

Highlights of the GIS Steering Committee Meeting

August 25, 2006

Oakland County, Michigan

*For more information about any of the topics below, please contact your **User Support Specialist**. If you do not have a User Support Specialist, or you are not sure who your User Support Specialist is, please contact the IT Service Center at 248.858.8812 or servicecenter@oakgov.com.*

Please note: All Oakland County email addresses have changed to "username@oakgov.com". Old email addresses will work for a year. Please begin to update all contacts and mailing groups.

Miscellaneous GIS Initiatives

In 2006, the GIS Steering Committee will continue to meet quarterly. The remaining meeting date is:

- November 17, 2006

The **SEMCOG** regional meeting is scheduled for September 14. There will be a discussion on Pictometry and coordinated imagery flights.

The ESRI User Conference was held August 7-11. High points of the conference were presented by Frank Baxter from ESRI, Minneapolis. The conference theme was "GIS, Communicating our World". About 14,000 users attended from all over the world. There were approximately 148 Special Interest Group meetings (SIGs) in the evenings. Some of the highlights of ArcGIS Desktop functionality include the ability to use Excel spreadsheets, create cartographic representations, do real time visualization, and create 3D graphs and printable tables. In addition, ArcGIS Server licensing has changed. With a Basic license, a user receives geodatabase management (ArcSDE). With a Standard license, a user receives 2D/3D viewing, geocoding, and interaction tools (ArcIMS). With an Advanced license, a user receives full ArcGIS server functionality, geoprocessing, 3D analysis, editing, etc. (there are 4 extensions that are beyond the core). If you are current with maintenance, and you already have ArcSDE and ArcIMS, you'll receive a Standard license for the Enterprise (as opposed to Workgroup) platform. ESRI also promoted their Customer Care Portal (customers.esri.com/). Through the portal, you can track current orders, maintenance quotes, license summaries, technical support requests, and training information for an organization. You can also generate your own maintenance quotes. Soon to come will be tracking of any events you've attended. The Customer Care Portal does not replace service.esri.com which generates keycodes and licensing changes. ArcGIS 9.2 should be arriving some time early next year.

There will be a free seminar presented by ESRI in Lansing on September 26th at the Radisson called "Introducing ArcGIS 9.2". See www.esri.com/92seminar for more information. Next year (approximately mid-year), there will be a free ESRI user fair. It will be a 1-2 day event including technical workshops, user presentations, and software presentations. It will be similar to the old technical fair was held in Ypsilanti.

The URISA conference will be held in Vancouver, British Columbia (September 26-29). Oakland County was given an Exemplary Systems in Government (ESIG) award by URISA for E-Health.

As a result of the Land Management Strategic Planning session, a draft document of a new strategic plan has been created. This high-level document reflects the comments that were provided last year by the users. You can view the plan on the web (www.oakgov.com/gis/) and provide comments to Scott Oppmann (oppmanns@oakgov.com) in the next couple of weeks.

Please use the correct ArcGIS Desktop license for the work that you are doing. For example, if you are making maps, you probably don't need an ArcInfo license. Since the last quarter, we have increased the number of licenses to prevent us from running out. Oakland County is currently participating in the ArcGIS 9.2 beta

program. If there is any functionality you would like to see tested in ArcGIS 9.2, please contact Susan Moore (moores@oakgov.com).

Future class offerings are listed on the web: www.oakgov.com/gis/calendar. Contact IT to register (248.858.0828). There is no charge to County departments and communities, villages, and townships (CVTs). There is a half day Fundamentals of GIS class on September 20, and a full day Basics of ArcGIS class on October 18. Please send any additional training needs to Dawn Siegel (siegeld@oakgov.com).

IT has a Project Manager position and a User Support position open. Details are available on the Web site (www.oakgov.com/jobs).

County Department GIS Initiatives

Last July, the **Planning and Economic Development Services Division** made a presentation to Oakland County teachers. PEDS has also developed a series of maps and graphics for State Park management plans. Some of those graphics will be reused for an Oakland County Parks master plan update. PEDS also created a West Bloomfield Parks and Recreation guide. They have developed a user guide for the Clinton River Corridor, which includes trail segments and access points for fishing and parking. They are continuing their work on the Rouge Green Corridor project, which is a partner-based project that includes CVTs, County departments, and non-profit organizations. They will be presenting their Green Infrastructure project at an upcoming conference. Their annual conference will be held on September 20. This year's theme is "Preservation through Dedication".

The **One Stop Shop** noted that in the last year and half, the sales of maps and aerials have been declining. There are plans to discuss this decline, and think about other products to meet customer needs. Discussions have begun with the Road Commission for Oakland County (RCOC) about the next road atlas. Business Analyst will be presented at the next Steering Committee meeting.

Public Safety's CrimelMS application was **demonstrated**. The process for updating incidents has been automated in this new application. Once the user logs in to the application, they are immediately zoomed to their community. There is a profile that is aware of the user's agency, and allows the user to create and save custom queries. Approximately 100 police officers have been trained on the application so far, and training will continue through the summer. The powers users will have thick clients with CrimeView running on ArcGIS, not ArcView 3.x. There are currently 3 million records in the database, representing 3 years of data.

The **Oakland County Drain Commissioner's Office** (OCDC) is finalizing the water dataset. In the next couple of weeks, it should be available for field maintenance. A publishing model is also being finalized. Sanitary QA is beginning, as is incorporating jobs that have taken place between the beginning of conversion and today. The scope for the drain data conversion is being finalized. The scope for the TEAM (Total Enterprise Asset Management) system is being developed. TEAM will be an ArcGIS Server deployment. An RFP for ruggedized tablets was released for OCDC and the Treasurer's office. There were 3 solutions in the proposals. This will be a blanket agreement for all of Oakland County. The recommendations will be released shortly.

The **Health Division** will begin online flu registration starting Monday morning. They will designate a site for the registrant to attend on October 21st based on the zip code entered. The Foods application will be going to production on October 2nd. There may be an online application to view inspection information associated with a restaurant. IT is working with ESRI on an ArcGIS Server-based proof of concept application that will facilitate the scheduling and routing of sanitarians, as well as other field workers throughout the County.

Road Commission for Oakland County (RCOC) is making an effort to map all residential driveway permits since 1991. About 10,000 of these have been geocoded. Others are lacking either the PIN or address information. Summer students have been looking up locations for these permits. New permits are required to have complete address and PIN. The permit is being represented by a point in the parcel. The Environmental Concerns department is mapping outfall locations. They are using GPS for this task and working with OCDC.

RCOC is trying to make the imagery included in the ArcIMS-based RoadView application available to more users. They are working through some firewall issues.

The **Equalization Department** has acquired 30 tablets and notebooks to be used out in field for sketching. They are working out a service level agreement to make the sketches available to the CVTs.

The **Treasurer's Office** has begun a large project with IT to redesign the Treasurers' system, including tracking businesses in the field and helping with tax collections. The Real Property Division wants a seamless system so they can easily use GIS maps in their everyday work. Settlements/Distribution wants a GIS application to help designate DDA (Downtown Development Authority) districts and brownfields.

The **Federal Emergency Management Agency (FEMA)** and Oakland County have been working together for 3 years to update the **Digital Flood Insurance Rate Maps (DFIRMs)**. All communities should have received PDFs of the DFIRM maps last week. Oakland County is anticipating the final digital data in the near future. We will be putting the digital data on the DFIRM ArcIMS site and in ArcSDE as soon as possible. National Flood Insurance Program (NFIP) participants and emergency entrants into the NFIP program have until September 29, 2006 to adopt the new maps. Non-NFIP participants have until March 29, 2007 to adopt the new maps. The DFIRMs will show the new floodplain delineations, except for select areas of Troy on which there are new studies. Updates to the project will be posted on Oakland County's Web site (www.oakgov.com/gis/info_pub/FEMA.html).

GIS Data

In the future, there will be an ArcGIS Server-based application that will allow communities to download their data on an ad hoc basis. There will also be ArcIMS applications that can be used by communities who have no GIS software. The next quarterly data distribution will be at the end of September.

OCDC's storm and IT's hydrography data models are going to be combined into one data model. IT is working with OCDC and gathering input from users such as PEDS. Additional attribution will be available to the users of the hydro data, including trout stream identification and improved reach codes within 1 watershed.

Approximately 85% of the application development is done for the Land and Address Management System (LAMS). The conversion of the Mainframe data is also being worked on. The release of this application will not be rushed so that we can ensure the quality of the data conversion and the application.

The 2005 true color imagery is available in ArcSDE. Requests have been taken from the communities for the township-wide MrSID images. Rollout of region-wide imagery will hopefully be soon.

The 2006 black and white imagery is also now available in ArcSDE. This imagery was turned around by the vendor (Ayres Associates) in less than 120 days. The initial QA has been done on the imagery, and what is in ArcSDE is a preview. Comments will be collected for the next 2-3 weeks, after which the imagery will be rolled out to ArcIMS and OakMap.

We have several different products currently in our digital imagery library. In 2002, we started collecting digital imagery. The sensor used in 2002 was proprietary, incorporating the "push broom" camera technology. The sensor used for the 2005 flight also used the push broom camera technology but the rectification process was done using ISTAR. The 2006 black and white imagery used a DMC sensor, which more closely mimics a traditional camera. The 2006 imagery was collected at about 4600' altitude rather than 10,000' (as with the 2002) which will produce more building lean. Ayres Associates is offering planimetrics for each community. Contact Anita Campbell (campbella@oakgov.com) if interested.

Oakland County is considering updating our DTM (digital terrain model) every 10 years. The next update would occur in 2010.

Oakland County is working to improve the survey network in Oakland County by using CORS (continuously operating reference stations). A CORS station is a GPS antenna permanently mounted with a cement base.

The Michigan CORS network is maintained by MDOT and currently has about 50 CORS base stations broadcasting correction information real time over the internet. Currently, Oakland County's GIS grade GPS units use the Coast Guard reference station in Detroit to correct a point. In the future, a CORS station could be used. There is currently a CORS tower in Auburn Hills, with 3-5 more being anticipated around the County. Research is being done to determine where other stations can be located. Depending on spacing, these stations could be, at the most, 10 miles away from any given point in the County. During testing, the vertical accuracy from a signal 20 miles away from the base station was 4/100ths of a foot. In general, the vertical accuracy is 1/10th of a foot when the CORS station is 10 miles away. The towers need to be in a secure location with a power source and a T1 connection. Once a tower is constructed, the Michigan Department of Transportation (MDOT) takes over maintenance and upgrades.

The new notification legislation creates new challenges, as now CVTs need to notify people outside of their community, or even outside of the County. Communities completely within Oakland County can still use the ArcIMS Label Service for notification, but we need a regional or state label service to provide complete notification. This legislation also reinforces the challenge of notifying residents in multi-family dwellings, like apartment buildings. The ability to handle multiple addresses is being built into the new LAMS system.

CVT GIS Initiatives

The City of Troy **demonstrated** their new application that integrates Crystal Reports and ArcIMS. This is an out-of-the-box solution that takes dynamic information from ArcGIS and inserts it into Crystal Reports. Troy needed this functionality for their asset management system and because they needed to support multiple reports per layer (e.g., the Fire department may want 1 report for fire hydrants, while DPW may want a different report). The report needed to be displayed in PDF format. The application was developed in ArcIMS to make it a more widely available solution. Troy originally contacted Business Objects (who owns Crystal Reports) in October, 2005 to work in this project. Business Objects handed the product they were developing over to APOS, and Troy continued to beta test with APOS. Troy had to purchase Crystal Reports Server to use the APOS product. Some key advantages of this product include the ability to handle dynamic labeling and mapping of the map within a Crystal Report. Troy's first implementation was to create a report that identified the closest benchmark for surveyors. In the future, they plan to implement an assessing application, integrate the product with work orders, and use the product for a traffic flow survey application.