User Guide

Version: 2.0

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Domain:
https://erams.com/public/co_groundwater/map

Agricultural Chemicals Groundwater Protection Database

One Water Solutions Institute

Colorado State University

CONTENTS

EXECUTIVE MESSAGE

Catena Analytics offers powerful platforms for building accessible and scalable analytical tools and simulation models that can be accessed via desktop or mobile devices. Our team has spent that last decade developing the Environmental Resource Assessment and Management System (eRAMS), an open source technology that provides cloud-based geospatially-enabled software solutions as online services and a platform for collaboration, development, and deployment of online tools. Our services are used to assist with strategic and tactical decision making for sustainable management of land, water and energy resources. Thank you for choosing Catena Analytics and the eRAMS platform to meet your data, modeling, analysis and geospatial needs.

WHO SHOULD USE THIS GUIDE

This guide is a tutorial to get you started using eRAMS and the Agricultural Chemicals Groundwater Protection Database. The guide provides instructions for commonly performed tasks and uses of the tool. This tool is intended for use by urban planners and water managers, academic groups, regulatory officials, consultants as well as state, local and federal agencies planning for the future of water resources.

NEED HELP?

After reviewing the guide if you need additional assistance we are here to help! This guide is designed to provide instruction on commonly performed operations and answers to many frequently asked questions. If you find any aspect of the tool challenging or missing information from this guide, please engage an eRAMS expert to guide you through any hurdles. Contact us at: eramsinfo@gmail.com

CATENA ANALYTICS

INTRODUCTION
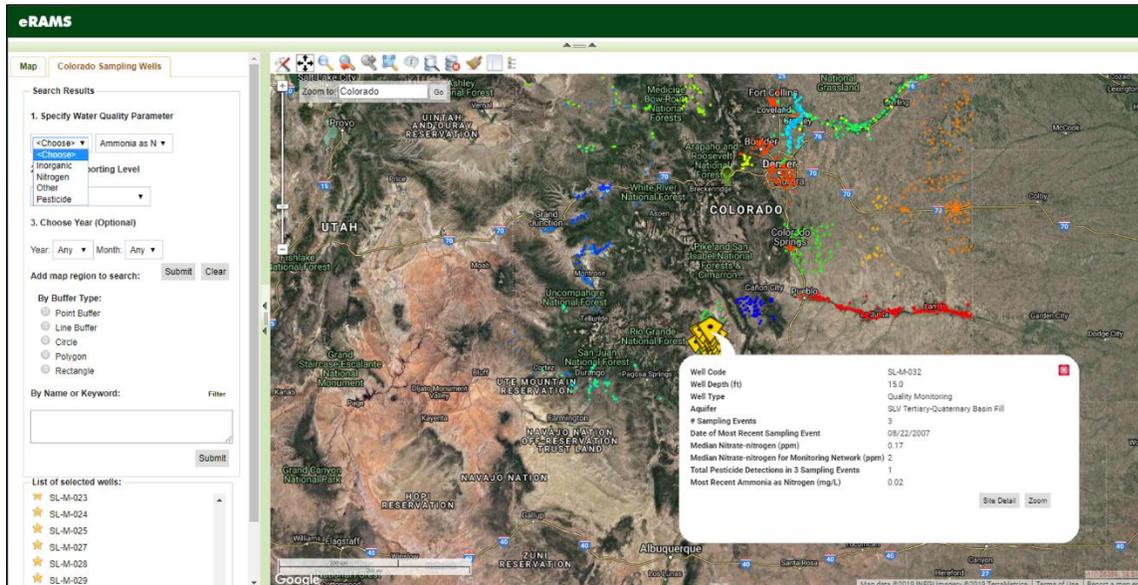
PURPOSE

The Agricultural Chemicals and Groundwater Protection Program protects groundwater and the environment from impairment or degradation due to the improper use of agricultural chemicals while allowing for their proper and correct use.

DESCRIPTION

Created in collaboration with the Colorado Department of Agriculture, Colorado State University Extension and the Colorado Department of Public Health and Environment, the Groundwater Protection Database provides groundwater quality monitoring results by year and geographic location for pesticides and inorganic compounds including nitrate–nitrogen.

All reports are printable summaries of the requested information. Because the program focuses on geographical areas with extensive agricultural chemical use, the data does not represent typical groundwater quality in Colorado.

In addition to the information collected directly by the ACGP Program, the database also provides access to additional water quality data and drinking water information including:
- USGS Water Quality Data
- EPA STORET Water Quality Data
- CSU Water Quality Interpretation Tool
- EPA Groundwater & Drinking Water
- EPA National Water Quality Standards Database

SOFTWARE AVAILABILITY

Domain

https://erams.com/public/co_groundwater/map

Documentation URL

https://erams.com/catena/tools/colorado-collaborative/groundwater-protection/

AUTHORIZED USE PERMISSION

The information contained in the Agricultural Chemicals and Groundwater Protection Database (the "Service") is for general information purposes only. Colorado State University's One Water Solutions Institute ("CSU-OWSI") assumes no responsibility for errors or omissions in the contents of the Service. In the Service, you agree to hold neither the creators of the software platform nor CSU-OWSI liable for any action resulting from use or misuse of the Service. In no event shall CSU-OWSI be liable for any special, direct, indirect, consequential, or incidental damages or any damages whatsoever, whether in an action of contract, negligence or other sort, arising out of or in connection with the use of the Service or the contents of the Service. CSU-OWSI reserves the right to make additions, deletions, or modification to the contents of the Service at any time without prior notice.

SYSTEM REQUIREMENTS

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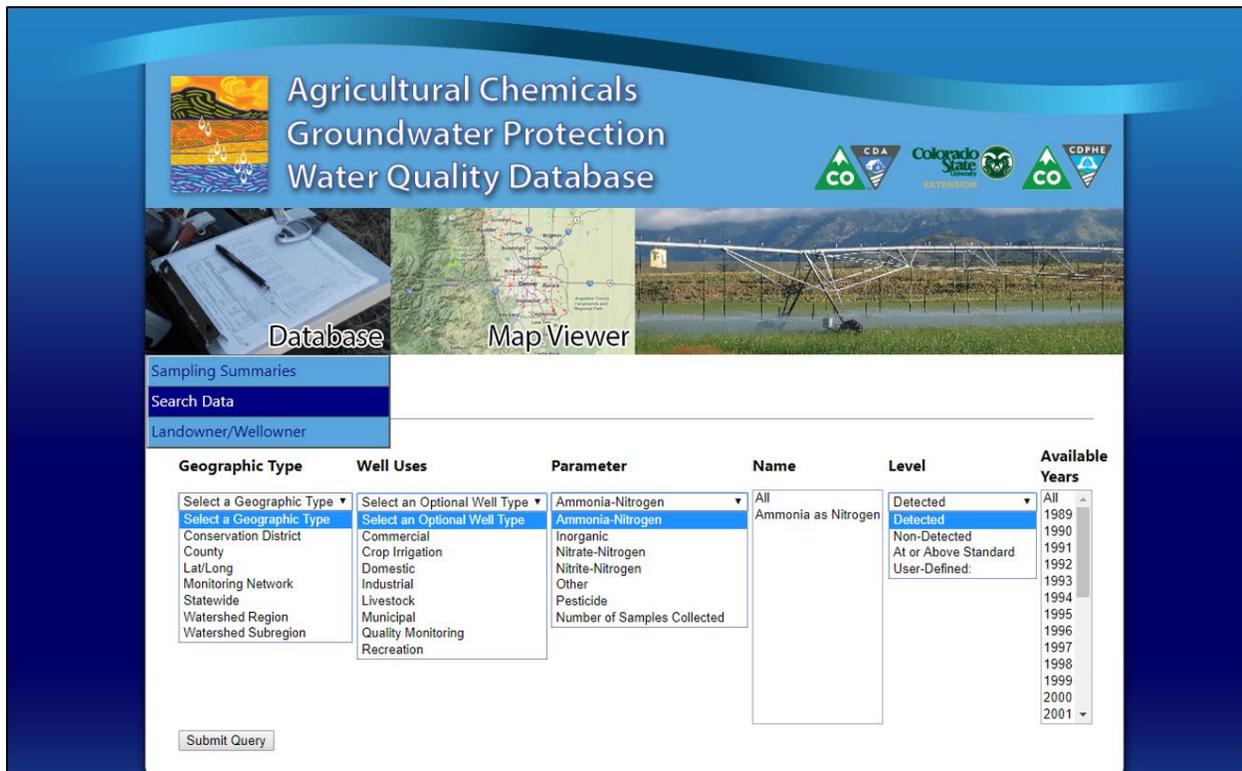
USING THE TOOL

Users can interact with the Agricultural Chemicals and Groundwater Protection Database in several ways, each of which is described in greater detail below. Each method can be accessed from the corresponding section of the homepage: https://erams.com/public/co_groundwater/

GENERAL DATA QUERY

This interface enables users to conduct a general search of the database.

1. From the home page (https://erams.com/public/co_groundwater/) hover over the "Database" tab and select "Search Data" to display the interface
2. Enter required search criteria (Figure 1) – options include:
   a. Geographic Type
   b. Well Uses
   c. Parameter
   d. Name
   e. Level
   f. Available Year(s)
3. Click "Submit Query" to review results

Figure 1: General groundwater data query

COUNTY-LEVEL SAMPLING SUMMARIES

This interface enables users to review county-level and statewide table summaries of nitrate and pesticide data collected by the program.

1. From the home page (https://erams.com/public/co_groundwater/) hover over the "Database" tab and select "Sampling Summaries" to display the Colorado state interface
2. Click on a county of interest
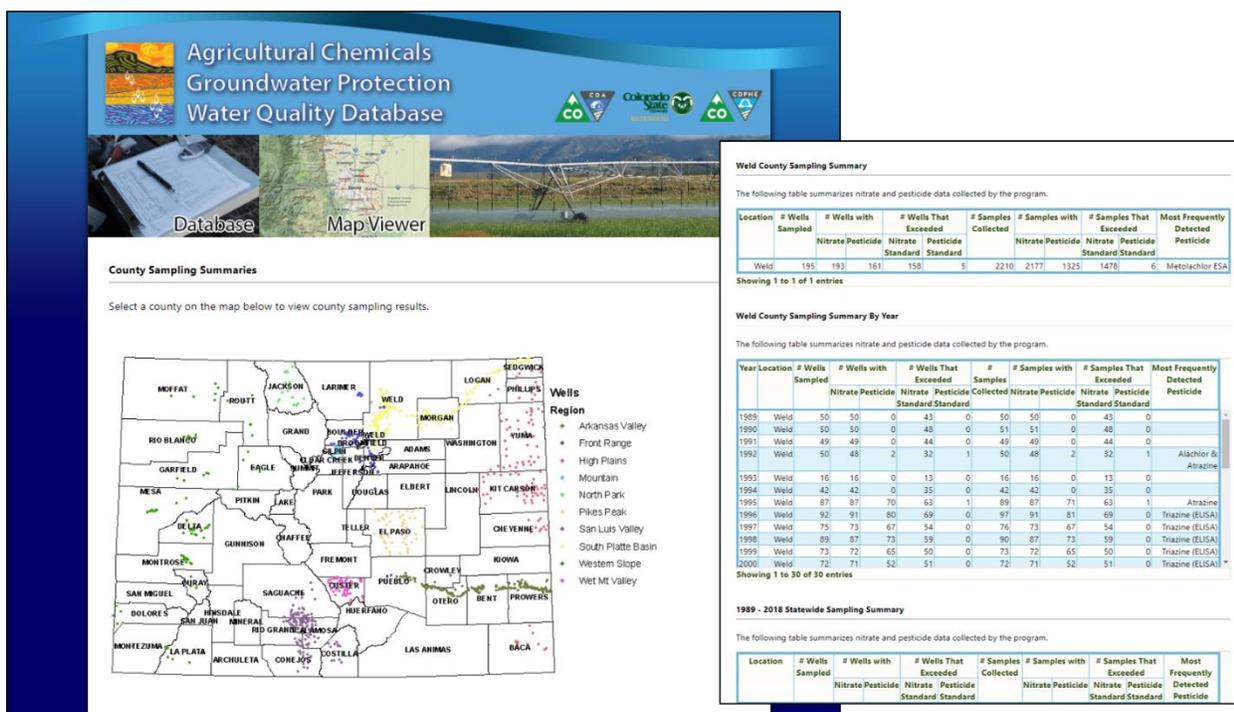3. Interface will display corresponding data in a table summary (Figure 2)

Figure 2: County-level sampling summary

LANDOWNER/WELL OWNER

If you have a specific well ID you're interested in the database will return sampling results by completing the following:

1. From the home page (https://erams.com/public/co_groundwater/) hover over the "Database" tab and select "Landowner/Wellowner" to display the interface
   a. **Note**: *In-line help instructions will automatically be displayed*
2. Enter required search criteria (Figure 3) – options include:
   a. Well ID
   b. Available Years
   c. Parameter

           d.   Name

           e.   Level of Detection

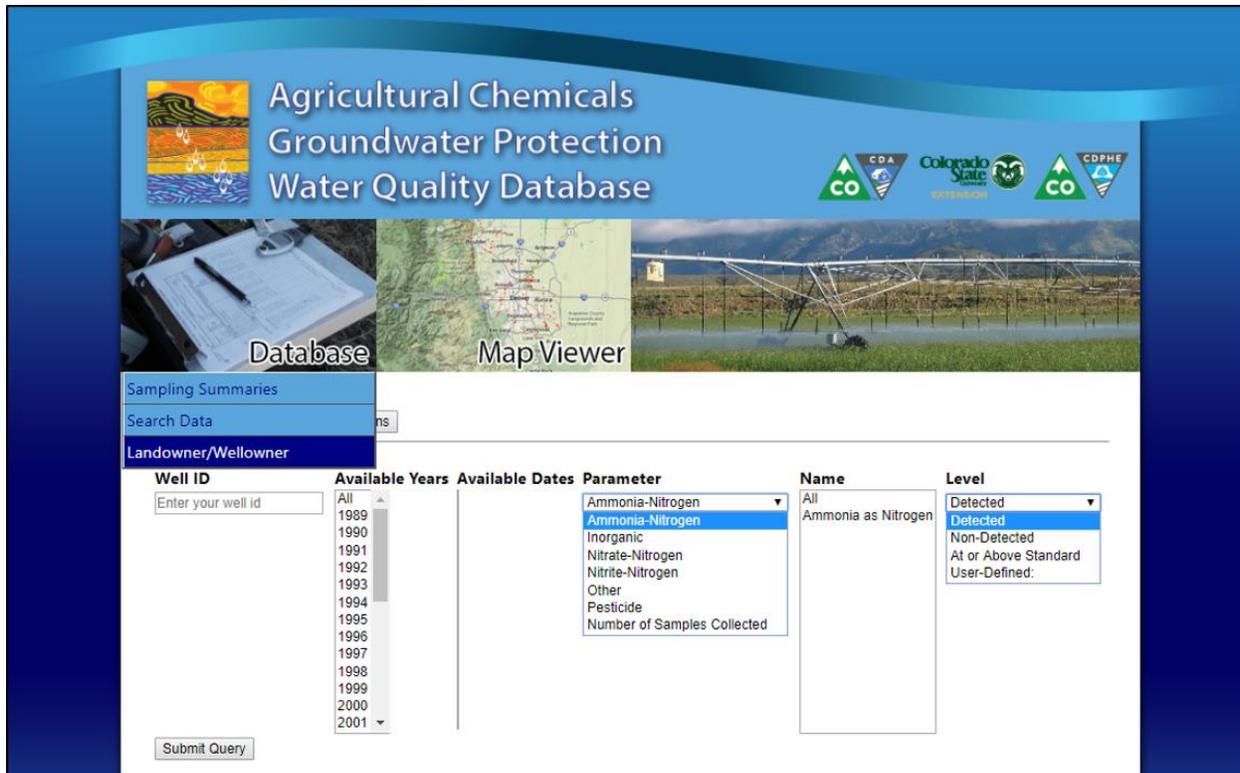   3.   Click "Submit Query" to review results

Figure 3: Landowner/well owner interface

GEOGRAPHIC INTERFACE (MAP)

The final option for interacting with the database uses a Geographic Information System (GIS) interface to display the data.

1. From the home page (https://erams.com/public/co_groundwater/) click the "Map Viewer" tab
    a. Note: this will redirect to the eRAMS interface (https://erams.com/public/co_groundwater/map)
2. From the GIS interface, enter the desired search criteria, then click "submit"
3. The interactive map layer allows you to view data for a specified point on the map by either clicking a well in the results "List of selected wells" or the corresponding well on the map (indicated by yellow triangle) (Figure 4).
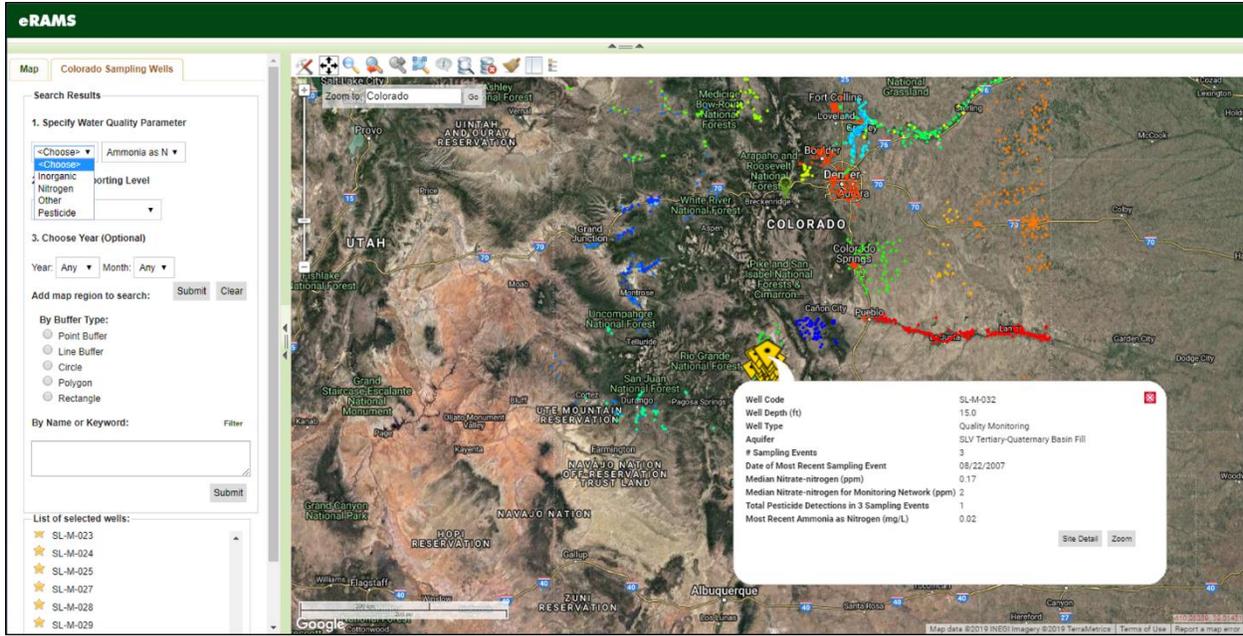
Figure 4: Geographic interface sampling results