**Commonwealth of Pennsylvania**

**Department of Environmental Protection**

DEP Logo

**2018 Mine Map Grant**

**MMG**

**Application Package**

**Applications Open January 15, 2018**

**Applications Close February 15, 2018**

5600-BK-DEP4401 11/2017

An Equal Opportunity Employer

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III. Mine Map and Data Examples (Provided at www.pamsi.org/MMG.html)

IV. Commonwealth Travel Manual (Provided at www.pamsi.org/MMG.html)

V. Commonwealth Investment Criteria (Provided at www.pamsi.org/MMG.html)

VI. Project Selection Information (Provided at [www.pamsi.org/MMG.html](http://www.pamsi.org/MMG.html))

**2018 MINE MAP GRANT (MMG)**

**APPLICATION PACKAGE**

**INTRODUCTION**

This document provides potential applicants with information about the Mine Map Grant (MMG). It includes guidance on the application process, application forms with instructions, grantee qualifications and requirements, specifications to which the projects shall be processed, and inventories of maps and mining information that applicants may use to define and describe their projects.

**MINE MAP GRANT (MMG) ANNOUNCEMENT**

The Department of Environmental Protection (DEP) announces the Mine Map Grant (MMG), which will provide funding for projects that are proposed by applicants to process mine maps and other mine related information into electronic formats. The applicants may propose to process information that is owned or under the control of DEP, the applicants, or both. As a result of the work completed under the MMG, processed mining information will be available for use in computer systems that allow the information to be provided to the public in a fraction of the time it takes to provide them with unprocessed information. The processed information will be used by property owners and developers, by the grantees for their own purposes, and by DEP to further enhance the systems that deliver mining information to the public and contribute to safe and economic mining practices. In addition, the information in electronic form establishes permanent records that will not deteriorate over time, that can be further processed, and that can be stored without the need for costly filing and warehousing.

The MMG is a competitive grant that is available to learning institutions and incorporated nonprofit organizations that are located in Pennsylvania. Contingent upon the availability of funds, the MMG will provide up to $2.25 million over a 3-year time period for improvements to the DEP’s mine map repository. The minimum grant award is $300,000. Following are the three project categories that will be funded under the grant: (1) Scanning and Cataloging; (2) Georeferencing; and (3) Vectorizing. Applicants may apply for funding to do work in one or more of those categories.

As a competitive grant, the MMG may award funding to qualified applicants based upon their ability and experience to reliably and efficiently process high volumes of maps and other mining information at the required standards.

**PURPOSE OF THE MMG**

Mining information is needed by the residents and developers of the mining regions of Pennsylvania to make informed decisions whenever a house or structure is built or purchased, when roads, schools or other public facilities are constructed, or when mining and reclamation operations are conducted. The information is vital to economic activity and to the safety of the residents of the mining regions and those working in or visiting those regions. Processing the mining information into electronic forms allows it to be used in computer applications, which then allows it to be retrieved, managed, and manipulated in a fraction of the time it takes to do so from perishable, printed maps and hard copy data sources.

The MMG provides funding, on a competitive basis, to convert, improve, preserve, and further process into electronic form maps, data, and images of mines that are located in Pennsylvania. In addition to the processing of mining information held by DEP, the MMG is intended to identify private collections of mine maps and data that potential grantees are able to process into electronic form and then release into the public domain.

Once the grantees process the mining information into electronic form it may be permanently stored, further processed, retained, and used by the grantees for their own purposes. Grantees will also provide copies of the electronic files to the DEP. The electronic information will be permanently stored by DEP in secure and redundant locations and used in computer applications it manages so that the information is readily available to the residents of the mining regions, businesses, and to government programs that provide and interpret the information to the public and to the mining industry.

**AUTHORITY TO ESTABLISH THE MMG**

DEP intends to use special state funds to finance the MMG pursuant to the authority provided in Section 18(j) of the Pennsylvania Surface Mining Conservation and Reclamation Act (52 P.S. § 1396.18(j)) and the Mine Subsidence Fund regulations set forth at 25 Pa. Code § 401.51.

**DISTRIBUTION OF FUNDS TO GRANTEES**

Grant awards will be based upon the total funds needed to complete a project. Funds will be distributed to grantees periodically, either monthly or quarterly, as established in an agreement between the grantee and DEP, to reimburse grantees for the costs portions of projects as they are completed by the grantee and accepted by DEP.

**GUIDANCE**

**OBJECTIVES OF THE MMG APPLICATION**

The MMG application is intended to identify applicants that can scan, catalog, georeference, and vectorize mine maps and data to best serve the public’s need for information about the extensive mining that has occurred within the Commonwealth of Pennsylvania. Through the MMG, the DEP will identify applicants who can economically process high quantities of maps and data at the necessary standards.

The application is intended to encourage the submission of a wide variety of projects from a number of applicants. Applicants are encouraged to be broad in the scope of their proposed project(s) so that they have the greatest opportunity for a grant award. The application establishes: (1) the category or categories of processing work that will be conducted; (2) the scope and magnitude of the project by the identification of the number of maps scanned, and/or number of maps georeferenced, and/or the extent of the area to be vectorized; and (3) the cost of a project as described in the Budget Summary and the Detailed Budget.

**PROJECT PROPOSALS**

Applicants may propose to conduct scanning and cataloging, georeferencing, and/or vectorizing projects that are developed from DEP’s mine map inventories, develop projects from mine map inventories that they own or that are under their control, or they may develop projects that contain information from both DEP’s inventories and their own inventories. DEP will provide devices known as portable computer hard drives to transport electronic data to and from grantees. Applicants proposing to process mine maps or mine information that they own or that is under their control are to contact Matthew Cavanaugh at 724-769-1754 prior to developing a proposal.

**APPLICANT ELIGIBILITY**

Application to the MMG is open to all institutions of learning and incorporated nonprofit organizations that are located in Pennsylvania. Applications submitted by ineligible applicants will not be considered. Projects are to be conducted by the grantees and not by subcontractors to the grantees.

**PROJECT MANAGEMENT, OWNERSHIP, AND CONTROL**

Grantees are responsible to assure that the results of their projects conform to the standards established in their grant agreements. A DEP Project Manager will be assigned to each grant. Information developed under a MMG project, including electronic files and any programing and uncompiled source code required for reproduction or reprocessing of the information resulting from a project, becomes part of the public domain. Grantees retain and use all the information they produce under the MMG. Grantees shall provide DEP with copies of all the information they produce under their MMG project. Any materials, products and devices owned by DEP and provided to the grantee shall be returned to DEP at the conclusion of the grant or at the request of DEP.

**PROPOSAL RATING CRITERIA**

The criteria used by DEP to evaluate proposals have been established throughout the MMG Application Package (package) and more specifically in the Applicant Qualifications, Requirements, and Preferences by Project Category sections of the Guidance and in the Application Form and the Detailed Budget. Although cost factors are important to the evaluation of a MMG application, the quality and reliability of work, which are dependent on the use of adequate and experienced staff and equipment, are of fundamental importance to the evaluation of proposals. As a result, grants will be awarded to grantees based not only upon cost considerations, but also upon their ability to complete the projects they propose, as demonstrated in their applications. Preferences will be given to applications that meet the special needs of the MMG that are identified throughout the application. Most significantly, the rating criteria are intended to identify proposals that support the dissemination of mining information that results in the greatest benefits to the public.

**APPLICATION SOLICITATION AND SUBMISSION TIMES**

The MMG Application Solicitation is scheduled to be announced on January 15, 2018. All substantive questions about the MMG Application Solicitation should be submitted by applicants to DEP by January 31, 2018. Substantive questions and answers to them will be posted to the MMG website (www.pamsi.org/MMG.html) on February 7, 2018, and will become a part of and an amendment to the MMG Solicitation Package. All applications shall be submitted (postmarked or delivered) by February 15, 2018.

**CONTACT INFORMATION**

All substantive questions about the MMG Application Solicitation shall be made by applicants from an email account that permits the delivery of responses from DEP. Applicants shall email all substantive questions about the MMG Application Solicitation to RA-MMG@pa.gov. Applicants proposing to process mine maps or mine information that they own or that is under their control are to contact Matthew Cavanaugh at 724-769-1754 prior to developing a proposal. Informal contacts, such as those related to specific maps or mine information that applicants may be contemplating for inclusion in their projects, may be made to Matthew Cavanaugh at 724-769-1754.

**APPLICATION SUBMITTAL INSTRUCTIONS**

Five sets of the application are required to be submitted as follows: 1 original plus 4 copies of the completed application and any attachments shall be postmarked no later than February 15, 2018 or, if hand-delivered, they shall be received by 4 p.m. on February 15, 2018. Application mailing or delivery addresses are as follows:

US Mail: DEP Bureau of Mining Programs

P.O. Box 8461

Harrisburg, PA 17105-8461

Common Carrier DEP Bureau of Mining Programs

or Hand-delivery: 5th Floor Rachel Carson State Office Building

400 Market Street

Harrisburg, PA 17101-2301

Warnings: Applications submitted by ineligible applicants will not be considered. Late submissions will not be considered. Applications submitted as faxes and e-mails will not be accepted. Any materials submitted after the submission deadline will not be accepted.

**APPLICANT QUALIFICATIONS, REQUIREMENTS, AND PREFERENCES BY PROJECT CATEGORIES**

This section contains essential information about the criteria that will be used to evaluate applications. Refer to this information as you complete your application form and fully describe your skills, abilities, and other resources in your application. Add as many sheets to your application as are needed to fully demonstrate the assets you can bring to your MMG proposal.

***Mine Map Scanning and Cataloging***

Applicants shall have the ability to perform professional scanning work of mine maps and other related materials provided by or approved for processing by DEP in accordance with standards established in the Mine Map Processing Standards (Attachment I and provided at www.pamsi.org/MMG.html) and DEP’s Guidance for Data Management (provided at www.pamsi.org/MMG.html), and produce electronic Tagged Image File Format (TIFF) files at a resolution of 400 dpi and processed as RGB true color 24 bit uncompressed TIFF images.

Applicants shall also have the ability to evaluate maps and precisely follow map identification procedures in accordance with standards established in the Mine Map Processing Standards (Attachment I) to name individual maps and enter the appropriate metadata associated with a map, such as but not limited to: mine name, operator, dates, coal seam, etc., into the online Pennsylvania Historical Underground Mine Map Information System (PHUMMIS) database, in order to create a searchable catalog of the scanned mine map inventories.

Preference will be given to applicants: (1) that have demonstrated experience in scanning documents especially those with experience with large format documents, maps, and bound materials; and (2) who own, lease, or have access to use a large format scanner, such as a Cruse Camera Scanner, and other types of specialty scanners that are designed to process bound materials, which they agree to use for the MMG.

***Mine Map Georeferencing***

Applicants shall have the ability to perform professional georeferencing (a process that relates a feature on a map to a point in space) work on electronic TIFF files and MrSID compressed images of scanned mine maps provided by or approved for processing by DEP and to do so in accordance with the georeferencing standards established in the Mine Map Processing Standards (Attachment I and provided at www.pamsi.org/MMG.html) and DEP’s Guidance for Data Management (provided at www.pamsi.org/MMG.html) or as otherwise authorized by DEP as part of the grant agreement. This work may require the grantee to utilize hardcopy maps and data, various computer software applications, and data sources.

Applicant will be required to have on staff a professional GIS technician who has achieved at least an undergraduate university degree (or the international equivalent) in geography, computer science, or other field that required at least 12 credits in Geographic Information Systems (GIS) and two years experience working as a GIS professional, who will personally oversee quality control and quality assurance of the grant work.

Preference will be given to applicants: (1) with staff that have demonstrated experience in professional georeferencing work; and (2) that have, or that have demonstrated the ability within their grant application to obtain, or to obtain the use of, equipment and facilities that are sufficient to enable the staff to carry out georeferencing of the mine maps.

***Mine Map Vectorizing***

Applicants shall have the ability to perform professional vectorizing work on georeferenced electronic TIFF files and MrSID compressed images of scanned mine maps. Vectorizing project work shall be completed to levels of accuracy and precision in accordance with the standards established in the Mine Map Processing Standards (Attachment I and provided at www.pamsi.org/MMG.html) and DEP’s Guidance for Data Management (provided at www.pamsi.org/MMG.html) or as otherwise authorized by DEP as part of the grant agreement.

Applicant will be required to have on staff a professional GIS technician who has achieved at least an undergraduate university degree (or the international equivalent) in geography, computer science, or other field that required at least 12 credits in Geographic Information Systems (GIS) and two years experience working as a GIS professional, who will personally oversee quality control and quality assurance of the grant work.

Preference will be given to applicants: (1) with staff that have demonstrated experience in professional vectorizing work; and (2) that have, or that have demonstrated the ability within their grant application to obtain, or to obtain the use of, equipment and facilities that are sufficient to enable the staff to carry out vectorizing of the mine maps.

**OTHER APPLICANT PREFERENCES**

Preferences will be given to applicants that (1) propose projects that address the Commonwealth Investment Criteria (provided at www.pamsi.org/MMG.html) that increases job opportunities and fosters sustainable businesses; (2) employ or engage mine engineering staff or other technical mining staff who can interpret complex mine maps and identify map features, which requires mining expertise; (3) are learning institutions; and (4) own or have access and control to private map or data collections that they are willing to process and then have the results entered into the public domain.

**INDIRECT AND DIRECT COSTS**

Indirect Costs are expenses that are incurred in the course of administering the MMG but that are not exclusively used for the MMG. In proportion to the utility they provide to the MMG, they may include charges for the partial use of telephones, computers, postage and printing, office cleaning, insurance, professional licensing fees, miscellaneous office supplies, equipment rentals, utilities, rent, and for shared clerical, administrative, legal, and accounting staffs. Direct costs include salaries and benefits directly used for the MMG.

The indirect cost rate shall not exceed 45 percent of the total direct cost of salary and benefits. The indirect cost rate is not applicable to equipment, supplies, and travel costs.

**FUNDS USE LIMITATIONS**

The combined costs of equipment, materials, and supplies shall not exceed 20 percent of the total amount of the grant request.

The indirect cost rate shall not exceed 45 percent of the total direct cost of salary and benefits.

The direct cost of salary and benefits used for direct administration of grant work (including training) shall not exceed 15 percent of the total amount of the grant request.

**TRAVEL**

Travel expenses incurred under the MMG are reimbursed according to the provisions of the Commonwealth Travel Manual that is provided at www.pamsi.org/MMG.html. Applicants should plan appropriately for the cost of traveling to business meetings and map/equipment transport and include the appropriate amount in their Detailed Budget. All travel costs shall be pre-approved by DEP before travel occurs.

**GRANTEE REQUIREMENTS**

Those awarded grants shall do the following:

1. Enter into a formal grant agreement with DEP that will include a budget and terms, general conditions, and special conditions.
2. Complete and deliver all project work that is eligible for payment, including associated reports and invoices, as specified in the MMG Agreement.
3. Conduct all project work and incur all costs that are invoiced within the grant period of performance.
4. Provide “Inventory Control Reports” for tracking of the work completed and reimbursement “Invoices” for each Grant Project on a quarterly basis or more frequently if required by DEP. Electronic forms for the “Inventory Control Reports” and “Invoices” will be provided to the grantees by DEP.
5. Upon the request of DEP, surrender all maps and documents on loan from DEP, copies of all electronic files, work materials (including notes) and computer programing (including uncompiled source codes that are related to the MMG), and any devices as specified in the MMG Agreement.
6. The grantee shall add all mine maps and materials provided by DEP to the grantee’s property and casualty insurance policy while the documents are in the possession of the grantee. The documents shall be insured at a minimum value of $100 per map and $1 per page or sheet of documents other than maps.
7. The grantee shall track the status of the work they perform as it is completed in the Map Processing section of the online PHUMMIS database. Applicants shall ensure that they are able to connect to the DEP’s electronic network via a virtual private network (VPN) connection, or other means prescribed by the DEP, in order to access PHUMMIS.
8. The grantee shall establish and perform quality control procedures in accordance with standards established in the Mine Map Processing Standards (Attachment I), or otherwise prescribed by the DEP, on all work performed under the grant prior to the delivery of said work to the DEP to ensure all work delivered meets standards established in the Mine Map Processing Standards (Attachment I) for each project category. Work delivered to the DEP that does not meet the established standards may be returned to the applicant for correction and can affect expediency of invoice payment and future consideration of the Mine Map Grant Program involvement.

**2018 MINE MAP GRANT (MMG)**

**APPLICATION FORM**

NOTE: Before completing this form, please review the qualifications, standards, and specifications provided in the Application Guidance, the Attachments, and at www.pamsi.org/MMG.html. Add pages to the application if more space is needed to answer any question. You may submit any other information with this application that you consider to be relevant.

1. **APPLICANT INFORMATION:**

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| --- |
| Organization Name: |
| Address: |
| Zip+4: |
| Contact Name: |
| Telephone: |
| Fax: |
| Email: |
| Federal Employer ID #/SAP Vendor #: |

1. **TYPES OF ELIGIBLE ORGANIZATIONS:** (Select one)

Learning Institution Incorporated Nonprofit

1. **MMG PROJECT(S):** Select which category(s) that your organization is applying to perform work under the Mine Map Grant.

CATEGORY: (Select One or More)

Scan and Catalog

Georeference

Vectorize

1. **Describe the organization and staff who will work on your project(s) by project category.** (For example: Georeferencing: The staff conducting the georeferencing will consist of a fulltime project manager, two full time technicians, three college graduate assistants, two undergraduates…)

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1. **Describe the facilities and equipment that will be used for the proposed MMG, by project category.** (For example: Scanning: The scanning facility is located on the Main Campus in a 500 square foot room in the Main Hall. There is a computer work station (describe) two 52 inch roll scanners (describe) and a very large format scanner (describe). Other equipment includes…)

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1. **Describe the background and experience of the staff who will work on your project(s), including, by project category.** (For example: Georeferencing: The georeferencing efforts will be led by a GIS technician who has a B.S. degree in Geospatial Technologies from West Virginia University and has over 10 years of experience in GIS work including georeferencing. Technical staff includes two graduate level.)

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1. **Briefly describe the project(s) you propose by indicating the project category, the maximum number of items you propose to process, and the inventory(s) you will be processing, which may be selected from inventories that you own or that are under your legal control, from the DEP inventories, or from both.** (For example: We propose five projects: (1) Scan and Catalog 200 mine maps from the DEP inventory; (2) Georeference 100 of those maps; (3) Scan 100 from our collection of Baker mine maps; (4) Georeference 50 mine maps from our collection of Baker mine maps, which were evaluated and authorized as inventory that is suitable for processing under the MMG by Matt Cavanaugh on 12/21/2017; (5) Vectorize all available mine maps in the spatial extent area of the USGS 7.5’ California, PA quadrangle. (NOTE: If proposing to process inventory that you own or control, you should contact Matthew Cavanaugh.)

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1. **If applicable, please describe how your proposal addresses the Commonwealth Investment Criteria, which increases job opportunities and fosters sustainable businesses.** NOTE: See Commonwealth Investment Criteria (provided at www.pamsi.org/MMG.html).

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1. **Do you employ or will you engage mine engineering staff that will be assigned to the MMG?** NOTE: If yes, describe in item 6 of this application.

YES NO

1. **Will you be willing to accept a grant award for less than your total grant request at a prorated rate for work completed?**

YES NO

1. **Complete and attach as part of this application a Detailed Budget Form for each Project Category and Subcategory, for which you are requesting funding.**
2. **Attach any other information that is relevant to and supports your application.**

**CERTIFICATION AND SIGNATURE OF APPLICANT (REQUIRED)**

**APPLICANT:** I certify that the information in this application is true and correct to the best of my knowledge.

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Applicant Organization Date

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| --- | --- |
|  |  |

Signature Title

|  |
| --- |
|  |

Print Name

**MINE MAP GRANT (MMG) APPLICATION**

**DETAILED BUDGET**

**INFORMATION ABOUT THE DETAILED BUDGET**

**PURPOSE:**  the Detailed Budget and the Budget Summary in the grant application proposals are used by grantees to define the efforts and costs they propose and by DEP to evaluate the efforts and costs and then determine and establish limits of funding that will be provided to achieve the goals that are established in the grant amendment. Although hourly rates and spending limits for equipment, materials and supplies are established in the budgets that finally become part of a grant amendment, grantees are only reimbursed for the actual costs they incur pursuant to the work they provide under a grant amendment. As a result, the actual cost to process any particular work item may cost more or less than the cost demonstrated in a budget.

**FUNDING LIMITATIONS:**  As a percentage of the total funds requested, funds are limited as follows: Administrative costs are limited to 15 percent; and Equipment, Materials and Supplies combined costs are limited to 20 percent. Funds awarded will be subject to the same limitations.

**INSTRUCTIONS:** See instructions for the Detailed Budget Form (Provided at [www.pamsi.org/MMG.html](http://www.pamsi.org/MMG.html)) on the bottom of each form page. See the Detailed Budget Example (Provided at [www.pamsi.org/MMG.html](http://www.pamsi.org/MMG.html)) for an example of what is expected from an Applicant.

INSERT DETAILED BUDGET AND BUDGET SUMMARY AFTER THIS PAGE