

Updating Water Distribution System Maps using GIS

Purpose

In 2009, the City of Lomita employed the help of PVNet in order to update and digitize hard copies of Water Distribution System maps for their city. PVNet was chosen by the City of Lomita to create GIS-based digital maps from their hard copy models to allow for easier analysis. By converting Water Distribution System Maps into a digital format, PVNet was able to create easily accessible and interpretable maps that both city officials and community members can have access to whether through printable hard copies or through an interactive map using an Internet Mapping Server (IMS). Having such digital data so readily available, PVNet was able to provide an invaluable source of information to the City of Lomita in order to promote further growth and development of the city. In addition, the creation of digital maps results a digital database that is easily updated and maintained.

Method

PVNet started on its task by first converting the original, hard copy versions of the Water Distribution System Maps into a digital format. Using scanned images of the original maps, PVNet was able to use these scans as models to create the digital versions of the maps. By essentially creating a digital trace of the original map, PVNet was able to create accurate digital representations of the hard copy maps. In addition, during the digitization process, a digital database of the Water Distribution System data was created and updated. A constant line of communication between the City of Lomita officials and PVNet was established in order to ensure a quality digital product. Once the digital drafts were approved by the city officials, PVNet continued on to publish a final cartographic product in both printable hard copies as well as an interactive version using an Internet Mapping Server (IMS).

Result

In the end, the PVNet staff successfully updated and recreated Water Distribution System data in a digital format for the City of Lomita. All of the digital data created during the process was added to the city's database for easier access and maintenance. With the newly created digital data, the city is able to analyze the data for spatial relationships as well as other relevant information. Because the maps had been converted into a digital format, numerous printed, hard copies of the maps can be easily distributed. Also, PVNet used an Internet Mapping Server (IMS) to create an interactive version of the map accessible through the internet by city staff.

