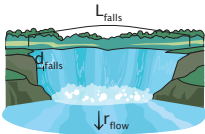


DISCHARGE RATE OF NIAGARA FALLS



$$L_{\text{falls}} \approx 10^3 \text{ m}$$

$$r_{\text{flow}} \approx f \text{ m / sec}$$

$$d_{\text{falls}} \approx 1 \text{ m}$$

$$\begin{aligned} v_{\text{discharge}} &\approx L_{\text{falls}} \times d_{\text{falls}} \times v_{\text{flow}} \\ &\approx 10^3 \text{ m} \times 1 \text{ m} \times \frac{f \text{ m}}{\text{sec}} \\ &\approx f \times 10^3 \text{ m}^3 / \text{sec} \end{aligned}$$

$$V_{\text{discharge}} \approx \frac{f \times 10^3 \text{ m}^3}{\text{sec}} \times \frac{10^3 \text{ L}}{\text{m}^3} \times \frac{f \times 10^7 \text{ sec}}{\text{year}} \approx 10^{14} \text{ L / year}$$