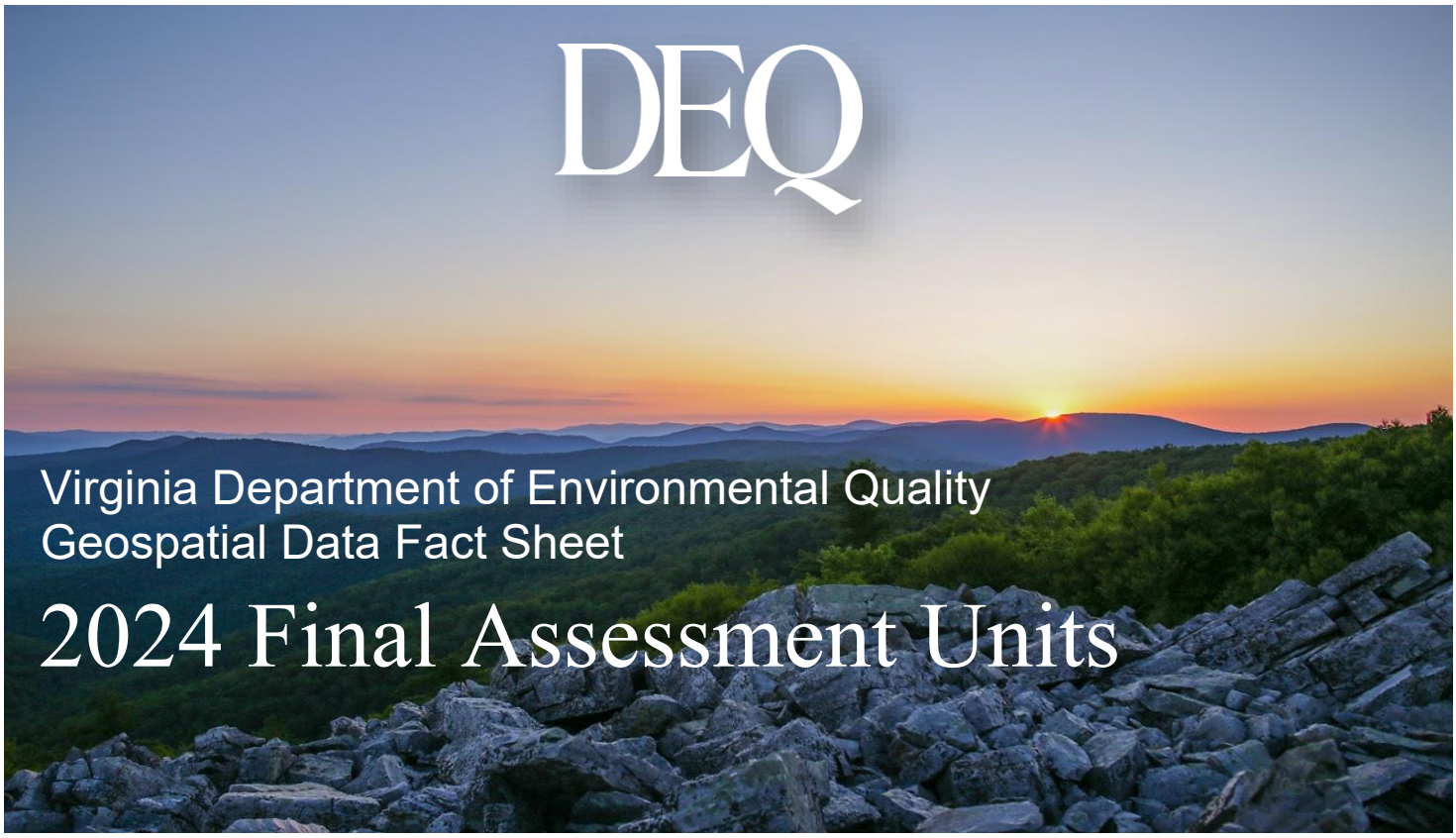
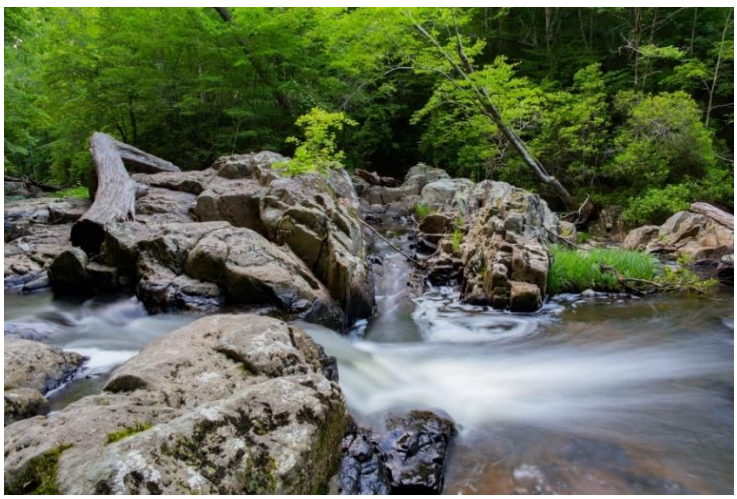


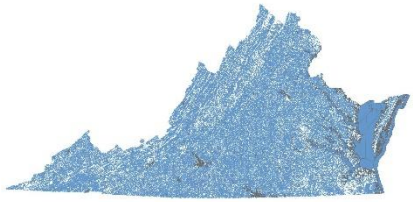
Virginia Department of Environmental Quality
Geospatial Data Fact Sheet

2024 Final Assessment Units

Dataset Summary

2024 Final 305(b)/303(d) Assessment Unit GIS dataset. Biennially, DEQ must produce a Water Quality Assessment Integrated Report (IR) on the surface waters within the state's jurisdiction as mandated by the Clean Water Act (CWA) sections 303(d), 305(b), and 314 and the state's Water Quality Monitoring, Information, and Restoration Act (WQMIRA). This geographic layer is a component of the process to produce the statistics and maps shown in the IR. Data from DEQ and non-DEQ contributors collected from Jan. 1 2017 through Dec. 31 2022 was used to characterize each applicable Assessment Unit (AU) within the Commonwealth. Virginia reports on three basic water types for the IR; rivers and streams, lakes and reservoirs, and estuaries. Additionally, a portion of ocean is included that equates to the 3 nautical mile limit out into the Atlantic Ocean considered Virginia's territorial limit.





Data Highlights:

Geodatabase name: va_ir24_aus_final

> 7,058 River/Stream Assessment Units (AUs)

100,975 miles which includes 660 Fully Supporting, 3,470 Insufficient Info, and 2,928 Not Supporting (Impaired) AUs

> 273 Lake/Reservoir AUs

117,869 acres which includes 53 Fully Supporting, 41 Insufficient Info, and 179 Not Supporting (Impaired) AUs

> 1,469 Estuarine/Ocean AUs

2,842 square miles which includes 77 Fully Supporting, 17 Insufficient Info, and 1,375 Not Supporting (Impaired) AUs

Dataset Description and Purpose

Display and define all surface waters of the commonwealth identified within the 2024 305(b)/303(d) Water Quality Assessment Integrated Report. The Assessment Unit (AU) dataset was created from United States Geological Survey (USGS) National Hydrography Dataset (NHD) high-resolution 1:24,000 data extracted in September 2012. The NHD product was used by DEQ regional assessment staff to assign previously established assessment unit IDs based on predetermined up- and downstream extents and applicable Water Quality Standards. Some erroneous waters were removed, and a few waters were corrected for spatial accuracy using Virginia Base Mapping Program aerial photography from Virginia Geographic Information Network (VGIN), and recent NHD data where available.

There are 3 feature classes within the geodatabase:
va_aus_estuarine – estuarine waters within the commonwealth, including the Atlantic Ocean, the Chesapeake Bay and tidal tributaries to the Bay
va_aus_reservoir – lakes and reservoirs with Water Quality Standards or those monitored within the commonwealth; see appendix 6 of the IR for a list of significant lakes/reservoirs
va_aus_riverine – free flowing surface waters within the commonwealth

This data constitutes the United States Environmental Protection Agency (EPA) approved version of the assessment unit hydrology for Virginia. Attributes assigned to each water segment are based on details associated with the ID305B (assessment unit ID) from DEQ's Comprehensive Environmental Data System (CEDS). Data validations are performed on the data prior to linking attributes to the GIS data, however errors may still occur.

Additionally, a summary dataset of water quality monitoring stations (va_ir24_wqms) which includes DEQ and non-DEQ data is generated to supplement this AU data.

Please direct any questions about attribute accuracy to the Data Contact.

Data Contact:

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Dataset Credits:

> Virginia Department of Environmental Quality, Office of Ecology, Water Monitoring & Assessment Program

Update Cycle:

> Each cycle's data is considered static and will not be altered once the IR receives EPA approval. However, data is analyzed for a 6-year inclusive data window, unless otherwise specified per assessment guidance. That data is used to update and report on AUs for the given cycle biennially, in the even numbered year.

Resource Constraints / Use Limitations

Line work and attributes should not be altered except by the developer (DEQ). Crediting the Virginia Department of Environmental Quality as data source is requested. This data may be shared with others.

Data Disclaimer

This geographic information system (GIS) data is made available as a public service. **This dataset is to be used for reference purposes only and the Virginia Department of Environmental Quality, is not responsible for any inaccuracies contained herein**. No responsibility is assumed for damages or other liabilities due to the accuracy, availability, use or misuse of the information herein provided. GIS information is in the public domain and may be copied without permission; citation of the source is requested.

The information contained within this geospatial dataset is for reference purposes only and is **not** to be construed or used as a "legal description" or for legal purposes. This information is believed to be accurate, but accuracy is not guaranteed. Information drawn from this dataset must be used in consultation with appropriate federal, state, or local resource management officials. Any errors or omissions should be reported to the Virginia Department of Environmental Quality via **email**, or via the contact listed within this Fact Sheet.

Data Quality

The geospatial product is maintained and updated by DEQ each assessment cycle (biennially) using the most current NHD product where revisions were made to Virginia waters, the most recent aerial photography provided by the Virginia Geographic Information Network (VGIN), digital topographic maps, and by freehand digitizing where necessary. insufficient

See the ArcGIS/FGDC compliant metadata included with the geodatabase for more information about the attribute fields.

Spatial Reference Information

NAD83(2011), Virginia Lambert (EPSG: 6591) https://epsg.io/6591

Data Dictionary / Field Information.

Field Name	Field Alias	Field Summary
OBJECTID		Auto-generated number assigned to each feature
Shape		Feature geometry type
ID305B	Assessment Unit ID	Unique alpha-numeric assessment unit identification code
MILES / ACRES / SQ_MILES	Miles / Acres / Sq_miles	Water size for the specific feature class type calculated in map units; riverine = Miles; reservoir = Acres; estuarine = Sq_miles
CYCLE	Cycle	Current assessment reporting cycle; 2024
WaterName	Water Name	Name of the water body
AU_Location	AU Location	Description of the Assessment Unit's location or extent
AU_Category	AU Category	Virginia or EPA assessment category representing the overall characterization of the water as defined in 2024 Assessment Guidance ranging from category 1 through 5R
AU_Comment	AU Comment	Assessment Unit comments
Causes	Causes	Cause(s) of impairment to the water body, if applicable
Sources	Sources	Suspected or confirmed source(s) attributed to the impairment cause(s), if applicable
Aquatic_Life	Aquatic Life	Assessment status of the Aquatic Life Designated Use
Deep_Channel	Deep-Channel Seasonal Refuge	Assessment status of the Deep Channel Seasonal Refuge (Aquatic Life) Designated Use, where applicable
Deep_Water	Deep-Water Aquatic Life	Assessment status of the Deep Water (Aquatic Life) Designated Use, where applicable

Field Name	Field Alias	Field Summary
Fish_Consumption	Fish Consumption	Assessment status of the Fish Consumption Designated Use
Migratory	Migratory Fish Spawning and Nursery	Assessment status of the Migratory Fish Spawning and Nursery (Aquatic Life) Designated Use, where applicable
Open_Water	Open-Water Aquatic Life	Assessment status of the Open Water (Aquatic Life) Designated Use, where applicable
Public_Water_Supply	Public Water Supply	Assessment status of the Public Water Supply Designated Use, where applicable
Recreation	Recreation	Assessment status of the Recreation Designated Use
Shallow_Water_SAV	Shallow-Water Submerged Aquatic Vegetation	Assessment status of the Shallow-Water Submerged Aquatic Vegetation (Aquatic Life) Designated Use, where applicable
Shellfishing	Shellfishing	Assessment status of the Shellfishing Designated Use, where applicable
Wildlife	Wildlife	Assessment status of the Wildlife Designated Use
Shape_Area		Auto-generated area of the feature in internal units, except for the riverine feature class where this attribute is not applicable
Shape_Length		Auto-generated length of the feature in internal units