Vector Data Management

Step 1: *Create a new project in your gisclass folder (Or whatever folder you have your GIS data stored within). Name it for your birth state (e.g., OH_Project).*

Step 2: *Open a new map and set the coordinate system to an appropriate State Plane zone in the State Plane > NAD 1983 (meters) folder. If there is more than one zone for your state, just pick one, preferably the central one. List what your state is and which State Plane zone you chose to use.*

Answer:

I am making a map of Ohio State. There are two State Plane projections under NAD 1983 (meters) folder such as NAD 1983 StatePlane Ohio North FIPS 3401 (Meters) and NAD 1983 StatePlane Ohio South FIPS 3402 (Meters). And I am using the **StatePlane Ohio North FIPS 3401 (Meters)**.

Step 3: *Export each of the vector feature classes from the USdata geodatabase to your birth state geodatabase (you can skip the CD110 - CD113 feature classes. Only the CD114 needs to be exported). *** Only export the features within your birth state*** *** Each feature class should be in the new coordinate system. ****

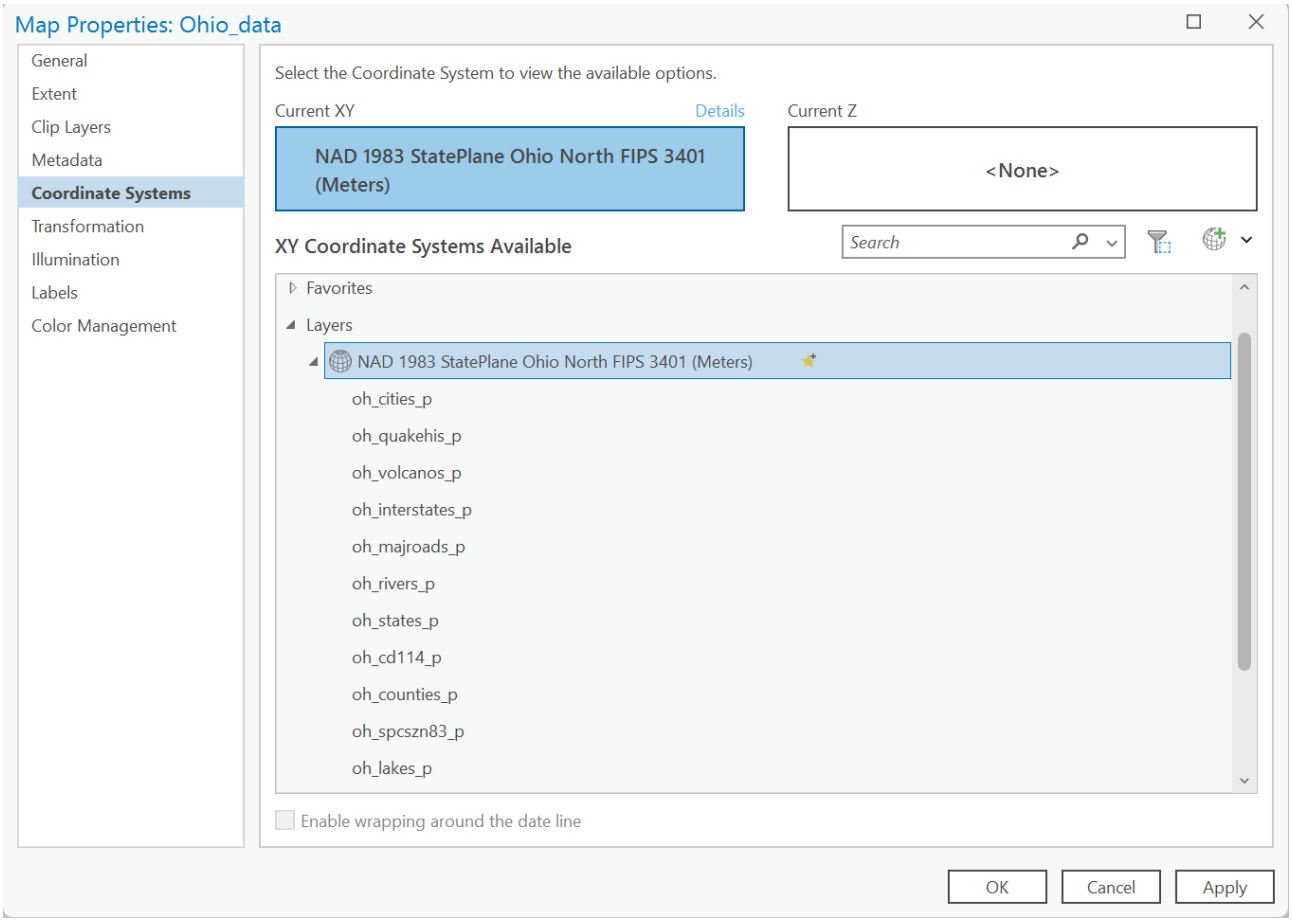


Figure 1: All feature classes are projected in the same projection

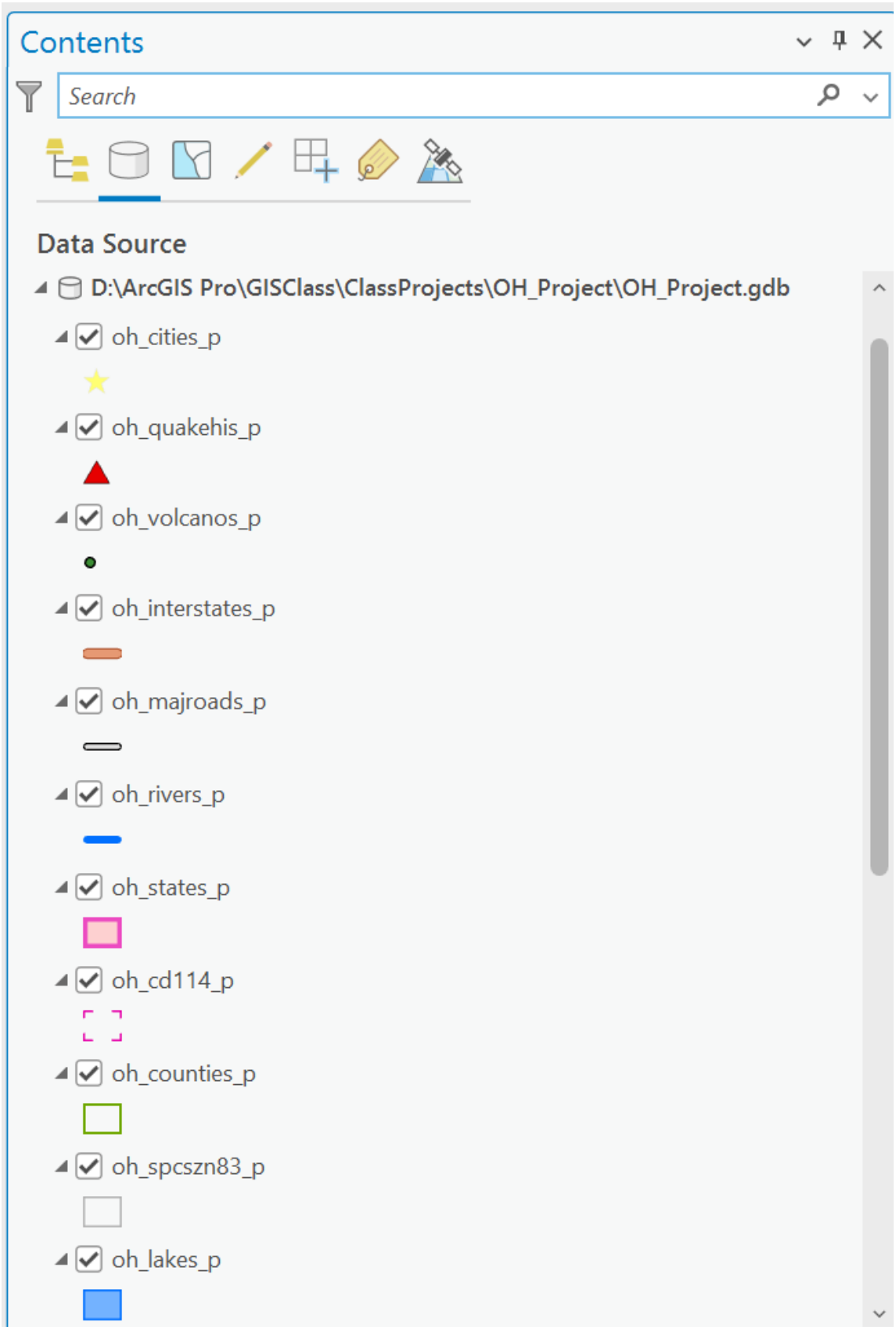


Figure 2: Exported (projected in same projection) vector feature classes from the USdata geodatabase to OH_project geodatabase

Step 4: *Update the Item Description (metadata) for each feature class. (Update thumbnail, description, and credits).*

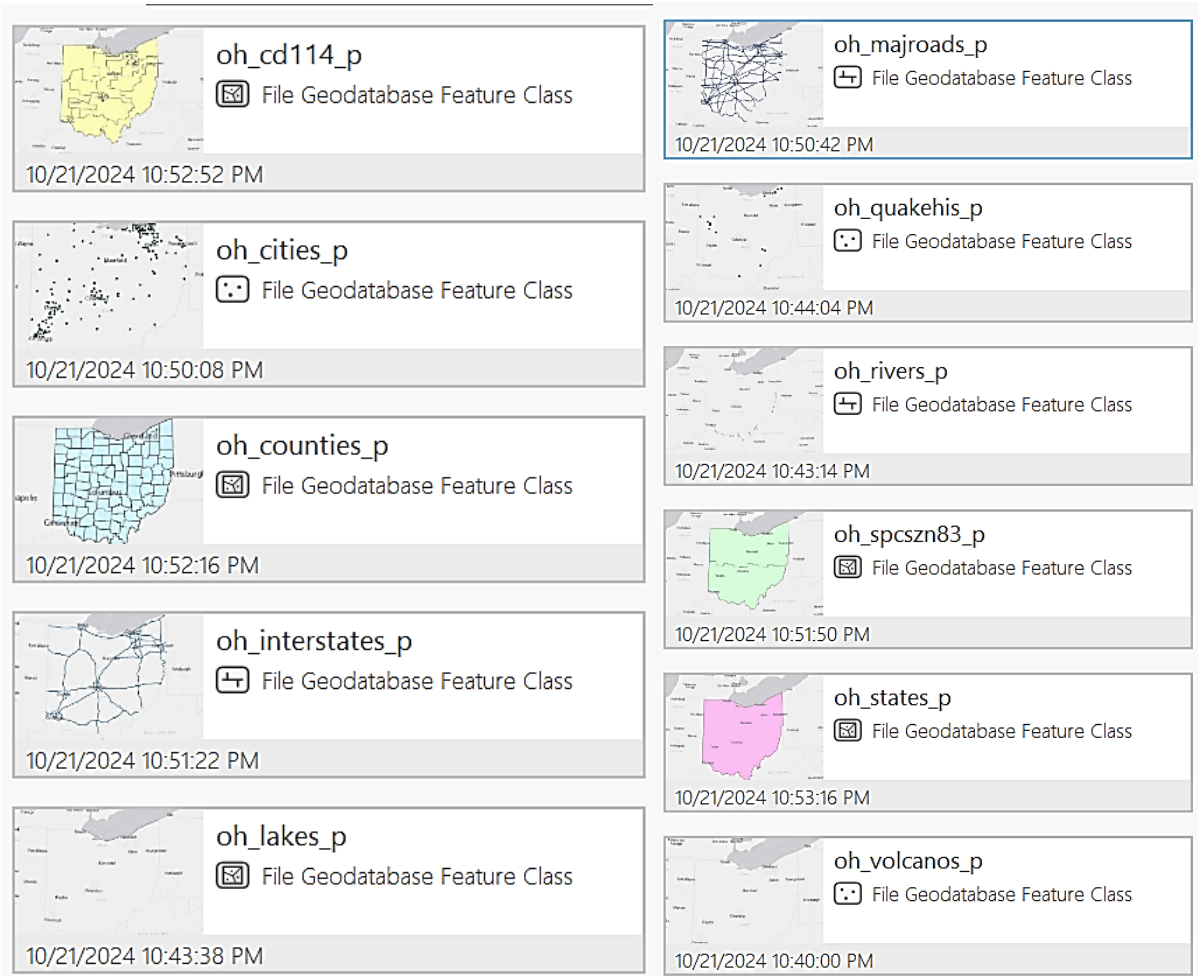
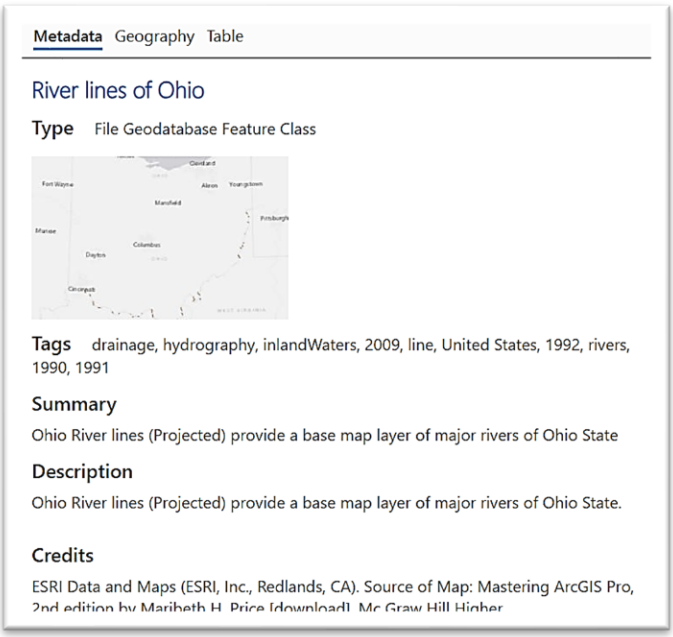
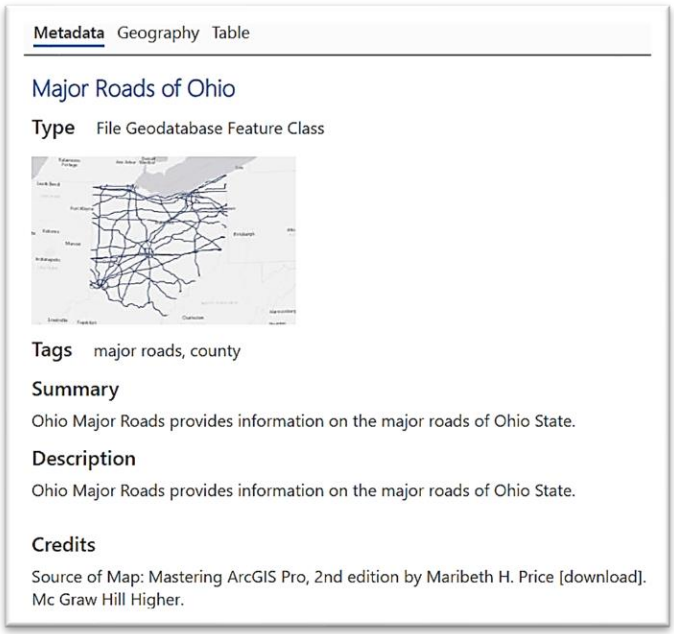


Figure 3: Updated Thumbnails of all Feature Classes





Metadata Geography Table

Ohio Cities

Type File Geodatabase Feature Class

Tags point, cities, incorporated places, census designated places, capitals, population, households, demographics, location, society, United States, 2010, 2011, 2014, 2013, 2012

Summary

Ohio Cities provides locations for cities including fields—name, FIPS code, Census class, population, and demographic information from the 2010 U.S. Census.

Description

Ohio Cities represents locations for cities within the United States with populations greater than 10,000, all state capitals, and the national capital.

Credits

Source of Map: Mastering ArcGIS Pro, 2nd edition by Maribeth H. Price [download]. Mc Graw Hill Higher.

Metadata Geography Table

Interstate Roads of Ohio

Type File Geodatabase Feature Class

Tags transportation, 2002, United States, line, rural, urban, freeways or expressways, highways, arteries, interstates, 1998, 1997

Summary

Ohio National Transportation Atlas Interstate Highways provides a comprehensive database of interstate highways from the nation's principal arterial highway system and the National Highway System. The data is generalized to improve draw performance and be used effectively at a national level.

Description

Ohio National Transportation Atlas Interstate Highways represents rural and urban interstate highways. U.S. National Transportation Atlas Interstate Highways is part of the National Highway Planning Network, published by the Federal Highway Administration as part of the National Transportation Atlas Databases for the United States.

Credits

Members of the Geographic Information Systems Laboratory, Pellissippi Research Institute, The University of Tennessee, Knoxville. Source of Map: Mastering ArcGIS

Metadata Geography Table

Ohio Counties Projected

Type File Geodatabase Feature Class

Tags polygon, area, population, households, demographics, society, boundaries, farming, United States, U.S. Counties, Counties, 2002, 2004, 2010, 2012, 1992, 2011, 2013, 2014, 2015

Summary

Ohio Counties (Projected) provides 2010 U.S. Census demographic information and generalized county boundaries to improve draw performance and be used effectively at a national level.

Description

Ohio Counties (Projected) represents the counties of the Ohio State.

Credits

Source of Map: Mastering ArcGIS Pro, 2nd edition by Maribeth H. Price [download]. Mc Graw Hill Higher.

Metadata Geography Table

114th Congressional Districts of Ohio

Type File Geodatabase Feature Class

Tags polygon, congressional districts, Congress, House of Representatives, Democrat, Republican, boundaries, society, United States, Puerto Rico, congressional districts, 2015-2017, 2010, 2011-2012, 2012, 2016

Summary

114th Congressional Districts of Ohio provides the locations of congressional districts, primarily for national planning applications.

Description

The 114th Congressional District of Ohio represents the political boundaries for the Ohio State 114th congressional districts. The official membership is current as of January 5, 2016.

Credits

Source of Map: Mastering ArcGIS Pro, 2nd edition by Maribeth H. Price [download]. Mc Graw Hill Higher.

Metadata Geography Table

Ohio Lakes Boundary

Type File Geodatabase Feature Class

Thumbnail

Tags lakes, hydrogra…Waters, United States, polygon, 1992, 1990, 1991

Summary

Ohio Lakes (Projected) provides a base map layer of major lakes of Ohio State.

Description

Ohio Lakes (Projected) provides a base map layer of major lakes of Ohio State.

Credits

ESRI Data and Maps (ESRI, Inc., Redlands, CA). Source of Map: Mastering ArcGIS Pro, 2nd edition by Maribeth H. Price [download]. Mc Graw Hill Higher.

Metadata Geography Table

Ohio State (Projected)

Type File Geodatabase Feature Class

Tags polygon, area, population, households, demographics, society, boundaries, farming, United States, U.S. States, States, 2002, 2010, 2012, 1992, 2011, 2013, 2014

Summary

Ohio State (projected) provides 2010 U.S. Census demographic information and generalized state boundaries for Ohio State to improve draw performance and be used effectively at a national level.

Description

Ohio State (projected) represents the boundary of Ohio State of the United States.

Credits

ESRI Data and Maps (ESRI, Inc., Redlands, CA). Source of Map: Mastering ArcGIS Pro, 2nd edition by Maribeth H. Price [download]. Mc Graw Hill Higher.

Metadata Geography Table

spcszn83 of Ohio

Type File Geodatabase Feature Class

Tags location, NAD 1983, 1997, United States, polygon, zones, state plane, 1988

Summary

U.S. State Plane Zones (NAD 1983) is generalized and an approximation of the actual State Plane Coordinate System zone boundaries for the 1983 North American Datum. It is intended for visual reference at small and medium map scales. Please check with state authorities if you have a question about a zone boundary.

Description

U.S. State Plane Zones (NAD 1983) is generalized and an approximation of the actual State Plane Coordinate System zone boundaries for the 1983 North American Datum. It is intended for visual reference at small and medium map scales. Please check with state authorities if you have a question about a zone boundary.

Credits

ESRI Data and Maps (ESRI, Inc., Redlands, CA). Source of Map: Mastering ArcGIS Pro, 2nd edition by Maribeth H. Price [download]. Mc Graw Hill Higher.

All the feature classes have values within the boundary of Ohio State except for the feature class of volcanoes. Though I made a feature class of volcanoes, it does not have value in its attribute table.

Figure 4: Screen Captures of updated metadata of each feature class

Step 5: *Find at least 2 additional feature classes for your state that you find interesting. Find them from either ArcGIS Online or a website. Import them into your geodatabase (**NOTE:** They must be a feature class that allows you to export the data). Make sure they are all in the new coordinate system.*

Answer:

I have downloaded the rail route and national parks of the US from ArcGIS online which must be extracted for Ohio State. And the yellow portion is the Ohio State.

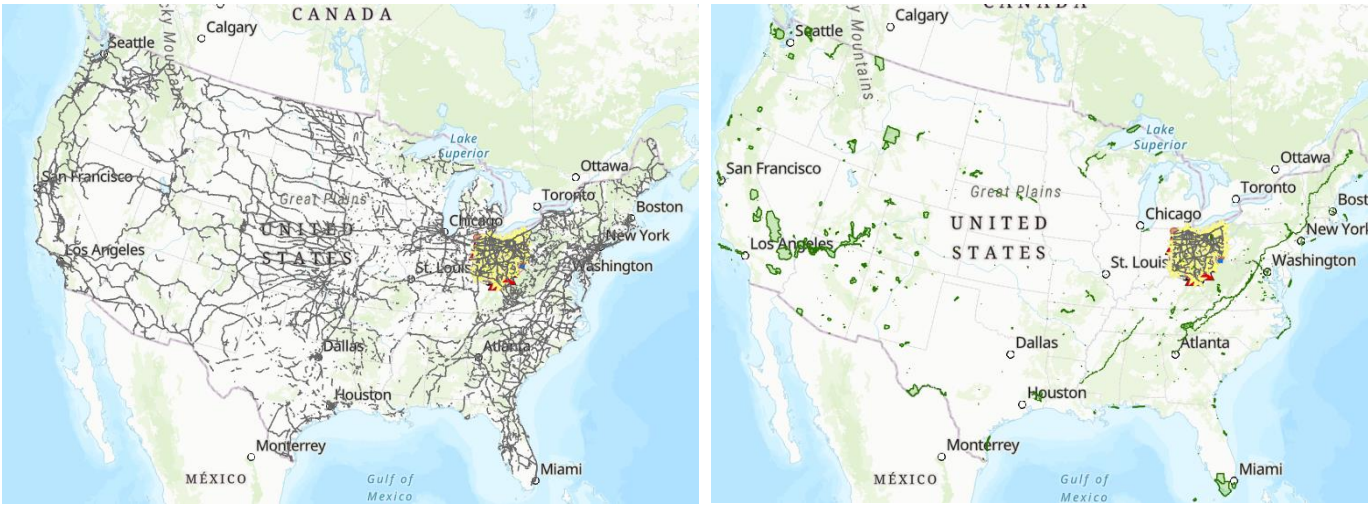


Figure 6: Downloaded Data from ArcGIS Online

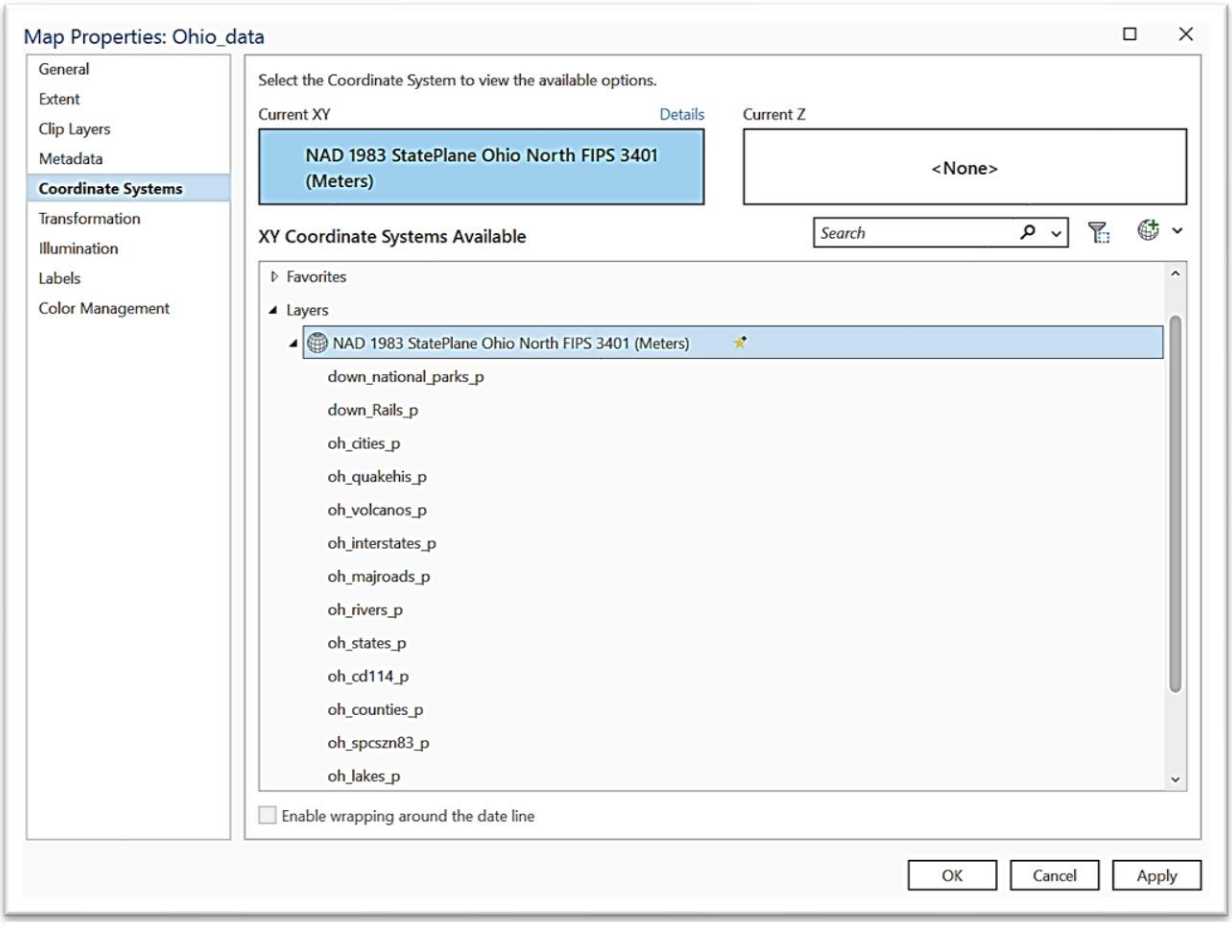


Figure 5: All feature Classes including two downloaded files projected with the same projection system

Step 6: *Create a map of your state, including at least 5 of the layers from your birth state geodatabase, plus the two layers found online. All layers should be appropriately symbolized and limited to the extent of the state. Follow all map best practices and include all standard features*

- *Title*
- *Legend*
- *Scale bar*
- *Locator map*
- *Source info*
- *North arrow*

Answer:

I have used **oh_cities_p, oh_quakehis_p, oh_interstates_p, oh_majroads_p, oh_counties_p,** and **oh_states_p** feature classes from OH_project geodatabase and these two downloaded features, **down_Rails_p,** and **down_national_parks_p** for making the final map.

**All feature classes are projected using same projection system and extracted within the state boundary.