

Geologic Reports

After the GRI geologic map product is complete, a resource management report is prepared, connecting the geologic map, the park landscape, and effective resource management.

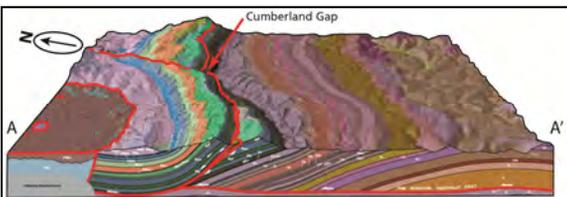
GRI reports contain six major sections:

- Discussion of geologic features and processes important to park ecosystems and management;
- Identification and description of key geologic resource management issues;
- A brief geologic history of the park area;
- A summary of geologic map data for the park;
- A map unit properties table that summarizes report content for each geologic map unit; and
- A printable PDF geologic map poster.

Reports are written for non-geoscientists and, like all GRI products, are publically available via the GRI products webpage. They are peer reviewed by park staff and local geologists and published through the NPS Natural Resource Report series.



Report cover and GRI-developed cross section for Cumberland Gap NHP (Kentucky, Tennessee, Virginia).



Geologic Resources Division

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<http://www.nature.nps.gov/geology/>



For More Information and to Download Products

Geologic Resources Inventory (GRI) website:

<http://www.nature.nps.gov/geology/inventory>

Download GRI products:

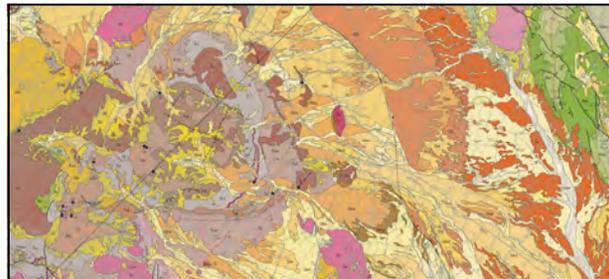
http://go.nps.gov/gri_products

GRI Product Status:

http://go.nps.gov/gri_status

NPS Integrated Resources Management Application (IRMA) portal:

<https://irma.nps.gov/App/Portal/Home>



A portion of the geologic map of Big Bend NP (Texas), produced by the U.S. Geological Survey in cooperation with the National Park Service.

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Natural Resource Stewardship and Science

Geologic Resources Inventory



The National Park Service Geologic Resources Inventory (GRI) Program provides geologic map data and pertinent geologic information to support resource management and science-based decision making in more than 270 natural resource parks throughout the National Park System.

The GRI is one of 12 baseline natural resource inventories funded by the National Park Service Inventory and Monitoring Program.

The Geologic Resources Division of the NPS Natural Resource Stewardship and Science Directorate administers the GRI.

Geologic Resources Inventory Program and Products

The Geologic Resources Inventory (GRI) team includes NPS staff and Colorado State University Department of Geosciences research associates. Together with a variety of partners, the GRI provides each of the more than 270 natural area parks with three products:

- A geologic scoping meeting and meeting summary document;
- Digital geologic map data in Geospatial Information System (GIS) format; and
- A geologic resource management report.

These products support stewardship by providing information about geologic resources, management challenges, as well as links among geology, other natural resources, and park stories.



Ka Moa o Pele cinder cone in Haleakala NP (Hawaii)

Scoping Meetings and Summary Documents

The GRI team conducts scoping meetings at parks to review available geologic map data and discuss geologic issues, features, and processes at the park.

The GRI team, park staff, geologists from the U.S. Geological Survey, state surveys, academic and private sectors, and other relevant parties participate in the meetings. The GRI may provide funds for new mapping in parks with inadequate map coverage.

Following the meeting, a scoping summary is produced that documents meeting discussions and the geologic mapping plan. Summaries also include a list of participants.

Geologic Map Data

The GRI uses source maps produced by geologic mapping partners such as the U.S. Geological Survey, state geological surveys, universities, and other institutions.

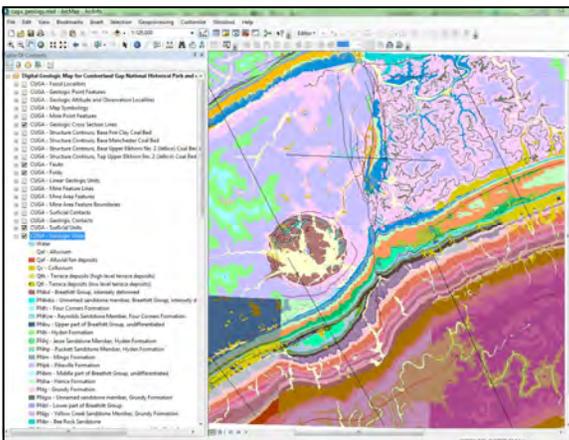
GRI geologic maps are available in three formats:

- Digital format for use with ESRI GIS software
- KMZ/KML format for use with Google Earth™
- PDF format for printing a hard copy

Digital Map (GIS)

Geologic maps are digitized and/or converted according to the GRI data model and available in ESRI geodatabase, shapefile, and/or coverage formats.

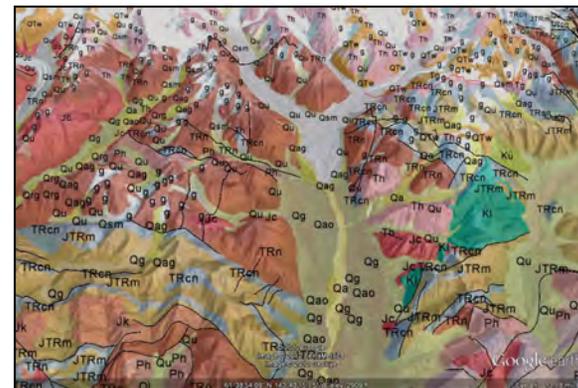
An ancillary map information document accompanies each map and includes additional aspects of the source maps (correlation tables, unit descriptions, cross sections, reports, etc.).



Screenshot of the digital geologic GIS data for Cumberland Gap NHP (Kentucky, Tennessee, Virginia) in ESRI ArcMap.

Google Earth™

The Google Earth data layers (derived from the GIS data) include most area and line features. Point features are generally not included. The ancillary map information document is linked with the Google Earth layers.



Screenshot of the Google Earth geologic map data for Wrangell-St. Elias NP&Pres (Alaska). Imagery © 2012 Google and © 2012 GeoEye and TerraMetrics.

Printable PDF

Large format, printable PDFs are included with the GRI reports. These PDFs evolved from simple “snapshots” of the data to poster-size products that display the GIS data over shaded relief or aerial imagery. For clarity, not all of the GIS data layers may be present on the poster. Cartographic elements and geographic features (roads, cities, prominent features) are also included.



Portion of the Great Basin NP (Nevada) geologic map printable PDF.