

1) Catherine Bierling, Research Analyst, Iowa Department of Economic Development
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Catherine is the data librarian for the state economic development office.

What are the most frequent requests she receives? Workforce/employment is a huge request. What occupations are where, concentrations of workers broken down by industry or occupation, wages (where are they cheapest?). She also gets requests for utility locations for water, wastewater, natural gas, and telecom. The holy grail is dark fiber, for which it is difficult to get information. She gets requests for property tax information.

Another huge request area is educational facilities and associated programs. This would include wind turbine technician training. There are requests for transportation location – rail spurs, dedicated left turn lanes. Empty buildings and developable lots are somewhat mapped by Location One.

Who asks for data? The majority are project managers at her agency.

How an RFP works for her agency: It comes to them either directly from the company looking to locate or from a site consultant. Catherine's agency looks for buildings that meet the company's specs. Her agency then sends this information out to appropriate communities. Her agency will represent the state level vs. local level (for example, regarding tax issues). Her agency combines all information to send back to the company. This means there will be lots of people involved in a response. They typically send RFPs to regions, who then forward them on to local communities. A community may call Catherine, requesting information.

Common questions: Where is population growth? Where is economic development happening? Where are incentives? These may not have a geographic component.

Also there are requests for more specialized data on flood plains, corn crop locations for ethanol.

Another huge data request is supply chain clusters – where supplier companies are located. For example, cheese manufacturers looking for dairies.

Education and work force are tied together. What will be the available workforce?

Her agency traces projects it helps to fund. There is a database available online showing what is given to each company, including tax benefits.

Iowa State has worked with her agency on economic impact. Dave Swenson is the contact.

Also speak with Beth Balzer, their team lead for project management beth.balzer@iowa.gov

PDI is Professional Developers of Iowa. This includes some government agency people and participants are generally management level.

Catherine's job has only involved GIS in the past two years.

2) Lori Shields, Director of Marketing and Communications, Council Bluffs Area Chamber of Commerce

5/12/2011

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She refers me to David Bayer at Pottawattomie County GIS for info on county data and software.

Lori does marketing for economic development. She puts together aerial photos to create a marketing piece. The county has new aerial photos which were shot from an angle so it's possible to see the sides of buildings.

Their new VP, Greg Halverston, did GIS work while in the military. I should also speak with him.

One year they subscribed to an ESRI service which would deliver desired demographic information. Now this will be available at no extra charge through their Location One services. The subscription was \$2000/year and they didn't renew after a year because it was so expensive. They had access to the subscription through the Council Bluffs Regional Economic Development Partnership and she believes they were the only subscriber.

Their county data is very accessible. They can easily do property searches.

It is difficult for her to say what value comes in.

The Location One site is not as easy to navigate as she would like. Her understanding is that it will be improved.

She plots utility services using presentation material software.

3) Melanie Riley, University of Iowa - Office of the State Archaeologist, Iowa City

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5/12/2011

Clean line project is high voltage transmission for wind power transport. It's a huge project. OSA will be the environmental subcontractor, doing site suitability modeling for archaeology. An example would be probability of locations of burial mound sites.

They did something similar for an REC last year, with a FEMA-funded project to update power lines. FEMA had hired URS for a Phase I survey. The URS approach was educated guesses vs. logistic regression modeling. FEMA found errors all over the place. URS suggestions weren't based on statistical modeling. Using the OSA approach, FEMA could reduce pre-survey planning and surveys.

Problems with RECs came from the management level. Iowa RECs have burned bridges with FEMA. LiDAR data gets heavy internal use at OSA for things such as prehistoric earthworks.

Using the imagery saves travel for staff regarding surveys. It has been used to develop a case for an arrest warrant regarding deliberate destruction of burial grounds by building an illegal rural dam.

OSA is involved any time there's Federal funding for projects. OSA also does tourism related projects and FEMA-funded flood mitigation projects. OSA involved in planning to determine which areas need surveys and which can go ahead. This saves FEMA \$5000 to \$10,000 per project. University of Iowa evaluations for art building, water plant, and power plant. GIS saved \$15K in surveys for these three projects.

OSA does this analysis for every project involving geoarchaeology. They have an entire department doing analysis for Iowa DOT.

Some projects are enormous – highways or pipelines. Using GIS to winnow down surveys saves big bucks.

Strategic benefits: preserving sites. With LiDAR can see encroachments and better manage properties. Can retrace steps of really old surveys. Pick up old fence lines from surveys. Bankers will contact OSA site records manager and ask for site search. A surprising number of bankers do this even with private funding. This can give them an idea if they need to hire professional archaeologist to do survey. Last year they were able to help a developer who heard rumors regarding burial grounds. They found a compound mound group where he had sited a road. Get hourly rate for surveys from Melody.

Having a web portal for all surveys completed saves effort for everyone. \$100/hour to do site searches of paper records. OSA tracks number of site searches/year and this is available from 2003 to today. Would take half an hour with GIS vs. 3 hours manually. She may need to verify this estimate.

Famous geoarchaeologist in Kansas is Rolf Mendel, who's worked with a paleo Indian site in Western Kansas.

Effigy mounds in Iowa are some of the most western in the US. They became a national monument in 1949 to offer them greater protection.

Iowa has both plains and woodlands traditions. Both are prehistoric cultures.

4) Tom Deimerley, Marshall Economic Development, Iowa Falls Area Development Corp.

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5/16/2011

Workforce is a large part of any business location decision. They've worked with a laborshed or skillshed analysis from Iowa Department of Labor. This helps define who they go after for marketing/recruitment activities. They also look at the educational system and make sure no major gaps are developing.

He uses GIS for soil analysis, drainage, transportation. It's necessary for doing business. They are not going to use hand drawn maps for a presentation.

Tom is just in the second week of his job. He was previously in economic development in Harden County.

GIS analysis can help entrepreneurs with market share and retail codes for their business plans. With existing small businesses, it is possible to track sales in response to marketing campaigns by geographic area. Small business needs to be very targeted as funds are limited. They're done some of this analysis partnering with local community college students. More complex queries would be something like biomass capacity.

It would be nice to have ArcView available so end users could manipulate their own data, but realistically Google has come to dominate user applications.

For industrial sites, it's possible to develop preliminary designs with cost estimates using LiDAR data from the cloud point system. Providing tools for analysis by decision makers. Capability of shooting imagery through buildings allows prospective companies to tell what it would take for them to install their equipment.

Sustainability issues regarding water discharge from development using aerials and contours for preliminary design.

Hardin County emergency management had access to 3D database. Ran stereoscope, providing ability to do fly throughs of buildings.

Step 1 = analysis using LiDAR contours. Step 2 = Spend \$5K - \$10K for preliminary design.

Hardin County study of rail lines moved to Step 2 and spent \$4000 with a rail consultant. Doing Step 1 in-house could have prevented spending \$50K on more complex analysis. Some sites for rail lines proved to be too wet.

Two to three sites a year would fall into Step 1 analysis situation. So \$10K - \$30K would be potentially saved in a typical year.

Generally they pay the county or university GIS for services for more complex projects.

IGIC constituents could help out by putting out a pamphlet describing GIS technology that could be applied to economic development.

He used to use GPS more but now with better aerial photography and LiDAR finds he doesn't need it so much.

Most of his day to day use of GIS is for marketing. Most economic development organizations don't have an in-house GIS staff person. They use county or university staff.

Competition drives a lot of behavior. They spend 2% to 3% of their annual budget on GIS services.

They will work 100 projects to bring in one.

5) Jason White, Warren County Economic Development

5/17/2011

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He loves using GIS to create and print maps as needed. He uses aerial photography in every proposal he's done. Previously at Guthrie County GIS (where he served 4 counties) had to pay \$150 subscription fee to use data, limiting its use.

Warren County data is informative. It falls to Economic Development to package it professionally.

Aerial surveys are a big part of what they use. Also property boundaries, property values, taxes.

Clear resolution in aerial surveys is important to them.

They use utility line layers – sewer, electric lines with voltage. May hand draw utilities on Google Earth or request data from the utility.

Warren County has small communities without utility line data.

Choices PDI is evaluating are:

1) Location One Information System for utility information. Provides PDI members ability to add geographic data to the system. Cost effective because utilities have all bought into it.

2) Zoom Prospector GIS Planning product is a possible alternative.

Location One issues: Database driven and only as good as what's put in. Feeling that it's a generic brand. Not entirely visually attractive. He would never print Location One data directly to a prospect packet. Location One continues to be standard bearer. It would cost more to invest in a name brand such as Zoom Prospector.

PDI's president Kathryn Kunert is head of Economic Development for MidAmerican Energy. She has been investigating alternatives to Location One and is leading a task force to improve LOIS. Lisa Franklin with Black Hills (with KCP&L according to Location One web site) administers LOIS.

His needs: ability to lay out infrastructure on an aerial survey.

Small utility may not have GIS or its landbase may not relate well to infrastructure of other utilities.

Benefits? Creating shovel-ready sites. Looking at a map can see if stormwater or natural gas service available to a site. Put together shortcomings of a site, then look at how to bridge that gap. Don't know how else you could do this without seeing it on a map.

He starts with the premise that clients are visual, as he is. First – do you have a site that can serve me? Map sets the first impression of a community. Map of a site with infrastructure is the one thing you must show in a proposal.

Every prospect is different, with different demands. Assuming you have decent infrastructure, using GIS to tell the site's story is pretty powerful. Maybe gets you to point of landing a visit, which means you're on the short list.

Mike Blouin, at Greater Dubuque Economic Development and former state economic director, said in a public meeting that he feels he can get one award to Iowa out of every 10 serious prospects that have short listed sites in Iowa. Maybe means your odds are 1 in 10 once you're short-listed? Of course, those odds would go down for individual sites within the state if multiple sites are being considered.

6) Karen Adams, Information Director, Greater Dubuque Development Corp. 5/17/2011

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They use GIS for proposals – to accurately portray the landscape and surrounding area of a site. They overlay traffic counts, nearby amenities.

She would need to know more about GIS capabilities to know additional things they could be doing with the technology. Recent partnership with local council of governments for 3D popups of buildings might be one example. Or flyovers.

The more pertinent information they can provide in usable format, the better chance of getting a site visit. Additionally, the prospect has a better idea of what they'll be getting out of their visit.

Value to community would include size of project, size of payroll. What metrics does she report to their board? Number of touches with their message, number of proposals provided, number of site visits. Dollar value once a project lands – payroll, construction.

IBM coming made a huge economic impact and was well publicized. The general public wants to know if the value of a project is greater than what's given away in incentives.

Number of projects and number of successes is driven by so many parameters. Adding GIS as one metric would be inconclusive.

If they didn't have GIS, they would probably go without. GIS serves as a bolster to their information.

3D capability escalates them above those without this capability. Often they don't even know they're being looked at, being checked out via web information.

Google Earth is not as cool at ground level. Thus the plan is to have 3D for major development areas. This will provide prospects familiarity with buildings before making a call. Otherwise, they'd just see flat land. It's all in perception. 3D allows them to see a real-life appearance before making the commitment to travel. Her office will integrate video to show insides of buildings, bearing in mind that decision are not made on basis of the facility alone.

She recommends I speak with site selectors and consultants regarding what they want to see.

They could be in the running with 20 locations or 2 for a site visit. She believes short list typically go up to 8 site visits, with size of project driving number of site visits. IBM went from 20 listed to 12 to 6 sites actually visited.

Better data allows them to do better in the funneling process. It's a game of elimination. Don't give them a reason to eliminate you. You have to provide accurate information. Eliminate their reasons for elimination. If they can't find information on you, you're already eliminated. Makes "Not On the Map" saying real.

Supply chain is also critical. They are revamping their website to make more use of visuals and mapping and to bring in access to suppliers. They track supply chain, especially in manufacturing and educational institutions, including links to college web sites. This is important to finding workforce and ability to backfill.

Product = Dubuque with educational features, here are our feeders (schools)

vs. Place = piece of land

This was a huge factor with IBM. Within the final 6 sites, Dubuque was the only one without a state school. So they brought in information from a 90 mile radius showing combined educational system. They leveled the playing field, possibly even boosted it in the favor of Dubuque. They also showed commuting patterns on a map. You have to show this rather than just saying this. Demonstrate driving patterns with proof to back it up. Iowa Workforce Development provides traffic pattern maps with hard data backup.

They also use DOT and Census data.

She suggests I also speak with Rick Dickinson. Drop an email to her and she'll set up this phone conversation.

7) Greg Halverson, Council Bluffs Economic Development/Chamber of Commerce
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He uses data from sources like the assessor's office, public works, geotech data, demographics.

Was involved in a laborshed pilot for Iowa Workforce. It was a master's thesis with the Institute for Decision Making. They used ArcView and identified small business development needs. In

doing a business plan, need to figure out market area. They used Dun & Bradstreet data, and brought it in to ArcView as Excel files, linking locations with D&B names. This could be used in business plans for marketing.

Currently security issues create walls, especially in getting water and gas line data, which becomes frustrating.

In economic development, half the time they're reacting to something and with a tight deadline (one month or less). The other half of the time they're trying to look ahead – incentives, target industries, next best chance for an industrial site.

Location One – he uses it for analysis but finds it stays very superficial. Many of its users don't understand GIS technology and data sources. Location One is an ugly duck – it's strictly a database with some functions added, such things as Crystal Reports. Lots of people use it as a database for site consultants and these people don't know how to use it. There is misunderstanding regarding its original purpose.

Utility info in Location One? Garbage in/garbage out. Utility lines aren't mapped. It's database information, not geographic information. GIS is not really in Location One's wheelhouse.

Possibility of a state data warehouse for utility data? His interest would be for 4 to 6 inch lines and larger. Getting the line all the way to the house is beyond their needs. They need to answer questions like – can we use this substation for this industry? He doesn't expect GIS to necessarily answer at this level.

Issues of large company vs. small company. Each project has different drivers (utilities vs. price of land).

For predicting where to locate an industrial park, utility information would be critical. Compare utility against available land and cost of land to invest in shovel ready site. He won't support a \$3M land acquisition if the available substation can't handle the proposed load. GIS is also good for prioritization – what are the top 3 candidates in ranked order?

He's been at Council Bluffs for one and a half years. There was a major site developed before his time. Historically, the organization would jump on an opportunity without full evaluation. He envisions you could take a full evaluation exercise and use it for marketing to a site consultant. Turn it into a marketing tool.

He worked with Iowa Area Development Group in Des Moines as an intern, making maps showing soil types and the like.

Should this evaluation approach be done at the state level vs. local?

Starting process from scratch. Could measure tax-based increase, job increase.

Community building owner looking to rent out space. Could use GIS to provide this information.

State is looking at shovel-ready site certification. Who decides it's shovel ready? West Virginia has done some with this. Is it permit ready? Is water/sewer/zoning in place? To him, shovel ready means you can pull the permit.

Benefits of optimized site selection. Apply slope, costs to develop. Conclude values which make a site most cost effective to develop. Cost of utilities. Cost to develop.

Has any place used this approach that we could use as the starting point for a case study of the potential? He would like to use this approach before forking out high dollars for engineering studies.

If you have 20 ideas, how do you get down to the best 4 or 5? Use GIS for the process of elimination. You could go look at 20 sites, but you'd waste time when probably 2 are the best choice.

He works with the county for data and GIS capabilities. The county provides a mapped analysis to him. He would include these maps in marketing material. His point is that economic development doesn't necessarily need to go purchase GIS capabilities.

Golden Shovel Agency in Red Wing, MN, looks interesting online but possibly its GIS capabilities are too simplistic. He suggests we talk to ESRI about places that have used such an approach.

He would be delighted to work on an optimization study if grant money was available. He may have a case study available if they win an upcoming project.

8) Dave Swenson, Iowa State, Ames

5/25/2011

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Dave was recommended by Catherine Bierling, as he does Economic Impact studies for her organization.

Regarding the use of GIS in economic development, causality is not immediately apparent.

He studies information innovation as infrastructure, part of a region's capacity to process information. This provides a way to simplify his analysis. He considers technical and human resources as part of a region's infrastructure. An area must have so much capacity to be considered for development. He has issues with a technology being necessary but not necessarily sufficient.

Technology may lower the cost of development and create options for development.

If someone says, if we do A, we're pretty sure B will follow, Dave can quantify impact once he knows Bs are in place. GIS benefits might be minimizing transaction costs of moving information.

What efficiencies are being pocketed? Do we get other tangible results as a consequence of technology?

Building capacity of a region to develop its assets – water and wastewater and other infrastructure could be evaluated in GIS. Different types of capacities may lead to job potential. But look at Des Moines growth with its antiquated infrastructure.

Only communities with population greater than 10,000 will grow in the next 10 years. Is there a unique GIS strategy or need to apply to site selection? Site selection people will do this anyway using GIS.

Dave's Rule: someone to say with credibility "without this technology we would not have this outcome." We built an intersection which changes the dynamics of traffic flow which opened opportunities for warehouses.

Economic impact? Everyone wants to count jobs but he wants to see net new productivity. Value added = returns to investors.

Are there increases in standards of living? Increased stability? Disposable income increasing? It's always a moving target.

At the county level, look at earnings from DEA. Earnings = value of working. Includes income and benefits. Jobs are not such a clean measure. He uses earning as a surrogate for GDP.

Looks at percent change of young adults 25 – 55 from Census. That's what the economy runs on, its fuel. Must have a pool of these people as they are the dynamic by which profits are made.

If Iowa contracts relative to the nation, this is significant. Rural Iowa contracted by 18% in the past decade. This is best indicator of a region's capacity to grow. But a rural county that only went down 5% would be the exception in Iowa, indicating something is going on there.

Census metrics are just now coming out. See Iowa State Extension web site for 2010 Census by age groups, housing and housing tenure.

9) Jason Hutcheson, Director of Economic Development, Greater Burlington Partnership

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6/1/2011

His main use for GIS is for property development/redevelopment and marketing. He uses GIS every day.

Figuring out ownership of property is critical to his work. Imagery has opened up a whole new world, especially the Pictometry products because it's easy to figure out acreage and frontage using it. He can figure out these things in seconds.

They had a recent project for a food processing plant with requirements for railroad, highway, water, acreage. He could figure out what sites would qualify and get quick access to ownership information. Then he could clip the appropriate image and put it in the marketing proposal. Landing such a project is worth tens of millions of dollars.

At first he thought the bottom line was what mattered. Now he sees that the Wow Factor is what sells.

Owners may be absentee or don't know much about their buildings. Ceiling heights may be important to a prospect. Without GIS, he would have to drive the area, go to the courthouse to look up information, figure out how to describe a property without an address. Would take two full days for a project like the food processing plant.

Without GIS, he would have to hire ground photos and commission a plane to fly the site. This would cost \$750 - \$1000 in staff time for a big project, \$150-\$200 in staff time for more typical small projects. Who knows the odds of landing a project if you're one in 20 communities competing? They use GIS for 15 – 20 proposals a year. Flyovers would cost them \$500 - \$750 a year. However, the photos they would get from such an effort wouldn't be consistent as the photographers don't understand the desired angles. Last fall they spent \$200 on a flyover and the photographer missed the actual property desired as it just looked like a flat field to him. Pictometry 45 degree angle photos make his life better. He can always have the shot he wants and can see buildings from every angle.

He needs new images every two to three years. Utilities, including easements, would be helpful. That the next area for improvement. Currently for utilities he must either pay an engineer to figure it out or use paper maps that may be outdated. They recently paid an engineer to do a proactive evaluation of a site for potential development. This cost \$12K but the engineer forecast future utility needs as part of the study. Most of the \$12K was for projections of future infrastructure requirements, but this project also provided the best map for utilities of any of their projects.

He knows there is useful information at his assessor's office but he can't access it. He feels like the information is held hostage for many areas. He says good luck trying to get utility information within 48 hours for a proposal. He can't tell where water lines or sewer lines or gas lines are. Getting access from any of these data holders is difficult.

He needs to be able to answer questions site selectors have. Every time he asks another person for information, it slows down the process and introduces the potential for error. To get all the information on a site in five minutes or less is powerful.

He would be happy to speak to the legislature (or whoever) on behalf of the value of data sharing.

His license for Pictometry has expired and he's trying to find a way to pay for a new license. \$2K for data sharing consortium would work for him. \$15K would not work.

He's on the PDI board. He doesn't use the principal brochures on LOIS. He likes LOIS for use as a searchable statewide database.

He suggests I ask for Kunert's opinion about LOIS as a way to get some of her time and thinking. Ask to pick her brain since she's leading the PDI steering committee on this topic.

10) Rick Dickinson, Executive Director, Greater Dubuque Development Corporation
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GIS is important to them. Greater Dubuque is a private nonprofit with priorities for: 1) national recruitment; 2) retaining businesses; 3) workforce development.

The role of GIS is to tell the story of the community. It helps communicate with businesses and potential investors.

They just received an update from LOIS to provide some GIS capabilities. However, these are not so robust as standard GIS capabilities and there is not so much desired data in the system. Greater Dubuque does keep building and land assets in LOIS.

They are working with Google Earth to develop 3D popups for the county. Rather than GIS saving staff time, they are adding staff to provide technical capability.

They experience GIS data silos at the city, county and COG level, each of which has a GIS staffer. These organizations hold their information closely, providing no free exchange of information. Greater Dubuque is working to develop partnerships with these organizations. They meet every other month and are working together to populate Google Earth with the 3D sites.

There is value in having virtual tour capabilities from the 3D project. Dubuque isn't what people from away may think. They use virtual tour at the first meeting to provide perspective. The prospect can get oriented and feel comfortable with where they are.

How to measure outcome of economic development activity? 1) Census population; 2) average wages; 3) commercial and residential construction; 4) number of people working (which they have tracked over 25 years to understand the cycle of employment)

IBM coming to Dubuque brought 1300 hires. But this does little good if a greater number of jobs is lost over the same time. A good year = a higher number of people working in greater Dubuque (their MSA, which is Dubuque County).

They do a five year plan with their Board of Directors, which results in a five year capital campaign addressing their goals, as measured by the four criteria which they track monthly when available.

Labor and average wages come from Iowa Office of Workforce Development. Construction comes from cities and counties. 56,400 people are working in Dubuque County as of April

2011. They divide total payroll by this number to get average wages. They track the direction wages are going. Last year 1800 new jobs were created but their economic condition is not improving if average wages go down.

They report data monthly. Look at newsletter under releases on their web page. The four graphs provide the most useful information and the workforce graph is the most telling. They are currently ending the fourth year of a five year campaign.

Economic development groups have three funding formulas:

- 1) Publicly funded groups may think bureaucratically and will not collect metrics that are conducive to ROI
- 2) Privately funded groups are always looking at what's in it for me. They tend to be siloed within the business community.
- 3) Public/private partnerships are the sweet spot. Everyone has a voice. There are 40 members on the Greater Dubuque board.

It's about ROI to whoever's paying the bill. So Greater Dubuque tries to do something for everyone.

He sees the 3D virtual tour as another tool. It puts a shine on things, is more sales friendly.

Google popup is a joint partnership among three organizations, each contributing \$5K. They added DOT funding to this and have a \$150K project over two years. This funding provides for a staff member to be point person for builds of popups. This person coordinates taking shots of buildings, with four people trained in use of the software. They just entered into this agreement three months ago. The program begins this July with a prioritized list of facilities. Will run July 2011 to July 2013, with a possible extension.

They don't do any traditional print marketing, mostly what they do is web based. They put a large effort into interviews with the local business community, which is helpful for national marketing as well as business retention.

11) Alan Jensen, Geospatial Technology and Community Development Specialist, Iowa State University Extension, Ames

6/7/2011

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They have GIS capability and use Census and Workforce Development data. ISU is the state source for much of that data. However, the university data owners haven't moved forward to integrate their data with GIS.

Note that the extension is focused on Community and Economic Development. His group provides technical support to Steve Adams. He sees opportunity to create value in this area.

His group does GIS training and thus he has a sense of how economic development staff are using GIS.

Their data sites include Reap, which is a website for posting data and studies. This is primarily Census data and state retail trade data as Excel files. A model could be built in Arc to harvest images, but no business need has been articulated to drive this activity.

He believes they need to integrate GIS with their mother lode of data. They need to make it easier for economic development staff to use GIS with their data. He suggests I contact their economist, Dan Otto, who he describes as the pope of metrics.

Contributions of GIS to economic development are primarily anecdotal. A pasta plant located in Ames after doing its own study using GIS. Ames and Story County showed a high level of capacity for the plant. Take about a company that is made for Iowa! Also John Deere and Monsanto brought their own GIS studies to the decision making process, as did Google and Microsoft.

They are doing a major study of eight cities affected by the flood, primarily a housing needs assessment. They are looking at the effect of the 2008 flood on residents and local businesses. If they were displaced, where did they go?

To get data out of counties and local governments is like working with a huge dysfunctional family. They are using this problem as a basis for bringing training to COGs.

I should provide flood study links to him.

12) Teresa Nicholson, Executive Director, Winn-Worth Betco (Winnebago-Worth Counties Betterment Council), Lake Mills

6/7/2011

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Both counties have online GIS for property data. She uses these systems all the time, at least weekly. Winnebago has been online for 7 years. Worth online only 1 year. When Worth got online, it was so helpful she wanted to send them flowers.

Regarding the use of GIS for economic development, if you don't have a web presence with GIS capabilities, you won't get looked at. She uses GIS for company prospects with queries regarding a specific parcel. She also works with cities on water/sewer siting (such as lagoons). She can use GIS to talk slopes with engineers who may not be familiar with a location. She uses topo maps, aerial photos and imagery, parcel data (measurements, acreage), tax data.

Time saved since Worth County got online? Searches at the courthouse took anywhere from a couple of hours to an entire day. Having Worth County online saves her 6 hours a week.

Once everything is online, staff don't have to leave the office so much. They have increased their ability to multitask. It reduces the amount of time to do tasks. She estimates that GIS saves 25% of her work time, with plenty of additional tasks coming to fill that saved time.

They have better quality proposals due to aerial photos. But Worth County has better infrastructure so it still got more queries, even before being online. However, a bad proposal is embarrassing.

By the time a company contacts her office, they're already filtered to the point of knowing they are interested in her area. Thus, GIS may not tip the scale, but it does make a proposal more visually appealing. However, if a company is still looking at 4 or 5 states, having GIS capabilities for a proposal might make the difference. Being one of 4 or 5 states is becoming more frequent.

In 2010 they did 15 to 20 regional proposals and 5 to 10 local proposals. However 2008-2010 has been a generally crappy time. In better years they typically would make 20 to 30 proposals.

Success rate is subjective and difficult to estimate. Over the past five years, they had 6 to 7 successes. Out of these, they used GIS on 90%. GIS may have contributed 20% to the successes.

IDM at UNI and Iowa State have worked on metrics.

They did a strategic planning session in April and May of this year and had a board member looking to measure ROI. She would look to their 3 state colleges to lead such an effort. It's difficult to make the business case to the legislature without standard measurements. There are problems with each data holder being a silo. Economic development could do a lot more with cooperation from all participants.

It would be good to have state economic development metrics become consistent. This idea is being talked about but hasn't taken off yet. ISU does retail analysis with her office and she uses their online data.

13) Kathy Evert, President & CEO, Iowa Lakes Corridor Development Corp., Spencer

712.264.3474 or 1.800.765.1428 Cell: 712.260.8746 kevert@lakescorridor.com 6/8/11

They don't have their own GIS capabilities. If they need information on a specific property, will access county data or use Federal sites for aerial photos. For utility or transportation information, they use Iowa State's Iowa Geographic Map Server. To date, this completely meets their data needs.

As they move to support existing and startup businesses, their information needs may be reduced. They may not need to update site information so much if they are not actively trying to recruit new business due to the slow economy.

Recently they were working with a foreign company and were able to find aerial photos of the site at a low cost. This site was in a county that doesn't have its own GIS. Having the photos available online made it easy to send overseas electronically. They don't have a large format printer and shipping would have been cumbersome.

They (Economic Development) take new aerials nearly every year for specific industrial sites. They do this to get images good for marketing vs. using someone else's images. They need high quality, high resolution, photos. For buildings, they go directly to the owner for specific information; for example, for public facilities like airports.

14) Rick Hunsaker, Executive Director, Region XII Development Corp., Carroll 6/9/11

rhunsaker@region12coq.org 712- 775-7800 cell 712-830-3560

His staff might be better to speak with regarding some uses of the technology. Karina Ward at 712-775-7814 is the most skilled at GIS. Chris Whitaker (who is out of the office this week) is a transportation planner and longer term staff. 712-775-7811

Some of their counties can provide GIS data for putting together grant applications, economic development strategy, transportation planning, disaster planning.

Their skills are improving over time. They keep finding more data. It would be great to have GPS points related to NICS code. This information is protected as proprietary by Iowa Workforce Development. There is a labor market tool available from Iowa Workforce Development but the results are somewhat crazy. It doesn't go down to the NICS code or resolve spatially below the Census block.

Probably they wouldn't use GIS for recruiting because their area is so rural. They know where their industrial parks are.

Occasionally they commission flights to get videos to provide virtual tour capabilities.

15) Candace Eudaley, Regional Economic Development Coordinator, East Central Intergovernmental Association, Dubuque 6/9/11

ceudaley@ecia.org 563-556-4166

They don't use GIS much for regional economic development. They do use it for maps to show location. They have been playing with Location One data and working to optimize their use.

They might get an initial contact but then hand it off to local economic development. Their organization is primarily made up of volunteers and their operational agreement says they will distribute leads to locals. The regional organization is not allowed to talk with prospects. They only address initial proposals. The community organization usually provides imagery for a site.

Dubuque is one of their cities. Others are Delaware Economic Development, Donna Boss; Dewitt Development Corp, Tami Tetsche; City of Dewitt, Steve Lindner. Jones County has a new economic development person who may not know much about GIS.

16) Jeff Rossate, VP Economic Development, Cedar Rapids Area Chamber of Commerce

319-730-1425 jrossate@cedarrrapids.org

6/9/11

In the mid 90s he worked for Deloitte, which was one of the first consulting firms to leverage GIS for site development. Iowa State Economic Development still doesn't have robust GIS services. Most organizations must leverage services. They have a Cedar Rapids intern working on GIS.

Quantify benefits? A picture's worth a thousand jobs. Most people are visual learners. To make the case for Why Here, need to communicate graphically using concrete data. This leads to data driven decision making.

They leveraged labor shed analysis tool, which is based on GIS. GIS used in almost every proposal. Past five year campaigns have resulted in 6000 jobs created. Labor shed analysis was used for at least 2/3 of these jobs. \$400-500M capital investment made to communities.

Iowa City-Cedar Rapids joint site uses GIS platform. Tech-corridor.com

They are able to leverage \$10,000s to \$100,000s of data from other organizations; for example, DNR data layers. GIS used to create maps from Iowa Department of Economic Development. These are worth \$100K as a marketing piece. When he was with State Economic Development, fees were in the neighborhood of \$100K to put together 5-6 industry brochures to show state's presence in an industry. Somewhat hollow to list site locations without a visual, a map. Value increases once prospects are more interested. There is value in communication that Iowa isn't Idaho or Ohio.

Often, he's not looking for standard data layers, so has to do custom searches. They don't do much repetitive analysis over time.

Up to date aerial photos from State imagery or Google are easier/cheaper than commissioning flights.

What piece of a success is GIS? Quite a bit. To communicate supply chain or market for a product. GIS has helped convince companies that Iowa is in the heart of their industry, etc. This increases the likelihood a company will make a site visit. While with State Economic Development, he worked with Danish wind industry. Forty people from 40 companies came to Cedar Rapids from a conference in Chicago due to communication of the concentration of wind industry in Iowa.

Value of GIS in any given situation is in the thousands of dollars. Would cost a lot to create proposals otherwise. GIS contribution at 5% to 10% of value of successes would be reasonable.

Regarding maps of the entire state: Clients first must develop an interest in Iowa, before an interest in a particular site. Then they can drill down to the local level. This is as relevant as workforce analysis. GIS is a most underworked marketing tool. It tells a good story very quickly.

17) Lisa Skubal, Director of Marketing, Greater Cedar Valley Alliance, Waterloo 6/9/11

Skubal@cedarvalleyalliance.com 319-232-1156

She uses Location One and Blackhawk County GIS to track real estate. Sometimes she also uses Google Earth. Having the county online is good for working with clients. It helps her provide more professional representation. She can even bring up information on her Ipad.

She probably only knows real estate capabilities for GIS and realizes this is just the top layer of possibilities. The bad economy has a significant effect on their activity level. They would be much busier with a stronger economy. When they are more active, she knows that GIS can cut proposal time in half.

18) Randy Uhl, Winneshiek County ED and Chair for Northeast Iowa Business Network

563-382-6061 wcdi@alpinecom.net

6/10/11

Randy began the conversation saying that he doesn't know much about GIS. However, he does use the LOIS website to enter their data describing sites and buildings. He finds LOIS to be an invaluable tool in getting word out about their sites. He estimates 80% of the information needed regarding a site could come from LOIS. LOIS is the sidewalk and front door for presenting their resources. Ultimately, he wants people to call and email him about a site.

They are a small, more rural area. His problem with LOIS entry is not having all the data that the system demands. He thinks there should be different levels of completeness required depending on the size of a community. At times he is forced to fill in fields that are not appropriate to their sites when applying for DED grants.

He also uses the Beacon website from Schneider.

LOIS is easy data entry compared to earlier systems that were nightmarish.

19) Dan Culhane, President and CEO, Ames Economic Development Commission

515-232-2310 dan@ameschamber.com

6/13/11

They don't have GIS internally but use output from City of Ames and from engineering firms they work with. They use it to illustrate location of a site and its proximity to amenities.

Do they find utility information readily available? Fiber optic is never easy but they get it somehow. It seems easy to get utility info when it comes from the city or engineering firms.

They have a lot of the location information on their sites already in hand and it doesn't change much over time. They sometimes consider acquiring archiving everything that could be used for presentations. For the lion's share of inquiries, they already have needed data.

For presentations they usually use maps because imagery may not be good, sometimes it's too old but more often there are problems with poor resolution.

Wants? Interactive maps with layers of demographic information would be nice but not really essential. Prospects want size of facility, location, proximity to infrastructure including transportation. Most of Iowa doesn't need to show crime statistics and the like.

It is easy to just go look at a site in Ames. Recently they completed negotiations with a Spanish company, using very low technology output. Maybe more rural areas have to try harder regarding technology?

He's been doing economic development for 17 years. Most prospects want to kick tires rather than look at images. If Iowa Department of Economic Development pushed out tools, his organization would be all over it. They would probably use a good tool frequently.

20) Marlene Bandurski, Research Manager, Greater Des Moines Partnership 6/16/2011

(515) 286-4953

Referred to her by David Maahs, EVP of ED.

They are getting Location One upgrades as well as a system that feeds into their real estate records. International Economic Development Council is setting data standards – 25 data tables to answer the most frequent questions from prospects. Her organization will be the first in the country to use these. LOIS is a new iteration of these tables. While Marlene was with DED she collaborated with Lisa Franklin on this. LOIS has lots of demographic reports.

Utility companies and the state pay for LOIS and it trickles down to regional organizations. Iowa is the oldest user of LOIS. It has ESRI demographic data currently loaded. They also use Decision Data resources subscriptions. Demographicsnow.com provides ring studies, demographics within 1, 3, 5 mile circumference.

They have 4200 business members, in dual partnership with their Chamber. She needs to have something immediately at hand to answer demographic questions. Smaller participants (existing businesses) don't want to invest in reports like Claritas. 20% of their requests are for demographics, which she equates with GIS. They don't currently charge for this as it generates enthusiasm from their members and helps sustain membership. One partner asked for help with GIS so they could drop their license, saving that company \$100s to \$1000s. She answers 500 questions a year.

Recruitment materials include access to their research department, Meg Fitz, 286-4934, who is currently flooded. mfitz@desmoinesmetro.com

Bringing in new business. Capital Crossroads Study by Market Street Services of which industry they'd like to grow. Some GIS involved regarding what's available. Marlene will pick up that report and move forward to zero in on companies to call on. Discovered many companies have never heard of Des Moines. Get consultant to know you. Look at Location One site for site development.

Try Dennis Donovan, who invented metrics. Council for Community and Economic Research is responsible for Economic Indexes. Marlene has been on their board for many years.

Effectiveness of outreach? Communication?

21) Dan Janssen, City of Sibley

6/16/2011

Uses Google Earth to get aerial photos for all proposals.

Have utilities from the county if he needs them.

Most development areas they look at are rural and would need utility lines extended.

22) Tom Lesan and Wayne Pantini, Southwestern Community College VP, 6/17/2011

Uses Google Earth and similar products.

Union County recently invested in flyovers. Working with engineering firm to integrate with county assessor data, water department, emergency management to establish layers. Would use GIS more often if he had assessor's data online.

He's included in access to Beacon system. Some communication issues between departments. Would use it more if he had true access to GIS to create his own layers and design presentation graphics. His access is temporary, while it's being built and his board would pay for his access but it didn't come out right in contract. (We later checked his online viewing capability and his problems appeared to be educational as their system has public viewing.) Will use Beacon to cross reference with other data such as Location One.

Most use of GIS is for marketing. Next is general planning. Will be looking at site development soon.

23) Mark James, CEcD, Principal, ED Solutions, Inc., Columbus, Ohio

7/15/2011

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Marks notes that he doesn't do site selection full time, spending more time developing technical applications to serve economic development.

He believes the profession may have overinvested in GIS for location analysis. Consider two buckets:

- 1) municipal or county daily GIS use, which can be applied to local analysis
- 2) five or six firms engaged nationally in site selection

Extensive use of GIS for site selection is like driving a pin with a sledge hammer.

What GIS does well for business recruitment:

- 1) Do you have product (suitable building)? Labor? Skills? If GIS allows queries beyond standard political boundaries, this is helpful. This would allow you to turn data into something real. It would be a game changer for economic development to be able to do this.
- 2) Ability to analyze from community development standpoint. Where are businesses and where can I draw on a suitable range of workers?
- 3) Analysis of communities. Supply chain – matching suppliers to needs. This is an underexploited GIS capability. Layering of applicable data doesn't end with workforce and businesses. There are potential benefits to member based organizations.

30% of deals in US use consultants. But the consultants already have commercially available GIS data. They are looking for unique local data. Interview with local employers provide the type of information not immediately available from commercial GIS.

Spending \$40K to \$50K on an economic development GIS platform may be overspending. (Note: we wonder what is that software and who is buying it?) Consider that Google gives its stuff away, opening up APIs may be the most effective approach. To do this costs only in staff time.

Do site selection people use your GIS for analysis? By the time they're hit you, you're in the running and they are looking for reasons to eliminate you. At one time the ability to do radius searches in a GIS was unique, compelling, differentiating content, but by now it's mundane.

24) Craig Witmer, Vice President, Central Region, Pictometry International 7/18/2011

Direct/317.255.0565 Mobile/317.339.5320 craig.witmer@pictometry.com

He notes that they use Iowa statewide LiDAR data to reference their aerial surveys. They find it very beneficial to have statewide elevation data.

Iowa is about 60% covered by Pictometry. This is unusual. Iowa has more coverage than any other state.

He will send economic development and general business case info that he has available.

25) Dan Nice, Manager of Infrastructure, Pictometry International, Rochester 7/18/2011

888.444.2575 Direct 585.444.2528 Cell 267.640.6161 dan.nice@pictometry.com

They will have 100% coverage of Iowa by the end of this year.

He'll set up an appointment for a webinar for him to show me what utility metrics he has.

Webinar delivered 7/21/2011:

Metrics are from a two month pilot study of five distribution professional staff members of an investor-owned power distribution company in New York state, using a fairly complete coverage of 2007-2008 Pictometry data. This was not an optimal situation with all new data collected for a project. They have integrations available to ESRI and AutoCAD which were not used for this project.

Using oblique imagery, anything you can see, you can measure. But it would be irresponsible not to visit the field for major projects.

The take-away from the pilot was use of the imagery dramatically cut number of field trips. For distribution engineer jobs (design) they have 1200 simple jobs/year (30% of their time), 500 commercial jobs/year (40% of their time), and 40 DOT and highway jobs/year (30% of their time). They also have 10 conversion projects and service upgrades/year.

Previous workflow was to pull maps from five or six existing sets and combine them into a usable base map. This was a time consuming and tedious process. They previously used free imagery from the state. They were not able to locate poles on it and had to make best guesses. With Pictometry imagery, they could see poles and measure distances. They were able to use imagery to plan field trips and have a better idea of the direction to take a design prior to a field trip confirmation. With rural areas, they saved multiple trips to view small things, average 2 ½ hours saved/trip.

This pilot was for design only. Obviously there would be benefits to construction and elsewhere in the utility processes.

Before: 50% of Commercial projects required 3-4 trips

20% of Residential projects required 2 trips

After: Field visit used to confirm preliminary plan vs. being used for information gathering.

After: 20% of Commercial projects required return trips

5% of Residential projects required return trips

Seeing parcel lines on a map allows avoidance of ownership communication issues. He notes that government Pictometry contracts won't provide parcel lines, while private contracts will. This is because government contracts are typically self hosted. Commercial clients generally have a large service territory, too large for self hosting, so Pictometry provides hosting. Two Terrabytes of transmission corridor imagery on a server is prohibitive. When Pictometry provides hosting, they provide other data layers as part of the service.

Use of imagery allows one to see cost issues related to digging for underground services. It can be used to resolve tree trimming issues. Subcontractors may cut the wrong tree if working with a design sketch with no imagery. With imagery, the utility designer can annotate imagery with their design.

Residential: 1200 jobs at 1.5 hours/job = 1800 hours

10% change resulted in 180 hours saved, 120 more jobs completed

Time saved helped with this utility's big backlog, adding the value of billing for service sooner as well as customer satisfaction. Return trips delay projects another week or two.

Simple Commercial: 350 jobs at 2.5 hours/job = 875 hours

17% change = 150 hours saved = 60 more jobs completed

Faster completion is better for business development and marketing, especially with manufacturing clients. It would be possible to take four months to service in place down to 2 ½ months.

Complex Commercial: 150 jobs at 20 hours/job = 3000 hours

3% change = 90 hours saved = 3.5 more jobs completed

Before: 1 foot GSD urban and 2 foot GSD rural made it difficult to locate poles and other assets.

Pictometry images are typically 4 to 6 inches urban and 12 inches urban, with higher quality image.

Residential Base Map Creation 6.25% change = 130 hours saved = 32.5 more jobs completed

This saving also affects backlog. Overall length of project is reduced.

Transmission efficiencies should be even greater than distribution because distribution assets are smaller and more difficult to see with any imagery. Also transmission assets are further away, requiring more travel for field trips.

26) Janet Ady, President, Ady Voltedge , Madison, WI

7/20/2011

608.663.9218 jady@adyvoltedge.com

Janet was referred to us by her father, Bob Ady, who I contacted for site selection expertise with a referral from Karen Adams.

She is involved in branding, marketing and communications for economic development. She was recently appointed to the Wisconsin Geographic Information Council to help address these issues for them. This is a newly formed nonprofit working to become a more permanent organization. They are looking at best practices coming out of Iowa and Indiana.

I'm to send her links to the IGIC grant reports and spreadsheets. She is familiar with Iowa reports on the FGDC 50 States site. We will follow up soon with a longer phone conversation.

27) Curtis Brown, Director of Economic Development, City of Ankeny 8/22/2011

(515) 963=3555 cbrown@ankenyiowa.gov

Conversation included Brent Estrem, City of Ankeny GIS Coordinator.

Far and away the most important benefit of GIS to economic development is in creating maps for quick response regarding available sites. Site selection professionals want to see location of utilities, 100/500 year flood plain, topography, site dimensions, parcel numbers. Brent's MIS department accesses city and county data to create these maps. Economic development makes four to six responses a month to prepare maps for various site queries.

Another benefit of GIS is in maintaining an inventory of available sites. They would like to be able to populate this database with more detail; for example, utility sizes. This is both for data entry into LOIS and for responding to ad hoc queries. Fortunately they have easy access to detailed utility information.

What would they do if GIS not available to help produce appealing maps for marketing? They get compliments on their maps from site selection consultants. Curtis will provide me with contact info for some site selection professionals.

Desired capabilities for the future: Curtis is looking forward to the day they can add their own data layers to LOIS; for example, 45 targeted industries, truck terminals.

They get maps from planning and building department. An advantage of being part of city government is this easy access to data. They are not one step removed from the data, as he has been in other economic development jobs.

New GIS developments at the city? They have rolled out two new web applications which could be useful for organizations like economic development that need data quickly.

1) Sanitary sewer data – managers are now able to access data directly rather than going through MIS.

2) Fire response dispatch – data is populated nightly to show response times and the like.

3) Street sign maintenance application is being developed.

Having access to data through a web browser would be a big step forward for economic development.

The city is currently building base components to serve as a foundation for more web applications. Thus, more applications will be coming in the next year or two. The general concept is to allow department to edit data within the web browser. This will allow departments to be responsible for maintenance of their data.

Without GIS, economic development would go to third party engineering firms or possibly to the county. They would have other entities create products – desired data draped over current aerial photos in hard copy and pdf format. Having this product available for marketing is nonnegotiable. Custom work for a marketing presentation would run \$1000 easily. For simple projects, engineering work at \$100/hour would run \$100 to \$200 per project.

Any ideas of contribution of GIS to the success of any new projects attracted? That's difficult to say.

28) Brent Estrem, GIS Coordinator, City of Ankeny

7/22/2011

(515) 965-6402 bestrom@ankenyiowa.gov

He has been engaged in development of GIS projects for wastewater for the past four years. Originally, the utility was storing data in side database systems and having difficulty with its forms-based data. Now they are storing all data in a geodatabase.

Team of 5 to 12 staff supply data to the new wastewater database. They track four to five common tasks, attaching data to pipe and manhole features.

Previously data was translated into an Access database with links. They are in midst of transition to direct data entry through their web site. They will go paperless. Staff will be able to edit information in the field through cell service back to the server, providing real time data. This means real time dispatch will be possible.

Having direct data entry helps Brent a lot with maintenance of data, plus departments will own their data. Error checking is built into entry forms. Field staff will be able to type in an address and quickly see where to go (vs. trying to use ArcView and finding it cumbersome). Staff are getting more user friendly tools. Further, any manager can pull up stats from the system.

There is a team that cameras sewers and they will provide data tied to pipe components.

Response time is reduced when data comes in from teams.

Brent is a one man department. He has worked to train individuals in other departments in GIS with spotty results. Now field staff don't have to know how GIS technology works to relate to the web site. Now they have an extra five staff members collecting data.

They've been phasing in capabilities over the past three to four years. He's hoping sewer department will be self sufficient by the end of 2011.

Previously they were recording the same information but it was not readily accessible to decision makers.

They are seeing improvements in their data. For example, they are collecting GPS locations of manholes. They are in the third year of a five year process of cameraing sewers. They verify attributes such as depth of invert and even do work for other departments (locates of storm manholes, curb cuts).

The storm water system will come next, in response to more Federal regulations coming out. The only limit is Brent's time. They should be able to leverage knowledge of staff on the sanitary sewer side.

All web applications have been done in-house. This is very simple, taking perhaps one hour per map design. Getting the data right is what takes time. Previously, having a 10% error rate was a real gap in their data.

Consequence of better data? Travel time saved. No more going back and forth to collect forgotten data when it can be entered all at one time in the field.

Mark James, continuation of 7/15 conversation

7/22/2011

Primary research content is what's needed but not generally available for economic development. There is a need for communities to provide labor productivity or existing employer information.

But commercial systems may still be needed for initial screening. Need to keep a presentation current and accurate, but also compelling and differentiating.

Commercial products: The big dog is GIS Planning Inc out of San Francisco. More recent additions: Cirrus (Ft. Wayne, Indiana), Atlas Advertising (Denver), Taylor Engineering (Richmond), Location One (LOIS, Kansas City), and one he forgets. There are five products in addition to the big dog. These have become more price competitive lately. Additionally there is ESRI, both Business Analyst plus proprietary work they do for ED customers.

Could IGIC develop useful local/state data? This is not a bad idea. Indiana has a group IBRC (Indiana Business Research Center) which produces data by county, MSA, etc. They can create an xml feed to stream to client's site (four county region, for example). That sort of model interfaced with Google api could be a real winner.

Keep thinking of intended users. What formats do they need? Frequency? Being able to spatially analyze data is important. Aggregating by market area or labor shed will get eyeballs on your site. The beauty of GIS is its ability to draw boundaries.

29) Nikki Breitsprecker, City of Dubuque GIS

7/25/2011

How best to proceed with Smart City analysis? On the IBM project, there is nothing yet tied into GIS. Nikki is not exactly sure why this is the case, perhaps it had to do with the project timeline moving slower than expected. They are almost done with the water meter deployment.

Where could we be look for potential benefits of Smart City and GIS? Nikki knows the water utility GIS person wants to pilot meters at pump stations to better understand sub areas for water pumps. Contact is Jesse Bernhardt at 563-690-6050 jbernhar@cityofdubuque.org

Alliant is the power side partner for Smart City. Ask Chris Kohlman about contacts there.

Nikki believes there are significant water leak problems which could be addressed via smart meter/GIS integration.

Economic development other than Smart City: Nikki has Access database for city leases. She will send a sample of the database, before and after using GIS analysis.

Supply chain issues? This would be a Karen Adams question. Nikki recalls something about Bodine Electric and proximity to Chicago.

Smarter Transportation project also could be ripe for GIS integration. Ask Chris Kohlman. They have deployed an application on blackberries to track where staff drives. Again, difficult to say why nothing much is being done with Smarter Transportation/GIS integration. Ask Chris.

Stimulus funding for open water canal to prevent flooding. This is a gateway project, entering Dubuque from Wisconsin. They are redeveloping Chapman-Schmidt Island, adding smaller businesses to existing casino, hotel, restaurants.

For metrics on saving to consulting from access to city data speak with Jim Kaune at IIW Engineering and Surveyors. J.kaune@iiweng.com

30) Steve Shupp, Alliant Regional Economic Development

7/26/2011

StevenShupp@alliantenergy.com

319-786-4397

His region is half of Iowa and all of Minnesota.

He uses LOIS for sites, working with community developers regarding industrial parks or buildings.

He provides general assistance to community economic development staff regarding utility issues.

They use LOIS for searches when rfps come in. The state looks in LOIS for suitable sites. This obviously saves staff time.

He believes LOIS is working to correct its flaws, upgrade itself. It was antiquated if you consider that you can do better with Google Earth.

31) Jesse Bernhardt, Dubuque Water Department GIS

7/27/2011

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Jesse stepped through his powerpoints from the IGIC conference.

Slide 11 – mobile devices for inventory, currently at 97% completion

Slide 12 – They are going with fixed network. Data collectors are on water towers and downtown buildings.

Slide 14 & 15 – Started with some geocoded points, breaking the city into 2500 meter sections for scheduling meter installation.

Slide 16 – Desired data.

Slide 17 – Left photo is before smart meters; right photo is after. Unique ID now connects GIS with billing software using GIS join. MIU contains batteries so tracking install data to track battery life.

Slide 18 – Neptune's Fixed Base meter interface output. Hourly usage communicated one time a day. 23,000 records. Would use this data to detect a leak. The Neptune software detects leaks, he's not sure how. They export data out of Fixed Based by MIU number to create maps of where leaks are located throughout the city. They map continuous and intermittent leaks, most recently this May.

Slide 19 – Blue is new meters. The first pilot tracked usage every 15 minutes. Since then, they've moved to hourly. Can use a map to plan installations or replacing meters if there's a bad batch (this did not happen). The pilot was 2500 meters in the southeast part of town.

Slide 24 – Trying to get pressures for all devices. They are building a pressure point file up to 100,000 points.

Slide 25 – About 1000 pressure points.

Slide 26 – Hydrants

Slide 27 – Pressure predictive surface. If water pressure goes below 32 psi they get lots of customer complaints. They would use this map in conjunction with installation planning to avoid

using unmeasured flow reducers in low pressure areas. They could also use it to site water tower locations or to adjust valves for a better pressure grid.

Slide 29 – Eventually may refine to more pressure categories or divisions (valve sheds).

Slide 30 – Isolated neighborhood with a pump station offers the opportunity to measure water in/out of the neighborhood to aid in leak detection. Olympic Heights is a unique small area.

Slide 31 – Contour lines with data collectors overlaid. Used to study issues with signals reaching towers.

Slide 32 – Signal strengths.

Slide 33 – Poor signal.

Slides 34 & 35 – Refinement to produce better signal. This uses telco contractor's data.

Slide 38 – Rough edge between two data collectors. Viewshed of data collector.

Slide 39 – Actual data collectors installed. They are moving to all R450s.

Slide 40 – Which data collector owns MIU signal. Ownership shows how viewshed turns up in reality.

Slide 48 – Southern extent data collector. This is a big extent.

Slide 49 – Defunct R900 collectors.

Beginning of meter deployment was February 2010 to city employees, followed by March/April official startup.

Benefits:

Asset management tools – meters deployed and sizes. With Fixed Base software can tell tampering. Can map location of leaks and visit those locations when time allows, providing repair subsidy information to property owners. Having install dates of meters allows them to study usable life span of meters.

If a meter froze, they can take preventive measures, checking on possible property damage to a residence or the street.

Track where high gain MIUs are installed. Track any unique plumbing (meter setters or notes from installer to locate meter)

Tracking location of stop boxes.

Track battery life of MIUs and change at 10% life remaining.

Savings:

Billing was charged 50 cents/house to read touch pads (billed by gas or electric company). However, smart meters did cost jobs.

They are far under capacity for water plant volumes at this time. But if selling less water due to fixing leaks, this makes for reduction in revenue to the city. Likewise, water lost in the system goes into overall rates so less incentive to repair leaks.

Using correlators to listen to pipes in a neighborhood when data shows loss of 20% to 30%.

Most exciting – monitoring production vs. consumption. They would take measures if difference was sufficient. At this point, thinking more about where than when (scheduling).

Once everything is interconnected, when there is a main break they could use the system for communication with customers (catastrophic loss or preventive maintenance).

Future: click on a valve and run scenario: If I close this, how does it affect the network?

Going mobile would make for big benefits for dispatch, but funding for this has been taken away.

Now tracking main breaks. This would lead to determining the cost of breaks and opportunity to do financial analysis of areas to be repaired.

Continued conversation Janet Ady, President, Ady Voltedge, Madison, WI 7/27/2011

608.663.9218 jady@advoltedge.com

She is not primarily on the site selection side of the process, but is involved in three site selection projects currently. Having this knowledge is beneficial to her municipal clients.

She provided slides from her May 23, 2011, talk to Wisconsin GICC, which is built up from the county level. Note that she's on its board, recruited because of her economic development focus.

Unique selling points of Ady Voltedge: voice of the site selector (through her father's business); research emphasis; CMS mapping modules tailored to economic development industry.

Marketing: market/message/media (audience/what they care about/how to communicate).

Economic development is process of elimination. Goal of consultant is to winnow. Goal of region is to stay in the game.

Websites are #1 communication tool. Economic development strategies: attraction/business retention and expansion (BRE)/ start-up

Attraction = elephant hunting. May account for 10% to 15% total job growth. Done at state and regional level.

Lots of interest in BRE during economic downturn. 60% to 70% of job growth. Give questionnaires to local businesses. Iowa Department of ED does a good job of this.

Start-up businesses provide lowest ROI. Maybe 1 in 100 takes off. But consider Economic Gardening (taking states to companies, spearheaded by Kauffman Foundation). It's the difference between concierge service and a full time business coach. She sees opportunities here for GIS. Two counties in Wisconsin (Fontelac and Washington) do this. Michigan has it on a statewide basis.

Tourism – agrotourism, destination marketing.

Foreign direct investment is increasing 23% annually in the US. Maps help describe where you are to a business not based in North America.

State organizations focus on attraction and retention. Regional organizations focus on attraction. Counties and municipalities work on retention and startup.

Attraction presents the most dense data requirements, so she will focus on it during this discussion.

Idea of clusters presented by Michael Porter, Mr. Competitive Advantage, of Purdue University. This relates to supply chain.

Target industries? Some Iowa communities may be too small to consider this. Think about appropriate sector and positioning. For example: Des Moines has interstates, schools, airports, young population.

Umbrella positioning. Look at standard industry sectors. What's most important for manufacturing? Workforce. 70% of manufacturing cost may be in labor. For distribution and transportation most important factor is access to markets. For R&D it's education and possibly amenities that will attract quality staff. Consider Des Moines data center project and concerns around security/stability of location (safe from flooding, hurricanes).

Two main times a community's ED website is referenced: 1) to get an initial feel for the place; 2) when drilling down into standard industry sectors.

What economic development organizations must communicate:

- Strategy for economic growth
- Focusing on target industry (or not)
- Positioning (overall and by target industry/standard industry sector)
- Data and content to support above
- Specific tools (maps, sites and buildings database)

40-50 key factors every organization should have include:

- market characteristics

- geographic orientation (proximity to markets, exceptional qualities such as a large aquifer, naval surface warfare center, high speed fiber in rural area)
- operating costs (labor, taxes, utilities, occupational costs, occupancy costs)
- occupancy costs
- operating conditions (productivity, unions, unemployment, utility reliability, environmental, availability of buildings)
- quality of life

Key locational criteria (think GIS!)

- market characteristics/geographic orientation
- operating costs
- operating conditions
- quality of life

Sites and buildings critical to have on your web site. There are no good national datasets for this. But it's crazy to think you're done once you have this. Site selectors want to compare Building A in Des Moines with Building B in Florida. Commercial systems are expensive and the data doesn't change all that much over time.

Data alone won't differentiate your community/region. Opportunities to use GIS to communicate assets. Site selectors love maps.

Department of Economic Development should have pipeline reports to provide annual metrics for statewide economic development.

Priority One in Cedar Rapids has good metrics in its Activity Update. Also Fond du Lac County in Wisconsin in its Quarterly Report to Stakeholders and Washington County, WI at businessreadywi.org for its Investor brochure.

Capital investment and talent attraction.

Iowa Smart Conference (iowasmartconference.com) Debi Durham, Secretary of Iowa Department of Economic Development. Download her presentation, "A New Direction." Iowa is trying to do web site with 160 data points to generate reports for regions. Updating target industry studies. Tracking incentives.

Governor's growth agenda. Iowa's five year goals: 200,000 new jobs; 25% increase in family income; 15% decrease in cost of state government

Iowa Dept. of ED is creating a GIS Asset Mapping Tool.

Ernst & Young Competitiveness Report on Tax Climate.

Innovation Resource Guide.

Association for Science and Technology providing state innovation rankings.

32) Ben McConville, GIS Coordinator, City of Ames Public Works Dept. 7/282011

bmccconville@city.ames.ia.us 515-239-5162

Focus on asset management/work management. Last fall they began to build a work order management system based on ESRI platform.

Plan: be able to query and see all hydrants that need to be flushed. Currently to do this requires a manual query. There are funds available to Inspections department that could be used to purchase something like City Works for work management.

Their ops staff can provide feedback on current and anticipated benefits. They are looking to increase benefits and close gaps between departments, using common threads of information. For example, low pressure and stagnant water can be correlated. Pull together four databases into one database. Water Department has water testing, capacity analysis, trouble call databases.

Fire Department cares about pressure and must always do manual queries of Water Department database to view pressure data as well as Inspections Division for permits.

They recently purchased an iPad for use by ops. It displays a map of facilities that can be sent out with a locator. User can click on the map and report problems. The back office can see this added information and use it to correct GIS data. Field staff will be able to more easily identify trouble areas.

Public Works Department will be affected by a new work management system as they are in charge of maintenance.

Ben sees the new system as an enterprise system for work order management. Anyone will be able to have access to inspection information. This is currently possible to the extent that information is manually pulled (patching together various databases). The new system will close the gap by handling work orders from an initial phone call to the field to track work orders. They will use it for hydrant flushing and other programs. Managers will be able to use it for end of year metrics. They can correlate work done and effect of the system.

Field component – trucks currently have laptops but they stay in the truck and don't have an Internet connection. The iPads will be great. They can set up a discharge inspection application to meet DNR annual reporting requirements. Field staff can click and pull up a table for populating DNR forms, take a photo of the attest and attach it to the form. Manual data retrieval will no longer be necessary.

What are the benefits of better decision making? Look at the EPCOR benefits from earlier studies.

Ben is hoping the funds approved for Inspections can be used as a catalyst to purchase City Works. The Public Works Manager previously had Ben's job and thus is quite GIS literate. The real goal is to make sure everyone's on the same system.

Does Clerk's Office benefit? They also deal with records. Might include cemetery as this is part of Clerk's records.

Key players: Public Works inspections; electric division, which uses Ben's enterprise landbase but has a separate server to run analysis and their OMS. Ben notes the electric division is currently reviewing OMS packages.

Public Works benefits: better care of systems, leading to increased reliability and customer care. Dollar value of preventive maintenance should be included. They do have a preventive maintenance program in place but having maps associated with it would be helpful, as well as better data from the field staff.

Better analysis/decision making: to date, Ben's been asked to show all main breaks using historical data.

Permitting will provide a big set of benefits and will include fire benefits. They did some studies regarding redundant data collection and maintenance, while still at "before" work flow.

They consider customer service to be high priority. Big industrial clients can't operate without water. Flooding results in huge problems for the Water Department. Look at problems from their 2010 flood experience losing a pipe under the Skunk River, water tower drained, reduced pressure, had to drain system, all resulting in city without water for three days. Berella and FDA requirements.

Digital Globe First Look will provide imagery for emergencies. But it is expensive for a single municipality. This would be a good state contract project. Extensive discussion of the use of LiDAR contours statewide data set.

I am to make a To Do list to let Ben know what I need from him.

33) Morey Knutson (referred by Curtis Brown in Ankeny) SIOR | Vice President

Industrial Group, CB Richard Ellis/Hubbell Commercial, West Des Moines 8/2/2011
515 221 6673 morey.knutsen@cbre.com

He's been in this business 23 years and does industrial work exclusively. He did the site selection for a 850,000 square foot Firestone distribution center in Des Moines.

In the past, good aerial photography was the biggest benefit of GIS technology. Curtis mentioned use of aerials with additional layers -- having this is critical and is now considered basic information. His clients would not need anything more from GIS. What they need is dirt + pricing + incentives.

He believes Ankeny has progressed to about as good as it currently gets regarding use of GIS. Extending this throughout the state would be ideal. Look at the Polk County Assessor's site.

This is as good as it gets for property information regarding the built environment. Ankeny provides everything he needs.

Rural community information is difficult to come by. In those cases, Google Earth is the best they can get.

The Firestone Distribution deal was 10 years ago. The site was between Des Moines and Ankeny. He enlisted local economic development help. Polk County Assessor data + lousy aerial photos + legal descriptions. They located a home run, a soybean field. Their process was unsophisticated. This wouldn't work today. Now you need all the bells and whistles.

Regarding statewide annual values of economic development activity: Problem is, Greater Des Moines Partnership will claim success regarding of who is responsible. The State Department of ED doesn't have the dollar values. Look at Curtis and his city manager boss. They can and will tell you about their successes and number of jobs involved. They will be candid but this is not universal. There will be no straight answers during a time of political unrest in the state, currently caused by new governor and administration.

In Cedar Rapids there is a broker who is the most knowledgeable of ED activity in the state. Scott Olson 319-247-5000 x 205. He is very politically involved. He creates the quarterly ED report for Cedar Rapids. Karl Hoffman is his junior colleague.

Also see in Waterloo, Greater Cedar Valley Alliance, Lisa Rivera Skubal 319-232-1156 for ED that has its stuff together.

He recommends that I dig down to get good metrics from three specific local resources: Des Moines, Cedar Rapids, and Waterloo.

34) Karen Merrick and Gail Kotval, Iowa Department of Economic Development
Karen.merrick@iowa.gov gail.kotval@iowa.gov 8/4/2011

They were referred by Debi Durham, Secretary of IDED, regarding development of GIS asset management tool.

Karen cites Catherine Bierling as most knowledgeable about the tool. I explain that I talked with Catherine at some length and she did not describe the tool.

They contracted with Doug Johnson at Iowa State to create the tool. It is primarily protocol for collecting lots of data and managing it. 176 resources to be collected.

They are moving into the second part of their contract with Iowa State. This will define questions with the right parameters and correct inputs. There are various components.

1) There are working with Dr. Dan Otto, economist at Iowa State, regarding what information he'd need to get a clear picture of the economy of the state.

2) They are working with the Iowa Innovation Council to develop an annual index of indicators. They are working with a consultant on innovation to update indicators.

3) Their project managers work on business attraction projects. Currently there is a cumbersome process to create maps for the project managers. They are working on more standard reporting from queries. They also provide reports to communities working on business attraction.

Catherine is the in-house research analyst. There is currently no dedicated staff member for GIS. They will present the asset management tool to their management within the next month.

IDED works with traded clusters, not with all economic development for the state. Iowa Workforce Development provides lists of companies to IDED (for example, over 200 new bioscience companies). From Workforce Development I should be able to get value of payroll, labor shed stuff. Perhaps contact their public relations officer?

Suggestion that I call Lane Palmer in IDED, who works with a lot of this type of information 725-3017.

Ask Cat about benefits of the tool. She's on vacation through next week.

Jesse Bernhardt, Dubuque Water (follow-up to gather benefits metrics) 8/4/2011

Cost avoidance of 50 cents a read for 22,5000 meters, monthly reads.

Are there billing efficiencies? Using Neptune Fixed Base, uncertain cost for this as comes from billing department. Jesse can't yet export from Fixed Base, but soon they will have a new version based on their feedback to Neptune.

Creating intermittent and continuous leak map with attribute data for each point. They could start knocking on doors based on these maps.

Water is so cheap in Dubuque, it is difficult for a household to care about their leaks. But for a large industry, it would be different.

Info services staff points out problems with Fixed Based bogging down with high volumes of data. The new version will address these problems. Hopefully Jesse won't need others for data export with the new version.

Billing benefits: less customer complaints. Knowing everything about the 20 year life span of the meter.

They are at 98.3% completion on rollout.

They will be able to use the data for outage management during a main break. This would also be helpful for planned maintenance, allowing them to send out letters to affected parcels. Currently, staff must go door to door. GIS query would be used to generate recipient list.

Who is responsible for notification? A bunch of people. Jesse will inquire. Currently they are more reactive due to budget issues.

A major goal is to get information off paper and into the computer. Work on the distribution system has been on hold during the meter rollout. There is a four year hydrant painting project coming up. They will GPS all hydrants, then move on to locate all valves. Hydrant locations can serve as anchor locates for measurements of other parts of the system.

Dream of the future – hopefully put in additional meters to monitor specific areas. Have the ability to click on a building and see location of service connection for use by a field crew. Show shut offs and tell field staff what to do. They currently have no field GIS. Rely on printing paper.

Slide 8 – Municipal wells

Slide 9 – Attributes

Slide 10 – More attributes

Slides 14 – Red lines are abandoned, blue lines are active. If a contractor knows a line is abandoned in an area where they are digging, this tells them not to worry about it. They will mark anything underground they find to be hazardous since gas and electric utilities don't share information.

Slide 16 – Service connection and stop boxes. Red means shut off or abandoned. Yellow dot means completely removed.

Slide 17 – Attributes and scanned tap slip. They want to get rid of scanned images of tap slips. They tend to have outdated information and are difficult to read. Also, you can't query a tap slip for attributes. Would like to query for things like oldest service, how many lead lines in town.

Jesse will provide a field manager for me to speak with.

People will go to a location with tap slip only to find problems. Back to the office likely to be a 40 minute round trip. If they have field mobility, could edit data through a call to the office and get back a map refresh. This would result in better data. They've have this experience working with locators.

Slide 19 – Valve symbology shows different types of valves by closure type. May be able to determine when out of service by valve type.

They are two years into an 18 year project to convert all paper records to GIS.

Slide 21 – Hydrants

Slide 22 – Hydrant card and repair card and photo. Excel spreadsheet stores history (date at the location, PSI when flushed). Stores historic data which GIS attribute cannot.

Slide 23 – Main breaks and excavations. Red star with hyperlink to cost and materials. Asset management and audit trail. Study which area of town gets recurrent breaks. Consider ripping are out and starting fresh.

Talk with his engineering contacts regarding pipe evaluation, preventive maintenance. The distribution foreman is one of the five water staff allowed to do edits in the GIS.

Field mobility costs – Original estimate was for 5 Toughbooks. Total project was \$40K. They would have free access through Arc on the web. Considered iPads but not durable enough. Go To My PC available unlimited for \$40/month. \$7830 cost for each PC. \$6390/year annual maintenance. Lifetime? They buy this type of computer hardware on a three year cycle.

He notes that contact Rose is a novice GIS user.

35) Dennis Jordan, Vice President Project Development, Priority One, Cedar Rapids

djordan@cedarrrapids.org 319-398-5317

8/8/2011

He can provide what they track publicly, split out into Cedar Rapids as well as smaller communities like Marion and Hiawatha.

Previous campaign was for five years, 2006-2010.

Next five year campaign committed to 6000 jobs and capital investment of \$875M. Note that previous campaign greatly exceeded \$850M capital investment goal. Another goal is that half of the jobs will equal or exceed average county wage of \$20/hour.

These metrics don't represent retail or commercial business, but larger enterprises. 80% of these projects are with existing companies. Normally business retention/attraction follows the 80/20 rule.

36) Corey Mellies, Public Works Operations Manager, City of Ames Public Works Dept.
515-239-5276 cmellies@city.ames.ia.us 8/11/2011

Currently, they are partly automated. Utility maintenance (water and sanitary sewer) is the most automated as it has the most assets (manholes, valves). Storm sewer and streets are less automated (having less asset information). Partial automation comes from linking spreadsheet information.

Where they are headed:

- 1) If a person in the field can make a note, just do it there, one time at the point of observation.
- 2) Tracking complaints. See where the most main breaks are. Query on rusty water complaints over the entire city in the past year.

Level of effort to do manual queries? GIS links have helped. Currently, when flushing hydrants, information is collected on paper, entered to a spreadsheet and then someone on Ben's staff does a manual link to the GIS. Effort saved could be the person doing redundant data entry times the number of hydrants.

Bigger gain is having this information available across departments. Field guys and supervisors have vastly different capabilities. Making the work management system more user friendly is a major goal. Utility maintenance staff is pretty much up on the system. Next to come is storm sewer staff. NPDES has lots of reporting requirements. Currently do paper reporting process. Could save steps. 1) Field records on paper. 2) Paper reentered to database. 3) Manual link created. This is a more time-consuming process than hydrant flushing. Field staff must go through a check list and they have a number of intakes to inspect each year.

On the street side, they are moving toward citizens being able to record pothole complaints online on a map. This allows the complaint to be more specific rather than staff having to search for exact location.

Having better information on assets leads to better prioritization of improvements. Last year's floods brought sewer backup complaints. Had this been happening for years? There's a need to archive complaint information. Having it available in a database saves staff time digging for it and provides better records.

Better decision making: Better prioritization for repair work; better ability to respond, more proactive response. This would apply to sewer backups (are they happening the same time every year?) and to main breaks (are there patterns in an area?)

Minimizing pavement breaks. They control all ROW in the city. They just went to a web-based ROW management system, which previously was manual. The city does not currently charge for pavement breaks and is one of the few cities their size that gives free permission to work. There is huge time savings with the web-based system as well as the potential for coordination of joint trenching.

Better decision making: having all the information in a single GIS-linked database allows all staff to see the big picture effects of a project. This provides better understanding. Would it be possible to combine water main fixes with road projects? Having the information available opens up this sort of question sooner, allows staff to plan how to go after street projects better. If they have funding to do a road project now, but no funding for water repairs, is there a better way to think about what could happen over time? It all comes down to making information more transparent for decision making.

Corey might be able to put a dollar value on the benefit of combining water and street projects through better planning. This takes us back to pavement breaks. I will send him the Cleveland metrics and a list of questions regarding potential savings of duplicate data entry efforts.

319-377-1587 kstuck@linncountyrec.com

This was a conversation to get back on track after starting an REC GIS analysis last fall.

Origin maintenance costs nothing after 2005 as the company was sold. Linn County may replace Origin next year.

They have three Milsoft packages: outage management, engineering, call handling.

Partner maintenance costs remain uncertain. Kevin will look this up.

2004 and 2005 staff costs in spreadsheet were for Kevin and one additional staff. In 2007 they added another staff, allowing Kevin's GIS time to drop down to nearly zero. So staff time should be two full time positions for each year of the analysis. Linn County uses 2000 hours/year for full-time staff.

Cost avoidance of creating paper map books manually: 3 months full-time one person in annual cycle. \$20K printing. Additional benefit of up to date maps using GIS, resulting in increased safety.

Some field staff use paper maps only, some use computers only, some use a mix.

Benefit of elimination of phone calls from the field to check on data?

Dispatch? The scheduling and ops supervisors still do this manually

Partner is used for design and map viewing (field and office). Work orders flow from design to ops for building and construction. They have two Partner packages – design and work order.

Benefits to design staff, field staff, plus material control. They have not consolidated materials storage due to automation, as they have only one primary warehouse, with a small annex 30 miles away.

Old work flow when a new house is built: Kevin went to the site, took measurements, drew design by hand on a staking sheet, specified materials, entered into materials system, eventually reached design. New work flow: Go to the field with a GPS which automatically captures locations. Only draw design once, while on location. 4.25 design staff save 40% of their time using the new method.

Kevin notes that hand drawings are labor intensive to change. Having GPS available for field staff helps them locate where they are quicker and more precisely

Outage management: Benefits include better record keeping for the state. They have a better model so the utility knows what's happening when people call in. They can more precisely locate outages and predict them correctly.

Their old outage management system was theoretically computerized but it didn't work well to trace the electrical network. With the new system, outage statistics are tracked better. The Utilities Board looks at these statistics.

Kevin looks at metrics showing where outages happened to determine whether to rebuild lines.

Previously two ladies in Ops would have to search for locations of outages when customers called in with questions. Kevin to ask them about their level of effort before and after having the new OMS. There is a project to provide customers with outage information over the web, with a goal of eliminating customer calls regarding outages.

Currently, Kevin looks at the 10 worst performing sections of line each year and analyzes how to fix the problems. This is a new capability due to the new OMS. He looks at small frequent interruptions differently than wide scale outages.

GIS exports to the engineering model as well. Provides more detail.

38) Dale Weber, Operations Supervisor, City of Ames Water Utility
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8/31/2011

This conversation was to provide additional ideas regarding benefits from asset management/work management for the water utility. The areas Dale sees as most relevant are utility locates, water/wastewater distribution and collection, responding to emergencies, preventive maintenance.

He has been with the utility for 13 years. They are trying to become more proactive. For example, they exercise valves to verify they are working in order to prevent future breaks.

He would love to use work management system to track complaint data. They are more and more linking this to GIS, as well as video from televising their lines. Other areas of interest are sanitary sewer backups and water main breaks. They have 30 years of records on paper maps, which are difficult to read. They could use history to set priorities based on accumulated problems.

They do daily/weekly field planning on paper rather than in a work management system. He and his foreman would benefit most from a system.

They have benchmark books of paper maps. It is difficult to read all utilities at one location on these maps, yet they must be able to locate within 18" for damage prevention.

The boring industry is putting in fiber optics and gas without trenching. This technology has been increasing dramatically and now they can't use trench lines for locates. GIS data speeds up the locate process. Boring is now doing a quarter mile/day vs. a couple of blocks/day with the old technology.

Sometimes pavement covers up valves and it takes the utility a while to discover this. Getting a contractor punch list completed, including such items as pavement over a manhole, can take a long time. Better record keeping helps resolve the punch list quicker and makes it easier to decide who pays for items on the list.

They are playing catchup during the economic downturn. They are using county aerial photos as part of their records. Police and fire use building footprints. Meter department also uses footprints, as well as records of where meters are located.

Iowa One Call has been mandated for 15 years now. He wished they could integrate one call records with their system. He has seen Earth Net demoed for locates. Having one call data in Earth Net would make for a seamless integration with utility GIS data.

They do 6000 locate tickets a year.

Their old Cartegraph system was customized in-house. Their IT department hates to support this type of one-off software.

39) *Here and Now, NPR radio program*

9/5/2011

In Iowa, Computers Replace State Job Counselors

Closing 36 of 3 satellite unemployment field offices will save up to \$7M/year to meeting anticipated cuts from Washington.

Guest: Chaz Allen, mayor of Newton, who use field offices last year when unemployed, to get his current job managing Great Western Bank.

The plan for the change is for the public to access unemployment office information through computers in community centers and libraries.

Newton has a population of approximately 15,000 and the fifth highest unemployment rate in the state.

Chaz was layed off from Iowa Telecom last September.

When Maytag closed, the community aligned with the concept of Education, Employment, Entrepreneurship, Entertainment. Workforce Development services were available all in one place at the community college.

Teresa Wallard, Director of Iowa Workforce Development.

Union members and Democrats are suing the governor over the shutdown. 95 lowans will lose jobs at the field offices. Nebraska and Illinois are making similar changes regarding computer access points.

Iowa has an issue with keeping offices in place until the kiosks are rolled out. Others state that is critical for the unemployed to be able to speak with a real person.

They have lost Maytag and Iowa Telecom, but TPI building wind blades brought in 500 jobs plus 150 jobs with Trinity Structural Towers. Maytag engineers started their own RD company.

40) Dan Klopfer Des Moines Water Works and Iowa One Call Board 9/9/2011

(515) 283-8754 klopfer@dmww.com

Regarding municipal utility interest in One Call GIS data, what do they want? If they think they can get accurate line information on all utilities, they are mistaken. The company that manages Iowa One Call data does this for 20 other states and the data format is consistent. There is essentially no database involved. The state is divided into grids or polygons and there is indication of whether or not each utility has facilities within that grid or polygon. The old manual technology used a 480' by 620' grid.

The City of Des Moines has established an ordinance for right of way management. Every utility pays the city a fee based on the feet of line/pipe they have in place. Utilities are also required to provide their facility locations in GIS format.

Joint trenching doesn't work well for his water/sewer utility due to EPA rules of separation. Regarding knowing what other utilities are in your trench, designers should do this as part of their work flow. He believes managing joint trenching in a GIS would be a joke, as data would never be accurate enough to help.

I asked whether the Des Moines GIS utility data was accurate enough to help and he said that he doesn't know as Des Moines Water Works is not a municipal organization and thus doesn't have access to the city's GIS. Participating utilities require that the city keep this information confidential.

41) Rob Hursh (GIS) and Lenny Tow (ROW), Linn County REC 9/21/2011

rhursh@linncountyrec.com (319) 377-5754 x216

Current process to support field work for trimming and removing trees: They print 11 by 14 inch paper maps from the GIS, highlighting for emphasis. Rob makes an Excel spreadsheet which the trimmers can use to show start point and finish point each day, using GPS tags for poles. The output will include number of trees trimmed, whether basal bark treatment applied, whether cable TV attached. The contractor turns in a sheet every couple of weeks to Rob for data entry. They highlight in orange for trim crews.

Having the communications info for each pole allows the REC to recoup some of the cost of tree trimming. They charge the communications utilities \$5/pole to attach.

The chemical crews use a computer rather than paper maps. This is helpful as it gives them access to names of property owners and sometimes their phone numbers. At \$60/hour, saving contractors' time saves the city money.

Their townships are 36 square miles each. Typically, a chemical crew would complete four townships a year. This year, with the help of the field computer, they got two additional townships half done. Annual budget for chemical crew is \$40,000 so a conservative estimate would be an additional \$10,000 of work done in 2011 due to the field computer.

Additionally, trees killed earlier by the chemical crew saves on outages and efforts by trim crew. Getting rid of a tree sooner with \$1 to \$3 worth of chemical is cheaper than having the trim crew take it later. Spray crew needs to be a couple of years ahead of the trim crew, optimal to have separation of a year or two between crews. So the benefit from the chemical crew to the trim crew will come two years after.

Sidebar: having work metrics in the database helps with customer complaints regarding overspray. They can look at spray records and the weather report, providing accountability to members. Otherwise, they would have to go back to time sheets and pull data manually.

Suggestion of making each year's chem or trim pass a separate data layer. It takes six or seven years to get through their entire system.

They started using GIS data as a pilot in 2006 with the tree crews. They provided a laptop to the chemical trucks in 2011. Cost for one cheap Dell laptop and GPS receiver was under \$1000. Laptops save 20% to 25% of a crew's time. The annual tree trim budget is \$300K. Ideally they would provide three ruggedized devices for trim crew use.

They can use Partner to identify facilities by unique ID numbers. They can target hot spots for foliar spray, which is good for willows. But they get more complaint calls with foliar spray, as their customers perceive it as more dangerous than targeted basal bark.

Even one laptop for the trim crews would help. Crews could phone each other for information.

Reduction in outages from use of GIS? Suggestion that Rob look at trimmed townships vs. other townships. There was a June 2011 wind event, essentially a 50 mile wide tornado with winds at 100 mph. Perhaps this is too large of an event, as trimming wouldn't have helped. Look at six months' trends over smaller storms.

Suggestion that I speak with other RECs. Clark Electric in Osceola originally didn't trim much and may be able to relate benefits of beginning to trim. Hawkeye has Partner software.

GIS preserves the historic information currently stored in the memory of staff who are retiring.

Benefits of having GIS available for the field: Can see facilities details. Can produce a map showing where spray crews have been, map for trim crew to show where and when they've covered an area. This makes for better accounting. Ultimately they should be able to tell trim/spray cost per mile.

Having better records helps bring in money from communications companies. They only pay \$25,000 to \$30,000/year for their share of trim/spray costs and it is difficult to get them to pay. Having better records from the GIS may account for 1/3 of this revenue, say \$10,000.

Ice storms in 2007 highlighted the need for tree trimming but customers forget about storms and outages after about 18 months and go back to wanting to preserve trees.

42) Ken Massey, Dubuque Water Field Foreman, and Chris Kennedy, Meter Department

563-589-4304

9/22/2011

Ken uses GIS to manage the water distribution system – valves and hydrants primarily. He creates data sheets showing history of the equipment. He tracks water main breaks. GIS helps with tracking and maintenance, tells them how many breaks they get in a year.

His department doesn't deal with meter components and thus does not receive any benefits from the Smart meter program. However, smart meters could be used to help find leaks inside houses through the meter department and utility billing. Dubuque notifies its customers of leaks.

He is using GIS more and more, as a type of informal work management. He has spreadsheets showing history of hydrants (pressure and flows). Ultimately they will have this information for every hydrant in their system, which will give them the ability to do hydraulic analysis of their system. They have 3000 public and private hydrants. Hydraulic analysis will help in sizing of water mains and the state would also like to see them have this analysis capability. They are in the middle of a hydrant painting program which assists in collecting hydrant data and will complete the program over the next four to five years.

Chris Kennedy is in charge of meter repairs. Smart Meters will give them hourly reads, which will allow for trend analysis for customers. It will be possible to tell a customer that they are using some gallons of water at 4 AM and therefore something inside the house must be leaking.

Another benefits of the Smart Meter program is they no longer have to send service workers out to check on certain types of problems. He estimates this will save them \$5000/year in wages and truck time. Given the Smart Meter program is all new, he has just begun to analyze the change in service calls. Only recently have they parsed reasons for service calls to the level that would show change due to Smart Meters.

Another benefit is that an indicator or alarm can be flagged on an account. If a customer goes away for the winter, the utility can notify that customer that something is wrong if water use continues. With the new meters, the utility is trying to help customers out with reimbursement for fixing leaks. Mostly the utility is doing this because it's good policy with respect to sustainability.

UFRs are unmeasured flow reducers. This relates to dripping meters and provides the ability to measure even a slight drip.

Their plant manager would know more about the business case and financial savings from Smart Meters. He is Bob Green at 563-589-4291.

This was a group conversation to brainstorm regarding work management benefits.

Currently their GIS is loosely tied to work management by manual links.

Complaints coming in to the city start on paper. Then they're entered by a secretary to the service card database. This database is then linked to the GIS. Redundant data entry takes considerable time.

The history of problem areas is entered to an Access database which is not readily available for query. Other city departments may pass on complaints manually, which results in no tracking. For example, a complaint comes in of a loose manhole lid. It may get fixed but the fix is not tracked. The issue comes up later and it's impossible to tell if it's about the same manhole lid. With tracking, it will be possible to investigate complaints vs. hit and miss process. Another example is confusion between storm and sanitary sewer problems.

Messages by sticky note are not a good method of tracking. There is no way to tell citizens what has happened regarding their complaint. Bad water seeping into a house is an example of a more serious issue. This would be currently tracked through the duty call database. Having a consistent data format for staff entering data would be helpful.

Metrics are available to show number of issues tracked through the duty call database. The group estimates that at least as many issues remain untracked as are tracked – saying the numbers are equal would be a very conservative estimate.

Regarding redundant data entry, there are two extra touches when a call comes in – first by the person answering the phone, then relaying the call to utility maintenance (Carolyn). Then there's an additional touch in relaying a paper copy back to Carolyn. Communication is done by email or phone. It is tracked on a notepad in the ops building. If the matter is urgent, ops might call Tom or Dale on their cell phone.

The group determined that a conservative average number of redundant touches is three coming in and one going back out to the citizen. There is variation depending on what part of the city departments a call comes to. The range of time for each redundant touch is 5 to 30 minutes. Perhaps an average would be 2 to 5 minutes/touch? The group decided that average total redundant time per issue is 15 to 20 minutes.

Who would query a new work management system? All ops divisions. The Fires Department for pressure testing, hydrants out of service.

Water and Ops FOG (fats, oil and grease) database used to see which restaurants contribute to problems. They could be used to bill a responsible party. Dale currently looks up records of backups. This happens about 24 times a year and takes 15 minutes for each lookup. Time saved would be 6 hours/year.

Having a work management system will help them be more proactive on the maintenance side. For example, they could go out every three months to clean clusters of problem areas. They were at risk of having to pay \$60K in liability related to maintenance issues a couple of years back, although may have not ultimately been forced to pay out liability claims.

75% of what ops does is responding to emergencies. Reducing to 50% responding to emergencies would be a real improvement. After hours work is on overtime, which is easy to calculate. But emergencies during regular hours results in delays in other work.

They can estimate the benefit in reduced overtime pay by going from 75% of their work load being emergencies to 50% emergencies.

Being able to quantify problems at the end of the year would be useful. For example, they've been having a problem with a certain brand of valve. The city may want to pursue a lawsuit regarding defective bolts on the valves, including labor cost for emergency repairs. They've had 12 different valve problems.

Seven years ago they tracked their process for water main breaks. Should have available the ranges for equipment hours, man hours, parts. This leads to an estimate of what it costs to do a job, which they can pull together.

Document how time is currently spent. The group decided on an October 28th deadline for getting metrics to me.

Work management benefits in managing crews? Currently crews get info by radio plus a 45 minute meeting every morning. This meeting ties everyone up at the same time. With work management, crews could potentially start work sooner.

It is difficult to get follow-up information back from the crews. Historic information from the work management system could be used to forecast how long it will take to do a job. Another goal is getting more ownership and accountability from crews by having a crew know a specific area really well.

Preventive maintenance is much more efficient done in the summer than as an emergency in the winter.

Benefits regarding locate tickets? Currently lots of time is spent in routing, one half to a full hour every morning for 40 to 60 tickets a day. The work management system would also provide for better managing of joint meets on the job site. Last year they had two people locating all summer. This year, construction must have picked up as they have had up to six people working at peak times. It would be helpful to use the work management system to show trends.

Resolved issues with One Call information could save significant time. Regarding locate tickets, they currently take an average of 15 minutes each to perform. The work management system could help get this down to 10 minutes for 4000 of the 6000 annual locates. The remaining 2000 tickets could be thrown out once sufficient information from One Call is available.

44) Wayne Ross, Area Supervisor, Staking and Engineering, Linn County REC 10/7/11

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Wayne's in his late 50s. He is not so eager to change as younger staff and put off making changes from the old system, but now he loves the new tools. Some linemen are still dragging their heels after eight years. They don't know what they're missing.

He uses the system to stake new subdivisions and they have a lot of these. Before, he would draw up facilities and put out stakes. Now he can collect GPS stake locations. Previously he had to add dimensions manually for a work order. Now the work management system automatically totals dimensions and spits out a materials list.

The work management system can provide a lineman with facilities ID number, address, customer name. Linemen can actually see where their truck is on a map.

The system doesn't produce as much time savings for smaller jobs. With larger jobs, it reduces time to complete the job by over 50%.

It's possible to trace lines to the next switch. During an outage, Wayne doesn't have to go to the field, but can manage the outage from the office. He can tell the guys in the field exactly where to go, how many customers are out, the size of wire affected, whether single phase or 3 phase.

With the new tools, one person in the office can handle an entire outage. The computer model predicts where the outage is. It can tell the manager where he's sent five crews and when. A conservative estimate would be two people working the outage in the office when it formerly took five or six. Some outages from storms last 3 to 5 days. A conservative estimate would be 2-3 storms/year @ 18 hours/storm if from wind or lightning. Having GIS and work management results in shorter times to get to the work site, increased safety, and the ability to call a customer account to determine if the outage has been resolved.

Wayne would like to have GPS on each truck, but this is controversial with field staff.

A conservative estimate of time saved by staff would be ½ hour/day, holding true for routine work as well as outages. Speak with Len Tow in Marion to learn annual work level of service guys and linemen. Johnna Nunemaker works for Len. She draws up service orders and draws outages on the screen. Formerly she took field drawings into AutoCAD. There were many errors as field staff would show facilities in the wrong section at times. Now field staff take GPS reads. Ask Johnna about time saved. Previously map were updated annually, while now they have weekly updates. Verify with her the \$20K/year estimate of savings from no longer printing map books.

Edy gets new plats from engineering firms and put them into the Linn County GIS. This automatically updates property records. For tax record benefits, speak with Eric Tanner. Materials are tracked out of work management. Automation should save time for Eric Tanner.

With the new system Wayne doesn't have to drive 30 miles out to check the age of a pole.

Their GIS include city limits, sections, service territory. This helps settle disputes regarding which company is responsible for a section of line.

45) Rob Hursh, Len Tow and Steve Trumpold, Lineman, Linn County REC 10/10/11

Steve's biggest concern is with overhead outages in an unfamiliar area, as he is an underground foreman. He still must reference paper maps in order to know everything that's at a location. Weekends when there is no dispatcher he relies on paper maps. Rob responds that this appears to be a display issue that he's working to fix.

Len says to count 22 linemen and service men for Wayne's ½ hour estimates.

Rob asks if tagging helps with identification and Steve says that it does.

Steve uses GIS and work management for his morning meeting with crews. They look at Partner mapping as a sort of pretailgate meeting. A small amount of time is saved by having digital mapping, avoids delays printing maps to get an up to date version of the map. However, Steve's meetings only take 5 to 10 minutes so the main benefit is that the quality of the information is better.

Typical overtime hours for the 22 linemen and service men. Use 75 hours/year at 1 ½ overtime.

Faster restoration mostly helps members. For example, they have a commercial printing company as a member. But any outage hurts them so seriously that reducing the time to restore doesn't help all that much.

46) Paula Nissen, Bureau Chief, Regional Research & Analysis, Iowa Workforce Development 10/19/2011

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Laborshed analysis is a simple product that explains commute patterns visually.

New concepts to focus on a laborshed area for analysis rather than basing everything on counties. Recruitment can be based on laborsheds, matching people with jobs.

Wage rates are perhaps the biggest process improvement. Having wages by laborshed is more comparable than just taking county metrics. Consider a commuter from a small rural county commuting to Cedar Rapids. Wage rates by laborshed provides good measurements for employers looking to locate in an area. This gives potential new business more confidence that they know what they would find regarding area workforce.

Iowa is the only state with an agency providing laborshed studies. There are some private companies that supply some analysis but only at the MSA level.

Iowa also provides industry specific analysis based on laborshed. There is lots of data out there on the demand side. Laborshed represents the supply side. Iowa has more metrics on all unemployed people (vs. measurements of the unemployment rate), including homemakers and retired people under 64. Iowa studies include workers aged 18-64 years. Laborshed studies also measure those willing to change employment or move (this is 35% currently and has been even higher).

To make laborshed analyses useful, have to put it into understandable, visually appealing format. Part of their funding comes from the State, but also from IDED, utilities, regional and local entities such as Priority One.

When Maytag left Newton, at first the city tried to replace it with a similar industry. At first, local economic developers didn't get the point that this type of job is leaving the country. Next they started looking at emerging industries nationally. They looked at skillsets in Newton laborshed area vs. needed skillsets from emerging industries. It turns out that washing machine skills are nearly identical to wind turbine skills. They sent this finding to the economic development group for recruiting use. As a result, blade and tower manufacturers were recruited. These are good paying jobs.

Talk with Kim Didier about Jasper County work replacing Maytag. She is now at Des Moines Community College. kmdidier@dmacc.edu

Yvonne Knapp did something similar for Lee County in recruiting Siemens. Yvonne@lcedg.com

In recruiting IBM to Dubuque, they did a 90 mile radius, pulling data across states.

IEDC is the International Economic Development Council. Paula heard a story at their recent conference from another state in competition for IBM. The other state said they lost because Iowa had such good data.

Paula thinks at 5% to 10% contribution of GIS to recruiting successes is reasonable.

Laborshed analysis can also be used to help employers advertise for employees. Media used may vary depending on industry.

They also do a dislocated worker survey when an employer shuts down. They track the job seeking progress of these workers and map their locations. They ship this information out to local economic development, other businesses in the community. The goal is to shorten the time of unemployment. There is a current effort to understand reemployment metrics.

Talk with Wendy Mihm-Herold at Northeast Iowa Community College. Previously she was a regional workforce development manager. Mihm-heroldw@nicc.edu

She uses laborshed analysis for all economic development efforts. For Siemens they looked at labor force related to wind industry. For another project they looked at biotech capabilities for a refinery setting.

They also look at targeted categories and dislocated workers. They did a study of the tristate area for businesses that want to expand the draw of commuters.

What is the contribution of laborshed analysis to recruiting success? She thinks the value would be much higher than 5% to 10% of the success, more like 25% estimated conservatively.

Around the same time of Siemens recruiting effort, there was potential for a turbine business. The laborshed analysis going into the turbine proposal was not as current as they needed, possibly as much as two years old. They did a special project to update the information at the local level, getting the workforce to update their registration to show specific skills. Having this information available helped with Siemens recruiting and points out the value of the data.

Currently Lee County has 9.0% unemployment yet there are over 100 jobs available. Jobs and people don't seem to match. It would be helpful to have a way to analyze this problem. Her organization would like to know why people are unemployed. Ultimately she would like to be able to use laborshed analysis to match unemployed workers' skills with jobs. Currently, she does not have data available to show the skills of unemployed workers at the county level.

Their laborshed analysis came out April 2011. Workforce needs assessment came out September 2011.

Yvonne has worked in economic development in Iowa for 10 years. Previously she was in Illinois, where laborshed analysis is not available, and thus appreciates the value of the Iowa product.

48) Kim Didier, Ex. Dir., Des Moines Area Community College Business Resources

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11/3/2011

Kim was referred by Paula Nissen regarding work she did for Jasper County and the town of Newton using laborshed analysis.

About the Jasper County economic disruption – Newton was the home of Maytag for over 100 years. Maytag was purchased by Whirlpool in 2006 and Newton operations were shut down. At its height, Maytag employed over 4000 people in a community of 15,000. Maytag was considered a very large employer even for the state as a whole.

In response to the disruption, they formed a Newton transition team, which identified their talent pool as their greatest local asset. The team determined an effort should be made to keep the talent pool in the region. Paula's group provided them with data to slice and dice for marketing. Their recruiting efforts were successful because they could use the laborshed data to prove they had a talent base.

They used KSAs and skill sets, plus what was important to the labor force when seeking employment (desired commute range, benefits). They discovered that skills in auto repair translate to gear box repair on wind turbines. Providing data to back up claims regarding the skills of their work force enabled real and meaningful marketing.

They also worked with existing employers. They discovered there was an interest in entrepreneurship from the unemployed workforce. In response, they brought in Kauffman Fast Track classes and business counseling services.

Maytag contracted at first in a round of losing 1800 to 1900 jobs, followed by a second round loss of the remaining jobs.

Businesses recruited: TPI Composites, a wind blade manufacturer employing almost 700; Trinity Towers with 175 employees; Polaris, an IT solutions firm providing back office support, now occupying Maytag facilities, with 300 employees.

What's the contribution of laborshed analysis to recruiting efforts? Workforce was a significant factor in decisions to locate in Newton. With TPI, the competing location was Juarez, Mexico. It had less skilled workforce and would require 200 additional people at that site. Newton was able to prove the skills of its workforce using laborshed data. Kim estimates that laborshed data contributed 25% to 30% of the decision to locate in Newton.

In 2007 TPI knew they needed to ramp up fast to make their new manufacturing location work. Having available workforce for fast ramp up would be difficult to demonstrate without laborshed analysis.

Another contact for me is Deb Talvent at MidAmerican Utility. She's been in economic development for over 20 years and knows the importance of good data. She related to Kim a conversation she had at the recent PDI conference with a member of the site selection panel. The conversation involved the importance of Iowa's laborshed analysis capabilities.

They make good use of a product called Synchronist provided by a Chicago company. The product creates a business database from standardized survey questions for economic developers to ask businesses in their area.

She will be with Dubuque ED staff tomorrow and will ask about their metrics as she was surprised at my comment that Dubuque doesn't track jobs/salaries attracted due to ED efforts.

49) Greg Jenkins, VP Economic Development, Muscatine Chamber of Commerce
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Their web maps are part of Location One services. He feels like they don't have time to do right by Location One mapping capabilities. There is an option to do descriptive views of a community and he should keep this up to date on LOIS. He needs to keep both site information and community information up to date. This is part of doing their homework on sites in order to show a picture of where each site fits in the world.

They get leads from state agencies and pursue these leads. He tries to use Google Earth to show the location of sites on the earth.

Muscatine is industry rich and retail poor. There is where he sees GIS could have an impact, by showing demographics of where the money is in Muscatine. GIS could be used to draw retail locations. They are only 25 miles to Quad Cities or Coralville, which serve as competition for retail sites.

He has an interest in economic gardening and recently took a class at the Edward Lowe Foundation in Michigan. He sees that they need tools such as stronger GIS capabilities locally. The Chamber of Commerce doesn't focus on retail.

He mentions the product Synchronist, which is available to them through a state/utility partnership. The purpose of Synchronist is to provide data for analysis of issues and trends, providing community and state leadership insight for allocation of resources and creation of public policy. This is a state-funded tool that allows him to update data for free while having to pay to access this data. He's found that conducting interviews with businesses to get updates is tedious and that his more important business people do not find the process worthwhile. Thus, their enthusiasm for state-based GIS tools would very much depend on the usefulness of the results and the cost to his organization.

Muscatine has Beacon but can't afford the full package. Having full package available through a state contract would be helpful. He calls MAGIC to create maps for him from Beacon but wonders why he should have to call someone rather than create his own maps. We agree that he will spend some time with Beacon to see if he can show me the lacking capabilities.

They are currently working on metrics to show number of jobs attracted due to economic development efforts. The resulting report should be available soon.

He recommends I speak with matt Pruitt at Quad City First, who is an excellent user of data and ED metrics.

Look for Mainstreet managers, whose job is to get downtowns back up and running. Waterloo should have a Mainstreet manager. They are hot on the trail of retail, plus Univ. N Iowa is big on research.

50) Kiley Miller, Executive VP, Mount Pleasant Area Chamber Alliance 11/7/11

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Kiley was referred by Yvonne Knapp.

Their proposals all include spatial analysis. They often use data from the county's Beacon site. They use aerial photography. They also use Southeast Iowa Regional Planning Commission for GIS support.

Recently they had an RFP from the state with geographic criteria, distance from railroad and airport. They asked Southeast Iowa to help them figure out sites in Henry County that would fit the criteria. Regional Planning creates maps for them, often with satellite imagery as a backdrop. He finds people tend to use services they are comfortable with.

He's pretty new to economic development but assumes increased access to technology has changed expectations.

Laborshed analysis? He went to Oklahoma Economic Analysis Institute in Dallas recently and learned how unique Iowa laborshed analysis is. However, there should be a best practices document as he doesn't believe they are pulling full value from the product. It helps him differentiate what he wants to highlight about one of their sites. Helps him pin down – are they cheaper than Green Bay, WI? If not, he moves on to another attribute.

Laborshed analysis is a tangible product when so many ED products are amorphous. Henry County is not very competitive for workforce with a total population of 20,000 but commuting range brings that up to 160,000. Iowa will struggle in upcoming years regarding attraction of talent.

The absence of any requirement for a project negates all valuable attributes. For example, no fixed cost for utilities was a recent deal killer. 95% of the job is salesmanship, leaving only 5% or GIS. The place where it most stands out is laborshed analysis regarding commuting population.

Yvonne has fear factor related to keeping their funding and thus her metrics may be inflated. He has metrics available and will provide. They will be conservative. The past year they were involved in six business retention projects affecting 212 jobs.

51) Mathew Pruitt, Vice President of Regional Business Development / Quad Cities Chamber of Commerce

11/8/11

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Laborshed analysis is important because labor is the key reason a business would locate in a community.

They are currently acquiring economic impact analysis software. This is useful in cases like Alcoa planning to invest \$300M in a plant in Bettendorf. At the start of the project, Alcoa knew it would invest in one, two or three properties, but not sure which. Mat's organization uses the software analysis to help Alcoa understand what Quad Cities brings to the table. Analysis can also be shown to communities and the state. \$300M investment is worth \$504M due to retaining and growing jobs, plus additional construction jobs. Results of the analysis can be related to state incentives – give \$3M to get \$6M back.

Rock Island Arsenal is the biggest employer in the area, with a \$1.4B effect on the economy. This effect is primarily due to payroll.

Their communities went through a big change in economic development three years ago when they merged three Chambers of Commerce into one. They didn't lose any financial resources and now have better focus. Not a lot of groups in Iowa can operate as they do. They are becoming much more a regional organization.

They use LOIS, finding it fairly functional but not fantastic. It is difficult to feature key properties within LOIS.

Following the merger, they are doing regional strategic planning. They've learned Quad Cities is good in specific industries and manufacturing is one of these. Alcoa is a huge employer but metal companies in general favor the area. For metals, they must understand what type of property companies would typically seek. They would start matching sites with companies based on target demographics. This would allow them to show five properties rather than 700 properties, taking a lot of the guesswork out of the process. They would provide zoning maps, community improvement plans, overlay districts, flood maps. They create marketing pieces for their web site; for example, top 10 properties for defense.

LOIS is their only GIS. They would like to have additional software. The county helps them a bit with GIS but is not set up to provide ongoing support. They've mapped 15 key properties using Google Earth. They have a product designed for local companies looking to expand.

They need to be able to show industry clusters so that businesses can see where their competitors are located. This is especially important for bigger employers or small companies planning to grow. Many companies want to know proximity to an interstate.

Supply chain issues are important in a different way for big companies like John Deere. They have \$400M in the Davenport operation and thus are unlikely to relocate, but the company has the capital to move if it wants to do so. One way to tie Deere to the community is through their suppliers.

A company recently closed its Canadian facility and moved to Davenport. Logistics analysis showed they would still be able to serve Canada with acceptable drive time for trucks. Consolidation to Davenport saved the company money.

They are working on mapping to show supply chain but it is difficult to get companies to open their books to show businesses in their supply chain. They use Hoover's to research supply chain.

They are currently looking at a defense project. DoD always tries to grow its supplier base, especially small business, 8A business, minority business. They are moving toward mapping these businesses, with the first step to inventory the companies. This presents a different way to look at logistics.

Moline has been working to put all their TIF districts on LOIS. LOIS has display issues in showing best properties. There is no way to show all properties in an area, as LOIS will only show 10 properties at a time. Mat would like to be able to show something more like Google street view. Send him info on Iowa ED groups using imagery to create fly throughs.

What is the value of GIS to economic development efforts? Without a map, you lose. Economic development success comes from not being eliminated. Just using Google Earth isn't enough. GIS could be responsible for 20% of the value of new companies attracted to their area and 10% of the value of retained business.

Soon they will have their own license for economic impact software and they will do analysis for all projects instead just for big projects. They currently partner with Bi-State Regional Commission to model economic impact.

Policom ranks MSAs in the US. Quad Cities currently ranks in the middle at 147. To move up in ranking they plan to focus on adding 5000 jobs and \$2.8B in new wealth.

They have some very talented local economic development groups. The City of Davenport has four economic development staff members. They may not need assistance from Mat's organization, nor should his organization take credit for local successes. Quad Cities does not compile number of jobs they've attracted, instead using Census labor statistics. They do provide a way for companies to self report on the organization's web site. They also release information on successful projects through their enews, which is archived on their Quad Cities Chamber site. Quad Cities First site is aimed at site selectors and recruitment of new business.

Mat raised the topic of economic development's need for utility information. They can go to cities for maps of their utilities. But in Davenport, American Water is the water utility and it won't provide water maps. His experience is that nongovernment utilities won't provide facilities information directly, making info acquisition painful and time consuming. This is also true for gas and electric utilities. Overhead utilities are visible so you know what is available to a site more or less. It is possible to ask the utility questions about what can be seen, but again it's painful and time consuming.

Mat would love to have the ability to produce a utility map of their best guess regarding what's available to sites. Recently they did a project and discovered very late in the process that a giant sewer line ran through the property. There were huge issues getting the line relocated, all of which could have been avoided with correct utility location information prior to starting the project. He believes it's more a matter of utilities not want to share their maps than Homeland Security making this impossible. He'd be OK with "this is our best guess of what's there." AT&T told him they wouldn't share maps due to fear that this would give their competitors too much information.

Would they use a state service bureau for GIS? They have good marketing talent. They would like to do their own GIS work. A service bureau could help by providing access to a state contract for GIS software and someone to call with problems. They would like to create maps for their partners.

