

Status of Wyoming Framework/Base Data GIS Layers

Geodetic Control: The Wyoming portion of the horizontal component of the National Spatial Reference System (NSRS) is complete and has been readjusted from the North American Datum (NAD) 1927 to the NAD 1983/1993 datum. The vertical component of the NSRS has been adjusted from NAVD 1929 datum to the NAVD 1988 datum. The SO contact for datums, control, and conversions is Mike Londe at 775-6209. Additional control information is available at the National Geodetic Survey on the Internet at <http://www.ngs.noaa.gov/>.

Digital Orthophotoquads (DOQ): DOQs are available for 30 percent of Wyoming (Greater Yellowstone Area, Platte/Goshen Counties, Wind River Indian Reservation, and Jackson Hole area). An additional 52 percent has been funded and are under production. DOQs for 18 percent (326 quads) of Wyoming are unfunded, with \$665,040 needed to complete the State. Areas not funded or currently authorized include portions of the Buffalo, Casper, Lander, Rawlins, Rock Springs, and Worland Field Offices. (See Attachment 3 for a status map and cooperative costs.) Existing copies of DOQ's in the DOQQ (quarterquad) format are available on the two State Data Clearinghouses on the Internet at <http://www.sdv.uwyo.edu> and <http://wgiac.state.wy.us>. These detailed images are produced in a quarter quad format from 1994 aerial photographs that have been geometrically transformed and digitized into a map format, an orthophotoquad. The scale and resolution are equivalent to a 1/12,000 (12k) map.

Digital Elevation Models (DEM): Ninety eight percent of the 24k DEMs (30 meter cells) data is complete, but quality varies. Sixty percent of the 100k DEMs (60 meter cells) are complete (east half of Wyoming) and the rest are authorized for production. Contour digital data at 100K is complete for 90 percent of the State, and 250k DEMs (90 meter cells) are complete. (See Attachment 4 for a status map.) Current information on DEM's are available from Gretchen Meyer in the SO at 775-6243. They are also available at <http://www.sdv.uwyo.edu/24k/dem/quadlist.html>. USGS is constructing a seamless National Elevation Database on the Internet at <http://edcwww2.cr.usgs.gov/umap/ned/ned.html>. This experimental database is in a new compression format, MrSID, and is in arc seconds and will be difficult to use until import utilities are available.

Hydrography: Very limited coverage is available at the 24k level. The 100k Digital Line Graphics (DLG) layer is complete and available on the UW server. Also, the U.S. Census TIGER files include hydrography from the 100k maps and are available on the WGIAC server. Some project 24k data is available on FS and BLM areas, but may not meet NSDI standards.

The USGS and EPA are completing a National Hydrography Dataset that combines the best of the files; hydrologic ordering, hydrologic navigation for modeling applications, and a unique identifier (reach code) for surface water features from RF3, and the spatial accuracy and comprehensiveness of 100k DLG hydrography. This data set will be edge-matched (seamless) and include the flow direction and are scheduled for completion by 1999. Current project status (Attach 5) is available at <http://nhd.fgdc.gov/>.

Transportation: Very limited coverage is available at the 24k level. Digital Line Graphics (DLG) are complete and available on the UW server by 100k map unit. Also, the U.S. Census TIGER files include transportation from the 100K maps and are available on the WGIAC server. TIGER transportation files have non-cartographic data added with some roads off by as much as 1000 feet. Some 24k project data is available on FS, BLM, and county areas, but may not meet NSDI standards.

Governmental Units: Digital Line Graphics (DLG) 100k, Government Boundary Units layer is available on the WGIAC Web site. This data is for general use applications that need major boundary units and is derived from the USGS 100k data and the U.S. Census TIGER data. This data includes city, county, and state boundaries.

Cadastral Data: While the official NSDI version of this data isn't available, the Geographic Coordinate Data Base/Public Land Survey System (GCDB/PLSS) are being compiled in an Arc/Info format (contact Patrick Madigan at 307-775-6238). The raw GCDB files are available through the WGIAC Web page (contact Milbert Krohn at 307-775-6225) in several formats. BLM's Automated Lands and Minerals Record System (ALMRS), Release 1 will have spatial to the 40 acre parcel size and ALMRS, Release 2 will have more complete PLSS spatial data.

Scanned Digital Topographic Data and Digital Raster Graphics (DRGs): While not a part of the official Framework data, these color scanned topographic maps are an important initial foundation data base that can be used as a reference layer or to validate other GIS data, such as GPS derived roads. These files have been spatially corrected and coordinates derived from this data are more accurate than from a paper topo map. The State Office has purchased a color seamless topographic data base layer at the 1/24,000 scale from Land Info International, Ltd., Denver, Colorado. The CD-ROMs are proprietary data, i.e., the BLM has an enterprise-wide license for this data set and can duplicate the digital files as much as necessary for internal work. These computer files were made from scanning 1,922 7.5 minute topographic maps which were geometrically corrected to geographic coordinates. The digital maps form a color seamless topographic map data base and are organized by county in NAD 27 datum and the UTM map projection.

The WGIAC has placed USGS's version of the scanned topo maps, the **Digital Raster Graphics (DRGs)** at 24k, 100k, and 250k on the Internet at <http://wgiac.state.wy.us>. These copies are public and are free to the user and are in NAD 27 datum and the UTM map projection. These files are not edge matched and include the scanned map white over edge data, with the printed legend and other information. The DRGs are compressed and have to be de-zipped to use and are available in both Arc/View and Map Info formats. These files can easily be imported into our AIX version of Arc/View as an Image Data Source.

The USGS provides a free Windows 95/NT DRG and DLG Map Viewer software that gives the user both NAD 27 UTM and Latitude/Longitude coordinates. This software allows the user to print portions of a map. The DLGV32 viewer is located at http://mcmcweb.er.usgs.gov/viewers/dlg_view.html.

The above data may, also, be accessed on the Internet through the Desk Reference Wyoming BLM Online at <http://web.wy.blm.gov>.

**Digital Orthophoto Estimated Partnership Costs to Complete Wyoming
by County**

County	# DOQs* Needed to Complete County	Cooperator's Cost	USGS Partnership Cost
Albany	53	\$108,120	\$108,120
Carbon	64	\$130,560	\$130,560
Johnson	54	\$110,160	\$110,160
Natrona	78	\$159,120	\$159,120
Sweetwater	68	\$138,720	\$138,720
Washakie	9	\$ 18,360	\$ 18,360
TOTAL	326**	\$665,040	\$665,040

*Four DOQQ file make up one DOQ 7.5' map area.

** Total equals 18% of Wyoming

**Digital Orthophoto Estimated Partnership Costs to Complete Wyoming
by BLM Field Office**

Wyoming BLM Field Office	# DOQs* Needed to Complete Field Office	BLM Cost to Complete Field Office	USGS Partnership Cost
Buffalo	54	\$110,160	\$110,160
Casper	50	\$102,000	\$102,000
Lander	28	\$ 57,120	\$ 57,120
Rawlins	149	\$291,720	\$ 291,720
Rock	42	\$ 85,680	\$ 85,680
Worland	9	\$ 18,360	\$ 18,360
TOTAL	326**	\$665,040	\$665,040

*Four DOQQ file make up one DOQ 7.5' map area.

** Total equals 18% of Wyoming