

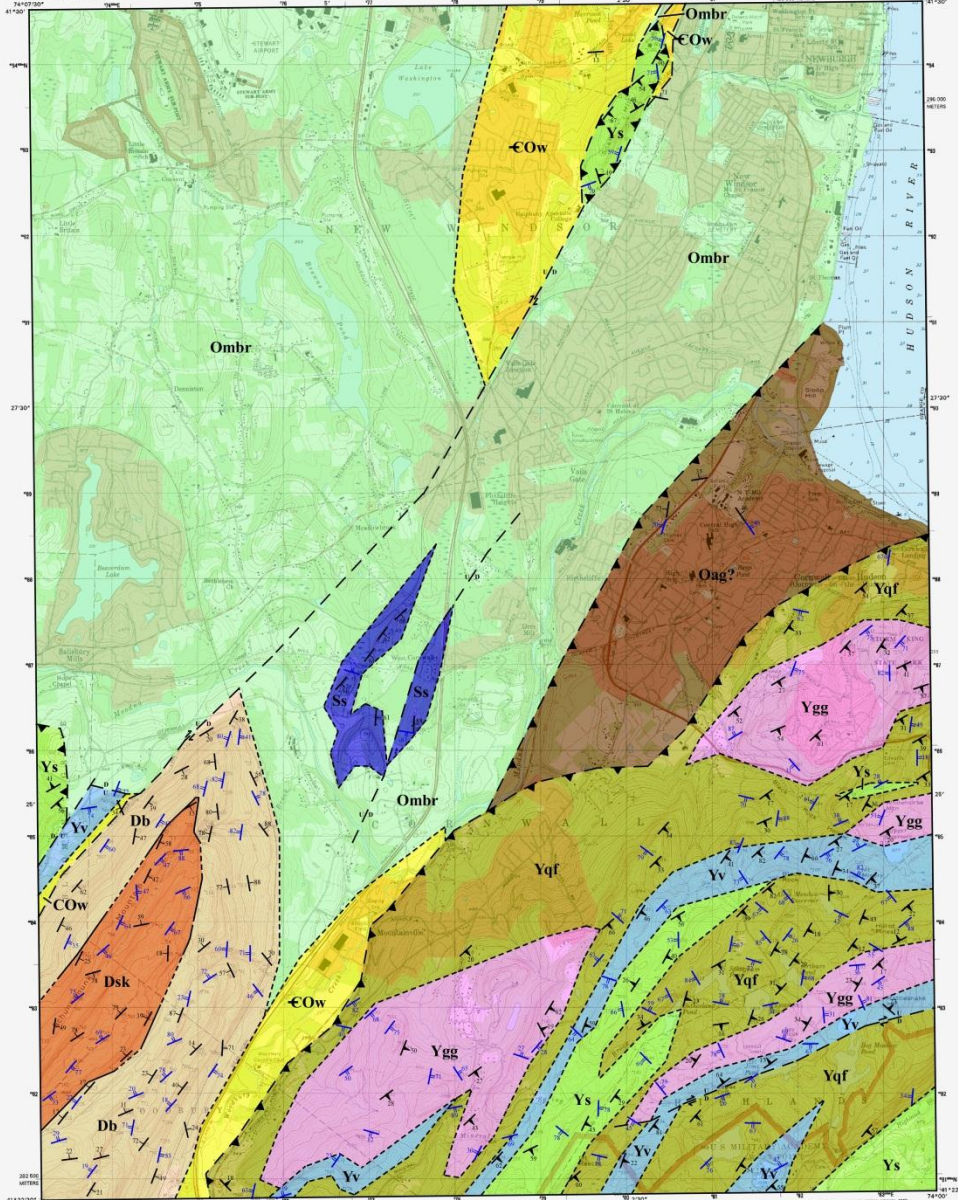
# Bedrock Geologic Map of the Cornwall-on-Hudson, New York 7.5 Minute Quadrangle

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CORNWALL-ON-HUDSON QUADRANGLE  
NEW YORK  
7.5-MINUTE SERIES (TOPOGRAPHIC)



U.S. DEPARTMENT OF THE INTERIOR  
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## Explanation

- Dsk** Schuylkill Conglomerate. Red conglomerate composed of pebbles to cobble size aggregates. Aggregates are mostly quartz within a medium grained sandstone with crossbedded structures. Fractures are non extensive. Quartz veins are common throughout and often crosscut the aggregates. The contact with the Bellevue Formation below is gradational and interbedded.
- Db** Bellevue Formation. Dull gray fine to coarse-grained sandstone with minor siltstone, shale and quartz granule to pebble conglomerate. Interbedded with this shale and siltstone layers at the bottom of the sequence, the sandstone ranges from massive and 3 m thick to well bedded and 10 cm thick. There are channel cut and fill deposits with conglomeratic bases grading upward into sandstone. Concretions occur in some of the siltstone layers. This unit grades upward into a well-bedded and cross-bedded sequence of flaggy gray carbonaceous sandstone which resembles "shalestone". The layers are 2-5 cm thick with rare siltstone layers. The trough cross-bedded packages are 0.5 to 0.8 m thick with inconsistent flow directions. There are rare brachiopod and plant fossils.
- Ss** Schawangank Formation. Bedded to massive white to orange and red quartz pebble to cobble conglomerate and quartzite. Some shear foliation present locally, otherwise unfoliated. Extensive fracturing and veining. Ferns ridges. Non-fossiliferous. In sharp contact with both the Martinsburg Formation and the Escopus Formation.
- Ombr** Martinsburg Formation. Consisting of two members, the upper Ramseyburg and the lower Buskill. The Buskill is by far the most abundant. It is a gray to black shale that ranges from massive to thinly interlamated with a tan siltstone and sandstone locally. The silty layer exhibit hummocky cross-bedding. The sandstone contains fossil lags and low angle cross-bedding. The fossils include graptolite, brachiopods and trilobites. The rock exhibits a penetrative slaty cleavage throughout and crenulation cleavage locally. The Ramseyburg member is a gray to tan sandstone that is locally calcareous. It is fine to medium-grained and interbedded with siltstone in its lower part. Bedding ranges from 10 to 30 cm with sharp contacts. Planar cross-bedding is locally developed. The member grades upward to a massive gray sandstone that varies from medium to coarse-grained. The lower part of the unit is locally highly fossiliferous in gradational contact with the underlying Buskill.
- Oag?** Austin Gtwn Formation. Interbedded fine to coarse-grained tan to gray sandstone and black shale. Bedding ranges from 2 to 20 cm. Graded bedding throughout. Locally cross-bedding is present.
- €Ow** Wappinger Group. Dove gray to buff limestone and dolomite with chert layers. Well bedded algal mat boundstone, wackestones and packstone with fossil lags and interlayered bedolite. Bedding ranges from 2 to 10 cm in the bedded sections but massive bedolite between them are 3 to 4 or more in thickness. Chert layers are discontinuous and typically 5 to 10 cm in thickness. Contacts both top and bottom are sharp. Cleavage is locally developed. It is mainly spaced but stylolitic cleavage also occurs. Karst is locally developed as well.
- Ys** Metasedimentary package. Consists of interlayered biotite-garnet gneiss with medium to coarse quartz, plagioclase, K-spar and local sillimanite and cordierite with quartzofeldspathic layers. Within the metapelite are zones of graphite-pyrite-garnet gneiss with biotite, quartz, K-spar, plagioclase and sillimanite locally. Quartzite layers of 10 to 50 cm thickness also occur within this unit as do rare and discontinuous layers of diopside and diopside-garnet marble to calciculate of 10 cm to 2 m thickness. Common intrafoliated pegmatites exhibit rootless isoclinal folding. The contact with the quartzofeldspathic gneiss is gradational.
- Yqf** Quartzofeldspathic gneiss package. The quartzofeldspathic gneiss ranges from massive to layered quartz-plagioclase gneiss with minor amounts of biotite and/or hornblende. Locally, it contains magnetite, K-spar or garnet in trace amounts. Compositional layering is defined by the proportion and type of the mafic mineral component. Locally, it contains apparent fining upward sequences by an increase in the amount of mica and decrease in layer spacing with sharp contacts between sequences. It is locally interbedded with quartzite and with mafic gneiss at the contact with the metavolcanic sequence. It is strongly sheared and displays well developed S-C fabric in mylonitic zones. It is also heavily intruded by pegmatite. This unit is interpreted to represent a volcanoclastic sequence.
- Yv** Metavolcanic package. The unit consists of interlayered black and pale gray mafic and intermediate gneiss. The mafic rock is medium to coarse grained and aligned hornblende, plagioclase and pyroxene with locally high amounts of magnetite. The intermediate gneiss is medium to coarse-grained plagioclase, quartz and minor hornblende and/or biotite. Banding ranges in thickness from 5 cm to 1.5 m with varying proportions of each rock type. There are local interlayers of quartzite and calciculate gneiss. The contact with the quartzofeldspathic gneiss is gradational.
- Ygg** Granitic gneiss. This unit consists of medium to coarse recrystallized quartz, K-spar and plagioclase that form planar and linear fabrics. Locally the granitic gneiss is interbedded with quartzofeldspathic gneiss. At Bear Mountain the granitic gneiss (Strom King gneiss) is dominated by linear deformation fabrics (l-tectonite).

## Explanation of Structure Symbols

- Strike and dip of sedimentary bedding.
- Strike and dip of D1 foliation.
- Strike and dip of dominant fracture.
- Thrust faults.
- Normal faults with offset shown.
- Approximate geologic contacts.
- Known geologic contacts.

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Primary highway  
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Light-duty road, local or  
improved road  
Unimproved road  
U.S. Route  
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