

## eRAMS

The Environmental Resource Assessment and Management System (eRAMS) is an open source technology that provides cloud-based software solutions as online services and a platform for development and deployment of online tools.

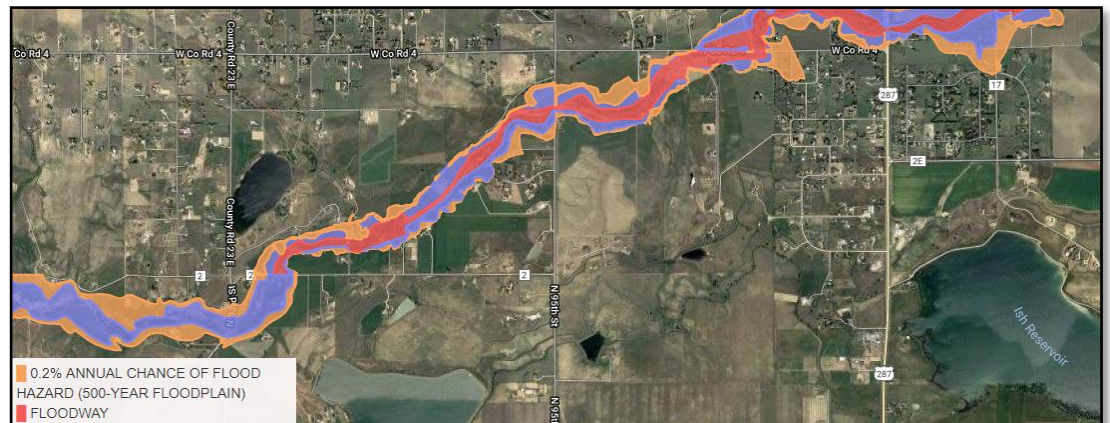
Version control and platform requirements are often barriers to widespread adoption of new technologies.

We develop platform independent software to access analytical and “big” data management systems. eRAMS streamlines access to publicly available databases and simplifies workflows.

Our software holistically integrates data and models to comprehensively assess water, land, energy and other linked systems.

Our services are used to assist with strategic and tactical decision making for sustainable management of land, water, energy and other connected resources.

# Watershed Rapid Assessment Program (WRAP)



The [Watershed Rapid Assessment Program \(WRAP\)](#) is a summary tool that extracts, organizes, and analyzes data and information at various watershed scales, including HUC 12, HUC 10, and HUC8 levels. Utilizing the extracted data, the WRAP tool calculates a number of watershed health indicators to create an overall summary of the watershed condition. WRAP allows users to conduct a variety of analyses ranging from simple watershed summaries to more complex analyses such as TMDL planning and implementation

WRAP was developed by the One Water Solutions Institute in partnership with the [Colorado Department of Public Health and Environment \(CDPHE\)](#) to help watershed managers analyze scenarios and compare watersheds in their area.

## Healthy Watershed Report

The Healthy Watershed Report is an output generated by the Watershed Rapid Assessment Program (WRAP). This program extracts, organizes, and analyzes data and information at various watershed scales, including HUC 12, HUC 10, and HUC8 levels and summarizes readily available geospatial characteristics including land use, land cover, soils, climate, stream discharge, water quality, stream classification and impairment status, and census data from USGS, USDA, NOAA, and EPA data resources. In addition to the data extraction, a number of watershed health indicators are calculated based on the EPA's Healthy Watershed methodology.

### Domain

To access the tool visit: <http://www.erams.com/wrap>

## CATENA ANALYTICS

Catena Analytics provides powerful platforms for building accessible and scalable analytical tools and simulation models that can be accessed via desktop or mobile devices.

Our **Environmental Resource Assessment and Management System (eRAMS)** and **Cloud Services Integration Platform (CSIP)** present several options for developing collaborative projects and integrating geospatial data, analytics, and modeling engines.

### ACCESSIBLE

Your documents, data and tools can be accessed from commonly used web-browsers on mobile or desktop devices.

### SCALABLE

Our sophisticated distributed storage and computing techniques provide the scalability and availability necessary to serve a broad range of needs.

### SECURE

We provide state-of-the-art data protection solutions and instant access to digital resources using a secure user account.

## Key Features

### RESULTS

WRAP is intended to facilitate comparison of different watersheds. The tool summarizes various time series and spatial data in a consistent format to facilitate these comparisons. The information is summarized in multiple graphs displaying time series data such as precipitation, temperature, snowpack, stream flow, water quality, and more.

Additionally, interactive maps produced by the WRAP tool allow users to examine spatial data including land use, aquifer extent, soil drainage classification, impervious surface, and more. The raw data (time series, raster maps) are also available for download. More information is available at: <http://onewatersolutions.com/our-software/tools/colorado/watershed-assessment/>

### Domain

To access the tool visit: <http://www.erams.com/wrap>

### DATA

This tool summarizes readily available geospatial characteristics including land use, land cover, soils, climate, stream discharge, and water quality from various data resources including:

- [Multivariate Adaptive Constructed Analogs \(MACA\)](#) Statistical Downscaling Method
- [National Oceanic and Atmospheric Administration \(NOAA\) Daily Global Historical Climatology Network \(GHCN-Daily\)](#)
- [Snow Telemetry \(SNOTEL\)](#)
- [Parameter-elevation Regressions on Independent Slopes Model \(PRISM\)](#)
- [USGS National Water Information System \(NWIS\)](#)
- [US. EPA STORET](#)
- [US. EPA 303d](#)
- [US. EPA 305b](#)
- [USDA National Agricultural Statistical Service \(NASS\)](#)
- [USGS National Land Cover Dataset \(NLCD\)](#)
- Colorado-specific data for:
  - [Water Quality Standards](#)
  - [Water Rights](#)
  - [Confined Animal Feeding Operations](#)
  - [Wastewater Treatment Monitoring](#)
  - [Wetlands & Riparian Zones](#)

### TECHNICAL SUPPORT

Should you need additional assistance we are here to help! Contact an eRAMS expert to help guide you through any hurdles at:  
[eramsinfo@gmail.com](mailto:eramsinfo@gmail.com)

## System Requirements

A modern web-browser is required to connect and run the web-tool. Browser options include: Google Chrome v.69, Mozilla Firefox v.62, Safari v.11.1, and Microsoft Edge v.17.



**CATENA**  
ANALYTICS

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