

# How Mile High Flood District uses land cover data

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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, analysts 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.

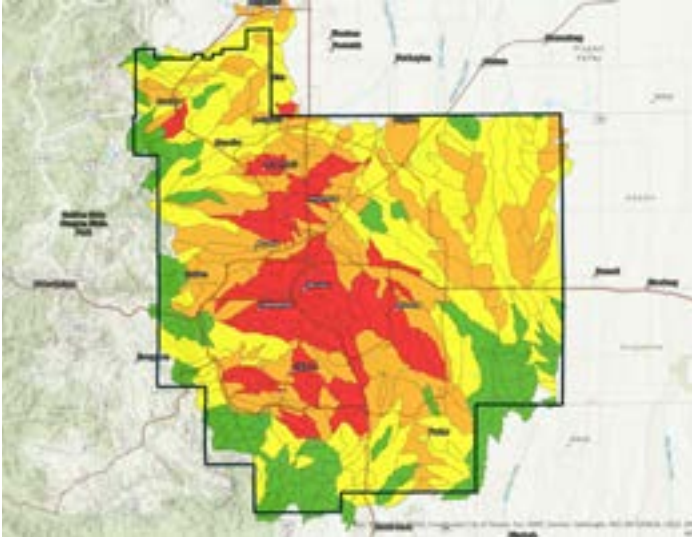
Figure 1:



Source: River Works Ltd.

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.

Figure 2:



Source: River Works Ltd.

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.