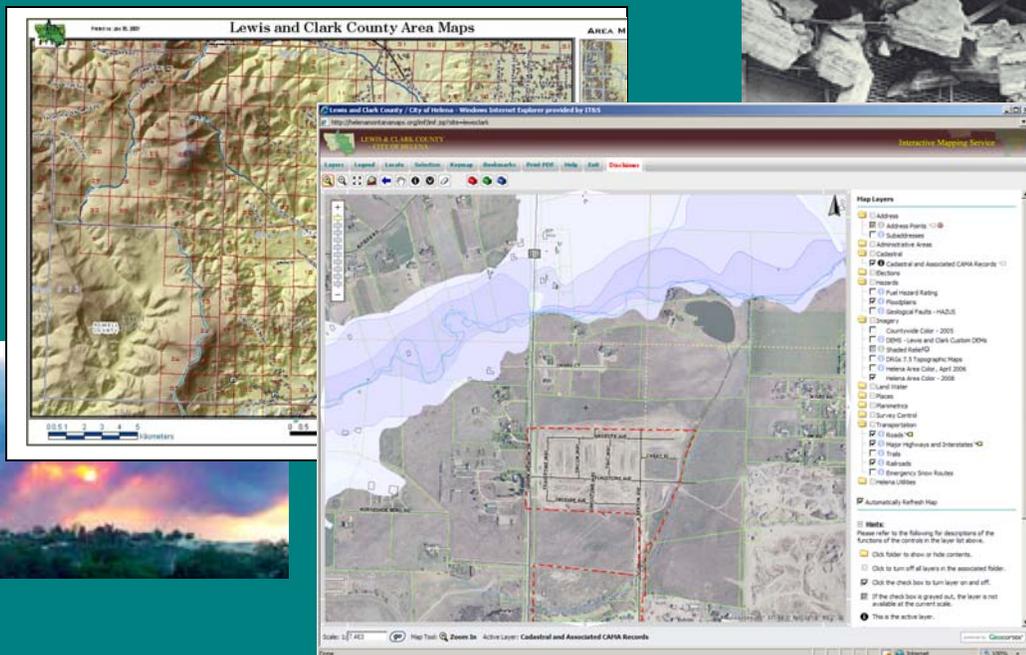


# City of Helena Lewis & Clark County Emergency GIS Support

# GIS

Updated: August, 2009

People, resources, coordination,  
contact information, data and  
procedures for GIS and mapping  
support during an emergency.



City of Helena – Lewis & Clark County  
GIS Services Center  
Information Technology & Services Department

**GIS Support for Emergency Response  
City of Helena – Lewis & Clark County**

---

Index

<b>GETTING HELP</b> .....	<b>3</b>
<b>MAP OPTIONS</b> .....	<b>4</b>
<b>GET A COPY OF AN EXISTING MAP</b> .....	<b>5</b>
Existing Maps On-Line:.....	5
Example City/County Maps.....	6
<b>MAKE YOUR OWN MAPS ON-LINE:</b> .....	<b>7</b>
City-County ArcIMS site .....	7
Google Earth maps:.....	8
State of Montana Land Ownership Maps On-Line <a href="http://cadastral.mt.gov">cadastral.mt.gov</a> .....	8
<b>GETTING CUSTOM MADE MAPS</b> .....	<b>10</b>
Map Requests Policy.....	10
Map Request Policy - Small Incident .....	10
Map Request Policy - Large Incident: .....	10
Declared Emergency - Large Incident Map Request Protocol: .....	11
Who to contact – City-County .....	12
<b>INTERAGENCY GIS COORDINATION</b> .....	<b>13</b>
Montana Disaster & Emergency Services GIS Coordinator: .....	13
Montana State GIS Coordinator: .....	13
Northern Rockies Coordinating Group.....	13
Private Sector GIS Expertise .....	15
<b>TECHNICAL SECTION</b> .....	<b>16</b>
Data sources .....	17
City-County GIS Data: .....	17
GIS Data locations: .....	17
State Data Resources: .....	18
Equipment.....	19
GPS .....	19
GIS .....	20
Contingency plans.....	21
<b>FORMS</b> .....	<b>22</b>
Check list for GIS staff: .....	23
Standards - Computer Directory Naming Conventions .....	24
Map Request Form .....	26
Time Tracking Form.....	27

# **GETTING HELP!**

## **MAP OPTIONS**

### **Get a copy of an existing map**

1. GIS Center printed maps –City-County Building 316 N Park Ave room 207
2. GIS website PDF maps

### **Make your own Map**

3. ArcIMS – make maps using your internet web browser
4. GIS software on the network
  - a. ArcExplorer – free software
  - b. ArcGIS – network software

### **Custom Map Help**

5. GIS Center assistance for creating maps
6. Other GIS assistance for creating maps

# GIS Support for Emergency Response City of Helena – Lewis & Clark County

GETTING HELP!

Last updated August, 2009

## Get a copy of an existing map

### Existing Maps On-Line:

Ready-made maps city-county: <http://www.co.lewis-clark.mt.us/gis>  
in PDF format.



These ready-made maps (PDF format) provide quick access to a variety of maps that require only a web browser for access. These maps may be printed on any print device, using the Adobe Acrobat Reader print option.

# GIS Support for Emergency Response City of Helena – Lewis & Clark County

**GETTING HELP!**

Last updated August, 2009

## Example City/County Maps

Available on the city-county website. The data sets are on the city-county network.

AREA MAPS	 <p>The image shows a topographic area map of Lewis and Clark County, Montana. It features terrain shading, a grid of roads, and a legend in the bottom right corner. The title 'Lewis and Clark County Area Map' is at the top.</p>
DIRECTION MAPS	 <p>The image contains two maps. The top map is a street map of Helena, Montana, with a red line indicating a route to the City-County Building at 316 North Park Avenue. The bottom map is a detailed street view of the area around the building, showing a parking garage and a red dot indicating a specific location. Below the maps is a block of text providing directions and parking instructions.</p> <p>Park in the parking garage across the street (Park Ave) from the City-County Building. The entrance is on 316 Ave. Obtain a parking pass from the information desk located at the main entrance on the east side of the city-county building. Tell them that you are here for the GIS training. Show this pass to the parking attendant when you leave each day, and be sure to keep your pass for the week.</p> <p>The nearest lift is in the basement of the city-county building. Best access to the lift is the stairwell on the west entrance.</p>
PLANIMETRIC MAPS	 <p>The image is a planimetric map showing a detailed street grid and building footprints in a city area. The map uses various colors to distinguish between different types of land use and infrastructure.</p>
AERIAL PHOTOGRAPHY	 <p>The image is a grayscale aerial photograph showing a landscape with a road, fields, and some structures. The terrain appears to be relatively flat with some variations in vegetation or land use.</p>

# GIS Support for Emergency Response City of Helena – Lewis & Clark County

GETTING HELP!

Last updated August, 2009

## Make Your Own Maps On-Line:

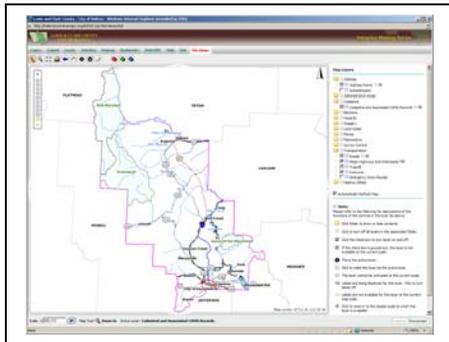
City of Helena – Lewis & Clark County ArcIMS site [www.HelenaMontanaMaps.org](http://www.HelenaMontanaMaps.org)

State of Montana Cadastral ArcIMS site: <http://cadastral.mt.gov/>

MT State Library NRIS ArcIMS site: <http://nris.state.mt.us/interactive.html>

### City-County ArcIMS site

[www.HelenaMontanaMaps.org](http://www.HelenaMontanaMaps.org)



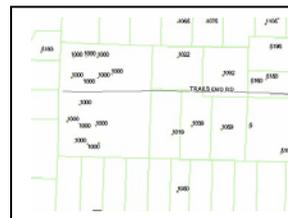
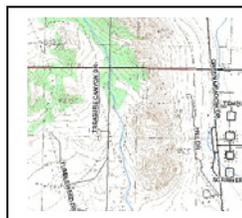
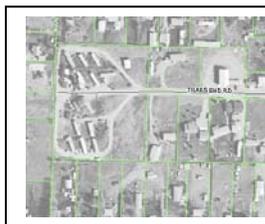
**ArcIMS.** This is a web-based application that is a simple to use map making and querying application that runs in the **web browser**. No special installation is required (provided that you are running **IE 5.5 or above**).

What this program does: This program provides access to a predefined set of layers, and has tools to pan, zoom, print, and query maps and GIS data. Layers may be turned on/off but cannot be re-symbolized. There are simple drawing tools so that arrows, lines, polygons, and text can be added to the map. GPS data can be loaded into the application and plotted on a map. There

are also pre-programmed query and search tools (e.g. search property by owner name, geocode, or by street name), in addition to the map searches. ArcIMS is available now at [www.HelenaMontanaMaps.org](http://www.HelenaMontanaMaps.org)

The ArcIMS has a PUBLIC access and a staff LOGIN. City-county staff can login with your network username and password. The staff site has more data and more tools available on it than the public site, but they work essentially the same.

The ArcIMS serves up the city-county GIS layers from the GIS Center database, so features such as address points, roads, city limits, etc are the most up-to-date data we have.



This website has a variety of search tools

- Address search
- Property search
- Public Building Search
- Trail search

**Find Location**

---

**Zoom To:**

- Latitude / Longitude Coordinate
- Map Coordinate
- Feature by Attribute
- Rural Improvement District
- Subdivision
- Street Address
- Parcel ID
- Parcel Owner
- Parcel Address
- Township Range
- Street Intersection

This menu is used to set the extent of the map using query tools. Select one of the following options, and the map extent will change to show the area that you have selected.

# GIS Support for Emergency Response City of Helena – Lewis & Clark County

GETTING HELP!

Last updated August, 2009

## Google Earth maps:

Google Earth uses City of Helena / Lewis & Clark County digital ortho photography.

The GIS Center can create Google Earth compatible KML (Keyhole Markup Language) files of most city-county GIS layers. The KML files can be created in a matter of minutes by the GIS staff. The KML files can be dropped into Google Earth, they can be emailed, and they can be easily shared with anyone. The county can post KML files on the county GIS website <http://www.co.lewis-clark.mt.us/gis>. The Google Earth program must be loaded on a computer that has access to the Internet.

## State of Montana Land Ownership Maps On-Line

<http://cadastral.mt.gov/>

The screenshot displays the Montana Cadastral Mapping Program web application in a Microsoft Internet Explorer browser window. The browser address bar shows the URL <http://gis.doa.state.mt.us/>. The application interface includes a navigation menu with options like Home, Maps, Parcel Search, Download, Information, and Help. A toolbar provides various map interaction tools such as Zoom In, Zoom Out, Zoom All, Back, Plan, Identify, Find, Measure, Clear, Extract, Parcel, Stream, and Road. The main map area shows a grid of parcels with one parcel highlighted in red. A details window for parcel 05188720301010000 is open, displaying the following information:

TOTAL FINAL BUILDING VALUE	\$0.00
2003 FULL REAPPRAISAL VALUE	\$14,051.00
2003 TAXABLE MARKET VALUE	\$12,756.00
DEED 1: BOOK, PAGE, DATE (mmddyy)	M18, 4909, 9/24/96
DEED 2: BOOK, PAGE, DATE (mmddyy)	110, 154, 12/23/76
OWNER NAME 1	USA DEPT ARMY SEATTLE DISTRICT
TAXPAYER MAILING ADDRESS	PO BOX C3755 SEATTLE, WA 98101-0000

On the right side of the application, there is a 'Layers' panel with a legend and a 'Quick Zoom' section. The 'Layers' panel includes checkboxes for Parcels, Roads, GCDB Township, GCDB Section, 100K Township, Streams, City, County, and Ownership. The 'Quick Zoom' section shows a dropdown menu set to 'Lewis And Clark' and a 'Zoom To City' button. The scale is indicated as 1:51,256. The browser's taskbar at the bottom shows the Start button and various application icons, with the system clock displaying 8:55 AM.

# GIS Support for Emergency Response City of Helena – Lewis & Clark County

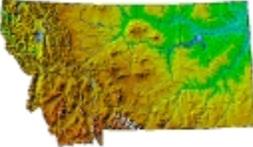
GETTING HELP!

Last updated August, 2009

NRIS Make Your Own Maps On-Line:



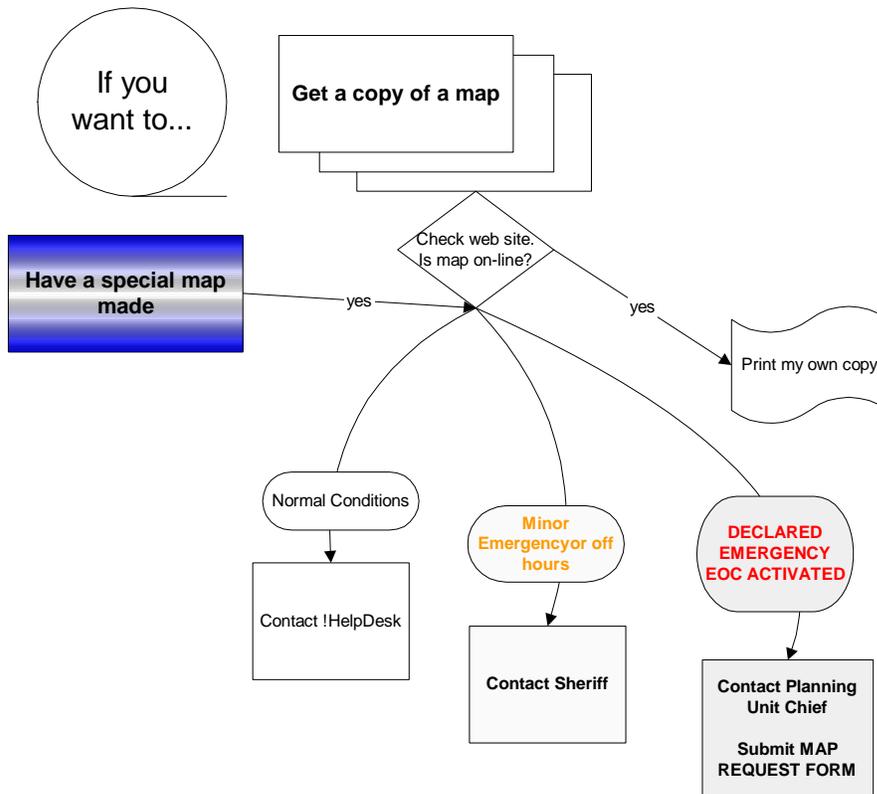
<http://nris.state.mt.us/interactive.html>

 <p><a href="#">Montana Thematic Mapper</a></p>	<p>Interactive Internet mapping tool for accessing to a wide variety of information about Montana's counties, streams, towns, and watersheds.</p>	<p><a href="http://nris.state.mt.us/mapper/">http://nris.state.mt.us/mapper/</a></p>
 <p><a href="#">TopoFinder II</a></p>	<p>A new beta version of the NRIS Topofinder application on the NRIS website. It incorporates a friendlier user interface and takes advantage of our seamless raster data coverages.</p> <p>Adobe's SVG Viewer plug-in version 3.0 is required. You can download this from Adobe or our site. Both links are at <a href="http://nris.state.mt.us/svg/gettingstarted.htm">http://nris.state.mt.us/svg/gettingstarted.htm</a></p>	<p><a href="http://nris.state.mt.us/topofinder2/">http://nris.state.mt.us/topofinder2/</a></p>
 <p><a href="#">TopoFinder</a></p>	<p>Browse Montana's USGS topographic maps and automatically zoom to any point based on latitude/longitude, township/range/section, place name, or quadrangle name.</p>	
 <p><a href="#">QuadFinder</a></p>	<p>U.S. Geological Survey Quadrangle Identifier</p>	
 <p><a href="#">Montana Maps</a></p>	<p>This application has been retired. Please try the <a href="#">NRIS Thematic Mapper</a> in its place.</p>	<p><a href="http://nris.state.mt.us/mapper/">http://nris.state.mt.us/mapper/</a></p>

## Getting Custom Made Maps

[Click here for map request form](#)

### Map Requests Policy



### Map Request Policy - Small Incident

1. Routine requests: normally go through the city-county !HelpDesk (on-line request via email).
2. Emergency Requests. Situation requests when response time is critical **must be submitted to the Incident Commander** (which may be the Sheriff, or Police Chief or Fire Chief, depending on incident).

### Map Request Policy - Large Incident

Large incidents will typically have a Unified Command.

All map requests will be coordinated through the Emergency Operations Center (EOC) Plans Section Chief. This applies to requests for copies of existing maps and production of new maps. The GIS Center staff will operate out of the GIS Center office unless the circumstances demand on-site staffing at the EOC. In order to expedite map printing, maps will be printed at the GIS Center. The Primary Plotter is at the GIS Center.

# GIS Support for Emergency Response City of Helena – Lewis & Clark County

GETTING HELP!

Last updated August, 2009

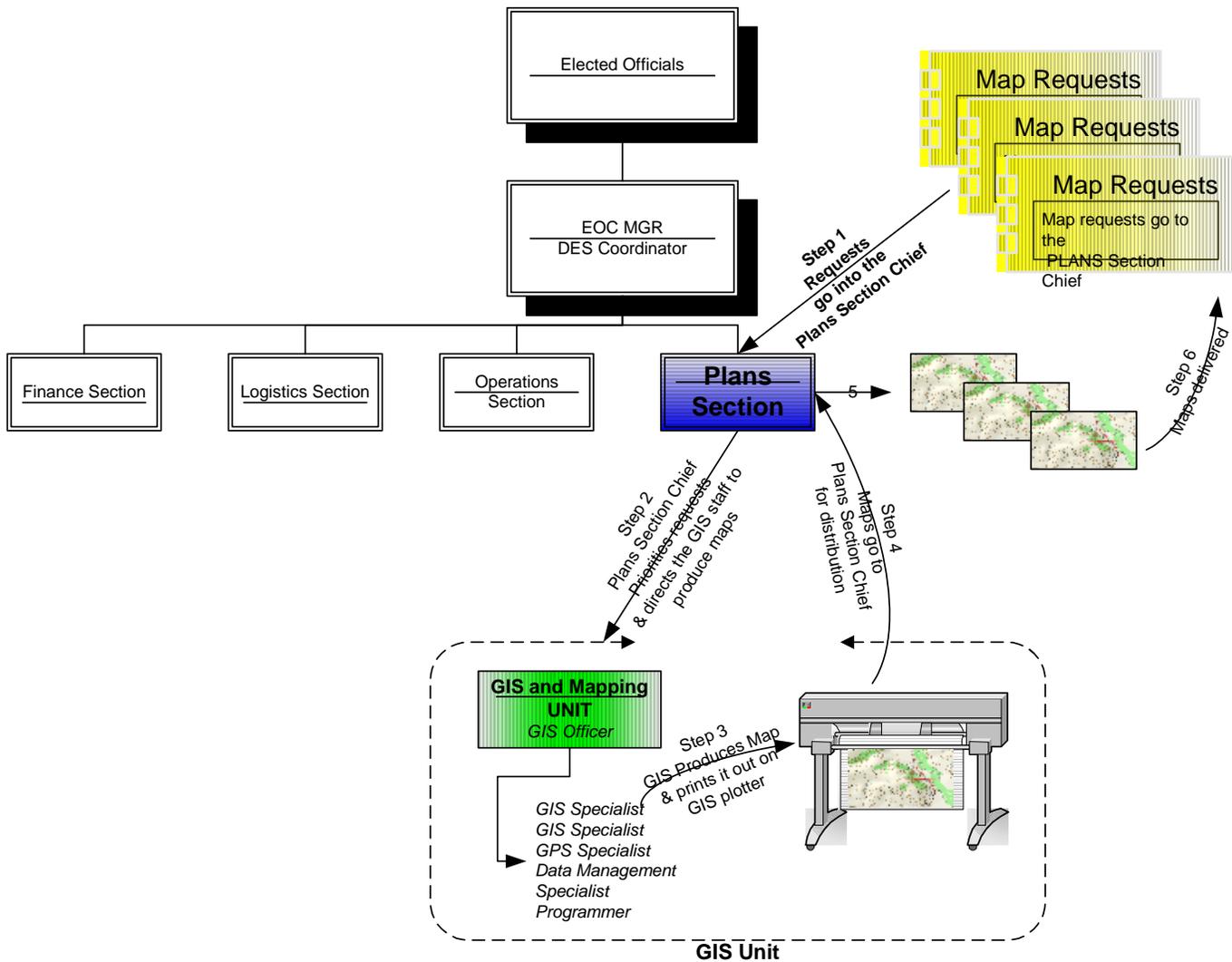
The process for filling map requests is:

1. Submit request to EOC PLANS SECTION CHIEF.
2. EOC prioritizes map requests and orders maps from the GIS Center.
3. GIS Center creates and prints maps, then informs the EOC when the maps are ready.

A runner will pick up completed maps from the GIS Center and bring the maps to the EOC.

**EOC handles the distribution of maps.**

## Declared Emergency Large Incident Map Request Protocol:



## GIS Support for Emergency Response City of Helena – Lewis & Clark County

GETTING HELP!

Last updated August, 2009

---

### Who to contact – CITY-COUNTY

Name	Title	Work phone	Cell phone	Home phone
<b>Eric Spangenberg</b>	<b>GIS Coordinator</b>	<b>406-447-8389</b>	<b>406-461-5851</b>	<b>406-443-2838</b>
<b>Art Pembroke</b>	<b>IT&amp;S Director</b>	<b>406-447-8340</b>	<b>406-431-5128</b>	<b>406-443-0422</b>

Additional city-county GIS support that may be available:

Name	Title	Work phone	Dept.	Home phone /Cell phone
<b>Eric Spangenberg</b>	GIS Coordinator	406-447-8389	IT&S GIS Services	406-443-2838 406-461-5851
<b>Jason Danielson</b>	GIS Database Analyst	406-447-8367	IT&S GIS Services	
<i>Other City and county staff with GIS skills:</i>				
<b>John Hinshaw</b>	City-County Address Coordinator	406-447-8446	Information Technology & Services	
<b>Les Morgan</b>	City Engineering Technician	406-447-8429/8431	City Public Works	
<b>Marni Bentley</b>	County Planning Administrative Assistant	406-447-8375	County Planning	

## **Interagency GIS coordination**

GIS coordination with other agencies:

The city-county GIS staff will work with GIS staff of other agencies that are involved with the emergency, by sharing data, expertise, and other resources as appropriate, and as directed by the EOC.

The Montana Division of Disaster & Emergency Services (DES) stores a copy of city/county data sets that support emergency operations.

### **Montana Disaster & Emergency Services GIS Coordinator:**

Mr. Jens Bolstad 406- 841-3955 [jbolstad@mt.gov](mailto:jbolstad@mt.gov)

### **Montana State GIS Coordinator:**

Mr. Stewart Kirkpatrick 406-444-9013 [skirkpatrick@mt.gov](mailto:skirkpatrick@mt.gov)

### **Montana Natural Resource Information System (NRIS)**

The **Montana Natural Resource Information System (NRIS)** Geographic Information System (GIS) acts as a clearinghouse for GIS databases and provides services to State, Federal, Private, Non-Profit, and Public groups or individuals needing access to GIS technology.

NRIS FIRE RESPONSE DATA PAGE

<http://nris.state.mt.us/fire/>

### **Northern Rockies Coordinating Group**

The **Northern Rockies Coordination Center (NRCC)** is the focal point for coordinating the mobilization of resources for wildland fire and other incidents throughout the Northern Rockies Area. Located in Missoula, Montana, the Center also provides Intelligence and Predictive Services related-products to support wildland fire managers and firefighters in the decision making process throughout the Northern Rockies.

### **Geographic Area Coordination Center**

<http://gacc.nifc.gov/nrcc>

**GIS Support for Emergency Response  
City of Helena – Lewis & Clark County**

GETTING HELP!

Last updated August, 2009

---



NRIS - Natural Resource Information System

Information Request Line 444-5354

**Website** <http://nris.mt.gov>

**NRIS Fire Response Data Page:** <http://nris.state.mt.us/fire/>

**GIS and Information Systems Development**

Gerry Daumiller [gdaumiller@mt.gov](mailto:gdaumiller@mt.gov) GIS Programmer/Analyst (406) 444-5358

Perry Donnafield [pdonnafield@mt.gov](mailto:pdonnafield@mt.gov) NRIS/FWP Web Application Developer  
(406) 444-0294

Duane Lund [dlund@mt.gov](mailto:dlund@mt.gov) GIS Programmer/Analyst (406) 444-5371

Tim Metcalfe [tmecalfe@mt.gov](mailto:tmecalfe@mt.gov) GIS Programmer/Analyst (406) 444-3345

Dave Ratz [dratz@mt.gov](mailto:dratz@mt.gov) NRIS Web Application Developer (406) 444-5691

## GIS Support for Emergency Response City of Helena – Lewis & Clark County

GETTING HELP!

Last updated August, 2009

---

### Private Sector GIS Expertise

COMPANY NAME	CONTACT	PHONE	COMPANY WEB SITE	LOCATION
<b>Maxim Technologies</b>	Fred Gifford	406.443.5210	<a href="http://www.maximusa.com/index2.htm">http://www.maximusa.com/index2.htm</a>	303 Irene St Helena
<b>Tetra Tech EM Inc.</b>	Ed Madej	406.442.5588	<a href="http://www.tetrattech.com/">http://www.tetrattech.com/</a>	Power Block 6 <sup>th</sup> & Last Chance Gulch Helena
<b>DJ&amp;A PC</b>	Mike McCleod Rj Zimmer	406.443.9062	<a href="http://www.djanda.com">http://www.djanda.com</a>	302 N Last Chance Gulch, Suite 406 Helena
<b>CDM</b>	Kris Larson	406.441.1443 406.441.1400		50 W 14 <sup>th</sup> St, Suite 200 Helena
<b>GeoData Services</b>	Ken Wall	406.721.8865	<a href="http://www.geodata-mt.com/default.htm">http://www.geodata-mt.com/default.htm</a>	104 South Ave., East, Missoula

# **TECHNICAL SECTION**

# GIS Support for Emergency Response City of Helena – Lewis & Clark County

Technical Section  
Last updated August 2009

## Data sources

[Click here for request protocols](#)

### City-County GIS Data:

#### Data Resources

The county has many GIS layers of value to an incident. The major data sets available that are commonly used are listed here. In all cases, unless noted otherwise, the data sets cover the entire county with some coverage outside the county boundaries for a few layers. Other data sets may be available.

Map images at three scales that can be used in ArcMap for creating base maps or to provide references for collecting other data:

1:24k

1:100k

½"/mile

- |  |   |
|--|---|
| <ul style="list-style-type: none"><li>• Digital photography (DOQs, DOQQs, and high resolution photography – limited coverage)</li><li>• Roads</li><li>• Address points</li><li>• Parcels (with ownership and owner contact information)</li><li>• Fire Station Locations</li><li>• Fire District Boundaries</li><li>• USGS Topographic Maps (digital)</li><li>• Trails</li></ul> | <ul style="list-style-type: none"><li>• Streams, lakes and ponds</li><li>• Topography - Digital Elevation Model (DEMs)</li><li>• Public Lands Survey System</li><li>• Public lands and In-holdings (may not be complete)</li><li>• Wilderness</li><li>• Vegetation</li><li>• Water drafting</li><li>• areas with aquatic concerns</li></ul> |
|--|---|

### GIS Data locations:

#### Primary location:

1. The city-county GIS server (LC\_Main) & GIS data server SQL Server DBMS via SDE connect.

#### Backup locations:

2. GIS USB external hard drive stored at GIS Coordinator's home (*Eric Spangenberg, 816 Joslyn St., Home: 443-2838, Cell: 461-5851*).
3. Secondary location (**backups**):
  - a. USB External Hard Drive Backups:
    - i. GIS Center Office
    - ii. GIS Coordinator's home (*Eric Spangenberg, 816 Joslyn St., Home: 443-2838, Cell: 461-5851*)
    - iii. Storage vault on 1320 Bozeman St
    - iv. WQPD City-County building (*Kathy Moore 457-8926*)
    - v. City Utilities Maintenance Building, 2108 E Custer Ave (*Kevin Hart 447-1551*)
4. Hard drive back up of HAZUS data at the off site storage facility (contact IT&S staff 447-8320)
5. MT DES GIS – city/county data backups on hard drive and a GIS Class laptop (contact Jens Bolstad 841-3955)

# GIS Support for Emergency Response City of Helena – Lewis & Clark County

Technical Section  
Last updated August 2009

## State Data Resources:



The Montana Natural Resource Information System ([NRIS](#)) Geographic Information System (GIS) acts as a clearinghouse for GIS databases and provides services to State, Federal, Private, Non-Profit, and Public groups or individuals needing access to GIS technology.

### GIS Data

Use the links at right to find and look at sample images of our data and to download the data as ESRI export (.e00) or shape files. All of our data is documented in compliance with the Federal Geographic Data Committee (FGDC) Metadata Standard. If you cannot find the data you want, or if you need it in some other format, please use the "Request Data" page to tell us what you need.

- ▶ [Request Data](#)
- ▶ [Access Guidelines/Fees](#)

- ▶ [Browse the GIS Data List](#)
- ▶ [Search for GIS Data](#)
- ▶ [Detailed Statewide Data](#)
- ▶ [Montana Maps](#)
- ▶ [USGS Orthophotos \(DOQ's\)](#)
- ▶ [USGS Topographic Maps](#)
- ▶ [Digital Elevation Models](#)  
**New data -- 7/3/2002**
- ▶ [NRCS SSURGO Soils Data](#)
- ▶ [2000 TIGER FILES](#)
- ▶ **Legislature Maps:**  
[2001](#) [1999](#) [1997](#) [1995](#)
- ▶ [Fire Response Data](#)
- ▶ [Interactive Mapping](#)
- ▶ [WWW GIS Data Hotlist](#)

## **Equipment**

<b>GIS Center</b>	
<b>Computers</b>	
2 GIS Workstations: Windows XP, 3.00 GB RAM running ArcInfo GIS	
<b>Plotters</b>	
1 HP 5000 Large format color plotter (up to 60" wide) high speed printing.	
<ol style="list-style-type: none"><li>1. <i>Media widths: 36", 40", 54" 60"</i></li><li>2. <i>Media stock available at the GIS Center:</i><ol style="list-style-type: none"><li>a. <i>Basic paper (36", 54", 60");</i></li><li>b. <i>Heavy-duty paper (36")</i></li><li>c. <i>Outdoor paper (36");</i></li><li>d. <i>Photo glossy (36", 54", 60")</i></li></ol></li></ol>	
1 HP ColorLaserJet 5550dtn small format printer (up to 11"x17")	

<b>City of Helena Plotters</b>	
<b>Engineering</b>	HP 1050c Large Format Plotter
<b>Utilities Maintenance</b>	HP 650c Large Format Plotter

<b>Lewis &amp; Clark Fire Council</b>	
<b>Plotter</b>	HP DesignJet 500 color plotter (up 42" wide)
<i>Stored at the home of Rj Zimmer, Private Consultant 406-457-9159 (mobile 406-431-5325)</i>	

## **GPS**

- 2 Trimble ProXL GPS receivers with data collectors for field mapping
- 1 Thales MobileMapper handheld GPS data collector

# GIS Support for Emergency Response City of Helena – Lewis & Clark County

Technical Section  
Last updated August 2009

---

## GIS

Software city-county:

14 licenses ArcView 9.3 fixed seat

1 license ArcEditor 9.3 fixed seat

1 license ArcView 9.3 floating

3 licenses ArcEditor 9.3 floating

2 licenses ArcInfo 9.3 floating

1 license Spatial Analyst 9.3 floating

1 license 3-D Analyst 9.3 floating

1 license Network Analyst 9.3 floating

1 license ArcPress 9.1

2 licenses Pathfinder Office (GPS software)

2 licenses Adobe Acrobat 8.0 writer/distiller for creating PDF format files.

## ***Contingency plans***

### **Data set backups**

Copies of city-county critical data sets are maintained at the following locations:

1. City-county building main server – primary data source
2. External USB hard drives:
  - a. One located in the GIS Coordinator's office (irregular updates)
  - b. One located at the home of the GIS Coordinator (monthly updates)
  - c. One located in the county safe at the State Records Office [1320 BOZEMAN AVE, HELENA ] (semi-annual backup)
3. Network backup tapes: Contact Steve Utick Network Administrator 447-8321
4. CD's in the GIS Center office closet (annual backup dating to 2002)
5. MT DES laptop & hard drive Jens Boldstad 841-3955 (annual backup)

### **Digital map backups**

Copies of existing digital maps in PDF format are on the county website and on the city-county main server. Additional copies are on CD or USB hard drive in the same locations as above.

### **Alternate meeting sites**

In the event that the GIS staff cannot meet at the city county building the following locations will be alternate rendezvous sites in the following order:

1. Basement of the Law Enforcement Center  
(Emergency Operations Center -EOC - 221 Breckenridge, Helena)
2. *Alternate* EOC is at Cogswell Building Conference Room (1400 E. Broadway, Helena)
3. Airport Terminal Offices, 2<sup>nd</sup> floor of Airport Terminal (2850 Skyway Dr, Helena)
4. Location designated by DES Coordinator

# Forms

# GIS Support for Emergency Response City of Helena – Lewis & Clark County

Forms  
Last updated August 2009

---

## **Check list for GIS staff:**

- GIS Laptop**
- USB external hard drives with GIS data**
- Forms**
  - **Map request form**
  - **Time tracking logs**
  - **Map products log**
- Plotter**
  - Paper
  - Ink
- Pens & note paper**
- Software (GIS & GPS) *with key files***
- GPS Gear & cables to upload /download – extra batteries (camcorder & 9 volt)**
- Matte knife**
- Masking tape**
- Push pins**
- Scales: (architecture's, engineer')**
- Straight edge (12" & 36")**
- AC/DC converter power-port plug-in**

# GIS Support for Emergency Response City of Helena – Lewis & Clark County

Forms  
Last updated August 2009

---

## Standards - Computer Directory Naming Conventions

### RESPONSE PHASE

When new data and maps are produced for an incident the following directory structure will be used:

\_\_EMERGENCY\_GIS\_RESPONSE/

*/INCIDENTNAME*

*/INCIDENTDATA*

*/GPSFieldData*

*/GPSCorrectedData*

*/GISfiles*

*EVENTDAY / (new folder for each day that maps are generated for the event)*

*/ArcMap projects*

*/PDF & JPEG files*

Example:

G:\\_\_EMERGENCY GIS RESPONSE

\Fire-Emergency2003

\LincolnComplex

\Aug14

\Aug18

\Aug20

G:\\_\_EMERGENCY GIS RESPONSE

\Fire-Emergency2003

\JimTown

\Aug14

After the incident response is completed files will be archived off the system and 2 copies will be stored.

# GIS Support for Emergency Response City of Helena – Lewis & Clark County

Forms  
Last updated August 2009

---

## **Map standards**

All maps will have the following items on every map:

- Title
- File name (map control number) – must conform to file naming standards!
- Event Name
- Date edited / updated
- Date printed
- North arrow
- Scale bar
- Name of last person to edit it
- GIS logo and address
- Disclaimer

## **Data Collection Standards**

The County's GIS data is all in projection:

Projection: Montana State Plane  
Datum: NAD83/92 aka HARN  
Units: meters

Data collected in this projection should register with the forest's GIS data properly and will fit correctly on all the Primary Base Series (1:24k) and Secondary Base Series (1/2"/mile) maps for the forest.

All GPS units that the team uses should be set to collect data in MT State Plane coordinates, datum NAD83.

Return the completed form to GIS or INCIDENT COMMANDER or EOC, depending on the level of emergency.

### MAP REQUEST FORM

The GIS Center can be contacted at **447-8389** or 447-8367

The following information is essential for the GIS staff to provide you with the map that you need.

#### CONTACT INFORMATION

Who needs the map \_\_\_\_\_

Contact information: \_\_\_\_\_

Who requested the map: \_\_\_\_\_

Contact information: \_\_\_\_\_

When is the map needed? \_\_\_\_\_ # Copies Requested: \_\_\_\_\_

Is the information sensitive (eg. Can the map go on the Web for public viewing?): \_\_\_\_\_

#### MAP INFORMATION

This request is for copies of an EXISTING map:

Map Control # (lower right corner): \_\_\_\_\_ OR Title: \_\_\_\_\_

This request is for copies of a NEW map:

1. Map Extents:

NORTH: \_\_\_\_\_

WEST : \_\_\_\_\_ EAST: \_\_\_\_\_

SOUTH: \_\_\_\_\_

2. Type of background map to use: BASIC SHADED RELIEF USGS TOPO AERIAL PHOTO

3. What are the IMPORTANT things to show on the map?

\_\_\_\_\_  
\_\_\_\_\_

4. Do you need a specific scale:

1:1200 (1" = 100ft)

1:12,000 (1" = 1,000ft)

1:2,400 (1" = 200ft)

1:24,000 (1" = 2,000ft)

1:4,800 (1" = 400ft)

1" = 1 mile

1:7,200 (1" = 600ft)

Other: \_\_\_\_\_

5. Paper type: Basic paper Photo Glossy

6. Print size (check all that apply):

8 ½" x 11"

36"x48"

11"x 17"

Oversize: \_\_\_\_\_ x \_\_\_\_\_

18"x24"

24"x36"

**GIS Support for Emergency Response  
City of Helena – Lewis & Clark County**

Event: \_\_\_\_\_

**Time Tracking Form**

**Event:** \_\_\_\_\_

**Name:** \_\_\_\_\_

Date	Day	Start Time	End Time	Hours		activity
				Reg	OT	
	Sunday					
	Monday					
	Tuesday					
	Wednesday					
	Thursday					
	Friday					
	Saturday					
	Sunday					
	Monday					
	Tuesday					
	Wednesday					
	Thursday					
	Friday					
	Saturday					
<b>Total Hours</b>				0	0	

Approved: \_\_\_\_\_

Comments: \_\_\_\_\_