$1.7 BILLION SUPPORTED BY THE INDIANAMAP

Hoosiers Stand to Gain
by JILL SALIGOE-SIMMEL, PH.D.

From transportation to public safety to economic development, the IndianaMap (www.indianamap.org) supports hundreds of local, regional and statewide projects each year. The IndianaMap was used for response and recovery during this year’s major flooding, tornado, and earthquake events, Honda’s selection of Indiana for its new facility, Supreme Court case in which Feist had copied 2  Feist Publications, Inc., v. Rural Telephone Indiana Code 5-14-3-2(d).

1  The meaning of “electronic map” as set forth in IS IT SAFE TO DRIVE? 02

2  Feist Publications, Inc., v. Rural Telephone Service Co., 499 U.S. 340 (1991)(1), commonly called just Feist v. Rural, was a United States Supreme Court case in which Feist had copied information from Rural’s telephone listings to

IGIC Indiana Geographic Information Council

To save tax payer dollars and reduce duplicate spending.

3  To provide unfettered access to map data needed to support Indiana’s most pressing issues.

4  To create efficiencies in data collection and maintain accuracy at state and local levels.

Since then, much progress has been made. The entire state has been mapped once-over using high quality aerial photography (known as "orthophotography") and digital elevation maps. Local high-quality geographic information system (GIS) map data are beginning to be integrated into a single statewide map for Indiana.

IGIC answers the question “What are the economic and use-benefits of the IndianaMap?” ‘Economic value’ is taken to mean how the users are widespread; it is difficult to quantify the economic value of the IndianaMap. The IndianaMap proves to be a good investment by saving taxpayer dollars and improving government service to citizens, and an enhanced ability for citizens to stay informed and to engage in the democratic process.

In 2002, the vision was defined to establish a statewide governmental office that houses “Big Red.” The IndianaMap is also available through Google Maps, GoogleEarth, Microsoft Virtual Earth and the US Geological Survey. It is available at public libraries in each of Indiana’s 92 counties through the Indiana State Data Center. It is provided to the Indiana National Guard and many federal agencies that conduct activities in Indiana.

In 2007, the Indiana General Assembly passed IC 4-23-7.3 Indiana GIS Mapping Standards that formalize the term “framework data” as common electronic map information for a geographic area—the core data sets of the IndianaMap. This law established the State of Indiana Geographic Information Officer, institutionalized the role of the Indiana Geographic Information Council, and created the Indiana Mapping Data and Standards Fund (although to date no funds have been appropriated).

The IndianaMap allows users to layer data onto aerial maps to suit many needs.

1 1.

2 2.

3 3.

4 4.

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1 1.
The IndianaMap is not “owned” by any one organization—it is truly a “public good” available to all to use and benefit, of the following dedicated organizations that make the IndianaMap possible:

United States Geological Survey (USGS)

Building a National Map

Indiana’s city and county governments

Data distribution agreement with IGS

Indiana Geological Survey (IGS)

INFORMATION

Data storage, retrieval, and distribution

Data products and public information access

Technology Services (UITS)

Transportation (INDOT)

Data distribution agreement with IGS

Data distribution agreement with IGS

Building a National Map

Geographic Information Office, Purdue University

Remote sensing and aerial imagery

Geographic Information Office, Indiana University Information Technology Services (IITS)

In 2005, Indiana completed an ambitious project to map the entire state once over with high quality orthophotography, the foundation of the IndianaMap, a detailed map of Indiana context.
Enables an Informed Engaged Public


tables. When the data are grouped by size of project, it is noteworthy that on a per-response basis, a 34:1 ROI was estimated. Using the estimate value per tile previously calculated ($28), we calculate the usage ROI:

Usage ROI = Upc / BUpc

Where, Upc = Vpt * T 

And where, BUpc = Cap / Vpt = $108 / $28 = 3.87

Our original response summary statistics:

BEpt = Cpt / Vpt = $108 / $28 = 3.87

To test the reliability of our model, we look at the problem another way by examining the "Usage ROI" in which the return is based on an estimate of usage per tile divided by the number of tiles used to arrive at an estimate of usage per tile for each respondent. To ensure the results provide a conservative perspective, these were plotted, and outliers (in this case, all estimated value equal or greater than $500 per tile) were removed from the calculation. Finally, we averaged the outcomes for all respondents, arriving at the estimate value per tile ($28) of $28.

Our original response summary statistics:

<table>
<thead>
<tr>
<th>Mean</th>
<th>SD</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>28</td>
<td>57.89</td>
<td>14.78</td>
</tr>
</tbody>
</table>

We put the user-defined estimate of value (as described above) was divided by the number of tiles used to arrive at an estimate value per tile for each respondent. To ensure the results provide a conservative perspective, these were plotted, and outliers (in this case, all estimated value equal or greater than $500 per tile) were removed from the calculation. Finally, we averaged the outcomes for all respondents, arriving at the estimate value per tile ($28) of $28.

The IndianaMap
The IndianaMap

The IndianaMap is for all Hoosiers. However, this message is for a select few.

This message is for legislators, county commissioners, city managers, sheriffs, engineers, economic developers, and others who, with their wise voices, can further the progress and ensure the long-term viability of the IndianaMap.

Funding is critical to complete and maintain the IndianaMap. Fortunately, a mechanism for handling funds exists through the Indiana Mapping Data and Standards Fund (Indiana Code 6-25-3-5.5) that was established in 2007 but is not yet funded. Without funding, we slip backwards quickly to an inefficient system of mismatched and non-standardized data with questionable availability.

The IndianaMap represents the work of many contributors. At the city, county, and state level, the IndianaMap helps create, maintain, and preserve map data. In the process, it helps protect the health and safety of Hoosiers. And since it needs to be shared, it needs to be standardized. If it’s properly maintained, the IndianaMap can improve almost any governmental task and that’s where funding comes in.

Map data moves through a changing world. Where property is bought and sold, legal records need updated to include updated information. When homes and businesses are built, information is also built to serve them. Addresses must be accurate and current to serve property owners. From flood, anti-flood strategies can change—along with the affected communities. All these events and more require the maps to be updated. It makes sense that some of those activities that help the world function come at a cost to maintain the foundation of the world around us.

FUNDING OPTIONS

How to fund any new expenditure during tough economic times is a serious issue. That’s why creating a sustainable funding structure for the IndianaMap was imperative. The IndianaMap needs funding to be sustainable and effective in helping the state achieve its economic and fiscal goals.

The general fund is the main funding source, but the IndianaMap relies on a variety of other funding sources to support its operations.

Funding Option #1

Land Recordation Fee

A $0.05 fee per page for land recordation provides an excellent source of revenue that is unbreakable and goes directly to the IndianaMap.

Funding Option #2

Statewide sales tax

A 0.5% sales tax on all sales would provide a steady stream of revenue for the IndianaMap. This funding option would support the ongoing operations of the IndianaMap.

FUNDING SOURCES

The IndianaMap relies on a variety of funding sources to support its operations. These sources include:

- Land recordation fee
- Sales tax
- Land Information Fund
- Other sources

These sources provide the necessary funding to ensure the IndianaMap remains a valuable resource for Hoosiers and continue to improve the state’s economic and fiscal goals.

The IndianaMap is a valuable resource for Hoosiers and continues to improve the state’s economic and fiscal goals. With your support, the IndianaMap will continue to provide valuable information to Hoosiers for years to come.

Top 10 Sector Using the IndianaMap

<table>
<thead>
<tr>
<th>Sector</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>7</td>
</tr>
<tr>
<td>Planning/Land Use</td>
<td>6</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>5</td>
</tr>
<tr>
<td>Water Management</td>
<td>4</td>
</tr>
<tr>
<td>Public Safety</td>
<td>3</td>
</tr>
<tr>
<td>Engineering/Surveying</td>
<td>2</td>
</tr>
<tr>
<td>Natural Resources</td>
<td>1</td>
</tr>
</tbody>
</table>

These are the basic physical and organizational structures and facilities needed to operate a society.

The IndianaMap is a living, evolving living document that needs constant updating and support to remain an effective tool for Hoosiers.

The IndianaMap Needs You.

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ECONOMIC DEVELOPMENT

THE INDIANAMAP

Decatur County Attracts Big Business!

Savings was significant

The free distribution of aerial photos allows us to pass on the savings directly to the various units of government that we work for.

Providing the orthophotography in the IndianaMap tool is a bonus for our region in promoting economic development. Consistently the photography is utilized in a myriad of transportation, environmental and economic planning projects. The photography was utilized in corridor planning initiatives by consultants and our agency.

We find ortho-imagery and other GIS layers to be essential in carrying out ecological monitoring for Indiana Dunes National Lakeshore. This is of particular importance in the land cover/land use change monitoring, which is largely a remote sensing program.

As with any economic development site selection, Honda was on a short timeline to select their new home. Indiana emerged as the winner in the short race to land the Honda plant. Company’s newest assembly plant in North America thanks in part to the IndianaMap. The people involved with the site selection for Honda said the IndianaMap was saying, “When you only have a short period of time to find a site, this information was invaluable.”

The IndianaMap Needs You

(continued from page A 7)

The resulTs

The maps were so critical, local government data maintenance funds. We used the IndianaMap stating, “When you only used the GIS data as part of their normal daily

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(continued from page A 7)

The resulTs
Economic Development

BROADBAND, ANYONE?

Rural Areas Get Connected

SCOTTSBURG, INDIANA. In recent years, rural areas have had difficulty obtaining high-speed Internet, which is now being regarded as a basic utility like electricity or water. When the City of Scottsburg found that private telecommunications providers were unwilling or unable to provide broadband service, the task of finding a workable solution was given to the municipal electric utility.

The utility began deploying a broadband network using satellite dishes and antennas located on towers throughout the county. The parabolic antenna, used for distant links, is narrow-beam and has to be very close to alignment to even get a base signal to tune in. So the utility turned to orthophotography—high-resolution aerial photography that has been corrected for the curvature of the earth—to help.

Orthophotography has also been useful in determining a rural customer’s ability to receive a signal. Jim Binkley of Scottsburg Electric relates, “A customer was listed as a ‘NO-GO’ due to their location in an area that had seen a couple other unsuccessful site surveys. By entering the GPS of the potential customer and drawing a line to an area tower, it was plain to see the heavy tree cover in the area was negated by the alignment of two agricultural fields. The frequency of the system will go through trees but not forests. This potential customer was then scheduled and a direct result of the orthophotography the word ‘potential’ can now be removed and the word ‘new’ inserted beside the customer.”

“Elevations are also of great importance,” Mr. Binkley continues. “While rain may weaken the signal, dirt kills it. Knowing the elevation of a potential customer before we visit allows us to schedule the use of our bucket trucks to minimize wear and tear on equipment.”

The results:

> The network provides broadband access to more than 10% of the county’s residents.
> > Scottsburg Electric now has over 25 towers providing service to 8 rural counties.
> > Two major local employers had threatened to relocate if the city could not obtain high-speed access—both remained.

TWO MAJOR LOCAL EMPLOYERS HAD THREATENED TO RELOCATE IF THE CITY COULD NOT OBTAIN HIGH-SPEED ACCESS—BOTH REMAINED.

RURAL AREAS HAVE HAD DIFFICULTY OBTAINING HIGH-SPEED INTERNET, WHICH IS NOW BEING REGARDED AS A BASIC UTILITY LIKE ELECTRICITY OR WATER.
Transportation

DOT DOT DASH

Automation Saves Time and Money

The Indiana Department of Transportation (INDOT) is charged with maintaining over 11,000 miles of state, federal, and local roads. This is a complex task that requires constant monitoring and repair. INDOT has developed a system called the IndianaMap that helps streamline the process of managing road maintenance.

The IndianaMap is a GIS application that allows INDOT to collect and analyze data about road conditions in real-time. This data is collected by field crews who use touch-screen laptops to record any deficiencies they find on the road, along with the route, district, date, time, and other associated data. The data is then uploaded to the IndianaMap, which processes it and generates reports.

The IndianaMap is a highly adaptable process that can be used to develop a stringing contract, with a time-savings of nearly 75%. The second time, the savings increased to 83%.

In addition, whenever parcel data is submitted by the contractor deviates by 5% from the calculated amount, the area must be manually measured in the field by a County staff. For this project, the largest road differential was 2%, with a total contract differential of only 0.47%. Therefore, no secondary road maintenance was required. This was a significant time-savings for Noble County, and freed up staff time to be spent on other projects.

As a result of the IndianaMap, INDOT has been able to streamline its road maintenance process, saving time and money. The system is currently being used to manage road conditions for the entire state of Indiana, and is proving to be a valuable tool for INDOT.

Is It Safe to Drive?

Indiana Department of Transportation Uses IndianaMap To Save Motorists

INDIANAPOLIS, INDIANA - Several weather conditions can create hazardous driving conditions. During inclement weather, how can drivers get current information about Indiana roads? How can they tell if road conditions are safe? The Indiana Department of Transportation (INDOT) maintains weather sensors and stations along the road network throughout the state. The data from these sensors is available to a wide group of winter road operation planners to help manage road conditions. INDOT now uses these data with maps to make them available to local officials and the general public.

INDOT developed the Road Weather Information System (RWIS) and made it available via a public web portal. The site pulls data from the weather sensors every fifteen minutes. Users can browse the maps and select sensors for detailed information, or view summary tables of all the sensors. The user can also label the maps with the most recent information from the sensors. There are currently 98 sensors online with new ones being added as they become available.

This website is part of a larger effort to get decision-making data out to the general public, local and federal decision makers. A main priority is to take existing web pages and applications that are text-based and add meaningful mapping components to them.

M A I N T A I N I N G T H E C R O W D S O F A M E R I C A

Keeping Indiana's Infrastructure in Top Shape

INDIANAPOLIS, INDIANA - The Indiana Department of Transportation (INDOT) is charged with maintaining over 11,000 miles of state, federal, and interstate highways. In order to ensure the highest quality transportation system for the citizens of Indiana, INDOT needed a way to report roadway deficiencies that would ensure timely response and repair. In addition to knowing how many and what kind of deficiencies exist on a given road, INDOT also needs to know the exact location of each. This allows maintenance personnel to return to that location with the materials they need to fix the problem: paint, pothole fill, light bulbs, etc.

INDOT decided to use a GIS application already in use by the department. Doing so meant they could address GIS and GPS issues capable of leveraging existing products in-house, streamlining the technical support needed.

INDOT developed an easy-to-use computer program, and loaded the new application onto touch-screen laptops. The new system allows field crews to simply push a button when they see a problem like damaged guardrails, crumbling curbs, or a broken stoplight. Behind the scenes, the application logs the type and location of the deficiency, along with the route, district, date, and other associated data.

The data being collected by field crews is being integrated into reports and tracking systems allowing INDOT management to: See the current condition of the state’s transportation network. Plan work crew assignments efficiently. Purchase supplies and materials based on precise maintenance needs. Ensure appropriate distribution of supplies to District or Sub-District offices.

The results: The data being collected by field crews is being integrated into reports and tracking systems allowing INDOT management to:

- See the current condition of the state’s transportation network.
- Plan work crew assignments efficiently.
- Purchase supplies and materials based on precise maintenance needs.
- Ensure appropriate distribution of supplies to District or Sub-District offices.

Using the ortho-rectified aerial maps and parcel information saved the cost of hiring a traditional survey for a 14 mile long project. Cost of the survey plus parcel research would have been at least $600,000 plus taken 9 months or longer. With the orthophotography and parcel data we had preliminary plans complete in two weeks.

THE RESULTS

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- See the current condition of the state’s transportation network.
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There are thirty sensors currently providing road conditions to_indiana residents, with more locations being equipped as they become available.
TO CATCH A KILLER
Maps Provide High-Tech Evidence

The first maps the Police Department requested were relatively basic: aerial photography of the investigation site, and points where evidence was found. As the investigation into the murder progressed, more evidence became available, and GIS was able to create digital "foot" of the victim’s location throughout the entire event. The detailed map produced for the Sheriff’s Office enabled us to undertake a new kind of mapping that improved responses to all emergency calls, including those from our Aircraft Auxiliary (USAF). The Federal E911 Commission has identified developing and using GIS as one of the 21st Century Necessities.

SHELBYVILLE, INDIANA. All over the state, police, fire, and sheriff’s offices are using the IndianaMap in patrol cars and first-responder trucks. In Shelby County, the 2005 orthophoto was used as a backdrop for all of the daily GIS maps produced. It is also used on the laptop GIS system in every police patrol car in Shelby County. “This has been a tremendous value for our county,” says Jim Brown, Shelby County GIS Coordinator. “The 2005 orthophoto orthophoto orthophoto orthophoto orthophoto...” 

J. Dumes, 30, of Indianapolis, on a warrant for High-Tech Evidence

November 22, 2004 Carmel Police arrested Willie was found. As the investigation into the murder were relatively basic: aerial photography of the investigation site, and points where evidence would be turned circular. As a cell phone moved, its call was handed off from tower to tower. The result is a collection of records which the phone contacted and, tracking its movement to within a hundred yards.

Using the cell phone records and other evidence, the IndianaMap was able to locate cell tower “foot” of the victim’s location throughout the entire event. The detailed map produced for the Sheriff’s Office enabled us to undertake a new kind of mapping to improve responses to all emergency calls, including those from our Aircraft Auxiliary (USAF). The Federal E911 Commission has identified developing and using GIS as one of the 21st Century Necessities.

The victim was one of many, many maps created for the murder investigation.

THE RESULTS

→ The cell phone maps were used through... 

NORTHVILLE, INDIANA. Address and street data is used, verified and corrected by many different agencies at all levels of government. This was the case in Hamilton County, where inaccurate and outdated information was being corrected by individual counties. The Surgeon General of the United States called for greater accuracy and timeliness of health data to address these needs. The database is shared by over a thousand civic, business, and public health agencies.

The Hamilton County Local Government GIS Technical Advisory Group (HAGTAG) was formed to facilitate coordination between government in the fast-growing county. Members recognized the importance of having data and began developing a multi-user database to address these needs. This database is shared by over a thousand civic, business, and public health agencies.

The result of this effort is a database which can be used to address the needs of all users.

THE RESULTS

→ With the new system, Computer Aided Dispatch (CAD) operators can send police to the correct address immediately. Mobile Data Computers used by fire departments have GPS-ready, 3-color displays which make it easier to locate victims. The Federal E911 Commission has identified developing and using GIS as one of the 21st Century Necessities. The Federal E911 Commission has identified developing and using GIS as one of the 21st Century Necessities.

SOUTH BEND, INDIANA. The South Bend Police Department has always kept records on all crimes reported to law enforcement agencies. With the new system, Computer Aided Dispatch (CAD) operators can send police to the correct address immediately. Mobile Data Computers used by fire departments have GPS-ready, 3-color displays which make it easier to locate victims. The Federal E911 Commission has identified developing and using GIS as one of the 21st Century Necessities.

SPRINGFIELD, MASSACHUSETTS. Springfield is the second largest city in Massachusetts. The police department has always kept records on all crimes reported to law enforcement agencies. With the new system, Computer Aided Dispatch (CAD) operators can send police to the correct address immediately. Mobile Data Computers used by fire departments have GPS-ready, 3-color displays which make it easier to locate victims. The Federal E911 Commission has identified developing and using GIS as one of the 21st Century Necessities.

Corpus Christi, Texas

The City of Corpus Christi GIS system was created and used to create a map showing the area where the suspect was found, who he was with before the murder, and the time and location of the crime. The Detective had obtained detailed information about the victim’s cell phone. Cell phone records and other information, including economic development, public safety, emergency response, etc.

Public Health & Safety

THE RESULTS

→ Safer Responders—forecasting is... 

WHEN MINUTES MATTER
E-911 Multi-Jurisdictional Mapping a 21st Century Necessity

FORT WAYNE, INDIANA. Like most growing cities, the City of Fort Wayne is trying to improve the safety and efficiency of its emergency response services to ensure that police, fire, and emergency services can respond to a call for service in the shortest possible time. GIS has been integrated into the emergency response systems to improve communications, give responders better information faster.

THE RESULTS

→ Safer Public—when emergency personnel... 

At 2:00 AM, November 6, 2004, Warrick County Sheriff’s Office received a call that a woman was killed in her home which was located near the town of Lancaster. The caller said they were at a local park. Detective Brad Hedrick, Carmel GIS Project Manager created a GIS layer of the investigation site, and points where evidence was found, who she was with before the murder, and the time and location of the crime. The Detective had obtained detailed information about the victim’s cell phone. Cell phone records and other information, including economic development, public safety, emergency response, etc.

Sheriff’s Office, Carmel, Fishers, Noblesville and the IndianaMap was used to create a map showing the area where the suspect was found, who he was with before the murder, and the time and location of the crime. The Detective had obtained detailed information about the victim’s cell phone. Cell phone records and other information, including economic development, public safety, emergency response, etc.
**A FLOOD OF INFORMATION**

IndianaMap Helps Keep Flood Boundary Maps Current

**The Results**
- Accurate, reliable floodplain maps available to the public.
- Improved stakeholders, including floodplain administrators and planners, developers, bankers, insurance agents, and property owners.
- Better protection from flooding for current and future development.

**IndianaMap**
- Provides current floodplain information.
- Helps keep flood boundary maps current.
- Facilitates improved decision making.

**BLOOMINGTON, INDIANA.** The 1987 amendments to the Clean Water Act identified stormwater runoff as a source of water pollution, and required the need to study the nature of non-point source pollutants and other factors contributing to water pollution. Indiana State Rule 13 is a similar measure that continues with some systems that discharge stormwater. The challenge was to meet State and Federal compliance requirements, and develop long-term water quality analysis plans.

**How Impervious Is Your Watershed?**
Using Geographic Information System (GIS), the Monroe County Planning Department developed a Storms Assessment that gives an overview of water quality.

**Monroe County Uses IndianaMap to Meet State and Federal Requirements**
- Monroe County planners developed a highly-effective water quality analysis tool.
- Planners can see which bodies of water are most heavily affected by pollution from storm water.
- The impact of future development can be seen before it is approved.
- Invasive and corrective resources can be prioritized based on quantifiable needs.
- The evaluation process was designed to be easily replicated for use by all levels of government.

**FOLLOW THE POLLUTION**

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**TRAIN WRECK IMPACTS NEIGHBORHOOD, ENVIRONMENT**
Consistent Maps Facilitate Multi-Agency Response

**IndianaMap Saves Millions**
Emerald Ash Borer Costs Millions—IndianaMap Saves Millions

**IndianaMap, INDIANA.** The Forestry division of the Indiana Department of Natural Resources strives to maintain healthy woodlands on both public and private lands. Battling invasive, sometimes virulent pests is a large part of that responsibility.

In 2002, the Emerald Ash Borer was identified in Michigan, then in Ohio in 2005 and Indiana in 2006. The larvae of this Asian beetle have devastated the ash population, already killing more than 8 million trees. Strategies to combat it include quarantining towns, and counties in the three states, removing all ash trees within a half-mile of an infected tree, and creating "ash-free zones." Using their GIS, the Forestry Division is able to act quickly and decisively to counter the Ash Borer. Forestry staff surveys wooded areas, examining trees and looking for D-shaped holes—the calling card of the Ash Borer. If they find an infected tree, they relay the GIS coordinates back to the office, where GIS staff "flies in". The coordinates are plugged into the GIS—which includes digital aerial photography of the area—and a half-mile buffer zone is drawn around each infected tree. Staff use the photography to mark every ash tree within the buffer zone, then plan and organize removal and destruction.

"We regularly use the IndianaMap in our efforts to destroy the Ash Borer and Gypsy Moth," says Phil Marshall, State Entomologist. "It helps reduce staff field time to map our habitat needs, and helps us eliminate unnecessary treatments—resulting in increased savings."
In Indianapolis, IN. When local governments contract for engineering, planning, and other projects with private companies, often they are required to collect the information they need—typically a mapped inventory of the roads, utilities, and natural resources. This can be a time-consuming and costly process. With the advent of geographic information systems (GIS), this burden has been alleviated.

GIS technology has revolutionized the way governments collect, manage, and analyze spatial data. It enables local governments to create a digital representation of their jurisdiction, integrating various types of information into a single, comprehensive database. This capability has led to significant cost savings and increased efficiency in various government functions.

### Small Savings Add Up Big Time

Every Dollar Counts

In Indianapolis, IN. When a strong line goes down because of a man-made disaster, bad weather, or even a simple accident, one of the first things emergency responders need to know is the location. “We don’t call to fix the fire,” says Jim Stout, Indianapolis Mapping System Program Manager. “We call to fix the fire.”

### Stormy Weather

Stormwater Utility Mapping Increases Public Revenue and Accuracy

In Fort Wayne, IN. When a line goes down because of a man-made disaster, bad weather, or an overgrown ditch, one of the first things emergency responders need to know is the location. “We don’t call to fix the fire,” says Jim Stout, Indianapolis Mapping System Program Manager. “We call to fix the fire.”

### Utilities Hook Up

Indiana Utility Regulatory Commission Maps Service Teritories

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### Enabling an Informed, Engaged Public

Wayne County Makes Public Information Public

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### Getting There Faster

Maps Used for Long-Term Planning

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### Cooperation Benefits Countys

Saves Tax Payers

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### Good Government

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### Good Government
Great deeds done with maintaining maps and original deeds for each local community make informed decisions or health assets. The concept of smart-growth embraces economic decision-makers about “smart-growth.” The issues and non-metropolitan growth land resource often-conflicting agriculture, urban development Indiana, Indianapolis.

Indianapolis, Indiana. The City of Muncie was among the early leaders in digital mapping. At the beginning, most department heads were hesitant to convert GIS to a digital format. Today, public Internet mapping interfaces were developed to allow 24/7 access to all State Land Office records. Justin Peters, job is caretaker of State land resources.

LINCOLN'S MAP

The Indiana Geographic Information Office (IGIO) is the official state repository for cadastral and topographic data, serving as the state’s principal source for geographic information. The IGIO has developed and maintained the Indiana Geographic Information System (IGIS) since the early 1990s. IGIS provides a comprehensive framework for the collection, organization, and dissemination of geographic data and information. IGIS is used by state agencies, local governments, businesses, and individuals to support decision-making and planning.

The main challenge was to upgrade the information that was stored in a cumbersome and antiquated format. Once a hand-drawn map containing over 50,000 parcels had to be converted to digital format. The maps were then scanned and geo-referenced. Parcels were digitized and, in each case, the number of the field that the parcel was drawn was linked to the parcel. In many cases the original deeds were very old and great care was needed to ensure that the document was not damaged during the scanning.

Indiana Geographic Information System (IGIS) allows greater access to the vast amount of information that was stored in a cumbersome and antiquated format. Over a hand-drawn maps containing over 50,000 parcels had to be converted to digital format. The maps were then scanned and geo-referenced. Parcels were digitized, and in each case the number of the field that the parcel was drawn was linked to the parcel. In many cases the original deeds were very old and great care was needed to ensure that the document was not damaged during the scanning.

LAND USE MAPPING HELPS INDIANA GROW SMART

Communities Plan For The Future

INDIANAPOLIS, indiana. While Indianapolis community rank high on many quality of life factors, they often place lower in environmental and health attributes. At the Indiana Office of Environmental and Sustainable Development.

Indiana University Pantheo Indianapolis (IUPan) uses GIS to educate decision-makers about “smart growth.” The concept of smart-growth embraces economic development with sustainable environmental or health assets.

Using GIS, the IU Pantheo Geography Department provides information that helps local communities make informed decisions that balance land use, development, and environment. Intelligent planning requires taking into account information on land use, demographics, brownfields, natural resources, and infrastructure. GIS is the tool for integrating and analyzing these data. IU Pantheo uses GIS and spatial image data to map land cover and combine it with demographic and socio-economic data to provide a better understanding of land use patterns. They also keep track of changes in land cover types and develop trends on a yearly basis to better understand the flow of agricultural and forest land to development.

The IGIS serves as the official state repository for cadastral and topographic data, serving as the state’s principal source for geographic information. IGIS provides a comprehensive framework for the collection, organization, and dissemination of geographic data and information. IGIS is used by state agencies, local governments, businesses, and individuals to support decision-making and planning.

The results of the analysis provide a baseline data to measure change over the coming years, and give a bird’s-eye view of the conditions. The information is used by land managers to support local planning and management. The results of the analysis provide a baseline to measure change over the coming years, and give a bird’s-eye view of the conditions. The information is used by land managers to support local planning and management.

The IGIS has improved inter- and intra-departmental communication, streamlined processes, and enhanced mission and vision of smart-growth.

Having access to this type of reliable consistent public GIS data ultimately translates into value added savages to the people of the State of Indiana.

Good Government

GOVERNMENT IN THE KNOW

Communication Among Departments is #1

STATE GOVERNMENT

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The IndianaMap is a Collaborative Effort

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The Indiana Geographic Survey and the Indiana University Environmental Technology Services (UTS) and have provided unparalleled service in making sure states of GIS data and mapped information accessible to all. The IndianaLocation Business Alliance (ILBA) and other departments have provided data and support to the IndianaMap forward. The City of Indianapolis and the City of Indianapolis have contributed selflessly to our educational efforts. Much needed financial and research support has been provided by the United States Geological Survey and the Federal Geographic Data Committee. And the Dreams of cities have contributed data and support to the IndianaMap. This has translated to a common good. And too many individuals have championed this cause. In particular, our gratitude goes to Representative Scott Roecker and Senator David Ford for their vision and understanding of the value of Indiana’s mapping and to Senator David Ford for their vision and understanding of the value of Indiana’s mapping and to Senator David Ford for their vision and understanding of the value of Indiana’s mapping and to Senator David Ford for their vision and understanding of the value of Indiana’s mapping and to Senator David Ford for their vision and understanding of the value of Indiana’s mapping and to Senator David Ford for their vision and understanding of the value of Indiana’s mapping.

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IGIC Corporate Members

Indiana Geographic Information Council, Inc.

The Indiana Geographic Information Council (IGIC) is a nonprofit membership organization of GIS users, professionals and educators. Administered by an elected board of directors, IGIC is recognized as the official statewide coordinating body for Indiana geographic information. IGIC’s mission is to lead the effective application of geographic information in Indiana. The IndianaMap not only advances this mission, it also contributes to present and future work of numerous state agencies, local governments, private businesses, and academic institutions involved in economic development efforts, environmental management, transportation planning, public safety, land use planning, and much more.

Our membership includes individuals from all levels of government, private industry, educational institutions and other nonprofit groups. Through our membership and elected board of directors, we strive to make a real difference in Indiana GIS—both for those who use it and those who benefit from it.

Coordination of Indiana GIS through dissemination of data and data products, education and outreach, adoption of standards, building partnerships, and the IndianaMap.

IGIC Institutional Members

Hamilton County Indiana
City of Bloomington
City of Westfield
Indiana Geological Survey
Duke Energy
City of Fort Wayne
Dearborn County
Tippecanoe County
LaGrange County GIS
Indiana Commercial Board of REALTORS
U.S. Geological Survey
Allen County Dept of Planning Services
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Johnson County GIS
City of Greenfield
Monroe County
Wayne County/City of Richmond GIS
City of Lawrence
Indiana State Government
Indiana Department of Natural Resources (IDNR)
Indiana Department of Environmental Management (IDEM)
IDEM Office of Water Quality
IDEM NW Regional Office
Indiana Department of Transportation (INDOT)
Indiana State Land Office
Indiana’s Professional Licensing Agency