

On the Positive Side: Cats, Dogs and GIS

by Frank Bryce

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The recent board meeting of the Animal Services Center of Mesilla Valley (ASCMV) took a positively interesting direction involving Geographic Information System (GIS) technology and kudos to the Las Cruces City GIS Department folks Sue Minton and Robert Allen Wright for their efforts. Sue and Allen gave a powerful presentation of city locations of the incidences of animal stray, neglect, abuse and cruelty as reported by Animal Control and ASCMV shelter data. The usefulness of this type of information, mapping and analysis to address animal welfare issues of the city and county was immediately obvious.

A definition found on the internet says "Geographic Information System technology can be used for scientific investigations, resource management, and development planning...., ...a computer system capable of capturing, storing, analyzing, and displaying geographically referenced information...., ...The power of a GIS comes from the ability to relate different information in a spatial context and to reach a conclusion about this relationship."

Sue and Allen spent about three weeks analyzing and deciphering variations of data imputed by shelter and animal control staff and perhaps as much as 20 percent was not recoverable but once this was accomplished the GIS maps were done in very, very short order to begin to designate what is typically referred to as incidence "hotspots". The resulting maps reminded one of maps designating areas of heavy rain, flooding and other weather phenomenon.

Although the data collection procedure is in dire need of improvement, the potential for identifying high incidence areas and developing strategies to address these issues was overwhelming. Proposed changes by ASCMV Board member Jess Williams and other refinements to the data collection should improve the ability of the GIS technology to show hotspots of concern. With improved data collection, it is hoped that county animal control data can be integrated into a collaborative effort to do GIS mapping for the entire county. The city GIS staff has stated their willingness to work together with Dona Ana County staff to accomplish the analysis and integration of this valuable information.

Interestingly a conversation with NMSU staff persons about this GIS effort included a study by the School of Social Work at NMSU which found "hotspots" of family violence throughout the county using similar GIS technology. Research shows a relationship between animal cruelty and family violence, particularly child abuse. It would be useful to look at overlays of the resulting mapping of both such efforts. A project of this nature could be undertaken by NMSU students.

Frank Bryce is President of the Humane Society of Southern New Mexico. Interested guest authors can contact the Humane Society of Southern New Mexico at 575-523-8020.