System Project	AZ, CA, NV	928-556-7148	rcrow@usgs.gov
Ren Thompson and Joe Colgan	Geologic Framework of the Intermountain West	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 Border and Sierras	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 Geologic Mapping Project	WI, IL, MI, IN	703-648-6444	cswezey@usgs.gov
Arthur Merschat	Piedmont and Blue Ridge Project	VA, NC, TN	703-648-6035	amerschat@usgs.gov
Dan Doctor	Appalachian Basin Geologic Mapping Project	WV	<u>703-648-6027</u>	dhdoctor@usgs.gov
Wright Horton	Coastal Basement Geology of the SE U.S.	SC, GA	703-648-6933	whorton@usgs.gov

ATTACHMENT F

Current (FY2020) EDMAP Projects

University	PI	Project Name	State	Email Address
University of Florida	Anthony Pivarunas	Long Distance Correlation of Basalt Flows along the Deschutes River in Central Oregon	OR	afp5@ufl.edu
Indiana University	Todd Grote	Quaternary Geology of the Boggstown Quadrangle, South-central Indiana: Implications for Ice Sheet Retreat and Proglacial River Evolution	IN	tdgrote@ius.edu
Colorado School of Mines	Yvette Kuiper	Structural mapping of the southwestern Avalon terrane in southeastern Connecticut, with implications for Pangean supercontinent formation	CT	ykuiper@mines.edu
Western Kentucky University	Nahid Gani	Detailed Geologic Mapping of the complex structures and bedrock outcrops, 7.5' McDaniels Quadrangle, Rough Creek Graben, Kentucky	KY	nahid.gani@wku.edu
University of Arizona	Craig Rasmussen	Mapping surficial geology and playa deposits to understand paleoenvironmental change in southwestern Arizona.	AZ	crasmuss@email.arizona.edu
Stockton University	Jeffrey R. Webber	Geologic mapping and petrophysical characterization of the Mount Powell Batholith, western Montana	MT	jeffrey.webber@stockton.edu
Missouri State University	Matthew P. McKay	Geologic mapping of the Porter Gap and Clairmont Springs 7.5-minute quadrangles, east-central Alabama: exploring the sequence of deformation within the Alabama Blue Ridge	AL	matthewmckay@missouristate.edu
Montana Tech of the University of Montana	Larry N. Smith	Geologic mapping of portions of the McGregor Peak, Marion, Murr Peak, and Hubbard Reservoir, 7.5' Quadrangles, Flathead County, Montana, with emphasis on Quaternary units	MT	lsmith@mtech.edu
Illinois State University	David H. Malone	Subdividing the Archean Bighorn Batholith: Geologic Map of the Woodrock 7.5-Minute Quadrangle, Wyoming	WY	dhmalon@ilstu.edu

Portland State University	Martin Streck	Mapping in the Magpie Table and Logan Valley West 7.5' quadrangles of the northern Harney Basin, Oregon: Lifecycle of a major rhyolite field associated with Columbia River Basalt magmatism	OR	streckm@pdx.edu
Kansas State University	Brice Lacroix	Detailed Bedrock Mapping and dating in the Cape San Martin/Alder Peak/Villa Creek/Burro Mountain Quadrangles, Monterey and San Luis Obispo Counties, California	CA	blacroix@ksu.edu
San Francisco State University	Mary Leech	Geologic mapping of the Ledge Mountain migmatites, Rock Lake 7.5 quadrangle, Adirondack Highlands, New York	NY	leech@sfsu.edu
Kent State University	David B. Hacker	Geologic Mapping of the Spry Intrusion and Associated Volcanic Rocks Within the Markagunt MegaScale Gravity Slide, Utah	UT	dhacker@kent.edu
Florida State University	James F. Tull	Tracing a major tectonic boundary in the southern Appalachian Inner Piedmont into northern Georgia	GA	jtull@fsu.edu
University of Texas - El Paso	Jason W. Ricketts	Geologic map of the southern Indio Mountains: Reconstructing the transition from Laramide contraction to Rio Grande rift extension	TX	jricketts@utep.edu
Univeristy of California-Davis	Michael E. Oskin	Geologic Mapping to Test Mechanism for Subsidence and Uplift in the Fish Creek Vallecito Basin, southeastern California	CA	meoskin@ucdavis.edu
University of Toledo	Timothy G. Fisher	Surficial Geology Mapping of Glacial Lake Agassiz Strandlines, Polk County, Minnesota	MN	timothy.fisher@utoledo.edu
San Jose State University	Kimberly Blisniuk	Mapping the Rodgers Creek Fault, Before and After the Kincade Fire, to Determine Long Term Geologic Fault Slip Rates and the Distribution of Slip across the Northern San Andreas Fault System, CA	CA	kimberly.blisniuk@sjsu.edu
Univeristy of Alaska-Fairbanks	Margaret Darrow	Landslides in the Fairbanks North Star Borough, Alaska: Establishing Extent and Age via Surficial Geologic Mapping and Lidar Analysis	AK	mmdarrow@alaska.edu
Univeristy of Alaska-Fairbanks	Sean Regan	Bedrock Geologic Mapping of the Willow Creek area, southern Talkeetna Mountains, Alaska	AK	sregan5@alaska.edu
Western Colorado University	David Marchetti	Surficial geologic mapping of three 7.5 quads and construction of a glacial geologic map of Boulder Mountain, Utah.	UT	dmarchetti@western.edu

Western Michigan University	Robb Gillespie	Geologic mapping of the Charlotte, Chester, Hoytville, and Needmore 7.5 Minute Quadrangles, Eaton County, Michigan	MI	robb.gillespie@wmich.edu
San Jose State University	Robert B. Miller	Construction and Structure of Major Cretaceous Intrusive Suites, Lake Alpine Area, NorthCentral Sierra Nevada, California	CA	robert.b.miller@sjsu.edu
University of Southern California	Scott Paterson	Geologic mapping of the Gibson Peak pluton and host rocks in the Trinity Alps, California: Leveraging migrating plutons to expose the stages of incremental pluton emplacement and assembly	CA	paterson@usc.edu
Lehigh University	Frank J. Pazzaglia	Surficial Geological Map of the Carmichaels Formation, Ohiopyle State Park, PA	PA	fjp3@lehigh.edu
Virginia Institue of Marine Science	Christopher J. Hein	Quaternary Sea-Level Change and the Surficial Geology of Southern Accomack County, Eastern Shore of Virginia	VA	hein@vims.edu
Idaho State University	Benjamin T. Crosby	Surficial Geologic Map of Reynolds Creek, Owyhee Mountains, Southwest, Idaho	ID	crosby@isu.edu
Western Washington University	Colin Amos	New surficial geologic map of the western Sadie Creek fault system, Olympic Peninsula, Washington	WA	colin.amos@wwu.edu
University of Mississippi	Jennifer Gifford	Geologic Map of the Burgess Junction 7.5-Minute Quadrangle, Wyoming	WY	jngiffor@olemiss.edu
Georgia State University	Dajun Dai	Geologic mapping and 3D visualization of Northern Half of Chamblee Quadrangle, Georgia	GA	ddai@gsu.edu
Missouri State University	Kevin Evans	Middle to late Paleozoic flexure and uplift of the Ozarks: Mapping the geology of the Noel, Missouri 7.5-minute quadrangle	MO	kevinevans@missouristate.edu
Northern Arizona University	Paul Umhoefer	Structural Geology and Age of Miocene fault systems in the North Trigo - Dome Rock Mountains, western Arizona Basin and Range Province	AZ	paul.umhoefer@nau.edu
Montana State University	Devon A. Orme	Geologic map of Melrose and Wickiup Creek 7.5' quadrangles, Highland Mountains, southwest Montana: Refining the structure between Proterozoic and Paleozoic stratigraphy exposed at Camp Creek	MT	devon.orme@montana.edu
University of Southern Mississippi	Jeremy R. Deans	Constraining Acadian deformation and Alleghanian translation during oblique convergence, Cusseta quadrangle Alabama, southern Appalachian Mountains	AL	jeremy.deans@usm.edu

Utah State University	Carol Dehler	Bedrock mapping of the Naomi Peak Quadrangle, Cache County, Utah: A documentation of the Earth system during the development of the Northern Cordilleran passive margin, Northern Utah	UT	carol.dehler@usu.edu
University of Nevada- Reno	Stacia Gordon	Effects of a flare-up on continental magmatic arcs: insights from the structure and metamorphism of the east-central Skagit Gneiss Complex	WA	staciag@unr.edu
Miami University	Jason A. Rech	The use of geologic mapping to reconstruct stream morphology and planform prior to European settlement, Four Mile Creek, southwestern Ohio	OH	rechja@miamioh.edu
Illinois State University	Lisa Tranel	Surficial and Bedrock Geology of the Northern Menominee Quadrangle, Jo Daviess County, IL	IL	ltranel@ilstu.edu
University of North Carolina- Chapel Hill	Kevin Stewart	Mapping and analysis of post-orogenic deformation in the Blue Ridge of western North Carolina	NC	kgstewar@email.unc.edu
Colorado State University	John Ridley	Geologic Map of Mafic Rocks Associated with the Boulder Batholith and Elkhorn Mountain Volcanics, Southwestern Montana	MT	jridley@colostate.edu
University of Mississippi	Ronald Counts	The Surficial Geology of the Tocowa 7.5-minute Quadrangle, Tallahatchie and Panola Counties, Mississippi: Investigating the contribution of clastic alluvial fans to the recharge of the Mississippi valley alluvial aquifer	MS	rcounts@olemiss.edu
Colorado State University	Sara L. Rathburn	Geologic Mapping of a Portion of the Pingree Park Quadrangle, Colorado: Evolution of the South Fork Cache la Poudre River Valley at Colorado State University's Mountain Campus	CO	sara.rathburn@colostate.edu