

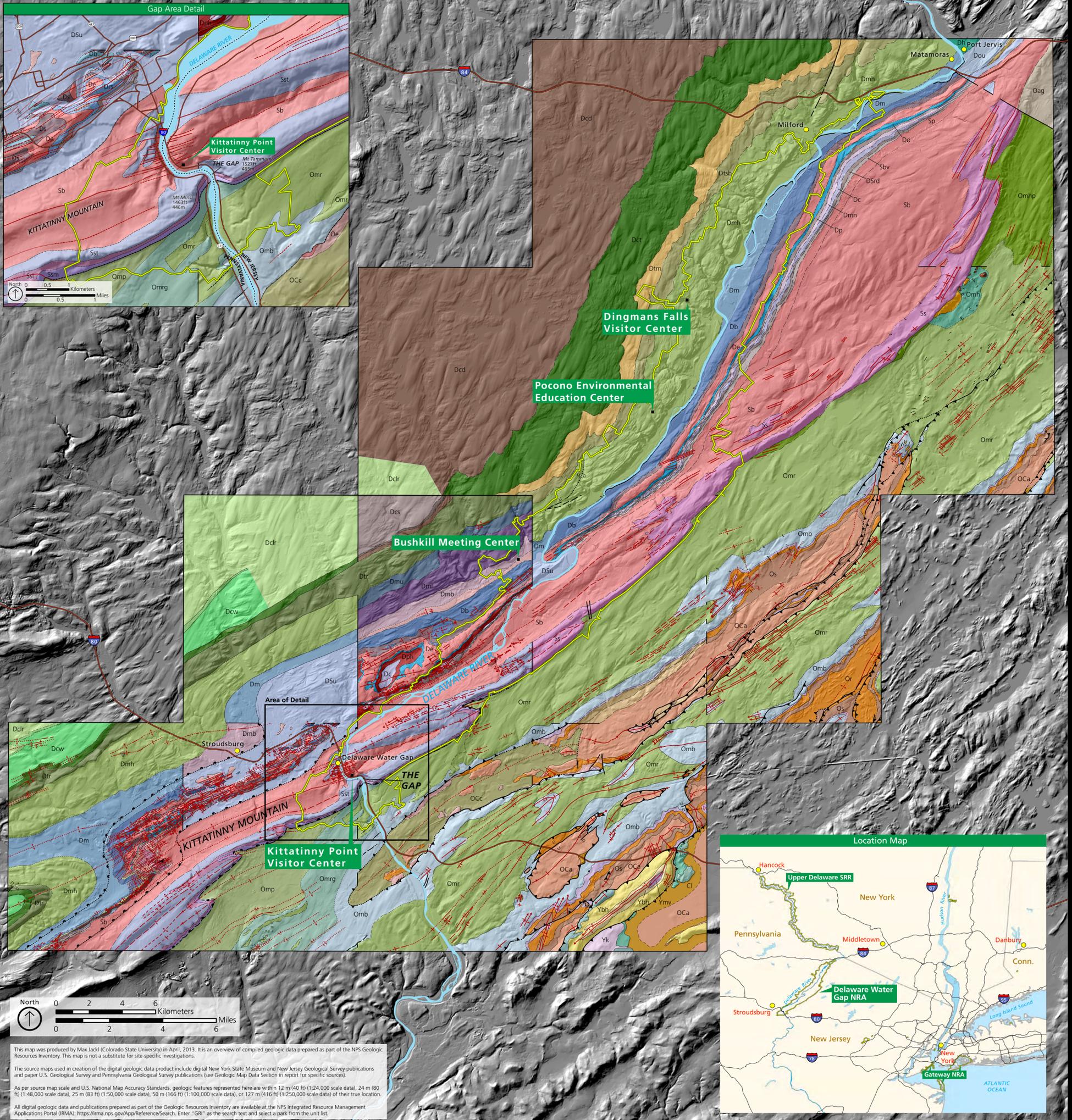
# Bedrock Geologic Map of Delaware Water Gap NRA

National Park Service  
U.S. Department of the Interior



New Jersey and Pennsylvania

Geologic Resources Inventory



This map was produced by Max Jackl (Colorado State University) in April, 2013. It is an overview of compiled geologic data prepared as part of the NPS Geologic Resources Inventory. This map is not a substitute for site-specific investigations.

The source maps used in creation of the digital geologic data product include digital New York State Museum and New Jersey Geological Survey publications and paper U.S. Geological Survey and Pennsylvania Geological Survey publications (see Geologic Map Data Section in report for specific sources).

As per source map scale and U.S. National Map Accuracy Standards, geologic features represented here are within 12 m (40 ft) (1:24,000 scale data), 24 m (80 ft) (1:48,000 scale data), 25 m (83 ft) (1:50,000 scale data), 50 m (166 ft) (1:100,000 scale data), or 127 m (416 ft) (1:250,000 scale data) of their true location.

All digital geologic data and publications prepared as part of the Geologic Resources Inventory are available at the NPS Integrated Resource Management Applications Portal (IRMA): <https://irma.nps.gov/App/Reference/Search>. Enter "GRI" as the search text and select a park from the unit list.

- NPS Boundary**
- Yellow outline
- Infrastructure**
- Black dots: points of interest
  - Black squares: cities
  - Red lines: roads
- Folds**
- Red dashed line: known or certain, approximate and concealed
  - Red dashed line with question mark: queried
  - Red line with arrow: anticline
  - Red line with double arrow: syncline
  - Red line with double arrow and question mark: overturned anticline
  - Red line with double arrow and question mark: overturned syncline
  - Red arrow: plunge direction
- Faults**
- Black dashed line: known or certain, approximate and concealed
  - Black dashed line with question mark: queried
  - Black line with teeth: teeth are on upthrown block
  - Black line with triangle: decollement fault
  - Black line with arrow: up and down fault motion
- Geologic Contacts**
- Black dashed line: known or certain, approximate and concealed
  - Black dashed line with question mark: queried
  - Black line: gradational
  - Black line with triangle: quadrangle boundary
  - Blue line: water or shoreline
  - Blue dashed line: subaqueous (inferred)

- Geologic Units**
- Catskill Formation**
- Dclr: Long Run Member (Upper Devonian)
  - Dcbr: Beaverdam Run Member (Upper Devonian)
  - Dcw: Walksville Member (Upper Devonian)
  - Dcs: Shohola Member (Upper Devonian)
  - Dca: Analomink Red Shale Member (Upper Devonian)
  - Dcd: Delaware River Flags Member (Upper Devonian)
  - Dct: Towamensing Member (Upper Devonian)
- Trimmers Rock Formation**
- Dtr: Undivided (Upper Devonian)
  - Dtm: Millrift Member (Upper Devonian)
  - Dtsb: Sloat Brook Member (Upper Devonian)
- Hamilton Group**
- Dmh: Mahantango Formation (Middle Devonian)
  - Dmu: Mahantango Formation, Upper Member (Middle Devonian)
  - Dmhc: Mahantango Formation, Centerfield Member (Middle Devonian)
  - Dmi: Mahantango Formation (Middle Devonian)
  - Dh: Mahantango Formation and Marcellus Shale, undivided (Middle Devonian)
  - Dm: Marcellus Shale (Middle Devonian)
  - Dmb: Marcellus Shale, Broadhead Creek Member (Middle Devonian)
  - Dmsu: Marcellus Shale, Stony Hollow and Union Springs Shale Members, undivided (Middle Devonian)
- Oriskany Group**
- Do: Oriskany Group, undivided (Lower Devonian)
  - Dr: Oriskany Group, Ridley Sandstone (Lower Devonian)
  - Drs: Oriskany Group, Ridley Sandstone and Shriver Chert, undivided (Lower Devonian)

- Helderberg Group**
- Dhg: Helderberg Group (Lower Devonian)
  - Dbl: Helderberg Group, Port Ewan Shale, Minisink Limestone, and New Scotland Formation, undivided (Lower Devonian)
  - Dp: Port Ewan Shale (Lower Devonian)
  - Dmn: Helderberg Group, Minisink Limestone and New Scotland Formation, undivided (Lower Devonian)
  - Dc: Helderberg Group, Coeymans Formation, undivided (Lower Devonian)
  - Dshr: Lower part of Helderberg Group and Rondout Formation, undivided (upper Silurian to Lower Devonian)
  - Dsohr: Shriver Chert of the Oriskany Group, Helderberg Group and Rondout Formation, undivided (upper Silurian to Lower Devonian)
- Shawangunk Formation**
- Dsrp: Rondout Formation (upper Silurian to Lower Devonian)
  - Dsrd: Rondout Formation and Decker Formation, undivided (upper Silurian to Lower Devonian)
  - Dsu: Undifferentiated Devonian and Silurian rocks (upper Silurian to Middle Devonian)
  - Sd: Decker Formation (upper Silurian)
  - Sbv: Bossardville Limestone (upper Silurian)
  - Sp: Poxono Island Formation (upper Silurian)
  - Sbr: Bloomsburg Red Beds, disseminated chalcocite (upper Silurian)
  - Sb: Bloomsburg Red Beds (middle to upper Silurian)
- Beemerville Intrusive Suite**
- Obs: Nepheline syenite (Upper Ordovician)
  - Obt: Tinguaita (Upper Ordovician)
  - Oop: Phonolite (Upper Ordovician)
  - Oob: Bostonite (Upper Ordovician)
  - Oim: Malignite (Upper Ordovician)
  - Obl: Lamprophyre (Upper Ordovician)
  - Ocb: Ouachitite Breccia (Upper Ordovician)

- Omh: Hornfels (Middle to Upper Ordovician)
- Martinsburg Formation**
- Omp: Pen Argyl Member (Middle to Upper Ordovician)
  - Omh: High Point Member (Upper Ordovician)
  - Omr: Ramsburg Member (Middle to Upper Ordovician)
  - Omrq: Ramsburg Member, graywacke beds (Middle to Upper Ordovician)
  - Omb: Bushkill Member (Middle to Upper Ordovician)
- Beekmantown Group**
- Oag: Austin Glen Formation (Middle Ordovician)
  - Oj: Jacksonburg Limestone (Middle Ordovician)
  - Ojl: Jacksonburg Limestone, cement limestone facies (Middle Ordovician)
  - Ow: Sequence at Wantage (Middle Ordovician)
  - Obu: Upper part (Ordovician)
  - Obl: Lower part (Ordovician)
  - Oe: Epler Formation (Lower Ordovician)
  - Or: Rickenbach Dolomite (Lower Ordovician)
  - Os: Stonehenge Formation (Lower Ordovician)
  - Oca: Allentown Dolomite (Upper Cambrian to Lower Ordovician)
  - Occ: Carbonate rocks (Cambrian to Ordovician)
  - Cl: Leithsville Formation (Lower to Middle Cambrian)
  - Ch: Hardyston Quartzite (Lower Cambrian)
  - Ymv: Venite (Middle Proterozoic)
  - Yba: Byram Intrusive Suite, microperthite alkaskite (Middle Proterozoic)
  - Ybh: Byram Intrusive Suite, hornblende granite (Middle Proterozoic)
  - Ymr: Marble (Middle Proterozoic)
  - Yq: Quartz-plagioclase-epidote-biotite gneiss (Middle Proterozoic)
  - Yk: Potassic feldspar gneiss (Middle Proterozoic)
  - Ylo: Oligoclase-quartz gneiss (Middle Proterozoic)
  - Ya: Amphibolite (Middle Proterozoic)