



Oakland County Animal Control

ArcGIS® 9.3 Mobile Solution Speeds Pet Licensing, Increasing County Revenue

CASE STUDY



CHALLENGE

OCAC needed basic map navigation and a data entry system that allowed field crews to quickly move and accurately enter pet census information and results.

RESULTS

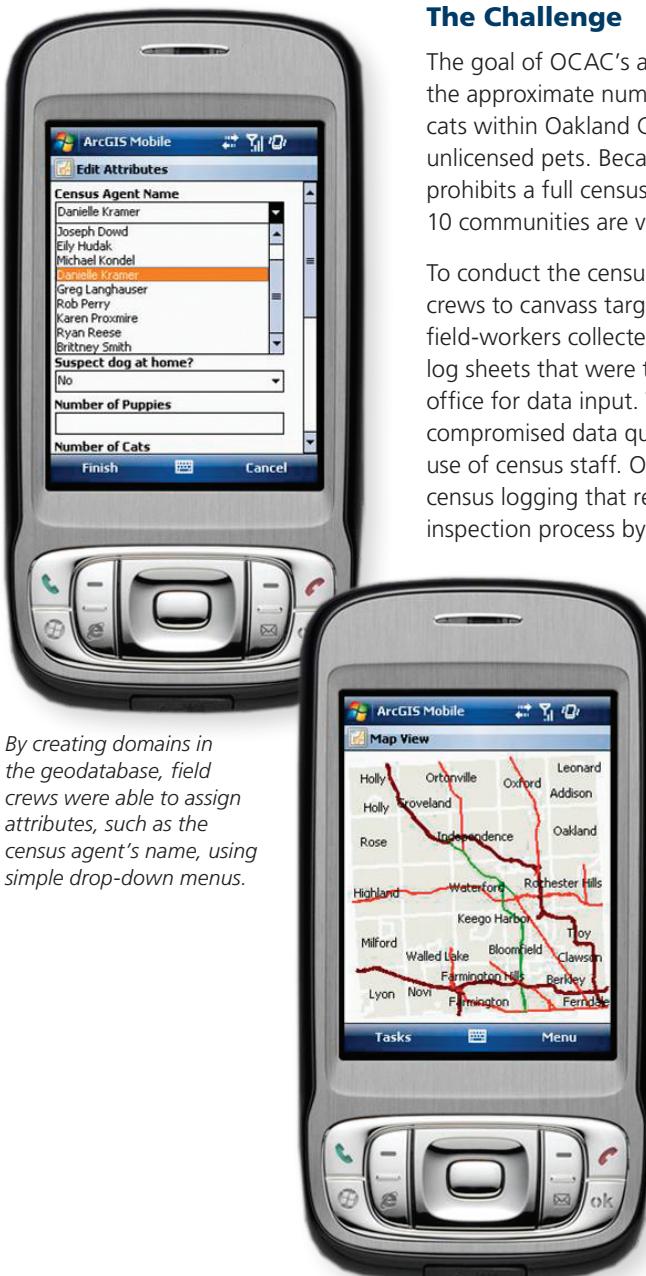
- Accurate license data is provided to inspectors so they can work more efficiently to perform a greater number of inspections daily.
- Census progress is monitored more closely by OCAC management staff.
- Pet licensing revenue can be directly correlated to census efforts.
- Redundant data entry has been eliminated, saving 80 percent of one staff person's time.

Oakland County Animal Control (OCAC) was established in 1919 to enforce pet ownership laws and control the stray pet population in Oakland County, Michigan. In addition to conducting animal bite investigations and responding to animal cruelty complaints, OCAC conducts an annual pet census throughout Oakland County municipalities. This annual census promotes the enforcement of Michigan's pet licensing laws, which is one of OCAC's key responsibilities.

The Challenge

The goal of OCAC's animal census is to calculate the approximate number of domestic dogs and cats within Oakland County and identify any unlicensed pets. Because the size of the county prohibits a full census in one season, approximately 10 communities are visited per season.

To conduct the census, OCAC printed maps for field crews to canvass targeted areas. Using these maps, field-workers collected census information on paper log sheets that were then delivered to the central office for data input. The manual data entry process compromised data quality and was not an efficient use of census staff. OCAC needed a new system of census logging that reduced the cost of the license inspection process by removing paper printing and improved the number of communities covered in a season by increasing inspector productivity.



By creating domains in the geodatabase, field crews were able to assign attributes, such as the census agent's name, using simple drop-down menus.

ArcGIS Mobile allows projects and data to be saved on secure digital storage cards. After caching, all pertinent data was directly deployed to the mobile device including more than 400,000 parcel records.

Learn more at www.esri.com/arcgismobile.

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ESRI® SOFTWARE USED

ArcGIS Server 9.3
ArcGIS Mobile 9.3
ArcGIS Desktop 9.3

OTHER SOFTWARE USED

Microsoft® Windows Mobile® 6.0

HARDWARE

Dell® PowerEdge® 2850
(2X 3.2 GHz Xeon®, 270 GB
Hard Drive)

AT&T® Tilt™ Phone

"The implementation of this mobile mapping application allows us to maximize the use of our resources and measure the effectiveness of our annual pet census."

Lawrence Obrecht, Manager
Oakland County Animal Control

FOR MORE INFORMATION



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The Solution

To improve the way census information is collected, OCAC implemented a full ArcGIS® 9.3 (Desktop, Server, and Mobile) system in a pilot project. OCAC used ArcGIS Server and ArcGIS Mobile 9.3 platforms to deploy a customized mobile application called the Animal License Manager for conducting the census. OCAC inspectors are assigned grids showing areas with the fewest pet licenses, highlighting areas where the census may be most productive.

Instead of being sent out with paper maps and log sheets, each inspector is provided a mobile device to conduct door-to-door inspections. Using Windows Mobile 6.0 and ArcGIS Mobile on the AT&T Tilt mobile device provides field inspection crews basic map navigation and data entry tools, allowing them to quickly move through targeted areas and easily enter census results. The inspectors select the parcel from their maps using the Identify tool on the ArcGIS Mobile View Map task. From there, they can quickly fill out the attribute forms to update the appropriate information including the date and the number of puppies and kittens. When inspections are completed, field-workers post the attribute information directly to ArcGIS Server.

The caching functionality of 9.3 compresses geographic information system (GIS) data, allowing inspectors to enter datasets effectively in the field. In return, coordinators have more flexibility in determining which neighborhood inspectors are dispatched.



The Results

The pilot has shown that inspectors can reduce manual data entry and provide real-time access to census results. Data is available immediately, and Oakland County is able to easily integrate census data into the OCAC Pet Licensing System to evaluate the impact on the purchase of pet licenses and more accurately determine return on investment.

Tax parcels were uniquely symbolized, highlighting targeted properties for the census (in pink). Since ArcGIS Mobile 9.3 honors symbology created in the .mxd file, once a parcel is edited, it appears in white, allowing field crews to easily keep track of their work.

Learn more at www.esri.com/arcgismobile.