Lake County GIS Web Solutions Realizes a Staggering Return on Investment

A Case Study

Highlights

- Over 800,000 page views to the GIS web site annually
- Quick and easy dissemination of public information

Return on Investment (ROI)

- Annual cost savings of at least $350,000.00
- Better informed public
- Increased quality of life through better decision-making

Contact Us

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When evaluating any project or enterprise effort, Return on Investment (ROI) is an important metric to measure. This case study explores one aspect of return on investment as it pertains to GIS technologies provided over the web.

Background:

In 2009, Lake County GIS premiered its new CountyView interactive map replacing older technology and increasing the functionality and the amount of data available. Many hours of development time—not to mention years of data collection—were spent to create this interactive geographic information application, but the results are stunning and the public response has been extremely positive. Realtors, private appraisers, developers, business people, and average citizens use the map daily in business and recreational pursuit of information. The map currently hosts over fifty layers of county-specific data that would otherwise be stored inside disparate internal databases.

The Issue:

The complexities of a citizen attempting to retrieve information that is pertinent to them over the phone or in person can be daunting at times to both citizens and staff. While customer service is paramount in Lake County, staff time is precious and needs to be allocated effectively to meet all the demands of the county and it's citizens.

The Solution:

Using a web based browser that can be accessed by anyone with a computer and internet connection, GIS technologies have been leveraged to provide a much more efficient solution and enhance customer service.

Financial Return on Investment:

The Lake County GIS home webpage and the CountyView interactive map received over 235,000 visits and over 810,000 page views last year. The Return on Investment of these two pages is substantial. A simple approach to calculating this ROI would be to assign a county employees time to answer, research, and report back all information requested if the same web visitor was to call GIS (or any other office in regards to their data such as Zoning, Planning, Public Works Public Safety, etc…) and request assistance.

Normally, one can assume a conservative estimate of approximately 20 minutes per call to assist the average request. From a GIS perspective some of these questions can take anywhere from 5 to 45 minutes depending upon the research required. On the other hand, the average web visit to the GIS pages is 2 minutes and 39 seconds and requires no staff time.

If we used a very conservative estimate that only 10% of these webpage views would have resulted in a phone call or visit with county staff for assistance had the webpage *not* been available, then this would equate to approximately 81,000 questions and phone calls per year. An average time of 20 minutes per request equates to .333 man/hrs and the average salary of an employee is $15.00 an hour. The equation then becomes:

810,000 page views /year x .10 = 81,000 questions/year

81,000 questions/year x .333 man hours = 26,973 man hours of staff time

26,973 hours x $15.00 /hour = $404,585.00 per year of staff time

The initial costs of computer software, hardware, licensing, and staff maintenance time averaged per year is approximately $50,000. If we then deduct this up-front investment, the reoccurring yearly cost savings to the county is over $350,000.00 annually.

$404,585.00 - $50,000.00 = $354,585.00 of cost savings per year

Of course, if we used a more realistic percentage of 20% of phone calls had we not provided the GIS tools then we would be looking at a cost savings exceeding ***$750,000.00 per year***.

And there are other GIS technology driven applications such as the new Property Finder web application created for the Economic Growth and Redevelopment Department. This site has received over 18,000 page views last year, each visit with an average length of 5 minutes and 26 seconds. If we applied the same equations above this would save approximately $22,410 in county resources each year, not to mention the numerous intangible benefits.

We temporarily set up a *Proposed Future Land Use Interactive Map* that allowed concerned citizens to preview the proposed future land use map to be able to make accurate and informed decisions on it's adoption and future land use ramifications. A study of its past usage would certainly reveal impressive cost savings.

Intangible Return on Investment:

Some of the intangible benefits of the public-access Interactive Web Maps are the possibility of businesses purchasing available commercial property in Lake County that they may not have previously been aware of prior to creating Property Finder. These commercial purchases provide additional property tax revenue collected by the Property Appraiser's Office, and can potentially provide new jobs right here in Lake County. They also provide the citizens of Lake County with the best available data to make decisions in their own business processes that will hopefully increase *their* revenue and lead to better quality of life for all.

Of course, GIS technologies deliver value in many other ways to both internal and external users. This case study attempts to show how GIS driven web solutions add value, and to raise awareness on how much they are used and depended upon. Only through good metrics can we best evaluate added value over the course of time while helping people make better decisions.