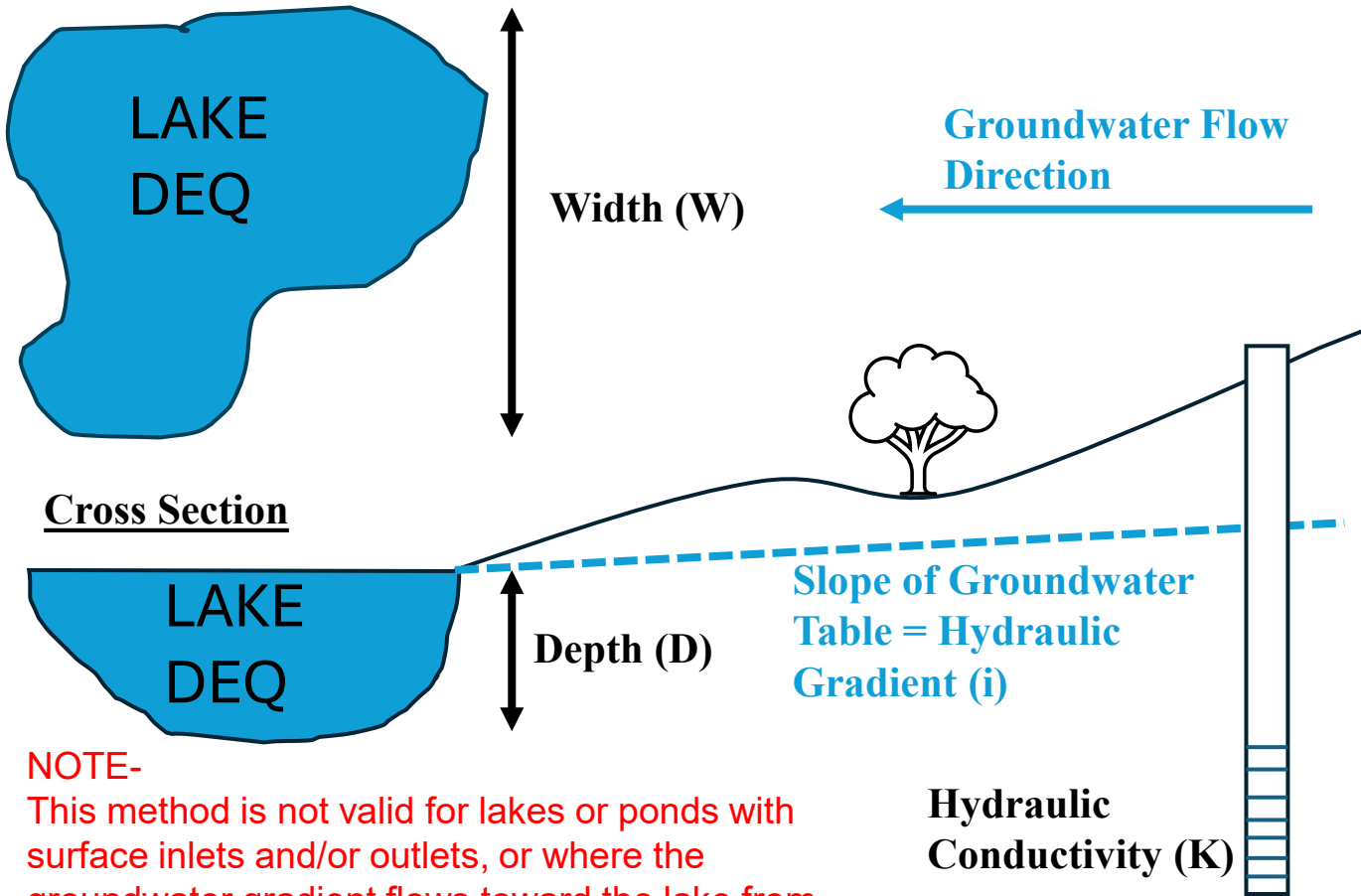


## APPENDIX R - DRAFT

### Darcy's Law for Calculating Ground Water Flow Rate

#### Map View



#### NOTE-

This method is not valid for lakes or ponds with surface inlets and/or outlets, or where the groundwater gradient flows toward the lake from several directions.

$$Q = (K)(i)(W)(D)$$

where:

**Q** = groundwater flow into lake (ft<sup>3</sup>/d) = dilution value for trigger value spreadsheet.

**K** = hydraulic conductivity (ft/d)

**i** = hydraulic gradient (ft/ft)

**W** = width of lake (ft)

**D** = average depth of lake (ft)

Note: convert Q into ft<sup>3</sup>/sec for use in trigger value spreadsheet by dividing it by 86,400 sec/day