How having a plan can help you escape from the rut …

… and overcome complacency

Volusia County GIS has supported County operations since 1989 and while we boast an award winning GIS team the core GIS staff began to wonder if they hadn't slipped into a comfortable rut. Everything was working, customers were happy, but that old excitement and enthusiasm just wasn't always there. How to fix that? This presentation details how old dogs can in fact learn new tricks, to shine up and properly market the things already being done well and add some excitement back into the process.

Volusia County
FLORIDA

Al Hill, CPM, GISP
Esri UC San Diego 2019

Volusia County was an early adopter of esri's GIS products, starting in 1989
We are install # 594!

THE NEWS-JOURNAL LOCAL DAYTONA BEACH, FLORIDA Tuesday, September 13, 1988 B
Deaths ■ Accent ■ Television ■ Classified

New budget will transport county into world of high-tech mapping

By GARY DAVIDSON
From Our West Volusia Bureau

DELAND — Thursday's expected approval of Volusia's $174.1 million spending plan will put the county on the road to a high-tech computer mapping system that will revolutionize the way geographic information is stored and used.

Tucked away in the massive budget document the County Council will consider Thursday is a new, eight-person Geographic Information System (GIS) division of the Finance Department. The proposed first-year budget is $461,342, enough to pay eight employees and the debt on a computer hardware and software package the county plans to finance over a three-year period. The package also will include four work stations.

> Maps with all sorts of information will be plugged into the computer system so all departments will have access to the information and changes can be made quickly and easily.

No new positions will be created for the division. The eight employees will be transferred from the Department of Assessments, county manager's office and Planning and Zoning Department. The GIS division is part of the Finance Department's overall $5.7 million budget for fiscal year 1988-89, which begins Oct. 1.

GIS technology is sweeping the nation and is being touted as the wave of the future for governments seeking to store geographic data in a fashion that can be tailored to the needs of all departments. Right now, that's a detailed, time-consuming job handled by cartographers who must relocate lines on numerous maps each time there is a change.

Orange County recently made a $3 million plunge into the world of computer-generated geographic information systems. With the council's approval Thursday, Volusia County will start down the same long road. The system already has been endorsed by the council during previous discussions.

GIS systems combine computer technology with geographic data analysis by linking specific properties to computer-stored information. The information then is displayed with a map.

Maps with all sorts of information will be plugged into the computer system so all departments will have access to the information and changes can be made quickly and easily. Eventually, all 270,000 parcels in the county will be tied to crucial computer information related to legal descriptions, assessed valuations, zoning, taxing units, property dimensions, floodplain boundaries, neighborhood characteristics, topography, soils, utilities and nearby schools and fire stations. It will be a sort of one-stop shopping for various county departments that independently collect data and sometimes duplicate each other's work.

"This will result in improved information flow and better decision-making," budget officials said.

Officials say it will be up to seven years before the system reaches its full capacity. But it will be pressed into service by next year to help county planners update the comprehensive land use plan. State growth management laws require the county to maintain an inventory of current land uses. In the meantime, the new division will figure out the most efficient way to collect the necessary data and plug it into the computer system.

First, officials will seek proposals from firms that are marketing GIS systems. The proposals are expected to hit the street in a couple of months, with a

SEE MAPPING/ 2B

□ Mapping

CONTINUED FROM 1B

purchase made by the spring.

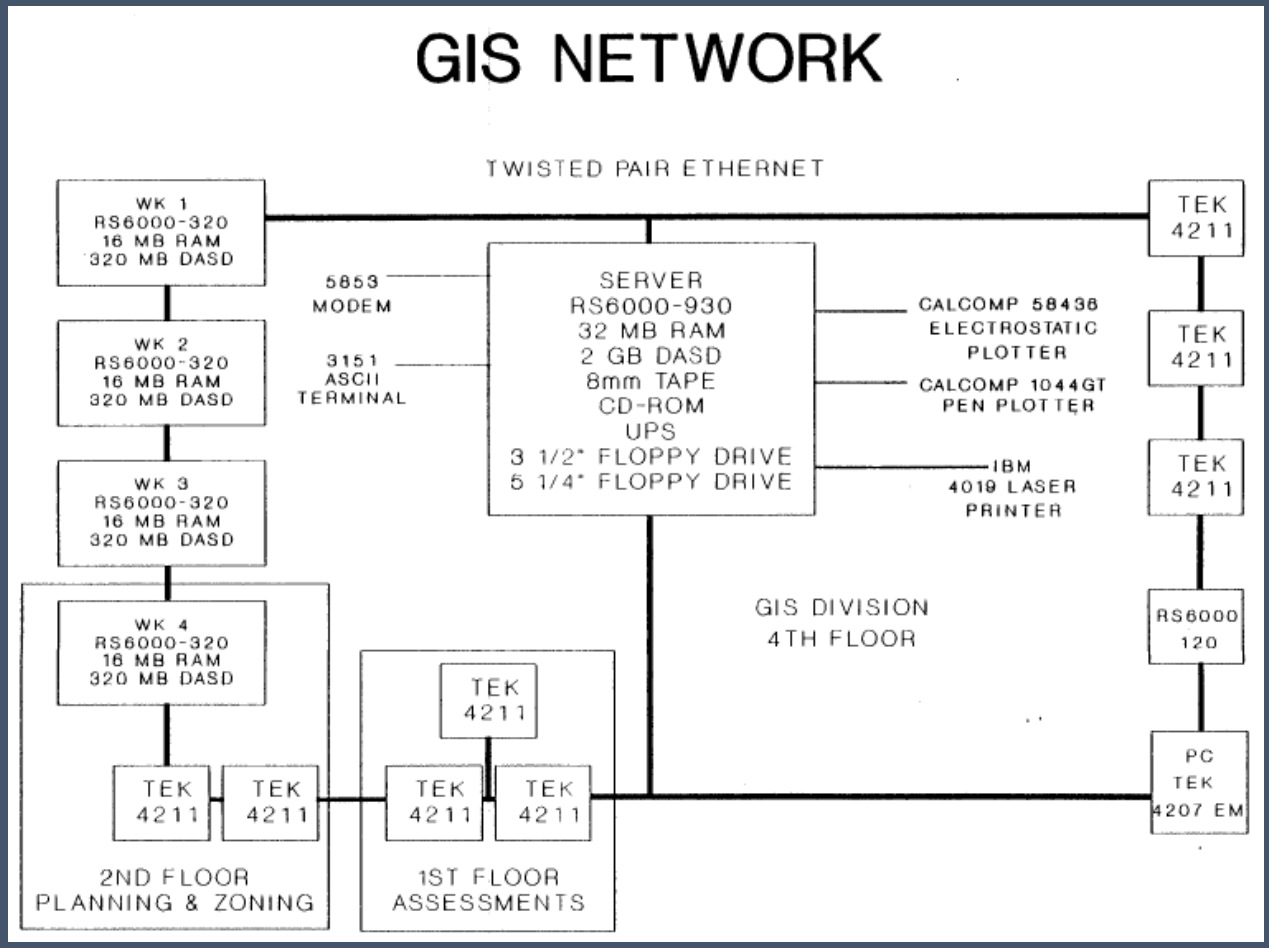
Next year's budget also will create a second new division in the Finance Department — the Records Management Division. It includes one full-time position and a $49,179 budget. The department will be responsible for preparing an inventory and maintaining all acquired historical collections, establishing a records management system and recruiting and training volunteers. The one position is a librarian transferred from the Public Services Department.

Also included in the budget — adopted tentatively last week — is a new Department of Environmental Management. The council actually approved formation of the department in May. The department includes the divisions of environmental control and tree protection, the new name of the arbor permit division. The two divisions are being transferred out of the department of Development and Code Administration.

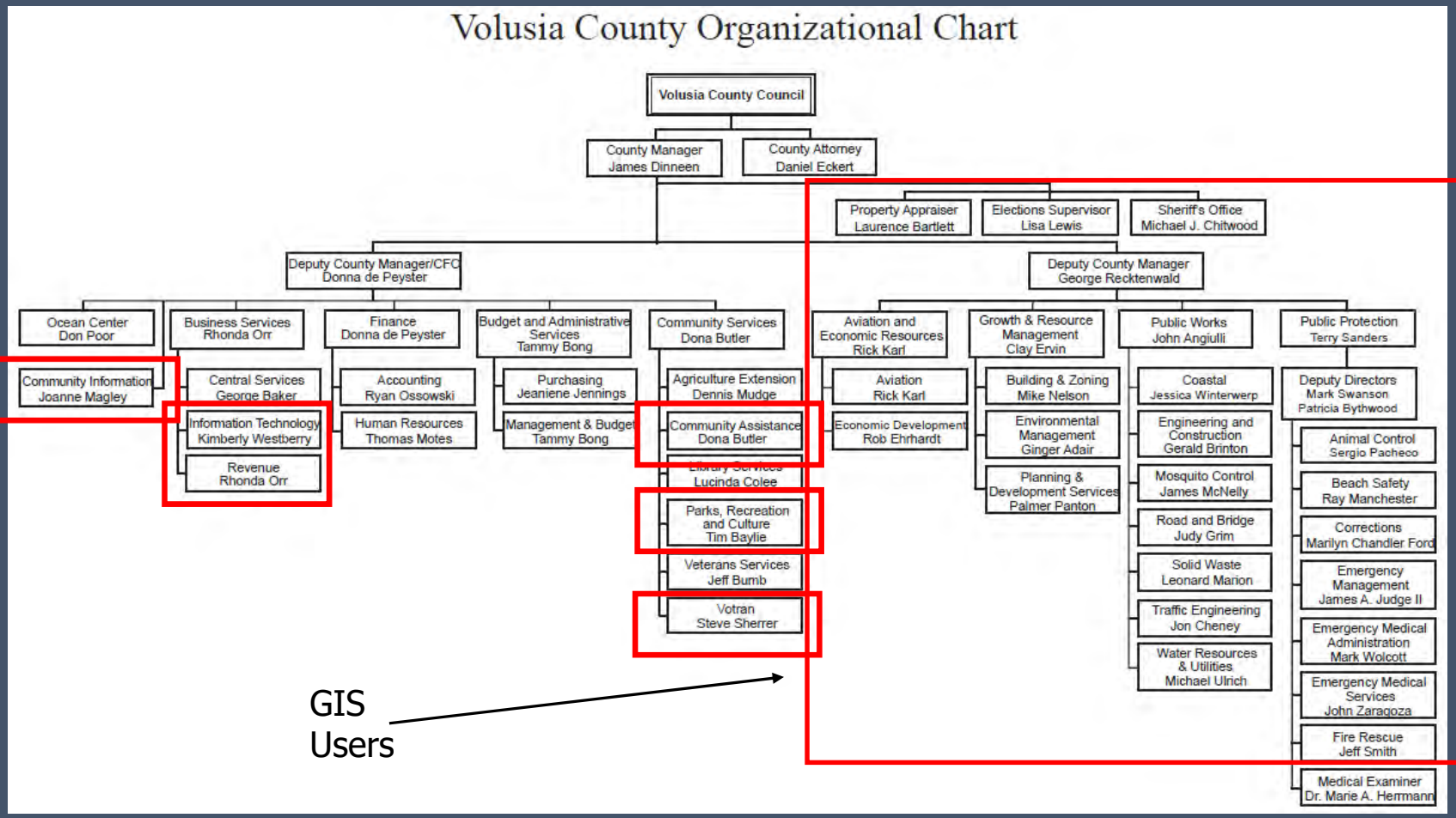
The first year budget for the 39 person department is $695,634. The Environmental/Natural Resource Committee will be an advisory body to the department. Overseeing the new department will be the environmental management director, a position that's unfilled. There will be 16 people in the environmental control division and four employees in the tree protection division. The budget also includes funds to hire an additional field technician who will inspect sludge-spreading activities in the county. Money also has been set aside for laboratory equipment that will enhance the county's ability to perform various water tests and analyses.

The primary functions of the department will be to enforce the county pollution control code and well ordinance, monitor the removal and protection of trees, review all state Department of Environmental Regulation permit applications coming out of Volusia County and investigate complaints about alleged violations of county and state environmental rules and regulations.

And by 1990 we'd expanded into two departments



Back then it was all about data discovery and automation



Over the years we've gotten pretty good "market penetration" at the County

Volusia County's GIS Organizational "Model" is a hybrid, a hub and spoke approach

- Small central group of six within Information Technology (and relying on general IT support and infrastructure) that provides GIS and Land Information administration and coordination, data management and storage, web and field mapping support and staff training. We also coordinate efforts with our Constitutional Officer's, local and regional governmental organizations and our cities with GIS capabilities.

- We depend on distributed "data custodians" & "GIS power users" in our County line departments who are responsible for maintaining their own data layers and store the results in a central repository.

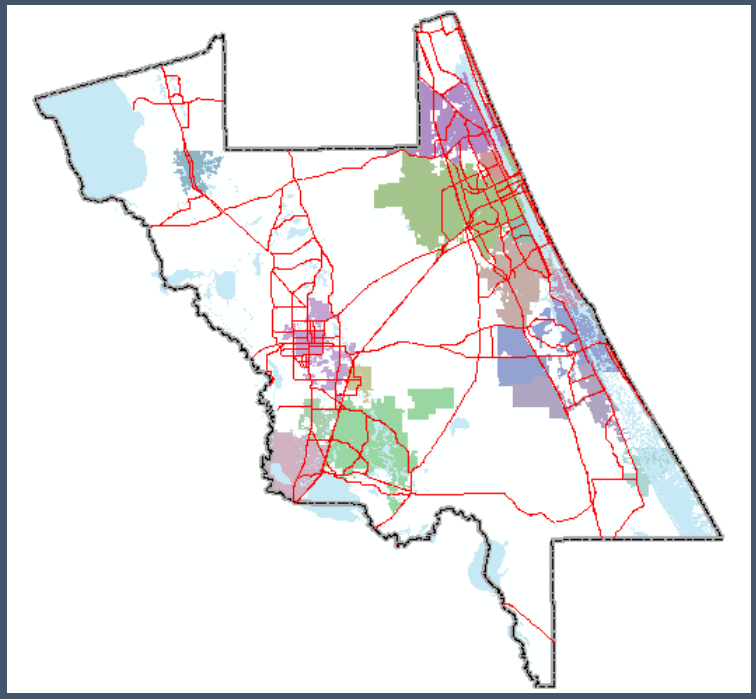
Our Mission

- Improve customer service
- Integrate new and existing technological assets to improve communication, efficiency and data sharing
- Initiate and maintain strategic partnering & inter-local agreements with city, regional and state agencies
- Accomplish Ad hoc work requests as needed
- Support the central GIS library, software, GIS web pages & County inter-active web mapping applications and a public access presence.
- Day to day GIS server administration
- Provide technical expertise, consulting & training to staff

We support our internal and external customers using (almost) the entire Esri platform, ArcGIS Server (SQL-SDE), Desktop 10.6.1 (150 desktops) with various extensions & ArcGIS Online and its associated apps - Business Analyst, Collector, Survey123, etc.

Volusia GIS works with:

- Our 16 municipalities (three cities and our TPO are directly connected to us) and we have two cities that contract with the County for GIS support)
- Local Schools & Universities
- State & Federal Agencies and the public



Volusia County - 547,000 people / 1500 square miles

Office Business Systems -
Esri Maps for Office -
Excel and PowerPoint

Elections & Tax
Collector's Offices

Property
Appraiser's
Tyler CAMA
System

Public Safety
(SO, EM, EMS, Fire
Services & Animal
Control) Tiburon
E911 CAD & ACS
Firehouse software
WebEOC

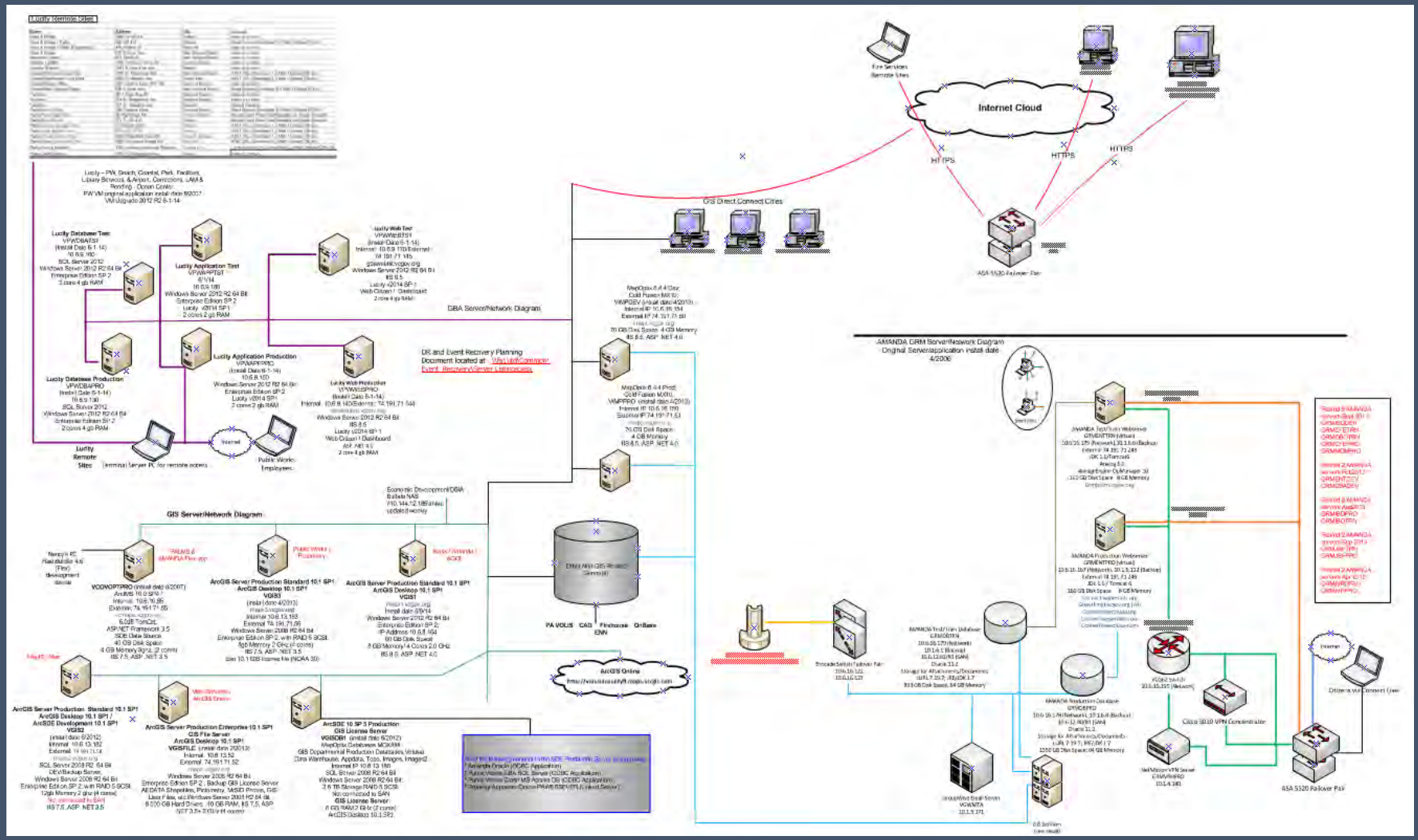
Growth
Management
CSDC's AMANDA 7
(Oracle 11G)
application

Public Works -Lucity (SQL)
Asset Management System

OnBase Document
Management System

The Goal - improve efficiencies and more fully integrate enterprise systems … responsible for 20 servers spread across the County network and in the esri cloud.

We’re not just GIS anymore, so how could we be bored or complacent?

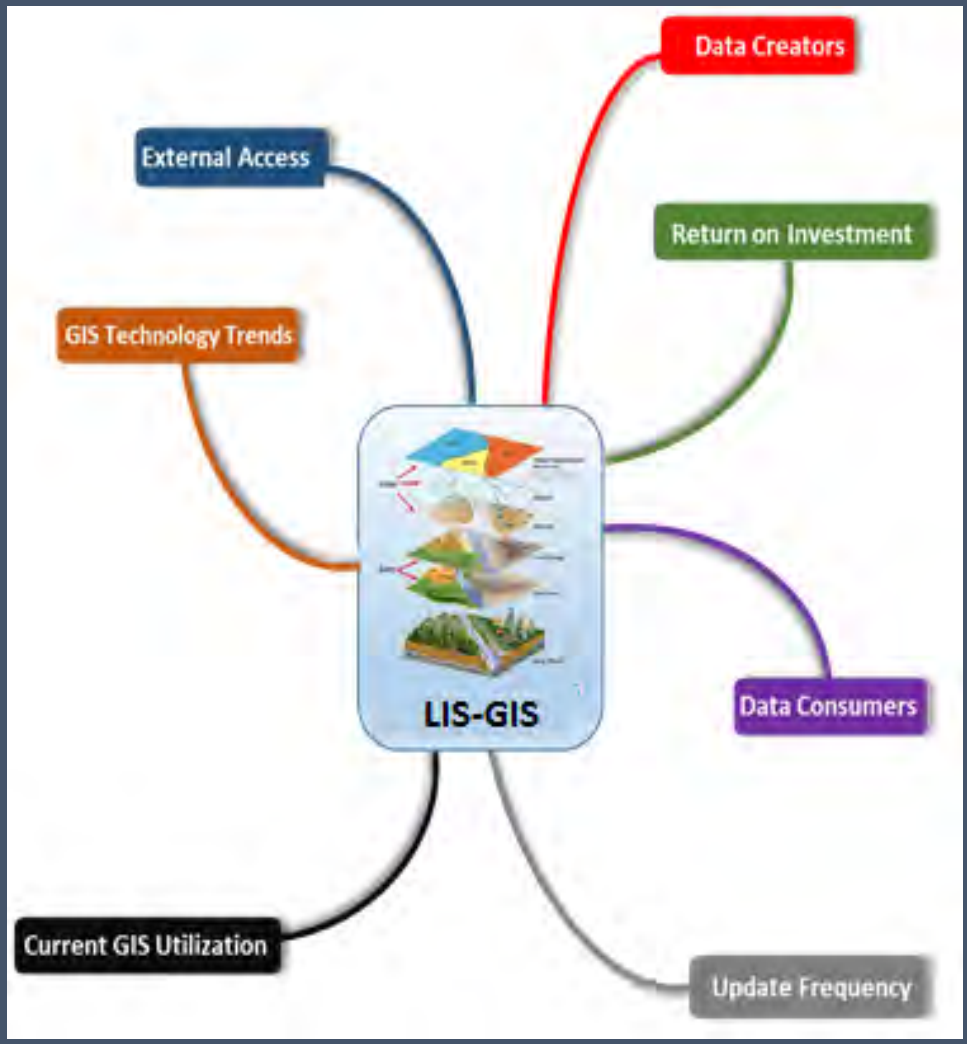


Volusia County Public Works integration with Lucity

So, Volusia County GIS has been in operation for 30 years, and we've been successful. Even though we've won awards and done cool stuff, and everything was working, something was missing.

In 2017, The GIS - LIS Team put in our FY 18 budget funds to allow us to plan & contract for a Strategic Plan for 2018 – 2022. We wanted to evaluate …

- Technologies currently in use and desired improvements including current and emerging technology trends (crowd sourcing, social media, mobile apps)
- Existing Data Flows for information exchange to our internal and external customers (protocols for data sharing)
- Existing technical and human resources and look for ways we could improve
- Strengths and weaknesses of our existing technology infrastructure and requirements and ideas for improvements given new trends
- Identify some key goals and objectives to move us forward.



To help us with this effort we put together a LIS – GIS Stakeholder Group consisting of our GIS Team, Senior IT staff, Public Works, Property Appraiser's, Growth Management, Public Safety and other experienced GIS users. We put together goals and objectives for this initiative and developed a proposed scope of work.

Goal #1: Maximize the utilization of location-based information by internal staff to support their business functions by improving data access and by creating easy to use interactive GIS tools and map products

Goal #2: Enhance the capabilities of our systems to deliver timely, reliable and accurate information via a variety of dissemination media (including field communications)

Goal #3: Enhance data sharing across the County, to include our municipalities and other regional Central Florida partners (to include constituent engagement)

Goal #4: Employ best practices and standards for our data and technology in order to maximize the County's investment in GIS software and infrastructure. Conduct a data "health check", and conduct a best practices review of our program(s).

Goal #5: Identify additional GIS staff training opportunities to enhance staff skillsets.

County of Volusia Information Technology GIS Health Assessment & Strategic Plan RFQ

General Information

The County of Volusia, Florida is seeking proposals for a Consultant firm to provide an assessment of the County's current Geographic Information Systems (GIS) and to assist with development of an integrated GIS Strategic Plan, based on the County's current and future GIS needs. The Plan is to serve as a guide for the County for the next 3-5 years as the County continues to manage, expand and upgrade its GIS systems.

The Consultant, in conjunction with the County's Information Technology GIS staff will be responsible for leading, managing and overseeing the assessment and Plan development.

The Plan, at a minimum, is to include assessment findings of the County's current situation with recommendations for how the County should best manage its Countywide GIS systems, along with information regarding industry proven best practices of hardware and software systems, project implementation phases, timelines and costs analysis for the products and services needed to meet the County's GIS business requirements. Additionally, the Plan is to include the benefits of improved systems and organizational structure, including support staff and position job descriptions.

In other words – show what we are doing right , what we need to improve, provide direction, and help get us out of our current rut and find a path forward.

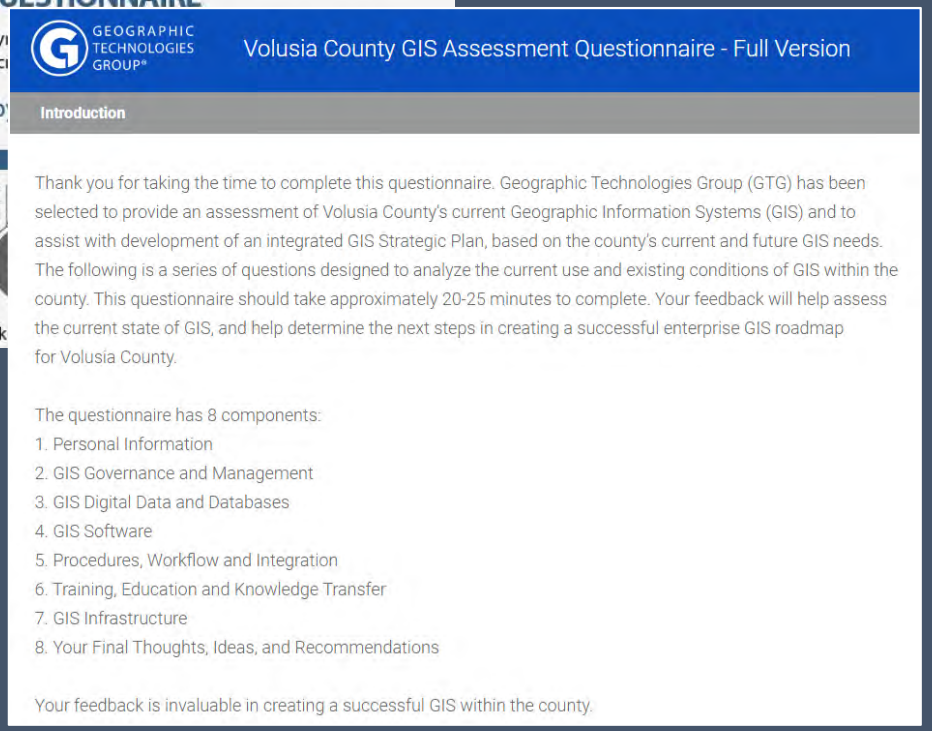
The County had eight respondents to our RFQ. Each respondent was evaluated on: their location; firm qualifications; capabilities and apparent expertise; understanding and approach given our Scope of Work and the timeframe for completion; cost proposal; references and experience with similar implementations; technology proposed to employ; stability (years in business); and finally, general comments or observations by each member of the evaluating committee on the response provided. The review committee consisted of 6 department or Division directors (each backed by a GIS savvy technical advisor) The County ultimately chose Geographic Technology Group (GTG) to assist in evaluating our operation and to work with us in creating a strategic planning document.

GEOGRAPHIC TECHNOLOGIESGROUP

Over the course of August and September, 2018, GTG measured our existing operation against a variety of metrics. Their methodology included using input from over 115 in-depth surveys sent out in advance to our major internal and external customers.

This was followed up by a on-site kick off meeting held for over 60 County staff members on the importance of this initiative.

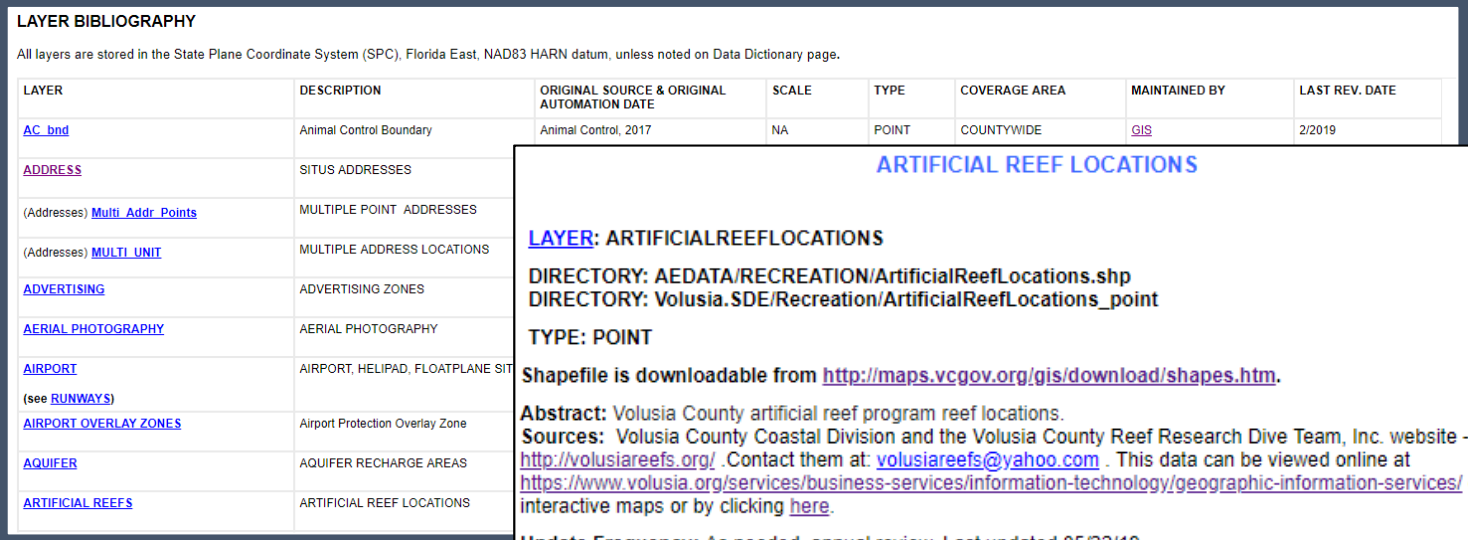
This was important because it set the stage for staff taking the time to participate in interviews (both one on one and group) over the course of the following week.



Extensive time was spent with my GIS staff reviewing existing documentation (SOPs, job descriptions, work plans, our Data Dictionary, etc.) GTG staff also conducted extensive “under the hood” reviews of our hardware infrastructure (desktop and server configurations and networking), software employment and data.

There were several real “why are we here” discussions held with my staff. The vendor also provided us several reviews of the proposed deliverables to determine whether they were on the right track or had misinterpreted what they had heard. Finally, they provided an on-site, in person, delivery of the results during an afternoon long discussion of the suggested path for moving forward.

So, what did they find?



LAYER BIBLIOGRAPHY

All layers are stored in the State Plane Coordinate System (SPC), Florida East, NAD83 HARN datum, unless noted on Data Dictionary page.

LAYER	DESCRIPTION	ORIGINAL SOURCE & ORIGINAL AUTOMATION DATE	SCALE	TYPE	COVERAGE AREA	MAINTAINED BY	LAST REV. DATE
AC_bnd	Animal Control Boundary	Animal Control, 2017	NA	POINT	COUNTYWIDE	GIS	2/2019
ADDRESS	SITUS ADDRESSES						
(Addresses) Multi_Addr_Points	MULTIPLE POINT ADDRESSES						
(Addresses) MULTI_UNIT	MULTIPLE ADDRESS LOCATIONS						
ADVERTISING	ADVERTISING ZONES						
AERIAL PHOTOGRAPHY	AERIAL PHOTOGRAPHY						
AIRPORT (see RUNWAYS)	AIRPORT, HELIPAD, FLOATPLANE SIT						
AIRPORT OVERLAY ZONES	Airport Protection Overlay Zone						
AQUIFER	AQUIFER RECHARGE AREAS						
ARTIFICIAL REEFS	ARTIFICIAL REEF LOCATIONS						

ARTIFICIAL REEF LOCATIONS

LAYER: ARTIFICIALREEFLOCATIONS

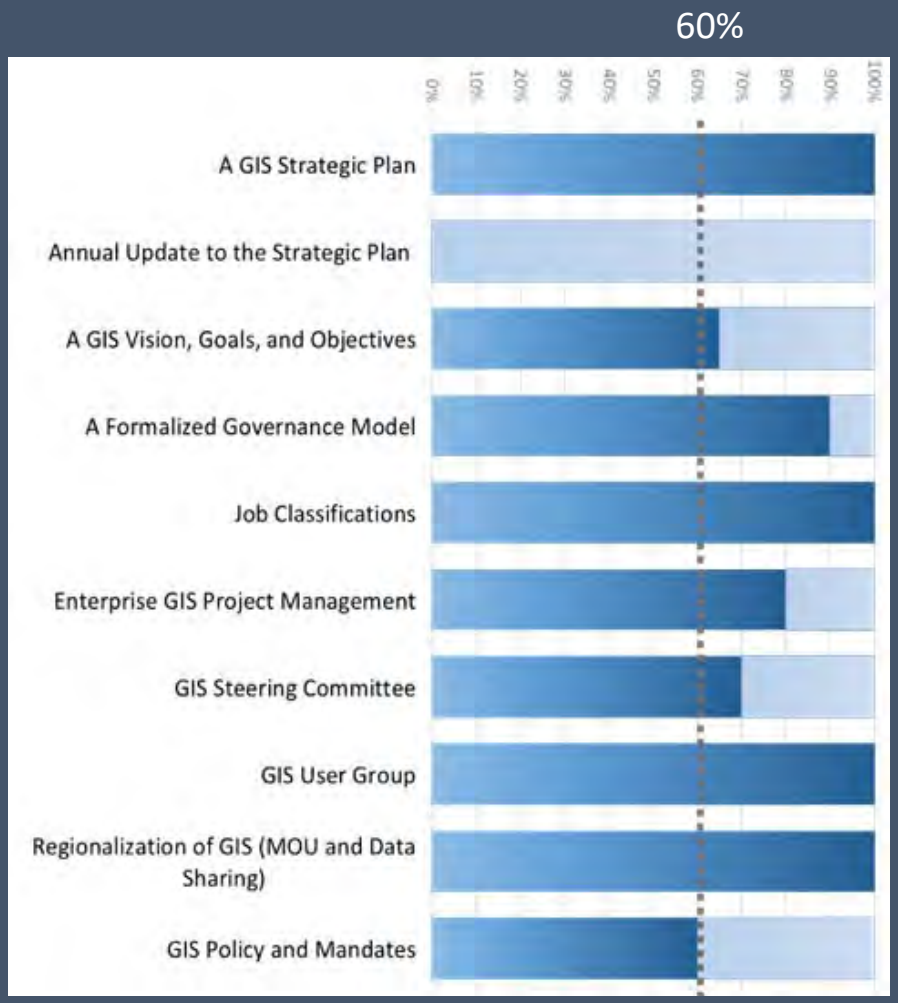
DIRECTORY: AEDATA/RECREATION/ArtificialReefLocations.shp
DIRECTORY: Volusia.SDE/Recreation/ArtificialReefLocations_point

TYPE: POINT

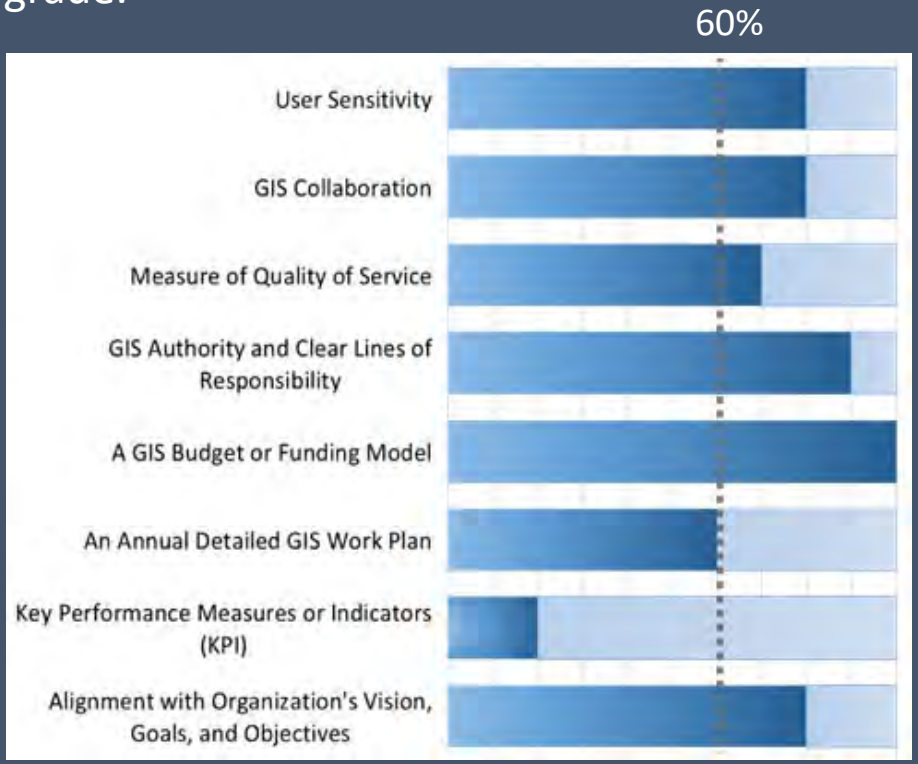
Shapefile is downloadable from http://maps.vcgov.org/gis/download/shapes.htm.

Abstract: Volusia County artificial reef program reef locations.
Sources: Volusia County Coastal Division and the Volusia County Reef Research Dive Team, Inc. website - http://volusiareefs.org/ .Contact them at: volusiareefs@yahoo.com . This data can be viewed online at https://www.volusia.org/services/business-services/information-technology/geographic-information-services/ or under interactive maps or by clicking here.

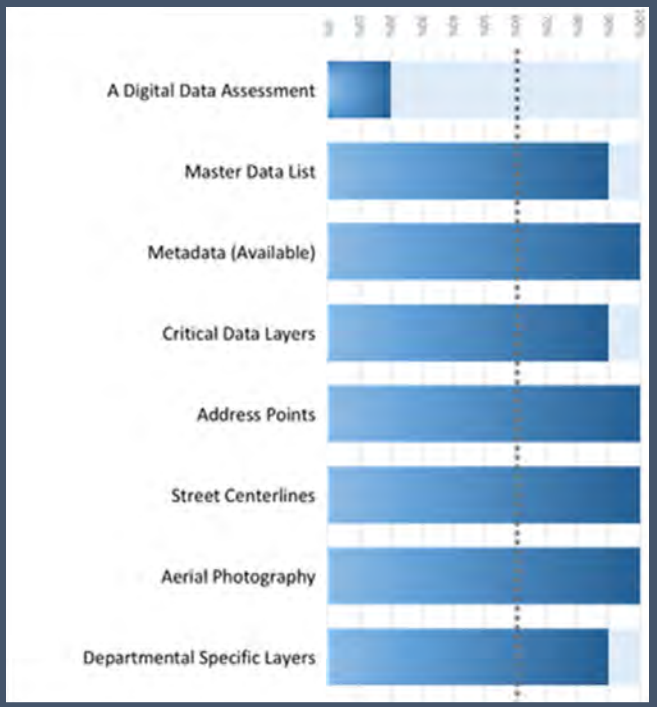
Update Frequency: As needed, annual review. Last updated 05/22/19.



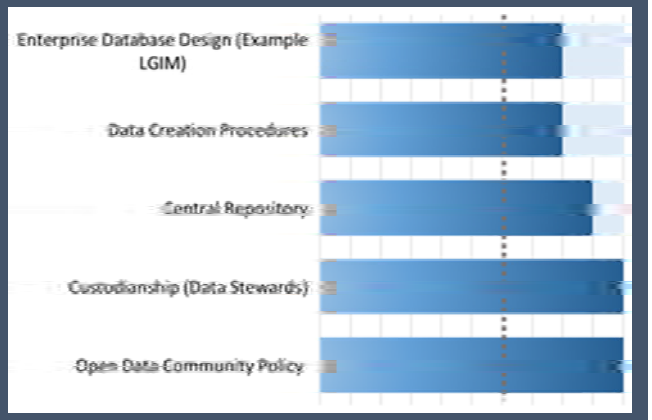
We were initially graded on 18 General Metrics with an overall grade of about 80%. Each category shown came with an in-depth explanation of the reason for the grade.



Data and Database review – 10 metrics, grade 84%

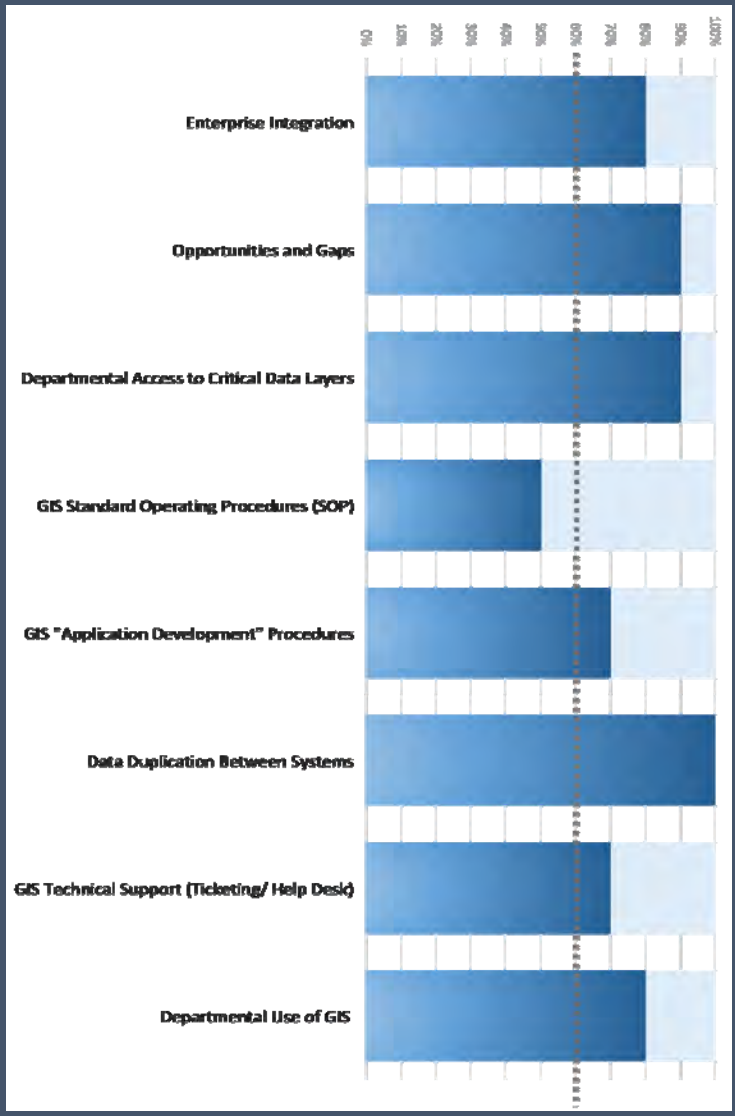


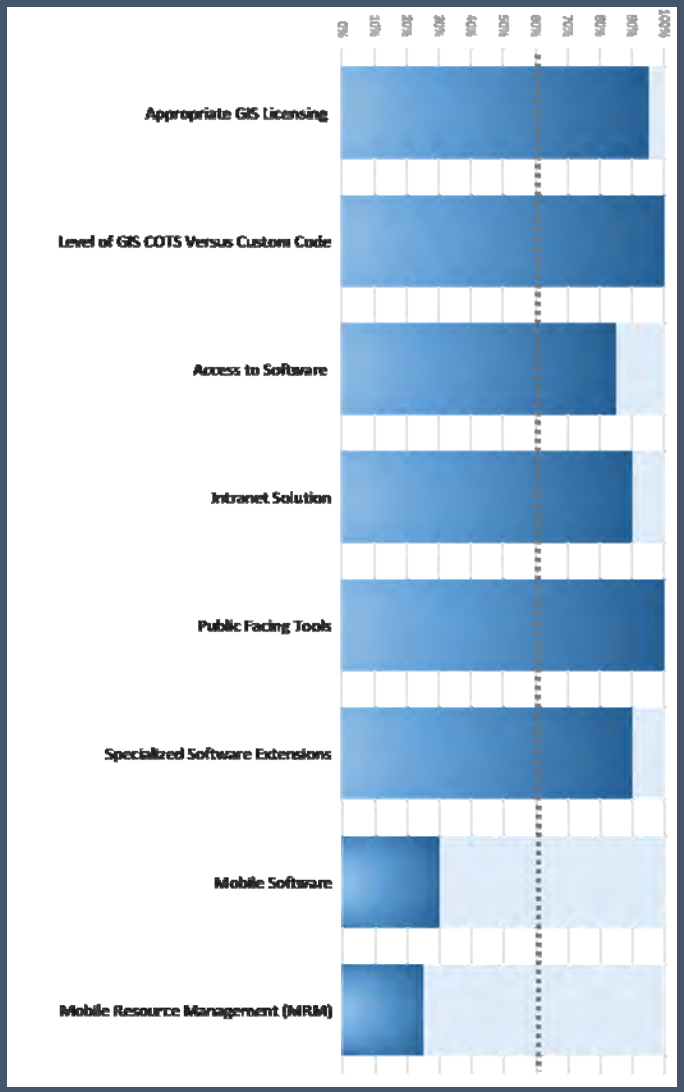
60%



60%

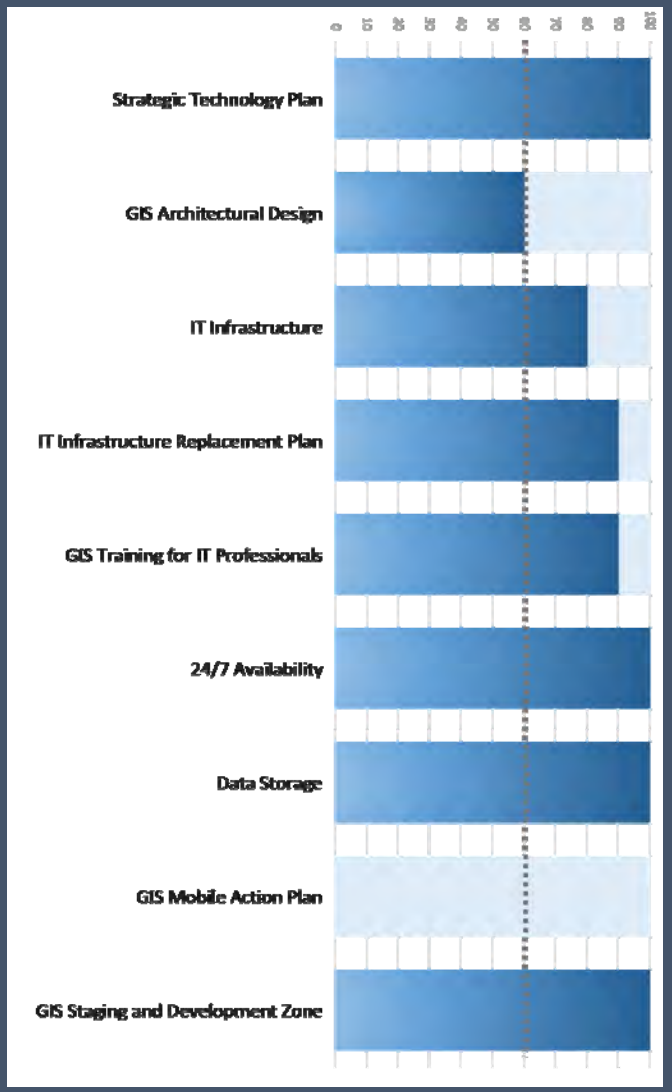
Procedures, Workflow and integration – 8 metrics, 79%

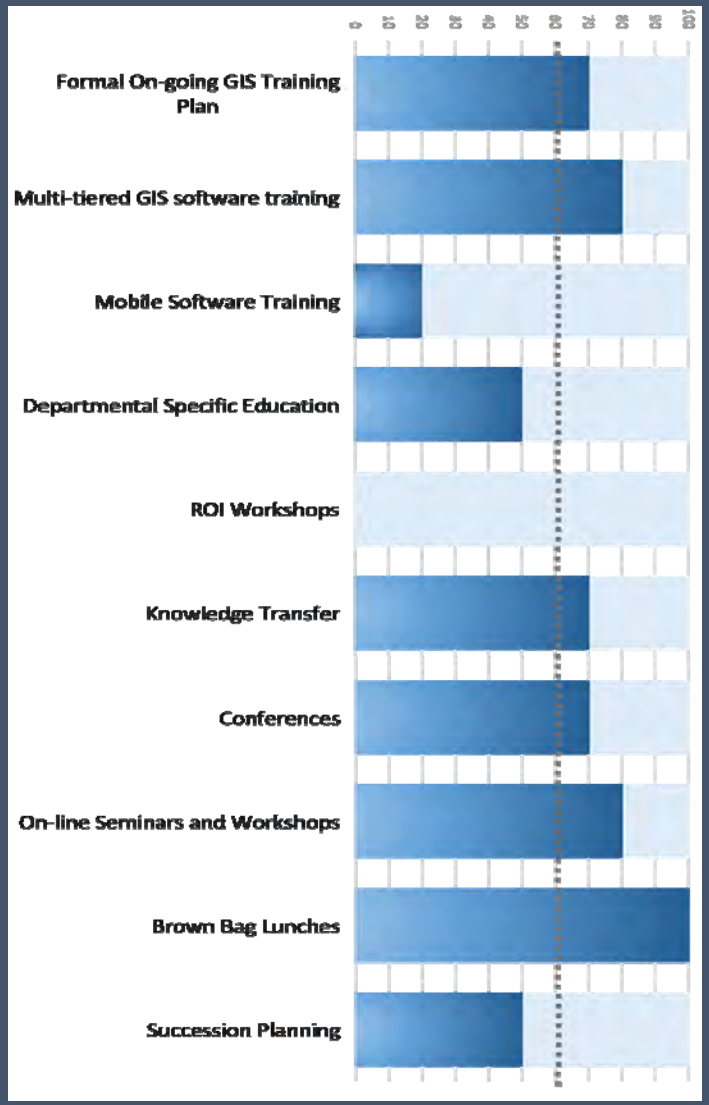




Software employment – 8 metrics 77%

Infrastructure - 9 metrics 80%





And finally, Knowledge Transfer – 10 metrics 59%

(this one kind of hurt because we do have an active training program)

Volusia County IT / Geographic Information Services
3rd Quarter – April / June, 2019

| GIS Training Dates | and Events

Date	Class	# of Seats Available	Location
April 18th 10:00 - noon	GIS Dr's Office – Schedule an hour of one on one tutoring or problem solving		GIS Offices, IT Building, 119 W Indiana Av, DeLand
April 18th 1:30 - 4:30 pm	Introduction to ArcGIS10.x	9	Library Support Center 1290 Indian Lake Rd Daytona Beach
April 25th 1:30-2:30 2:30-3:30 3:30-4:30	How to use the new AMANDA Map	9 9 9	IT Conference Room 1 119 W Indiana Ave, DeLand
April 26th 1:30 - 4:30 pm	Introduction to ArcGIS Online	9	Library Support Center 1290 Indian Lake Rd Daytona Beach
April 29th **1:30-2:30** **2:30-3:30**	How to use the new AMANDA Map	9 seats each block	IT Conference Room 2
April 30th **1:30-2:30** **2:30-3:30**	How to use the new AMANDA Map	9 seats each block	IT Conference Room 2
May 1st **1:30-2:30** **2:30-3:30**	How to use the new AMANDA Map	9 seats each block	IT Conference Room 2
May 10th 1:30-4:30 pm	Using GIS for Emergency Management Support (15 seats)		EOSCC - Media Room & ESF19/GIS room 3825 Tiger Bay Rd, Daytona Beach
May 17th 1:00-3:00pm	GIS Dr's Office – Schedule an hour of one on one tutoring or problem solving		GIS Offices, IT Building 119 W Indiana Av, DeLand
May 23rd 1:30-4:30 pm	Intermediate ArcGIS10.x	9	Library Support Center 1290 Indian Lake Rd Daytona Beach

"You have been weighed, you have been measured, and you have absolutely been found wanting … welcome to the new world" A Knight's Tale 2001 … so now what?

What did we learn, and more importantly, what are we going to do about it?

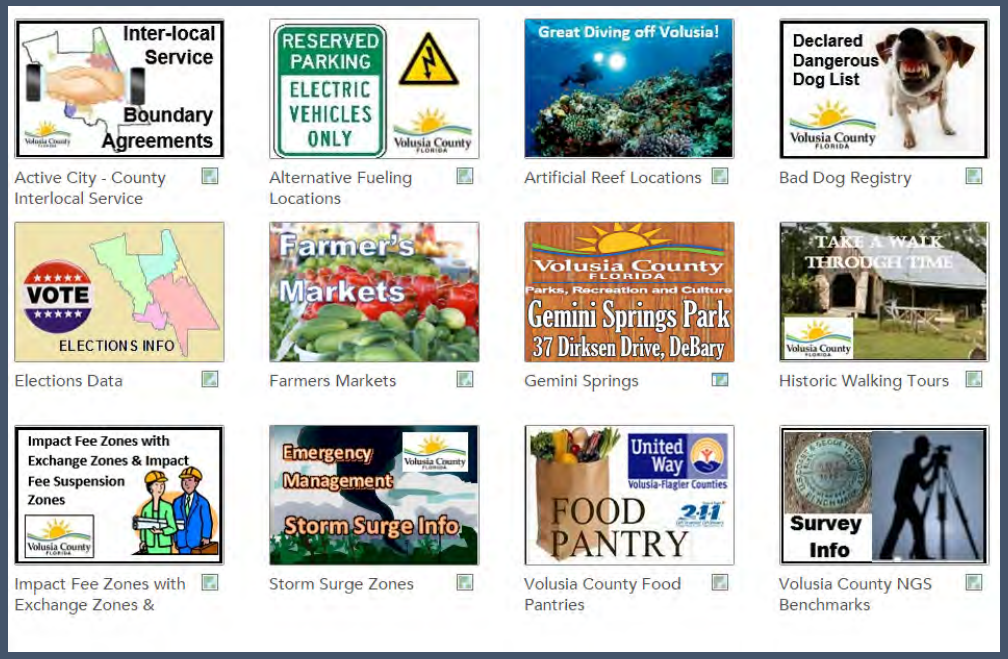
- Market Better, take more advantage of Story maps, expand our web presence to the public
- Actively measure ROI
- Expand our mobile initiatives (field data collection and citizen engagement)
- Implement Open Data, but also “compartmentalize” our data differently to provide REST services to additional municipalities and organizations in a more balanced and secure way.
- Plan for and accomplish ArcGIS Pro migration and ArcGIS Portal implementation
- Expand our customer base in 2019 to include DBIA, Facilities, Risk Management and Animal Control

What did we learn, and more importantly, what are we going to do about it?

- Plan for and begin migration of data for the 2020/2021 NG 911 Initiative
- Improve integration between GIS / Lucity / OnBase / Amanda / and Public Safety systems
- Manage 2020 Census initiatives: 2018 - LUCA coordination; 2019 - digital BAS update and the New Construction Program; Assist with marketing to improve the 2020 response; 2021 - plan for redistricting
- Data migration to new projection (NAD83 to International Terrestrial Reference Frame 00) (ITRF) 2019-2020 and the new Florida State plane Coordinate Zones
- Seriously look at succession planning and training programs.

Volusia County Outdoors | Volusia County Ultimate Design Wind Speed | Volusia's Historic Cemeteries

[Visit Volusia GIS on the web]



Active City - County Interlocal Service | Alternative Fueling Locations | Artificial Reef Locations | Bad Dog Registry

Elections Data | Farmers Markets | Gemini Springs | Historic Walking Tours

Impact Fee Zones with Exchange Zones & | Storm Surge Zones | Volusia County Food Pantries | Volusia County NGS Benchmarks

Volusia GIS has routinely done many great things over the years that we've just taken for granted. Regional collaboration, network integration, consolidation of data from our 16 municipalities, and creation of "tactical" ArcGIS Online web apps and maps to save on desktop licensure and improve public access among them. Given all that, this initiative, getting outside validation and making a formal plan, has led to a new resolve to get our program to the next level, to escape the rut, and to add the spark back.

Questions?

Information Technology
Geographic Information Services
119 W Indiana Ave
Deland, FL 32720

Al Hill, CPM, GISP
ahill@volusia.org

call us at 386 736 5922
or visit us on the web at
www.Volusia.org/gis

Volusia County
FLORIDA