

# INNOVATIONS

**STRENGTHENING THE LEGISLATIVE INSTITUTION**

code and school district information, the GIS office built an interactive “District Information” page that allows users to choose the legislative body and geography of interest by district, then sort and download the data in any way they wish.

In addition to its support for the redistricting process, the office has been asked to provide various bill analyses. One bill, for example, requires the Minnesota Pollution Control Agency to analyze cumulative pollution affects in an area before issuing a permit. The office created a series of maps that displays blood lead, asthma and arsenic levels along with socioeconomic data for a Minneapolis neighborhood.

The office also created a series of maps for the LEAPS Act (Learning for Academic Proficiency and Success), which addresses the language development and academic needs of English language learners. The maps display the primary languages spoken in homes by school district, changes in limited-English-proficiency rates over six years, the percentage of non-English-speaking students by school district and enrollment in limited-English-proficiency courses for students in pre-K through 12th grade.

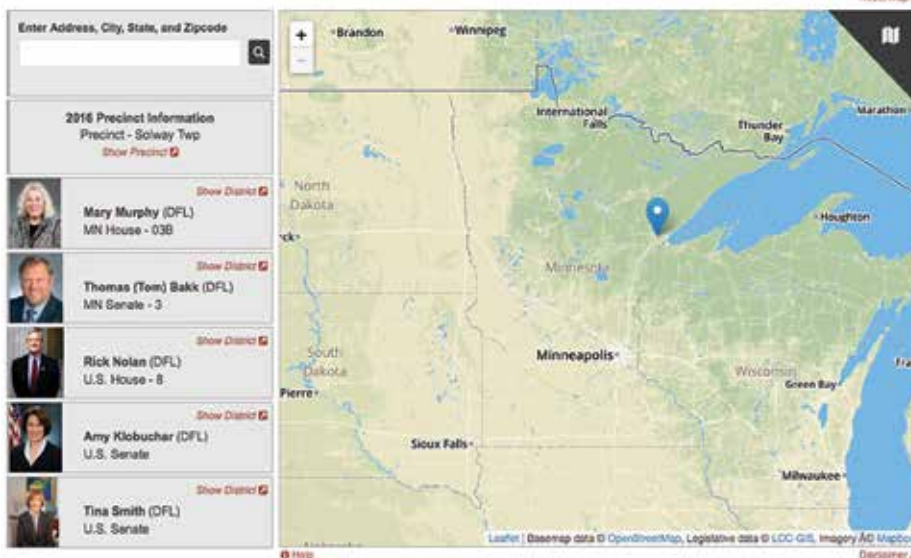
In 2008, voters passed the Legacy Amendment Act to fund a variety of efforts: protecting and restoring drinking water sources, wetlands, prairies and forests, and fish, game and wildlife habitat, and preserving the arts and cultural heritage. The GIS office created a website that lets users easily see how the funds are being spent. That site’s map, built with free software and showing where the projects are located, is the one the Cartographic and Information Society recognized.

As it’s done since 1989, the office continues to explore new ways to display geospatial data to enhance redistricting and the legislative process. Innovations in software and other technologies keep us on our toes but also help us rise to the challenge of serving the Legislature.

—Lee Meilleur and Chris Cantey

*Lee Meilleur handles technology services and Chris Cantey is the lead developer/cartographer for Minnesota’s Legislative Coordinating Commission.*

## Precinct Finder



## Building Better Data-Mapping Tools

**W**ith a recent award from the Cartographic and Information Society for best interactive map under its belt, Minnesota’s Legislative Geographic Information System Office is ready for the challenge of redistricting after the 2020 census.

The office, which is part of the nonpartisan Legislative Coordinating Commission, has come a long way since it was created in 1989 to prepare the Legislature for the next round of redistricting. Instead of what was then a bare-bones webpage displaying district maps and reports, it now offers a range of user-friendly interactive maps and reports and bill analysis tools, all built with free, open-source software.

It would be several years before the GIS office created its first primitive interactive

tool, however. It debuted as a map on the state’s “Who Represents Me” page and required users to pan and zoom to a location, then click to find their representatives. Shortly after, a geocoding tool was added so constituents could enter an address to find their legislators. These were the first steps toward user-friendly interactive mapping.

By 2001 it was time to prepare for the next redistricting cycle and the office began publishing election maps. Adding interactive maps to the basic district maps and reports allowed users to explore proposed plans and customize maps by toggling on or off data layers such as cities and towns, counties, school districts, Minneapolis and St. Paul neighborhoods, and satellite imagery. After being overwhelmed by requests for spreadsheets containing county, ZIP