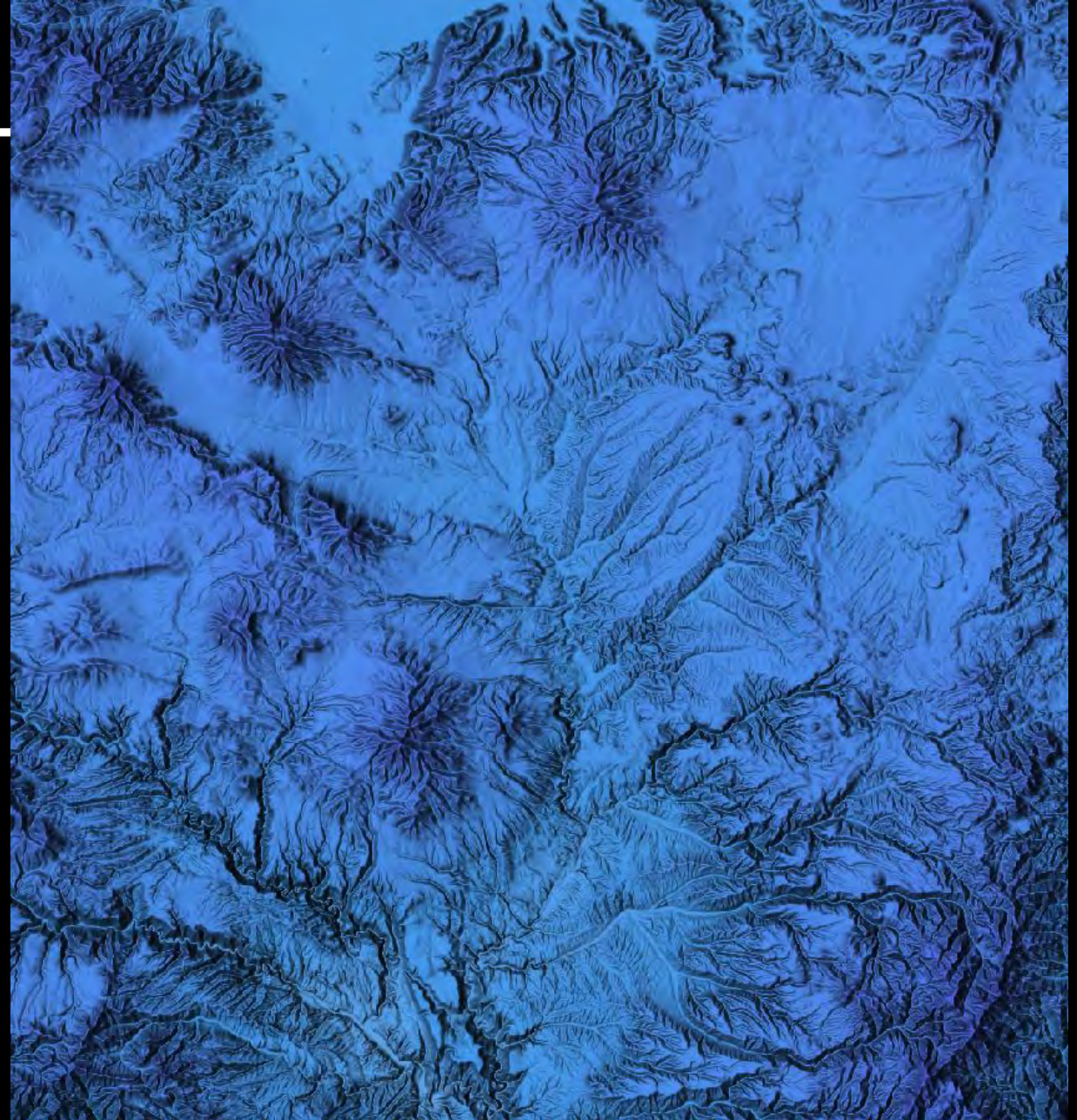


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# NEW MEXICO GIS DATA RGIS CLEARINGHOUSE

Shawn L. Penman, PhD, CFM, GISP



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# RGIS

## **State Digital Geospatial Data Clearinghouse**

The RGIS Program mission is to develop and expand geographic information and use of GIS technology, creating a comprehensive GIS resource for state and local governments, educational institutions, nonprofit organizations, and private businesses; to promote geospatial information and GIS technology as primary analytical tools for decision makers and researchers; and to provide a central Clearinghouse to avoid duplication and improve information transfer efficiency.

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# RGIS TIMELINE

37 YEARS OF SUPPORTING NEW MEXICO GEOSPATIAL COMMUNITY

RGIS  
ESTABLISHED

DIGITAL  
RGIS

RGIS STATUTORY  
DESIGNATION

RGIS 6

RGIS  
FUTURE

GIS Data  
Clearinghouse  
started

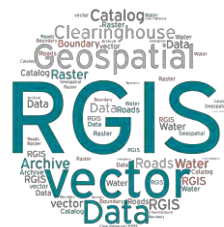
GIS Data and  
metadata download  
from web portal

HB 493 - publicly  
accessible  
repository for  
digital geospatial  
data

GSTORE

Modernize

19  
88



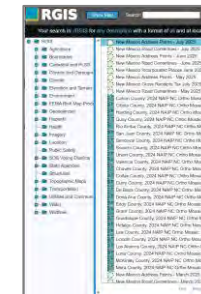
19  
96



20  
13



20  
18



20  
2?



---

# ESTABLISHMENT OF RGIS

## 1988

- House Bill 218 bill requested funds for establishing a GIS clearinghouse for the state
- \$750,000 for the first year
  - \$500,000 appropriated by the legislature contingent upon matching funds of \$250,000 from other sources

## 1989

- New Mexico State agencies were surveyed by four UNM units (TAC [EDAC], NMERI, DGR, and BBER) to assess the feasibility for developing and implementing a statewide computer mapping and geographic information system, RGIS.
  - Visits were made to Illinois, Wisconsin, and Minnesota to gather information on their approaches to similar statewide systems.
-

# 1990

RGIS became a member of the newly formed New Mexico Geographic Information Council, Inc. (NMGIC), established by the NM Information Systems Council (ISC).

**Memorandum of Understanding**  
between  
**New Mexico Geographic Information Council, Inc.**  
and  
**University of New Mexico  
Resource Geographic Information System**  
and  
**State of New Mexico  
General Services Department  
Information Systems Council  
State GIS Advisory Committee**

**Whereas:**  
The New Mexico Geographic Information Council, Inc., hereafter referred to as NMGIC, was established to promote cooperation among geographic information users and promote the exchange of geographic information within New Mexico; and

**Whereas:**  
NMGIC has been officially recognized by the Governor of New Mexico via executive order 87-19; and

**Whereas:**  
NMGIC represents, via its membership, a broad range of GIS activities in New Mexico; and

**Whereas:**  
NMGIC represents state, federal, local government, university, and private entities working with or interested in geographic information in New Mexico; and

**Whereas:**  
The Resource Geographic Information System, hereafter referred to as RGIS, includes the management and operation of a GIS clearinghouse for the State of New Mexico; and

**Whereas:**  
The State GIS Advisory Committee promotes cooperation among state agencies in the use, exchange, and maintenance of geographically referenced data in New Mexico; and

**Whereas:**  
NMGIC, RGIS, and the State GIS Advisory Committee represent a broad cross-section of GIS users, activities, and responsibilities in New Mexico and share in the common goals of geographic data development and education in New Mexico, now

**Therefore:**  
A need exists for formal channels of communication between NMGIC, RGIS, and the State GIS Advisory Committee for purposes of information exchange and recommendations concerning GIS in New Mexico.

**Be It Understood:**  
That a formal liaison between NMGIC, RGIS, and the State GIS Advisory Committee be established; and

**Be It Understood:**  
That formal channels for the exchange of information and recommendations be established; and

**Be It Understood:**  
That the three parties intend to cooperate in all matters that are prudent, efficient, warranted, and within the bounds of their individual operating environments; and

**Be It Understood:**  
That this MOU is the principal document describing the working relationships between NMGIC, RGIS, and the State GIS Advisory Committee; and

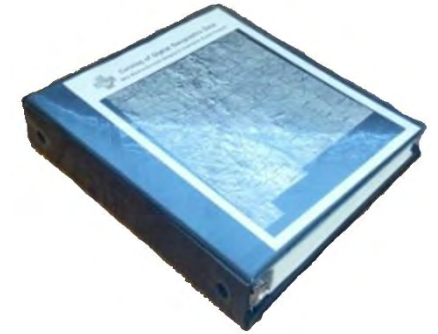
**Be It Understood:**  
That this MOU can be terminated at any time by mutual agreement of the three parties.

*Thomas Henderson*     *Buster Henriksen*     *Charles Thomas*  
President                      PI, RGIS                      Chairman  
NMGIC, Inc.                      Information Systems Council

11-28-90     11-28-90     11/29/90  
Date                      Date                      Date

---

# RGIS INNOVATION



1992

- RGIS clearinghouse opened.
- Digital data provided via 4mm and 8mm tapes.



1993

- Published a catalog of digital geographic data in New Mexico.
- Containing file descriptions for “Resource Data”, “Decennial Census Data” and “Socioeconomic Data”, all bound in a 3-ring binder for easy additions and updates.
- The catalog sold for **\$40**.

---

# 1994

EDAC received an FGDC Cooperative Agreement Program award to develop FGDC-compliant metadata for digital data in the RGIS Clearinghouse.

# Metadata!!!





- [New @ RGIS](#)
- [Website Map](#)
- [Program](#)
- [Clearinghouse](#)
- [Training](#)
- [Reports](#)
- [News & Notes](#)
- [Other GIS Links](#)

 [Training Opportunities](#)  
ESRI  
Arc/Info Training

 [Project Notes:](#)  
New Mexico  
FGDC Framework Project

#### ● The Program

The New Mexico Resource Geographic Information System (RGIS) is a cooperative Program between the University of New Mexico (UNM) and the State of New Mexico General Services Department (GSD). Representatives from three UNM Public Service and Research Units (Earth Data Analysis Center (EDAC), Bureau of Business and Economic Research (BBER), and New Mexico Engineering Research Institute (NMERI)) comprise the RGIS Team and manage the Program. Program components include a Clearinghouse, database development, technical support, training, geographic information coordination, and project support for state agencies and local government.

The Program is dedicated to advancing applications of geographic information system technology within New Mexico's State agencies, local government and private industry. GIS technology is an important tool for managing business and government. The Program provides access to data, training, and technical support for users desiring to incorporate geographic information into their decision making processes. Outreach programs to county and local governments encourage effective and efficient management through coordinated development of geographic information. The RGIS Program is a focal point and clearinghouse for spatial geographic information and related technologies in New Mexico.

*Last Update: Tuesday, January 06, 1998 8:23:39 AM*

*Please forward any questions or comments regarding the RGIS home page to:*

University of New Mexico  
Earth Data Analysis Center  
Bandelier West, Room 111  
Albuquerque, NM 87131-6031  
(505)277-3622 Ext. 231 Fax: (505)277-3614  
Jennifer Bondick  
[bondick@spock.unm.edu](mailto:bondick@spock.unm.edu)



Copyright © 1996  
Earth Data Analysis Center  
[University of New Mexico](#)

# 1996

- Website inaugurated in January
- Provided information on the program and metadata for files in the clearinghouse.
- Digital data were not available yet via the website.

# No Data Downloads Yet

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# 1996

Version 1.0 of the 3-volume CD-ROM set of clearinghouse data:

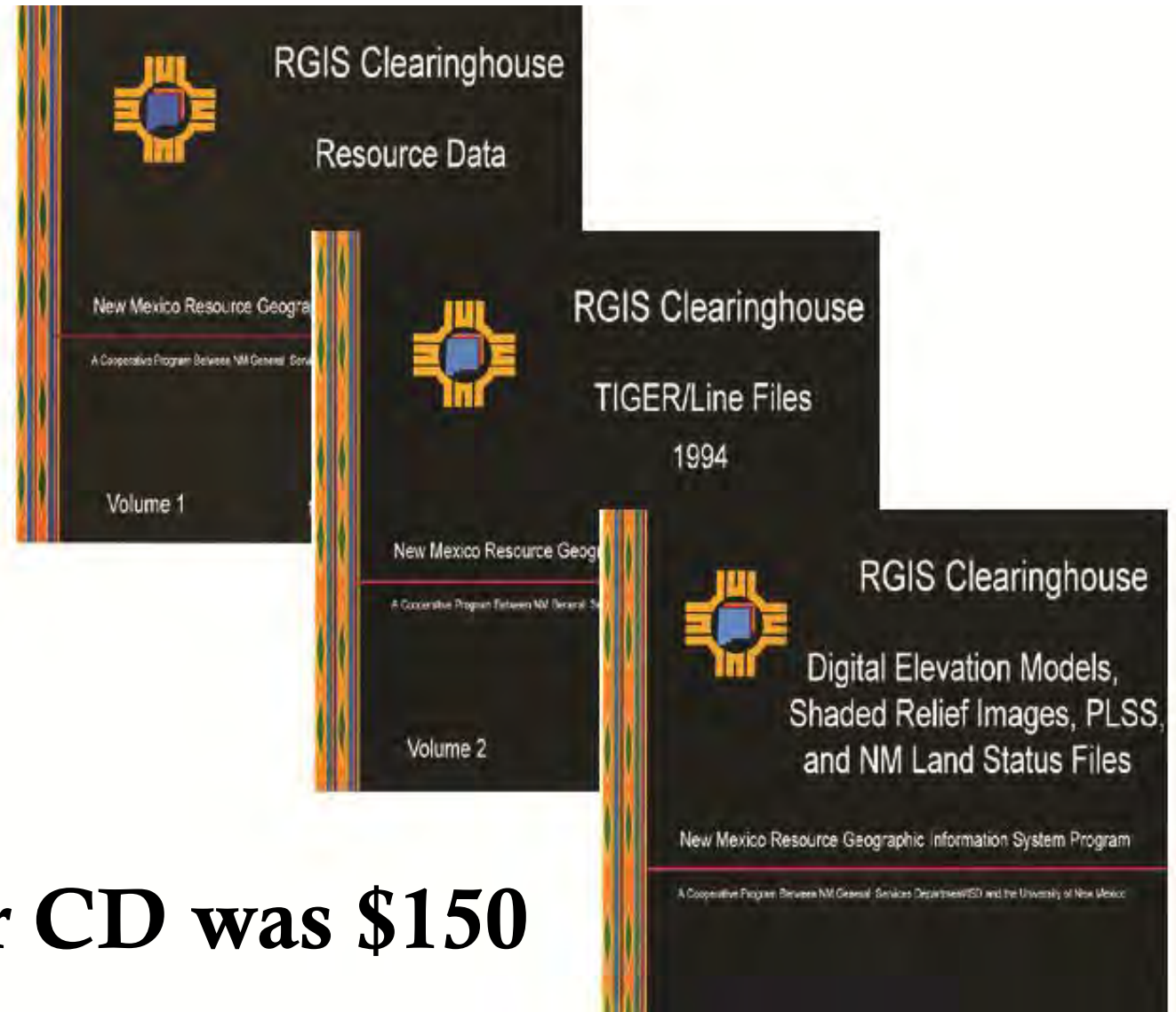
Volume 1 – *Resource Data*;

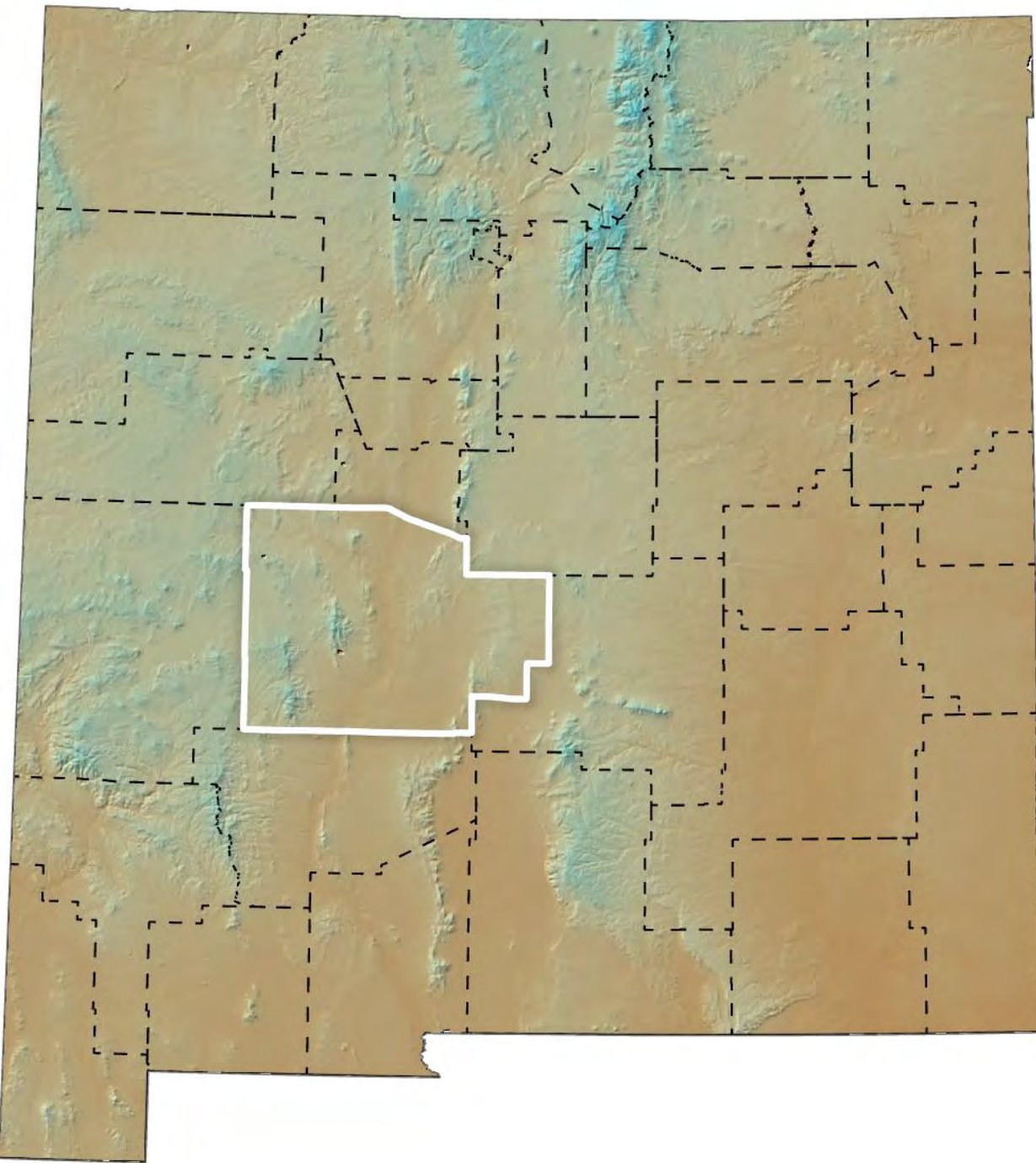
Volume 2 – *TIGER/Line Files-1994*;

Volume 3 – *DEMs, Shaded Relief Images, PLSS, and NM Land Status Files*.

All data were processed in ARC/Info and contained FGDC-compliant metadata.

**Cost per CD was \$150**





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# 1996

Socorro County was selected to demonstrate the usefulness of GIS in local government and to show how RGIS could support local government's geographic needs. The demonstration project was presented to other New Mexico counties that were in the early stages of GIS implementation or considering GIS as a tool for analyzing and mapping their geographic information.

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# 1997



- RGIS Clearinghouse was upgraded to a National Spatial Data Infrastructure (NSDI) compliant node.
  - Metadata in the clearinghouse could be searched by keywords and/or geographic coordinates.
  - Users worldwide found RGIS Data via queries submitted through the NSDI gateway.
-

---

# 1998

- Version 2 of the *Resource Data CD* containing updated and new files was released in 1998. Of note is the change from the Lambert Conformal Conic projection to decimal degrees.
- The first metadata training workshops supported by FGDC and RGIS were held. These hands-on workshops were presented to state and local governments in New Mexico as well as to several agencies in surrounding states.

## Documenting GIS Data Using ArcCatalog

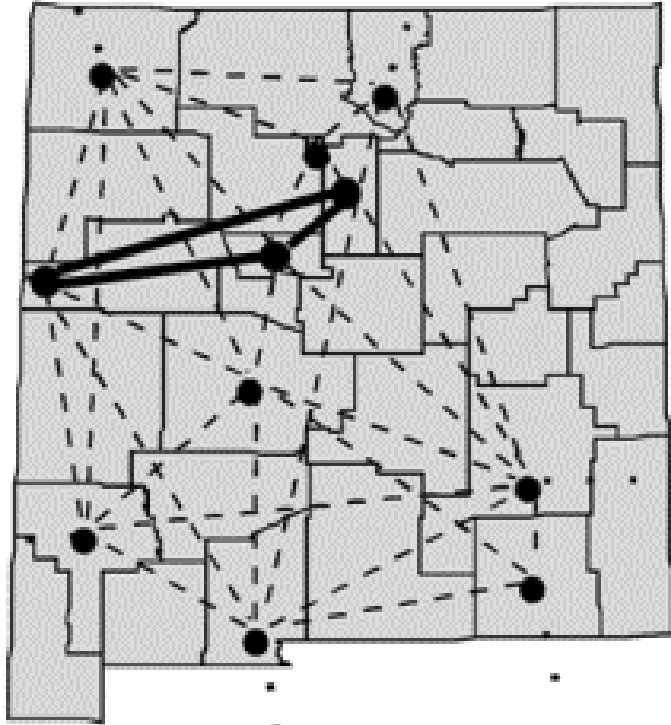


Workshop Presented by  
Amy Budge, Earth Data Analysis Center  
and  
Rich Friedman, City of Farmington

December 8, 2004

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1999



- An RGIS Affiliate Program was initiated as part of an ongoing effort to promote understanding and use of spatial data throughout New Mexico. RGIS negotiated with the NM Water Resources Research Institute and the NM State Library to establish the first affiliates.

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# 2001

RGIS website was redesigned to provide online access to digital data in the clearinghouse with a “simple click of the button”

# 2002

Road centerline data collected by New Mexico counties were made available via the RGIS clearinghouse. The data were collected by crews using GIS and GPS.



**RGIS**  
New Mexico Resource Geographic Information System Program

RGIS Home    FAQ's    Reference Maps

**Menu Key**  
Click on icon to expand menu

**NEW New Data**

- County/City Links
- Digital Orthophotography
- Geology
- Quad Grids and Geodetic Control
- Socioeconomic Data

**All Data**

- Boundaries
- Cities and Towns
- Climate
- County/City Links
- Digital Orthophotography
- Elevation
- Geographic Place and Feature Names
- Geology
- Land Ownership
- Land Use/Land Cover
- PLSS (Township, Range, Section)
- Quad Grids and Geodetic Control
- Shaded Relief

Extent Search    Free Text Search

New releases (dataset) added in the last 30 days.

**Geographic Place and Feature Names**

File Description (link to metadata)	Extent	Image	Arc Export	Shape
RGIS: Boundaries	New Mexico	View	Download	Download
RGIS: Centralized Names Information Systems	New Mexico	View	Download	Download
RGIS: Historic Towns, Parks, Indian Reservations, CIVIL Reservations, Reserves	New Mexico	View	Download	Download
RGIS: Alluvial Terraces Locations	New Mexico	View	Download	Download
RGIS: Oilfields, Hops, Obss, Towers, Man- made structures	New Mexico	View	Download	Download
RGIS: Populated Places	New Mexico	View	Download	Download
RGIS: Transportation Routes	New Mexico	View	Download	Download
RGIS: Water Features	New Mexico	View	Download	Download
RGIS: Wells	New Mexico	View	Download	Download

Quick Access to a Page of Data Listings:  
(510/page)  
1

[All Entries]  
(limited to no more than 1000 entries/page)

Alphabetical Groups:  
(510/page)

2001  
**FREE DATA**

---

# 2003

RGIS and EDAC were recipients of ESRI's Special Achievement in GIS Award.





**Menu Key**  
Click on icon to expand menu

## Welcome to the RGIS Clearinghouse Data Download Site.

**NEW** **New Data**

- Boundaries
- Census Data
- Cities and Towns
- Climate
- Digital Orthophotography
- Elevation
- Geographic Place and Feature Names
- Geology
- Land Use/Land Cover
- Quad Grids and Geodetic Control
- Socioeconomic Data
- Soils
- Transportation
- Vegetation
- Water Resources

We are in the process of updating files on RGIS. Please note that there are many files that show up under **New Data**, and in many cases, **New** means that the files have been updated to have both FGDC compliant xml metadata and that the shapefile now has a projection file. This comment pertains to older files (1980 Census, 1990 Census, 2000 Census, Geology, Land Use, 1994 TIGER Roads, 2000 TIGER Roads, 2000 TIGER Hydrography, and Road and Hydrography DLG data). All other data showing in **New Data** section are new versions of the data. We have also removed the old coverages, because most people are using shapefiles now. If you need a coverage version, please contact us.

We are also noticing that people are having problems using WinZip to unzip files. The files were zipped with an OpenSource version of WinZip called 7Zip. We are finding that WinZip is giving an error when unzipping some files. We recommend that you download the OpenSource version called 7Zip, <http://www.7-zip.org/> and you should have no problem in opening the zip files. We are not sure what changed recently, but we are finding people have problems with one file and not with a whole series of data. Please let us know if this solution does not work.

### New Developmental Imagery Services Now Available

RGIS is now providing access to the developmental imagery services that were originally developed as part of the data delivery system for the new 2005/2006 Digital Orthophotography data acquisition, and have now been expanded to include additional imagery sources. These services are based upon the [Open Geospatial Consortium's](#) Web Map Services (WMS) standard, which is an open standard for the delivery of map images through simple web requests. This standard is increasingly supported by a large number of desktop and server GIS applications and online mapping systems.

The RGIS imagery services are currently accessible through three access methods:

- Through a WMS [GetCapabilities request](#). This general access method is used by a

# 2008 WEBSITE REDESIGN

# 2013



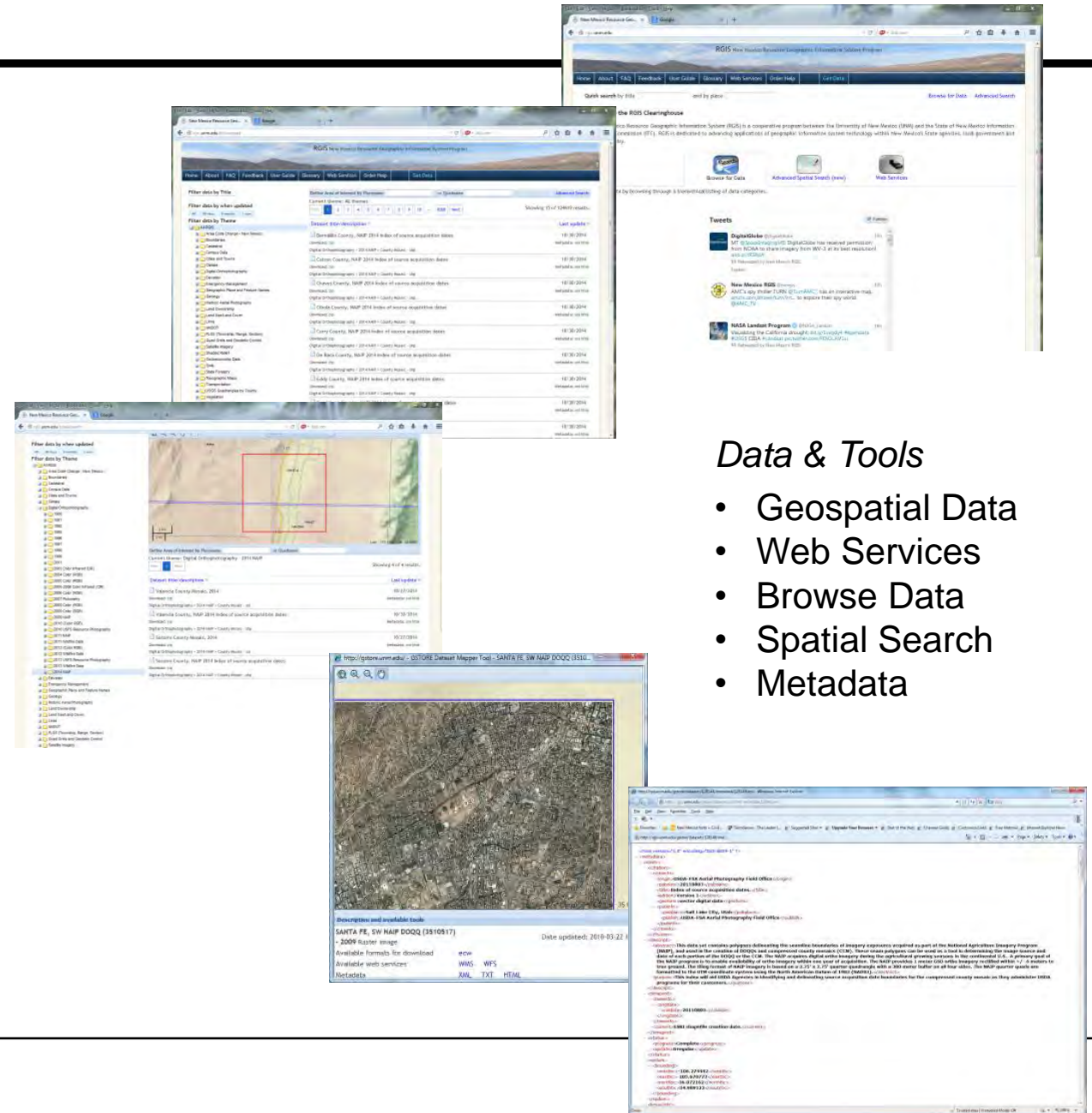
HB493 designated RGIS as the State Digital Geospatial Data Clearinghouse



State Appropriation for FY 2013: \$63,100



The RGIS website was redesigned to accommodate more sophisticated capabilities such as data discovery, access, and web mapping services.



## Data & Tools

- Geospatial Data
- Web Services
- Browse Data
- Spatial Search
- Metadata

# 2018 - RGIS.UNM.EDU/RGIS6



GSToRE Developed



Spatial Search



Download formats expanded

The screenshot displays the RGIS web application interface. At the top, there is a search bar with the text "Your search in: /RGIS for any description with a format of all and at location anywhere found 89092 results." Below the search bar, a map of the United States is shown, with a blue rectangular search area highlighted over the New Mexico region. A black circle highlights the "Spatial Search" button in the top left corner of the map area. On the left side, there is a navigation menu with various categories such as Agriculture, Boundaries, Cadastral and PL, Census and Demography, Climate, Elevation and Terrain, Environment, FEMA Risk Map Products, Geosciences, Hazards, Health, Imagery, Location, Public Safety, SOS Voting Districts, State Agencies, Structures, Topographic Maps, Transportation, Utilities and Communication, Water, and Wildfires. Below the map, there is a list of search results, each with a "Go to extent" button and a "Download +" button. The results include various datasets related to broadband areas, address points, road centerlines, and wilderness areas in New Mexico. At the bottom of the page, there is a pagination control showing "First Previous 1 2 3 4 5 6 7 8 9 10 Next Last".

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# CURRENT RGIS



# RGIS

- Browse
- Search
  - Keyword
  - Filters
  - Spatial
- Download
  - Formats
  - Metadata
  - Services

The screenshot displays the RGIS web application interface. At the top, there is a search bar with the text "Your search in: /RGIS for any description with a format of all and at location anywhere found 91549 results." The search bar contains the text "New Mexico Address Points". To the right of the search bar are buttons for "Show Map", "Formats" (with radio buttons for Rasters, Vectors, Files, and All), and "Clear Search".

On the left side, there is a navigation menu with a tree view of categories under "RGIS":

- RGIS
  - Agriculture
  - Boundaries
  - Cadastral and PLSS
  - Census and Demography
  - Climate
  - Elevation and Terrain
  - Environment
  - FEMA Risk Map Products
  - Geosciences
  - Hazards
  - Health
  - Imagery
  - Location
  - Public Safety
  - SOS Voting Districts
  - State Agencies
  - Structures
  - Topographic Maps
  - Transportation
  - Utilities and Communication
  - Water
  - Wildfires

The main content area shows a list of search results. The first few results are:

- New Mexico Address Points - October 2024
- New Mexico Road Centerlines - October 2024
- New Mexico Incorporated Places October 2024
- New Mexico Address Points - September 2024
- New Mexico Road Centerlines - September 2024
- New Mexico Building Footprints
- City of Rio Rancho Tax Increment Development Districts
- New Mexico Voting Precincts July 2024
- New Mexico Gross Receipts Tax July-Dec 2024
- New Mexico Incorporated Places April 2024
- New Mexico Property Tax Districts TY2023
- Taos Ski Valley Tax Increment Development District
- Anthony Water and Sanitation District
- Mesa Del Sol Tax Increment Development District
- New Mexico School Board Districts Fall 2023
- San Juan Community College District
- School Districts 2023
- New Mexico House District Boundaries
- New Mexico Plan Inventory December 2021 Version
- New Mexico Senate District Boundaries

Below these are several files with names like "PWT-294\_S\_4\_FMN\_1-001\_160\_geo.tif" through "PWT-294\_S\_4\_FMN\_1-002\_157\_geo.tif". Each result has a "Download +" button to its right.

At the bottom of the page, there is a pagination control with buttons for "First", "Previous", "1", "2", "3", "4", "5", "6", "7", "8", "9", "10", "Next", and "Last".

# BROWSE CATALOG



Click on Directory  
for data results

**RGIS** Show Map Search: \_\_\_\_\_ Formats: ● Rasters ● Vectors ● Files ● All Clear Search

Your search in: /RGIS for any description with a format of all and at location anywhere found 91549 results.

- RGIS
  - Agriculture
  - Boundaries
  - Cadastral and PLSS
  - Census and Demography
  - Climate
  - Elevation and Terrain
  - Environment
  - FEMA Risk Map Products
  - Geosciences
  - Hazards
  - Health
  - Imagery
  - Location
  - Public Safety
  - SOS Voting Districts
  - State Agencies
  - Structures
  - Topographic Maps
  - Transportation
  - Utilities and Communication
  - Water
  - Wildfires

New Mexico Address Points - October 2024	Download +
New Mexico Road Centerlines - October 2024	Download +
New Mexico Incorporated Places October 2024	Download +
New Mexico Address Points - September 2024	Download +
New Mexico Road Centerlines - September 2024	Download +
New Mexico Building Footprints	Download +
City of Rio Rancho Tax Increment Development Districts	Download +
New Mexico Voting Precincts July 2024	Download +
New Mexico Gross Receipts Tax July-Dec 2024	Download +
New Mexico Incorporated Places April 2024	Download +
New Mexico Property Tax Districts TY2023	Download +
Taos Ski Valley Tax Increment Development District	Download +
Anthony Water and Sanitation District	Download +
Mesa Del Sol Tax Increment Development District	Download +
New Mexico School Board Districts Fall 2023	Download +
San Juan Community College District	Download +
School Districts 2023	Download +
New Mexico House District Boundaries	Download +
New Mexico Plan Inventory December 2021 Version	Download +
New Mexico Senate District Boundaries	Download +
PWT-294_S_4_FMN_1-001_160_geo.tif	Download +
PWT-294_S_4_FMN_1-001_161_geo.tif	Download +
PWT-294_S_4_FMN_1-002_148_geo.tif	Download +
PWT-294_S_4_FMN_1-002_149_geo.tif	Download +
PWT-294_S_4_FMN_1-002_150_geo.tif	Download +
PWT-294_S_4_FMN_1-002_151_geo.tif	Download +
PWT-294_S_4_FMN_1-002_152_geo.tif	Download +
PWT-294_S_4_FMN_1-002_153_geo.tif	Download +
PWT-294_S_4_FMN_1-002_154_geo.tif	Download +
PWT-294_S_4_FMN_1-002_155_geo.tif	Download +
PWT-294_S_4_FMN_1-002_156_geo.tif	Download +
PWT-294_S_4_FMN_1-002_157_geo.tif	Download +

Results

First Previous 1 2 3 4 5 6 7 8 9 10 Next Last

# BROWSE CATALOG

Expand Directories to find data set of interest

The screenshot shows the RGIS web catalog interface. At the top, there is a search bar with the text "Your search in: /RGIS/Hazards for any description with a format of all and at location anywhere found 58 results." Below the search bar, there are options for "Formats: Rasters Vectors Files All" and a "Clear Search" button. The left sidebar displays a tree view of directories under "RGIS". The "Hazards" directory is expanded, and a black arrow points to it. The right pane shows a list of search results, each with a "Download +" button.

Search Results	Action
Brabb et al Landslide data and images - 1	Download +
Brabb et al Landslide data and images - 2	Download +
Lightning Strike Data for New Mexico, 1986	Download +
Lightning Strike Data for New Mexico, 1987	Download +
Lightning Strike Data for New Mexico, 1988	Download +
Lightning Strike Data for New Mexico, 1989	Download +
Lightning Strike Data for New Mexico, 1990	Download +
Lightning Strike Data for New Mexico, 1991	Download +
Lightning Strike Data for New Mexico, 1992	Download +
Lightning Strike Data for New Mexico, 1993	Download +
Lightning Strike Data for New Mexico, 1994	Download +
Lightning Strike Data for New Mexico, 1995	Download +
Lightning Strike Data for New Mexico, 1996	Download +
Lightning Strike Data for New Mexico, 1997	Download +
Lightning Strike Data for New Mexico, 1998	Download +
Lightning Strike Data for New Mexico, 1999	Download +
NM Fire Burn Severity 2012	Download +
New Mexico Mobile Home Percentage by County	Download +
New Mexico Tornado Patterns	Download +
NM Fire Burn Severity 1985	Download +
NM Fire Burn Severity 1986	Download +
NM Fire Burn Severity 1987	Download +
NM Fire Burn Severity 1988	Download +
NM Fire Burn Severity 1989	Download +
NM Fire Burn Severity 1990	Download +
NM Fire Burn Severity 1991	Download +
NM Fire Burn Severity 1992	Download +

# BROWSE CATALOG

Show Map

The screenshot displays the RGIS web application interface. At the top, there is a search bar with the text "Your search in: /RGIS/ Digital Orthophotography for any description with a format of all and at location anywhere found 51548 results." A "Hide Map" button is visible next to the search bar. Below the search bar, a map of the southwestern United States is shown, with several blue rectangular overlays indicating search results. To the left of the map is a navigation tree with categories such as "Agriculture", "Boundaries", "Cadastral and PLSS", "Census and Demogra", "Climate", "Elevation and Terrain", "Environment", "FEMA Risk Map Products", "Geosciences", "Geology", "Soils", "Hazards", "Health", "Imagery", "Digital Orthophotography", "Historic Aerial Photography", "Satellite Imagery", "Location", "Public Safety", "SOS Voting Districts", "State Agencies", "Structures", "Topographic Maps", "Transportation", and "Utilities and Communication". The "Digital Orthophotography" category is expanded, showing a list of years from 1988-2001 to 2020, along with "Historic Aerial Photography" and "Satellite Imagery". Below the map, a table lists search results for "MRCOG 2020 Digital Orthophotography" for various counties in New Mexico, including Bernalillo, City of Albuquerque, Kirtland Air Force Base and Sandia National Laboratories, Sandoval, Torrance, Valencia, and several other counties. Each result has buttons for "Add to map", "Go to extent", and "Download". At the bottom of the results table, there is a pagination control showing "First", "Previous", "1", "2", "3", "4", "5", "6", "7", "8", "9", "10", "Next", and "Last".

Additional pages

# SEARCH RGIS CATALOG

Keywords

The screenshot shows the RGIS search interface. At the top, the search bar contains the text "black mesa" and is highlighted with a red circle. Below the search bar, a message states: "Your search in: /RGIS for "black mesa" with a format of all and at location anywhere found 26 results." The interface is divided into three main sections: a left sidebar with a hierarchical tree of categories, a central map showing the search area in New Mexico, and a right panel displaying a list of 26 search results. Each result includes a small map icon, a text description of the search result, and three action buttons: "Add to map", "Go to extent", and "Download +".

**RGIS** Hide Map Search: black mesa Formats: Rasters Vectors Files All Clear Search

Your search in: /RGIS for "black mesa" with a format of all and at location anywhere found 26 results.

**Spatial Search**

- RGIS
  - Agriculture
  - Boundaries
  - Cadastral and PLSS
  - Census and Demography
  - Climate
  - Elevation and Terrain
  - Environment
  - FEMA Risk Map Products
  - Geosciences
    - Geology
    - Soils
  - Hazards
  - Health
  - Imagery
    - Digital Orthophotography
      - 1988-2001
      - 2003
      - 2004
      - 2005
      - 2006
      - 2009
      - 2011
      - 2012
      - 2013
      - 2014
      - 2016
      - 2017
      - 2018
      - 2020
    - Historic Aerial Photography
    - Satellite Imagery
  - Location
  - Public Safety
  - SOS Voting Districts
  - State Agencies
  - Structures
  - Topographic Maps
  - Transportation
  - Utilities and Communication

	Black Mesa, NE, NM, 2018 NAIP m_3210650_ne_13_060_20190107	Add to map	Go to extent	Download +
	Black Mesa, NW, NM, 2018 NAIP m_3210650_nw_13_060_20190107	Add to map	Go to extent	Download +
	Black Mesa, SE, NM, 2018 NAIP m_3210650_se_13_060_20190107	Add to map	Go to extent	Download +
	Black Mesa, SW, NM, 2018 NAIP m_3210650_sw_13_060_20190107	Add to map	Go to extent	Download +
	Black Mesa, NE, NM, 2016 NAIP, m_3210650_ne_13_1_20160528	Add to map	Go to extent	Download +
	Black Mesa, NW, NM, 2016 NAIP, m_3210650_nw_13_1_20160528	Add to map	Go to extent	Download +
	Black Mesa, SE, NM, 2016 NAIP, m_3210650_se_13_1_20160528	Add to map	Go to extent	Download +
	Black Mesa, SW, NM, 2016 NAIP, m_3210650_sw_13_1_20160528	Add to map	Go to extent	Download +
	Black Mesa, NM, NE Quarter 32106, 2005, RGB	Add to map	Go to extent	Download +
	Black Mesa, NM, NW Quarter 32106, 2005, RGB	Add to map	Go to extent	Download +
	Black Mesa, NM, SE Quarter 32106, 2005, RGB	Add to map	Go to extent	Download +
	Black Mesa, NM, SW Quarter 32106, 2005, RGB	Add to map	Go to extent	Download +
	Black Mesa, NE, NM, 2009 NAIP n_3210650_ne_13_1_20090711	Add to map	Go to extent	Download +
	Black Mesa, NW, NM, 2009 NAIP n_3210650_nw_13_1_20090711	Add to map	Go to extent	Download +
	Black Mesa, SE, NM, 2009 NAIP n_3210650_se_13_1_20090711	Add to map	Go to extent	Download +
	Black Mesa, SW, NM, 2009 NAIP n_3210650_sw_13_1_20090711	Add to map	Go to extent	Download +
	Black Mesa, NE, NM, 2011 NAIP m_3210650_ne_13_1_20110521	Add to map	Go to extent	Download +
	Black Mesa, NW, NM, 2011 NAIP m_3210650_nw_13_1_20110521	Add to map	Go to extent	Download +
	Black Mesa, SE, NM, 2011 NAIP m_3210650_se_13_1_20110521	Add to map	Go to extent	Download +
	Black Mesa, SW, NM, 2011 NAIP m_3210650_sw_13_1_20110521	Add to map	Go to extent	Download +

First Previous 1 2 Next Last

# SPATIAL SEARCH

Click on Spatial Search, draw box, list of data within area of interest

The screenshot shows the RGIS web application interface. At the top, there is a search bar with the text "Your search in: /RGIS for any description with a format of all and at location anywhere found 89092 results." The search bar contains the text "Spatial Search" and "Las Vegas". A red circle highlights the "Spatial Search" text. Below the search bar, there is a map of New Mexico with a blue rectangular box drawn around the area of interest, which includes Las Vegas and Albuquerque. The map shows various geographical features, including cities, roads, and state boundaries. Below the map, there is a list of search results. The results are organized into a table with columns for the dataset name, "Add to map", "Go to extent", and "Download".

Dataset Name	Add to map	Go to extent	Download
Underserved Broadband Areas - Nov 2022		Go to extent	Download +
Underserved Broadband Areas With No Prior Awards - Nov 2022		Go to extent	Download +
Underserved Broadband Areas - Nov 2022		Go to extent	Download +
Underserved Broadband Areas with No Prior Awards - Nov 2020		Go to extent	Download +
Underserved and Underserved Broadband Areas - Nov 2022		Go to extent	Download +
Underserved and Underserved Broadband Areas with No Prior Awards - Nov 2022		Go to extent	Download +
New Mexico Address Points - October 2022	Add to map	Go to extent	Download +
New Mexico Road Centerlines - October 2022	Add to map	Go to extent	Download +
New Mexico Plan Inventory September 2022 Version		Go to extent	Download +
Connect New Mexico Pilot Program Applicant Project Areas	Add to map	Go to extent	Download +
New Mexico Incorporated Places October 2022	Add to map	Go to extent	Download +
New Mexico Address Points - September 2022	Add to map	Go to extent	Download +
New Mexico Road Centerlines - September 2022	Add to map	Go to extent	Download +
New Mexico Address Points - August 2022	Add to map	Go to extent	Download +
New Mexico Road Centerlines - August 2022	Add to map	Go to extent	Download +
BLM NLCS Wilderness Areas	Add to map	Go to extent	Download +
BLM New Mexico CADNSDI PLSS Townships	Add to map	Go to extent	Download +
BLM New Mexico Surface Ownership March 2022	Add to map	Go to extent	Download +
New Mexico CADNSDI PLSS Conflicted Areas	Add to map	Go to extent	Download +
New Mexico CADNSDI PLSS First Division (Sections)		Go to extent	Download +

At the bottom of the results list, there is a pagination control with buttons for "First", "Previous", "1", "2", "3", "4", "5", "6", "7", "8", "9", "10", "Next", and "Last".

# SPATIAL SEARCH RESULTS

Add to Map –  
Zoom to Extent

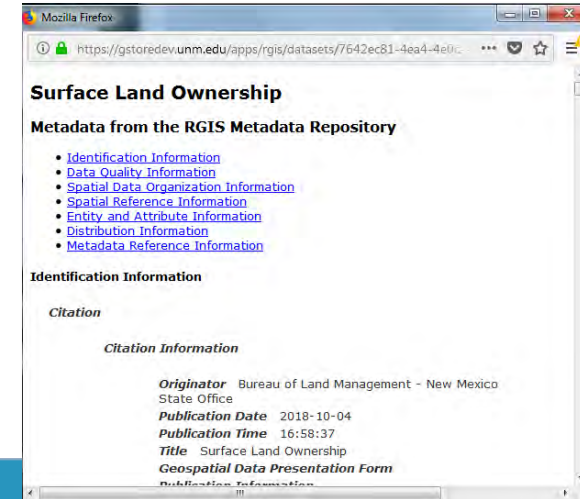
The screenshot shows the RGIS web application interface. The search bar contains the text: "Searching in: /RGIS for any description with a taxonomy of and a location of -107.10571256250002,32.00695811957121,-106.24877896875002,32.55627452582121". The map view shows a grid of search results over a geographic area. The results list includes:

Result Name	Add to map	Go to extent	Download
Leasburg 7.5 Minute Quad 32106, 10M Enhanced DEM, 2005, DEM GeoTIFF	Add to map	Go to extent	Download +
Picacho Mountain 7.5 Minute Quad 32106, 10M Enhanced DEM, 2005, DEM GeoTIFF	Add to map	Go to extent	Download +
Afton NW 7.5 Minute Quad 32106, 10M Enhanced DEM, 2005, DEM GeoTIFF	Add to map	Go to extent	Download +
Dona Ana 7.5 Minute Quad 32106, 10M Enhanced DEM, 2005, DEM GeoTIFF	Add to map	Go to extent	Download +
Black Mesa 7.5 Minute Quad 32106, 10M Enhanced DEM, 2005, DEM GeoTIFF	Add to map	Go to extent	Download +
Las Cruces 7.5 Minute Quad 32106, 10M Enhanced DEM, 2005, DEM GeoTIFF	Add to map	Go to extent	Download +
Organ Peak NW 7.5 Minute Quad 32106, 10M Enhanced DEM, 2005, DEM GeoTIFF	Add to map	Go to extent	Download +
San Miguel 7.5 Minute Quad 32106, 10M Enhanced DEM, 2005, DEM GeoTIFF	Add to map	Go to extent	Download +
Tortugas Mountain 7.5 Minute Quad 32106, 10M Enhanced DEM, 2005, DEM GeoTIFF	Add to map	Go to extent	Download +
NM Leasburg, US Topo 2013	Add to map	Go to extent	Download -
NM Picacho Mountain, US Topo 2013	Add to map	Go to extent	Download +
NM Afton NW, US Topo 2013	Add to map	Go to extent	Download +
Organ 7.5 Minute Quad 32106, 10M Enhanced DEM, 2005, DEM GeoTIFF	Add to map	Go to extent	Download +
Bishop Cap 7.5 Minute Quad 32106, 10M Enhanced DEM, 2005, DEM GeoTIFF	Add to map	Go to extent	Download +
Organ Peak 7.5 Minute Quad 32106, 10M Enhanced DEM, 2005, DEM GeoTIFF	Add to map	Go to extent	Download +

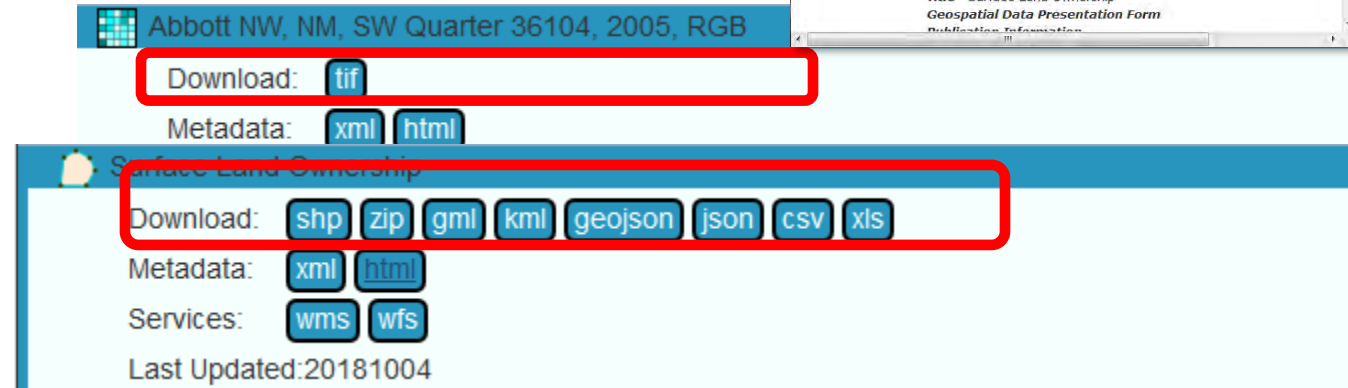
The 'Add to map' and 'Go to extent' buttons for the 'Dona Ana 7.5 Minute Quad 32106, 10M Enhanced DEM, 2005, DEM GeoTIFF' result are highlighted with a red box.

# RGIS

## Metadata



## Download Files

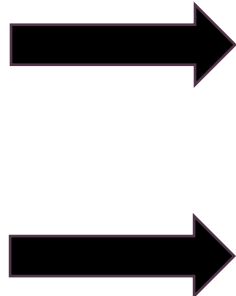


## Services



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# RGIS USERS



Top 10 Files		
Rank	Name	# of downloads
#1	New_Mexico_gross_receipts_tax_July_Dec_2021	650
#2	tl_2018_nm_county	630
#3	NM_Surface_Ownership_2021	515
#4	New_Mexico_gross_receipts_tax_Jan_June_2022	493
#5	ortho_1-1_hn_s_nm001_2020_1	350
#6	curryrooseveltbedem	313
#7	nm_relief_color	311
#8	PLSSFirstDivision	304
#9	NM_CadNSDI2_07262019_gdb	278
#10	Geologic_Formations	254

- RGIS Users
  - Higher Education
  - State & Federal Users
  - Industry
  - Non-Profits
  - Regional & Local Governments
  - Tribal Governments
-

---

# DATA & IMAGERY

- Boundaries
    - Administrative
      - District Attorney Districts
      - Land Ownership
      - School Districts
    - Economic
      - Gross Receipts Tax
      - Incorporated Places
      - Property Tax Rate Districts
    - Recreation
      - Wilderness Areas
      - Roadless Areas
  - PLSS
  - FEMA Projects
  - Hazards
  - Public Safety
    - EOC, Fire Stations, Police Stations
  - 911 Program Data
    - Roads & Address Points
-

---

# DATA & IMAGERY

- SOS Voting Districts
    - Courts
    - Education
      - Community College Districts
    - Precincts
    - House & Senate Districts
    - County Commission Districts
    - Special Districts
      - Arroyo & Flood Control
      - Conservancy
      - Hospital
      - Water & Sanitation
      - Watershed
  - Utilities
    - Broadband
  - Water
    - Acequias
    - Watershed boundaries
    - Flood Hazard Data
-

---

# BUILDING FOOTPRINTS



- Does your organization create footprints?
- NM Broadband Program working to keep dataset current and would like to include your data

# 2024 NAIP COUNTY MOSAICS

**RGIS** Show Map Search:  Formats:  Rasters  Vectors  Files  All Clear Search

Your search in: /RGIS/Imagery/Digital Orthophotography/2024/NAIP/County Mosaics for any description with a format of all and at location anywhere found 33 results.

- Hazards
- Health
- Imagery
  - Digital Orthophotograph
    - 1988-2001
    - 2003
    - 2004
    - 2005
    - 2006
    - 2008
    - 2009
    - 2010
    - 2011
    - 2012
    - 2013
    - 2014
    - 2016
    - 2017
    - 2018
    - 2020
    - 2022
    - 2024
      - NAIP
        - County Mosaics
    - Historic Aerial Photograph
    - Satellite Imagery
  - Location
  - Public Safety
  - SOS Voting Districts
  - State Agencies

Catron County, 2024 NAIP NC Ortho Mosaic	Download +
Cibola County, 2024 NAIP NC Ortho Mosaic	Download +
Harding County, 2024 NAIP NC Ortho Mosaic	Download +
Quay County, 2024 NAIP NC Ortho Mosaic	Download +
Rio Arriba County, 2024 NAIP NC Ortho Mosaic	Download +
San Juan County, 2024 NAIP NC Ortho Mosaic	Download +
Sandoval County, 2024 NAIP NC Ortho Mosaic	Download +
Socorro County, 2024 NAIP NC Ortho Mosaic	Download +
Union County, 2024 NAIP NC Ortho Mosaic	Download +
Valencia County, 2024 NAIP NC Ortho Mosaic	Download +
Chaves County, 2024 NAIP NC Ortho Mosaic	Download +
Colfax County, 2024 NAIP NC Ortho Mosaic	Download +
Curry County, 2024 NAIP NC Ortho Mosaic	Download +
De Baca County, 2024 NAIP NC Ortho Mosaic	Download +
Dona Ana County, 2024 NAIP NC Ortho Mosaic	Download +
Eddy County, 2024 NAIP NC Ortho Mosaic	Download +
Grant County, 2024 NAIP NC Ortho Mosaic	Download +
Guadalupe County, 2024 NAIP NC Ortho Mosaic	Download +
Hidalgo County, 2024 NAIP NC Ortho Mosaic	Download +
Lea County, 2024 NAIP NC Ortho Mosaic	Download +
Lincoln County, 2024 NAIP NC Ortho Mosaic	Download +
Los Alamos County, 2024 NAIP NC Ortho Mosaic	Download +
Luna County, 2024 NAIP NC Ortho Mosaic	Download +
McKinley County, 2024 NAIP NC Ortho Mosaic	Download +
Mora County, 2024 NAIP NC Ortho Mosaic	Download +
Otero County, 2024 NAIP NC Ortho Mosaic	Download +
Roosevelt County, 2024 NAIP NC Ortho Mosaic	Download +
San Miguel County, 2024 NAIP NC Ortho Mosaic	Download +
Santa Fe County, 2024 NAIP NC Ortho Mosaic	Download +
Sierra County, 2024 NAIP NC Ortho Mosaic	Download +
Taos County, 2024 NAIP NC Ortho Mosaic	Download +
Tarrant County, 2024 NAIP NC Ortho Mosaic	Download +

First Previous 1 Next Last

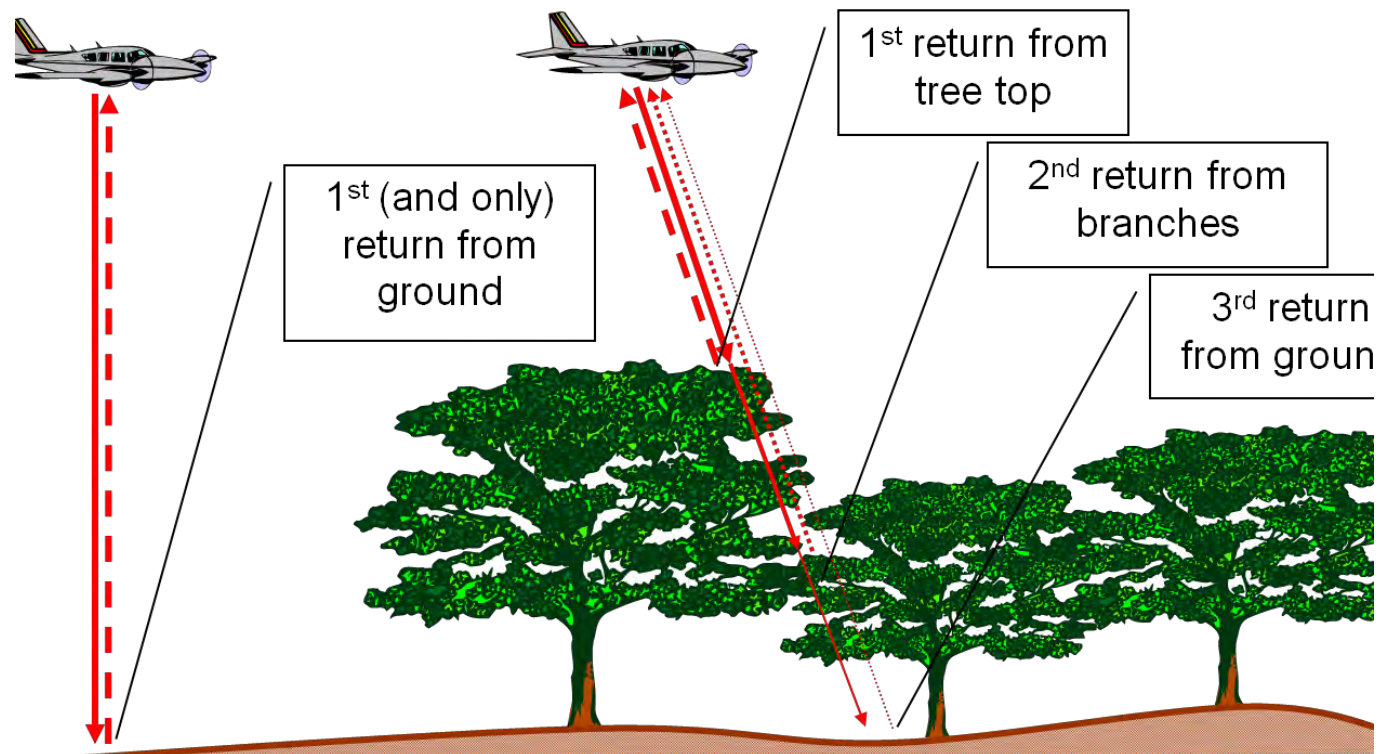
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# IMAGE ARCHIVE

- Historic aerial photography archive dating from the mid-1930s that covers New Mexico, portions of Arizona, and Texas.
  - U.S. Geological Survey
  - Army Map Service
  - U.S. Forest Service
    - National Aerial Photography Program
  - Soil Conservation Service
  - Bureau of Land Management
  - Agricultural Stabilization and Conservation Service
  - NASA
  - and several private firms.
  - Pacific Western Technologies
  - Thomas R Mann & Associates, Inc.
-

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# LIDAR RETURNS



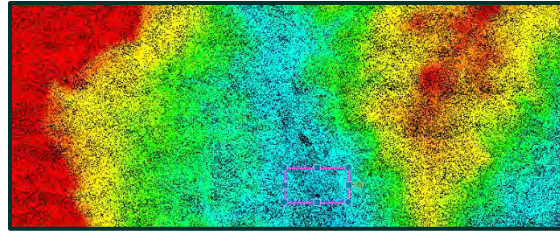
---

# 10 METER DEM VS USGS QL2 LIDAR

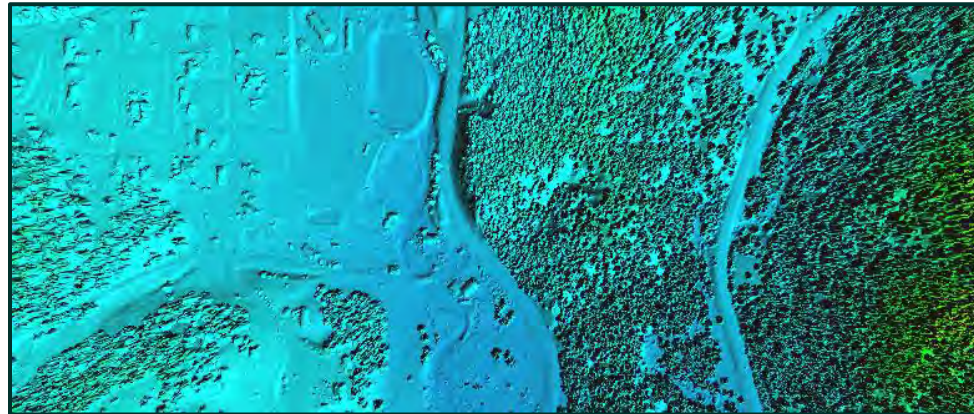


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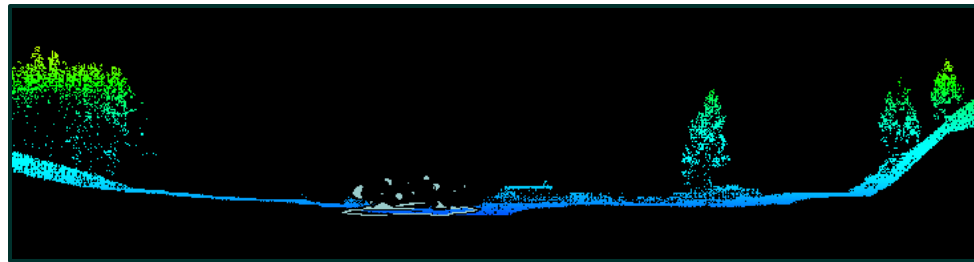
## Basic Lidar Products



Lidar Point Cloud, Colored by Elevation  
La Cueva Area (Valles Caldera Project, 2010)

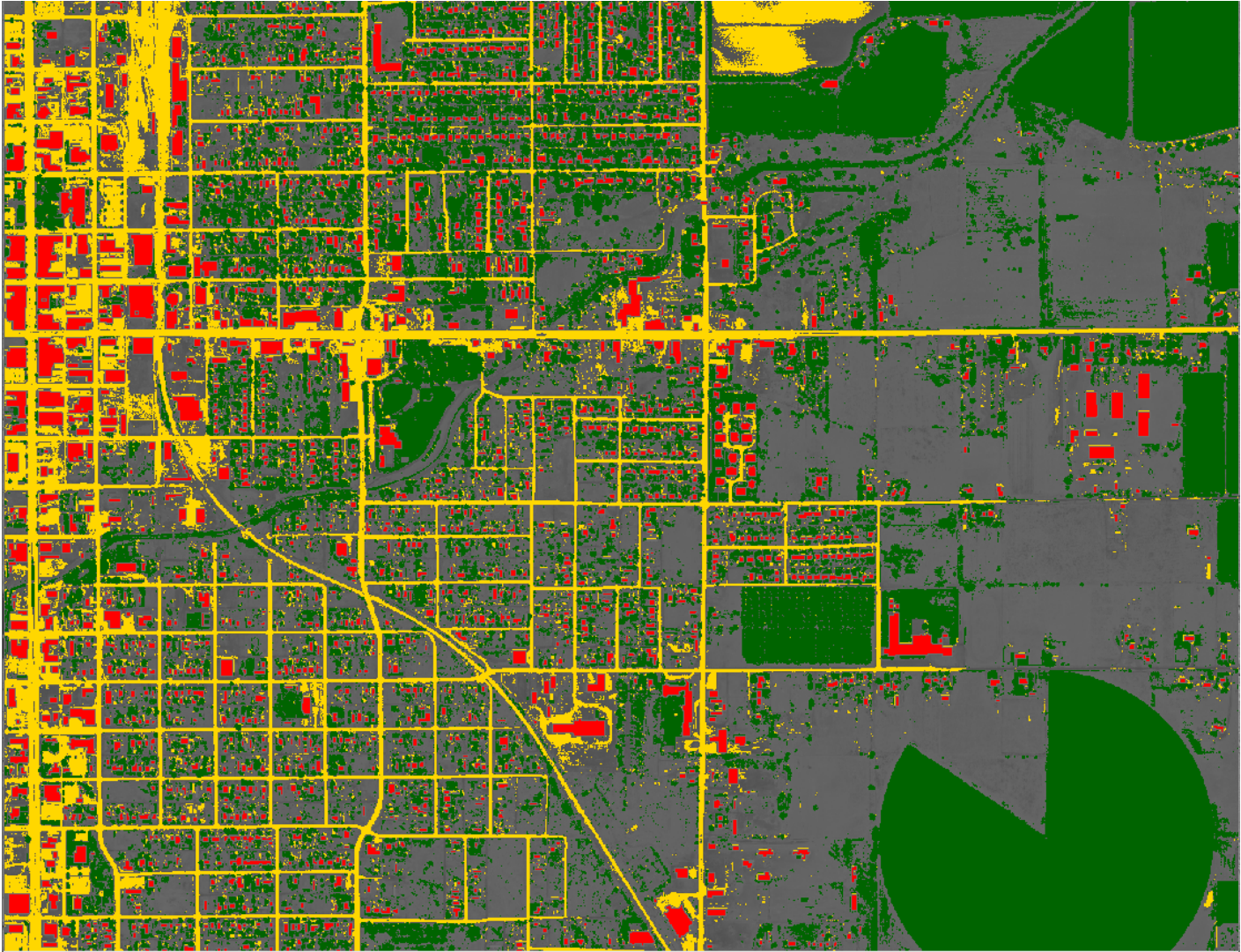


Surface Model



Side-View  
Profile

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# USGS QUALITY LEVELS

Quality Levels	Data Source	Horizontal Resolution	Vertical Accuracy	
		Point Density	RMSEz in Open Terrain	Equivalent Contour Accuracy
QL 1	LiDAR	8 points/m <sup>2</sup>	9.25 cm	1 foot
QL 2	LiDAR	2 points/m <sup>2</sup>	9.25 cm	1 foot
QL 3	LiDAR	1 – 0.25 points/m <sup>2</sup>	≤18.5 cm	2 feet
QL 4	Imagery/ LiDAR	1 – 0.04 points/m <sup>2</sup>	46.3 – 139 cm	5 – 15 feet
QL 5	Imagery/ IFSAR	0.04 points/m <sup>2</sup>	92.7 – 185 cm	10 – 20 feet

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## QL 2Lidar

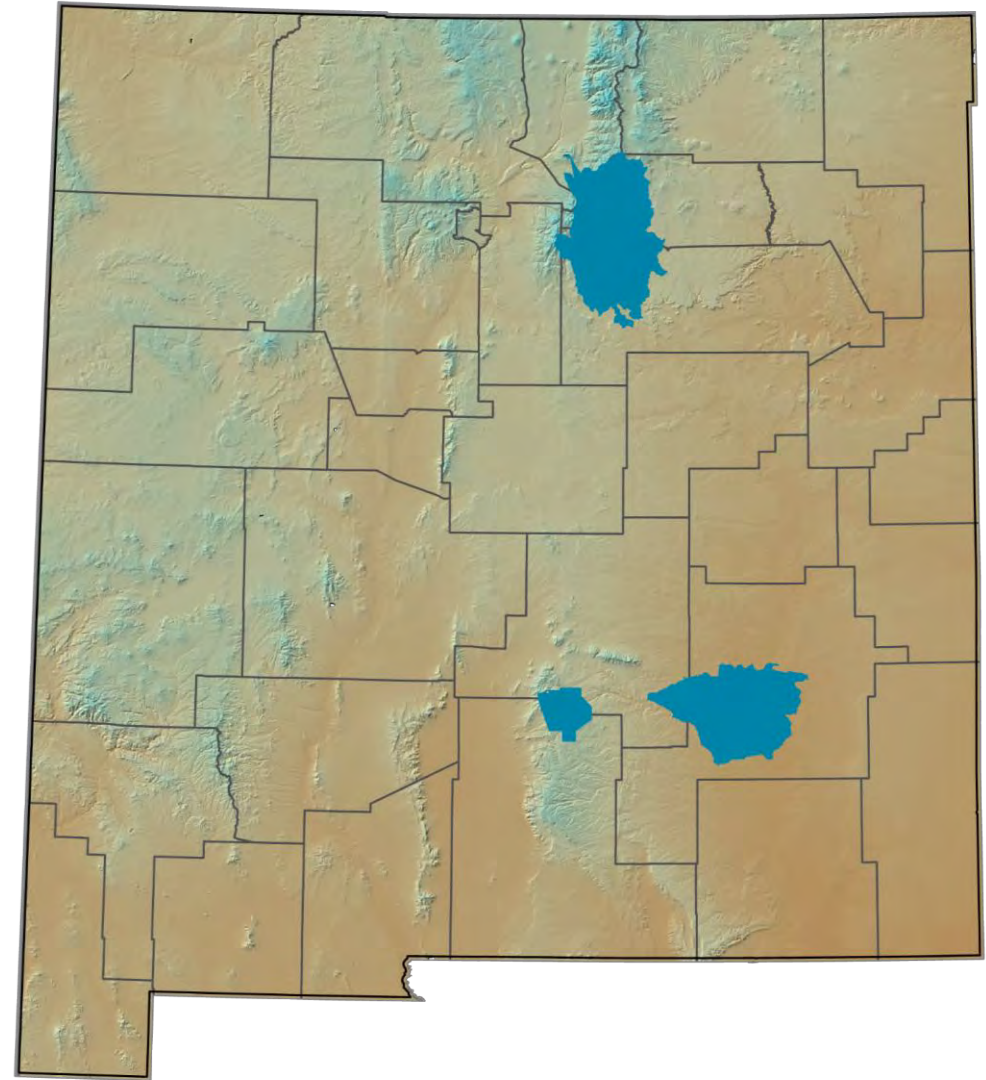
- Entire State of New Mexico

## QL 1 Lidar

- HPCC
- Ruidoso
- Roswell

Lidar not available for download from RGIS

- Email [spenman@edac.unm.edu](mailto:spenman@edac.unm.edu)



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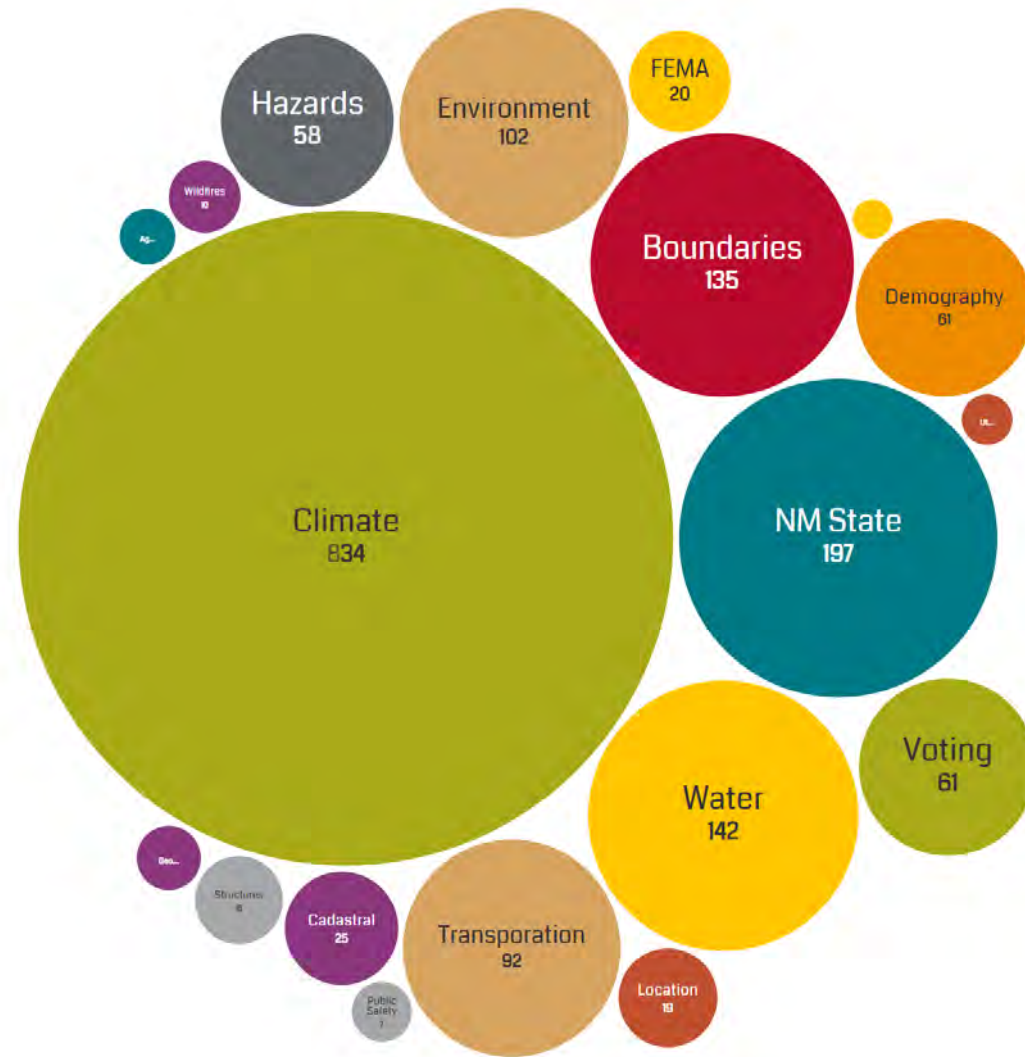
# CLEARINGHOUSE DATA

What is it and who uses it?

---

# 91,593

Datasets



# LIDAR USERS

---



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# DATA & IMAGERY

- DOQQs

- 1988-2001
- 2003
- 2004
- 2005
- 2006
- 2009
- 2011
- 2012
- 2013
- 2014
- 2016
- 2017
- 2018
- 2020
- 2022
- 2024



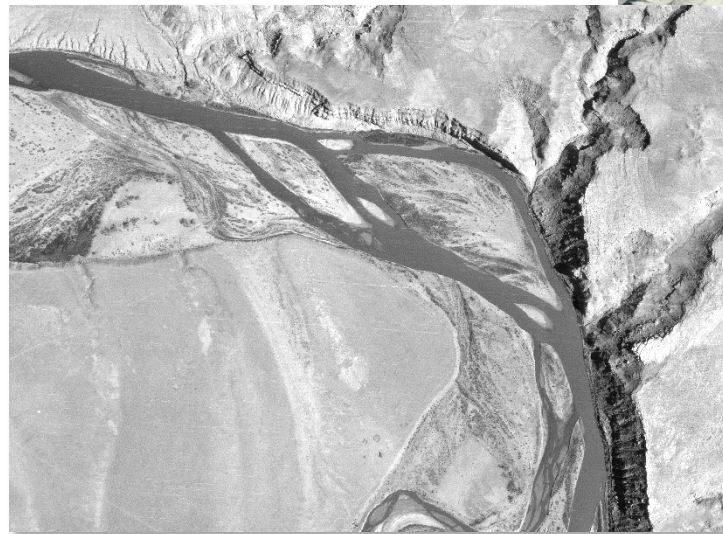
---

# NARA HISTORICAL AERIAL PHOTOGRAPHY

30,000 historical aerial photos scanned,  
georeferenced, documented, indexed, archived,  
and web-published



Navajo Mines 1977



San Juan 1976



Grants Mineral Belt 1977

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# FUTURE RGIS



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# MODERNIZE & REWRITE

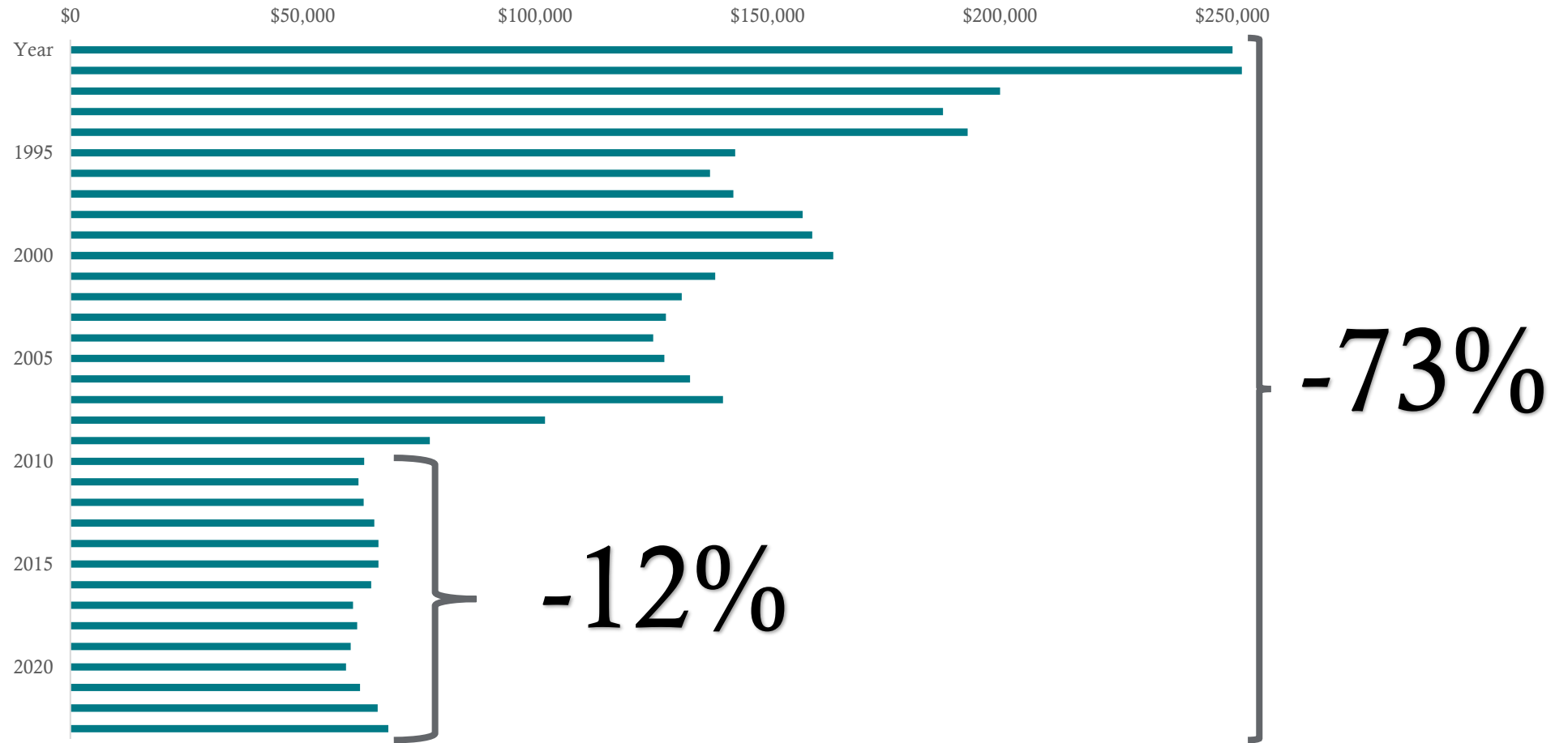
## Functionality

- Update Interface
- Lidar Service
- Image Services
- Clip/Zip/Ship
- Upload AOI, search and list files
- Saved Searches

## Data

- Environmental
  - Lidar derived products
  - Recreation
  - National datasets pre-processed to NM
-

# RGIS FUNDING



Current Funding \$68,400

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# RGIS FUNDING

Funded through Research and Public Service Project (RPSP)

- EDAC planning larger request to include:
  - Modernize RGIS Site
    - Rewrite using modern code
    - Update Interface
  - Student Support
  - University Partnerships
  - Collaboration



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# RGIS SURVEY

Feedback and suggestions from  
New Mexico GIS Community

<https://arcg.is/1DCy0T4>



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# THANK YOU

**Shawn L. Penman, Ph.D., CFM, GISP**

RGIS Clearinghouse Manager  
Earth Data Analysis Center

505-277-3622 ext. 227

[spenman@edac.unm.edu](mailto:spenman@edac.unm.edu)

[clearinghouse@edac.unm.edu](mailto:clearinghouse@edac.unm.edu)

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