

Managing the Digital Geologic Publication Lifecycle with Digital Commons:

A partnership between the Maine Geological Survey and the Maine State Library.

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The Maine Geological Survey (MGS) has used part of a USGS National Geological and Geophysical Data Preservation (NGGDPP) grant this year to partner with the Maine State Library on a unique project. The library is using a relatively new, cloud-based tool called Digital Commons to host and manage state agency digital documents (<a href="http://digitalmaine.com/">http://digitalmaine.com/</a>). MGS has loaded all of our digitally available maps and reports (~2600 items) in the last few months. The tool offers perma-links for our maps and reports, management and maintenance of the PDF files themselves, simple and advanced search capabilities, elimination of storage costs, integration with ArcGIS Online and Server, and it removes the need for MGS to build and maintain custom front-ends on our web site for document management. This has been a very rewarding project for both MGS and the Maine State Library. We see many other uses for it in the future including archiving and geotagging digital photos and scanned photo slide collections. We also may use it to archive historical spatial datasets. Digital Commons is available to any teaching, research, library or government organization.





# Managing the Digital Geologic Publication Lifecycle with Digital Commons:

A partnership between the Maine Geological Survey and the Maine State Library

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# Maine Geological Survey

The current – changing – state of geologic publications

- Over 2600 digital maps and reports on state web site that has moved twice in last decade
- Database for managing publications metadata
- Web site and simple table based search tools used for public access to publications
- No public access to superseded maps and reports
- Some older items no longer available in print, only scanned PDFs
- Not selling paper copies of some new maps and reports, only available as PDFs





# **State Library Role**

- Since 1893 the Maine State Library has been the legal recipient and custodian of state documents.
- MSL's mission is to promote public access, provide government transparency and protect Maine's history.
- Maine Public Records Law (MRSA 1 §501-A) requires agencies to send copies of all their reports/ publications/research to the Maine State Library.
  - requirement ensures that these publications will always be available as public documents
  - agencies frequently come to MSL to retrieve documents that have been lost over time





# StateDocs Collection at State Library

Items produced by state agencies:

- Publications
- Research
- Reports
- Marketing materials

Historical materials dating back to the formation of the state







# **StateDocs Digital Archive**

Permanent online storage for same items as physical

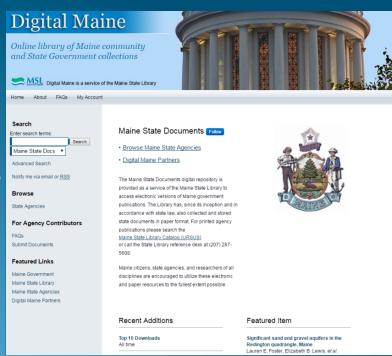
collection.

Launched in 2013 on Digital

**Example 2** from bepress.

## Includes over 62,000 digital files

- Publications (books, reports)
- Photos
- Maps
- Research
- Marketing materials
- Audio/video files



www.DigitalMaine.com





## Permanence

- Content can be moved but links won't change
- Files are updated periodically to use the latest PDF standards and to protect from bit rot
- Cloud storage with file backups every four hours by Iron Mountain data security

## Reporting

- Authors and agencies can get updates on download activity for items in collection
- Usage statistics from server logs are more accurate than Google Analytics





## Integration

 Can be integrated with agency web sites or other online repositories like university libraries, GeoRef, NGMDB

## Search optimization

- Files are meta tagged and searchable by author, date, title, keyword, agency, and abstract.
- Items in our collection rank well in Google searches
- Part of a larger academic repository (DPLA) that is used by institutions around the world





## File management

- OCR run for all files
- Unlimited file storage
- Bulk uploads and updates of files and metadata
- No more local files

## Customization

- Standard metadata field names can be edited
- New metadata fields can be added
- Custom domains can be incorporated





## Decentralized administration

- Collection specific agency administrators
- Can allow agency staff to make submissions

## Audience engagement tools

- Can subscribe for notifications
- Option for moderated comments on items

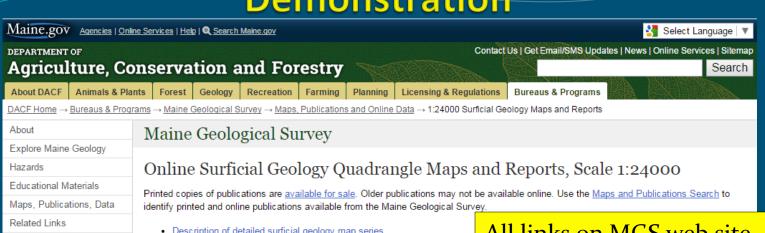




http://digitalmaine.com/geological\_survey/







- Description of detailed surficial geology map series
- Tips for reading detailed surficial geology maps
- Digital surficial geology data

All links on MGS web site point to entry in Digital Maine Ex: http://digitalmaine.com/mgs\_maps/983/

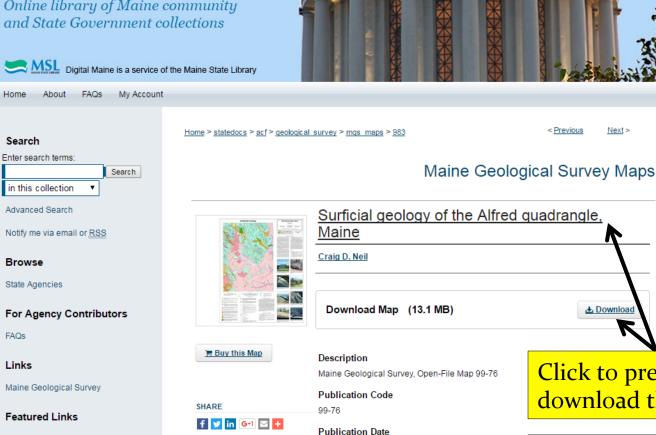
Search: Quadrangle Associated Publication Citation Report Name No. Albion 15-14 Weddle, Thomas K., 2015, Surficial geology of the Albion guadrangle, Ma Maine Geological Survey, Open-File Map 15-14, map, scale 1:24,000. Alfred 99-76 Neil, Craig D., 1999, Surficial geology of the Alfred quadrangle, Maine: Maine Geological Survey, Open-File Map 99-76, map, scale 1:24,000. 09-7 Thompson, Woodrow B., 2009, Surficial geology of the Augusta guadrangle, Augusta Maine: Maine Geological Survey, Open-File Map 09-7, map, scale 1:24,000. Braun, Duane D., 2016, Surficial geology of the northern portion of the Baker Baker Island 16-13 Island quadrangle, Maine: Maine Geological Survey, Open-File Map 16-13, map, scale 1:24,000. Bangor 11-6 Syverson, Kent M., and Thompson, Andrew H., 2011, Surficial geology of the 08-52 Bangor quadrangle, Maine: Maine Geological Survey, Open-File Map 11-6, map, scale 1:24,000. Bar Harbor 16-19 Braun, Duane D., 2016, Surficial geology of the southwestern portion of the Bar Harbor quadrangle, Maine: Maine Geological Survey, Open-File Map 16-19, map, scale 1:24,000. Bar Mills 99-77 Hunter, Lewis E., 1999, Surficial geology of the Bar Mills guadrangle, Maine: 99-108 Maine Geological Survey, Open-File Map 99-77, map, scale 1:24,000. 16-16 Bartlett Island Braun, Duane D., 2016, Surficial geology of the eastern portion of the Bartlett Island quadrangle, Maine: Maine Geological Survey, Open-File Map 16-16, Showing 1 to 185 of 185 entries





## Digital Maine

Online library of Maine community



Click to preview or download the PDF file

Download includes PDF security, if

Keywords

Maine Geological Survey

1-1-1999

Publisher

implemented surficial geology, geomorphology, glacial geology, maps, sedimentation, glacial transport, glacial features, landform description, MGS, Alfred quadrangle, York County

Maine Government

Maine State Library

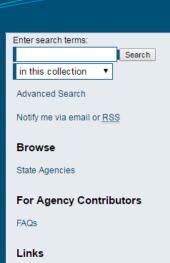
Maine State Agencies

Digital Maine Partners









#### Featured Links

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#### Maine Geological Survey Maps



Significant sand and gravel aquifers in the Misery Knob quadrangle, Maine

Craig D. Neil Daniel B. Locke

Download Map (4.2 MB)

▲ Download

to directly

Some maps have related

reports that can be linked

Buy this Map

Maine Geological Survey, Open-File Map 98-15

Publication Date

hydrogeology, maps, ground water, surveys, water quality, aquifers, clastic sedimen

William J. Nichols, Craig D. Neil, Daniel B. Locke, and Michael E. Foley, Hydrogeology and water quality of significant sand and gravel aquifers in parts of Piscataguis and Somerset Counties, Maine

sand, gravel, water wells, MGS, Misery Knob quadrangle, Somerset County

Map Type

Significant Sand and Gravel Aguifer Maps (scale 1:24,000)

Map Scale

1:24000

Recommended Citation

Neil, Craig D. (compiler), Locke, Daniel B. (mapper), 1998, Significant sand and gravel aquifers in the Misery Knob quadrangle, Maine: Maine Geological Survey, Open-File Map 98-15, map, scale 1:24,000. Maine Geological Survey Maps. 18. http://digitalmaine.com/mgs\_maps/18

#### Description

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**Publication Code** 98-15

1998 Publisher





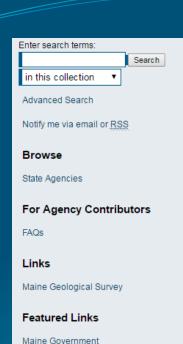


#### Related Item









Maine State Library

Maine State Agencies

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Hydrogeology and water quality of significant sand and gravel aquifers in parts of Piscataquis

Maine Geological Survey Publications

William J. Nichols

Craig D. Neil

Daniel B. Locke

Michael E. Foley

Download Full Text (2.2 MB)

and Somerset Counties, Maine

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Report related to

previous map 98-15







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Document Type

Text

Description

Maine Geological Survey, Open-File Report 98-2. Accompanies 1:24000 Significant Aquifer Maps

**Publication Code** 

98-2

**Publication Date** 

1998

Publisher

Maine Geological Survey

Keywords

hydrogeology, ground water, surveys, water quality, aquifers, clastic sediments, sand, gravel, water wells, MGS, Patten quadrangle, Piscataquis County, Somerset County

Disciplines

Geology

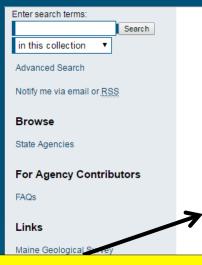
Map Type

Water Resource Reports To Accompany 1:24,000 Significant Aquifer Maps









If item is available for purchase in paper format from MGS, this link will take users to MGS Order Form. Could be integrated with a web shop.

#### Maine Geological Survey Maps

Significant sand and gravel aquifers in the Misery Knob quadrangle, Maine

Craig D. Neil

Daniel B. Locke

Download Map (4.2 MB)

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♣ Download</u>

Description

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Maine Geological Survey, Open-File Map 98-15

**Publication Code** 

98-15

Publication Date

1998

Publisher

Maine Geological Survey

Keywords

hydrogeology, maps, ground water, survey sand, gravel, water wells, MGS, Misery Kn

Related Item

William J. Nichols, Craig D. Neil, Daniel B. and water quality of significant sand and of Somerset Counties, Maine Custom fields can be added with custom domains for classifying publications

Map Type

Significant Sand and Gravel Aquifer Maps (scale 1:24,000)

Map Scale 4 1:24000

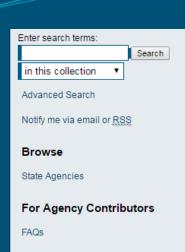
Recommended Citation

Neil, Craig D. (compiler), Locke, Daniel B. (mapper), 1998, Significant sand and gravel aquifers in the Misery Knob quadrangle, Maine: Maine Geological Survey, Open-File Map 98-15, map, scale 1:24,000. Maine Geological Survey Maps. 18. http://digitalmaine.com/mgs\_maps/18









Links

Maine Geological Survey

#### Featured Links

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Maine State Agencies

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#### Maine Geological Survey Maps



Bedrock geology of the Wiscasset quadrangle, Maine

David P. West Jr.

Download Map (16.6 MB)

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♣ Download</u>

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Description

Maine Geological Survey, Open-File Map 16-27.

**Publication Code** 

16-27

**Publication Date** 

1-1-2016

Publisher

Maine Geological Survey

Publication lineage can be followed with supersede links.

#### Keywords

areal geology, geologic maps, bedrock, explanatory text, MGS, Wiscasset quadrangle, Lincoln County, Sagadahoc County termebec County

Supercedes

92-58

Map Type

Bedrock Geology Maps (scale 1:24,000)

Map Scale

1:24000

#### Recommended Citation

West, David P., Jr., 2016, Bedrock geology of the Wiscasset quadrangle, Maine: Maine Geological Survey, Open-File Map 16-27, map, scale 1:24,000. *Maine Geological Survey Maps*. 16. http://digitalmaine.com/mgs\_maps/16







Maine Geological Survey Maps

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in this collection ▼
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Browse
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. cgcc, continuators

FAQs

#### Links

Maine Geological Survey

#### Featured Links

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Reconnaissance bedrock geology of the Wiscasset 7.5' quadrangle, Maine

Donald W. Newburg

Download Map (1.9 MB)



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#### Description

Maine Geological Survey, Open-File Map 92-58 (Superseded by West, 2016, Maine Geological Survey Open-File 16-27)

#### **Publication Code**

92-58

#### **Publication Date**

1-1-1992

#### Publisher

Maine Geological Survey

#### Keywords

areal geology, geologic maps, be Lincoln County

Publication lineage can be followed with supersede links backwards or forwards.

#### Superceded by

16-27

#### Map Type

Bedrock Geology Maps (scale 1:24,000)

#### Map Scale

1:24000

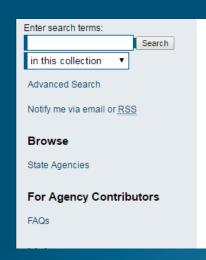
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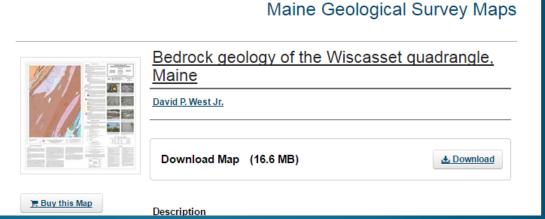
Newberg, Donald W., 1992, Reconnaissance bedrock geology of the Wiscasset 7.5' quadrangle, Maine: Maine Geological Survey, Open-File Map 92-58 (Superseded by West, 2016, Maine Geological Survey Open-File 16-27), map, scale 1:24,000. Maine Geological Survey Maps. 17. http://digitalmaine.com/mgs\_maps/17







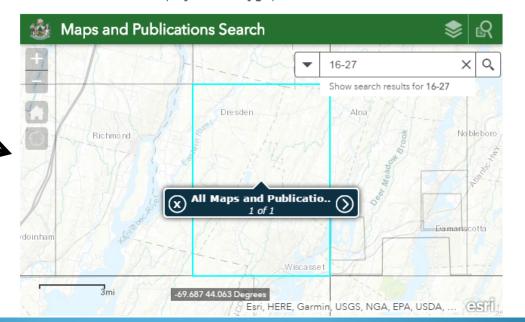




Embedded interactive web map for spatial context and nearby spatial searches

#### Recommended Citation

West, David P., Jr., 2016, Bedrock geology of the Wiscasset quadrangle, Maine: Maine Geological Survey, Open-File Map 16-27, map, scale 1:24,000. *Maine Geological Survey Maps*. 16. http://digitalmaine.com/mgs\_maps/16







# Digital Maine

Online library of Maine community and State Government collections MSL Digital Maine is a service of the Maine State Library My Account Home > statedocs > acf > geological survey > mgs\_maps Search Enter search terms: Maine Geological Survey Maps Search in this collection Advanced Search Maine Geological Survey is part of the Maine Department of Agriculture, Conservation and Forestry. The Maine Notify me via email or RSS Geological Survey provides the people and businesses of Maine with essential geologic information about the land Simple search – in this case searches just the Maps collection for any occurrence of search terms

> Simple searches also search the full text of the publication, not just the metadata fields.





## Digital Maine

Online library of Maine community and State Government collections



Search

Enter search terms:

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Search

Search

Simple search – in this case searches all the MGS collections for any occurrence of search terms

Geological Survey

✓ Following

**Browse** 

State Agencies

in this collection

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For Agency Contributors

FAQs

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Agriculture, Conservation, Forestry

Browse the Geological Survey Collections:

Atlas of Plates

Bibliography of Maine Geology

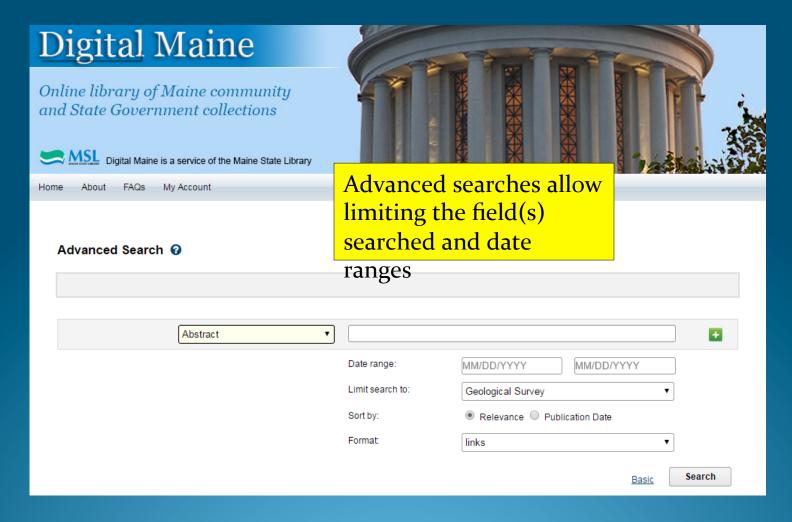
Geology Documents

Maine Geological Survey Maps

Maine Geological Survey Publications







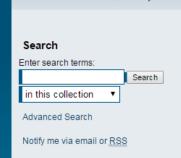




## Digital Maine

Online library of Maine community and State Government collections





Custom email notifications based on search terms

#### Links

Maine Geological Survey

#### Featured Links Maine Government

Maine State Library Maine State Agencies Digital Maine Partners Home > statedocs > acf > geological survey > mgs maps

#### Maine Geological Survey Maps

Maine Geological Survey is part of the Maine Department of Agriculture, Conservation and Forestry. The Maine Geological Survey provides the people and businesses of Maine with essential geologic information about the land where we live and work.

Note: Many state documents are offered in PDF format. To view PDF documents, you will need the free If you need assistance, view our Maine government PDF Help page or contact the contributing Maine the link on the left sidebar under "Links"

Follow a collection to get updates on new publications







#### Surficial geology of the Islesboro quadrangle, Maine

Thomas K. Weddle

Maine Geological Survey, Open-File Map 17-1.



Custom Date Range: 04/01/2017 to 05/31/2017



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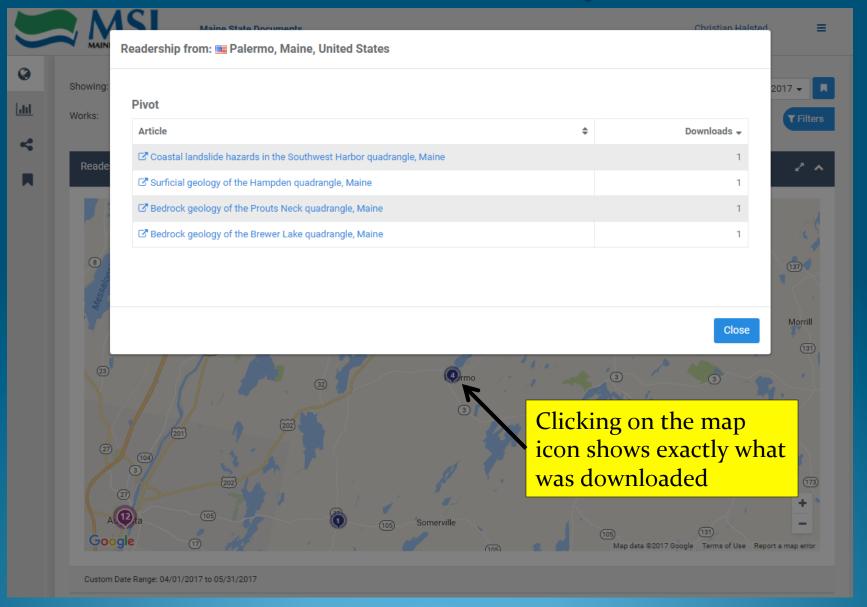




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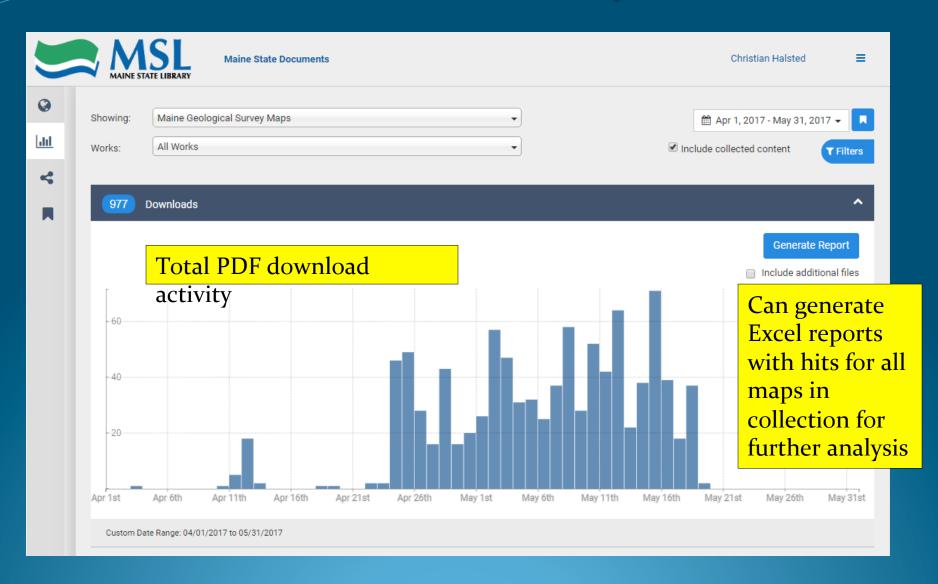
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☑ Bedrock	geology of the Bangor quadrangle, Maine			14
☑ Bedrock	geology of the Kittery 1:100,000 quadrangle, Maine and New Hampshire			11
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**Demonstration - Analytics** Digital Maine

Home > statedocs > acf > geological survey > mgs\_maps > 23

Online library of Maine community and State Government collections



Most popular works are automatically flagged on metadata page



#### Bedrock geologic map of Maine

Philip H. Osberg

Arthur M. Hussey II

Gary M. Boone

Download Map (7.6 MB)

♣ Download

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Maine Geological Survey Maps

#### Document Type

StillImage

#### Description

Maine Geological Survey, A 42" x 57", a color wall map showing the bedrock geology of Maine. Ages of rocks in color, lithologies differentiated by patterns, inset map of tectonic features, map of metamorphic zones, correlation chart, and extensive reference list

**Publication Code** 

**BGMM** 

Publication Date

1-1-1985

Links

Maine Geological Survey

#### Featured Links

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73 Downloads

Since April 10, 2017





## What is Next?

## Additional features

- Saved searches
- RSS feeds
- JavaScript plug-in for embedded search capability

### **Future Uses**

- Unpublished/Progress maps collection
- Digital photos w/ geotag
- Scanned photo slide collections
- Storing historical spatial datasets





# Summary

- Partnership with Maine State Library has been excellent for MGS. They are the document management and preservation experts.
- Efficiencies in file management, storage, backup, programming. Economies of scale for state agencies.
- Cloud-based tools are available for document management that offer longevity, better search functionality, integration with other products for more exposure.
- A better understanding of who is using our products with precise analytics leads to program justification