The data consortium consists of Denver Regional Council of Governments members and regional partners with an interest 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 as they relate to data and geospatial initiatives in our region. This newsletter is published quarterly.

Work begins on new tool to map disproportionately affected communities

Article submitted by Joel Minor, environmental justice program manager, and Shannon Barbare, communications specialist, at the Colorado Department of Public Health and Environment. Contact Joel at joel.minor@state.co.us.

Meaningful action on environmental justice requires accurately mapping low-income communities and communities of color that are affected by various sources of pollution. To meet the need to represent pollution’s effect on disproportionately affected communities, the Colorado Department of Public Health and Environment, along with Colorado State University’s Institute for the Built Environment and Geospatial Centroid, are developing CO EnviroScreen.

CO EnviroScreen will enable users to identify disproportionately affected communities based on the definition in Colorado’s Environmental Justice Act (HB21-1266). The goals of CO EnviroScreen are to:

- Pinpoint areas that have a disproportionate burden of health or environmental harm.
- Help users maximize funding and resources for policy changes and other interventions to avoid, minimize and mitigate environmental health risks. For example, Colorado Department of Public Health and Environment’s Environmental Justice Advisory Board
will use CO EnviroScreen to determine where to distribute environmental justice grants created by the Environmental Justice Act.

- Build public trust and empower communities to become involved in decision-making.
- Advance a healthy and sustainable Colorado where everyone has the same degree of protection from environmental health hazards.

The department is inviting community input as CO EnviroScreen’s development unfolds. The team recently completed the first round of community engagement, including stakeholder interviews, focus groups and a large community meeting. The team will develop the tool based on that input, then include community members and stakeholders in beta testing and improving the tool. Colorado Department of Public Health and Environment expects to launch CO EnviroScreen in summer 2022.

Part of the definition of disproportionately affected communities in the Environmental Justice Act is a census block group where more than 40% of households are low-income, people of color or housing cost burdened. Until CO EnviroScreen is finalized, stakeholders can use a draft map layer in Colorado Department of Public Health and Environment’s climate equity data viewer to identify census block groups that meet one or more of the three criteria. CO EnviroScreen uses as its basis the climate equity data viewer and will replace the climate equity data viewer once it is finalized.

CO EnviroScreen will include the full range of areas covered by the Environmental Justice Act definition of disproportionately affected communities and help identify communities “where multiple factors, including socioeconomic stressors, disproportionate environmental burdens, vulnerability to environmental degradation, and lack of public participation, may act cumulatively to affect health and the environment and contribute to persistent health disparities.”

Learn more at cdphe.colorado.gov/enviroscreen.

A map layer in the climate equity data viewer shows communities that are disproportionately affected based on demographic criteria defined in the Environmental Justice Act. CO EnviroScreen will replace the climate equity data viewer when it is launched in summer 2022.
Building a regional vision for people and nature

Article submitted by Chris Hawkins, urban conservation program manager at The Nature Conservancy. Chris can be reached at cmhawkins@tnc.org.

Colorado is changing rapidly for both people and nature. The climate is getting hotter, cities are growing denser and air quality continues to worsen. Many who feel the effects of the changes are marginalized communities whose perspectives are often missing from mainstream conversations about conservation. For Colorado’s more vulnerable populations — especially the poor, elderly and people of color — the challenges are even more severe. Founded in 2015 and formally incorporated in 2018, the Metro Denver Nature Alliance is a coalition of more than 50 partner organizations across the seven-county Denver region — including those from the nonprofit, corporate, academic and government sectors — seeking to align nature-based efforts to ensure more equitable access to nature and to promote healthy people, communities and natural places.

The Metro Denver Nature Alliance’s goal is to develop an evidence-based, equity-centered regional vision for people and nature — a landscape-scale conservation vision for the Denver region — that will help prioritize regional investments and create a more equitable and climate-resilient region that supports all walks of life. Two projects are currently underway that will help create the foundation for a regional vision that will wrap up around December 2022.

The first project is a regional equity assessment to examine data in the region regarding equity, social vulnerability and access to nature. Stakeholders will apply the project’s findings to the development and implementation of programs that consider both social equity and conservation. The second project is a regional conservation assessment to identify high-priority lands and waters in the region to protect, connect, restore and enhance.

Both projects will result in a variety of products. One of the primary goals is to help partner organizations integrate geospatial information from the assessments into existing planning tools and processes at the level decisions are made around land, water and people. If you’d like to learn more about the two regional assessments or would like Metro Denver Nature Alliance to share more information with you and your organization, please reach out to the Chris Hawkins at The Nature Conservancy at cmhawkins@tnc.org.
Complete Streets are streets that provide safe and equitable options for travelers of all modes, including pedestrians, bicyclists, transit riders and motor vehicle users. DRCOG has developed a regional Complete Streets Toolkit for the Denver region. The toolkit is a resource for local governments that provides guidance to plan, design, and implement Complete Streets. The toolkit is in draft form and awaiting final Board approval.

DRCOG staff created an Esri story map to accompany the toolkit. The story map focuses on the street types that were defined in the toolkit. The embedded web map shows regional Complete Street types — users can filter by jurisdiction and street type. Each street type also has a narrative, visual cross section and shows multimodal priorities. Photos and illustrations highlight some of the design elements used to create a Complete Street, such as bicycle parking, lighting and crosswalks.

The project represents DRCOG’s first official Esri story map. The map was a collective effort across DRCOG’s transportation, communications and marketing, and geographic information systems teams. DRCOG staff welcome and appreciate feedback on the story map. Please check DRCOG’s newest geographic information systems web product and let staff know what you think:

Complete Streets story map

DRCOG data acquisition updates

Denver Regional Aerial Photography Project 2022

Previous project partners received quotes in mid-April for participation in the upcoming imagery project. DRCOG is now accepting commitments in the form of a signed letter of intent that outlines the products and services that the partner wishes to purchase.
In addition to the traditional imagery offering, DRCOG staff are also offering a Nearmap subscription. The Nearmap subscription includes more frequently updated imagery that can be used as a supplement to the primary imagery deliverable, which is produced once every two years.

If you are not a project partner and would like to be, reach out to me at asummers@drcog.org. Read more about DRCOG’s imagery projects on the website.

Regional Lidar Project 2020

DRCOG received a grant from the U.S. Geological Survey in December 2019 to collect quality level 2 lidar in 5,000 square miles of the region and derive contours in most of the Denver metro area. Flights to collect the data and data processing tasks to produce the point cloud are complete. Thorough quality control undertaken by the U.S. Geological Survey began in June and is still ongoing. The data is expected to be available for download through DRCOG’s Regional Data Catalog in the first quarter of 2022.

For more information, visit the website.

Do you have an interesting use case for lidar data? Tell us about it by emailing me at asummers@drcog.org.

Planimetric Data Project 2020

The planimetric data project began in February and deliveries began in June. Groups 1 and 2 are complete. Partners in Group 3 are reviewing their deliverables now. Group 4 is on schedule for review in early November. There are seven deliveries total. The public will have access to the data in the first quarter of 2022 via the DRCOG Regional Data Catalog.

DRCOG staff are collecting building roofprints, edges of pavement, parking, sidewalks and ramps, trails, driveways and impervious surfaces throughout the metro area. Check out the map.

If you are not a project partner and would like to be, reach out to me at asummers@drcog.org. Read more about DRCOG’s planimetric data projects on the website and download datasets from past projects.

Regional Land Cover Project 2020

DRCOG was awarded a Colorado Water Plan Grant from the Colorado Water Conservation Board in March, which supplies a 50% match to local contributions for the project. The project kicked off in June with a presentation from Sanborn and the University of Vermont regarding the “interpretation key,” an illustrated guide to the classification schema DRCOG staff use.

The product will be a 9-class, 1-meter resolution land cover dataset that covers the 6,000 square mile Denver region. Deliverables are expected in the first quarter of 2022 and will be made publicly available on DRCOG’s Regional Data Catalog.

If you are not a project partner and would like to be, reach out to me
Engage with us

- This quarterly newsletter reaches more than 400 people, has a higher-than-average open rate, and is written by professionals like you. It is the perfect place to show off your projects, highlight your work and contribute ideas to the GIS community in the Denver region. Newsletter release dates are the 15th of January, April, July and October (or the next business day). Please contact Ashley Summers at 303-480-6746 or asummers@drcog.org to contribute.
- Did you miss a newsletter or a meeting? Visit our website for past newsletter issues and Data Consortium meeting materials.