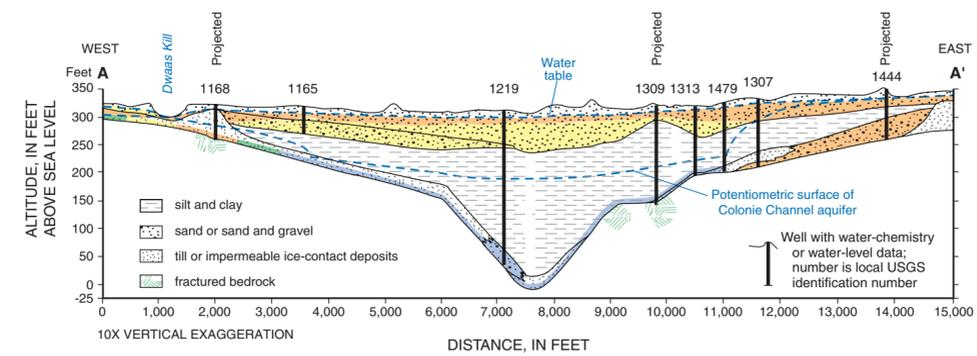


Base from New York State Department of Transportation Digital Planimetric Maps, 1:24,000. Burnt Hills 1991, Round Lake 1991, Schenectady 1993, Niskayuna 1992

B.1 Chemical composition of ground water (1993-98) and ground-water levels (August-September 1998) within the Colonie Channel aquifer.



B.2 Vertical section A-A' – approximate distribution of chemical water types and water levels within the lacustrine sand and Colonie Channel aquifers.

- EXPLANATION**
- CHEMICAL COMPOSITION OF GROUND WATER** (pl. 1B.1, 1B.2)
(AREAL DELINEATIONS ARE APPROXIMATE)
- Calcium - Magnesium - Bicarbonate (Ca - Mg - HCO₃) Water Type** Young (recently recharged) ground water relative to most other types. This (and its road-salt-affected subtypes, described below) is the predominant water in the lacustrine-sand aquifer and in unconfined areas of the Colonie channel aquifer. The presence of this water type in deep confined settings indicates recharge pathways from shallow unconfined areas.
 - Calcium - Sodium - Bicarbonate - Chloride (Ca - Na - HCO₃ - Cl) Water Type** Ca - Mg - HCO₃ water moderately affected by road-salt contamination; defined by chloride concentrations between 50 and 99 milligrams per liter. Includes ground waters from shallow observation wells affected by nearby roadway applications and supply wells whose composite sample represents the effect of road-salt application over a wider area.
 - Sodium - Calcium - Bicarbonate - Chloride (Na - Ca - HCO₃ - Cl) Water Type** Ca - Mg - HCO₃ water strongly affected by road-salt contamination or landfill leachate; defined by chloride concentrations greater than 100 milligrams per liter. Chloride concentrations between 100 and 260 milligrams per liter indicate a road-salt source; concentrations exceeding 500 milligrams per liter indicate contamination from point sources such as road-salt stockpiles and landfills.
 - Calcium - Bicarbonate - Sulfate (Ca - HCO₃ - SO₄) Water Type** SO₄ ≥ 70 milligrams per liter; Ca ≥ 100 milligrams per liter. This water type represents Ca - Mg - HCO₃ water affected by ground-water withdrawals; found only at wellfields where production wells tap unconfined or locally confined settings within the channel aquifer.
 - Sodium - Calcium - Bicarbonate (Na - Ca - HCO₃) Water Type** An intermediate step in the evolution of Ca - Mg - HCO₃ waters toward Na - HCO₃ waters or as a result of mixing of these water types. Sodium concentrations generally equal or exceed those of calcium; the increase in sodium is attributed to cation exchange with aquifer materials. Thus, these waters represent an intermediate ground-water residence time between those of Ca - Mg - HCO₃ waters and Na - HCO₃ waters. These waters are typically found in confined or locally confined settings along the edges of the Colonie channel. The presence of this intermediate residence-time water type within deep, confined areas of the Colonie channel suggests recharge from shallower aquifer areas.
 - Sodium Bicarbonate (Na - HCO₃) Water Type** The oldest (longest residence-time) ground waters within the Colonie channel aquifer. These waters are limited to the deeper, most confined areas within the Colonie channel and show little or no indication of human influence. Tritium-based ages of this water are pre-1952, which predates significant development in the area. Sodium is the dominant cation and calcium concentrations are low; thus, the water is soft.
 - WATER-LEVEL CONTOUR** – Represents August-September 1998 potentiometric surface in confined hydrogeologic settings and the water table in unconfined areas. Contour interval is 25 feet; dashed where approximately located. Hachures indicate depression in potentiometric surface. Datum is sea level.
 - ○
 GROUND-WATER FLOW DIVIDE – on the potentiometric surface; water on each side of the divide flows away in opposite directions.
 - Berry Farm (49.9)**
 - Clifton Commons**
 - CHANNEL-AQUIFER WELL WITH WATER-LEVEL DATA**
 - CHANNEL-AQUIFER WELL WITH WATER-CHEMISTRY DATA**

