



AZGeo Category Update Plan


As part of our continuing commitment to refining the user experience in AZGeo, we are updating our data categories to make searching for data easier and more effective. These improvements will streamline the way people locate and utilize data, enhancing their ability to quickly find the data they are looking for. We believe these updates will significantly improve the overall user experience and empower people to efficiently find the data they need within the extensive AZGeo data collection.


In September 2024, the AZGeo Advisory Committee sent a survey to the Arizona GIS Community regarding the categories used in AZGeo. The survey requested feedback, including if any new categories should be added, current categories removed, or categories be renamed in order to make them more applicable to the data that were being uploaded into AZGeo. Based on the results of that survey, the AZGeo Advisory Committee and the Arizona State Land Department are ready to begin updating the AZGeo categories. **Updating the categories will impact most datasets currently in AZGeo. This paper outlines the phased rollout of the updates and the roles of the AZGeo Curator and the Data Custodians who have uploaded data to AZGeo.**


Explore AZGeo Open Data

The icons below, based on ISO 19115, will find data that was assigned the appropriate category by the data contributor. For other searches (e.g. city name, police, fire, etc.) use the data search box below.

To view secure/controlled data sets that have been shared with you, in addition to open data, please login to AZGeo and then visit the [AZGeo Hub Data Gallery](#)


[All](#)


[Agriculture/Farming \(e.g. rearing of animals and/or cultivation of plants\)](#)


[Biota \(e.g. flora and/or fauna in natural environment\)](#)



[Boundaries \(e.g. legal land descriptions\)](#)

Figure 1: Screenshot of the AZGeo Open Data Portal

What are Categories?

Categories are predefined keywords that can be assigned to data, feature services, maps, and applications within AZGeo to aid with data discovery (see Figure 2). Similar to tags, users can assign categories to items in AZGeo and use them to aid in searches. However, unlike tags, which can be defined by the uploader, categories are predefined by the AZGeo Curator and Administrators, based on direction from AZGeo users and the AGIC AZGeo Advisory Committee.

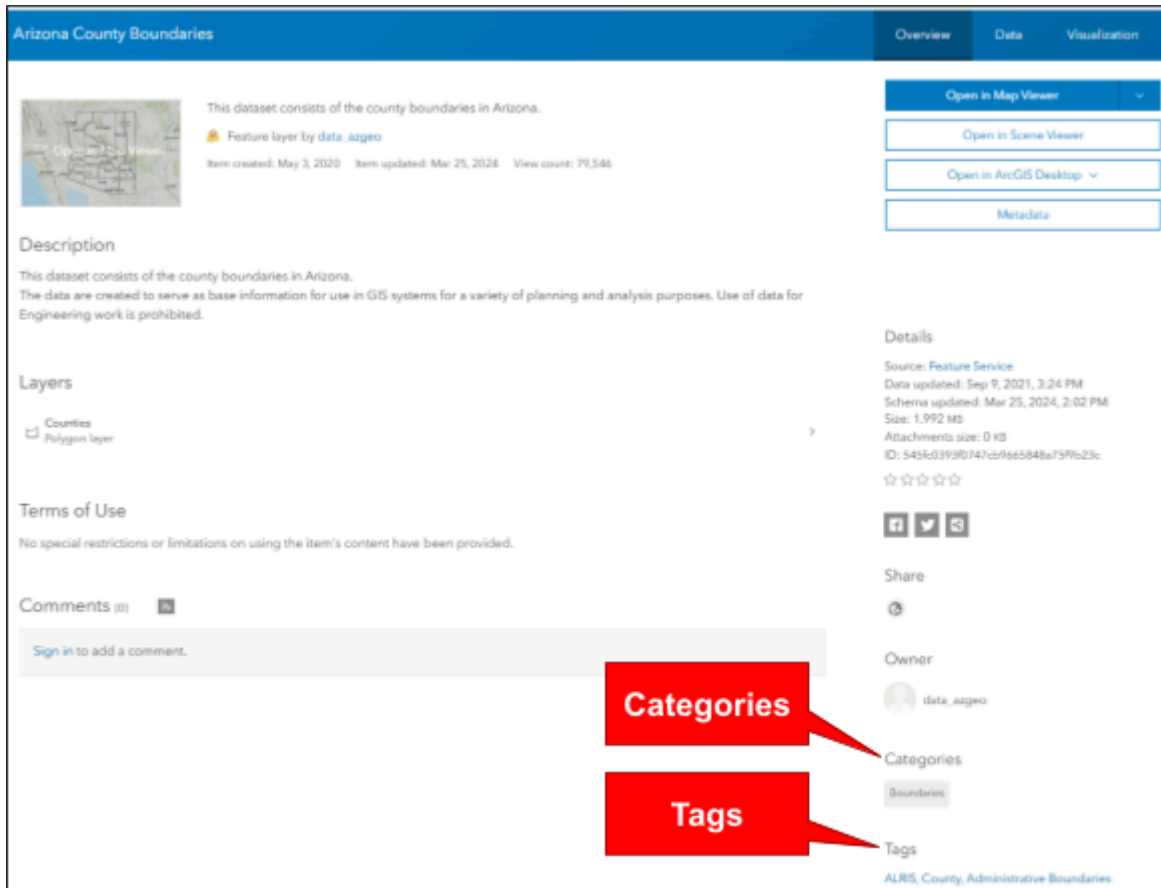


Figure 2: AZGeo item description window, identifying the location of categories and tags

Categories greatly improve data discoverability in AZGeo since they standardize the keywords that can be assigned to AZGeo items as well as minimize spelling errors, which can impact the effectiveness of searches. People searching for data in AZGeo can use categories to help narrow their search. In addition, categories are used to populate the quick-search icons on the AZGeo Open Data Portal webpage, further simplifying the data search process (see Figure 3).

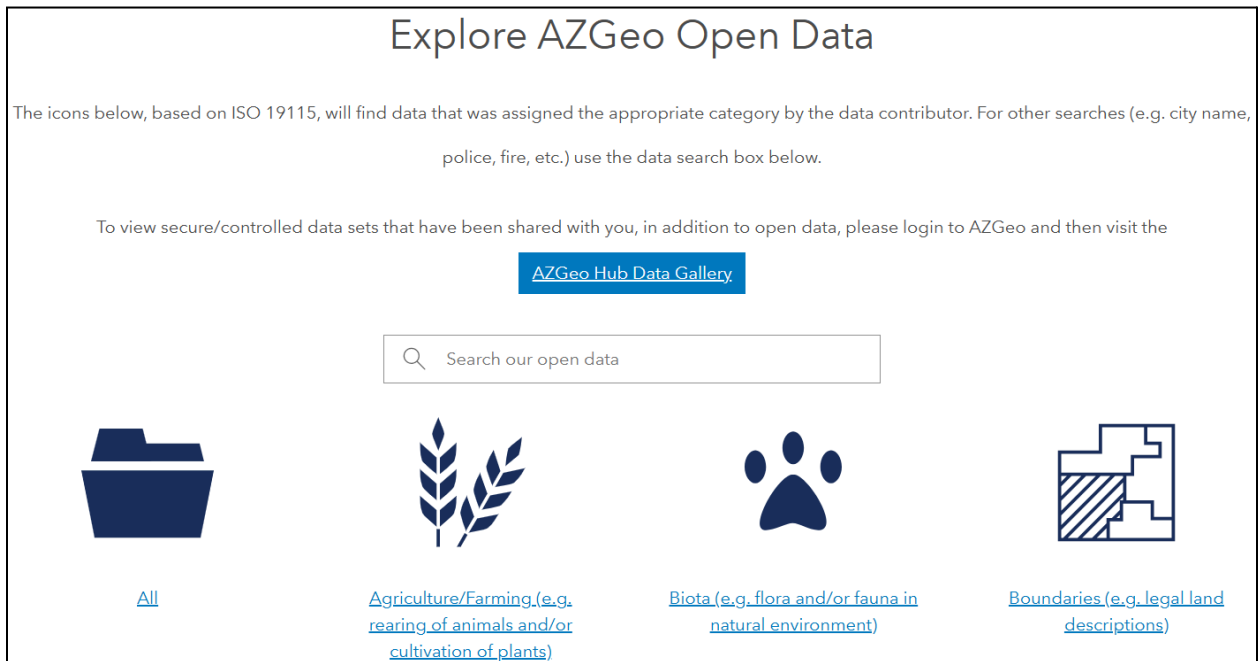


Figure 3: [AZGeo Open Data Portal](#) homescreen. Categories were used to create the Agriculture, Biota, and Boundaries icons at the bottom.

Using Categories

Categories can be assigned to items from their respective item description page. Data owners and custodians who have uploaded data to AZGeo may assign more than one category and/or subcategory to their items. For more details on how to effectively use categories for your items, refer to the [Data Discovery Best Practices storymap](#).

What is the AZGeo Open Data Portal?

There are two ways that data providers share their data to the AZGeo ecosystem: upload data directly to the AZGeo Data Hub or keep the data within their own system but allow AZGeo to share a link to their data (referred to as a third-party source). Datasets within the Data Hub or from third-party sources approved by the AZGeo Advisory Committee may be selected to be shared through the AZGeo Open Data Portal.

- **[AZGeo Data Hub](#)**: The primary site where AZGeo users, with data contributor permissions, upload their data to be hosted on and shared through AZGeo.
 - The site may contain data that are not authoritative or trusted and may contain data that are not open to the public.
 - The data uploaded to the Data Hub do not have to adhere to the AZGeo metadata standards.
 - The data owner can assign any categories that are available in AZGeo
- **AZGeo Third-Party Data Sources**: Third-party data sources are those data that are not stored in AZGeo.
 - The AZGeo Curator is able to reference data stored in other portals, such as ArcGIS Online or Portal for ArcGIS systems, that are controlled by external agencies.
 - For example, datasets from Geoplatform.gov, Pima county, Arizona Department of Health Services and many others are available in AZGeo even though they are hosted by those organizations.
 - The AZGeo Curator does not control the categories assigned to third-party data. The third-party is able to assign their own categories, which may or may not align with AZGeo's categories.
- **[AZGeo Open Data Portal](#)**: The AZGeo Open Data Portal contains data that are open to the public and were determined by the AZGeo Advisory Committee to be authoritative or trusted. The Open Data Portal may include data from the AZGeo Data Hub or from third-party sources.
 - The AZGeo Curator manages what datasets appear in the Open Data Portal and works with the data owners and custodians to ensure they remain current.
 - Datasets added to the Open Data Portal must adhere to the AZGeo metadata standards.

Category Update Plan

Updates to the categories will be completed in phases.

- Phase 1 will involve changing the names of some existing categories (e.g. renaming Inland Waters to Water).
- Phase 2 will involve creating new categories and reassigning some data layers to those new categories (e.g. adding a Public Safety category).
- Phase 3 will create subcategories for some AZGeo categories (e.g. groundwater and surface water).
- Phase 4 will involve the removal of unused and extraneous categories

The information below will explain how data in the AZGeo Open Data Portal, AZGeo Data Hub, and AZGeo third-party data source will be affected and what data owners should expect. The AZGeo team will communicate with data owners prior to each phase being implemented to prepare them for the change.

For a complete list of all current and new categories and the specific actions that will be taken for each, refer to the [Appendix](#).

Phase 1: Rename Current Categories

Several current categories will remain unchanged or will be renamed to a more descriptive name based on feedback received from the AZGeo Community. **When a category is renamed, all data and items using the current AZGeo-managed category will be automatically assigned to the new category.** Table 1 lists the current categories and how they will be affected.

Table 1: Current categories that will remain unchanged or will be renamed.

Current Category Name	Examples	Action/New Category Name
Boundaries	administrative or statistical boundaries - e.g. county, COG/MPO, Tribal	Category will remain unchanged
Elevation	LiDAR, DEMs, Bathymetry, contour lines	Category will remain unchanged
Environment	agriculture, vegetation, soils, geology, climate, land cover	Rename to "Environment and Natural Resources"
Health	health-related facilities, primary care areas	Category will remain unchanged
Imagery	NAIP, aerials, satellite/Landsat	Rename to "Imagery & Rasters"

Inland Waters	lakes, rivers, dams, floods, hydrography, hydrology, water quality, water planning, watersheds, wetlands, wells, recharge, effluent, canals, water districts	Rename to “Water”
Location	trails, bike paths	Rename “Recreation” (current data layers in this category refer to recreation)
Planning/Cadastral	land use, ownership, zoning, PLSS	Rename “Parcels, Planning, and Cadastre”
Society	libraries, schools, CAIs	Rename “Community Resources”
Transportation	road networks, public transportation, roadway characteristics	Category will remain unchanged
Utilities/Communication	buildings, bridges, utilities, energy	Rename “Infrastructure”

Phase 1 Impact on Data and Items in AZGeo

Data and Items in the AZGeo Data Hub

Data owners will be responsible for reviewing their data items in the AZGeo Data Hub and determining if they agree with the new category or want to reassign them to different categories.

Third-Party Data Sources

The AZGeo Curator will review any data within the AZGeo Open Data Portal that are referencing third-party sources and assign new categories as needed.

Data in the AZGeo Open Data Portal

The AZGeo Curator will coordinate with data owners who have data in the AZGeo Open Data Portal to review the category changes and confirm the new categories are still appropriate.

Phase 2: Add New Categories

Table 2 summarizes the new categories that will be added.

Table 2: New Categories

New Category	Examples
Address and Geocoding	address points, geocoders, ZIP codes
Population and Economy	demographics, census, occupation statistics
Public Safety	911, PSAPs, fire, evacuation, emergency management

Phase 2 Impact on Data and Items in AZGeo

Data and Items in the AZGeo Data Hub

Data owners will be responsible for reviewing their data items in the AZGeo Data Hub and assign them to new categories, as needed.

Data and Items from Third-Party Sources

The AZGeo Curator will review all third-party sources and add them to appropriate categories based on information in their item descriptions.

Data in the AZGeo Open Data Portal

The AZGeo Curator will use keywords in each item's summary, description, and tags to identify datasets in the Open Data Portal that should be assigned to one of the new categories. The recommendations will be sent to the data owners to get their approval and then the new category will be assigned if approved

Phase 3: Add Subcategories

Subcategories will be added to some categories, further assisting with data discoverability. Table 3 summarizes the new subcategories that will be added within each category.

Table 3: New Subcategories

Category	New Subcategory	Subcategory Examples
Community Resources	-Education	Schools, school districts
Environment and Natural Resources	-Agriculture -Climate -Geology	agriculture, vegetation, soils, geology, climate, land cover
Imagery & Rasters	-Historic Imagery	Historical aerial or satellite imagery
Water	-Groundwater -Surface Water	lakes, rivers, water basins
Parcels, Planning, and Cadastre	-Land Use -Land Ownership	land use, ownership, zoning
Infrastructure	-Utilities	Water, sewer, electric outage data
Transportation	-Transit	Public transportation (e.g. bus routes, stops)
Public Safety	-Fire	Active wildfire hotspots, perimeters, evacuation zones, emergency management

Phase 3 Impact on Data and Items in AZGeo

Data in the AZGeo Data Hub

Data owners will be responsible for reviewing their data items in the AZGeo Data Hub and assign them to new subcategories, as needed.

Data and Items from Third-Party Sources

The AZGeo Curator will review all third-party sources and add them to appropriate categories based on information in their item descriptions.

Data in the AZGeo Open Data Portal

The AZGeo Curator will use keywords in each item's summary, description, and tags to identify datasets in the Open Data Portal that should be assigned to any new subcategories. The recommendations will be sent to the data owners to get their approval and then the subcategory will be assigned if approved.

Phase 4: Remove Unused or Extraneous Categories

Current categories that are either unused or, according to the survey, are unnecessary, will be deprecated. Those categories will be automatically removed from all items. Table 4 summarizes the current categories in AZGeo that will be removed.

Table 4: Current categories that will be removed.

Current Category	Examples	Actions for Data In the AZGeo Open Data Portal
Agriculture/ Farming	rearing of animals and/or cultivation of plants	Prior to category removal, data in Open Data Portal will be reassigned to Environment and Natural Resources - Agriculture subcategory, and other categories based on the item description.
Biota	flora and/or fauna in natural environment	Prior to category removal, data in Open Data Portal will be reassigned to Environment and Natural Resources category, and other categories based on the item description.
Climatology	processes and phenomena of the atmosphere	Prior to category removal, data in Open Data Portal will be reassigned to Environment and Natural Resources - Climate subcategory, and other categories based on the item description.
Economy	economic activities, conditions and employment	Prior to category removal, data in Open Data Portal will be reassigned to Population and Economy category, and other categories based on the item description.
Geoscientific	information pertaining to earth sciences	Prior to category removal, data in Open Data Portal will be reassigned to Environment and Natural Resources - Geology subcategory, and other categories based on the item description.
Intelligence/ Military	military bases, structures, activities	Category is currently unused
Structure	architectural and structural plans, building footprints, buildings	Prior to category removal, data in Open Data Portal will be reassigned to Infrastructure category, and other categories based on the item description.

Phase 4 Impact on Data and Items in AZGeo

Data in the AZGeo Data Hub

Data owners will be responsible for reviewing their data items in the AZGeo Data Hub and assign them to other categories or subcategories, as needed.

Data and Items from Third-Party Sources

Prior to removing a category, the AZGeo Curator will use keywords in the item summary, description, and tags to assign any datasets to appropriate existing or new categories and subcategories created in prior phases. Once all data are reassigned, the category will be removed.

Data in the AZGeo Open Data Portal

Prior to removing a category, the AZGeo Curator will use keywords in each item's summary, description, and tags to assign any datasets to appropriate existing or new categories and subcategories created in prior phases. The Curator will work with the data owners to ensure the newly assigned category/subcategory is appropriate and once the data owners have approved the change, the old category will be removed.

Appendix

Appendix 1: Current Categories

The table below lists the current categories available in AZGeo and how they will change after the update.

Category	Examples (original category)	Action
Agriculture/Farming	rearing of animals and/or cultivation of plants	Remove Reassign data in AZGeo Open Data Portal to other categories based on keywords
Biota	flora and/or fauna in natural environment	Remove Reassign data in AZGeo Open Data Portal to other categories based on keywords
Boundaries	legal land descriptions	Unchanged
Climatology	processes and phenomena of the atmosphere	Remove Reassign data in AZGeo Open Data Portal to other categories based on keywords
Economy	economic activities, conditions and employment	Remove Reassign data in AZGeo Open Data Portal to other categories based on keywords
Elevation	height above or below sea level	Unchanged
Environment	environmental resources, protection and conservation	Rename to "Environment and Natural Resource"
Geoscientific	information pertaining to earth sciences	Remove Reassign data in AZGeo Open Data Portal to other categories based on keywords
Health	citizen health, health services, human ecology, and safety	Unchanged

Imagery	orthophotography, base maps, earth cover	Unchanged
Intelligence/Military	military bases, structures, activities	Remove Reassign data in AZGeo Open Data Portal to other categories based on keywords
Inland Waters	currents, dams, flood hazards, floods, hydrographic charts, hydrography, lakes, rivers, water quality, water utilization plans, watersheds, wetlands	Rename to "Water"
Location	address, geodetic control points, geodetic networks, geographic names, place names, postal zones	Rename " Recreation " based on keywords
Planning/Cadastral	easements, federal land ownership status, land use, ownership, parcels, public land conveyance records, surveys, tax maps, zoning	Rename "Parcels, Planning, and Cadastre"
Society	anthropology, archaeology, crime, demographics, education, ethnicity, historical sites, law enforcement, parks, recreation, tourism, beliefs, trails	Rename "Community Resources"
Structure	architectural and structural plans, building footprints, buildings, churches, factories, housing, monuments, museums, shops, towers	Remove Reassign data in AZGeo Open Data Portal to other categories based on keywords

Transportation	aeronautical charts, airports/airstrips, bridges, roads, shipping, tunnels, vehicle or vessel location	Unchanged
Utilities/Communication	energy, water and waste systems and communications infrastructure and services	Rename "Infrastructure"

Appendix 2: New Categories

The table below identifies the final categories that will be available in AZGeo and controlled by the AZGeo Curator. Once the new categories are implemented, the AZGeo Curator will follow-up with each the owner or custodian of any data in the AZGeo Open Data Portal to ensure they approve the assigned categories. While the AZGeo Curator will make recommendations on the appropriate categories that data in the AZGeo Open Data Portal may be assigned to, the data owners and data custodians will have the final say on which categories their data should be assigned.

IMPORTANT: The AZGeo Curator will only evaluate data in the AZGeo Open Data Portal. It is the responsibility of the data owners and curators to evaluate and reassign any data outside of the open data portal.

Category	Subcategories	Description and Examples	AZGeo Curator Actions
Boundaries		Administrative or statistical boundaries, such as county, COG/MPO, Tribal boundaries	All data currently in “Boundaries” will remain in this category.
Community Resources	-Education	libraries, schools, shelters	All data currently in “Society” will be reassigned to this category. Open Data Only Keywords will be used to reassign data to this or other appropriate categories and subcategories.
Elevation		LiDAR, digital elevation models (DEM), bathymetry, contour lines	All data currently in “Elevation” will remain in this category.
Environment and Natural Resources	-Agriculture -Climate -Geology	agriculture, vegetation, soils, geology, climate, land cover	All data currently in “Environment,” “Climatology,” “Agriculture/Farming,” and “Biota” will be reassigned to this category and appropriate subcategories.
Health		hospitals and other health-related facilities	All data currently in “Health” will remain in this category.
Imagery & Rasters	-Historic Imagery	NAIP, aerials, satellite/Landsat	All data currently in “Imagery” will remain in this

			category.
Water	-Groundwater -Surface Water	lakes, rivers, dams, floods, hydrography, hydrology, water quality, water planning, watersheds, wetlands, wells, recharge, effluent, canals, water districts	All data currently in “Inland Water” will be reassigned to this category.
Address and Geocoding		address points, geocoders, ZIP codes	Keywords will be used to search all AZGeo Open Data and reassign appropriate data to this category.
Parcels, Planning, and Cadastre	-Land Use -Land Ownership	land use, ownership, zoning, PLSS	All data currently in “Planning/Cadastral” will be reassigned to this category
Population and Economy		demographics, census, occupation statistics	Keywords will be used to search all AZGeo Open Data and reassign appropriate data to this category.
Infrastructure	-Utilities	buildings, bridges, utilities, energy	All data currently in “Utilities/Communication” will be reassigned to this category and appropriate subcategory.
Transportation	-Transit	road networks, public transportation, roadway characteristics	All data currently in “Transportation” will remain in this category
Public Safety	-Fire	911, PSAPs, fire, evacuation, emergency management	Keywords will be used to search all AZGeo Open Data and reassign appropriate data to this category.
Recreation		trails, bike paths	All data currently in “Location” will be reassigned to this category