# Water Resources Mission Area Integrated Data and Tools Catalog



### THE PROBLEM

The WMA does not have an internal or public catalog of datasets, compatible tools, and example use cases to share and discover resources in use or in development by WMA projects. As a result, data management coordination between active projects, and public dissemination of data, tools, and workflow resources is handled through ad-hoc means that requires a large investment of time, includes redundancy and may be challenging to maintained in the long run.

Building just enough to test the need and functionality of the catalog. Usability studies and interviews have informed path forward

FY22- concept of the catalog developed

FY22: static, visual only • purpose, socialize idea FY23: simple web interface, collection of csvs purpose: users could interact, projects

FY24: webform, data validation and public endpoint • purpose: improve entry into catalog, contribute content as example, facilitate discussion realistic view of what the catalog could as tool for planning become, protoype to green light efforts to scale

THE APPROACH

## WHAT IS THE CATALOG?

The catalog is a place to share and discover the data and tools that projects in WMA are developing or using as inputs to their project work. This information is stored in one cohesive information base that can be searched and filtered to serve a variety of data management and project planning needs.

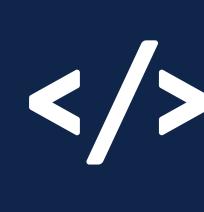
The catalog is comprised of three resource types:



**Datasets** observed and modeled data



software and workflows



**Use Cases** 

demonstrations of how to use the datasets and tools in the catalog

# WHAT CAN YOU DO WITH THE CATALOG?

The catalog can be used to



Discover new assests to be used for project work



Share new information products



Promote better data management



Increase coordination among WMA projects

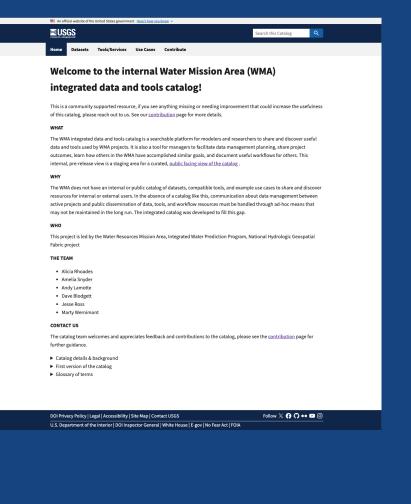
Some examples of the types of questions you could ask of the catalog (once fully operational) include

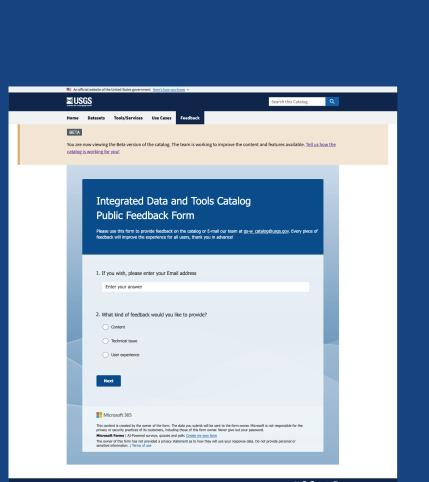
Which precipitation datasets are available for the years 1950-2000 with a spatial resolution of 4km?

Where can I get access to the gridMET dataset?

Which other projects are already using the same climate forcing dataset that my project is using?

### **CURRENT STATE**





<b>7</b> Project's Sample Inventory	<b>248</b> Datasets
<b>35</b> Tools/Services	<b>39</b> Use Cases

Internal view: includes project information and in-dev products

Public end point: includes only released science products

No formal process or governance

#### **FUTURE STATE**

- Flexible content management system that real time updates and validates as entries into the catalog are made by users
- Just enough features developed to provide the right information to scientists and managers
- A lightweight process for entry and governance
- All project data/tools/etc exist in catalog

We want to hear from the larger community of modelers and managers about what functionality we should prioritize implementing in future versions. We welcome ideas to improve usability and integration of the site and its contents through the feedback