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## Overview

### Overview

- Identifying watersheds for protection or restoration requires extensive effort to consolidate datasets from various sources, spatial and temporal scales.

### Watershed Assessment

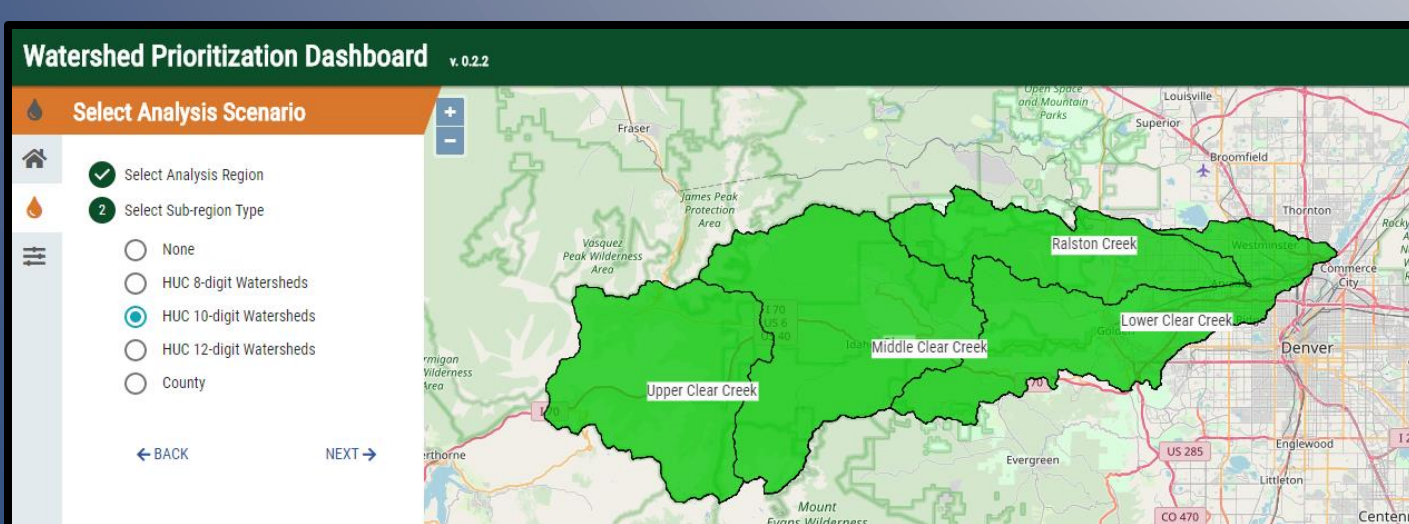
- The EPA Healthy Watersheds Assessment framework include health indicators across a wide range of categories (landscape condition, habitat, hydrology, geomorphology, water quality, and biological condition) and vulnerability indicators across common risks to watershed health (land use changes, water use, wildfire).

### Prioritization

- Multi-criteria Decision Analysis (MCDA) of these indicators provides a composite watershed score, which can then be used to rank watersheds by relative importance.

### Web Interface

This process has been automated and made available in eRAMS for public use in the Non-Pointsource Prioritization Dashboard (NPSPD).



## Watershed Assessment

**15 categories with 200+** indicators of watershed health and vulnerability

- Landscape Condition
- Hydrology
- Geomorphology
- Biological Condition
- Water Quality
- Impairments
- Infrastructure
- Land Use Change
- Climate Change
- Hydrologic Change
- Water Quality Change
- Water Use
- Wildfire

Name	Landscape Condition			
	Natural Land Cover	Natural Land Cover (HAZ)	Population Density	Abandoned Mining Features
Ralston Creek	100	100	724.08	46
Middle Clear Creek	100	100	31.98	3299
Bear Creek	100	100	462.41	21
Williams Fork	100	100	0.51	44
Headwaters North Fork South Platte River	100	100	5.54	79
South Boulder Creek	100	100	56.39	578
Fraser River	100	100	28.3	7
Middle Blue River	100	100	40.49	37
Big Dry Creek-South Platte River	0	0	1301.64	3
Snake River	100	100	16.49	687
Upper Clear Creek	100	100	12.33	314
Coal Creek-Boulder Creek	100	0	751.61	109
Lower Clear Creek	100	0	1406.32	37
City of Lakewood-South Platte River	0	0	3834.55	6

Interactive charts allow:

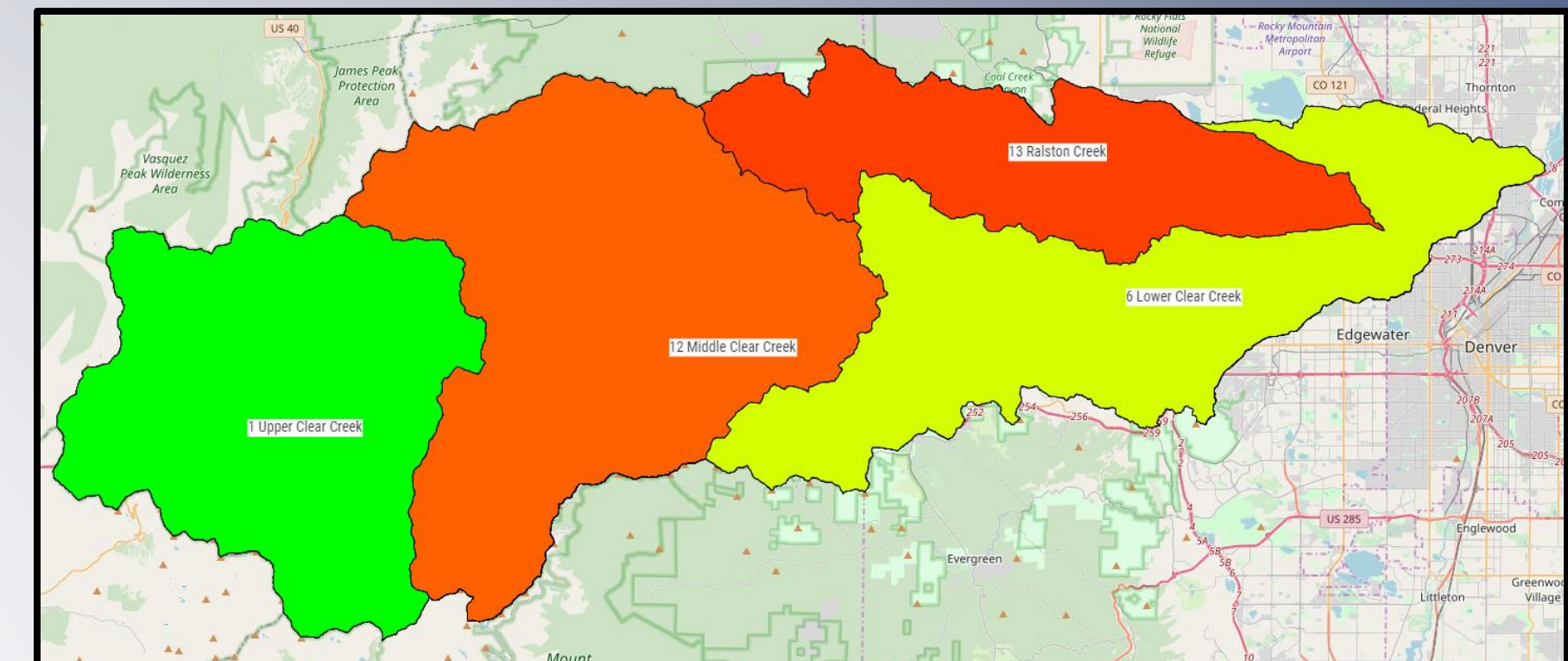
- Selection of single watershed data for viewing (points)
- Comparison to other watersheds in area of analysis (blue line)
- Comparison to all watersheds in the state (black line)

## Custom MCDA

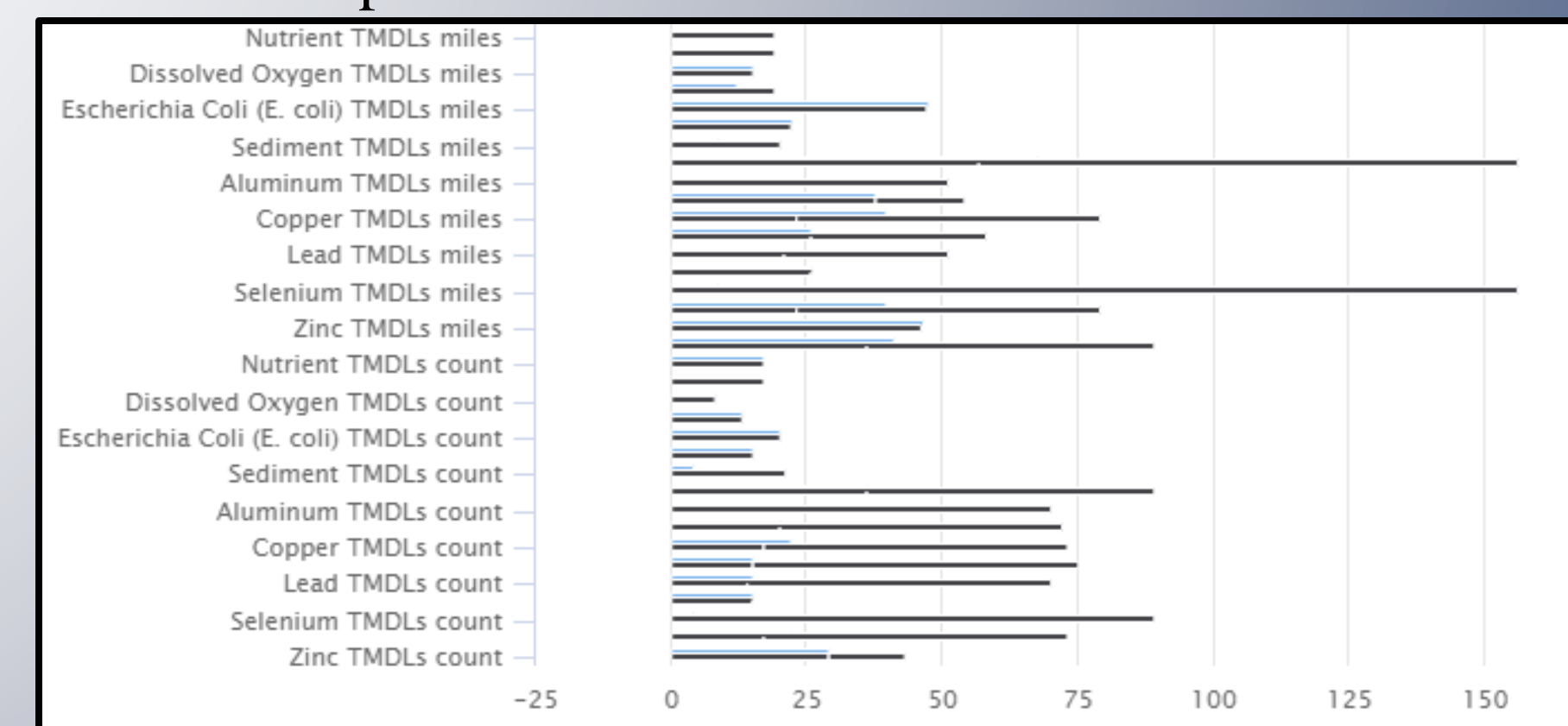
- Default **protection** and **restoration** weightings
- Allows customization



## Watershed Prioritization



- Includes defaults for identifying watersheds for protection or restoration.
- Custom selection of indicators, allows users to prioritize watersheds based on their interests.
- Easy export of charts and data allow for re-analysis of watershed data outside of eRAMS.
- Easy summary of watershed data allows stakeholders and watershed groups to view the same information in the same platform.



## Conclusions

- New web tool selects priority watersheds related to numerous criteria through a simple to use automated MCDA.
- More information at:

<http://onewatersolutions.com/our-software/tools/colorado/nps-priority/>