



**Aquifer Recharge Potential Map**

### Description

The aquifer recharge potential map is intended to highlight relative differences in recharge potential for specific aquifer types in the quadrangle. The scale used for classifying recharge rates was determined by the authors and based on the criteria detailed in Table 1. It was then applied to a map of the area's surficial geology and to stratigraphic cross sections through the valleys.

Based on surficial mapping and subsurface data, three important types of aquifers are recognized in the mapping area: a confined carbonate bedrock aquifer, unconfined surface bedrock aquifers consisting of kamic fields, and small locally perched water tables occurring in terraces of porous glacial sediments mantling thick impermeable till deposits.

Areas surrounding high recharge locations should be taken into consideration during land use and planning. Areas designated 1r should be given particular protection, as they represent potentially important groundwater paths to the carbonate aquifer, Arlington's main water source.

### Explanation

----- town boundary

#### Aquifer Recharge Potential\*

Bedrock Aquifer	Surface Aquifers	Locally Perched Water Tables
1r highest	1s highest	1p highest
2r high	2s high	2p high
3r moderate		3p moderate
4r low		
5r lowest		

\*recharge potential ranges are relative to each specific aquifer type, e.g. 1r, 1s, 1p are not equivalent classifications

**Table 1:  
Criteria used for aquifer recharge classifications**

#### Carbonate Bedrock Aquifer

- 1r: bedrock exposed, bedrock covered with thin till (thickness <3ft)
- 2r: bedrock mantled by kamic deposits
- 3r: bedrock mantled by fluvial terraces +/- thin till, bedrock mantled by alluvium
- 4r: bedrock mantled by Taconic phyllite, slate, or shale +/- thin till
- 5r: bedrock mantled by thick till (thickness >3ft)

#### Surface Aquifers

- 1s: overburden includes kamic fields or esker fields
- 2s: overburden includes kamic fields mantled by alluvial fans

#### Locally Perched Water Tables

- 1p: overburden includes kame terrace
- 2p: thick till mantled by fluvial terraces
- 3p: thick till mantled by alluvial fans