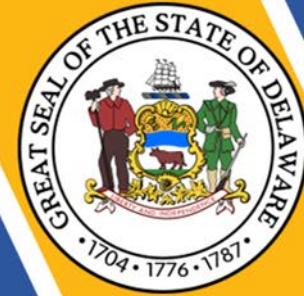


Delaware Geological Survey

FY 2027 Budget Presentation



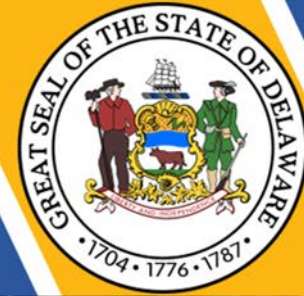
Mission: to provide objective earth science information, advice, and service to our stakeholders: the citizens, policy makers, industries, and educational institutions of Delaware.



Delaware Statewide Monitoring Well Network

Delaware Geological Survey

Reliable Science. Public Value.

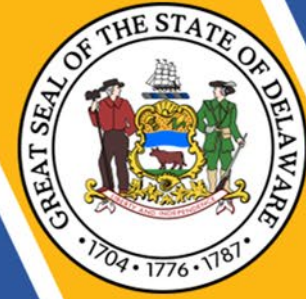


- A science-based, public-service-driven state agency at the University of Delaware
- Provide essential advice, products, and data to State agencies and all Delawareans
- Small, efficient staff leverages UD resources and staff expertise for the benefit of the First State

Who We Are

Delaware Geological Survey

Reliable Science. Public Value.



Who We Are

- Staffing: 16 professional, technical, and support staff plus part-time/students
- Openings: 1 state-funded position, 3 externally funded* project positions
- Broad expertise in geology, water science, and technology is the foundation of DGS service



GEOLOGY



HYDROLOGY



NATURAL
HAZARDS



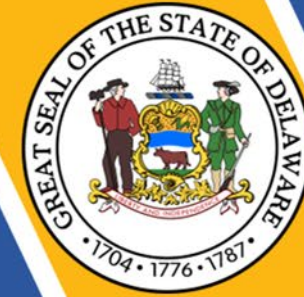
GEOSPATIAL
FRAMEWORK



INFORMATION
DISSEMINATION

Delaware Geological Survey

FY 2027 Budget Overview

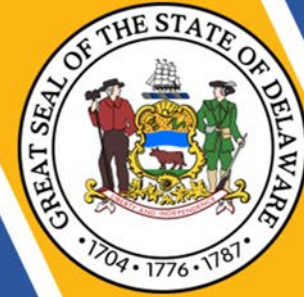


Category	FY2025 Actual	FY2026 Budget	FY2027 Base	Inflation & Volume Adjustment	FY2027 Request
Operations	2174.2	2238.7	2280.8	25.5	2306.3
River Master Program	127.3	127.3	127.3	39.2	166.5
Water Resources Agency	185.9	185.9	185.9	0	185.9
TOTAL	2487.4	2551.9	2594	64.7	2658.7

- DGS efficiently and effectively uses state funding
 - Every \$1 state leverages ~47 cents external funds
 - Shared UD systems minimize state's overhead
- Budget request addresses continuity, not expansions
- Adjustments requested are for mandatory & continuing programs
 - Delaware River Master
 - Stream and Tide Gage Program

Delaware Geological Survey

FY 2025 Program Overview

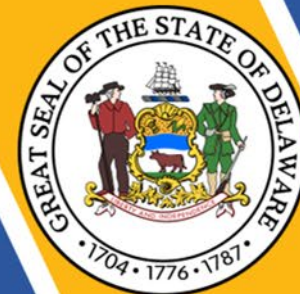


Science that Serves Delaware **Impact of FY25-26 activities**

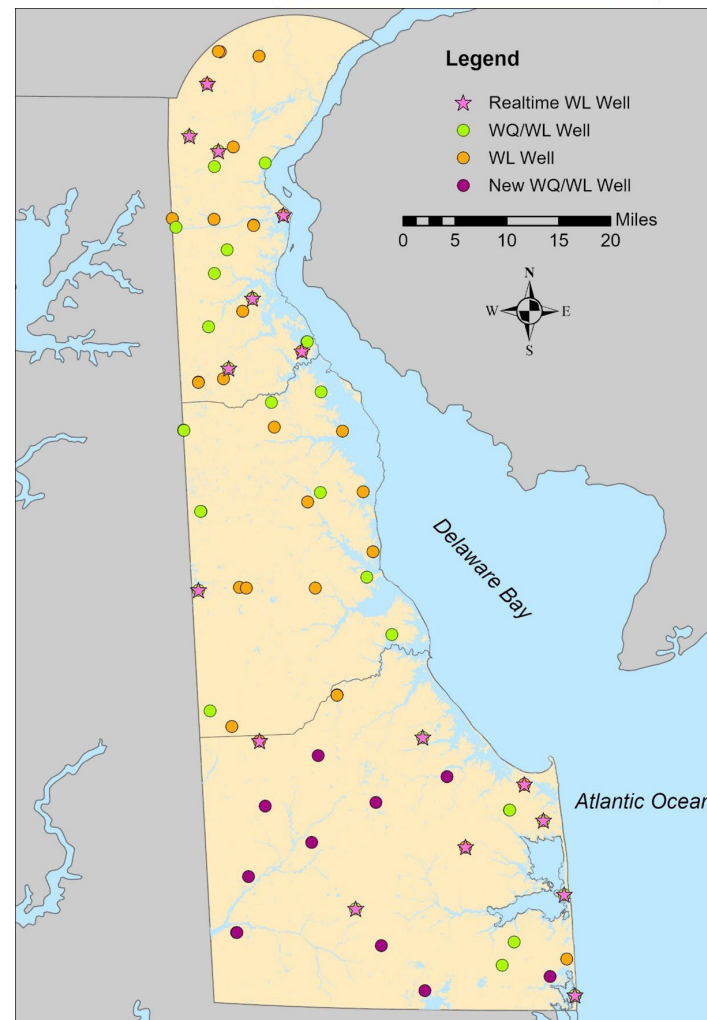
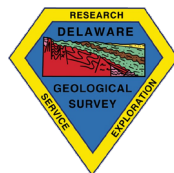
- **Water Security** — Monitoring and modeling Delaware's aquifers and surface-water systems
- **Safe and Sustainable Growth** — Geologic maps and data supporting land-use and infrastructure planning
- **Resilient Communities** — Coastal and floodplain analyses informing hazard mitigation and recovery
- **Open Access to Science** — Online mapping and borehole tools making data available statewide
- **Partnerships for the Public Good** — Coordinated programs with DNREC, DEMA, OSPC, USGS, and others

Delaware Geological Survey

Statewide Network for Water Data and Resilience

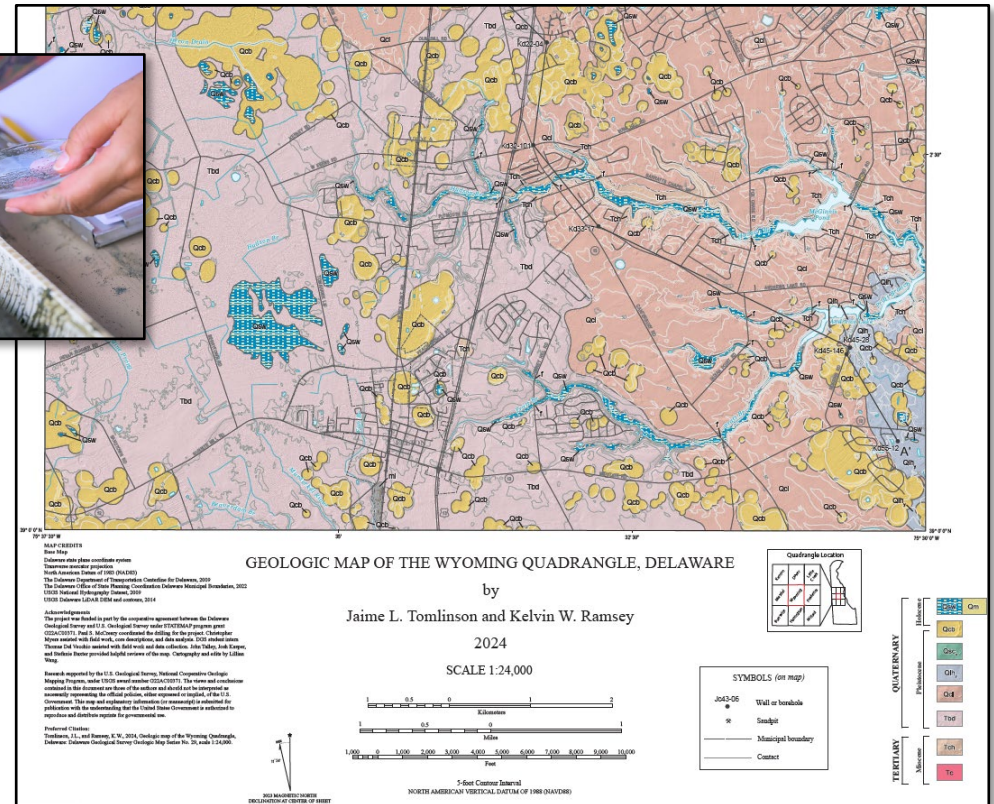


- **USGS Gaging Program:** 10 stream gages and 7 tide gages in cooperative DGS-USGS program
- **Groundwater Monitoring Network**
 - 130 wells, 17 aquifers
 - Expanded by Bond Bill appropriations
 - Data: > 45 million automated water level readings
- Supports DNREC, DEMA, NWS operations and programs on hazards and water supply



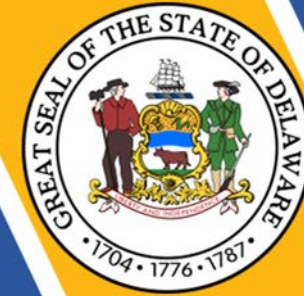
The Seal of the State of Delaware is a circular emblem. It features a central shield with a ship on the left, a cow in the center, and a figure on the right. The shield is flanked by two figures: a man in a red coat and a woman in a green dress. Above the shield is a ship. The entire seal is encircled by the text "GREAT SEAL OF THE STATE OF DELAWARE" and the dates "1704 • 1776 • 1787".

A large photograph showing a field site with a drilling rig, a blue canopy tent, and several workers. An inset in the top right corner shows a close-up of a sample being analyzed.

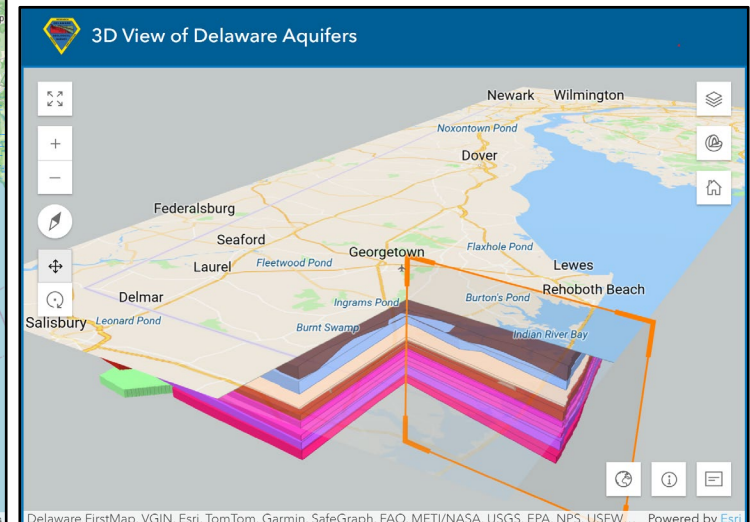
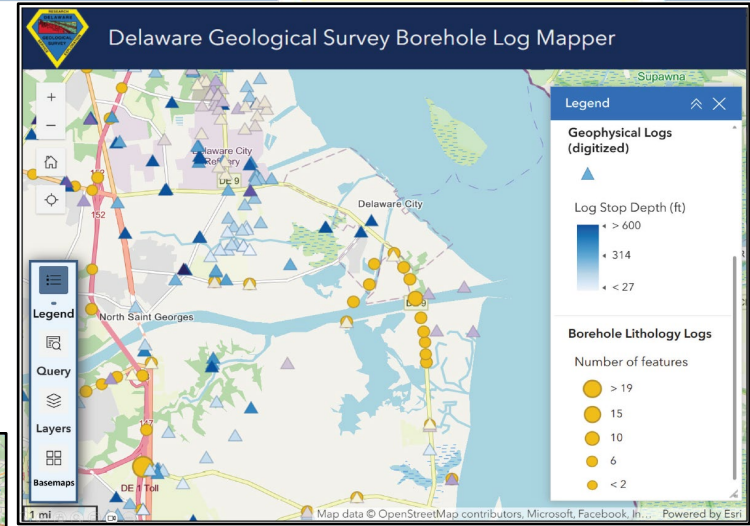
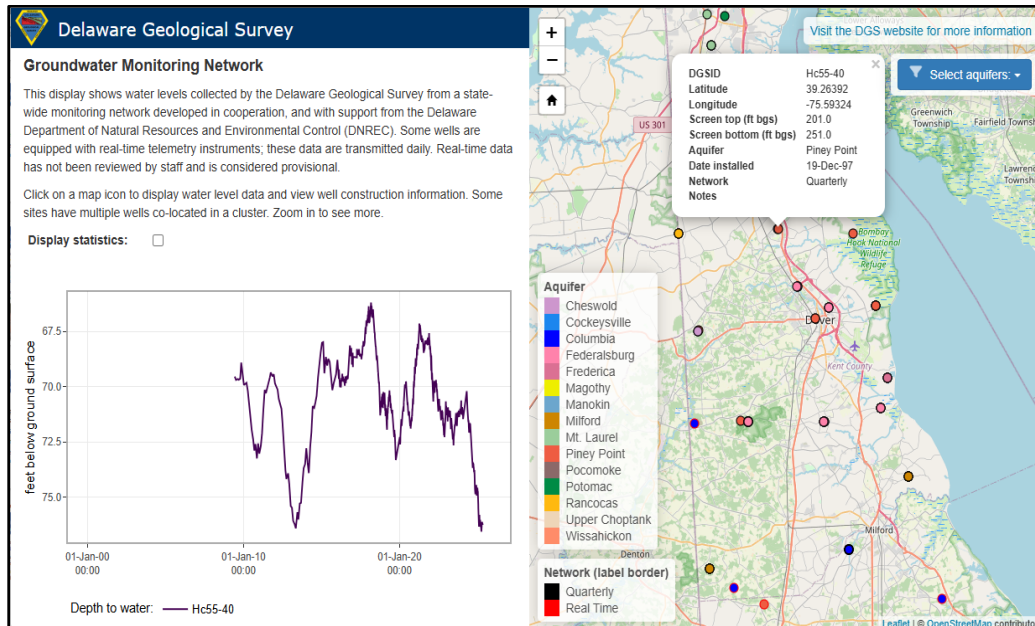


Delaware Geological Survey

Delivering Data That Meets Stakeholder Needs

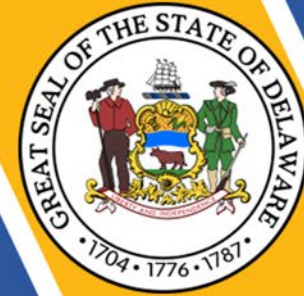


- Delaware Geological Survey Borehole Log Mapper
- 3D View of Delaware Aquifers
- DGS Groundwater Monitoring Network Portal



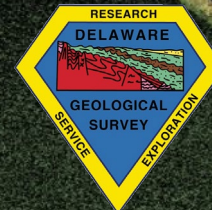
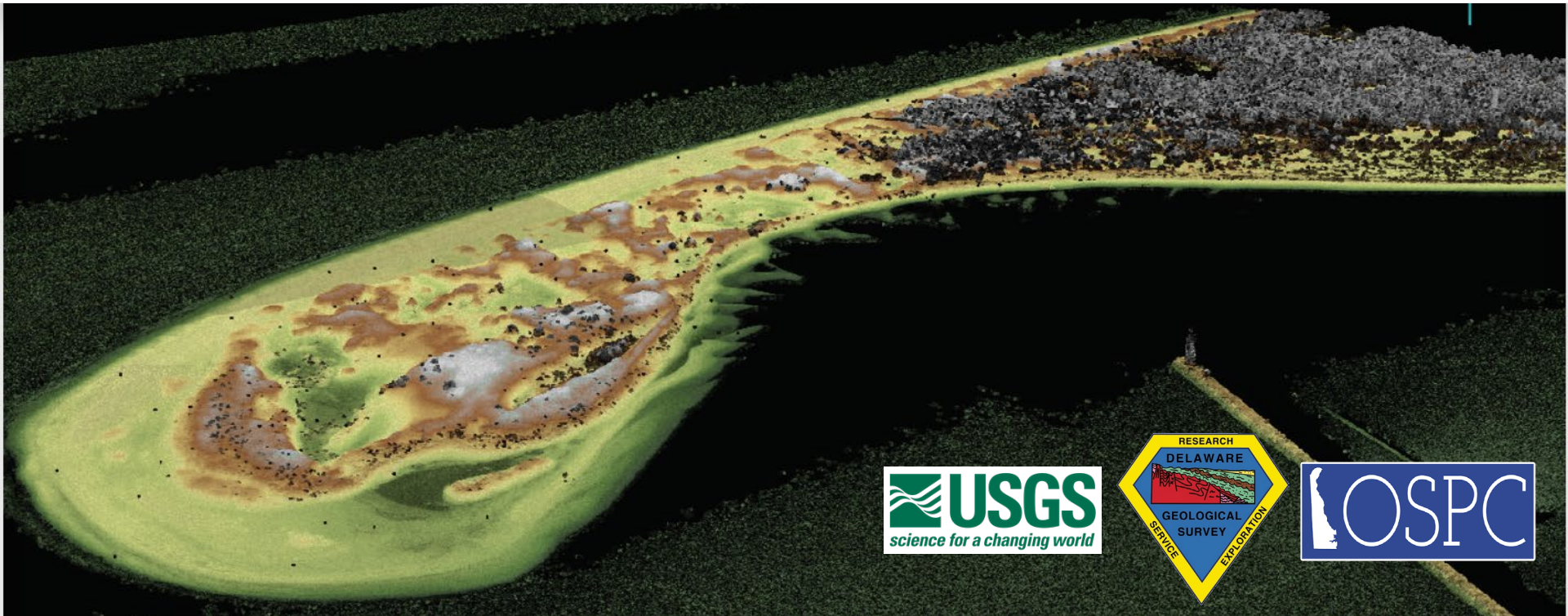
Delaware Geological Survey

Supporting Delaware's Geospatial Framework



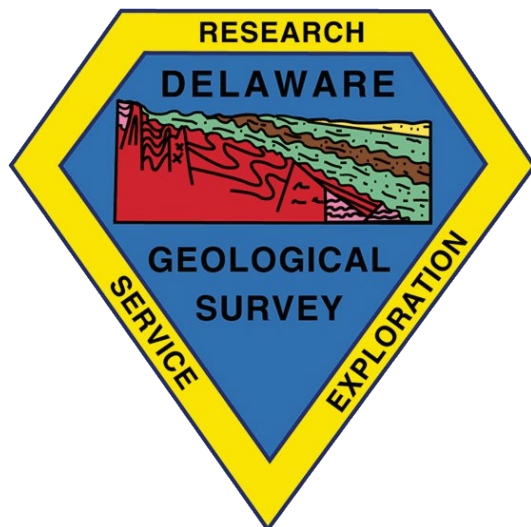
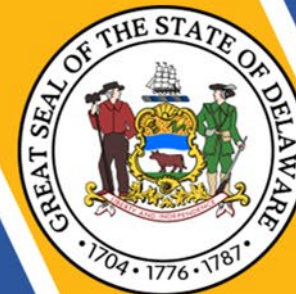
Seeing Delaware in New Detail: 2023 Statewide LiDAR

- A new, high-resolution digital terrain model for Delaware
- DGS supports OSPC by coordinating statewide 3D elevation and hydrography mapping with USGS
- DGS provides quality control to ensure data accuracy and consistency
- Data supports flood mapping, infrastructure planning, and environmental resilience



Delaware Geological Survey

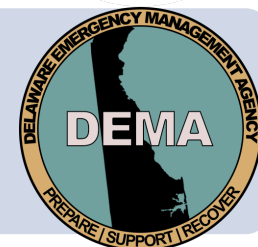
Partnerships in Action for Delaware



Water Supply + Coastal



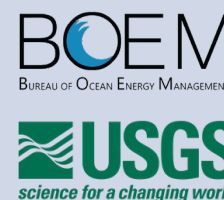
Storm Emergency Response



Geospatial / Map Data

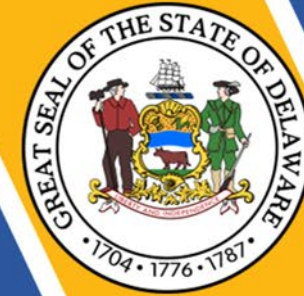


Federal Cooperation



Delaware Geological Survey

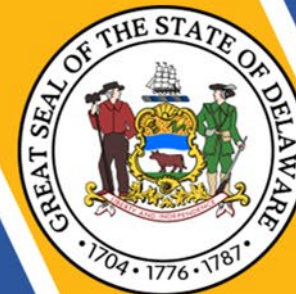
Performance Measures



IPU	Performance Measure Name	Fiscal Year 2025 Actual	Fiscal Year 2026 Budget	Fiscal Year 2027 Governor's Recommended
90-01-02	Delaware Geological Survey			
	# of geologic mapping square miles (cumulative)	2963	2992	3050
	# of DGS well records in database	60698	61211	61724
	# of water level records in database (millions)	45.3	48.7	52.1
	# of water salinity observations [salt water intrusion monitoring] (millions)	8.8	9.4	10.1
	# of stream gages	10	10	10
	# of tide gages	7	7	7

Delaware Geological Survey

Performance Measures

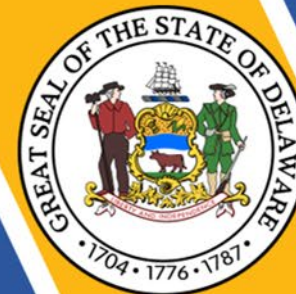


FY25-26 COMPLETED PRODUCTS

- DGS Report of Investigations No. 86, *Kent County Groundwater Monitoring Project: Hydrogeology and Salinization Dynamics of Eastern Sussex County, Delaware*
- DGS Geologic Map No. 29, *Geologic Map of the Wyoming Quadrangle, Delaware*
- DGS Geologic Map No. 30, *Geologic Map of the Coastal Plain Portions of the Newark West, Newark East, and Wilmington South Quadrangles, Delaware*
- *DGS 2024-2025 Annual Report of Programs & Activities*
- *Delaware Geological Survey Borehole Log Mapper* (ESRI Experience web application v2025)
- *3D View of Delaware Aquifers* (ESRI Instant App v2025)
- *DGS Groundwater Monitoring Network Portal* (Shiny web application v2024)

Delaware Geological Survey

Performance Measures

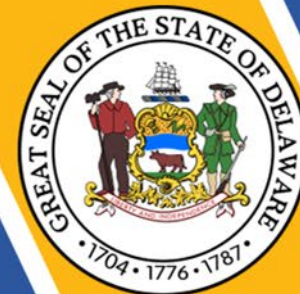


FY26-27 PRODUCTS IN PROGRESS

- DGS Report of Investigations No. 87, *Geological Characterization of Miocene sediments of the Marshyhope core site (Nb53-08), northwest Sussex County*
- DGS Report of Investigations No. 88, *Stratigraphic Geometry and Facies Characteristics of the Potomac Formation near the Chesapeake and Delaware Canal, Delaware, on the basis of a Reflection Seismic Survey and Well Data*
- DGS Report of Investigations No. 89, *Vertical Land Motion in Delaware*
- DGS Report of Investigations No. 90, *Back-barrier Flooding in Slaughter Beach, Delaware*
- DGS Report of Investigations No. 91, *Deicer Salt Transport in Groundwater Beneath Two Stormwater BMP Sites*
- DGS Open File Report No. 57, *Groundwater Monitoring Procedures Part 2: Equipment and Procedures for Groundwater Sample Collection from Monitoring Wells (in press)*
- DGS Open File Report No. 58, *The Middle Atlantic Stratigraphic Equivalency Project: Establishing Interstate Stratigraphic Relationship from Virginia to New Jersey*
- DGS Open File Report No. 59, *The Potomac Formation in Five Core Sites in New Castle County, Delaware*
- DGS Geologic Map No. 33, *Geologic Map of the Kenton Quadrangle, Delaware*

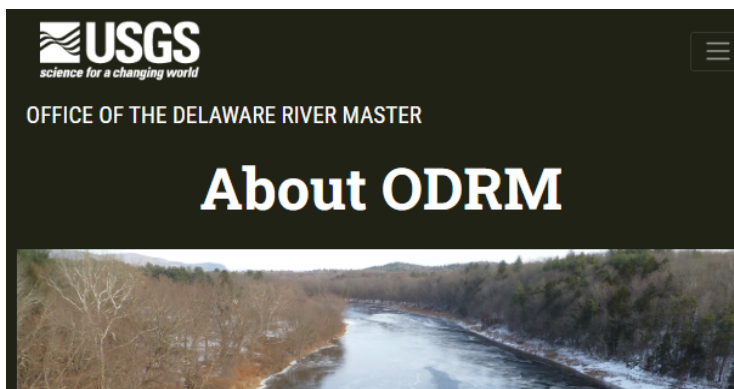
Delaware Geological Survey

Delaware River management framework



Budget Enhancement: Delaware River Master

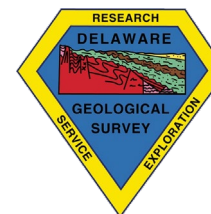
- U.S. Supreme Court 1954 Decree requires Delaware to pay 25% of ODRM costs
- FY2027: DGS requests \$39K increase to meet Delaware's legal obligation
- Data support sound decisions impacting the health of the lower Delaware River and Bay



Duties and Functions of the Delaware River Master

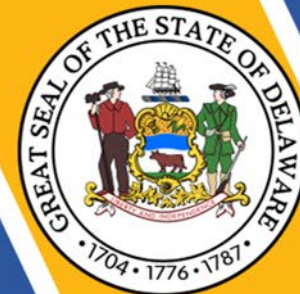
General Duties

1. Administer the provisions of the Amended Decree relating to the yields, diversions, and releases of water from the New York City reservoirs.
2. Conserve the waters in the Delaware River, its tributaries, and in the New York City reservoirs in the Delaware River Basin.
3. Compile and correlate data on the water needs of the Parties to the Decree.
4. Check and correlate streamflow gagings on the Delaware River and its tributaries.
5. Observe, record, and study the effects of development on the Delaware River and on the water supply and other [beneficial] water uses.
6. Make periodic reports to the U.S. Supreme Court, with copies to the Governors of the four basin States and the Mayor of the City of New York.

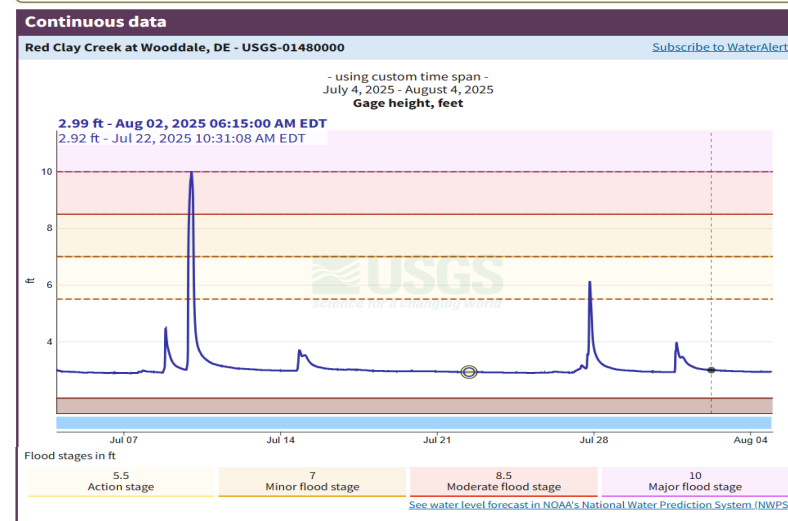
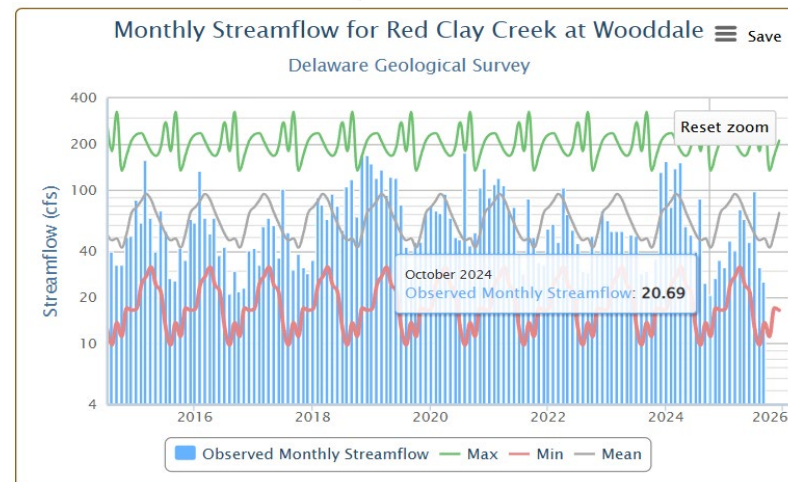


Delaware Geological Survey

Cooperative Stream & Tide Gaging



- FY2027: DGS requests \$25K increase for USGS cooperative program
- Prevents loss of critical gages
- Real-time data for flood safety and water supply



Delaware Geological Survey

Reliable Science. Public Value.



- Measuring and mapping Delaware's natural resources for the public good
- Maintaining continuity in essential statewide programs
- Building knowledge that supports decisions for the future

We are grateful for the state's consistent support that makes this work possible.