



Susquehanna River Basin Commission

a water management agency serving the Susquehanna River Watershed

POND EVAPORATION CALCULATION

These values are to be used to calculate pond evaporation for the Susquehanna River Basin Commission's Consumptive Use Regulation.

Month	Inches of Evaporation*
January	0
February	0
March	0
April	3.0
May	4.9
June	5.4
July	5.8
August	4.9
September	3.6
October	2.4
November	0
December	0

***Inches of Evaporation** are averages for the Susquehanna River basin and account for rainfall for each month. These averages are based on pan evaporation at various climatological stations. Penn State University then converted the numbers to reflect Lake Evaporation.

The following is a sample calculation of daily average pond evaporation for a 2.5-acre pond for the month of July. Please note that the size of your particular irrigation pond(s) and the month will directly affect your calculations. This calculation should be completed for each month and each pond.

EXAMPLE:

Pond Size = 2.5 acres

Inches of Evaporation for July = 5.8 inches

$$5.8 \text{ in.} \times \frac{1 \text{ ft.}}{12 \text{ in.}} \times 2.5 \text{ ac.} \times \frac{43,560 \text{ sq. ft.}}{1 \text{ ac.}} \times \frac{7.48 \text{ gal.}}{\text{cu. ft.}} = \frac{393,709.75 \text{ gal.}}{\text{month of July}}$$

$$\frac{393,709.75 \text{ gal.}}{31 \text{ days}} = \frac{12,700 \text{ gal.}}{\text{day}}$$

This is the daily average of pond evaporation from a 2.5-acre pond for the month of July. This number should be recorded daily and included in your total consumptive water use calculations. The appropriate daily value should be calculated and recorded for each month.

