

## PONDS 3.2 Technical Memo

Subject: Choosing the Maximum Area for Unsaturated Infiltration in PONDS 3.2 Refined Method module.

In the vertical unsaturated infiltration analysis of the PONDS 3.2 Refined Method, infiltration credit is given for all of the soil voids beneath the projected maximum area for unsaturated infiltration, as indicated in the following exhibit.

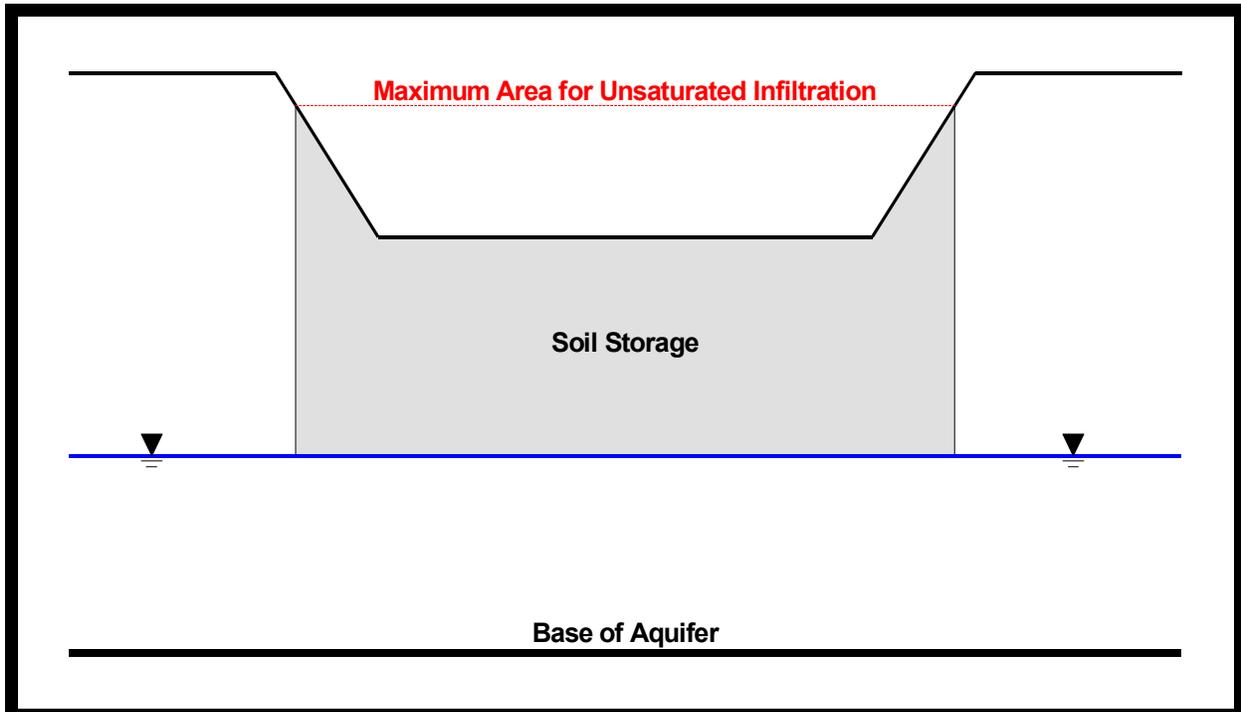


Exhibit 1. Available soil storage for vertical unsaturated infiltration.

The unsaturated infiltration analysis will continue until the cumulative infiltration volume exceeds the available soil storage beneath the Maximum Area for Unsaturated Infiltration.

It is incumbent upon the user to select a Maximum Area for Unsaturated Infiltration which best represents the actual pond behavior. PONDS does not check the validity of the user specified Maximum Area.

In selecting the Maximum Area for Unsaturated Infiltration, the following general guidelines are recommended.

- The elevation corresponding to the Maximum Area for Unsaturated Infiltration should not exceed the expected peak pond stage.
- For a pond with one or more discharge structures, the elevation corresponding to the Maximum Area for Unsaturated Infiltration should generally not exceed the invert elevation of the lowest discharge structure (assuming that the discharge structure effectively limits the peak pond stage).

When including vertical unsaturated infiltration, the user should check the results to verify that the elevation of the assumed Maximum Area for Unsaturated Infiltration is reasonable, given the above guidelines.