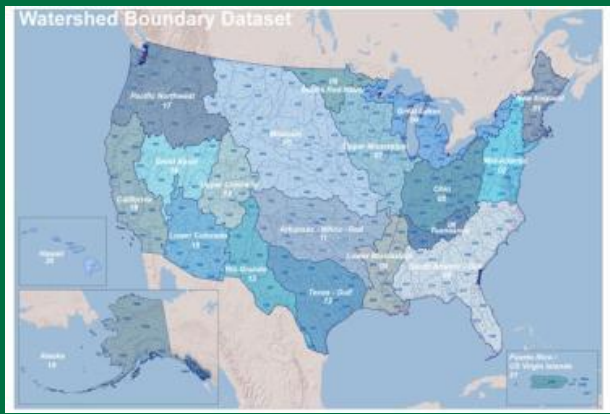
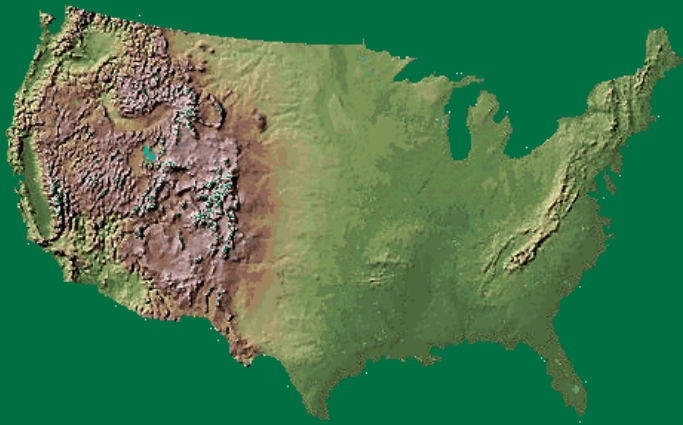


# The Ohio Spatial Data Framework

## *The National Map & US Topo*



**OVRDC**  
**March 8**  
**Waverly**

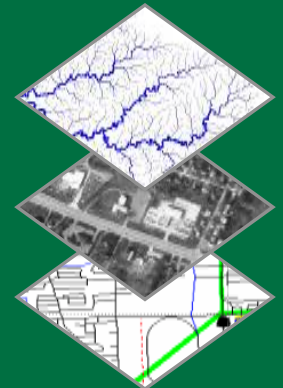
# National Map



The National Map is a collaborative effort among the USGS and other national, state, and local partners to improve and deliver topographic information for the nation.



- Imagery (aerial photography)
- Elevation
- Transportation
- Hydrography
- Structures
- Boundaries
- Land cover
- Geographic names





# US Topo

## Almost 700 New Ohio Quad Maps Available.

09/03/2010 --

New

topographic maps are available for

most of Ohio.

US Topo is

the next generation of USGS digital topographic maps.

Arranged in the

traditional

7.5-minute quadrangle format, digital US Topo maps are designed to look like the traditional paper topographic maps for which the USGS is so well known while providing modern technical advantages, including the ability to either view or hide contours, hydrographic features, and other data layers that make up the maps. US Topo maps are available online for no charge in GeoPDF format or can be ordered in printed form.



# Charles Hickman - Geographer - U.S. Geological Survey National Map Liaison to Ohio **and Michigan**

6480 Doubletree Avenue Columbus, Ohio 43229 USA  
chickman@usgs.gov (614) 430-7768

<http://liaisons.usgs.gov/geospatial/Ohio/>

*The National Map*

<http://nationalmap.gov>

- Ask USGS
- Email [ask@usgs.gov](mailto:ask@usgs.gov)
- Phone 1-888-ASK-USGS
- Web <http://www.usgs.gov>



U.S. Geological Survey - Geospatial Partnerships for Ohio

[Partnerships Home](#)

[Partnership Network](#)

USGS Geospatial Liaison for Ohio



[Charles E Hickman](#)  
Columbus  
614-430-7768  
[chickman@usgs.gov](mailto:chickman@usgs.gov)

News and Highlights for Ohio

[NED Has New Statewide Elevation Data from Ohio Based on Lidar](#)  
The National Map - National Elevation Dataset (NED) now has statewide high-resolution elevation data for all of Ohio. This is the third state, following North Carolina and North Carolina, that has complete one-ninth arc-second NED...

2010-12-17 13:5

[Almost 700 New Ohio Quad Maps Available](#)

We now have new US Topo maps for most of Ohio. These new quad maps are available online at no charge. More information is available at <https://my.usgs.gov/Public/NSDIPartnershipOffice/OH/News/New%20Topo%20Maps>

[About Geospatial Partnerships](#)



# U.S. Geological Survey

<http://www.usgs.gov>

- Geography and Mapping
- Geology
- Biology
- Water



Climate and Land Use  
Change

Core Science Systems

Ecosystems

Energy and Minerals, and  
Environmental Health

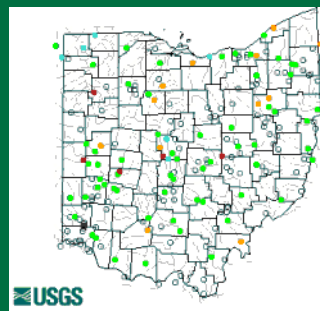
Natural Hazards

Science Quality and  
Integrity

Water

USGS Ohio Water Science Center

<http://oh.water.usgs.gov>





USGS Home  
Contact USGS  
Search USGS

### USGS Ohio Water Science Center

- ◆ [home](#)
  - ◆ [data](#)
  - ◆ [newsroom](#)
  - ◆ [publications](#)
  - ◆ [projects](#)
  - ◆ [education](#)
  - ◆ [about us](#)
  - ◆ [faq](#)
  - ◆ [contact](#)
- Intranet - Internal Access Only*

Search this site:

#### DATA CENTER

January 10, 2011 12:34 ET



#### Real-time data

- [Streamflow](#)
- [Ground water](#)
- [Water quality](#)
- [Precipitation](#)

#### Historical data

- [Streamflow](#)
- [Ground water](#)
- [Water quality](#)
- [Annual Data Reports](#)

### USGS: Your Source For Water Science You Can Use

Welcome to the U.S. Geological Survey (USGS) Web page for the water resources of Ohio; this is your direct link to all kinds of water information. Here you'll find information on Ohio's streams, ground water, water quality, and many other topics. [more...](#)

#### What we're doing...

<p><b>Groundwater</b></p>	<p><b>Microbiology &amp; Ecology</b></p>	<p><b>Surface Water</b></p>	<p><b>Water Quality</b></p>	<p><b>Water Use</b></p>
---------------------------	--	-----------------------------	-----------------------------	-------------------------

#### Of Interest...

#### Geography Awareness Week 2010: Freshwater.

11/15/2010 -- Learn about freshwater Earth's most precious natural resource.



#### Recent Publications

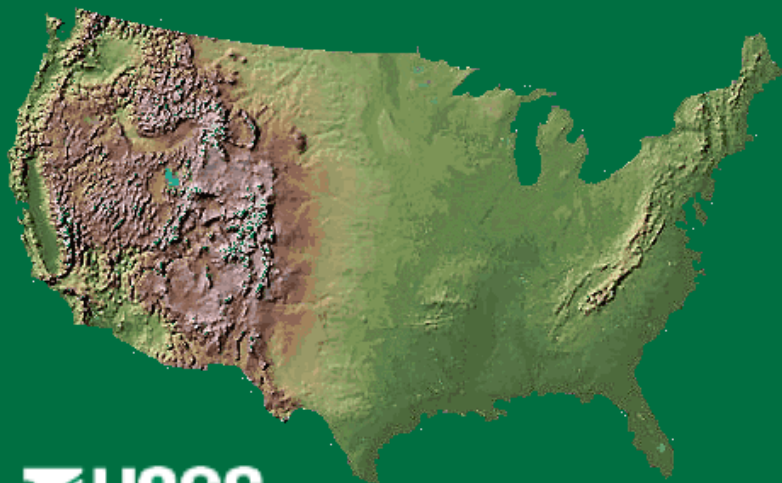


Predicting Recreational Water Quality Using Turbidity in the Cuyahoga River, Cuyahoga Valley National Park, Ohio, 2004-7

# National Map

Uses range from recreation to scientific to planning to emergency response.

The National Map is accessible for display on the Web, as products and services, and as downloadable data.



## New *National Map* Viewer and Download Platform

- Fast Base Map
- 100% *National Map* Content
- One-stop to Download *National Map* Data
- Direct Access to US Topo
- Use *National Map* Services in other viewers - or add services to make your own view

[Click here to go to the Viewer](#)

Can't see Flash?

Install [Flash Player](#) or view [text version](#).

**Recommended Browsers:**

[Firefox](#) - [Chrome](#) - [Internet Explorer 7 or higher](#)

Managed by the National Geospatial Program (NGP), TNM transitioned its data assets and viewer applications to newer visualization and delivery methods with foundational base maps and integrated download services.

This new visualization and download platform is based on National Geospatial Intelligence Agency (NGA)'s Palanterra x3.

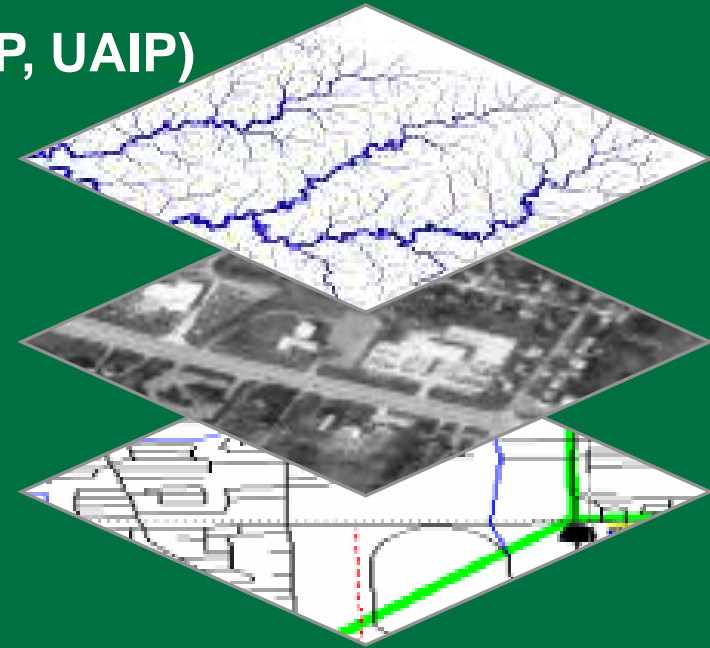
[Click Here to Open Viewer](#)

[Help](#) - QuickStart, Frequently Asked Questions (FAQs), Contact Us



# *The National Map: Data Themes*

- **Imagery** (aerial photography, NAIP, UAIP)
- **Elevation** (NED)
- **Transportation**
- **Hydrography** (NHD & WBD)
- **Structures** (buildings)
- **Boundaries** (gov & admin)
- **Land cover** (NLCD)
- **Geographic names** (GNIS)



Other types of geographic information can be added within the viewer or brought in with National Map data into a Geographic Information System to create specific types of maps or map views.



# The National Map

- Base topographic data
  - ✓ Seamless
  - ✓ Continuously maintained
  - ✓ Nationally consistent
- Developed and maintained through partnerships
- Available on line
- Source for products and services

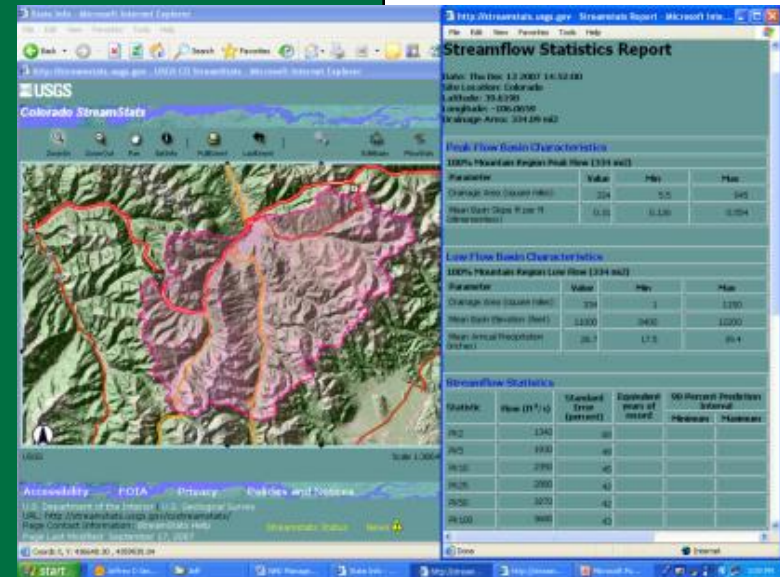


## The National Map

Topographic Mapping  
for the 21<sup>st</sup> Century

### Final Report

November 30, 2001



# New *National Map Viewer* and Download Platform

- Fast Base Map
- 100% *National Map* Content
- One-stop to Download *National Map* Data and view Map Services
- Direct Access to US Topo via NM Viewer or USGS Store
- New Advanced Features
  - WMS and new Base Map Services are designed to be easily plugged into most GIS viewers or applications
  - Add into preferred 2D Viewer – Google Maps, ArcGIS JavaScript API
  - Or 3D Viewer - Google Earth, Bing Maps, ArcGIS Explorer.
  - Add to web page via KML



## ***The National Map Viewer:***

- 100% *The National Map* content
- One-stop to download *The National Map* data and view map services
- Recent Updates:
  - Print Map to PDF
  - Download National Hydrography Dataset with Flow Table
  - Download US Topo PDFs



## **Quick Tip:**

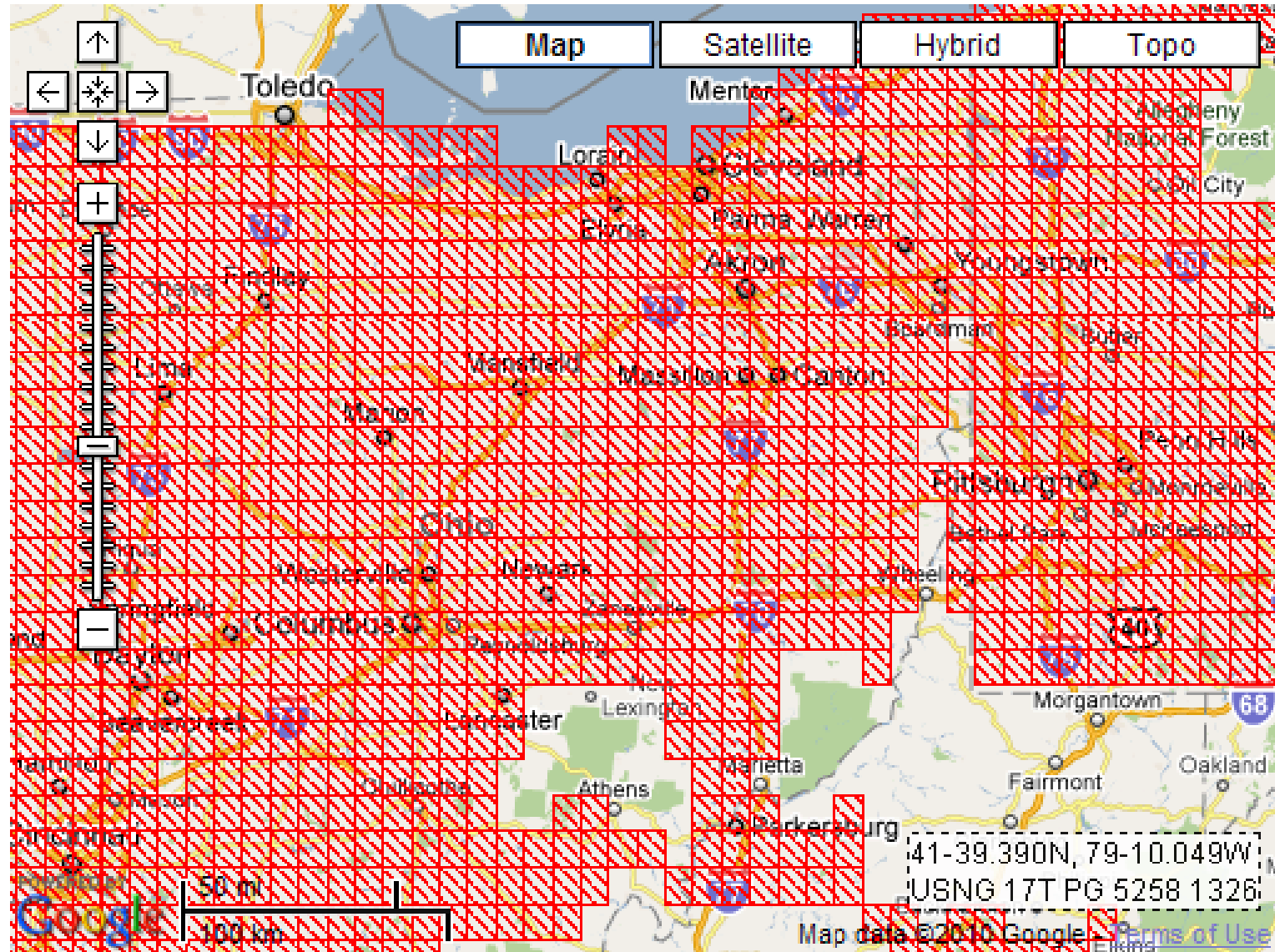
Click help for navigation and download introduction





## Map Locator

Having trouble? Call: 1-888-ASK-USGS (1-888-275-8747) or Write: [usgsstore@usgs.gov](mailto:usgsstore@usgs.gov) for help



# US Topo



OH\_Northwest\_Columbus\_20100809\_TM\_geo.pdf - Adobe Reader

File Edit View Document Tools TerraGo Window Help

1 / 1 21.4% Find

Start GPS Track  
Hide Flag

**Layers**

- Map Collar
- Map Elements
- Map Frame
- Projection and Grids
  - Projection Coordinate Valu
  - Geographic and Grid Ticks
  - Projection Line Mask
  - Grid Lines
- Geographic Names
  - Geographic Names
- Boundaries
  - Boundary Names
  - Boundaries
- Transportation
  - Road Names and Shields
  - Roads
  - Airport Names
  - Airports
- Hydrography
  - Hydrographic Names
  - Hydrographic Features
- Contours
  - Contour Names
  - Contour Features
- Images
  - Orthoimage

USGS U.S. DEPARTMENT OF THE INTERIOR U.S. GEOLOGICAL SURVEY US topo NORTHWEST COLUMBUS QUADRANGLE OHIO TANKETS 8585

Scale: 1:50,000

Northwest Columbus, OH 8585

Lon: --- Lat: --- MGRS: ---



# The National Map Viewer Order 30363 (Do Not Reply)

The National Map Viewer to: chickman



Thank you for your recent data order placed with The National Map Viewer. Below are the details of your order with specific instructions.

Order ID: 30363

US Topo - Below are the links to download the data you requested.

Product	Extracted by
US Topo Northwest Columbus, OH	Current Map Extent/(-83.151, 39.879), (-82.931

Structures - Not requested.

Transportation - Not requested.

Boundaries/Governmental Units - Not requested.

Hydrography - Not requested.

Land Cover - Not requested.

Elevation - Not requested.

Orthoimagery - Not requested.

NOTE: Your order has been processed by the The National Map 2.0 Viewer and Download Data tool.

The screenshot shows the USGS National Map Viewer interface. At the top, the USGS logo and 'The National Map Viewer' text are visible. Below the header, there are navigation options: 'Overlays', 'Clear Map', and 'Full Extent'. The main map area displays a topographic map of the Columbus, Ohio region, with various roads and geographical features. A 'Download Data' tool overlay is active, showing a download icon and a '7000' contour line. Below the download icon, there are tabs for 'Standard', 'Advanced', and 'Annotation'. The 'Download options' section is expanded, showing a dropdown menu set to 'Index 24K' and a link to 'Click here to download by current map extent'. The map background shows labels for 'North Lewisburg', 'Marysville', 'Powell', 'Hilliard', 'London', 'Mechanicsburg', 'Westerville', 'New Albany', 'Pickerington', 'DELAWARE CO', and 'FRANKLIN CO'. Major roads like I-70, I-270, and I-670 are also visible.





# Historic USGS quadrangle scanning

- Scan complete collection of approximately 250,000 USGS quadrangles existing as paper copies, using consistent, high quality specifications
- Provide all editions and all scales matching US Topo release cycle
- All maps will have complete Metadata
- GeoPDF files available for download from USGS Store

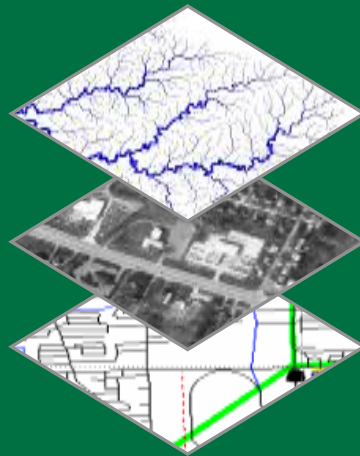


# OGRIP

## Ohio Geographically Referenced Information Program



- OSIP – Imagery, Elevation, Lidar
- LBRS – Road and street data
- Parcels . . .



### Ohio Statewide Imagery Program

The Ohio Statewide Imagery Program is a partnership between Local, State and Federal government agencies to develop high-resolution imagery and elevation data for the entire state to benefit Geographic Information System users at all levels of government. Accurate imagery and elevation data serve as the backbone for the development of additional data sets that are currently maintained and accessed by government decision makers and the public.

*Supporting Business Processes and Decision Making at all Levels of Government*

The data obtained through OSIP replaces the circa 1994-98 1M black and white digital ortho-quarter quad (DOQQ) imagery and the USGS 30M Digital Elevation Model (DEM) with higher resolution data.

OSIP 1FT Color Orthophoto Image



#### OSIP Products

The OSIP product delivery included 1FT Color Orthophotography in GeoTIFF and MrSID format, 2.5FT digital elevation model (DEM) in ArcInfo GRID and ASCII grid format, and 2M LIDAR postings in LAS format, and 1M Color Infrared photography.

Optional OSIP products available through a Cooperative Purchase Agreement with the State of Ohio included 8IN Color Orthophotography, 2FT and 5FT contours.

#### OSIP Project Status Summary

OSIP data products were shipped to 51 northern tier counties in June 2007. Data for the remaining 37 southern tier counties was delivered in the Summer of 2009. The OSIP Status Map viewer is available at:

<http://gis4.ohio.gov/osipviewer/>

Local government entities had an opportunity to obtain 6IN Color Ortho

Photography through a Cooperative Purchase Agreement with the State. The CPA benefits the state by enhancing the resolution of the imagery developed by through OSIP while providing cost savings to local government. OSIP has saved 36 participating counties an estimated 5 million in taxpayer dollars as a result of the economy of scale of a statewide program including the cost for LIDAR acquisition, DEM development, project administration and QA/QC.



# National Map – Imagery

- OSIP 2006-2007 funding from NGA & DHS
- NGA Urban Area Imagery Program - UAIP

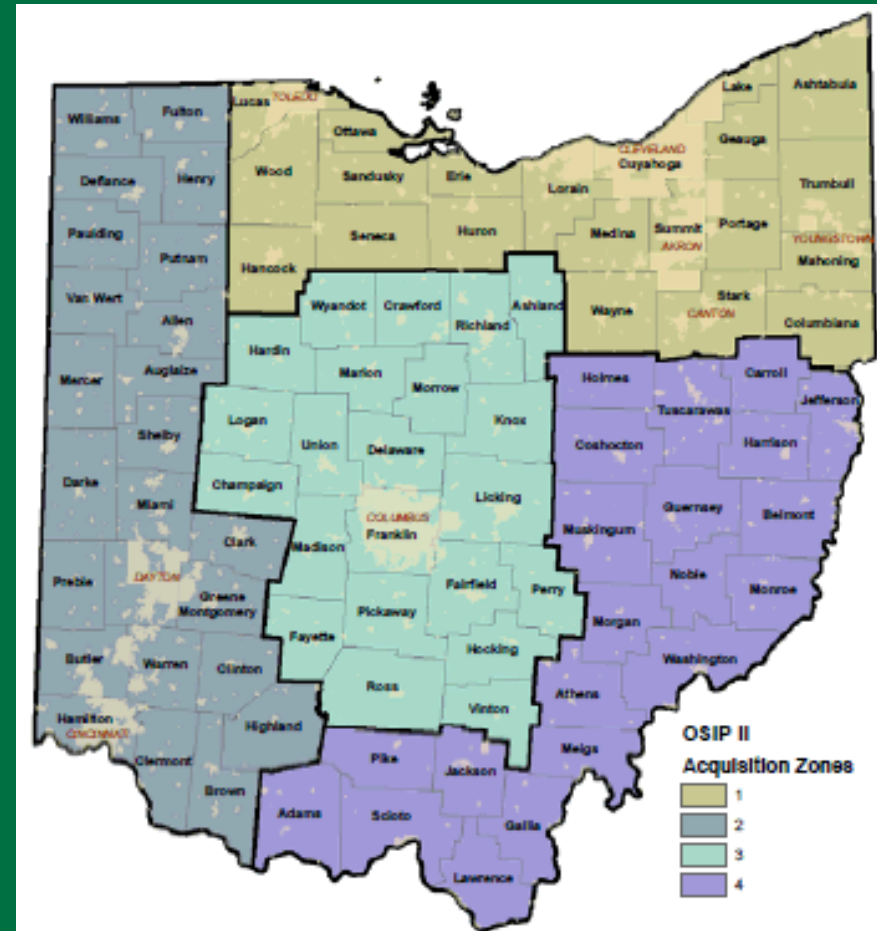
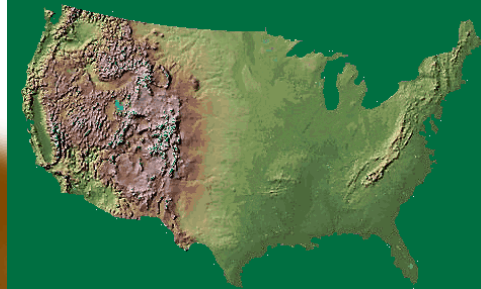
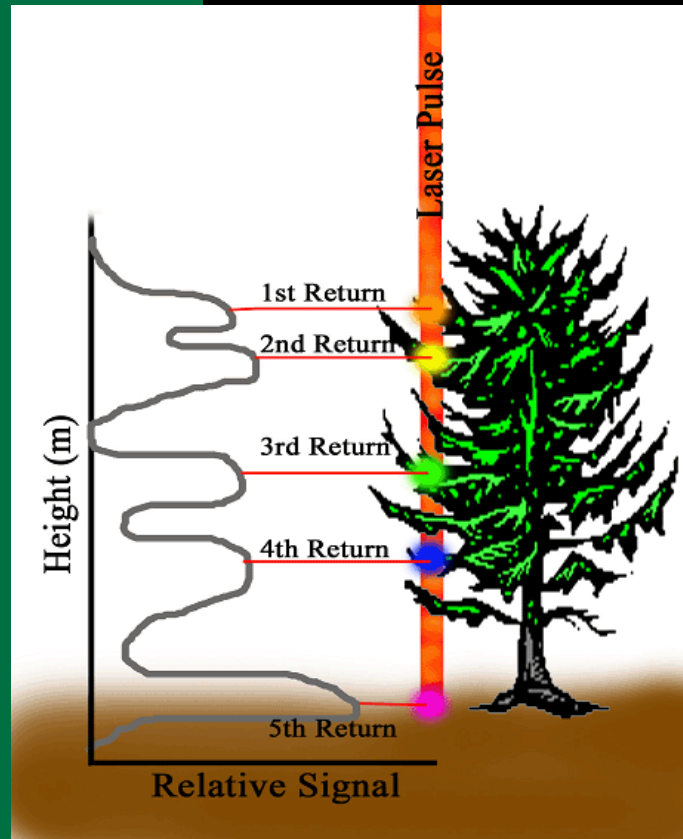
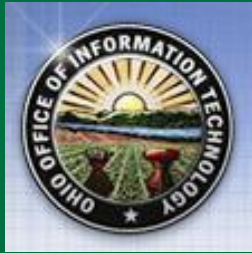
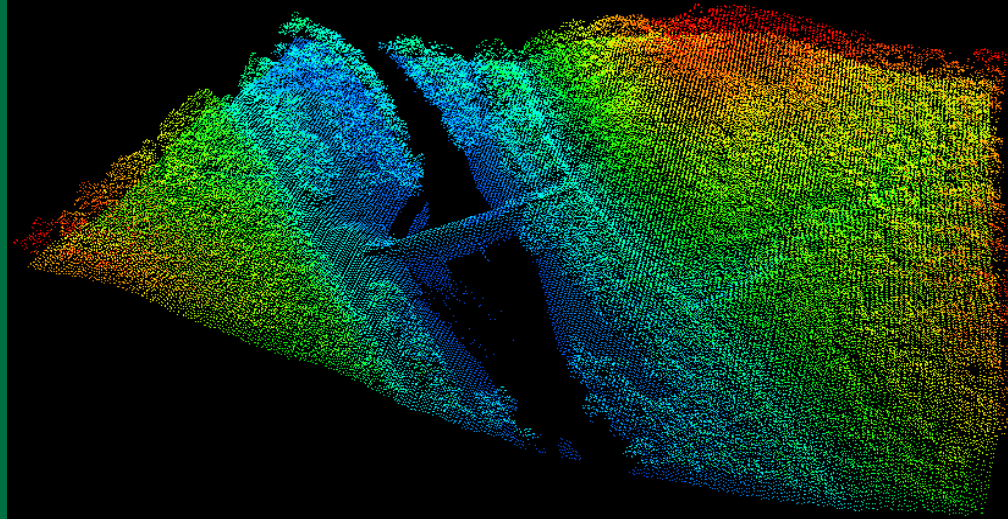


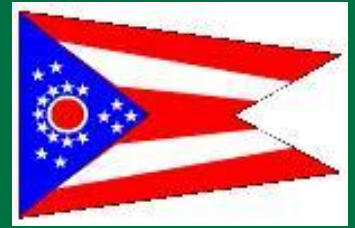
Figure 1-1 State Map Delineating Project Areas



# Ohio OGRIP Lidar



# OGRIP Council & Forum



Dave Blackstone - Representing: Ohio Department of Transportation  
David Crecelius - Representing: Ohio Department of Natural Resources  
Vandhana Veerni - Representing: Ohio Environmental Protection Agency  
Barbara Curtiss - Representing: County Auditor's Association of Ohio (CAAO)  
David W. Dennis - Representing: Municipalities (city w/ population greater than 100,000)  
Phil Honsey - Representing: Municipalities (city w/ population less than 100,000)  
John MaGill - Representing: Ohio Department of Development  
Mark Salling - Representing: Institutions of Higher Education  
Dean Ringle, P.E., P.S. (Franklin Co) Representing: County Engineer's Association of Ohio  
Todd Bosley (Stark Co) Representing: County Commissioner's Association of Ohio (CCAO)  
Justin Spicer - Representing: Ohio Treasurer of State  
Chad Riley - Representing: Ohio Attorney General  
Public Utilities - Vacant  
Ohio Association of Regional Councils – Vacant

Stu Davis, Council Chair - Representing: Ohio Office of Information Technology  
Jeff Smith – Ohio GIS Support Center and OIT



2011 Ohio GIS – Sept. 29-30



# Save The Date

2011 Ohio GIS Conference

September 29<sup>th</sup> and 30<sup>th</sup>

Hyatt Regency in Columbus, Ohio

Note: Call for abstracts 3/28/2011 to 4/22/2011



N 39.969556  
W 83.00128



More Info: <http://ogrip.oit.ohio.gov/Events/OhioGISConference.aspx>

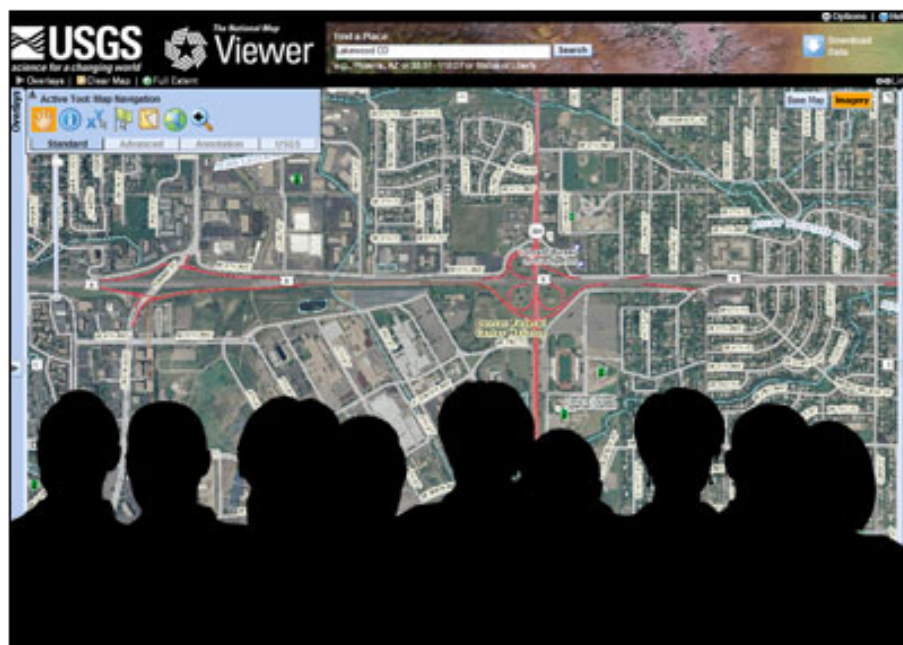




## **The National Map Users Conference and USGS GIS Workshop**

Home    Call for Abstracts/Posters    Agenda    Registration    Hotel Information  
Local Information    Conference/Workshop Tracks

# **The National Map Users Conference and USGS Geographic Information Science (GIS) Workshop**



**Who:** Scientists, professionals, and other users of GIS and [The National Map](#)

**What:** The inaugural Users Conference for *The National Map*, held in tandem with the USGS GIS Workshop

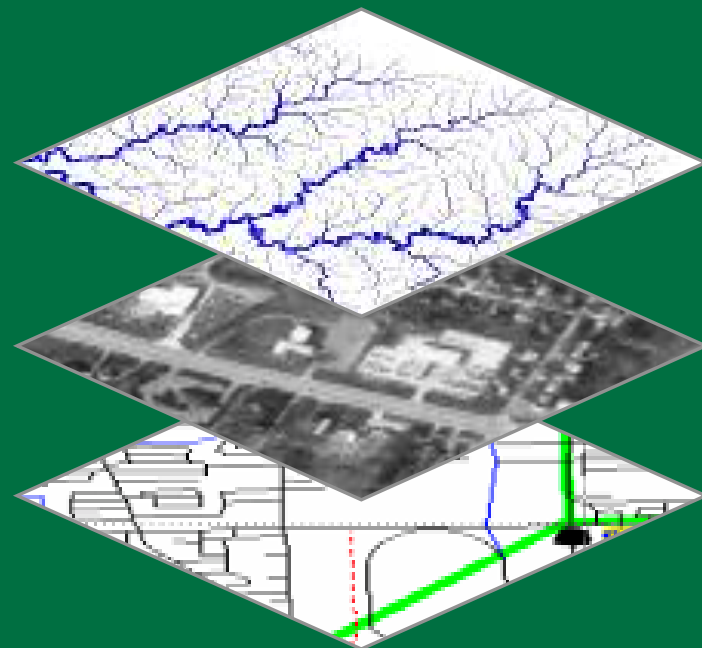
**When:** May 10-13, 2011

**Where:** The GIS Workshop will be held at the USGS National Training Center, located on the Denver Federal Center, Lakewood, Colorado, May 10-11. *The National Map* Users Conference will be held directly after the GIS Workshop at a convention center in the Lakewood, Colorado, area, May 12-13.

**Why should I attend?** The goal of the interactive workshop and conference is to serve and enhance communications among the communities of users of *The National Map*, Federal GIS specialists and scientists, and data providers. Topics will include existing applications and visions for future scientific and modeling applications using *The National Map*, opportunities for partnerships, and advances in geospatial technologies. The event will focus on user and partner interaction using various formats: interactive panels, lightning

# *The National Map: Data Themes*

- Imagery
  - Elevation
  - Transportation
  - Hydrography
  - Structures
  - Boundaries
  - Land cover
  - Geographic names
- 
- Parcels, PLSS, geodetic control



# *The National Map*

## Introduction to *The National Map*



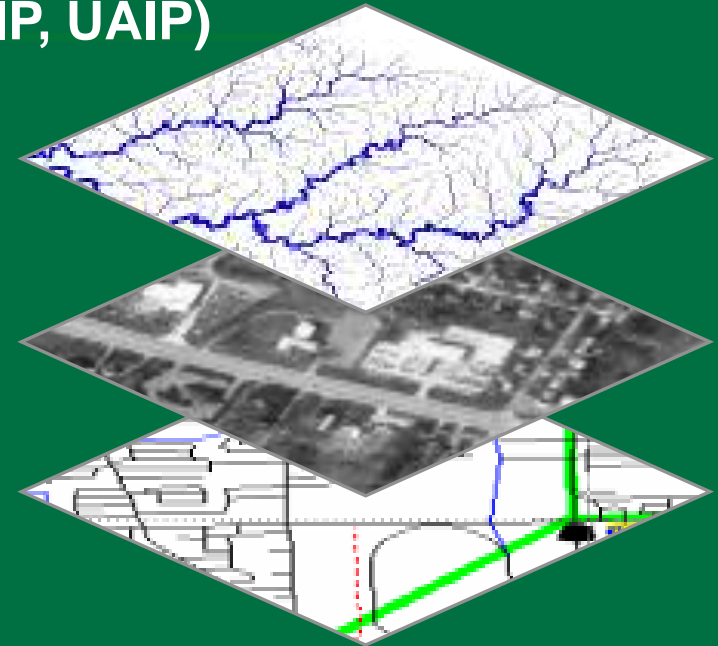
The image shows a screenshot of the USGS National Map Viewer interface. At the top left, the USGS logo is displayed with the tagline "science for a changing world". Next to it is the "The National Map Viewer" logo, which includes a recycling symbol and the text "The National Map Viewer" and "Powered by Environment". A search bar is located at the top center, with a "Search" button to its right. On the top right, there is a Creative Commons license icon (CC BY) with the text "is on". The main area of the screenshot is a topographic map showing a city and surrounding terrain. A large black play button is overlaid on the map. At the bottom, there is a video player control bar with a play button, a progress bar showing "00:00" on both ends, a "menu" button, a volume icon, and a full-screen icon.

[Get the latest Flash player](#)



# *The National Map: Data Themes*

- **Imagery** (aerial photography, NAIP, UAIP)
- **Elevation** (NED)
- **Transportation**
- **Hydrography** (NHD & WBD)
- **Structures** (buildings)
- **Boundaries** (gov & admin units)
- **Land cover** (NLCD)
- **Geographic names** (GNIS)



Other types of geographic information can be added within the viewer or brought in with National Map data into a Geographic Information System to create specific types of maps or map views.

# National Map – Imagery

- OSIP 2006-2007 funding from NGA & DHS
- NGA Urban Area Imagery Program - UAIP



## Ohio Statewide Imagery Program

The Ohio Statewide Imagery Program is a partnership between Local, State and Federal government agencies to develop high-resolution imagery and elevation data for the entire state to benefit Geographic Information System users at all levels of government. Accurate imagery and elevation data serve as the backbone for the development of additional data sets that are currently maintained and accessed by government decision makers and the public.

*Supporting Business Processes and Decision Making at all Levels of Government*

The data obtained through OSIP replaces the circa 1994-98 1M black and white digital ortho-quarter quad (DOQQ) imagery and the USGS 30M Digital Elevation Model (DEM) with higher resolution data.



### OSIP Products

The OSIP product delivery included 1FT Color Orthophotography in GeoTIFF and MrSID format, 2.5FT digital elevation model (DEM) in ArcInfo GRID and ASCII grid format, and 2M LiDAR postings in LAS format, and 1M Color Infrared photography.

Optional OSIP products available through a Cooperative Purchase Agreement with the State of Ohio included 6IN Color Orthophotography, 2FT and 5FT contours.

### OSIP Project Status Summary

OSIP data products were shipped to 51 northern tier counties in June 2007. Data for the remaining 37 southern tier counties was delivered in the Summer of 2009. The OSIP Status Map viewer is available at: <http://gis4.oit.ohio.gov/ospviewer/>.

Local government entities had an opportunity to obtain 6IN Color Ortho Photography through a Cooperative

Purchase Agreement (CPA) with the State. The CPA benefits the state by enhancing the resolution of the imagery developed by through OSIP while providing cost savings to local government. **OSIP has saved 36 participating counties an estimated 5 million in taxpayer dollars** as a result of the economy of scale of a statewide program including the cost for LiDAR acquisition, DEM development, project administration and QA/QC.

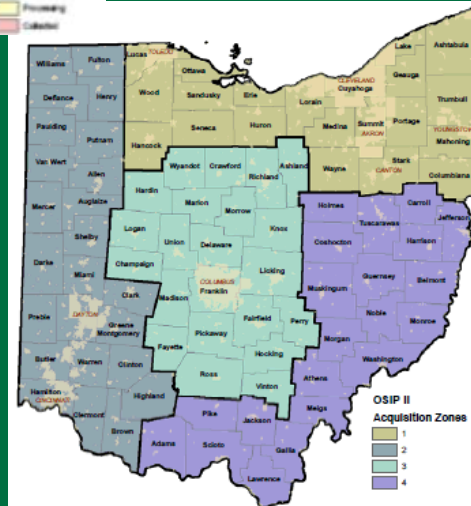


Figure 1-1 State Map Delineating Project Areas



# OHIO NAIP 2009



**Urban Imagery**



## National Agriculture Imagery Program: An Imagery Product With Many Uses

Real Estate  
Construction and Development  
Environmental Issues  
Engineering Applications  
General Mapping  
Modelling Green Space  
Public Health and Safety  
Infrastructure Maintenance  
Utility Easements

Monitoring Land Use Change  
Acreage Reporting  
Conservation Practices  
Irrigation Determination  
Drought Monitoring  
Flood Assessment  
Rangeland Assessment  
Farm Modeling  
Monitoring Livestock Containment



**Rural Imagery**



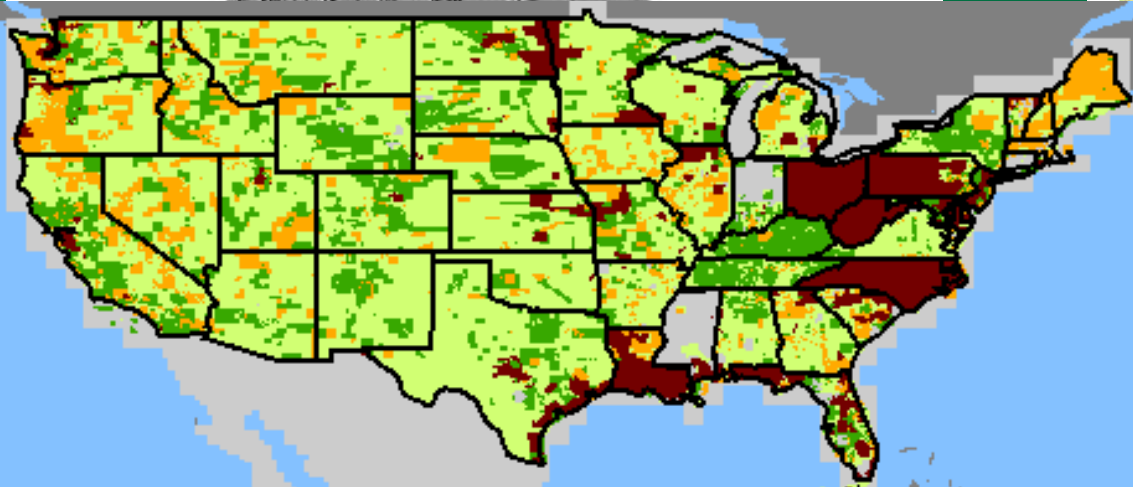
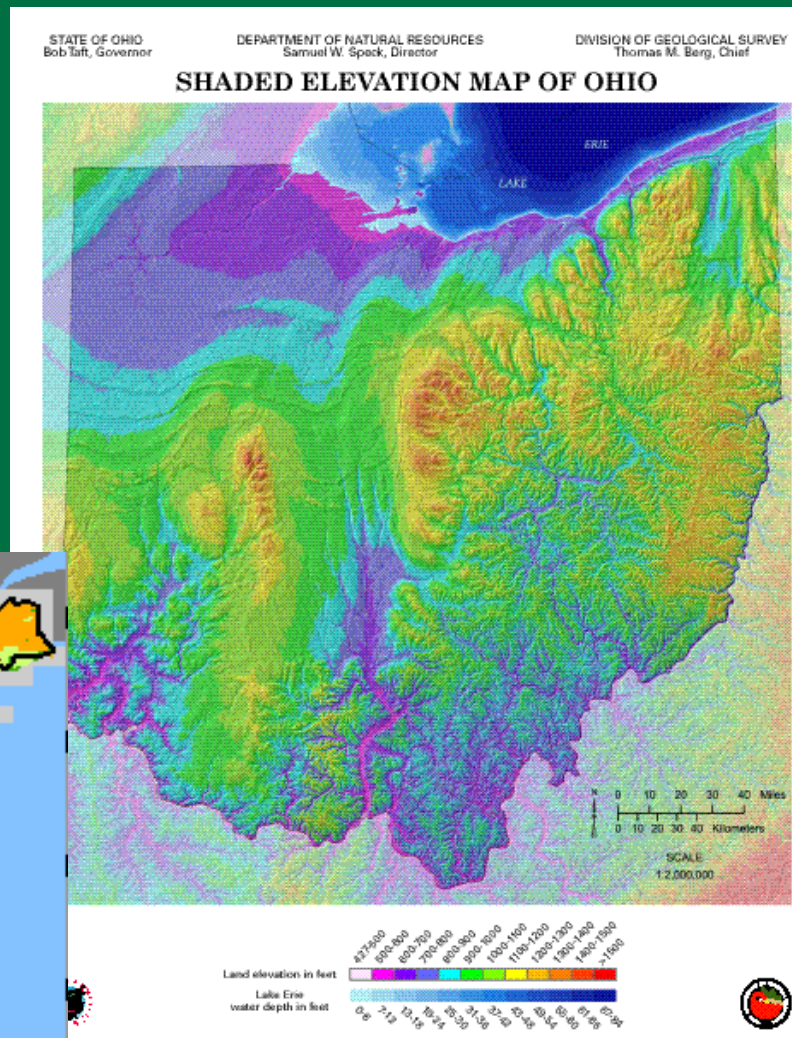
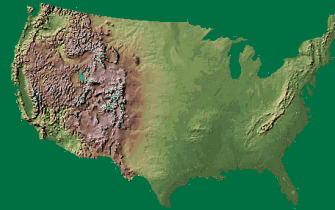
For more information visit [www.apfo.usda.gov](http://www.apfo.usda.gov)



# National Map – Elevation NED - National Elevation Dataset

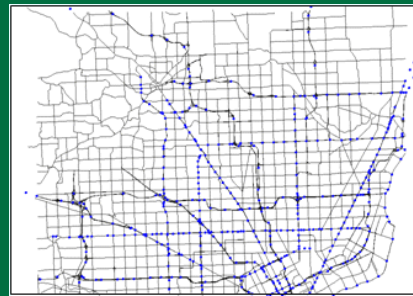
CLICK – Center for Lidar Information, Coordination, and Knowledge

OSIP – Ohio Statewide Imagery and Elevation Program



# National Map - Transportation

- Ohio LBRS
  - – Location Based Response System
    - roads, streets, addresses, linear referencing, locally maintained
- Federal transportation not yet unified
- Transportation for the Nation
  - NSGIC, US DOT, Census, commercial, OSM



# National Hydrography Dataset

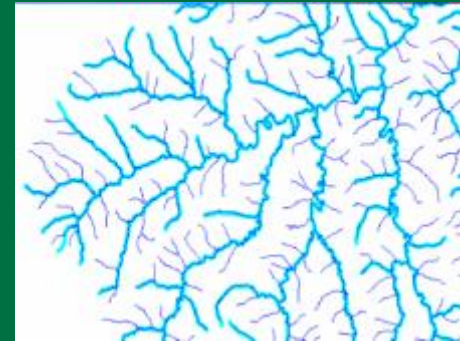
NHD is a digital basemap of surface waters, such as streams, rivers, lakes, and reservoirs.

It includes names.

It supports network and flow analysis.

It is a common framework for referencing surface-water related features, such as stream gages, pollution sources, and water quality test sites.

Maintained via stewardship.



**National  
Hydrography  
Dataset**

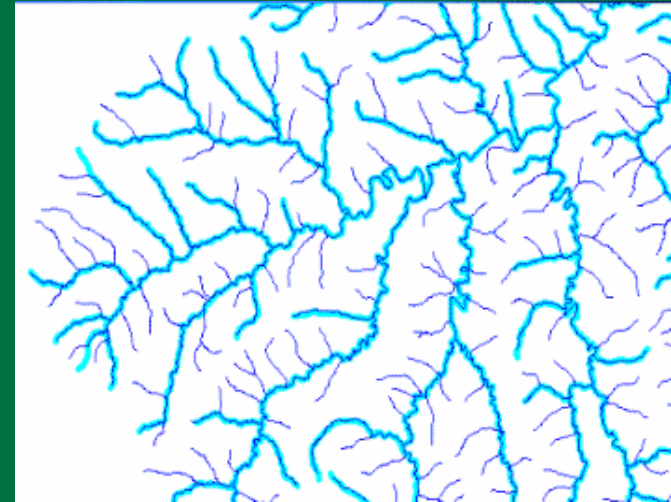




# National Map - Hydrography

## National Hydrography Dataset - NHD

- National program
- Combines best of several federal efforts
  - USGS DLG 100K & 24K
  - US EPA Reach File RF3
  - USFS CFF
  - other national, state, and regional partners
- Coordinated update efforts



**National  
Hydrography  
Dataset**



# NHD Monthly Newsletter



## National Hydrography Dataset

[NHD Home](#) << [NHD News](#) << [Newsletter List](#)

## NHD Newsletters

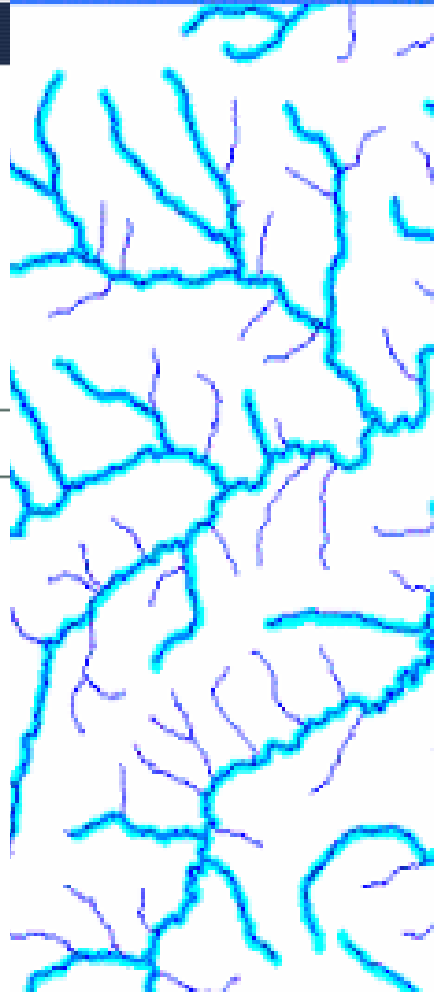
[Archived NHD Newsletters](#)

[2010](#) | [2009](#) | [2008](#) | [2007](#)

### 2010

[December 2010](#)

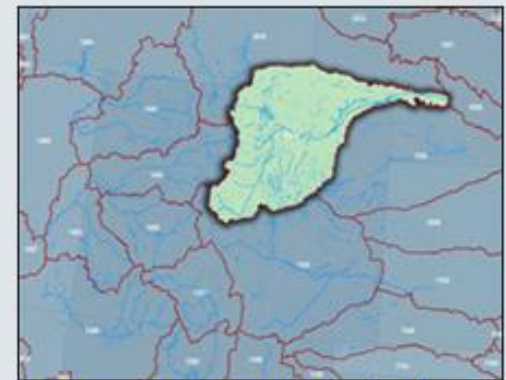
- LiDAR and the NHD
- NHD Management Team Meeting
- Projects for NHD and WBD
- USGS Reorganizes to Better Address Science Strategy
- WBD Integration Status
- NHD Photo of the Month
- November Hydrography Quiz / New December Quiz
- Upcoming NHD Training



There are three ways to access the data:



1. [GO to the NHD Viewer](#) | [Help](#)



2. [GO to Pre-staged Subregions](#) | [Help](#)



3. [GO to NHD Extracts by State](#) | [Help](#)

**Need Help Downloading NHD Data?  
See Instructions.**

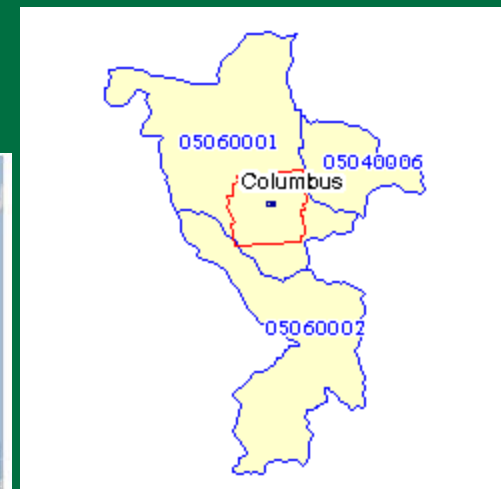
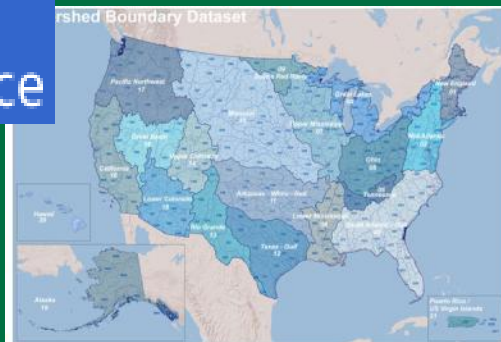
# NHD, WBD, GNIS, NWI, FIRM, NED

Current integration with Watershed Boundary Dataset (HUC's)



Stream and lake names coordinated with Geographic Names Information System (GNIS)

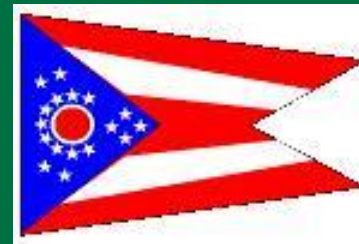
Future improved integration with wetlands (NWI), flood plains (DFIRMS), elevation (NED), and other framework themes





# NHD and Names

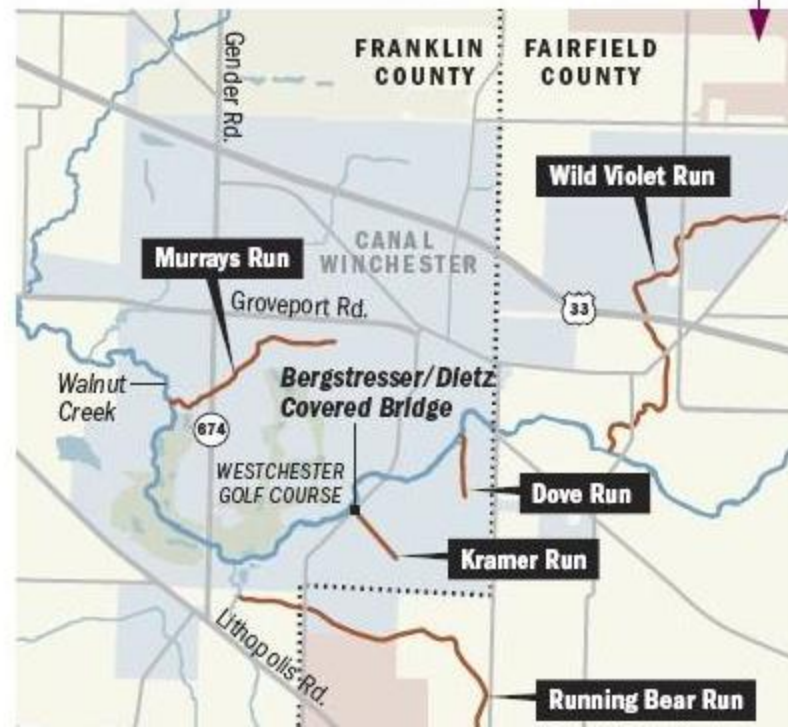
- Stream names in Ohio
  - Central Ohio (MORPC)
  - Cincinnati area issues
  - Cleveland, Akron . . .
- Ohio BGN



Sunday, December 14, 2008 8:58 AM

## Proposed names

The U.S. Board of Geographic Names prefers names with historical meaning for the area. Here are some being proposed for creeks, runs and ditches near Canal Winchester:



## THE PLAIN DEALER

### Name that creek yourself and get feds to back you

Friday, December 02, 2005

Wonder if that creek behind your house has a name? You can check the topographic map for your neighborhood. They are probably available at the nearest library or town hall.

If it doesn't have a name, or you think the one on the map is inappropriate, you can come up with a moniker and ask the U.S. Board of Geographic Names to make it official.

The board says any American has the right to propose a new name or a change. It has one hard and fast rule: No names of living people. And it might help your cause to get some backing from the county commissioners, township, village or city.

An application is available through the Internet at:

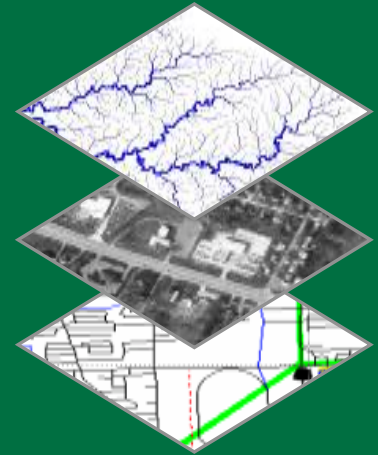
[geonames.usgs.gov](http://geonames.usgs.gov), where you can reach the board's Web site.

If you don't have Internet access, here's the address:

U.S. Board on Geographic Names, U.S. Geological Survey, 12201 Sunrise Valley Drive, MS523, Reston, Va. 20192-0500

# National Map – Geographic Names

- Geographic names
  - Mt. McKinley and Ohio



# National Map – Hydrography

## National Hydrography Dataset

**You Tube**  
Broadcast Yourself™

[Home](#) [Videos](#) [Channels](#) [Shows](#)

### The Role of Hydrography in The National Map



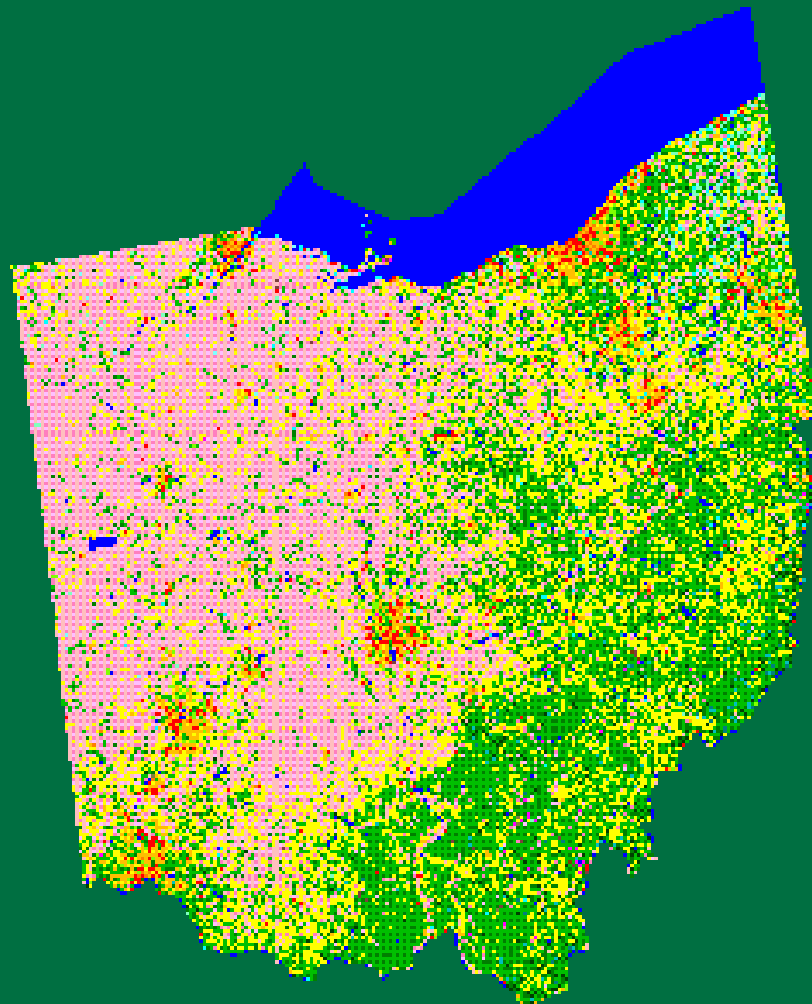
The image shows a wide, calm river flowing through a deep, reddish-brown canyon. The canyon walls are steep and rocky, with some sparse vegetation. In the distance, a bridge spans across the river. The sky is clear and blue.



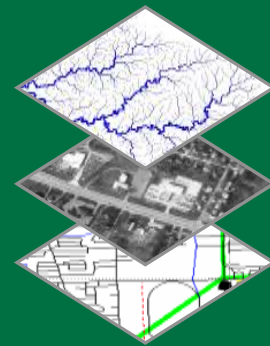
# National Land Cover Dataset (NLCD)

NLCD 2001 will be part of a land characterization database that also includes:

- LANDSAT 7 imagery
- Terrain slope, aspect, and elevation
- Soil moisture
- Impervious surface
- Tree cover
- 
- NLCD 2006



# *The National Map: Data Themes*



- Structures - buildings
  - TechniGraphicS (TGS) Wooster & HSIP buildings for NGA
  - Stewardship for structures
  - Hospitals, fire stations, . . .
- Boundaries
  - Initially from TIGER



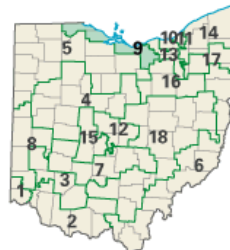
# Odds and Ends

- Ohio PLSS – original land subdivisions
- Geodetic control – bench marks
- International Charter & Ohio disasters
- OhioView
- U.S. National Grid
- National Atlas

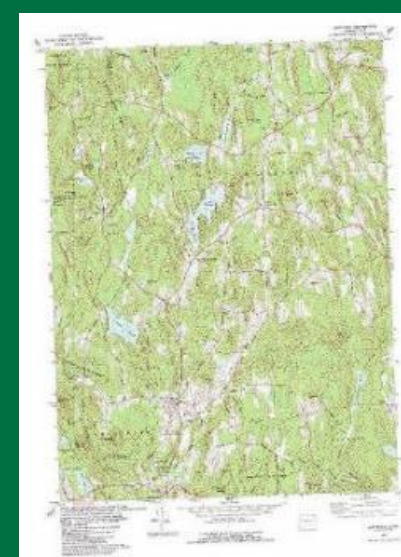
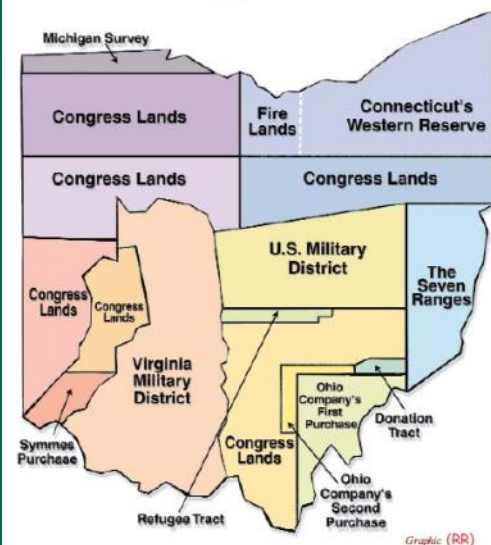
Congressional District 9



9 Congressional District  
Erie County



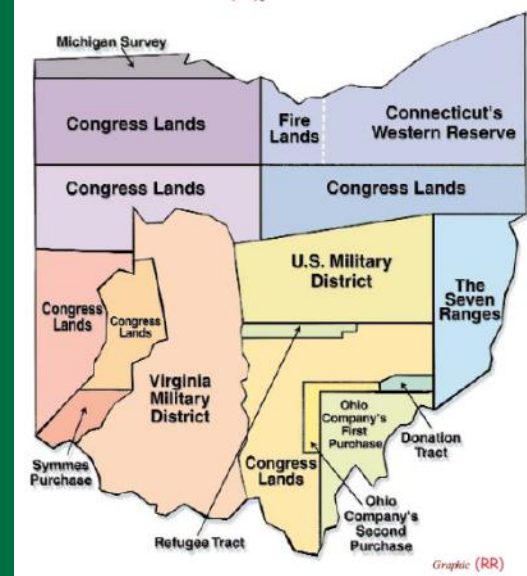
Ohio (18 Districts)





# Public Land Survey System Ohio PLSS Information on 788 Ohio Quadrangles

Example map collar info from central Ohio -



Area west of the Scioto River lies within the Virginia Military District

Area north of Base Line lines within the United States Military District  
Land lines based on the Base Line of the United States Military District

Area south of the Base Line lies within Congress Lands east of the Scioto River  
Land lines within Ts. 4 and 5 N.-R. 22 W. based on the Scioto River Base  
Land lines within Ts.11 and 12 N.-R 21 W. based on the Ohio River Base



# Ohio PLSS Original Land Subdivisions of Ohio

Available from the Ohio Department of Natural Resources,  
Division of Geological Survey  
**ORIGINAL LAND SUBDIVISIONS OF OHIO**

MG-2 Version 2.1  
Originally released 2003

Compiled by James McDonald, Joseph G. Wells, James W. Wright, Christian D. Steck,  
Lawrence H. Wickstrom, Brian D. Gara, and Lap Van Nguyen.  
Cartography by Donovan M. Powers.



Scale 1 inch = 6 miles

Ohio was the first state whose lands were subdivided by the federal government and sold off or given to American citizens. Soon after the end of the Revolutionary War, land in Ohio was sold to assist in paying the national debt or was given to veterans of the Revolutionary War to compensate them for their military service. Various land subdivision schemes were tried in portions of Ohio before the standard Public Land Surveying System (PLSS) of subdivision was adopted. The PLSS scheme, originally applied in northwestern Ohio over 200 years ago, was used subsequently for surveying the rest of the United States. The map and data set were compiled for use at county- to statewide-scale purposes and cannot be used for applications such as determination of exact property boundaries. However, the map and data do provide an important index of the original land subdivisions for use as a geographic and historic reference and within many geographic information system (GIS) applications.

This map and digital data set represents the only known digital compilation of the original Ohio land subdivisions on a statewide basis. The Division of Geological Survey first released this map and GIS in 2003. This new version (2.1) shows all land subdivisions with labels and has been made to appear very similar to the historic Sherman (1922) map. The GIS files have a much easier-to-use data structure and has had further refinement of the boundary lines and topology.

Map price: \$15.00 • Digital data price: \$25.00  
(plus sales tax and shipping)

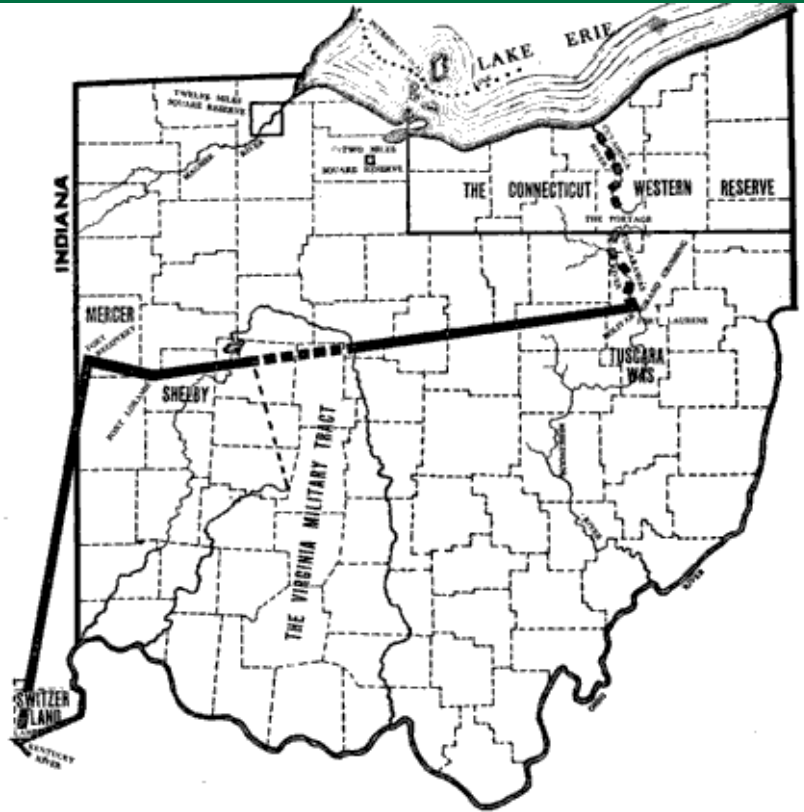
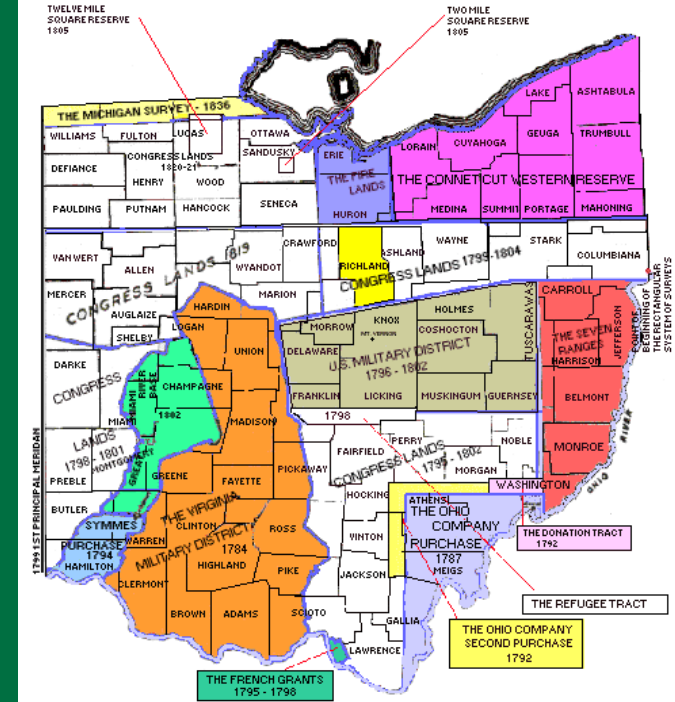
An order form is on the reverse for your convenience





# History Lessons

Firelands and Benedict Arnold  
How Michigan got the Upper Peninsula  
Refugee Tract and Nova Scotia  
Greenville Treaty Line

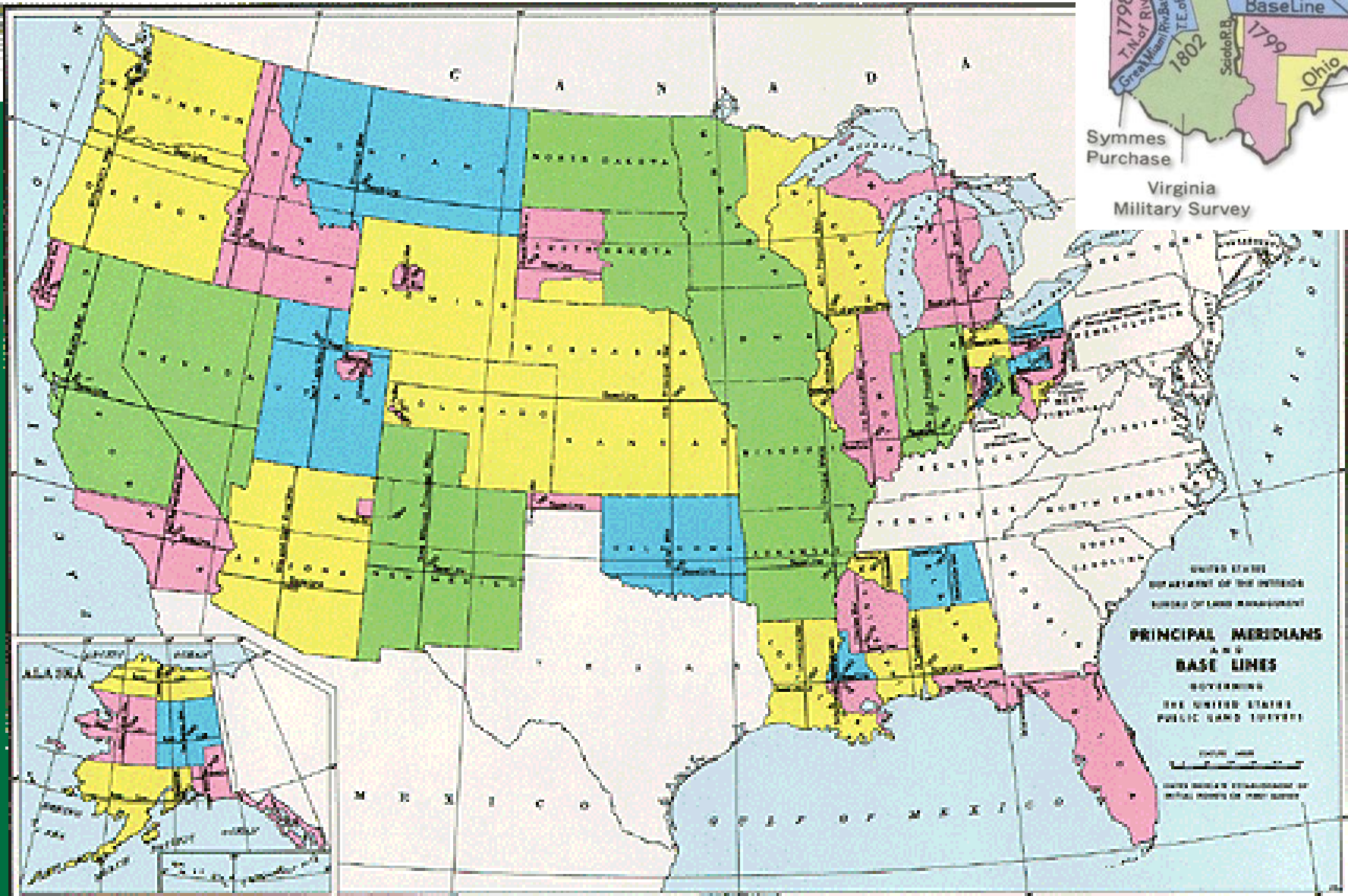


THE GREENVILLE TREATY LINE





# PLSS from BLM



# International Charter Satellite Imagery and Ohio Disasters



- Unified system of space data acquisition & delivery to those affected by natural or technological disasters
- Each member agency commits resources to support the provisions of the Charter, helping to mitigate the effects of disasters on human life and property.
- Commercial Satellite Imagery Companies Partner with USGS in Support of the International Charter “Space and Major Disasters” DigitalGlobe & GeoEye

# OhioView and AmericaView



NATIONAL CONSORTIUM FOR  
REMOTE SENSING EDUCATION,  
RESEARCH, AND APPLICATIONS

OHIOVIEW

PROJECT FACT

<http://www.americaview.org>

## KEEPING OUR WATER SAFE

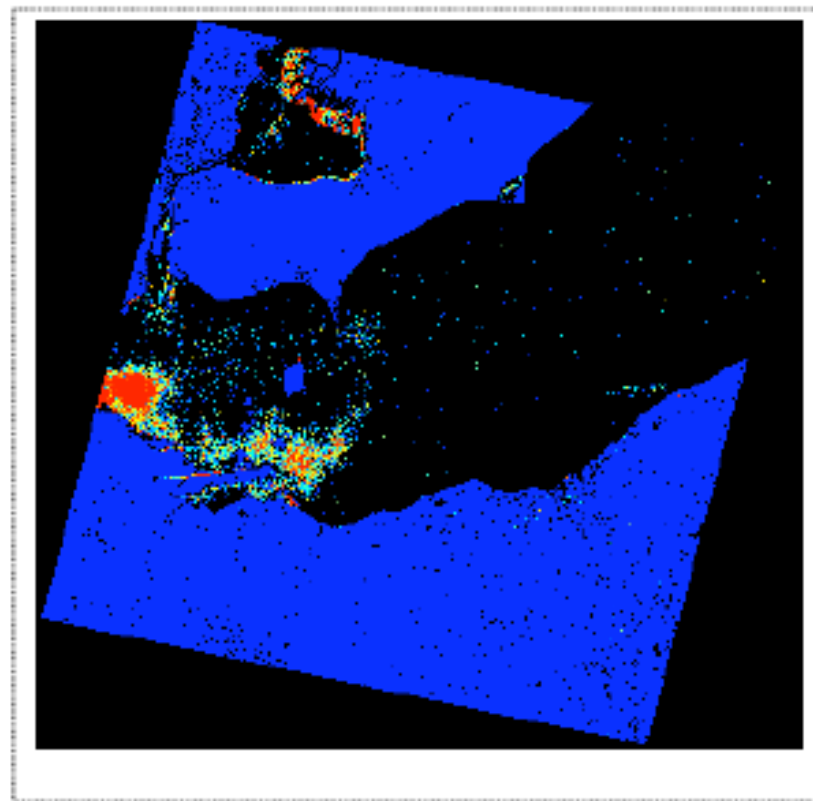
*Principal Investigator Professor Robert K. Vincent,*  
Bowling Green State University (E-Mail:  
[rvincen@bqnet.bgsu.edu](mailto:rvincen@bqnet.bgsu.edu)); Assoc. Prof. Kevin  
Czajkowski, University of Toledo.

## MEMBERSHIP

- > [Bowling Green State University](#)
- > [Central State University](#)
- > [Cleveland State University](#)
- > [Kent State University](#)
- > [Miami University](#)
- > [Ohio University](#)
- > [The Ohio State University](#)
- > [University of Akron](#)
- > [University of Cincinnati](#)
- > [University of Dayton](#)
- > [University of Toledo](#)
- > [Wright State University](#)
- > [Youngstown State University](#)

get their drinking water from lakes  
he quality of that water vital to  
oms constitute one of the threats to  
e Erie and elsewhere. Blue-green  
c when they transition to the spore  
oxins that attack the central  
totoxins that attack the liver.  
estroyed by chlorine. In Brazil, 60  
xic algae bloom that formed on the  
f a single hospital. Besides  
mmon pigment that makes most  
in color, blue-green algae contain  
. Therefore, mapping phycocyanin  
xic algae blooms are located, from  
n in Figure 1), to the full-blossom  
gust, 2002 (not shown here).

tory, it is now possible to monitor  
n in surface waters from satellite



**Figure 1.** Phycocyanin image from model of July 1, 2000 applied to LANDSAT 7 data of Lake Erie

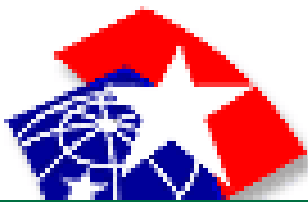


# SPOT news

**USGS has awarded a contract to SPOT Image for the period December 27, 2010 December 26, 2011 to directly acquire all SPOT 4 and SPOT 5 EO images over the conterminous US plus the portion of Canada .... and Mexico ....**

- All scenes received under this contract are licensed for FedCiv (non-Title 50), State, Local and Tribal Government use ....**

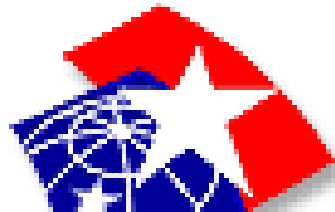




- **Agriculture: Ag Census 2002, Crops, Farmland...**
- **Biology: Bat Ranges, Butterflies, Forests, Invasive...**
- **Boundaries: Congress Districts, Counties, Fed lands**
- **Climate: Precip, Hazard Events, Hurricanes, Sea Temp**
- **Environment: Air Releases, Hazard Waste, Toxics**
- **Geology: Earthquakes, Landslides, Relief, Volcanoes**
- **History: Election Results, Territorial Acquisitions**
- **Map Reference: Cities and Towns, Urban Areas...**
- **People: Census, Crimes, Energy Consumption, Mortality...**

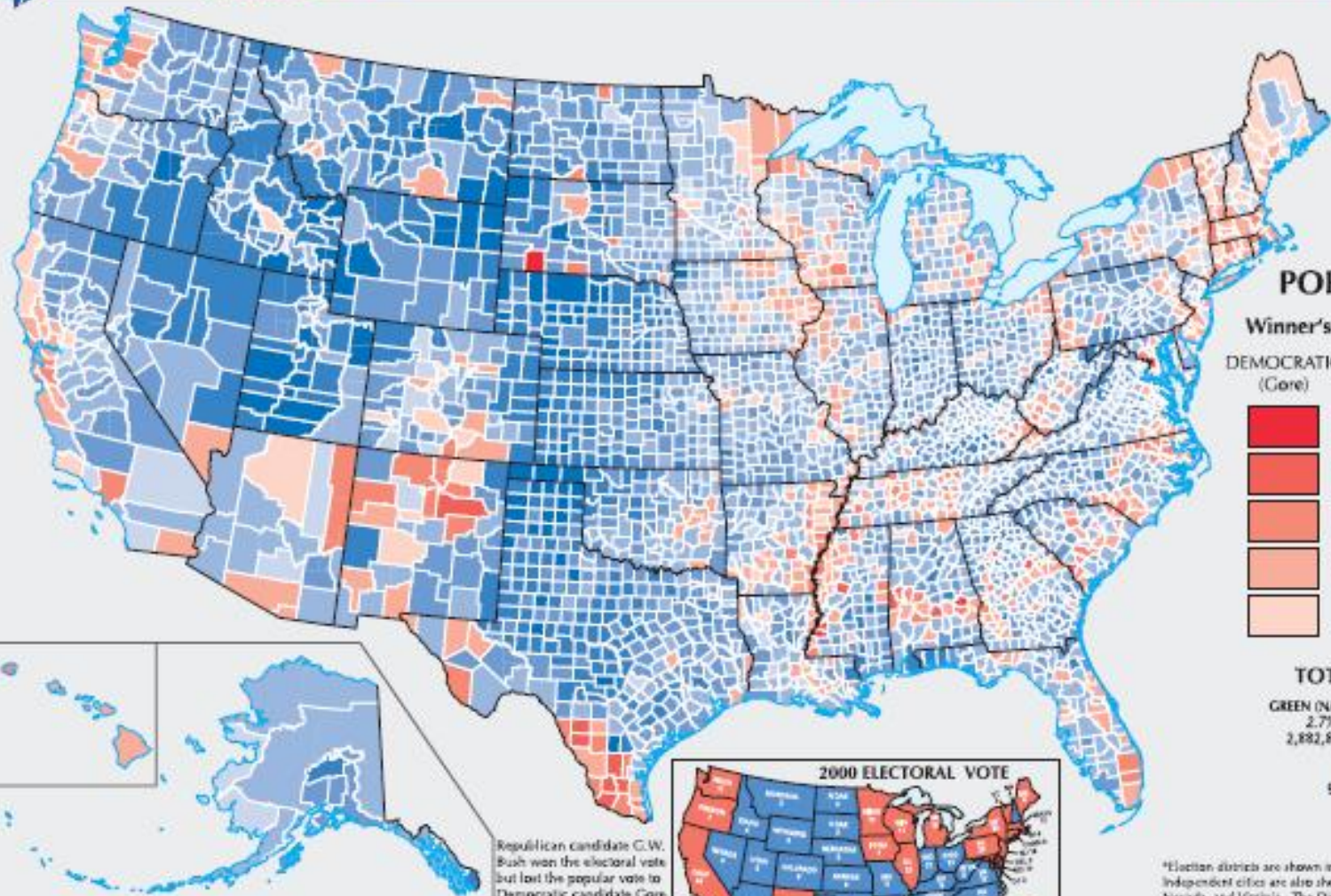
# National Atlas of the United States

- 1789-2008 Presidential Elections Map – thanks to Ohio Secretary of State and OGIRP
- Ohio Ninth District Map for Representative Kaptur – thanks to Lucas and Ottawa Counties



**national***atlas*.gov™  
Where We Are



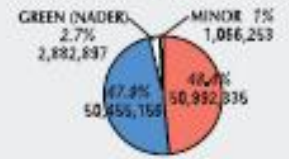


**POPULAR VOTE**

**Winner's Percentage by County\***

DEMOCRATIC (Gore)		REPUBLICAN (C. W. Bush)	
	80% and over		
	70% - 79.9%		
	60% - 69.9%		
	50% - 59.9%		
	under 50%		

**TOTAL: 105,396,641**



\*Election districts are shown in Alaska. Parishes are shown in Louisiana. Independent cities are also shown where they exist in Maryland, Missouri, Nevada, and Virginia. The District of Columbia has no primary divisions.

Republican candidate C.W. Bush won the electoral vote but lost the popular vote to Democratic candidate Gore.



One elector from the District of Columbia abstained from voting.

Electoral vote maps reproduced from the National Atlas map "Presidential Electors 1789-2000", published 2001. Please contact the nationalatlas.gov Web site for ordering information.

Numbers within states reflect electoral vote by candidate. Maps prepared from data compiled by Election Data Services, 1989-2000, and Federal Election Commission, 2001.

This map is available at: <http://nationalatlas.gov/printable.html>

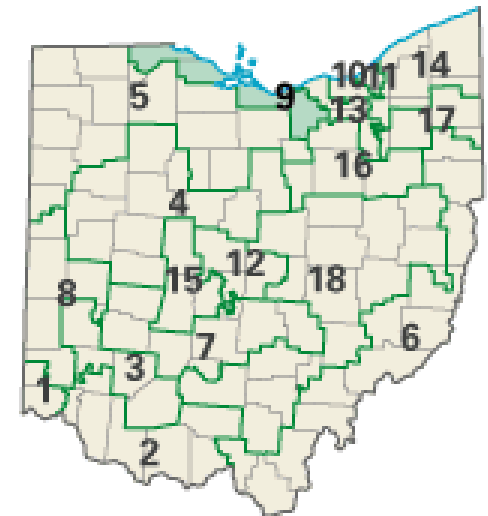
# Congressional District 9



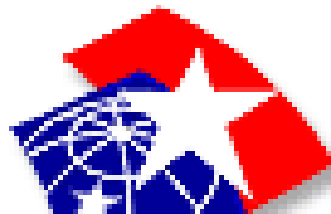
nationalatlas.gov™



- 9** Congressional District
- Erie* County



Ohio (18 Districts)

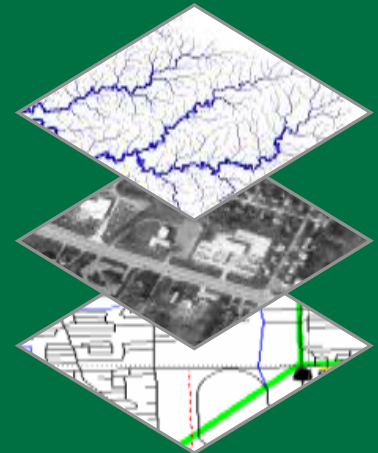


nationalatlas.gov™  
Where We Are

# Other Feds



- NGS – Ohio Geodetic Advisor
- USFS – Wayne National Forest
- NPS – Cuyahoga Valley National Park
- USDA – NRCS
- NGA, DHS & FEMA, COE, Census, NASA Glenn, US EPA, ...





## OGRIP - 50 STATES INITIATIVE - STRATEGIC PLANNING SURVEY

### Ohio Spatial Data Infrastructure - OSDI

The OGRIP Council is requesting your participation as a user of Ohio geospatial data and technology to help craft a strategic plan to guide the development of Ohio's Spatial Data Infrastructure (OSDI). Your participation will help OGRIP prioritize the implementation of data development initiatives and GIS support services necessary to promote enterprise data sharing partnerships and capabilities among all levels of government and the private sector.

Thank you for taking the time to participate in this process.

**SECTION 1 - BACKGROUND**

**SECTION 2 - DATA SHARING/USAGE**

**SECTION 3 - GIS BENEFITS**

**SECTION 4 - OGRIP ROLES**

**SECTION 5 - INITIATIVES / SERVICES / OPPORTUNITIES**

\* Required

# National Enhanced Elevation Study

- Being funded by National Digital Elevation Program agencies to:
  - Develop and refine requirements for a national program to meet priority Federal, State and other national business needs
  - Identify program implementation alternatives and associated benefits and costs
- Quantify answers to key questions:
  - Is it more cost effective for the Government to manage these activities within the context of a national program?
  - Are there additional national or agency benefits derived from such a strategy, and what are they?
  - What does the optimized program look like?
  - What are key technical limitations or innovations that may impact the appropriate timing or strategy for a national program?



**Northeastern Ohio Stream &  
Watershed Mapping GIS Group –  
February in Cleveland**

**OVRDC – March 8 in Waverly**

**PLSO – April 8 Belmont County EMA**



# National Map – Hydrography

## National Hydrography Dataset

**You Tube**  
Broadcast Yourself™

[Home](#) [Videos](#) [Channels](#) [Shows](#)

### The Role of Hydrography in The National Map

A wide, calm river flows through a deep, reddish-brown canyon. The canyon walls are steep and rocky, with some sparse vegetation. In the distance, a bridge spans across the river. The sky is clear and blue.

**Charles Hickman - Geographer - U.S. Geological Survey**

**National Map Liaison to Ohio and Michigan**

**6480 Doubletree Avenue**

**Columbus, Ohio 43229 USA**

**chickman@usgs.gov**

**(614) 430-7768**

***The National Map***

**<http://nationalmap.gov>**



- **Ask USGS**
- **Email [ask@usgs.gov](mailto:ask@usgs.gov)**
- **Phone 1-888-ASK-USGS**
- **Web <http://www.usgs.gov>**

