



Denver Regional Data Consortium October 2025 newsletter

The data consortium comprises Denver Regional Council of Governments members and regional partners interested in geospatial data and collaboration. The data consortium newsletter improves communication among local geographic information systems professionals and features updates from all levels of government related to data and geospatial initiatives in the region. This newsletter is published biannually.

Geographic information systems-driven efficiency and accuracy in Arapahoe County's Highway User Tax Fund reporting

Article submitted by Zach Vernon, geographic information systems analyst for the Department of Public Works and Development at Arapahoe County. Reach Zach at zvernon@arapahoe.gov.

Arapahoe County has created an innovative internal process to optimize funding for county roads using geographic information system technology.

Each year, the Colorado Department of Transportation collects revenue from sources such as motor fuel taxes, vehicle registration fees and retail delivery fees. Together with the Colorado Department of the Treasury, they use Highway User Tax Fund lane-mile reporting, alongside other statutorily defined distribution mechanisms, to allocate revenue to the 332 cities and counties in Colorado that maintain roads.

For Arapahoe County, Highway User Tax Fund lane mile reporting is now a geographic

information systems-centric process, as data and tools allow staff to maintain a comprehensive inventory of county-maintained roads.

Historically, the county's Highway User Tax Fund reporting workflows relied on time-consuming manual processes to generate an annual funds change list. The recent process improvements have increased staff efficiency, reduced reporting errors and increased both the county's lane mileage totals and potential funding share.

"This is a good example of how we are constantly evaluating our processes and procedures to improve efficiency," Arapahoe County Public Works and Development Director Bryan Weimer said. "This hard work will be a benefit to the County and our residents for years to come."

High-quality geographic information systems data, maintained by Arapahoe County Road and Bridge staff, form the basis of these improvements. Road and Bridge maintain an edited copy of DRCOG's "Edge of Pavement" layer, which accurately reflects the extent of county-maintained pavement. They also

maintain polyline layers for “County-maintained Paved and Gravel Roads”.

Arapahoe County Mapping staff developed a Python script to automate geographic information systems-based change detection, which compares properties of the three Road and Bridge inputs to the Highway User Tax Fund geographic information systems layer.

The comparison generates a list of potential Highway User Tax Fund segment changes, which are then systematically investigated and input by Mapping staff.

Throughout the process, Mapping staff uses an Excel-based Highway User Tax Fund tracker originally developed (and graciously shared) by Weld County, which facilitates efficient tracking and data entry into the Colorado Department of Transportation’s Highway User Tax Fund reporting systems.

These process improvements led to more accurate reporting on county-maintained roads, and, when also accounting for new roads, increased the county’s Highway User Tax Fund submission by 58 additional lane miles for the 2024 reporting season, representing a 3.5 percent single-year increase. By comparison,

the county's lane mileage increased by an annual average of less than 0.2 percent over the previous five years.

Additionally, the number of submission errors corrected by the Colorado Department of Transportation decreased by 89 percent, from 161 in 2023 to 17 in 2024. In future Highway User Tax Fund reporting cycles, Mapping staff will re-use the script and workflow improvements to reduce the internal workload by 120 hours per year.

Connecting 99% of Colorado: The geographic information systems engine behind the state's broadband push

Article submitted by Collin Schulte, geographic information systems technician, Broadband Data Program at the Colorado Broadband Office. Reach the team at oit_broadbanddata@state.co.us.

The Colorado Broadband Office leads the statewide effort to expand broadband coverage and quality for all Coloradans. The Colorado Broadband Office's geographic

information systems team serves as the office's data engine, turning raw broadband availability data into actionable maps and tools to guide the investment of hundreds of millions of federal and state dollars.

For over a decade, the geographic information systems team has been leveraging spatial data to inform analysis and decision-making at the state's broadband office, playing a critical role in the effort to close the digital divide. The [**Colorado Broadband Office's Mapping Hub**](#) serves as the central repository for these efforts, as the team constantly analyzes service information alongside program requirements to identify which locations are in need. The Mapping Hub features the [**Colorado Broadband Map**](#), allowing users to check service in specific areas or view availability statistics by region and also includes sections dedicated to state-funded grant programs.

Most recently, Colorado is slated to receive over \$826.5 million from the National Telecommunications and Information Administration's Broadband Equity, Access and Deployment Program, a large-scale federal grant initiative designed to expand high-speed internet across the United States. The

geographic information systems team was responsible for providing the accurate data — including defining eligible (unserved and underserved) locations — to guide the entire grant-making process. As part of the effort, the team processed and visualized the available data through interactive, custom-designed experiences and dashboards, enabling communities, governments and providers to confirm its accuracy — a key step in the Broadband Equity, Access and Development process. A hub page specifically dedicated to Broadband Equity, Access and Development updates allows stakeholders to interact with the layers to identify proposed awardees, technologies and funding by project number.

The goal of the Colorado Broadband Office is to connect 99% of Colorado households to high-speed broadband by 2027. With the percentage of locations served currently 94.9%, the geographic information systems tools deployed at the Colorado Broadband Office play a critical role in achieving the goal by moving the industry from rough estimates to precision, data-driven deployment.

Regional speed limit dataset in final quality control

Article submitted by Montana Moore, geographic information systems analyst at the Denver Regional Council of Governments. Reach Montana at mmoore@drcog.org.

Final call for feedback on the regional speed limit dataset [comment map](#)! The map will close to comments on **Friday, November 14**. DRCOG staff created the comment map for member governments to correct speed limits in the dataset wherever they appear incorrectly. The best quality assurance and control for this kind of data comes from people who know their local roads well.

Several communities have already moved forward with speed-limit reductions. In Denver, the city has changed its default local street speed limit from 25 to 20 miles per hour, replacing thousands of signs to reflect the change. The city's Vision Zero Speed program deploys speed feedback tools to support safer speeds on high-risk corridors. In Lakewood, the city officially adopted a 20 miles per hour default on residential streets and installed nearly 500 new speed limit signs to implement

the change. Boulder has rolled out a new Speed Limit Setting and Signing Project to standardize how the city assigns speed limits on arterial and collector roads.

These local changes have underscored to DRCOG staff the importance of keeping regional dataset as accurate as possible during the first collection. The regional dataset outlines the attribution of speeds and source data. Your comments, whether through the map or via email, will help DRCOG staff validate, correct or refine posted speed values in the dataset. Thank you to everyone who has already submitted suggestions or corrections. DRCOG staff will incorporate those edits into the final dataset.

If you see a speed limit in your jurisdiction represented incorrectly, or if upcoming changes are missing, please leave a comment on the [web map](#) **before November 14**. Your local knowledge helps make the dataset more robust, reliable and useful for planning, safety analysis and regional coordination.

Denver Regional Data Consortium
activities

Denver Regional Data Consortium newsletters are published twice per year (April and October). Please [submit your content for publication](#). Remember, writing an article gets you GISP points! [Visit the website](#) for past newsletter issues.

Denver Regional Data Consortium meetings occur twice per year (January and July). If your organization would like to host a meeting, please contact DRCOG geographic information systems manager Jenny Wallace at jwallace@drcog.org. Please [submit your presentation or training ideas](#).

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