Appendix A

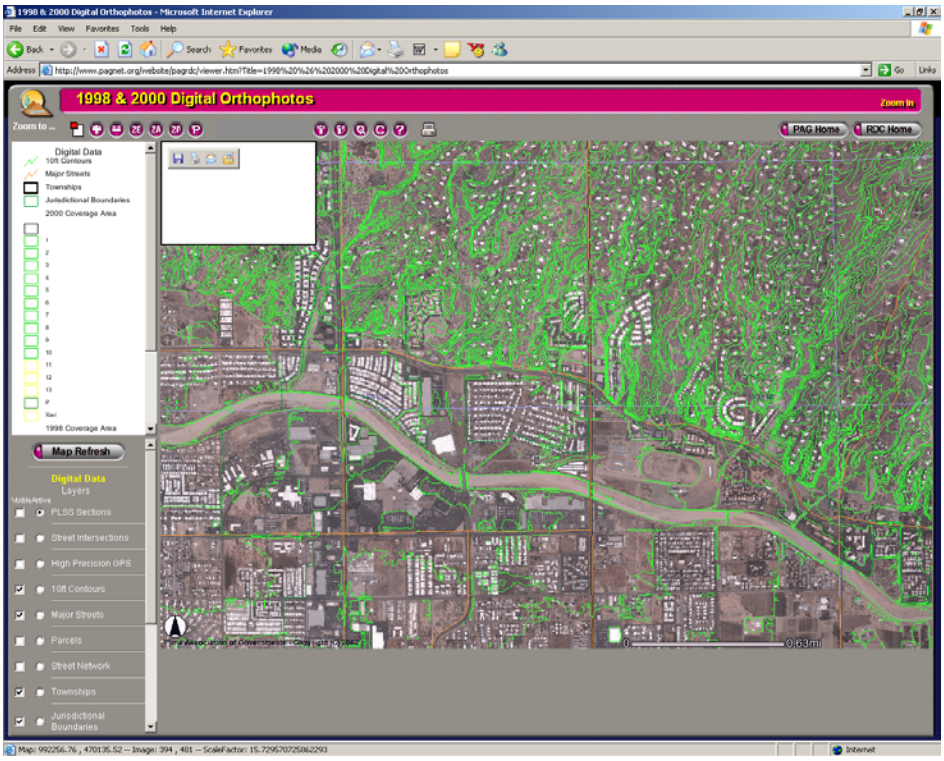
Preliminary Research Results into Other Agencies Serving Water Resource Data on the Web

Name:	**PAG (Pima Association of Governments) Regional Data Center**
Location:	**PAG: City of Tucson, Arizona**
Purpose:	**Serves as a regional data clearinghouse**
URL:	**http://www.pagnet.org**

General Structure

Layout:	Simple
Search Capabilities:	No text searches for data
Languages Used:	HTML and JAVA
Data Types:	GIS ready data files
Data Sets:	US Census TIGER data, Orthophotos from 16 feet to 1 foot, Multispectral data at 1 meter, parcel data, road data
Viewing Method:	ArcIMS application
Download Method:	FTP
Download Format:	Zip file
Database Type:	Warehouse/Distributed
ArcIMS Capable:	Yes
IMS Data Served:	Air quality application, orthophoto application, population planning application
Online Databases:	Possible links using ArcIMS
Metadata:	Basic metadata available for all data layers
Other:	Orthophotos available on CD for a fee, Air Quality links point to outside site

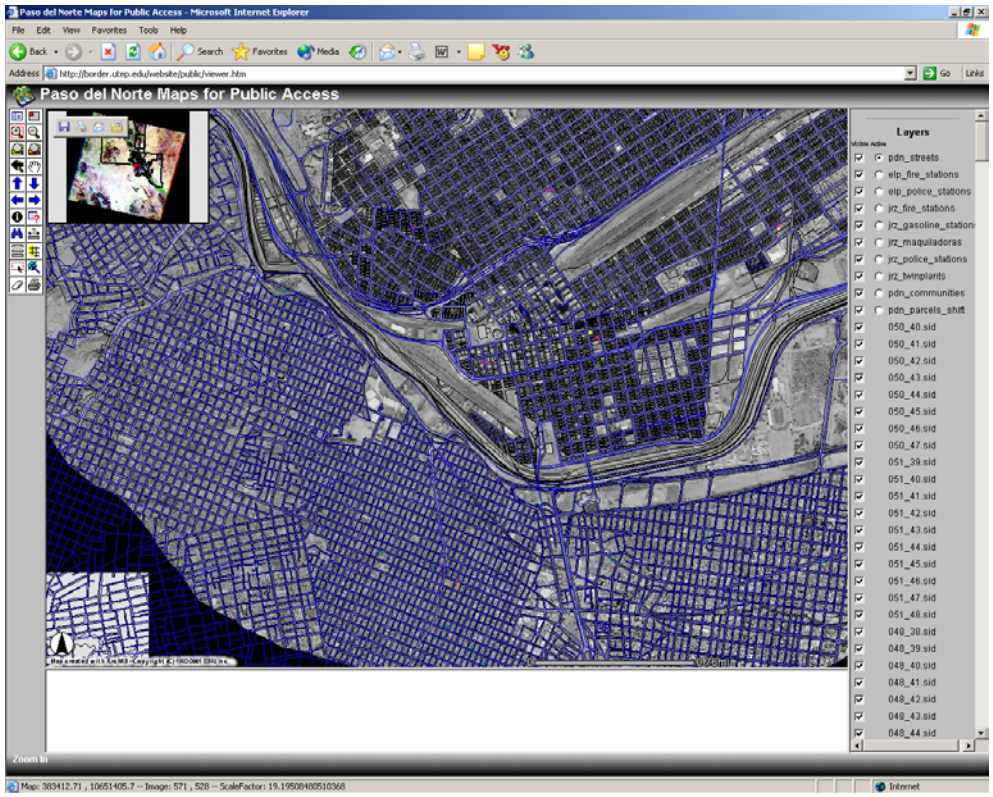
Pima Association of Governments Regional Data Center - Microsoft Internet Explorer
Pima Association of Governments
Ortho2000 Data Now Available For Ordering
Ortho 2002 Project
Welcome to the PAG REGIONAL DATA CENTER, home of interactive mapping, where you can view and order Digital Orthophotos, Census 2000 Data, and Geographic Information Systems (GIS) Data for the Tucson Metropolitan Area.
GIS Interface
Download Shapefiles
Population Information
Orthophoto Metadata
Status Maps
Order Image Data
Additional Information
Disclaimer
Remote Sensing Project
Return to Census 2000 & Population Directory
Click on Icon to View Large Image
Pima Association of Governments
Copyright © 1999-2001 all rights reserved
last updated 09/09/02
PAG Home

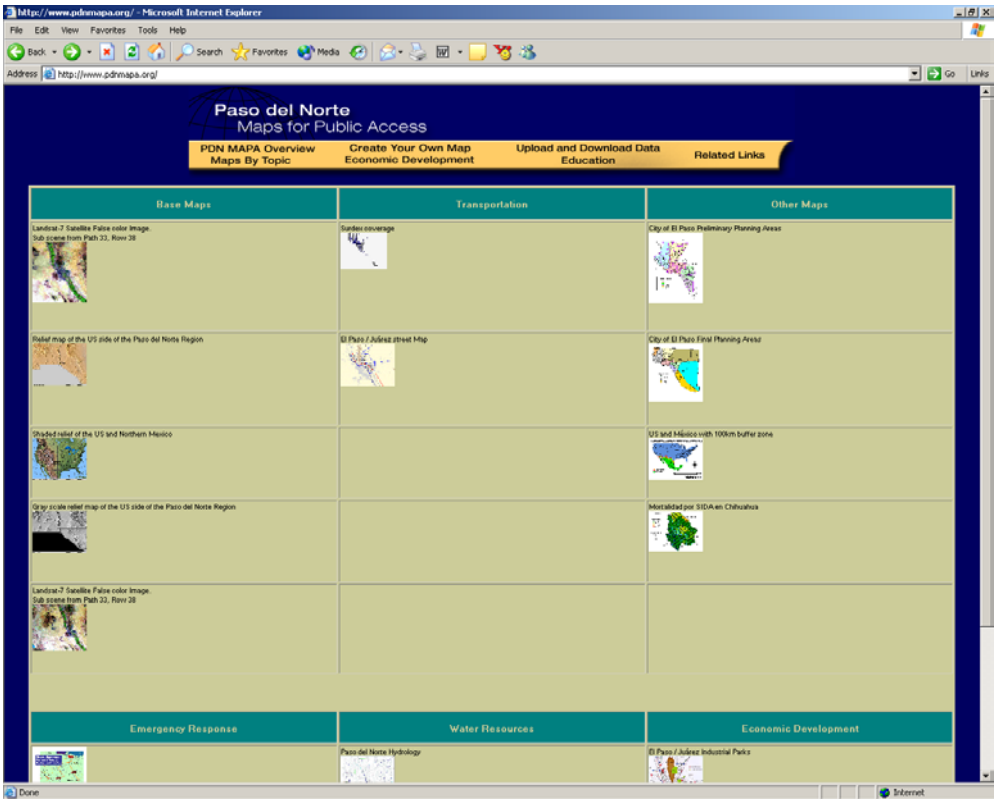

1998 & 2000 Digital Orthophotos - Microsoft Internet Explorer
1998 & 2000 Digital Orthophotos
Zoom In
PAG Home
RDC Home
Digital Data
10ft Contours
Major Streets
Townships
Jurisdictional Boundaries
2000 Coverage Area
1998 Coverage Area
Map Refresh
Digital Data Layers
PLSS Sections
Street Intersections
High Precision GPS
10ft Contours
Major Streets
Parcels
Street Network
Townships
Jurisdictional Boundaries

Name:	**PDNMAPA (Paso Del Norte Maps for Public Access)**
Location:	**UTEP, El Paso, Tx**
Purpose:	**Serves as a regional data clearinghouse**
URL:	**http://www.pdnmapa.org**

General Structure

Layout:	Simple
Search Capabilities:	Menu driven search capabilities, no free text
Languages Used:	HTML and JAVA
Data Types:	GIS ready data files
Data Sets:	Aerial photography, parcel features, street features, misc. data layers
Viewing Method:	ArcIMS application, selected static maps
Download Method:	FTP
Download Format:	Zip file, static maps in image format
Database Type:	Warehouse/Distributed
ArcIMS Capable:	Yes
IMS Data Served:	Aerial photography, parcel features, street features, misc. data layers
Online Databases:	None
Metadata:	None
Other:	None


Paso del Norte Maps for Public Access - Microsoft Internet Explorer
Paso del Norte Maps for Public Access
Layers

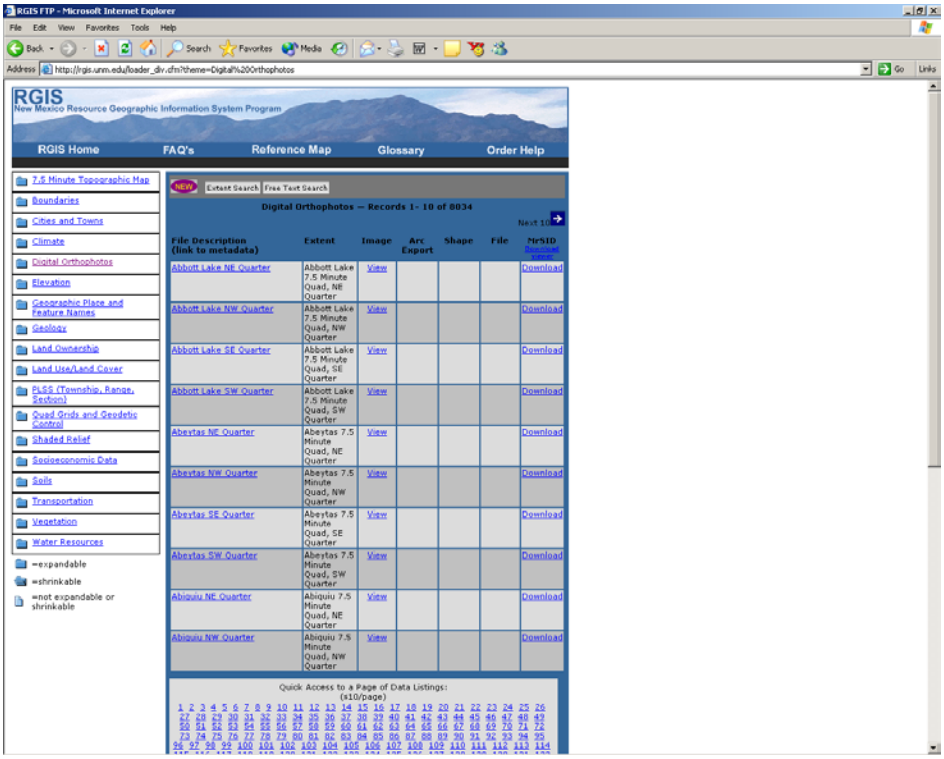

http://www.pdnmapa.org/ - Microsoft Internet Explorer
Paso del Norte
Maps for Public Access
PDN MAPA Overview
Maps By Topic
Create Your Own Map
Economic Development
Upload and Download Data
Education
Related Links
Base Maps
Transportation
Other Maps
Emergency Response
Water Resources
Economic Development

Name:	**RGIS (Resource Geographic Information System)**
Location:	**University of New Mexico, Albuquerque**
Purpose:	**Serves as State GIS Clearinghouse**
URL:	**http://rgis.unm.edu**

General Structure

Layout:	Simple
Search Capabilities:	Data searches by text and extent[1]
Languages Used:	HTML and JAVA
Data Types:	Tabular and GIS ready data files
Data Sets:	US Census TIGER data, GNIS data, USGS DEMs and DOQQs, USGS DRGs, and County E-911 road data.
Viewing Method:	Snapshot of data in an image format
Download Method:	FTP
Download Format:	Zip file
Database Type:	Warehouse
ArcIMS Capable:	Yes
IMS Data Served:	Reference data only, simple design
Online Databases:	None
Metadata:	Extensive FGDC metadata for all data layers
Other:	Data available on CD for a fee

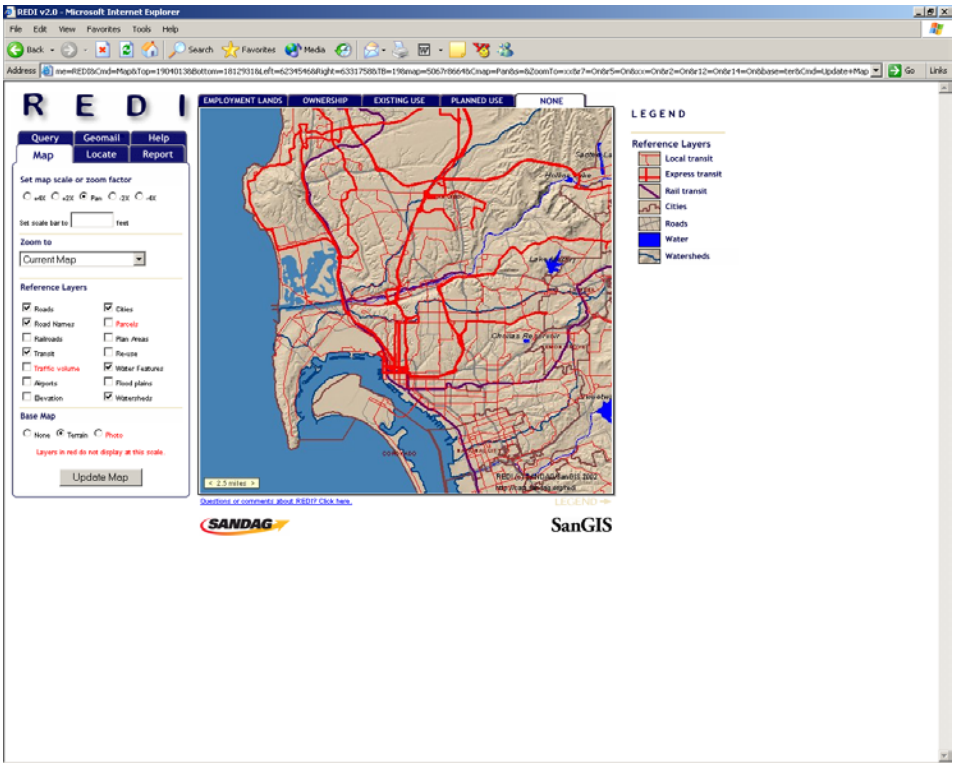
[1] Geographical extent defines data layers using a keyword. There is no actual selection process using coordinates or interactive selection methods.

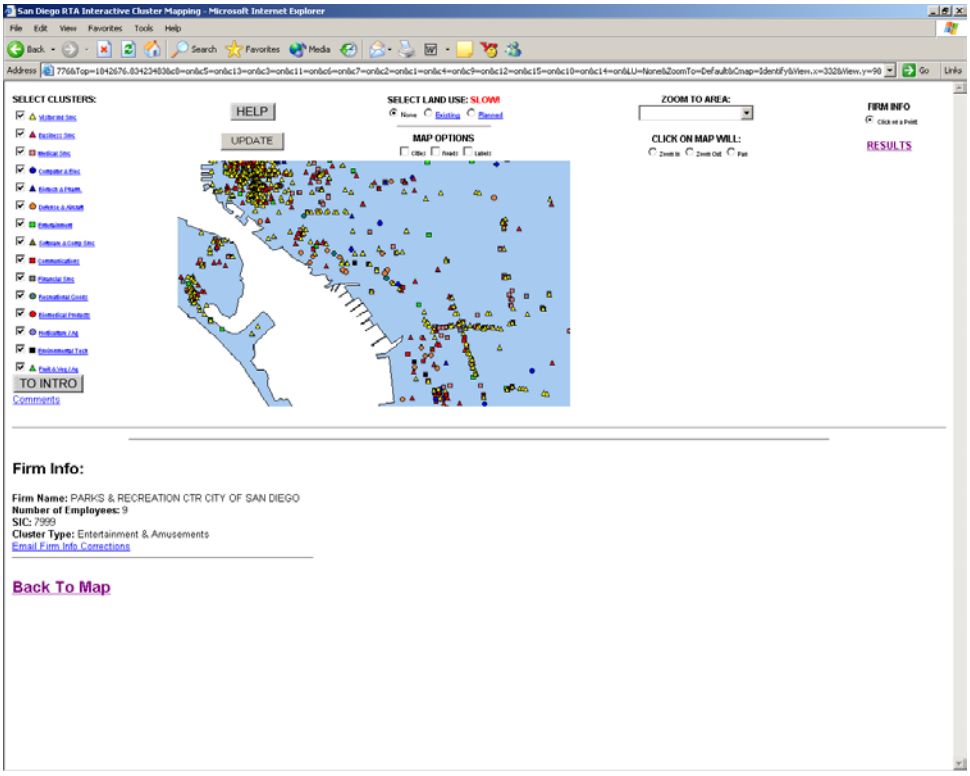

RGIS FTP - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://rgis.unm.edu/loader_div.cfm?theme=Digital%20Orthophotos
RGIS
New Mexico Resource Geographic Information System Program
RGIS Home
FAQ's
Reference Map
Glossary
Order Help
7.5 Minute Topographic Map
Boundaries
Cities and Towns
Climate
Digital Orthophotos
Elevation
Geographic Place and Feature Names
Geology
Land Ownership
Land Use/Land Cover
PLSS (Township, Range, Section)
Quad Grids and Geodetic Control
Shaded Relief
Socioeconomic Data
Soils
Transportation
Vegetation
Water Resources
=expandable
=shrinkable
=not expandable or shrinkable
NEW
Extent Search
Free Text Search
Digital Orthophotos -- Records 1- 10 of 8034
Next 10
File Description (link to metadata)
Extent
Image
Arc Export
Shape
File
MrSID
Abbott Lake NE Quarter
Abbott Lake 7.5 Minute Quad, NE Quarter
Abbott Lake NW Quarter
Abbott Lake 7.5 Minute Quad, NW Quarter
Abbott Lake SE Quarter
Abbott Lake 7.5 Minute Quad, SE Quarter
Abbott Lake SW Quarter
Abbott Lake 7.5 Minute Quad, SW Quarter
Abeytas NE Quarter
Abeytas 7.5 Minute Quad, NE Quarter
Abeytas NW Quarter
Abeytas 7.5 Minute Quad, NW Quarter
Abeytas SE Quarter
Abeytas 7.5 Minute Quad, SE Quarter
Abeytas SW Quarter
Abeytas 7.5 Minute Quad, SW Quarter
Abiquiu NE Quarter
Abiquiu 7.5 Minute Quad, NE Quarter
Abiquiu NW Quarter
Abiquiu 7.5 Minute Quad, NW Quarter
View
Download
Quick Access to a Page of Data Listings:
(x10/page)

Name:	**SANDAG (San Diego Association of Governments)**
Location:	**SANDAG, San Diego, CA**
Purpose:	**Serves as a regional data clearinghouse**
URL:	**http://www.sandag.org**

General Structure

Layout:	Simple
Search Capabilities:	No text searches for data
Languages Used:	HTML and JAVA
Data Types:	GIS ready data files
Data Sets:	Administrative boundaries, base map features, district boundaries, land cover and activity centers, transportation, and environmental/natural resources
Viewing Method:	Static map in image format
Download Method:	FTP
Download Format:	Zip file
Database Type:	Warehouse/Distributed
ArcIMS Capable:	Yes
IMS Data Served:	Demographic and Economic Mapping System, Industrial Cluster Applications, Traffic Forecast Application, eStops, Regional Economic Development Information
Online Databases:	Possible links using ArcIMS
Metadata:	Basic metadata available for all data layers
Other:	


REDI v2.0 - Microsoft Internet Explorer
R E D I
Query
Geomail
Help
Map
Locate
Report
Set map scale or zoom factor
Zoom to
Current Map
Reference Layers
Roads
Road Names
Railroads
Transit
Traffic volume
Airports
Elevation
Cities
Parcels
Plan Areas
Re-use
Water Features
Flood plains
Watersheds
Base Map
None
Terrain
Photo
Layers in red do not display at this scale.
Update Map
EMPLOYMENT LANDS
OWNERSHIP
EXISTING USE
PLANNED USE
NONE
LEGEND
Reference Layers
Local transit
Express transit
Rail transit
Cities
Roads
Water
Watersheds
SANDAG
SanGIS


San Diego RTA Interactive Cluster Mapping - Microsoft Internet Explorer
SELECT CLUSTERS:
HELP
UPDATE
SELECT LAND USE: SLOW!
None
Existing
Planned
MAP OPTIONS
Cities
Roads
Labels
ZOOM TO AREA:
CLICK ON MAP WILL:
Zoom In
Zoom Out
Pan
FIRM INFO
Click on a Point
RESULTS
TO INTRO
Comments
Firm Info:
Firm Name: PARKS & RECREATION CTR CITY OF SAN DIEGO
Number of Employees: 9
SIC: 7999
Cluster Type: Entertainment & Amusements
Email Firm Info Corrections
Back To Map

Name:	**TCEQ (Texas Commission on Environmental Quality)**
Location:	**TCEQ Austin**
Purpose:	**Serves as a source of environmental data**
URL:	**http://www.tceq.state.tx.us**

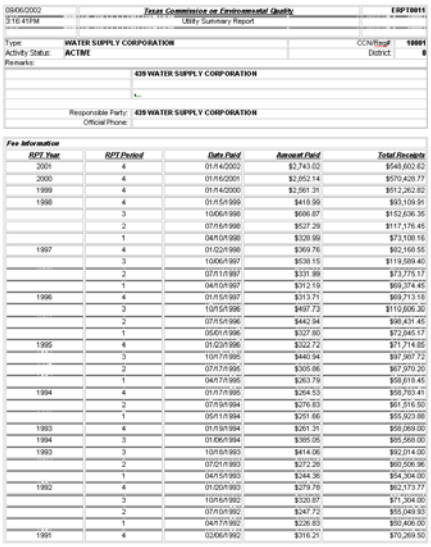
General Structure

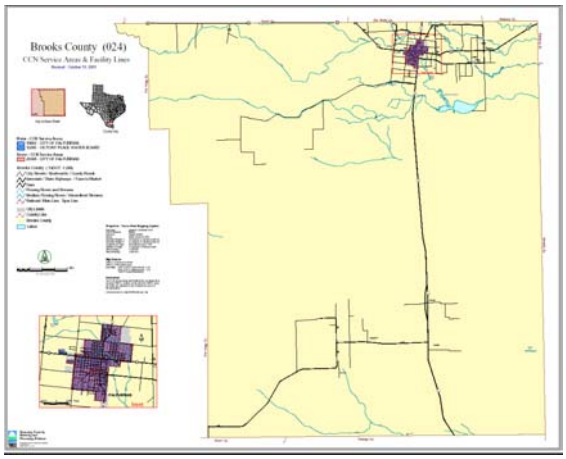
Layout:	Simple
Search Capabilities:	Limited text search, online queries for some databases
Languages Used:	HTML
Data Types:	Tabular data sets only
Data Sets:	Environmental data, water quality, permitting data, cleanup data, real-time pollution data, weather data and live satellite images
Viewing Method:	Snapshot of data in an image format, published GIS maps, tables in HTML format
Download Method:	FTP where possible
Download Format:	Zip file, (Excel spreadsheets)
Database Type:	Warehouse
ArcIMS Capable:	Yes
IMS Data Served:	Limited water quality data
Online Databases:	Numerous
Other:	Data (tabular, reports) available in hard copy for fee

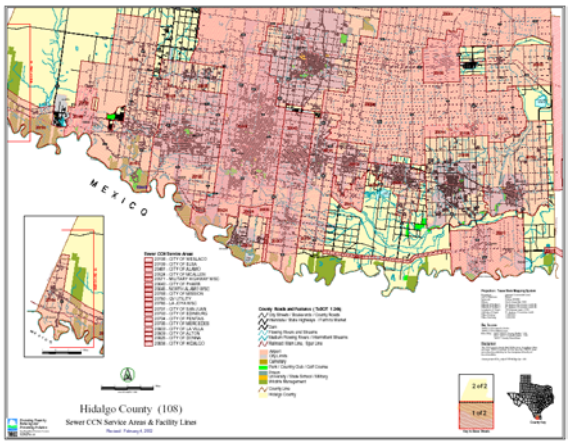
Online Database Example

Name:	Water Utilities Database (WUD)
Query Options:	Water district name, water district number, water utility name, CCN registration number, public water system name or ID
Data Available:	Maps in PDF format, tables in HTML format, water district and system reports, etc.
Download Method:	Not available

Sample Pages



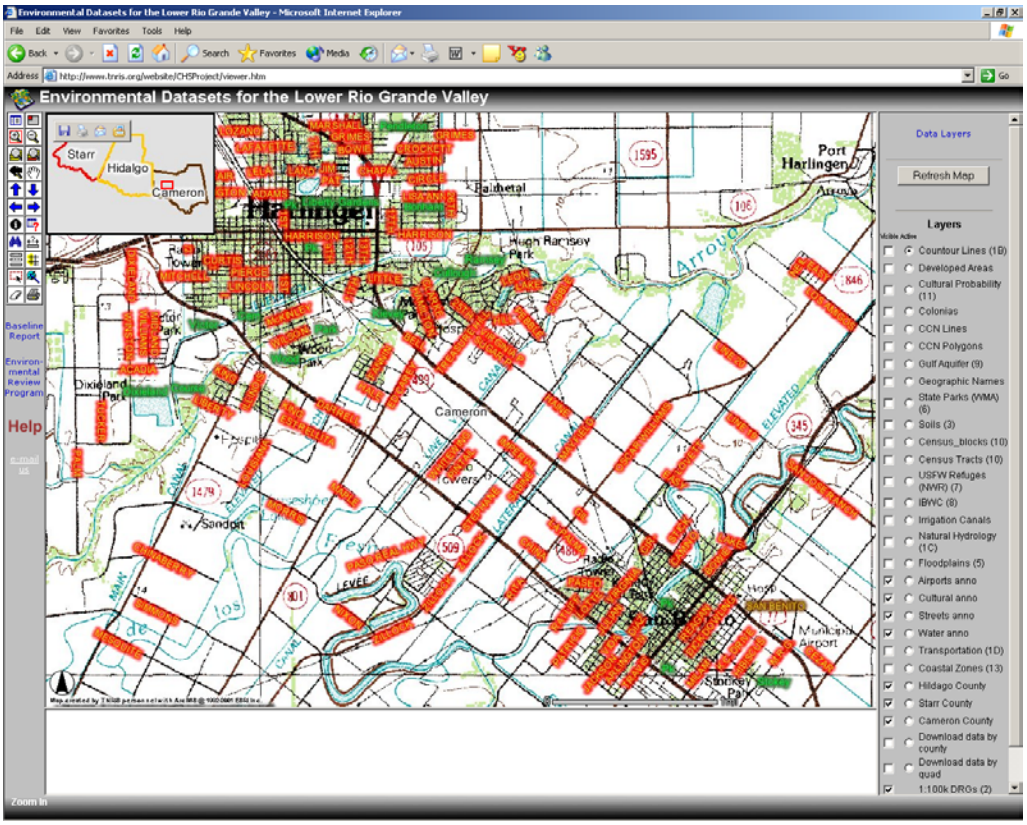


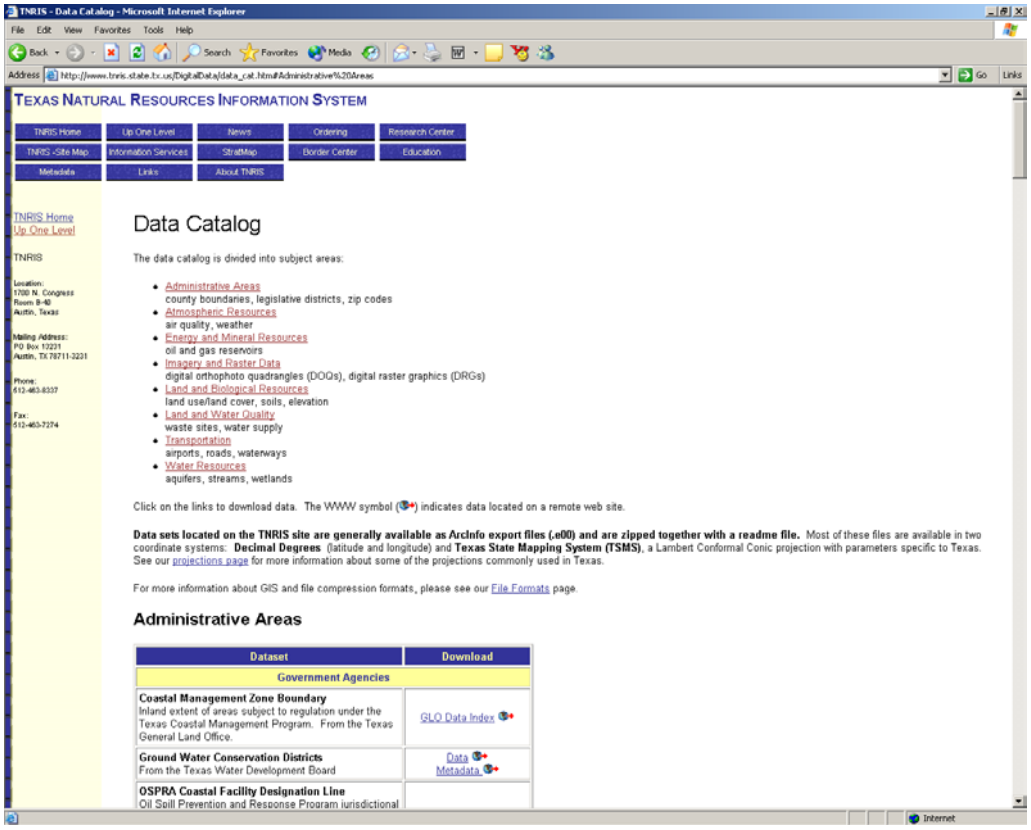


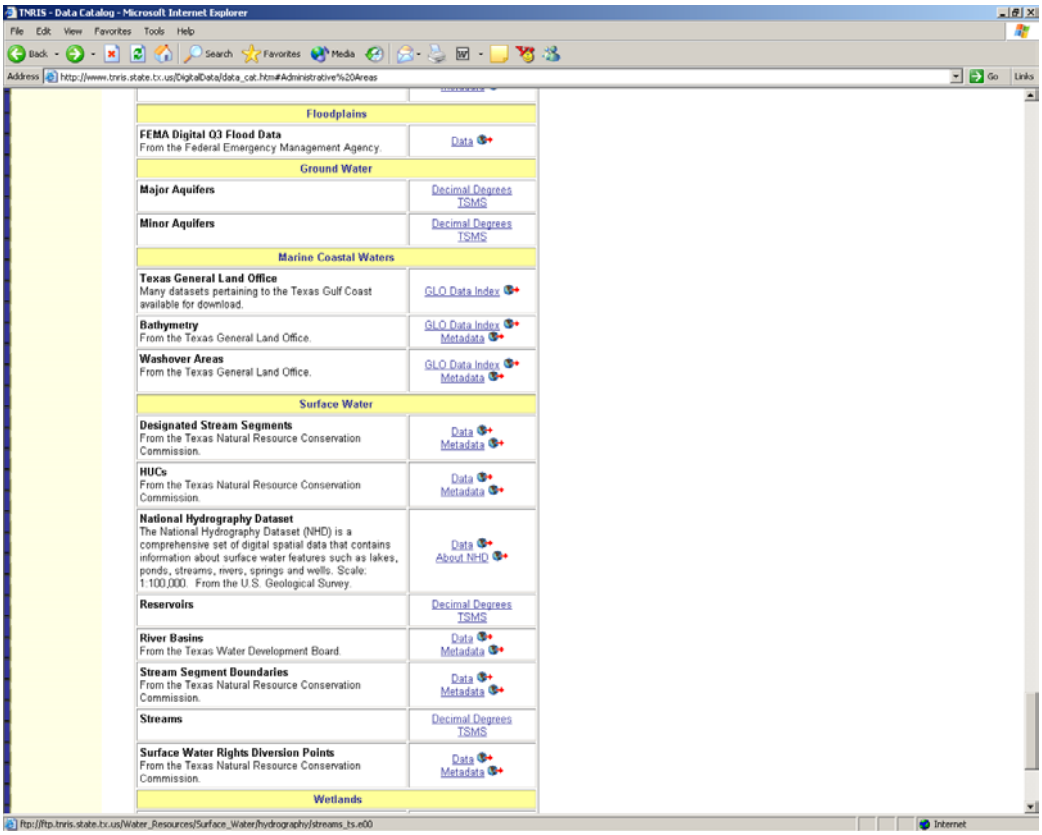
Name:	**TNRIS (Texas Natural Resources Information System)**
Location:	**TNRIS Austin, Tx**
Purpose:	**Serves as a state clearinghouse for natural resource data and imagery**
URL:	**http://www.tnris.state.tx.us**

General Structure

Layout:	Simple
Search Capabilities:	Searches available for imagery by text (county name, quad name, and lat-long)
Languages Used:	HTML and JAVA
Data Types:	GIS ready data files
Data Sets:	US Census TIGER data, Orthophotos, Colonias locations, general hydrography, irrigation canals, DRGs, transportation features .
Viewing Method:	ArcIMS applications
Download Method:	Download data by county using ArcIMS (FTP), FTP service available
Download Format:	Zip file
Database Type:	Warehouse/Distributed
ArcIMS Capable:	Yes
IMS Data Served:	DOQQ applications, environmental applications, bay water applications (sea-level and salinity)
Online Databases:	None
Metadata:	Basic metadata available for all data layers
Other:	Orthophotos and data available on CD for a fee, Air Quality links point to outside site, links to additional data outside site


Environmental Datasets for the Lower Rio Grande Valley - Microsoft Internet Explorer
Environmental Datasets for the Lower Rio Grande Valley
Starr
Hidalgo
Cameron
Port Harlingen
Raiphetal
Hugh Ramsey Park
Arroyo
Cameron
Sondon
Dixieland Park
Data Layers
Refresh Map
Layers
Countour Lines (10)
Developed Areas
Cultural Probability (11)
Colonias
CCN Lines
CCN Polygons
Gulf Aquifer (9)
Geographic Names
State Parks (WMA) (6)
Soils (3)
Census_blocks (10)
Census Tracts (10)
USFW Refuges (NWR) (7)
IBWC (8)
Irrigation Canals
Natural Hydrology (1C)
Floodplains (5)
Airports anno
Cultural anno
Streets anno
Water anno
Transportation (1D)
Coastal Zones (13)
Hildago County
Starr County
Cameron County
Download data by county
Download data by quad
1:100k DROs (2)
Baseline Report
Environmental Review Program
Help
Zoom In

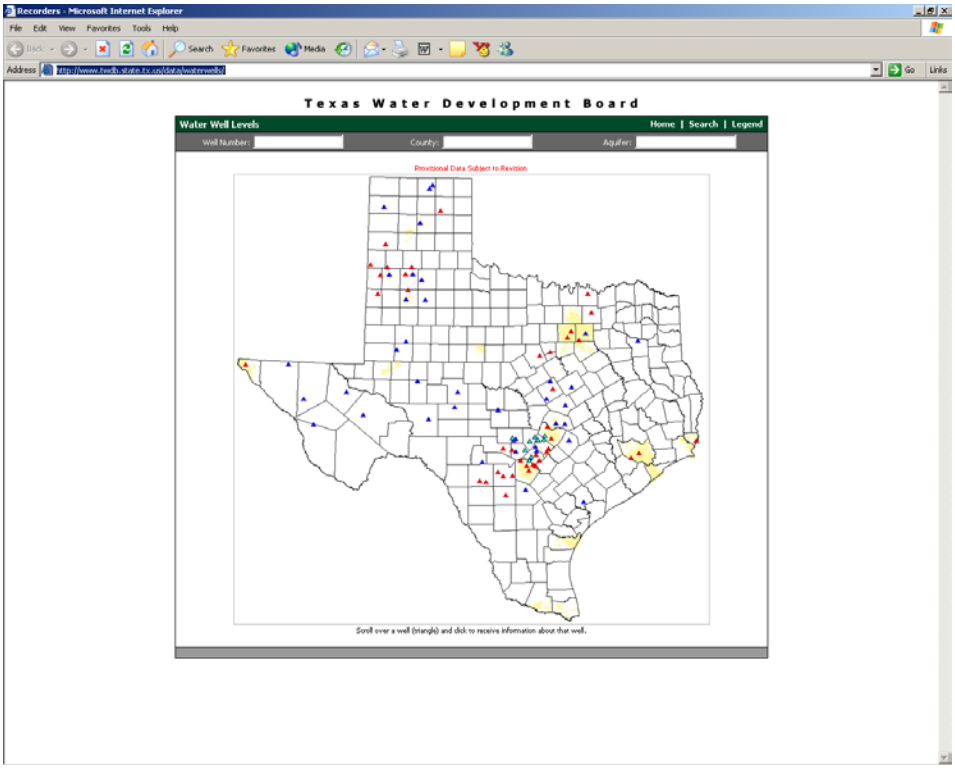

TNRIS - Data Catalog - Microsoft Internet Explorer
TEXAS NATURAL RESOURCES INFORMATION SYSTEM
TNRIS Home
Up One Level
News
Ordering
Research Center
TNRIS -Site Map
Information Services
StratMap
Border Center
Education
Metadata
Links
About TNRIS
TNRIS Home
Up One Level
TNRIS
Data Catalog
The data catalog is divided into subject areas:
Administrative Areas
county boundaries, legislative districts, zip codes
Atmospheric Resources
air quality, weather
Energy and Mineral Resources
oil and gas reservoirs
Imagery and Raster Data
digital orthophoto quadrangles (DOQs), digital raster graphics (DRGs)
Land and Biological Resources
land use/land cover, soils, elevation
Land and Water Quality
waste sites, water supply
Transportation
airports, roads, waterways
Water Resources
aquifers, streams, wetlands
Click on the links to download data. The WWW symbol indicates data located on a remote web site.
Data sets located on the TNRIS site are generally available as ArcInfo export files (.e00) and are zipped together with a readme file. Most of these files are available in two coordinate systems: Decimal Degrees (latitude and longitude) and Texas State Mapping System (TSMS), a Lambert Conformal Conic projection with parameters specific to Texas. See our projections page for more information about some of the projections commonly used in Texas.
For more information about GIS and file compression formats, please see our File Formats page.
Administrative Areas
Dataset
Download
Government Agencies
Coastal Management Zone Boundary
Inland extent of areas subject to regulation under the Texas Coastal Management Program. From the Texas General Land Office.
GLO Data Index
Ground Water Conservation Districts
From the Texas Water Development Board
Data
Metadata
OSPRA Coastal Facility Designation Line
Oil Spill Prevention and Response Program jurisdictional

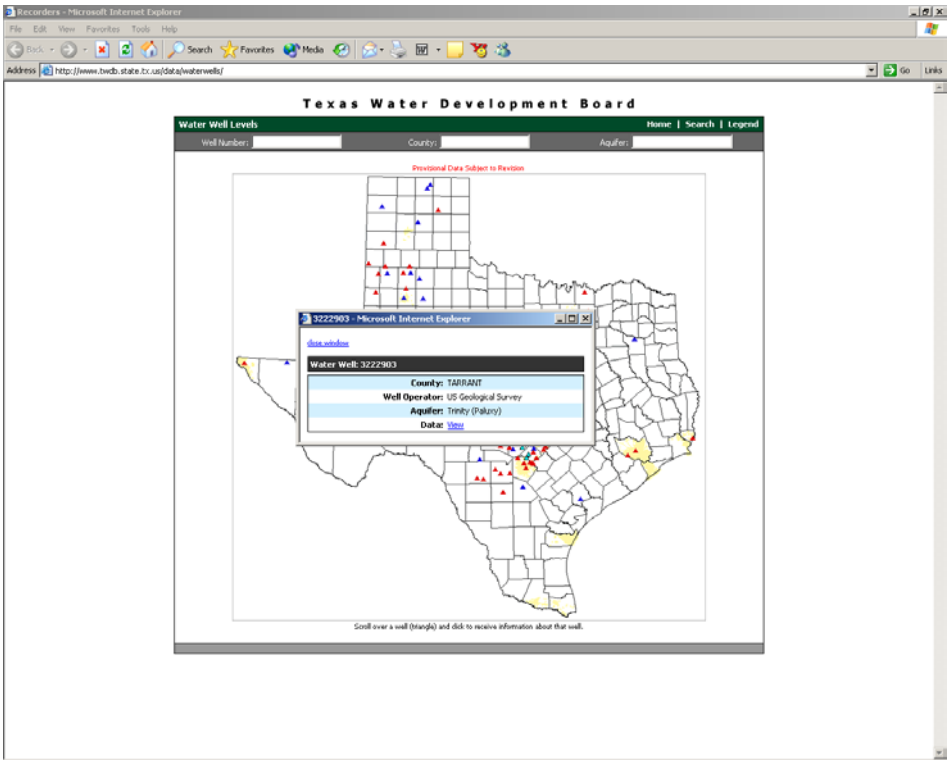

TNRIS - Data Catalog - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://www.tnris.state.tx.us/DigitalData/data_cat.htm#Administrative%20Areas
Floodplains
FEMA Digital Q3 Flood Data
From the Federal Emergency Management Agency.
Data
Ground Water
Major Aquifers
Decimal Degrees
TSMS
Minor Aquifers
Decimal Degrees
TSMS
Marine Coastal Waters
Texas General Land Office
Many datasets pertaining to the Texas Gulf Coast available for download.
GLO Data Index
Bathymetry
From the Texas General Land Office.
GLO Data Index
Metadata
Washover Areas
From the Texas General Land Office.
GLO Data Index
Metadata
Surface Water
Designated Stream Segments
From the Texas Natural Resource Conservation Commission.
Data
Metadata
HUCs
From the Texas Natural Resource Conservation Commission.
Data
Metadata
National Hydrography Dataset
The National Hydrography Dataset (NHD) is a comprehensive set of digital spatial data that contains information about surface water features such as lakes, ponds, streams, rivers, springs and wells. Scale: 1:100,000. From the U.S. Geological Survey.
Data
About NHD
Reservoirs
Decimal Degrees
TSMS
River Basins
From the Texas Water Development Board.
Data
Metadata
Stream Segment Boundaries
From the Texas Natural Resource Conservation Commission.
Data
Metadata
Streams
Decimal Degrees
TSMS
Surface Water Rights Diversion Points
From the Texas Natural Resource Conservation Commission.
Data
Metadata
Wetlands
ftp://ftp.tnris.state.tx.us/Water_Resources/Surface_Water/hydrography/streams_ts.e00
Internet

Name:	**TWDB (Texas Water Development Board)**
Location:	**TWDB**
Purpose:	**Serves as a national clearinghouse for well locations and reservoir water levels**
URL:	**http://www.twdb.state.tx.us/data/waterwells/**

General Structure

Layout:	Simple
Search Capabilities:	No text searches for data
Languages Used:	HTML and JAVA
Data Types:	HTML tables and graphs, text tables
Data Sets:	Well location/reservoir water levels
Viewing Method:	Interactive Image Maps
Download Method:	N/A
Download Format:	Tab delimited text files
Database Type:	Distributed (Links to the USGS well data)
ArcIMS Capable:	No
IMS Data Served:	N/A
Online Databases:	TWDB well level information
Metadata:	N/A
Other:	

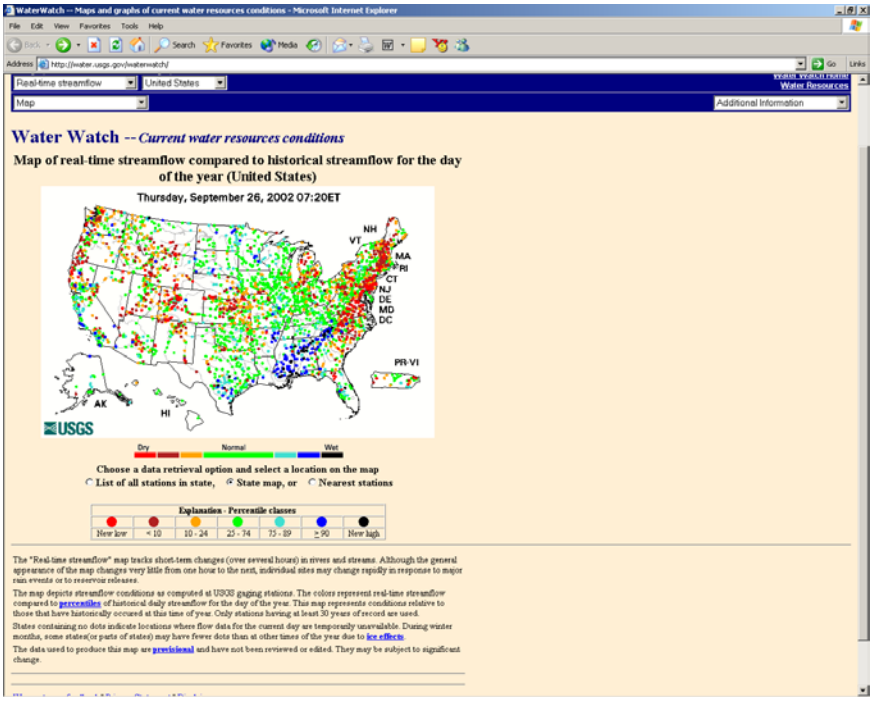

Recorders - Microsoft Internet Explorer
Texas Water Development Board
Water Well Levels
Home | Search | Legend
Well Number:
County:
Aquifer:
Provisional Data Subject to Revision
Scroll over a well (triangle) and click to receive information about that well.

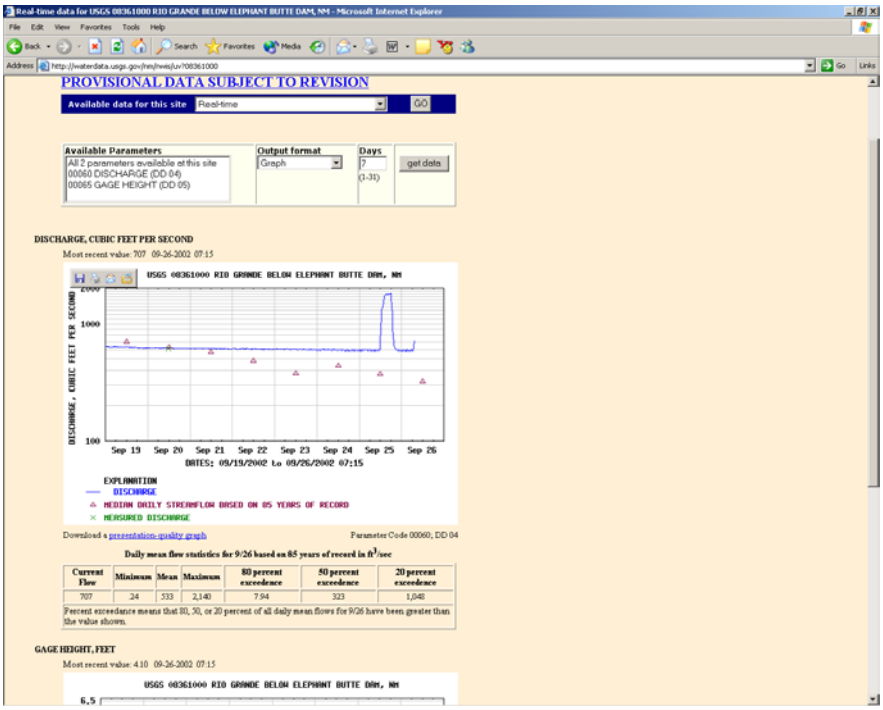

Recorders - Microsoft Internet Explorer
Texas Water Development Board
Water Well Levels
Home | Search | Legend
Well Number:
County:
Aquifer:
Provisional Data Subject to Revision
3222903 - Microsoft Internet Explorer
close window
Water Well: 3222903
County: TARRANT
Well Operator: US Geological Survey
Aquifer: Trinity (Paluxy)
Data: View
Scroll over a well (triangle) and click to receive information about that well.

Name:	**USGS (United States Geological Survey)**
Location:	**USGS**
Purpose:	**Serves as a national clearinghouse for water flow data**
URL:	**http://water.usgs.gov/waterwatch/**

General Structure

Layout:	Simple
Search Capabilities:	No text searches for data
Languages Used:	HTML and JAVA
Data Types:	HTML tables and graphs
Data Sets:	Stream flow data including real- time, daily, 7-day and below normal.
Viewing Method:	Image maps
Download Method:	N/A
Download Format:	Tab delimited text files
Database Type:	Warehouse
ArcIMS Capable:	No
IMS Data Served:	N/A
Online Databases:	Stream flow data is linked
Metadata:	N/A
Other:	


WaterWatch -- Maps and graphs of current water resources conditions - Microsoft Internet Explorer
Water Watch -- Current water resources conditions
Map of real-time streamflow compared to historical streamflow for the day of the year (United States)
Thursday, September 26, 2002 07:20ET
NH
VT
MA
RI
CT
NJ
DE
MD
DC
PR-VI
AK
HI
USGS
Dry
Normal
Wet
Choose a data retrieval option and select a location on the map
List of all stations in state, State map, or Nearest stations
Explanation - Percentile classes
New low
< 10
10 - 24
25 - 74
75 - 89
≥ 90
New high


Real-time data for USGS 08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM - Microsoft Internet Explorer
PROVISIONAL DATA SUBJECT TO REVISION
Available data for this site
Real-time
GO
Available Parameters
All 2 parameters available at this site
00060 DISCHARGE (DD 04)
00065 GAGE HEIGHT (DD 05)
Output format
Graph
Days
7
(1-31)
get data
DISCHARGE, CUBIC FEET PER SECOND
Most recent value: 707 09-26-2002 07:15
USGS 08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM
DISCHARGE, CUBIC FEET PER SECOND
2000
1000
100
Sep 19
Sep 20
Sep 21
Sep 22
Sep 23
Sep 24
Sep 25
Sep 26
DATES: 09/19/2002 to 09/26/2002 07:15
EXPLANATION
DISCHARGE
MEDIAN DAILY STREAMFLOW BASED ON 85 YEARS OF RECORD
MEASURED DISCHARGE
Download a presentation-quality graph
Parameter Code 00060, DD 04
Daily mean flow statistics for 9/26 based on 85 years of record in ft3/sec
Current Flow
Minimum
Mean
Maximum
80 percent exceedance
50 percent exceedance
20 percent exceedance
707
24
533
2,140
7.94
323
1,048
Percent exceedance means that 80, 50, or 20 percent of all daily mean flows for 9/26 have been greater than the value shown.
GAGE HEIGHT, FEET
Most recent value: 4.10 09-26-2002 07:15
USGS 08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM
6.5