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A Collaborative Approach to District Precinct Changes

Kitsap County, Washington

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A Collaborative Approach to District Precinct Changes

On Feb. 1, 2012, the Washington State Legislature adopted the state Redistricting Commission's plan in compliance with the 2010 census numbers. As a result of the population increase, Washington gained a 10th Congressional District and changes to the boundaries of many other jurisdictions.

This left counties with two months to adjust local boundaries in time to meet the legal deadline of April 30, 2012, to update voter records before candidate filing in May.

Limited Staff Resources and Tight Deadlines

Here in Kitsap – a county of approximately 146,000 registered voters – election officials estimated changes to 94 of 189 precincts, 332 precinct portions, and 33 political/taxing boundaries, affecting more than 103,000 voters.

The Elections Division was faced with the challenge of completing redistricting requirements according to legal specifications, while performing all of their other tasks including two spring elections in February and April.

Ensuring the accuracy of the redistricting process was a priority for the Kitsap County Elections Division. Any delays would jeopardize the department's ability to meet the April 30 deadline. Mistakes where a voter address is assigned the wrong precinct, or a district is assigned to the wrong precinct boundary would result in voters receiving the wrong ballot for subsequent elections. The solution to completing this project which exceeded our resources was collaboration.

Collaboration is the Key to Accuracy

Elections administration is a very specialized skill set. Many of the tasks we perform take place over the course of several weeks and are not repeated until the following year. In the case of redistricting, it will be ten years before staff performs a task of this magnitude again.

No software or outside consultants can replace or replicate and election administrator's knowledge and expertise of elections processes. Instead of looking for third-party solutions to meet our redistricting criteria, we sought to partner with internal departments that have expertise with different software that utilizes the same information.

The goal of partnering was to ensure fast and accurate proofing of district and address data allowing us to meet our deadlines and potentially benefitting other departments by developing procedures that would enable them to use a similar approach.

The Kitsap County Elections Division partnered with the Geographic Information System (GIS) department because their data closely matched our redistricting data. The few hours spent working with one GIS staff person provided us the data we used to verify the changes we needed to make.



Criteria and Procedures Developed

The Kitsap County Elections Division uses the Data Information Management Systems Inc. (DIMS) voter registration system.

The initial step was to identify what data and format was needed to perform a match against our election data.

- Address for tax parcel
- Precincts within districts
- District boundaries

A subsequent step was to develop procedures for the GIS data match to ensure fast and accurate proofing. By developing sound procedures with data that could be verified against an independent source, we were able to immediately locate discrepancies in district/precinct assignments and addresses assigned the wrong precinct. The Kitsap Elections Division developed the following procedural framework for comparing data:

- Compare GIS district boundary data with the election Districts Within Precincts data.
- Compare GIS address points within precincts with the elections voter registration address and precinct assignment data.
 - Determine the best time to complete the data match.
 - Partial check or after completion?
 - We did a partial check that matched a small area of the county first, in addition to a full check upon completion.
 - It was best to start with the least detailed match first.
 - When GIS district boundary data was matched against elections Districts Within Precincts, we found a portion of one Precinct in the wrong District and one Precinct had the wrong Congressional District assignment.
 - After verification that our District and Precincts were accurate, the next step was to match the GIS address points within precincts against the elections voter registration data.

After removing duplicates, we found 217 addresses assigned to the wrong precinct (out of 146,000). This easy data check worked so well, we will use it after major changes due to annexations or district mergers as well as before Primary and General Elections.

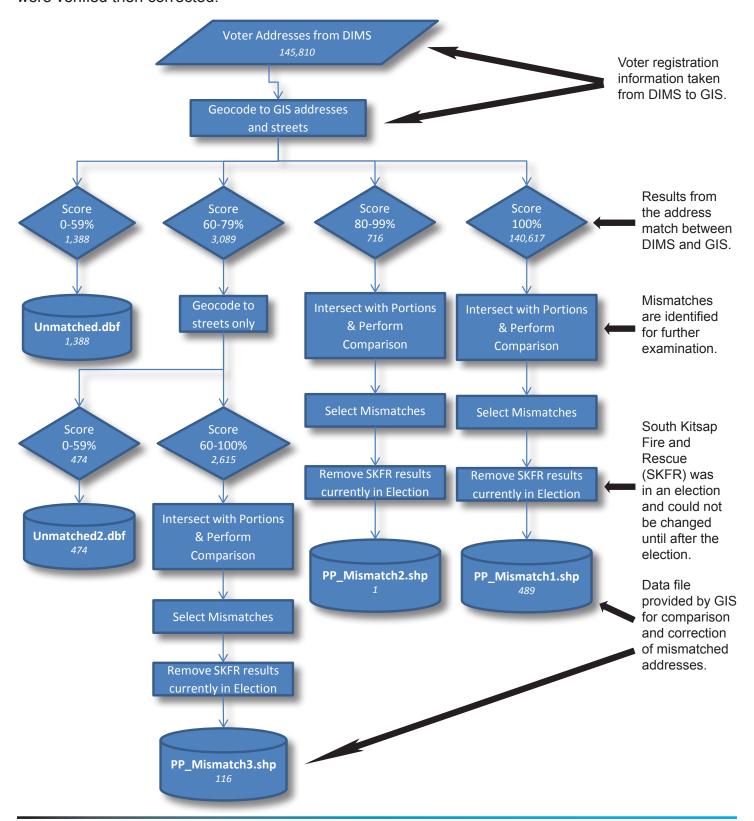
Sharing Resources Nets Positive Results

This collaborative approach took only hours to complete and saved weeks of work. By developing sound procedures and partnering with GIS, the Elections Division was ready to "go live" with redistricting a few days before the April 30 deadline.

The procedures we developed will be made available to other departments such as the Treasurer and Assessor, which also have shared data needs. Through collaboration we achieved a cost neutral solution to a challenging problem, which benefits everyone.



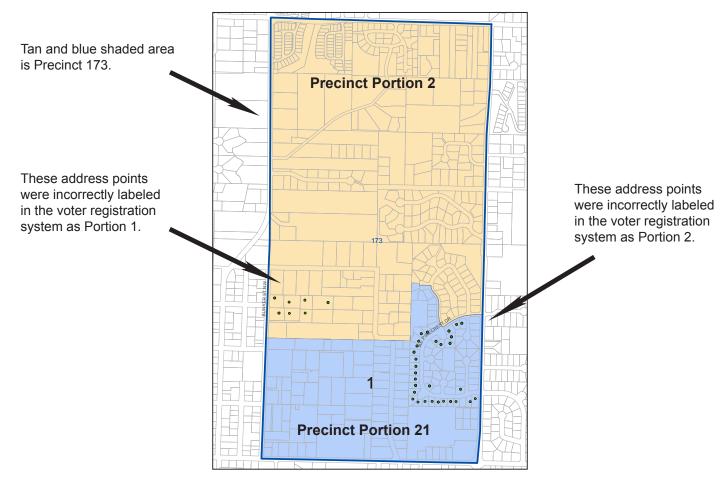
A flowchart was created showing steps in the process. The percentage of matched data determined the next steps in the process. The GIS department provided us with five files for comparing data. Addresses and boundaries that did not match were verified then corrected.





The voter addresses from the voter registration system were compared against addresses and streets in GIS. Any results with mismatched precinct portion data were examined and corrected if needed.

Address Precinct Portion Mismatch							
DIMS Street Address	GIS Address Match	Precinct DIMS	Portion DIMS	Precinct GIS	Portion GIS		
5314 BUNKER ST NW	5314 BUNKER ST NW, 98311	173	01	173	02		
5314 BUNKER ST NW	5314 BUNKER ST NW, 98311	173	01	173	02		
5326 BUNKER ST NW	5326 BUNKER ST NW, 98311	173	01	173	02		
5326 BUNKER ST NW	5326 BUNKER ST NW, 98311	173	01	173	02		
737 NE PINECREST DR	737 NE PINECREST DR, 98311	173	02	173	01		
773 NE PINECREST DR	773 NE PINECREST DR, 98311	173	02	173	01		
773 NE PINECREST DR	773 NE PINECREST DR, 98311	173	02	173	01		
773 NE PINECREST DR	773 NE PINECREST DR, 98311	173	02	173	01		



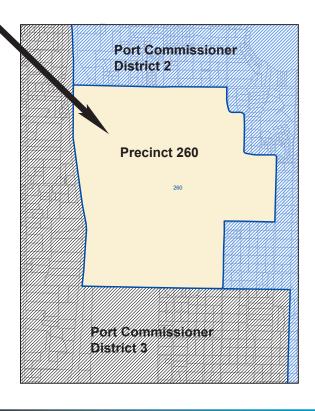
Comparing data in the voter registration system against data in GIS allowed us to quickly identify and resolve and discrepancies.



The District Comparison Check examines the districts assigned to precinct/portions in the voter registration system and compares them to the district geography in the County GIS.

This check was applied to the following districts: County Commissioner, Legislative, Fire, School, Port, Port Commissioners, Cities, City Council, Sewer, Parks, Water, and Utility and the proposed annexation. The output is a shap-efile of mismatches for Elections to review. A field named "Perc_Inter" ('Percent of intersection DIMS/GIS' field in table below) contains the area value calculation which may be used to determine the significance of the mismatch.

Port Commissioner District Comparison						
Port Commissioner DIMS	Port Commissioner GIS	Square miles of intersecting shapes	Percent of intersection DIMS/GIS			
Port Comm 2	Port Comm 3	1.85563	100			
Port Comm 3	Port Comm 1	0.096285	99.998367			
Port Comm 1	Port Comm 2	0.463889	99.825802			
Port Comm 3	Port Comm 2	0.010431	95.892629			
Port Comm 3	Port Comm 2	0.459622	38.549807			
Port Comm 3	Port Comm 2	0.30597	19.957657			
	Port Comm 2	0.052523	5.578961			
Port Comm 3	Port Comm 1	0.001536	5.272809			
Port Comm 1	Port Comm 2	0.000447	4.107376			
Port Comm 2	Port Comm 3	0.056867	2.999029			



The map corresponds with the data in row 1 of the table above. The data comparison showed that 100 percent of Precinct 260, which is approx. 1.86 square miles, was included in Port Commissioner District 3 in GIS.

By comparing the voter registration system to GIS, and reviewing the resolution that defines the district boundaries, we were able to verify and correct Precinct 260, which was actually part of Port Commissioner District 2.