



UNITED STATES DEPARTMENT OF THE INTERIOR

U.S. GEOLOGICAL SURVEY

-- EDMAP --

**The Educational Component of the
National Cooperative Geologic Mapping Program**

Re-authorized in 2021 by the Infrastructure and Jobs Investment Act
(Public Law 117-58, Section 40202: “*National Cooperative Geologic Mapping Program*”)

PROGRAM ANNOUNCEMENT No. G25AS00031

For Fiscal Year 2025

ISSUE DATE: October 1, 2024

**CLOSING DATE & TIME:
January 14, 2025 at 5:00 PM ET**

**PLEASE READ THE ENTIRE ANNOUNCEMENT CAREFULLY AND NOTE ANY
CHANGES**

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TABLE OF CONTENTS

Table of Contents	2
List of Attachments	3
Program Announcement Changes	4
 PART I. Public Law, Program Priorities, and Geologic Map Products	 7
A. The National Geologic Mapping Act	7
B. EDMAP Component of the National Cooperative Geologic Mapping Program	8
C. EDMAP Proposals	9
1. Types of EDMAP Proposals	10
2. Other Proposal Requirements	11
D. Funding Request Limits	12
E. Geologic Map Products	12
 PART II. Timetables, Eligibility, Format Instructions, and Proposal Evaluation	 15
A. Timetables	15
B. Eligibility—Who May Submit a Proposal	15
1. Student Eligibility	16
C. Proposal Format Instructions	16
D. Proposal Evaluation	26
1. Evaluation Criteria	26
 PART III. Proposal Delivery and Submission Instructions	 27
PART IV. General Provisions	28
A. General Provisions of the National Cooperative Geologic Mapping Program	28
B. Office of Management and Budget (OMB) Circulars	28
C. Rights in Technical Data	28
D. Publication	29
E. Funding	30
F. Project Deliverables	31
G. Statement about Derogatory Terms in Stratigraphy	32

LIST OF ATTACHMENTS

Proposal Submission Forms and Instructions

- A. Mandatory EDMAP Proposal Cover Sheet
- B. Budget Sheets
- C. Project Abstract Summary
- D. Terms and Conditions
- E. Contact Information for State Geological Surveys
- F. Contact Information for USGS Project Leads and Ongoing Projects of the NCGMP
- G. Current (FY2024) EDMAP Projects

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

PROGRAM ANNOUNCEMENT CHANGES FOR FY2025

Given the extensive recent changes to the EDMAP Program Announcement, the NCGMP is available to answer any questions you may have. Please direct questions to EDMAP@usgs.gov.

Part I, A, and throughout: There are minor editorial changes throughout the Program Announcement.

Part I, A, and throughout: Opening and closing dates of the Program Announcement are updated to reflect FY2025 dates.

Part I, C, EDMAP Proposals, and throughout: EDMAP proposals may now request a period of performance between 12 and 24 months.

Part I, C, EDMAP Proposals, and throughout: Primary student mapper tuition is now an acceptable form of match, so long as tuition is no more than 50% of total matched dollars.

Part I, C, 1, Types of EDMAP Proposals: Field-Focused projects must now produce geologic maps at detailed and intermediate scales (between 1:24,000 and <1:250,000) only.

Part I, C, 1, Types of EDMAP Proposals: Data Synthesis Projects must now produce geologic maps at detailed and intermediate scales (between 1:24,000 and <1:250,000) only.

Part I, D, Funding Request Limits: EDMAP proposals may now request up to \$45,000 per 12 months (or \$90,000 for 24 months) for each primary graduate student mapper and up to \$25,000 per 12 months (or \$50,000 for 24 months) for each primary undergraduate mapper.

Part I, E, Geologic Map Products: The partnering State Geological Survey (i.e., the State Geological Survey where the project is being conducted) may now use STATEMAP funds to assist with publishing EDMAP products.

Part I, E, Geologic Map Products: Proposals including training in the Geologic Map Schema (GeMS) standard as well as the production of a GeMS Level 3 geodatabase will be prioritized over proposals excluding these items.

Part I, E, Geologic Map Products: If proposing generation of geospatial data (e.g., ArcGIS or GeMS database), you must check geoplatform.gov to determine if data already exist for your study area. The Federal government will not fund the production of duplicate, identical

geospatial data (e.g., two GeMS Level 3 databases of the same 7.5-minute quadrangle at the same scale).

Part II, B, Eligibility: Who May Submit a Proposal, and throughout: Primary Student Mapper (graduate or undergraduate) tuition is now an allowable expense under the EDMAP Program. However, no more than 50% of the Federal request may be used to pay tuition.

Part II, B, Eligibility: Who May Submit a Proposal: A Principal Investigator (PI) may have no more than two active EDMAP Awards at any given time. If an Award has expired (it is past the period of performance end date) and deliverables have not been submitted, the responsible PI is ineligible for any future EDMAP Awards until deliverables are submitted. Institutions of delinquent PIs may also be ineligible for future EDMAP Awards or any Awards issued by the U.S. Geological Survey (USGS).

Part II, B, 1, Student Eligibility: A Primary Student Mapper may be supported by no more than 36 months of EDMAP funding and no more than two Awards (e.g., one 24 month award and one 12 month award).

Part II, C, 7, Proposal Technical Section, g, Deliverables: A final report (typically the student's thesis) and a transmittal letter are required deliverables for each EDMAP Award.

Part II, C, 9, a, Salaries and/or Tuition: Section (a) has been retitled, as primary student mapper(s) tuition is now an allowable expense/match (up to 50% of both match and request). Tuition for mapping assistants is not an authorized source of match or an allowed request.

Part II, C, Budget, etc.: Field Tablets are now an allowable expense (or match) under EDMAP (in accordance with the current definition of "Supplies" in 2 CFR), provided the cost per unit is under \$5,000. Additionally, guidance on budget categories has been revised – please read carefully.

Part II, D, Proposal Evaluation, 1, Evaluation Criteria: Proposals are now evaluated on whether or not the project will produce and submit a corresponding GeMS Level 3 database.

Part II, D, Proposal Evaluation, 1, Evaluation Criteria: Proposals are not evaluated on whether primary student tuition match and/or request amounts are less than 50% of the requested funds and/or matched dollars.

Part IV, F, Project Deliverables: In an effort to limit the need for some no-cost extensions, project deliverables are now due no later than 90 days after the end of the project period of

performance – in line with the final technical report timeline as defined in the award terms and conditions.

Attachment A, Mandatory EDMAP Proposal Cover Sheet: Mandatory EDMAP Proposal Cover Sheet is updated to include Proposed Project Start Date, Proposed Project End Date, Proposed Funding Request, Proposed Institution Match, and indication of whether the proposed study site includes Tribal Nation lands.

Attachment B, EDMAP – ENTIRE PROPOSAL BUDGET: Attachment B is updated. Note that the blue text is provided for example only and should be deleted upon use.

Attachment C, Project Abstract Summary: This new attachment in FY2025 is required with all submitted EDMAP Proposals.

Attachment D, Terms and Conditions: Entire section is updated as per the U.S. Geological Survey (USGS) Office of Acquisitions and Grants (OAG). Please read carefully.

Attachment E, Contact Information for State Geological Surveys: Information is updated for FY2025.

Attachment F, Contact Information for USGS NCGMP Project Leads: Information is updated for FY2025.

Attachment G, Current EDMAP Projects: Information is updated for FY2024.

Note regarding updates to [2 CFR 200](#) effective October 1, 2024

Please be aware that projects anticipated for funding under this NOFO will be subject to the revised Uniform Guidance, effective 10/1/2024. For reference, resources are included below to help determine how this may affect your proposal and budgeted costs.

OMB's [revised Uniform Guidance launch](#) was on April 4, 2024. To view the announcement OMB made on April 4, 2024 introducing the finalized Uniform Guidance, visit [here](#).

The [final rule, Guidance for Federal Assistance](#), was published to the Federal Register on April 22, 2024 (89 FR 30046).

OMB released [a redline document showing the 2024 revisions](#), and issued accompanying [implementation memorandum](#) M-24-11, as well as [reference guides](#).

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

A. The National Geologic Mapping Act

The 102nd Congress recognized that the U.S. Geological Survey (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, thereby creating the National Cooperative Geologic Mapping Program (NCGMP). The Act has been re-authorized five times since then, most recently by the 117th Congress in 2021 (Infrastructure and Jobs Investment Act P.L. 117-58, Section 40202). The Act recognizes that geologic maps are the primary data base for virtually all applied and basic earth-science investigations.

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

1. Determine the geologic framework of the Nation through the systematic development of geologic maps; such maps will contribute to the National Geologic Map Database (NGMDB).
2. Develop complementary national databases (e.g., geophysical and geochemical databases) that provide value-added information to the NGMDB.
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 2021, NCGMP went through a process of renewing its vision and mission by developing a new strategic plan (see <https://pubs.usgs.gov/of/2021/1013/ofr20211013.pdf>). As described in this Strategic Plan, in addition to geologic mapping at traditional scales such as 1:24,000, the renewed vision of the USGS NCGMP is to create national and continental-resolution two-dimensional (2D) and three-dimensional (3D) digital geologic maps of the United States and its territories to address the changing needs of the Nation. The mission of the NCGMP is to characterize, interpret, and disseminate a national geologic framework model of Earth through geologic mapping and associated research; this research will support the responsible use of land, water, energy, and minerals, and 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 the NCGMP mission and address Department of the Interior Secretarial priorities by training students in skills needed for geologic mapping. Geologic mapping training supported by EDMAP provides the foundational capacity to describe and interpret the geologic framework information necessary to inform the management of the land and water resources of the Nation, adapt to changes in the environment, and secure the Nation.

Many EDMAP projects include lands of American Indian Tribes, Alaska Native Tribes, and Alaska Native Corporations (hereafter referred to as Tribal Nations). The NCGMP supports the fulfillment of the federal trust responsibility to Tribal Nations by recognizing their sovereignty and responding to the science needs expressed by Tribal communities. The Program works closely with State and academic partners to ensure Tribal Nations are appropriately notified of NCGMP supported geologic mapping activities inclusive of Tribal Nation land.

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, the NCGMP provides funds for undergraduate and graduate student research projects that involve all activities relevant to the creation of geologic maps (**defined broadly as all maps that characterize the solid Earth and/or its constituents**). Through these cooperative agreements, the NCGMP hopes to expand the research and educational capacity of national academic programs that teach Earth science students the broad range of techniques relevant to geologic mapping and the analysis of field, geophysical, borehole, and remote sensing data. As of 2024, EDMAP has funded more than 1,501 students from more than 177 universities.

To reflect the evolving skillsets required of geologic mappers, technological advancements in geologic mapping, and new/emerging themes in geologic mapping, **the FY2025 EDMAP Program Announcement includes a set of funding opportunities designated as “Data Synthesis Projects,” which represent a separate Proposal category.** This additional category was first introduced in FY2022 and continues this year. The NCGMP encourages submission of novel EDMAP Data Synthesis Project proposals that involve both training in skills relevant to the data modeling and synthesis needs of contemporary geologic mappers, and training in traditional field methods. Examples of potential Data Synthesis Projects are provided later in this Program Announcement.

PLEASE NOTE: ALL EDMAP PROPOSALS – WHETHER FIELD-FOCUSED or DATA SYNTHESIS – MUST INCLUDE THE GENERATION OF A GEOLOGIC MAP (see definition above). Requirements to produce a Data Synthesis geologic map can be found in Part I, section E, “Geologic Map Products.”

To expand the range of institutions and individuals that can take part in EDMAP, amongst other reasons, **the NCGMP acknowledges that inter-institutional collaboration may be desirable to complete FY2025 EDMAP projects.** Parameters for such collaborative proposals are described in Part II, section B, “Eligibility.”

A list of funded FY2024 EDMAP projects can be found in Attachment G of this announcement.

For more information about the USGS NCGMP EDMAP Program please visit: [EDMAP | U.S. Geological Survey \(usgs.gov\)](https://www.usgs.gov/edmap) or email EDMAP@usgs.gov.

C. EDMAP Proposals

New in FY2025, continuous project proposals may be submitted for any length of time between 12 and 24 months. Each proposal should show a 1:1 Federal/Institution funding match. Matching funds may include: (1) direct financial match in dollars to cover project expenses; (2) faculty (PI or non-PI) salary or student salary or primary mapper tuition (see limits on using tuition as match later in this document); (3) volunteer services by professional and technical personnel, consultants, or other skilled or unskilled labor if the services are an integral and necessary part of the project; (4) purchased, rented, and/or donated property such as field supplies, laboratory supplies, or office supplies that are justified to support the project (the value of donated property must not exceed the fair market value of the property at the time of the donation); (5) field travel and field accommodations; and (6) sample preparation and sample analysis costs. Costs associated with travel to or registration for professional meetings may not be considered as matching funds. Also, Federal dollars or Federal donations may not be considered as matching funds.

Only one proposal will be accepted from an individual Principal Investigator or PI (Professor or faculty advisor), although more than one proposal can be accepted from a single institution if authored by different PIs. PIs may submit proposals containing multiple sub-projects so long as a different geologic map deliverable is proposed for each project. The PI is required to write and submit the proposal.

For FY2025, proposals must include a detailed cover sheet that outlines the features of the proposal, contact information for the PI(s) and student(s), type of project,

deliverables, and an explanation of the mentored field experience (see “Mandatory EDMAP Proposal Cover Sheet” at the end of this Program Announcement).

For the purposes of the EDMAP Program, the term “detailed map” refers to maps of scales ranging from 1:24,000 to 1:63,360. The term “regional map” refers to maps of scales ranging from 1:250,000 to 1:500,000. The term “intermediate map” refers to maps of scales that are intermediate between a “detailed map” and a “regional map,” as defined herein.

1. Types of EDMAP Proposals

Each Proposed EDMAP Project must fall into one of two categories:

a. *Field-Focused Projects*

Field-Focused Projects are those that generate a geologic map **at a detailed or intermediate scale (between 1:24,000 and <1:250,000)**, displaying specific geological strata or rock units, based on extensive mentored field mapping. The primary emphasis of Field-Focused Projects must be on student mapping in the field, as has been expected through previous EDMAP Program Announcements. In the case of a Field-Focused Project, a map showing the 2D geologic framework must be produced and delivered to both the NCGMP and the State Geological Survey where the mapping was conducted.

b. *Data Synthesis Projects*

Data Synthesis Projects are those that incorporate emerging geologic mapping skills and field experiences to support the evolving need for broadly defined geologic mapping now and in the future. Such projects must generate a geologic map (defined broadly as any map that characterizes the solid Earth and/or its constituents) **at detailed or intermediate** scales by using computational tools or other innovative technologies, such as machine learning, smartphone applications, modeling, remote sensing, drones, etc. (e.g., using machine learning to classify rock types based on remote sensing data).

Data Synthesis Projects could also involve the collection of new data, analysis of preexisting data, or resolution of anomalies in existing datasets so data can be geospatially merged (e.g., mapping critical minerals or hazardous wastes in soils in an urban environment to address specific sources of contamination in runoff), and ultimately produce a geologic map (as defined above). This map must address a scientific or mapping methods problem and must be based on Earth science data. Examples include a map of the physical characteristics or structure of an aquifer to help inform changing groundwater quality, a map generated using remotely sensed data, or map that predicts lithologies and/or structure across a region.

Given the needs of modern geologic mapping, such as digitizing existing paper maps and converting digital maps to the USGS Geologic Map Schema (GeMS) standard schema, the activities proposed under a Data Synthesis Project can take many forms; however, the goal of the project must be training students in geologic mapping. These activities may include the development of targeted geographic information system (GIS) and/or modeling skills needed for 3D mapping, the development of digital applications to assist field mapping, the extraction and processing of data relevant to geologic mapping from third party datasets, and retroactively generating standards-compliant data from legacy mapping products. However, the major focus of a Data Synthesis Project, and the way the deliverables will document student learning related to geologic mapping, must be clearly described in the proposal. All deliverables that document these outcomes must be identified on the “Mandatory EDMAP Proposal Cover Sheet.” In the case of a Data Synthesis Project, the final product must be delivered to both the NCGMP and to the State Geological Survey where the study site is located (if a State Geological Survey exists for that study site).

2. Other Proposal Requirements

All EDMAP proposals must include a mentored field experience focusing on aspects of geologic mapping (for additional information, please contact the EDMAP Program Officer). However, the field experience may be different if proposing a Data Synthesis Project. For example, the mentored field experience could be a guided field trip along transects aimed at understanding regional geology across a province. A proposed project would be considered eligible for Data Synthesis Project funding so long as the **student both learns skills that enable the creation of maps or spatially referenced models that are relevant to Earth science, and ultimately produces a geologic map**. The proposed mentored field experience for Data Synthesis Projects must be identified within the proposal and on the “Mandatory EDMAP Proposal Cover Sheet.”

All proposals must inform and coordinate with the State Geological Survey in the state of the proposed study site. If a proposed study site does not have a State Geological Survey, then please inform and coordinate with a USGS Project Lead that is funded by the National Cooperative Geologic Mapping Program (to obtain contact information for State Geological Surveys, see Attachment E or visit: <http://www.stategeologists.org/> to obtain contact information for NCGMP-funded USGS Project Leads, see Attachment F). A written letter of acknowledgement or support from the State Geologist of the proposed study site (or a USGS Project Lead if the study site does not have a State Geologist) must accompany all proposals (see Proposal Evaluation Criteria, p. 25). 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.

D. Funding Request Limits

EDMAP allows funding requests of up to \$45,000 PER 12 MONTHS (maximum request = \$90,000 for 24 months) for each graduate student primary mapper/analyst and up to \$25,000 PER 12 MONTHS (maximum request = \$50,000 for 24 months) for each undergraduate primary mapper/analyst. Each primary student mapper must generate their own geologic map.

A primary mapper/analyst is defined as the lead student on an individual project; this person is responsible for producing the first-authored geologic map required at the end of the project. Assistant geologic mappers/analysts are encouraged, but costs for assistants are included in the overall request per primary mapper/analyst (for example, for one undergraduate primary mapper/analyst and two field assistants, the total request is still limited to \$50,000 for 24 months). A proposal may request funding for multiple primary mappers/analysts (for example, one undergraduate primary mapper and one graduate primary mapper for a total request not to exceed \$140,000 over 24 months), however, each primary mapper/analyst is responsible for a separate first-authored map (two map deliverables are required in this case). For any questions regarding request amount limits per student, please contact the EDMAP Program Officer at EDMAP@usgs.gov.

E. Geologic Map Products

Statements below addressing the characteristics of geologic maps within EDMAP are generally applicable to all products, including those generated through Data Synthesis Projects.

The EDMAP definition of a 2D geologic map created by a Field-Focused Project is a robust material-properties-based framework of geological units and features that can be interpreted into various customized and user-friendly derivative map products. At minimum, the 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 institution 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; and (9) unit symbols on map. All maps submitted under EDMAP also must show the bounding coordinates in degrees-minutes-seconds (DMS)

notation or decimal degrees notation. If a submitted map does not include these minimum criteria, then it will be returned.

A geologic map may also include correlation or sequence of map units, stratigraphic columns, cross sections, other down-hole or 3D 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.

The EDMAP definition of a geologic map in the case of a Data Synthesis Project is defined broadly as any map that characterizes the solid Earth and/or its constituents. At a minimum (if applicable), the geologic map should include: (1) a clear map projection; (2) scale (fractional and bar); (3) north arrow and magnetic declination; (4) title, authorship, publisher (or the institution that carried out the mapping), and date; (5) field data or field data stations, if field data were collected; (6) description of relevant discrete or continuous map units; (7) explanation of map symbols; and (8) unit symbols on map. Again, if a submitted map does not include these minimum criteria, then it will be returned.

In the case of both Field-Focused and Data Synthesis Projects, deliverable geologic maps will consist of data acquired and/or originally analyzed during the award period and mapped at a scale deemed appropriate for the geologic problem being addressed. However, proposed maps must be at either detailed or intermediate scale.

Students should learn techniques of mapping with emphasis on the development of new maps and/or new mapping methodologies. PIs must plan mapping projects in coordination with other FEDMAP or STATEMAP mapping projects in the field area, because NCGMP will not fund two maps of the same area of equitable scale or of similar purpose. All EDMAP deliverable maps are required to be submitted as high quality digital Portable Document Format (PDF) files that address the minimum requirements for map components and notation as described above. Any GIS or desktop-publishing files developed during the preparation of the PDF should be included in the deliverable. Please coordinate deliverable submission with the NCGMP office if producing a product that is not listed here (e.g., a Data Synthesis deliverable). At the end of an awarded Cooperative Agreement period of performance, EDMAP deliverables must be delivered to the NCGMP Program Office and delivered to the State Geological Survey where the study site is located (if there is a State Geological Survey for that study site).

Student maps and other products are a significant component of the NCGMP, therefore, all EDMAP deliverables will be posted to the NGMDB website (<http://ngmdb.usgs.gov/>) Current 'Mapping in Progress' EDMAP projects can be found at <https://ngmdb.usgs.gov/mip/>. In addition to the generated products, the NCGMP 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 deliverable posted to the NGMDB website, then please indicate that to the NCGMP in your transmittal letter when you submit your deliverable. Unless otherwise indicated, your student's deliverable will be uploaded to the website with a disclaimer watermark identifying it as an unpublished EDMAP deliverable. It is strongly recommended that you work with your partnering State Geological Survey toward publication of your student's deliverable(s), as applicable. The partnering State Geological Survey may apply for funds to assist with the publication process via the STATEMAP Program.

To assist the student and PI 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.

NCGMP has adopted GeMS as the standard to be used for all NCGMP-funded map products produced by the USGS and State Geological Surveys. **Proposals including training in and the production of a GeMS database will be prioritized over proposals that do not include training in and submission of a GeMS database.** Additional resources on GeMS can be found at <https://ngmdb.usgs.gov/Info/standards/GeMS/>.

Geospatial Data Requirements

If you receive financial assistance from the Department of the Interior (DOI), you must follow these rules for geospatial data:

Follow Federal Standards: All geospatial data you collect or create must meet the standards set by the Federal Geospatial Data Committee (FGDC) or the Department of the Interior. This is required by the Geospatial Data Act of 2018, which is part of Public Law 115-254, specifically in Subtitle F (Geospatial Data), sections 751-759C (codified at 43 U.S.C. §§ 2801–2811).

Include Metadata: Your Geographic Information Systems (GIS) files must include complete metadata. Metadata is information that describes the data, such as where it came from, how accurate it is, and how it should be used. This is to ensure that anyone using the data understands its context and quality.

Check for Existing Data: Before you start collecting new geospatial data, you need to check GeoPlatform.gov. This is to see if there is already existing geospatial data from federal, state, local, or private sources that can meet your needs and is available for free. If such data is available, you should use it instead of gathering new data.

These rules help ensure that geospatial data is reliable, high-quality, and that resources are used efficiently.

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

A. Timetables

Program Announcement Date: October 01, 2024

Closing Date and Time for Proposal Submission: Tuesday, January 14, 2025 @ 5:00 p.m. (EST)

B. Eligibility - Who May Submit a Proposal

EDMAP is restricted to U.S. Universities with geoscience or related departments or programs (for more information on whether your institution is eligible to submit an EDMAP proposal, contact the EDMAP Program Officer). University professors (**including adjunct professors**) must write and submit the proposals; the supported student(s) must not write the proposal. EDMAP Cooperative Agreements are intended to fund graduate (Master's and Doctoral) students and/or upper level (junior and senior) undergraduate students. Graduate and undergraduate students must have received appropriate geoscience or related training prior to the time that they begin the proposed project.

EDMAP cooperative agreements do not support faculty/PI salaries; **however, EDMAP agreements can support primary student tuition and research assistantships. Starting in FY2025, up to 50% of your total proposed request may be used for primary student mapper tuition. Additionally, primary student mapper tuition may comprise no more than 50% of your proposed match.**

The bulk of the award is intended to support the student's proposed efforts (field work and/or synthesis work, tuition, salary/research assistantship). No faculty salary is allowed, although the PI may ask for minor logistical financial support (e.g., travel funds) to mentor the student(s) in the field for a credible amount of time. Most of the budget request should go toward student support. Any support investigations (e.g., drilling and analytical services) or other purchased assets should be limited to less than 20 percent of the overall project budget.

Proposals may involve collaborations between more than one institution. In such cases, the proposal must describe how the collaboration enhances the ability of the collaborating institutions to meet eligibility requirements. A co-PI must be named for each institution, and all PIs and co-PIs (all of whom are considered "PIs" within this program announcement) share equally in the responsibility for the completion of the project. One PI must be named on the proposal as the point of contact for NCGMP communication, preferably the academic advisor of the funded student. Funding will be received by the PI's institution only and can be

dispersed to other institutions via inter-institutional agreements. NCGMP will not engage in inter-institutional agreements, nor participate in enacting their provisions.

Additionally, a specific PI may have no more than TWO active, non-delinquent EDMAP Awards at any given time. Failure to submit deliverables in a timely manner may be grounds for ineligibility. PIs that have been previously funded under EDMAP must comply with the requirements specified in previous EDMAP awards, must be in good standing (i.e., no delinquent deliverables still pending on a previous award without a Program-approved extension), and have fewer than two active EDMAP Projects to be eligible for EDMAP funding in FY2025. Failure to meet previous award requirements will be grounds for ineligibility.

1. Student Eligibility

Although EDMAP proposals are accepted for up to 24 months of funding, a primary student may be supported by no more than 36 months of EDMAP funding. Students may be funded on two consecutive EDMAP awards, or a student may be supported by an EDMAP award from two different institutions, degrees, or PIs. However, the student is only eligible for 36 months of cumulative funding. The PI must indicate on the “Mandatory EDMAP Proposal Cover Sheet” if the student has been supported by any prior EDMAP 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 PDF file.

All proposals must include the following documents:

1. Standard Form 424 (SF-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/Institution 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: A copy of the University's negotiated indirect cost rate agreement is required if requesting indirect costs. Per the program authority for EDMAP, indirect costs are capped at 18%. Please note that in the absence of a negotiated indirect cost rate agreement, the maximum indirect rate that may be charged is the de minimus rate (see 2 CFR 200.414(f)).
5. Support letter from study-site State Geologist (or USGS Project Lead if there is no State Geologist for the study site): A letter of acknowledgement or support is mandatory. This must come from the State Geologist (or head of the State Geological Survey geologic mapping program) in the state where the study site is located. If the study site does not have a State Geologist, then a letter of support from an NCGMP-funded USGS Project Lead working in that area is sufficient. It is highly recommended that discussions occur with the State Geologist/State Survey or the USGS Project Lead prior to the request for a letter of support. Informing them of your proposed field mapping and/or research project is of benefit to everyone. If other organizations are supporting your proposed project, then additional letters of support are welcome. See Attachments D and E for State and USGS contacts. For questions related to coordination with USGS Project Leads and/or State Geologists, please contact the EDMAP Program Officer.
6. Mandatory EDMAP Proposal Cover Sheet: **Please be mindful of the formatting requirements and changes to the Cover Sheet in FY2025.**
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 can be far more beneficial than text, and the Proposal Evaluation Panel has many proposals to read. The 10-page limit includes all text, figures, references, and personnel information. Letter(s) of support, attachments, budget sheets, and data management plan are not included in the 10-page limit. The technical section of the proposal must include 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) a statement that identifies the state and quadrangle or areas that will be mapped or otherwise addressed through mapping-related activities. Please describe clearly and concisely what you propose to do in your project. Do not include personal information.
 - b. **Introduction.** The introduction should be a brief description of the problem and background. Reference should be made to any earlier geologic mapping, or geologic mapping going on nearby at present. If the PI has received prior EDMAP

funding in recent years, then please include a discussion of previous projects, results, impacts of previous results, and if/how this work relates to the work being proposed. 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.** The proposed study area must be located within the United States and (or) U.S. Territories. 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 the geography of the proposed field area. If the footprint of the proposed work includes Tribal Nation lands, please indicate the name(s) of the Tribal Nation(s) and provide the following details: (1) whether physical access to Tribal Nation land(s) is desired and if so, the land area designation/name, (2) whether or not the proposed activity would include soil disturbance (e.g., sample collection) on or near Tribal Nation lands, and (3) details on pre-coordination, request for access, or other communication with Tribal Nations on the proposed project (if applicable).

d. **Purpose and Justification.** This section should answer the following simple, but important questions: Why are you doing this project? What scientific questions are you addressing? What benefits will society receive from the mapping? If you have previously proposed similar research, then please convey how the current proposal is related to this other research and how the current proposal is different from this other research.

e. **Strategy for Performing the Project.** This section should explain how your student will achieve the scientific results presented in the previous section through geologic mapping or other activities related to geologic mapping. If multiple students are involved, then please be specific about the roles and individual projects and deliverables of each student. A short discussion about the digital cartography and GIS component related to the project is also beneficial. If the objectives can only be accomplished with the support of drilling, or other analytical services such as geochronology or geochemistry, or through the purchase of third-party assets (e.g., datasets), then please describe these activities here. Keep in mind that most of the budget request should go toward support of the student, and that any additional support investigations (drilling and analytical services) or other purchased assets 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 the proposal

can be a clear and concise way of conveying this information. Explain how much time the PI/faculty advisor will spend directly engaged with the student(s) and what their specific role(s) will be. Clearly discuss how the PI/faculty advisor will mentor the student(s) before, during, and after the field experience. If the student mappers have 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 who might have less experience with geologic mapping. If the PI plans to be closely engaged with the student(s) throughout the project (e.g., in the field with the student mapper for the entire duration of the mapping project), then please explain how the student(s) will gain independent experience with the techniques being learned. If applicable, explain how the PI will mentor any field assistants, and explain exactly what the assistant(s) role(s) will be. State where there will be any student interaction with or mentorship from State Geological Survey staff or USGS scientists. The NCGMP considers project review by USGS and State Geological Survey partners to be an important part of EDMAP Projects, and thus sharing the project plan with these partners is beneficial. **Proposals must include a discussion of field safety as part of the overall mentoring plan.** NCGMP strongly encourages geologic mapping projects to utilize a buddy system approach to promote safe field practices.

g. **Deliverables.** Please provide a list of all deliverables. If maps are produced by the project, then they must be submitted (with accompanying technical reports) by quadrangle, portion of quadrangle, or study area (indicate bounding coordinates). Keep in mind that the primary student mapper will be the first author of the deliverables, whereas other students (e.g., mapping assistants) will be secondary authors or acknowledged on the deliverable. 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, when possible, are required to be delivered as high-quality digital PDF files. See Part IV, Section F for more information about Project Deliverables. A final report (can be the student's thesis) and a transmittal letter should be submitted as deliverables with the geologic map(s). Deliverables must be submitted both to the NCGMP Office and to the State Geological Survey where the study site is located (if a State Geological Survey exists for that study site).

h. **Project Personnel.** Proposed personnel must include the name of the PI, other supervising professor(s), and student(s). Clearly list the primary student mapper(s)/analyst(s) and any students that will be assistants. A short biography of each person 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 if sufficient biographical information is provided. The PI should include information about the student's prior geologic educational experience (e.g., field camp, analysis projects, or other mapping projects), and any course work that would help significantly in the project. The PI and other supervising professors should include teaching experience relevant to the proposed project.

For projects that include inter-institutional collaborations, please include the expected contribution and relevant background of each PI, co-PI, and all other faculty serving in a defined role. It is important that the proposal make it clear that the combined skills and knowledge of the faculty team warrant a collaborative approach to the project. Be sure to identify which faculty member is the point of contact for the NCGMP, and please note that the point of contact must be a faculty member (either faculty or adjunct faculty) at the lead institution (i.e., the institution submitting the proposal and receiving payments).

NOTE: Because the timing of proposal submission comes soon after the beginning of the school year, NCGMP understands that it is sometimes difficult to identify the student(s) who will undertake some kinds of projects, especially in the case of new graduate students. Proposals submitted that do not identify the actual students who will do the project are allowed, however, the name, contact information, and biography/qualifications of ALL students involved in the project (e.g., primary mapper(s)/analyst(s) and assistants) must be submitted to the USGS before the Office of Acquisition and Grants formally issues the cooperative agreement. This scenario should give professors several extra months to identify students to undertake the project. It is preferred that most students will be identified in the original proposals (but identification of students is not part of the proposal review criteria). Finally, even if the name and background information of each student is not included in the proposal, the proposal must specify whether each student is an undergraduate, a master's, or a Doctoral student, and must include the minimal educational requirements and qualifications for each 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 to perform a similar project from other institutions, then these requests should be listed.

j. **Budget explanation and justification.** It is important that the Proposal Evaluation Panel understands the proposed budget 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 the 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"), if the statement is accompanied by a clear justification. This supplementary document (DMP) may include:

- the types of data, samples, physical collections, software, curriculum materials, and other materials to be produced during the project;
- the standards to be used for data and metadata format and content (if existing standards are absent or deemed inadequate, then this situation should be documented along with any proposed solutions or remedies);
- policies for access and sharing to include provisions for appropriate protection of privacy, confidentiality, security, intellectual property, or other rights or requirements; and
- 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://www.usgs.gov/data-management/data-management-plans>

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 that of another student, then it may be useful to submit separate, individual budget sheets. Please 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, then 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/institution 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 proposing institution, then please include a letter from that organization as evidence.

PLEASE READ EACH CATEGORY DESCRIPTION BELOW AND PROVIDE THE DETAILED BREAKDOWN THAT IS REQUIRED FOR EACH. THIS EFFORT WILL

HELP AVOID POSSIBLE DELAYS IN PROCESSING A FUNDED PROPOSAL,
BECAUSE AN AWARD WILL NOT BE ISSUED UNTIL ALL REQUIRED
INFORMATION IS PROVIDED.

The budget should contain the following:

a. Personnel/Salaries and/or Tuition. Include all students (list number of students, salary rate, tuition rate (if requesting or matching with tuition), 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 project. No faculty salary is allowed (but faculty salary may be used as match). In collaborative proposals that involve more than one student, if the students are from different institutions, then it is permissible to use different salary levels, but must be justified in a manner that demonstrates that any differential remains equitable. As a reminder, no more than 50% of the request may be for primary student mapper tuition, and no more than 50% of the match may be primary student mapper tuition. Tuition for mapping assistants is not an authorized request or match.

Request for tuition remission must be accompanied with a breakdown of costs supported by the institutions tuition rate. For example: \$4,490 is requested to support tuition remission for the graduate student primary mapper as follows: Tuition \$205 per credit (9 credits per semester for a total of \$1,845), Technology and Maintenance Fees \$300, Laboratory fees \$100. Total per semester \$2,245. Total per academic year (2 semesters, full time MS student) = \$4,490.

b. Fringe Benefits. Propose rates/amounts of any fringe benefits. If rates are audit approved, then include a copy of the audit agreement and/or the name of the audit agency. In collaborative proposals that involve more than one student, if the students are from different institutions, then it is permissible to use different fringe benefit levels, but these different levels must be justified in a manner that demonstrates any differential remains equitable. Audit approval documentation should be provided for each institution.

c. Travel. 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).

d. Supplies. 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 that the capital equipment is directly related and essential to the project, and that the cost is prorated for project use. **Field tablets are an allowable supply expense if the price per unit does not exceed \$5,000.** Please itemize supplies such as base maps, aerial photographs, petrographic thin sections, film, datasets, and other expendable field and office supplies.

e. Contractual. List any contractual services and a breakdown of any associated costs. Sub-awards should be listed as a single line in this category.

f. Other Direct Costs. Drilling and analytical laboratory (e.g., geochemistry, geochronology, geophysics) expenses are to be capped to less than 20 percent of the total proposal costs. Please note that Federal EDMAP funds are prohibited from being used to fund analytical work at any Federal facility (although matching funds are allowed for such analytical work at a Federal facility).

g. Non-allowable Expenses.

i. Teaching assistantships. Federal EDMAP funds are not intended for teaching assistantship salaries, nor can they be used as matching funds. EDMAP funds may be used to support student research assistantships if the student is working exclusively on the EDMAP project.

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

iii. Software. Software licenses and maintenance contracts are non-allowable expenses (Federal or Institution match) if the proposed project is a Field-Focused Project. However, **software is an allowable expense if the proposed project is a Data Synthesis Project and the software purchase is justified and prorated.**

iv. 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 university/department/institution overhead expenses. These items should be covered by indirect costs.

h. Total Direct Charges. Total for items a – e. Total direct charges MUST have a 1:1 Federal/Proposing Institution match. Failure to do so will result in

automatic ineligibility and the proposal will not be further evaluated. The match side may be higher, but it must meet the 1:1 match requirement. In collaborative proposals, partial match from each institution is allowed if the total match adheres to the 1:1 threshold. **Note that indirect costs cannot be applied to any requested or matched funds for primary mapper tuition; please ensure any indirect costs calculations apply to all direct costs less any tuition.**

- i. **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 2021 Reauthorization of the National Geologic Mapping Act (Public Law 117-58, Section 40202) states that the USGS and recipients of EDMAP grants shall not use more than 15.25% of Federal funds to pay indirect, servicing, or program management charges (which is equivalent to 18% of total direct costs). In collaborative proposals, different rates and amounts are allowed based on the direct costs to be received by each institution. A copy of the Indirect Negotiated Cost Rate must be included for each institution claiming indirect charges. **Note that indirect costs cannot be applied to any requested or matched funds for primary mapper tuition; please ensure any indirect costs calculations apply to all direct costs less any tuition.**
- j. **Matching Funds.** Regardless of the Proposing Institution's federally negotiated indirect cost rate, a Proposing Institution must show a 1:1 match of the total direct costs and no more than 18% on the Federal indirect costs line. Up to 18% of a Proposing Institution's total direct costs may be used as a Proposing Institution match on the Proposing Institution indirect cost line. If a Proposing Institution chooses (or is required) to show a higher than 18% rate on the Proposing Institution's indirect cost line, then this rate can be listed under "uncollected indirect costs" on the University/proposing Institution side, and the result will be a higher Proposing Institution budget total than the Federal budget total - **however, any "uncollected indirect costs" cannot be claimed as additional University match.** If the Proposing Institution approved rate is less than 18%, then the approved rate must be used. These stipulations also apply to subawards. If a subaward is issued for a portion of a project, then the same rules apply to the 18% cap for indirect costs on the federal side. **In collaborative proposals, partial match from each institution is allowed so long as the total reaches the 1:1 threshold.**

NOTICE OF MATCH AMOUNT – Please note that in accordance with the Program Announcement, a 1:1 match is required. If the recipient chooses to provide an over match (i.e., exceeding the 1:1 match requirement), then it is at the recipient’s discretion. However, *by doing so the recipient 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 the chance of receiving an award.**

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

- (i) A 1:1 Federal/Proposing Institution match is required for “TOTAL DIRECT COSTS” (salaries, fringe benefits, field expenses, miscellaneous supplies, tuition costs if requested) **Note that tuition costs can be counted as “total direct costs” to meet match requirements but cannot be included in indirect cost calculations.
- (ii) A 1:1 Federal/Proposing Institution 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 evaluated.

Examples of allowable match include the following:

- (i) Salary and/or tuition: Faculty, student, Research Assistants (RAs), field assistants. Primary student mapper(s) tuition used as match may not exceed 50% of total proposed match.
- (ii) In-kind support: For example, the time a co-advisor from outside the institution spends with the primary student or the 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, other expenses related to Data Synthesis Project proposals.

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

- j. Total. FOR FIELD-FOCUSED AND DATA SYNTHESIS PROJECTS, NOT TO EXCEED \$45,000 FOR EACH PRIMARY GRADUATE STUDENT PER 12 MONTHS (\$90,000 maximum for 24 months) AND \$25,000 FOR EACH PRIMARY UNDERGRADUATE STUDENT PER 12 MONTHS (\$50,000

maximum for 24 months). PLEASE NOTE THAT THE ABOVE COST CATEGORIES (Direct and Indirect Charges) MUST BE BROKEN DOWN AS DESCRIBED ABOVE.

10. Project Abstract Summary, Attachment C: Project Abstract Summary is a required element of a proposal submission. Please follow the format outlined on Attachment C.

D. Proposal Evaluation

EDMAP proposals will be reviewed by an eight-member panel in March. Four (4) members will be professors that were previously awarded an EDMAP grant. 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 a three-year term. 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 originates from their university/institution, or for which other potential conflicts of interest are recognized.

1. Evaluation Criteria.

All proposals will be evaluated 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 PIs in the decision letters.

COORDINATION (10 Points)

- Is there a Letter of Support from State Geologist of study site, or from appropriate USGS FEDMAP Project Lead if study site does not have a State Geological Survey?
- Is the degree of coordination with State Geological Survey and/or FEDMAP mapping goals strong?
- Are geologists from other organizations included?

JUSTIFICATION (25 points)

- Does the project address significant science questions?
- Does the project address problems of societal value?
- Is the primary goal of the project to produce a geologic map? Is the project also producing a GeMS database of the geologic map?
- Is the proposed project well justified and does it contribute to relevant Department of the Interior and USGS scientific goals?

TECHNICAL QUALITY (25 points)

- Is the proposal well written and concise?
- Has the primary student(s) been identified, and is/are this/these student(s) capable of accomplishing the work?
- Can the student(s) accomplish the work in the time allowed?
- For surface mapping, is light detection and ranging, or LiDAR, to be used in the mapping process; or for subsurface mapping projects, are appropriate data sources to be used?
- Does the proposed work involve any of the following data, as appropriate for the study site: geochronology data, geochemistry data, well/core data, soil data?

MENTORSHIP (20 points)

- Is mapping strategy focused on student skills?
- Will faculty spend adequate time mentoring?
- Does proposal describe mentoring activities before, during, and after field work activities?
- Does the proposal describe the degree of communication between PI and student?
- Is there a mentorship plan for assistant mappers?

BUDGET (20 points)

- Is the budget proportional to effort required?
- Are costs reasonable relative to results?
- Are matching funds accounted for and appropriate?
- Are student salary and/or Research Assistantship (RA) funds reasonable?
- Is primary student tuition less than 50% of request and/or match?
- Is faculty support reasonable and modest?
- Is the budget well-itemized and justified?

PART III. Proposal Delivery and Submission Instructions

Applicants/PIs are responsible for the proposal to be electronically submitted into GRANTS.GOV (www.grants.gov) by January 14, 2025 @ 5:00 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 because 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, and the applicant will be notified immediately.

All Federal grant programs are required to use GRANTS.GOV to advertise program announcements. Any form that is not available online may be submitted as an attachment 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, the recipient organization agrees to abide by the provisions of the NCGMP, namely the Infrastructure and Jobs Investment Act (Public Law 117-58, Section 40202).

By accepting Federal assistance, the recipient organization agrees to abide by U.S. Government policy and regulation as it relates to Federally recognized Tribal Nations. Additionally, by accepting Federal assistance, the recipient is required to determine if and report when proposed activities will occur on or near Federally recognized Tribal Nation trust or ceded land, and/or when a new data product is proposed that will cover any portion of Tribal Nation trust or ceded land.

B. Office of Management and Budget (OMB) Circulars

By accepting Federal assistance, the recipient organization agrees to abide by the applicable Office of Management and Budget (OMB) Circulars in the expenditure of Federal funds and performance under this program. Copies of these Circulars can be obtained from the Internet at: <https://www.whitehouse.gov/omb/information-for-agencies/circulars/#financial>.

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 because of this assistance award in any manner and for any purpose, without limitation, and may authorize others to do the same. The EDMAP 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

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

Regarding data collected on or over Tribal Nation lands, related publications should be protected and sanitized as necessary to safeguard and prevent from release any data that a Tribal Nation has identified as proprietary or culturally sensitive. Data acquired concerning federally recognized Tribal Nation lands may not be published if a Tribal Nation deems the data/findings as sensitive or protected, and objects in writing to its public release. All other project area data outside of sensitive, protected information Tribal Nation land boundaries may be published. The USGS may use restricted data internally and/or provide a copy of the restricted data to federal agencies for their internal use.

2. A copy of each map with all accompanying explanatory information shall be submitted to the EDMAP 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 EDMAP Project Officer immediately following publication. One reprint should also be sent to the State Geological Survey for the study site.

3. Program credit. All geologic maps or other deliverables 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/Institution 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/proposing institution contribution must be listed in the proposal. The matching requirement must be met. If other non-Federal funds are used as match, then a letter or item of evidence should be included with the proposal to support these funds.
2. Matching funds may include: (1) direct financial match in dollars to cover project expenses; (2) faculty (PI or non-PI) salary or student salary or primary mapper tuition (see limits on using tuition as match later in this document); (3) volunteer services by professional and technical personnel, consultants, or other skilled or unskilled labor if the services are an integral and necessary part of the project; (4) purchased, rented, and/or donated property such as field supplies, laboratory supplies, or office supplies that are justified to support the project (the value of donated property must not exceed the fair market value of the property at the time of the donation); (5) field travel and field accommodations; and (6) sample preparation and sample analysis costs. Costs associated with travel to or registration for professional meetings may not be considered as matching funds. Also, Federal dollars or Federal donations may not be considered as matching funds.
3. USGS funds cannot be used for the purchase of equipment.
4. Funds for the FY2025 NCGMP, 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 fringe, and

travel/field support). The PI may apply for EDMAP funds for the same student (a student is eligible for a total of 36 months of EDMAP funds). Funding for the first proposal does not guarantee funding for a second proposal. It is anticipated that awards will be issued during the spring of 2025; therefore, you should plan project start dates between May 1, 2025 and September 15, 2025.

5. If a university has been awarded a cooperative agreement for several students, and one or more of those students is/are unable for any reason to fulfill their geologic mapping project, then those funds awarded to the student(s) must be forfeited and cannot be reallocated to the remaining students doing mapping at that institution.
6. 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 PI in writing. Asking for a 90 day no-cost extension in no way jeopardizes the success of a future proposal. **However, if a PI asks for a no-cost extension, then the extension cannot extend past March 1st of the next calendar year.** In rare situations where an extension is needed beyond March 1 of the next year, the PI may be penalized in subsequent EDMAP Proposal Panel Reviews for violating no cost extension requirements. Additionally, a PI may have no more than TWO active EDMAP awards at any given time and is ineligible for future EDMAP awards if deliverables are delinquent.

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. However, pre-agreement costs may be considered and approved on a case-by-case basis. Approval must be requested and granted prior to incurring any expenses. Written approval must be given by the USGS Office of Acquisitions and Grants. Once the cooperative agreement for a successful proposal has been approved and released through GrantSolutions by the USGS Contracting Officer, the proposing institution may incur costs.

F. Project Deliverables

All deliverables (e.g., transmittal letter, technical report, geologic map) must be sent to the EDMAP Program Officer (edmap@usgs.gov) and to the State Geological Survey where the study site is located (if a State Geological Survey exists for that study site) no later than 90 days after the end of the performance period. All geologic maps, other potential deliverables under Data Synthesis Projects, and accompanying technical reports must include all student

author 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 high-quality digital PDF files. For Data Synthesis Project deliverables that may not be easily converted to a PDF, please describe the anticipated file formats in your project proposal. When the transmittal letter, technical deliverables, and accompanying technical report are submitted to the EDMAP Program Officer, a copy should be sent to the State Geological Survey for the study site and/or USGS Project Lead. The Program will notify PIs about the delivery method closer to the project end date.

G. Statement about Derogatory Terms in Stratigraphy

The NCGMP wishes to avoid the use of any derogatory terms that might appear on geologic maps (e.g., Secretarial Order 3404; <https://www.doi.gov/sites/doi.gov/files/elips/documents/so-3404-508.pdf>). If the name of a stratigraphic unit contains a derogatory term, then EDMAP funding recipients are encouraged to follow steps outlined in the North American Code of Stratigraphic Nomenclature (https://ngmdb.usgs.gov/Geolex/resources/docs/NACSN_Code_2021.pdf) to abandon the derogatory term and to enact a formal change to a new term in the stratigraphic nomenclature. Possible venues for publishing such changes in stratigraphic nomenclature include the USGS “Stratigraphic Notes” publication series (https://ngmdb.usgs.gov/Geolex/stratres/strat_notes) or other peer-reviewed scientific journals. As stipulated in the North American Code of Stratigraphic Nomenclature, the following venues are inadequate for enacting a formal change in stratigraphic nomenclature: maps, theses, dissertations, open-file reports, meeting abstracts, or guidebooks with limited distribution.

Point of Contact for all EDMAP related questions or inquiries:

EDMAP Program Officer

U.S. Geological Survey

Attn: Jenna Shelton

908 National Center

12201 Sunrise Valley Drive

Reston, Virginia 20192

Email: jlshelton@usgs.gov

EDMAP@usgs.gov

-- END OF PROGRAM ANNOUNCEMENT --

ATTACHMENT A
USE THE FOLLOWING FORMAT

Mandatory EDMAP Proposal Cover Sheet

(University/Proposing Institution, City & State)

(Collaborating Institution(s), City & State)

1. PROPOSED PROJECT TITLE: _____

2. PRINCIPAL INVESTIGATOR(s):

Name: _____

Address: _____

Phone: _____

E-mail: _____

Name: _____

Address: _____

Phone: _____

E-mail: _____

STUDENT NAME(s)/DEGREE PROGRAM/UNIVERSITY or COLLEGE:

Student Name and E-mail Address _____

Student Degree Program and University: _____

3. AUTHORIZED UNIVERSITY REPRESENTATIVE

Name: _____

Address: _____

Phone: _____

E-mail: _____

4. LIST OF DELIVERABLE(S) AND EXPECTED FORMAT. PLEASE INCLUDE
BOUNDING COORDINATES (IN DMS) OF ANY PRODUCED MAP(S):

5. NAME OF CONTACT/COOPERATOR AT EITHER A STATE GEOLOGICAL SURVEY OR USGS:

Name and E-mail Address: _____

6. HAS ANY STUDENT ON THIS PROPOSAL RECEIVED PREVIOUS EDMAP SUPPORT: YES / NO If yes, provide Award Number: _____

7. TYPE OF PROJECT PROPOSED?

Field-Focused Project OR Data Synthesis Project

If proposing a Data Synthesis Project, please describe the mentored field experience and how it will teach the student(s) geologic mapping skills.

8. PLEASE DESCRIBE THE PURPOSE OF THE RESEARCH PROJECT:

10. DOES THE STUDY AREA INCLUDE TRIBAL NATION LANDS (INCLUDING CEDED LANDS)? : YES / NO / UNSURE

Name(s) of Tribal Nation Lands if Yes: _____

PROPOSED PROJECT START DATE: MM/DD/YYYY

PROPOSED PROJECT END DATE: MM/DD/YYYY

PROPOSED FUNDING REQUEST: \$_____

PROPOSED INSTITUTION MATCH: \$_____

ATTACHMENT B
EDMAP - ENTIRE PROPOSAL BUDGET
 (Examples provided in blue, please delete when using template)

Proposed Total Budget: _____

(Must not exceed \$90,000 per graduate (\$45,000 per 12 months) and/or \$50,000 per undergraduate (\$25,000 per 12 months))

University/Proposing Institution: _____

Proposal Title: _____

Salary and Tuition				
Personnel	Rate	Time or % effort	USGS Funds	Recipient Matching
Jane Doe, Faculty Supervisor	\$35/hour	360 hours	\$0.00	\$12,600.00
PhD Student, Primary Mapper	\$20/hour	1000 hours	\$20,000.00	\$0.00
Total			\$	\$

Fringe			
Personnel	Fringe Rate	USGS Funds	Recipient Matching
Jane Doe, Faculty Supervisor	40.20%	\$0.00	\$5,065.20
PhD Student, Primary Mapper	15%	\$3,000.00	\$0.00
Total		\$	\$

Travel				
Expense	Rate	Quantity	USGS Funds	Recipient Matching
Lodging	\$109/night	6 nights	\$654.00	\$0.00
Total			\$	\$

Supplies				
Expense	Rate	Quantity	USGS Funds	Recipient Matching
Thin Sections (not thin section analysis)	\$25/each	70	\$1000.00	\$750.00
Topographic Maps				
Sample Bags				
Total			\$	\$

Contractual (includes subawards)				
Expense	Rate	Quantity	USGS Funds	Recipient Matching
*University of Geology (subaward)	--	--	\$50,000.00	\$0.00
Total			\$	\$

Sub-awards should be listed as a single line item in the “Contractual” category. A separate budget sheet is required for each subaward and should be attached with the main recipient’s proposal.

Other Direct Costs				
Expense	Rate	Quantity	USGS Funds	Recipient Matching
Geoprobe Drilling	\$1,200/day	3 days	\$3,000.00	\$600.00
Sample Analytics (name sample type)	\$45/sample	10 samples	\$4,500.00	\$0.00
Total			\$	\$

Direct/ Indirect Costs	Rate	USGS Funds	Recipient Matching
Total Direct Costs	--	\$50,000.00	\$50,000.00
Indirect Cost (not to exceed 18%) *applied to Total Direct Costs LESS Tuition	18%	\$9,000.00	\$9,000.00
Total		\$59,000.00	\$59,000.00
Uncollected Indirect Costs (if applicable)		--	\$9,000
Total Project Cost		\$127,000.00	

ATTACHMENT C
PROJECT ABSTRACT SUMMARY

Note: Project Abstract Summary character limit is 1 page or less (no more than ~4000 characters) and use of 12 pt. font and Times New Roman is recommended. Project Abstract Summary is to be submitted with Proposal Revisions. If revisions are not required, then Project Abstract Summary should be submitted after notification of Award amount.

Proposal Title:

Project Period: XX/XX/2024 – XX/XX/202X

Purpose

(Include a plain language description of Award purpose (avoid acronyms or Federal or agency-specific terminology)

Activities

(Describe Activities to be performed under proposed project)

Deliverables and Outcomes

(List proposed project deliverables and the expected outcomes of this work)

Intended Beneficiary(ies)

(Detail communities, agencies, priorities, etc. that will benefit from the expected outcomes)

Subrecipient activities

(e.g., sub-contractors, if known)

ATTACHMENT D

TERMS AND CONDITIONS

THE EDUCATION COMPONENT OF THE NATIONAL

COOPERATIVE GEOLOGIC MAPPING PROGRAM (EDMAP)

OFFER AND ACCEPTANCE:

The United States of America, acting by and through the U.S. Geological Survey (USGS), hereby offers a Cooperative Agreement to the Recipient (see page 1, block 9a. titled *Grantee Name and Address*) which will be identified as the “recipient” throughout the remainder of this document.

Acceptance of a federal financial assistance award from the Department of the Interior (DOI) carries with it the responsibility to be aware of and comply with the terms and conditions of the award. Acceptance is defined as the start of work, drawing down funds, or accepting the award by signature or electronic means. Awards are based on the application submitted to and approved by DOI and are subject to the terms and conditions incorporated either directly or by reference below.

SECTION A – PROJECT DESCRIPTION

A.1 Project Description

As the education component of the National Cooperative Geologic Mapping Program (NCGMP), EDMAP carries out the NCGMP mission and addresses Department of the Interior Secretarial priorities by training students in skills needed for geologic mapping. Geologic mapping training supported by EDMAP provides the foundational capacity to capture the geologic framework information necessary to manage the land and water resources of the Nation, adapt to changes in the environment, and secure the Nation. The NCGMP supports the fulfillment of the federal trust responsibility to Tribal Nations by recognizing their sovereignty and responding to the science needs expressed by Tribal communities. The Program works closely with State and academic partners to ensure Tribal Nations are appropriately notified of NCGMP supported geologic mapping activities inclusive of Tribal Nation land. 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.

A.2 USGS Involvement

Substantial involvement is anticipated through the terms of this agreement between the USGS and the recipient. USGS involvement will be in the form of collaboration and joint participation.

SECTION B – FUNDING AND AWARD PERIODS

B.1 Funding

- a) The total estimated cost of the USGS share for the performance of this agreement is located on page 1, block 13 titled *Total Federal Funds Awarded to Date for Project Period*, and is inclusive of any renewal years.
- b) The amount of federal funds obligated under this agreement shall be available for payment of costs incurred by the recipient in performance of this agreement (see page 1, block 6 titled *Project Period*). In no event shall costs be incurred in performance of this agreement in excess of the funds currently obligated (see page 1, block 13 titled *Total Federal Funds Awarded to Date for Project Period*).

B.2 Award Period

The initial budget period is located on page 1, block 7 titled *Budget Period*. The total project period is located on page 1, block 6 titled *Project Period*.

B.3 Pre-Agreement Costs

The recipient is not authorized to incur costs prior to the award of this agreement. Costs incurred prior to the award of this agreement are not allowable.

SECTION C - DELIVERABLES

C.1 Progress Reports

- a) The recipient must submit annual progress reports electronically through GrantSolutions (<https://home.grantsolutions.gov/home/>) or via e-mail to the USGS Program Officer (EDMAP@usgs.gov) and one copy of the transmittal letter to the USGS Grants Specialist (abrazil@usgs.gov) within 90 calendar days after the agreement year (i.e., 12 months after the approved effective date of the agreement and every 12 months thereafter until the expiration date of the agreement.). For agreements with a total anticipated performance

period of twelve months (12) months or less, only a final technical report will be required. A progress report is not required in the final budget year, unless the recipient requests an extension to the project period.

- b) The progress reports shall include the following information:
 - (i) A comparison of actual accomplishments to the objectives of the agreement established for the budget period and overall progress in response to the performance metrics.
 - (ii) The reasons why established goals were not met, if appropriate.
 - (iii) Additional pertinent information including, when appropriate, analysis and explanation of cost overruns or high unit costs.
 - (iv) An outline of anticipated activities and adjustments to the program during the next budget period.
- c) Between the required reporting dates, events may occur which have significant impact upon the project or program. In such cases, the recipient shall inform the USGS as soon as the following types of conditions become known:
 - (i) Problems, delays, or adverse conditions which will materially impair the ability to meet the objective of the agreement. This disclosure must include a statement of the action taken, or contemplated, and any assistance needed to resolve the situation.
 - (ii) Favorable developments which enable meeting time schedules and objectives sooner or at less cost than anticipated or producing more or different beneficial results than originally planned.

C.2 Final Technical Report

- a) The Recipient must submit the final technical report electronically through GrantSolutions (<https://home.grantsolutions.gov/home/>) or via e-mail to the USGS Program Officer (EDMAP@usgs.gov) and one copy of the transmittal letter to the USGS Grants Specialist (abrazil@usgs.gov). The final performance report will be due 90 calendar days after the period of performance end date.
- b) The final technical report shall document and summarize the results of Recipient's work. The report shall include a quantitative description of activities and overall progress in response to the performance metrics which documents and summarizes the results of the entire agreement. The final report shall include tables, graphs, diagrams, sketches, etc., as required to explain the results achieved under the agreement. The report shall also include recommendations and conclusions based upon both the experience and the results obtained.

C.3 Annual Financial Reports

- a) The Recipient must submit an annual SF 425, Federal Financial Report, for each individual USGS award. The SF 425 is available at grants.gov/forms/forms-repository/post-award-reporting-forms. The SF 425 will be due within 90 days following the end of the annual period or within 90 days following the end of each annual period coinciding with the award start date.
- b) The SF 425 must be submitted electronically through GrantSolutions (<https://home.grantsolutions.gov/home/>) or by e-mail to SF425@usgs.gov with a cc to the USGS Grants Specialist (abrazil@usgs.gov). Recipient must include the USGS award number (see page 1, block 4 titled *Grant No.*) in the subject line of all e-mail correspondence. If, after 90 days, recipient has not submitted a report, the recipient's account in Automated Standard Application for Payments (ASAP) will be placed in a manual review status until the report is submitted.

C.4 Final Financial Report

- a) The Recipient will liquidate all obligations incurred under the award and submit a final SF 425, Federal Financial Report in accordance with C.3.b. no later than 120 calendar days after the agreement completion date.
- b) Recipient will promptly return any unexpended federal cash advances or will complete a final draw from ASAP to obtain any remaining amounts due. Once 120 days has passed since the agreement completion date, USGS shall unilaterally de-obligate federal funds as reflected in the final SF 425.
- c) Subsequent revision to the final SF 425 will be considered only as follows:
 - i. When the revision results in a balance due to the Government, the recipient must submit a revised final SF 425, Federal Financial Report, and refund the excess payment whenever the overcharge is discovered, no matter how long the lapse of time since the original due date of the report.
 - ii. When the revision represents additional reimbursable costs claimed by the recipient, a revised final SF 425 may be submitted to the USGS Grants Specialist (abrazil@usgs.gov) 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.5 Publications

a) Acknowledgment of Support

Recipient is responsible for assuring that an acknowledgment of USGS support:

1. is made in any publication (including World Wide Web pages) of any material based on or developed under this agreement, in the following terms:

This material is based upon work supported by the U.S. Geological Survey under Grant/Cooperative Agreement No. (see page 1, block 4 titled: Grant No.).

2. is orally acknowledged during all news media interviews, including popular media such as radio, television and news magazines.

b) Disclaimer

Recipient is responsible for assuring that every publication of material (including World Wide Web pages) based on or developed under this agreement, contains the following disclaimer:

The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the U.S. Geological Survey. Mention of trade names or commercial products does not constitute their endorsement by the U.S. Geological Survey.

c) 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 of 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) Publication

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. Such manuscripts or publications submitted to journals or professional publications for publication shall be accompanied by the following notation:

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

e) Copies for USGS

Recipient is responsible for assuring that the USGS Project Office is provided a digital version, preferably as a MS Word DOCx file, of every accepted manuscript upon acceptance for publication by the journal.

f) Department of the Interior Requirements

Two copies of each publication produced under a grant or cooperative agreement shall be sent to the Natural Resources Library with a transmittal that identifies the sender and the publication. The address of the library is:

U.S. Department of the Interior
Natural Resources Library
Division of Information and Library Services
Gifts and Exchange Section
18th and C Streets, NW
Washington, DC 20240

SECTION D – ASSISTANCE ADMINISTRATIVE DATA

D.1 Assistance Administration

This agreement will be administered by:

Amber Brazil
Grants Specialist
U.S. Geological Survey
Office of Acquisition and Grants
12201 Sunrise Valley Drive, MS 205
Reston, VA 20192
703-648-7477
abrazil@usgs.gov

Written communications shall make reference to the assistance award number and shall be mailed (or emailed) to the above address.

D.2 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.
- d) Payments may be drawn in advance only as needed to meet immediate cash disbursement needs.

D.3 Revisions and Prior Approvals

Modifications to this agreement shall generally be executed by mutual written consent of the parties, with the exception of certain purely administrative changes that may be executed unilaterally by the USGS. Recipients may make certain limited budgetary and programmatic

changes without prior USGS approval as outlined in 2 CFR 200.308 and 200.407. Any proposed change which requires prior written approval of the USGS shall be sent to EDMAP@usgs.gov at least thirty (30) days prior to the requested effective date of the proposed change. The USGS will respond to the change request within thirty (30) days of receipt.

- a) Extensions. Recipients are specifically advised that requests for extension or other change to the budget or project period(s) require prior written approval. Such requests must be submitted as outlined above and be accompanied by a statement supporting the extension and a revised budget (if necessary) indicating the planned use of all unexpended funds during the proposed extension period. A revised budget is not required for no cost extensions.
- b) Transfer of Funds. Recipients are specifically advised that prior written approval is not required for transfer of funds between direct cost categories when the cumulative amount of the transfer during the performance period does not exceed ten percent (10%) of the total USGS award. Prior written approval is required from the USGS Program Office for transfers of funds in excess of the ten percent limitation.
- c) Carry Forward of Funds. Not Applicable to awards issued under the EDMAP Program.

SECTION E - GENERAL PROVISIONS

E.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: [DOI Standard Terms and Conditions | U.S. Department of the Interior](https://www.doi.gov/grants/doi-standard-terms-and-conditions):
<https://www.doi.gov/grants/doi-standard-terms-and-conditions>

E.2 Additional 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 probations 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 Grants Management Official 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 Grants Management Official 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 an appropriate means for resolving it.

6) Enforcement. Failure to resolve conflicts of interest in a manner that satisfies the Government may be cause for termination of the award. Failure to make required disclosures may result in any of 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 Equipment or Equipment Authorized for Purchase

Title to equipment 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 an inventory of such equipment as long as there is a need for such equipment 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 equipment to accomplish the purpose of the project, the recipient shall use the equipment in connection with other federal awards the recipient has received. Disposal of equipment shall be in accordance with 2 CFR 200.313.

No equipment is provided or authorized for purchase on this grant/cooperative agreement.

f) 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*

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.

l. *Communications*

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

SECTION F – SPECIAL PROVISIONS

Geospatial Requirements

Geospatial Data Act of 2018, Pub. L. 115-254, Subtitle F - Geospatial Data §§ 751- 759C codified at 43 U.S.C. §§ 2801- 2811 - federal recipient collection of geospatial data through the use of the Department of the Interior financial assistance funds requires a due diligence search at the GeoPlatform.gov list of datasets to discover whether the needed geospatial-related data, products, or services already exist. If the required data set already exists, the recipient must use it. If the required data are not already available, the recipient must produce the proposed geospatial data, products, or services in compliance with applicable proposed guidance and standards established by the Federal Geospatial Data Committee (FGDC) posted to www.fgdc.gov.

2 CFR 1402.315 Availability of Data

(a) All data, methodology, factual inputs, models, analyses, technical information, reports, conclusions, valuation products or other scientific assessments in any medium or form, including textual, numerical, graphic, cartographic, narrative, or audiovisual, resulting from a financial assistance agreement is available for use by the Department of the Interior, including being available in a manner that is sufficient for independent verification.

(b) The Federal Government has the right to:

(1) Obtain, reproduce, publish, or otherwise use the data, methodology, factual inputs, models, analyses, technical information, reports, conclusions, or other scientific assessments, produced under a federal award; and

(2) Authorize others to receive, reproduce, publish, or otherwise use such data, methodology, factual inputs, models, analyses, technical information, reports, conclusions, or other scientific assessments, for federal purposes, including to allow for meaningful third-party evaluation.

(c) Bureaus and offices of the Department of the Interior must include the language in paragraphs (a) and (b) of this section in full text in all NOFOs and financial assistance agreements.

SECTION G – DOCUMENTS INCORPORATED BY REFERENCE AND ORDER OF PRECEDENCE

G.1 Documents Incorporated By Reference

The following documents are hereby incorporated into this agreement by reference:

- 1) The Recipient's proposal
- 2) The Recipient's application for financial assistance (SF424, SF424A, SF424B)

G.2 Order of Precedence

In the event of any inconsistency within this agreement, the following order of precedence shall be followed:

- 1) The cover page.
- 2) Sections A through F of this agreement.
- 3) Documents incorporated by reference (see G.1) in the order in which they are incorporated.

-- End of Attachment --

ATTACHMENT E

CONTACT INFORMATION FOR STATE GEOLOGICAL SURVEYS

State	State Geologist	Organization	Email
Alabama	Nick Tew, Jr.	Alabama Geological Survey	ntew@gsa.state.al.us
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California	Jeremy Lancaster	California Geological Survey	jeremy.lancaster@conservation.ca.gov
Colorado	Matt Morgan	Colorado Geological Survey	mmorgan@mines.edu
Connecticut	Meghan Seremet	State Geological and Natural History Survey of Connecticut	Meghan.Seremet@ct.gov
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Puerto Rico	VACANT		Call 787-722-2526
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Wyoming	Erin Campbell	Wyoming State Geological Survey	erin.campbell@wyo.gov

ATTACHMENT F

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

Project Name	Project Lead	Email Address
Tephrochronology Project	Laura Walkup	lwalkup@usgs.gov
Northern Pacific Border, Cascades, and Columbia Plateau Project	James O'Connor	oconnor@usgs.gov
Southern Pacific Border and Sierras Project	Vicki Langenheim	zulanger@usgs.gov
Western Basin and Range – Eastern California Shear Zone	Andy Cyr	acyr@usgs.gov
Lower Colorado River System Project	Ryan Crow and Kyle House	rcrow@usgs.gov khouse@usgs.gov
GeoMapping for Integrated Science	Kevin Schmidt	kschmidt@usgs.gov
Argon Geochronology for Geologic Mapping Project	Andrew Calvert	acalvert@usgs.gov
NCGMP Lab Facilities Project	Adam Hudson	ahudson@usgs.gov
Ozarks, Ouachita, and Southern Lowlands Project	Mark Hudson	mhudson@usgs.gov
Intermountain West Geologic Framework Integration Project	Kenzie Turner	kturner@usgs.gov
High-Resolution Topographic Data for Geologic Mapping Project	Samuel Johnstone	sjohnstone@usgs.gov
Glaciated Regions Project	Pete Chirico	pchirico@usgs.gov
Blue Ridge and Piedmont Project	Mark Carter and Arthur Merschat	mcarter@usgs.gov amerschat@usgs.gov
Appalachian Basin and Delaware Geologic Mapping Project	Dan Doctor	dhdoctor@usgs.gov
National Geologic Map Database (NGMDB)	Dave Soller	drsoller@usgs.gov
National Geologic Synthesis (NGS)	Joe Colgan and Don Sweetkind	jcolgan@usgs.gov dsweetkind@usgs.gov
Delaware Basin Geology for Water Modeling	Dan Doctor	dhdoctor@usgs.gov
Geoheritage Sites of the Nation Project	Christina DeVera	cdevera@usgs.gov
Geologic Framework of Alaska	Jamey Jones and Ric Wilson	jvjones@usgs.gov fwilson@usgs.gov
Northern Rocky Mountains Transect Project	Karen Lund and Carma San Juan	klund@usgs.gov csanjuan@usgs.gov

ATTACHMENT G

Current (FY2024) EDMAP Projects

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