



*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.*

## How Mile High Flood District uses land cover data

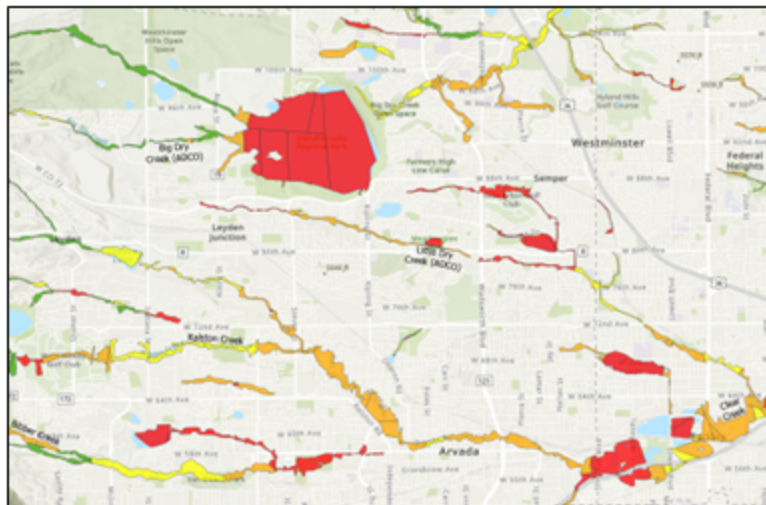
*Article submitted by Katie Evers, geographic information systems administrator and Mary Powell, environmental manager at Mile High Flood District. Katie can be reached at [kevers@mhfd.org](mailto:kevers@mhfd.org) and Mary can be reached at [mpowell@mhfd.org](mailto:mpowell@mhfd.org).*

The Mile High Flood District was designated as the regional flood district by the State of Colorado in 1969 in response to the South Platte River Flood. Their mission is to protect people, property and the environment through flood and stormwater management, stream mitigation, education and research. Visit [mhfd.org](http://mhfd.org) to learn more about the programs they offer. The Mile High Flood District uses the best available data and technology to study the urban systems in the Denver region and shares that knowledge with the local communities it serves. The DRCOG 2020 regional land cover database is a key component in the studies and assessments conducted at the Mile High Flood District to help fulfill the mission.

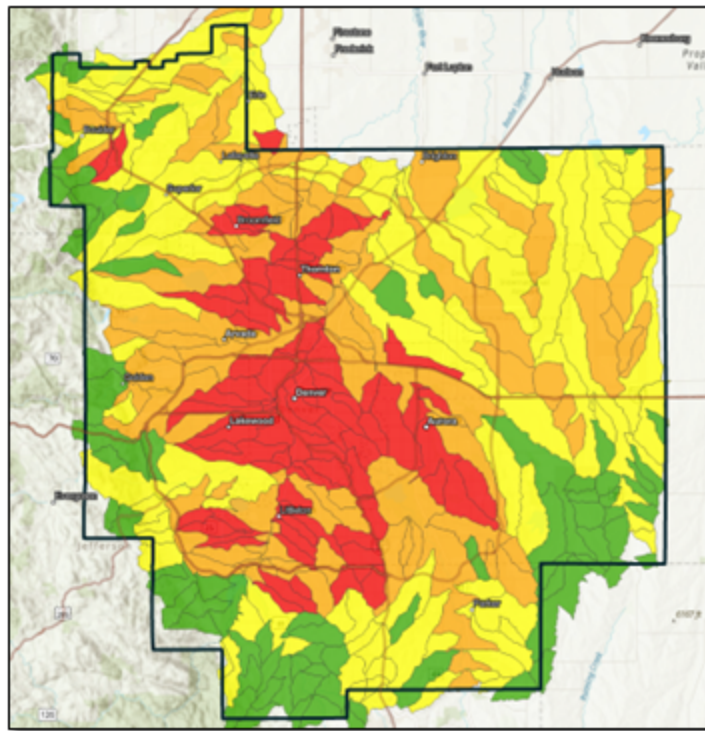
The 1-meter resolution DRCOG land cover data is a valuable improvement over other nationwide datasets and is foundational data for the Mile High Flood District's Urban

Stream Assessment Procedure. The Urban Streams Assessment Procedure was designed as a unique assessment tool to evaluate urban stream conditions related to the five elements of stream function: community values, hydrology, hydraulics, geomorphology and vegetation. Using the assessment procedure, analyzers score multiple metrics to determine the level of function for each element. DRCOG's land cover data, along with other spatial datasets, are used to generate quantitative metrics for watershed-level scores for several indicators of the Urban Stream Assessment Procedure.

Figure 1 shows the Urban Stream Assessment Procedure in action using vegetation classified from DRCOG's land cover data. This classification was clipped to the 100-year floodplain boundary to generate the riparian vegetation features. The red polygons represent areas with little to no riparian vegetation cover while the green shading represents areas with greater than 80% coverage. Riparian vegetation coverage is used to score the Urban Streams Assessment Procedure vegetation element.



As another example, the land development intensity index is derived from DRCOG's land cover dataset and contributes to the scoring of the hydrology element. Figure 2 shows minimal to significant development on a scale from green to red.



The results of the Urban Stream Assessment Procedure and other studies will be incorporated within a new module in the Mile High Flood District Confluence. The Mile High Flood District's Confluence is a comprehensive data portal that serves as a tool for its partners and communities. DRCOG's 2020 regional land cover dataset is also available as a layer in the mapping interface. Visit <https://confluence.mhfd.org/login> to explore more.

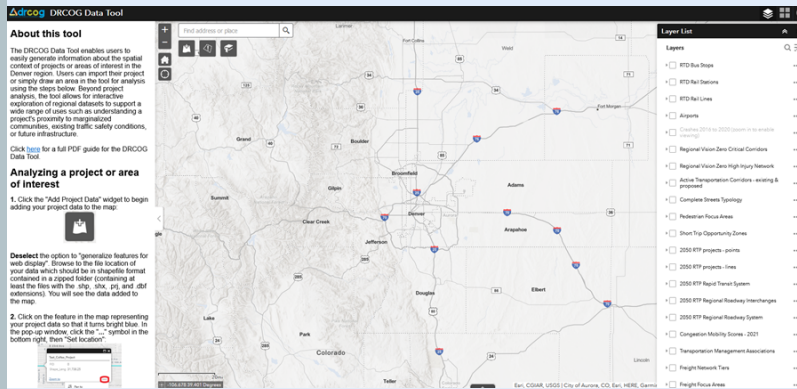
With 3 million residents within the Mile High Flood Districts boundaries, it's essential to use the best data available to understand the urban stream systems and make well-informed planning and project decisions. The Mile High Flood District relies on accurate data from partners like DRCOG and continues to support its efforts.

## DRCOG's Data Tool

*Article submitted by Byron Schuldt, geographic information systems specialist at DRCOG. Byron can be reached at [bschuldt@drcog.org](mailto:bschuldt@drcog.org)*

Earlier this spring, DRCOG staff launched a new web mapping application called the DRCOG Data Tool. This publicly accessible tool allows users to explore regional datasets in an interactive map and conduct rapid spatial analysis for chosen areas of interest. The DRCOG Data Tool includes datasets relating to public transit, multimodal transportation and traffic safety. Beyond transportation data,

demographic and equity data are available in the tool for exploration and analysis. Users can either upload a shapefile or draw an area of interest directly on the map to generate statistics about the indicated area such as the number of historic crashes, current and forecasted future population and the number of transit stops. For general data exploration, the tool allows users to visualize datasets in the map and filter datasets with custom criteria.



The DRCOG Data Tool evolved from a previous web mapping application called the Transportation Improvement Program Data Tool. It was originally designed to help Transportation Improvement Program project sponsors fill out questions on DRCOG's application form that required spatial analysis. DRCOG staff received enthusiastic, positive feedback from the project sponsors and collected various inquiries about the long-term availability of the Data Tool. Furthermore, DRCOG staff learned that planners around the region were finding a growing range of uses for it. This sparked the idea to create a permanent, more generalized version, resulting in the DRCOG Data Tool. The DRCOG Geographic Information Systems team maintains the tool and plans to update data and make improvements for future iterations.

DRCOG hopes this tool is useful for planners, decisionmakers or anyone interested in better understanding geographic information in the Denver region. Please reach out to [geospatial@drcog.org](mailto:geospatial@drcog.org) with any questions or feedback.

Available on the Regional Data Catalog at:  
<https://data.drcog.org/maps>

**DRCOG Data Tool**

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- This quarterly newsletter reaches more than 300 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 great work and contribute ideas to the Geographic Information Systems community in the Denver region. Newsletter release dates are the 15th of January, April, July and October (or the next business day afterward). Please contact Jenny Wallace at 303-480-6754 or [jwallace@drcog.org](mailto:jwallace@drcog.org) to contribute.
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