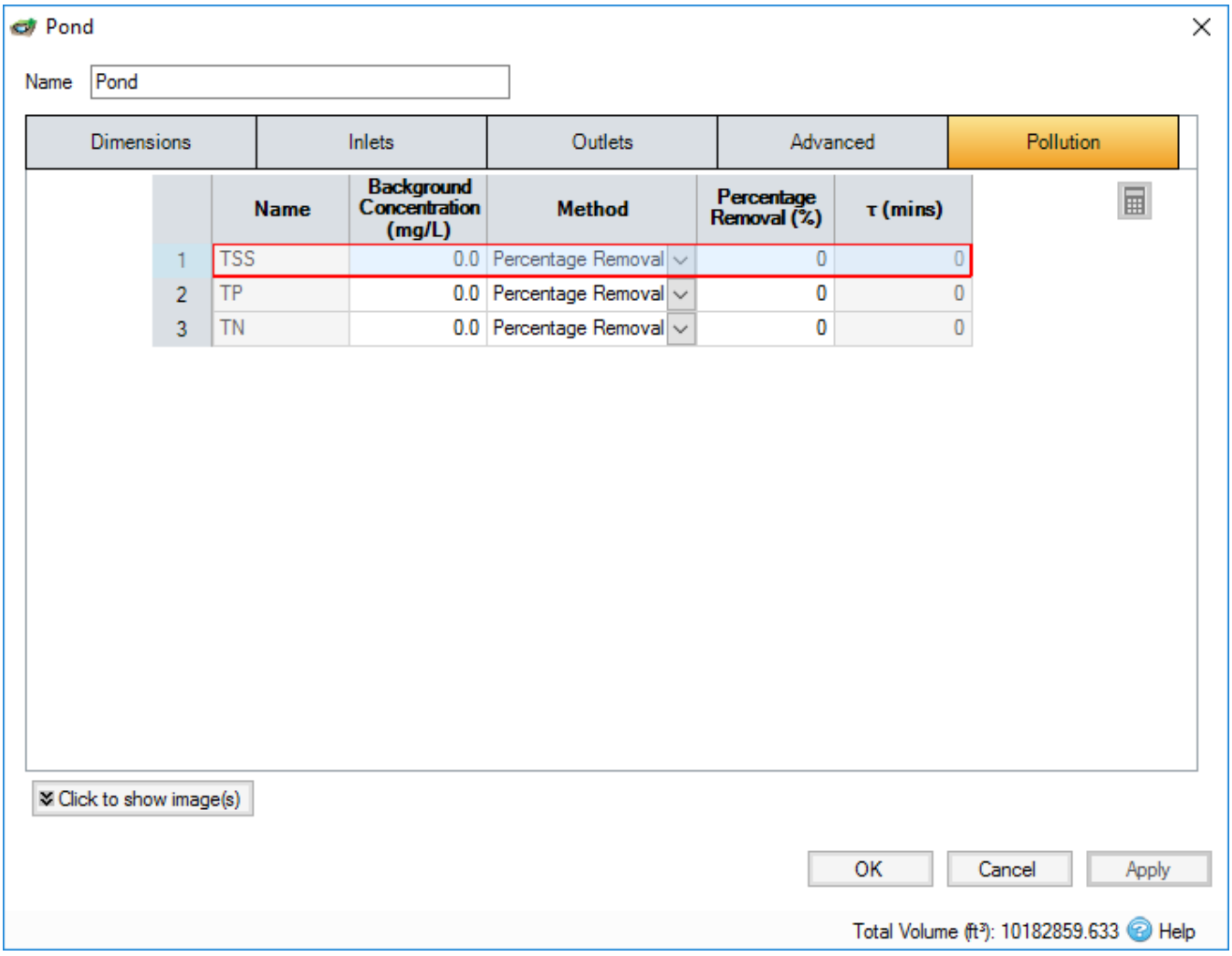
# Percentage Removal

For **percentage removal**, the concentration (*C*) within the drainage system is given by the routing method. There are two sub-methods available for percentage removal: Percentage Removal With, or Percentage Removal Without background concentration.




The sub-methods outlined below use the following variables:

*C* = pollutant concentration

$C_{out}$ = pollutant concentration in the outflow

$C_{in}$ = pollutant concentration in the inflow

*PercentageRemoval* = the specified percentage by which the concentration in the outflow is reduced

## Percentage Removal Without Background Concentration

The concentration in the outflow is calculated as the resident concentration, reduced by the specified percentage.

$$C_{out} = C_{in} * (1 - PercentageRemoval)$$

## Percentage Removal With Background Concentration

Realistically some pollutant concentrations are not reduced to zero. In such cases, users may specify a background (minimum) concentration ($C_{back}$) below which the pollutant concentration will not be reduced.

The method is the same as for Percentage removal without background concentration, except for the inclusion of the background concentration variable.

$$C_{out} = C_{back} + [(C_{in} - C_{back}) * (1 - PercentageRemoval)]$$