



Great Sand Dunes National Park and Preserve

Geologic Resources Inventory

GIS Data Explanation, August 7, 2018

Geologic-Geographic Information Systems (GIS) data related to Great Sand Dunes National Park and Preserve is delivered in map download Zip (.zip) archive files. These data are a product of the NPS Geologic Resources Inventory (GRI) program, which is funded by the Inventory and Monitoring (I&M) Division, and administered by the NPS Geologic Resources Division (GRD).

Geologic-GIS data for Great Sand Dunes National Park and Preserve consist of a dedicated park map providing complete coverage of the park and surrounding area, as well as a map of the Sangre de Cristo Mountains near and adjacent to the park and preserve. Individual component maps that together comprise this latter map are also provided. Data files for the dedicated park map are named using the park four-letter code (GRSA) as a prefix. Data files for the map of the Sangre de Cristo Mountains near and adjacent to the park and preserve use the prefix GSAM (GRI abbreviation for Great Sands Area Map), whereas data files its component maps use the following prefixes: BEMO – Beck Mountain and Crestone Peak Quadrangles, and parts of the Crestone Quadrangle, MEPA – Medano Pass Quadrangle, and parts of the Liberty Quadrangle, RIAL – Rito Alto Quadrangle, and parts of the Mirage Quadrangle, TPBP – parts of the Twin Peak and Blanco Peak Quadrangles, and ZARA – parts of the Zapata Ranch and Mosca Pass Quadrangles.

Geologic-GIS data are provided in ESRI 10.1 file geodatabase format, as well as 2.2 KML/KMZ format for use with Google Earth software, and upon request in ESRI 10.1 shapefile format (contact Stephanie O'Meara, see contact information below, to acquire shapefile format data). Map download Zip (.zip) files containing geodatabase GIS data are identified with a "gdb.zip" suffix, whereas those containing KML data have a "kml.zip" suffix. The geodatabase Zip (map download) file has a 10.1 file geodatabase, and a 10.1 map document (.mxd) file, as well as individual data layer 10.1 layer (.lyr) files. The map document presents all GRI map components, data layers and GIS tables, in a user-friendly format complete with data layer naming, symbology and labeling for viewing and data analysis. The layer (.lyr) files are provided so data layers can be added to new or existing map document files with their associated layer naming, symbology and labeling. Each Zip (map download) file also contains a FGDC-compliant metadata file (in .txt format). In addition to the map download ZIP file, three additional files comprise a GRI digital geologic-GIS dataset or map: this file (grsa_geology_gis_readme.pdf), the GRI ancillary map information document (.pdf) file (grsa_geology.pdf), which contains geologic unit descriptions, as well as other ancillary map information and graphics from the source maps used by the GRI in the production of this park's GRI digital geologic-GIS data, and a user-friendly FAQ PDF version of the metadata (grsa_geology_metadata_faq.pdf).

For a GIS dataset the GRI recommends extracting all map files for a particular map to a single folder. This is particularly of importance for the file geodatabase, map document and layers files as relative file paths to the geodatabase (i.e., GIS data) in the map document and layer files are maintained. When extracting the file geodatabase (folder) from its Zip file use "extract" or "extract here", and not a "drag and drop of files" as the latter may not correctly preserve the file geodatabase folder and component file structure.

Detailed information concerning the source data used by the GRI is listed in the Source Citation section(s) of the included map metadata record (e.g., grsa_geology_metadata.txt). This information is also available in the FAQ version of the metadata (grsa_geology_metadata_faq.pdf). Information concerning source data is also in the Source Map Information GIS table (grsamap), and repeated in the GRI ancillary map information document (.pdf) file.

The Google Earth KMZ files, grsa_geology.kmz and gsam_geology.kmz, each contain a limited version of their full spatial datasets (limited features and symbology). Google Earth software is available for free at: <http://www.google.com/earth/index.html>. The KMZ file possesses on-line links to the GRI program and its products, as well as to this readme document (on-line version), the FGDC-compliant FAQ metadata (in .pdf format), and the GRI ancillary map information (.pdf) document pertaining to this dataset. Users are encouraged to open the readme document, FAQ metadata and the ancillary map information document outside of Google Earth should accessing the on-line versions via Google Earth be an issue. Users can also download Google Chrome (free at: <http://www.google.com/chrome/>) to view these files should their default browser not open these files from Google Earth.

Users of this data are cautioned about the locational accuracy of features and should not assume that features are exactly where they portrayed in Google Earth, ArcGIS or other software used to display the data. Refer to the positional accuracy report and use constraints within a map metadata record for additional information concerning the positional accuracy of features in a GRI dataset. Users are also encouraged to only use the Google Earth data for basic visualization, and to use the GIS data for any type of data analysis or investigation.

For detailed information regarding GIS parameters such as data attribute field definitions, attribute field codes, value definitions, and rules that govern relationships found in the data, refer to the NPS Geology-GIS Data Model document, gri_gdb_ggdm_v2dot3.pdf (available at: <http://science.nature.nps.gov/im/inventory/geology/GeologyGISDataModel.cfm>).

Digital geologic-GIS data and associated dataset/map files, as well as other GRI digital geologic-GIS datasets prepared as products of the GRI program are available to download from the NPS Data Store Search Application: <http://irma.nps.gov/App/Reference/Search>. To find GRI data for a specific park or parks select the appropriate park(s), enter "GRI" as a Search Text term, and then select the Search Button.

For a complete listing of Geologic Resources Inventory products and direct links to the download site, visit the GRI publications webpage: http://go.nps.gov/gri_products.

For more information about the Geologic Resources Inventory Program, visit the GRI webpage: <https://www.nps.gov/subjects/geology/gri.htm>, or contact:

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To provide feedback or to inquire about the use of GRI products, contact Jason Kenworthy (contact information listed above).

For information about using and/or obtaining GRI digital geologic-GIS data, contact:

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