

FLOW & HYDRAULICS

Basic Flow:

$$Q = A \times V \text{ (Flow = Area} \times \text{Velocity)}$$

$$\text{Detention Time: } DT = \text{Volume} \div \text{Flow Rate}$$

Weir Formulas:

$$\text{Rectangular Weir: } Q = 3.33 \times L \times H^{1.5}$$

$$\text{V-Notch Weir: } Q = 2.5 \times H^{2.5}$$

$$\text{Cipolletti Weir: } Q = 3.367 \times L \times H^{1.5}$$

Where: Q = flow (ft³/sec), L = length (ft), H = head (ft)