

Appendix E – Regional Aquifer Units within WRIA 14

Aquifer	Description	Typical Thickness
AA – Alluvial Aquifer	Composed of recent alluvium (Qa), this aquifer consists of clay, silt, sand, and gravel deposits. This aquifer is laterally discontinuous and limited to stream valleys.	A few feet up to about 50 feet thick, where present. Where saturated, the unit is often in direct continuity with surface-water bodies.
UA – Upper Aquifer	This aquifer is mainly composed of deposits from the Vashon recessional outwash (Qgo). The deposits are usually poorly- to moderately-sorted sand or sand and gravel, sometimes with lenses of silt or clay. The unit is generally unconfined.	The thickness varies from 5 feet up to about 250 feet.
UC – Upper Confining Unit	This confining unit is composed primarily of Vashon till (Qgt) and consists of unsorted and compacted clay, silt, sand, and gravel. This unit separates the Upper Aquifer and Middle Aquifer.	The thickness ranges from 5 feet up to about 360 feet.
MA – Middle Aquifer	This aquifer is mainly composed of deposits from the Vashon advance outwash (Qga). The deposits are usually moderately- to well-sorted sand, gravel, and silt with occasional lenses of silt or clay. Although laterally extensive, this aquifer is discontinuous where surface water drainages have incised through the overlying till and into the outwash. This aquifer is generally confined, but locally unconfined conditions may occur where the aquifer is not fully saturated, or where it is exposed at land surface.	The thickness ranges from a few feet to about 150 feet.
LC – Lower Confining Unit	This confining unit is primarily composed of pre-Vashon glaciolacustrine and interglacial sediments and consists of clay and silt, with some till and occasional deposits of peat and wood. This unit is laterally extensive and separates the Middle Aquifer and Lower Aquifer.	The thickness ranges from several tens of feet to about 350 feet.

Aquifer	Description	Typical Thickness
LA – Lower Aquifer	Sometimes also called the “sea-level aquifer” due its coincident elevation, this unit is primarily composed of pre-Vashon outwash deposits consisting of sand and gravel, with some lower-permeability deposits of silt, clay, or till. This aquifer is confined by the overlying Middle Confining Unit. This aquifer is present throughout most of the WRIA, except the southeast portion where bedrock is at or near ground surface.	The thickness ranges from 5 feet to about 200 feet.