## PURPOSE

To develop, modify, analyze, visualize and manage location-based information.

## MAJOR PROGRAMS

### RURAL ADDRESSING

Assign e911 emergency response addresses to rural structures of Collin County. The responsibilities of this program are to assign addresses, update the statewide e911 address range database to reflect city annexations and communicate address and changes to the customer, Post Office, Sheriff's Office and other related agencies. This program is part of the Building Permit work-flow process of Development Services. This program is dependent on the Geospatial Database Management, Application Development, Cartography and Spatial Analysis programs of the GIS Department to be functional. The results of this program benefit Public Works, Auditor's Office (GASB 34), Sheriff's Office and the Elections Department. Each of these departments has a vested interest in the accuracy of roads and boundaries.

**FY 2014 Goals & Objectives**

1. To Assign Addresses within 3 business days of receipt 95% of the time.
2. To update Annex / Deannex information within 10 business days of receipt 90% of the time.
3. To process Road Name Petitions within 21 business days of receipt 90% of the time.
4. To update 911 Net system for rural MSAGs within 10 business days of receipt 95% of the time.
5. To make City/County coordinated MSAG recommendations within 10 days for City 911 Net system updates
6. To communicate with City to update 911 Net system as recommended.
7. Track acreage of land annexed by cities monthly.
8. Track Collin County population

| PERFORMANCE MEASURES | FY 2010 ACTUAL | FY 2011 ACTUAL | FY 2012 ACTUAL | FY 2013 ACTUAL | FY 2014 Q1 | FY 2014 Q2 | FY 2014 Q3 | FY 2014 Q4 |
|---|---|---|---|---|---|---|---|---|
| # of Addresses Assigned | 204 | 163 | 339 | 530 | 83 | 722 | 102 | 138 |
| # of Addresses Assigned in 3 days or less | 204 | 163 | 339 | 530 | 83 | 722 | 102 | 138 |
| % of Addresses Assigned within 3 days | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| | | | | | | | | |
| # of Annexations / Deannexations | 75 | 61 | 108 | 23 | 28 | 6 | 6 | 9 |
| # of Annex / Deannex updates completed | 75 | 61 | 108 | 23 | 28 | 6 | 6 | 9 |
| % of Annex / Deannex updates completed | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| | | | | | | | | |
| # of MSAGs started | 1,015 | 884 | 989 | 398 | 59 | 175 | 106 | 177 |
| # of MSAGs entered into 911 Net system | 1,015 | 884 | 989 | 398 | 59 | 175 | 106 | 177 |
| # of MSAGs completed within 10 days | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| | | | | | | | | |
| # of Road Name Petitions Received | 6 | 5 | 5 | 3 | 0 | 4 | 1 | 4 |
| # of Road Name Petitions completed within 21 days | 6 | 5 | 5 | 3 | 0 | 4 | 1 | 4 |
| % of Road Name Petitions completed within | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| | | | | | | | | |
| Track acreage of land annexed by cities | 2,312.30 | 4,682.50 | 4,149.47 | 549.83 | 324.2 | 251.9 | 497.2 | 173.7 |
| Track Collin County Population | 772,864 | 792,936 | 813,133 | 822,428 | 826,227 | 821,611 | 821,306 | 906,998 |

## GIS SERVICES

There has been some interest in hiring our GIS department for GIS services by other agencies. We started providing GIS Services to the City of Wylie in FY 2005. We have many resources that some cities within Collin County cannot afford, maintain or staff. We have an opportunity to leverage our GIS investment to support other County entities as well as generating revenue. This program is dependent on the Geospatial Database Management, Application Development, Cartography, Spatial Analysis and Web-Based GIS programs of the GIS Department to be functional. The result of this program is that the geospatial database that we develop for our customers is the same as ours. Thus, we do not have to convert or manipulate data to fit into our database schema.

**FY 2014 Goals & Objectives**

1. To complete all projects outlined in our Inter-Local Agreement with Wylie by October 1st each year.

## GEOSPATIAL DATABASE MANAGEMENT

It is our department's goal to provide access to our GIS database to all employees and citizens. We have tiered our environment to three major components – Development, Power User and Web. Development is the GIS department. Power users are the departmental users and the web is for all. Mobile and Wireless GIS are now part of the architecture. All of the GIS Departments major programs are dependent on Geospatial database management. This program is the essence of GIS and requires hardware, software and network infrastructure.

**FY 2014 Goals & Objectives**
1. To track the number of additions to the GIS database monthly.
2. Total mileage of roads in Collin County
3. Total mileage of Collin County maintained roads
4. Total acreage of city boundaries in Collin County

| PERFORMANCE MEASURES | FY 2010 ACTUAL | FY 2011 ACTUAL | FY 2012 ACTUAL | FY 2013 ACTUAL | FY 2014 Q1 | FY 2014 Q2 | FY 2014 Q3 | FY 2014 Q4 |
|---|---|---|---|---|---|---|---|---|
| # of records received added to GIS Database | n/a | n/a | 552 | 152 | 381 | 442 | 2436 | 298 |
| Mileage of roads added to the GIS Database | n/a | n/a | 91 | 16 | 35 | 34 | 259 | 30 |

## APPLICATION DEVELOPMENT

Automating tasks, improving operational efficiency, supporting major programs and customizing are all reasons for designing applications. Our GIS has been developing applications since its inception in 1992. Application development represents the flexibility of GIS. Through code, our office is able to design internal and external web applications; develop address and road range calculations for our Rural Addressing program; automate methods to manage geospatial data; population estimates; and an efficient method to produce maps. The Application Development program requires development software such as Visual Studio and a GIS. This program supports Rural Addressing, GIS Services, Web-Based GIS, Spatial Analysis and Cartography.

**FY 2014 Goals & Objectives**
1. To develop GIS based applications using Agile methods

## SPATIAL ANALYSIS

Spatial Analysis is a set of techniques whose results are dependent on the locations of the objects being analyzed (Dr. Michael F. Goodchild, National Center for Geographic Information and Analysis University of California, Santa Barbara). The Rural Addressing, GIS Services and Web-Based GIS programs all are dependent on spatial analysis. This program requires the Geospatial Database Management program to function.

## WEB BASED GIS

This program allows Collin County to "give back" to our constituency all of the time and resources spent developing GIS database. Any citizen can view our aerial images, 2' contours or any other data at any time. Most of our GIS layers are now on the web. We will continue to develop web GIS projects. This program is dependent on the Geospatial Database Management, Application Development, Cartography, and Spatial Analysis programs of the GIS Department to be functional. The result of this program is a cost-effective method for the citizens, County departments, agencies and business to access our geospatial data.

**FY 2014 Goals & Objectives**
1. To track the # of page views for the Interactive Maps application.
2. Track the number of public-designed custom maps monthly.

| PERFORMANCE MEASURES | FY 2010 ACTUAL | FY 2011 ACTUAL | FY 2012 ACTUAL | FY 2013 ACTUAL | FY 2014 Q1 | FY 2014 Q2 | FY 2014 Q3 | FY 2014 Q4 |
|---|---|---|---|---|---|---|---|---|
| # of page views for the Interactive Maps site | 531,372 | 176,937 | 207,536 | 383,322 | 44,147 | 65,446 | 46,474 | 37,858 |
| # of public designed custom maps using the Interactive Maps application | 23,873 | 23,615 | 19,119 | 16,004 | 2,599 | 3,067 | 2,986 | 2,525 |

## CARTOGRAPHY

Many may consider mapping the only thing the GIS Department does. However, cartography is often the end result of analysis that is performed. For instance, the Rural Addressing, GIS Services and Web-Based GIS all use cartography as part of their function. The Cartography program allows our office to creatively represent spatial information in clear and concise manner. We are an office of Geographers and cartography is our tool to creatively express ourselves. This program requires the Geospatial Database Management program (GIS software) to function.

**FY 2014 Goals & Objectives**
1. To complete Jury Trial maps prior to trial date 95% of the time.
2. To design / plot fire district maps within 1 month of request from VFD 90% of the time.
3. To process "standard" map requests as identified in the Incident Management system 90% of the time.
4. To process "custom" map requests identified in the Incident Management system 90% of the time.

| PERFORMANCE MEASURES | FY 2010 ACTUAL | FY 2011 ACTUAL | FY 2012 ACTUAL | FY 2013 ACTUAL | FY 2014 Q1 | FY 2014 Q2 | FY 2014 Q3 | FY 2014 Q4 |
|---|---|---|---|---|---|---|---|---|
| # of Jury Trial maps requested | 13 | 12 | 12 | 21 | 1 | 6 | 8 | 2 |
| # of Jury Trial maps completed as identified in the Incident Management system | 13 | 12 | 12 | 21 | 1 | 6 | 8 | 2 |
| % of Jury Trial maps completed as identified in the Incident Management system | 100% | 100% | 100% | 100% | 100% | | 100% | 100% |
| | | | | | | | | |
| # of fire district map requests from VFD | 47 | 75 | 50 | 21 | 2 | 2 | 5 | 6 |
| # of fire district map requests completed within 1 month | 31 | 16 | 15 | 21 | 2 | 2 | 5 | 6 |
| % of fire district map requests completed within 1 month | 66% | 21% | 25% | 100% | 100% | 100% | 100% | 100% |
| | | | | | | | | |
| # of standard map requests | 368 | 128 | 150 | 302 | 173 | 21 | 46 | 1109 |
| # of standard map requests processed as identified in the Incident Management system | n/a | 128 | 50 | 302 | 173 | 21 | 46 | 1,109 |
| % of small quantity standard map requests processed as identified in the Incident Management System | n/a | 100% | 33% | 100% | 100% | 100% | 100% | 100% |
| | | | | | | | | |
| # of custom map requests | 775 | 200 | 200 | 465 | 23 | 138 | 39 | 24 |
| # of custom map requests processed as identified in the Incident Management system | n/a | 200 | 200 | 465 | 23 | 138 | 39 | 24 |
| % of small quantity custom map requests processed as identified in the Incident Management system | n/a | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

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**ADMINISTRATION**

General office support and administration.  This program includes staff performance reviews, managing projects and requests, ordering supplies, etc.

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