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GIS Public Redistricting Interface

Maricopa County, Arizona

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GIS Public Redistricting Interface

Recorder/Elections
Maricopa County, Arizona

1. Abstract

The public expectation continues to drive the provision of online services and operability. For the redistricting of electoral districts in Maricopa County in 2011 we implemented a one-stop website which provided information on public hearings, samples of educational presentations, and most importantly, an interactive mapping tool developed by our staff for the submittal of public suggestions.

The Redistricting Webpage when it was first launched. The page evolved and grew in content as the process progressed and additional maps were proposed for the public to consider.

This mapping tool allowed for public suggestions and input factoring in Census data, existing boundaries, communities of interest, and geographic barriers resulting in a more informed experience. Because it was all done electronically, the data was easily integrated into official analysis for plausibility in implementation.

2. Description

Users created an account and password and were then able to access the mapping tool and could either 1) start from scratch and draw their own districts or 2) utilize existing districts as their base and make changes to the current lines. Other options

existed as well. Voters could choose from four separate maps: Board of Supervisor/Community College/Special Health Care districts, Justice of the Peace/Constable districts, East Valley Institute of Technology (E.V.I.T.), or Western Maricopa Education Center (West-Mec) —they could opt to make adjustments to any, or all.
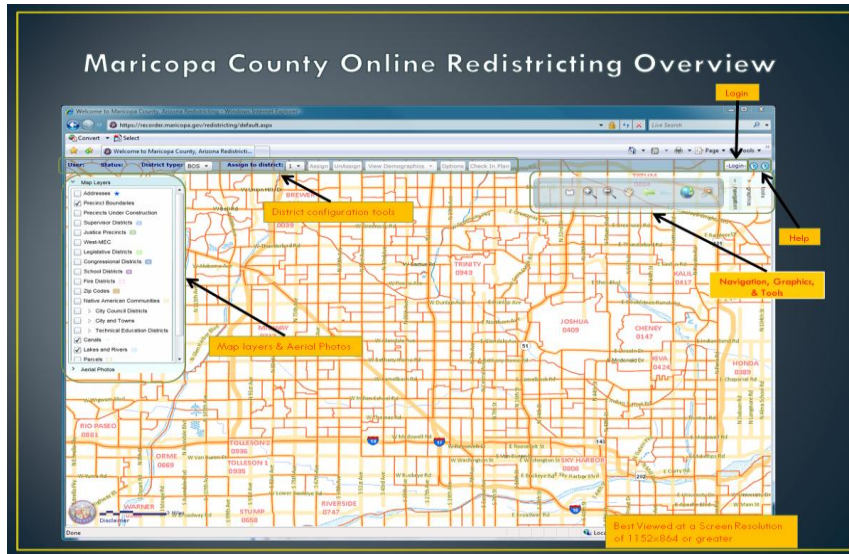
When a line move was being contemplated the user had the ability to review the resulting changes in demographic and voter registration data as well as overlay other districts (IE: municipal, legislative, congressional, school, tribal land, etc.) and geographic features (canals, mountains, rivers, lakes, etc.).
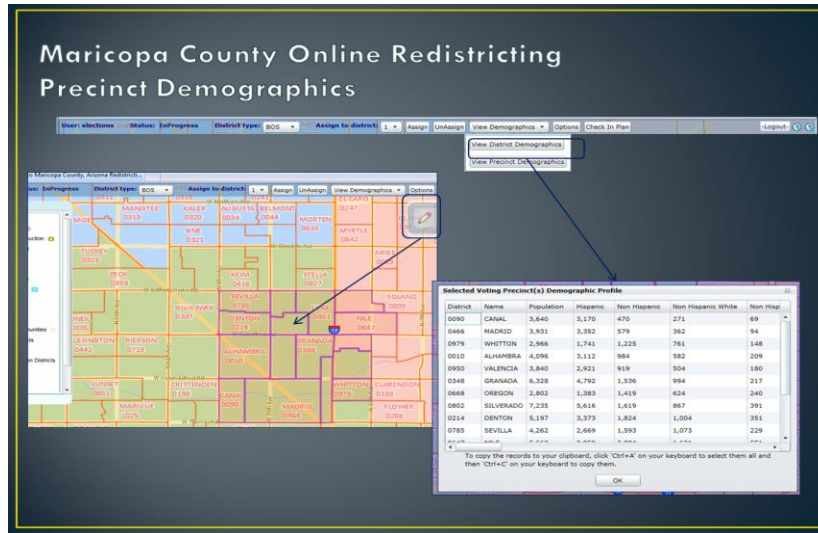
3. Worthiness

While this program increases efficiency of data collection and review, it is always important to keep the voter and the public at the center of everything that we do, and when that can be accomplished with a low-cost solution that allows for increased interaction between the people and the government that serves them, you have a worthwhile effort.
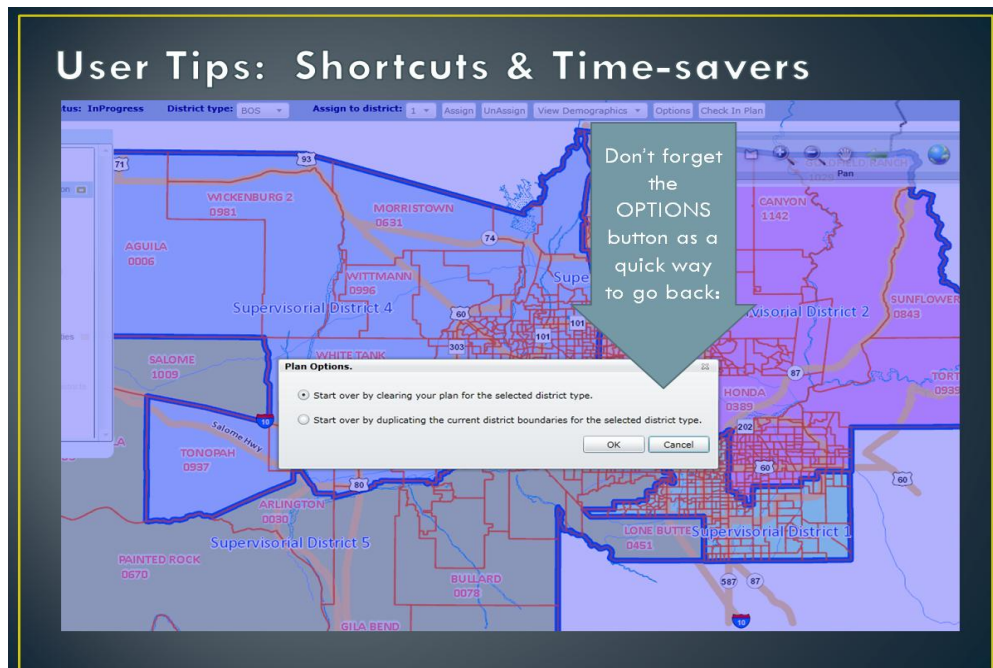
Supporting Documentation

Usability of System

There were many timesaving and ease of use options included in the design. Users could opt to select single voting precincts or an entire area to assign to the new district:
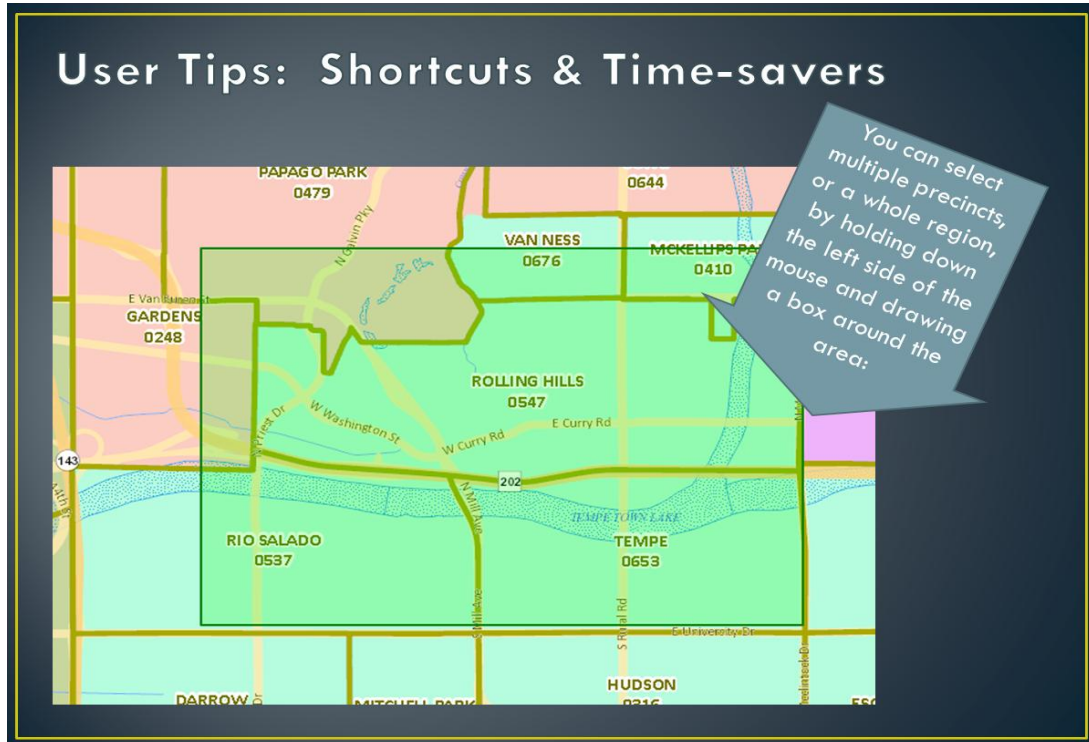

The user could opt to clear their work entirely or simply revert back to our existing district lines:

Because our districts become effective once approved by the Department of Justice (and not at the canvassing of the next election) incumbent officials cannot be drawn out of their district as that would cause a vacancy and no representation for those voters. This system froze precincts which contained the elected officials for those districts and did not allow them to be moved to another:
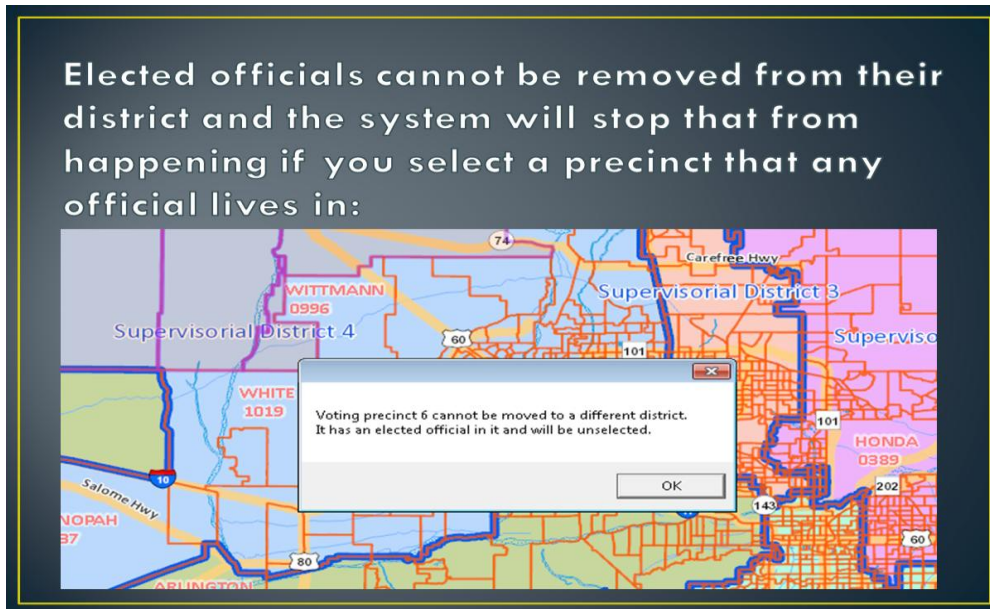
Providing the public with the electronic tools to suggest the boundaries of their representation resulted in a transparent process where all the plans could be offered for public review and comment. Because this was submitted to our GIS Department electronically, the proposals could quickly be incorporated into existing plans and reviewed for overlapping consensus of recommendations without exhaustive manual intervention that paper map suggestions require.

Additionally, because of the embedded demographic tables and multiple layer possibilities the interactive nature of this tool enriched the foundation for making intelligent and informed suggestions

Cost

The costs incurred in creating the Online Mapping Tool include planning & programming costs for the upgrades provided to our existing election management system. These costs are not reflective of what it would take if starting without that base. However, any elections department would already have a similar election management system.
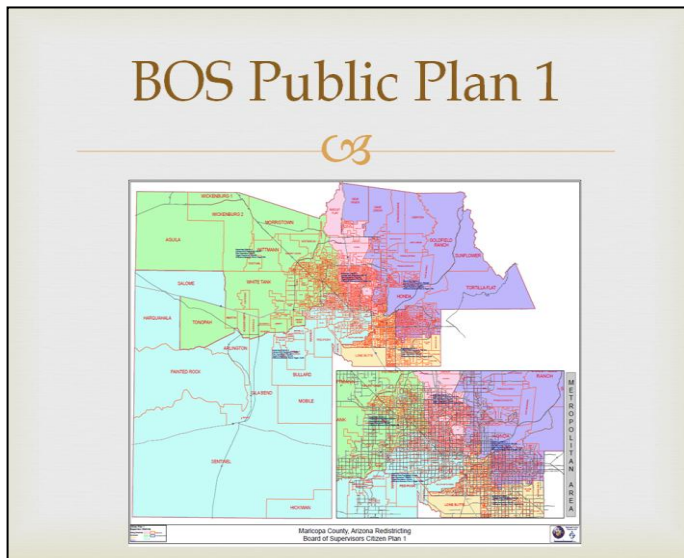
80 hours GIS programming X $40.00 = $3200.00

Results

The website had close to a thousand hits and although many people signed up, only a handful submitted maps. However, all maps submitted were reviewed and taken into consideration in the drawing of the final lines. Our lines precleared with minimal questioning by the Department of Justice because of the comprehensive public process.

Because maps were created using the Online Mapping Tool demographic review was possible with minimal effort and could quickly be provided for additional public evaluation: