

$$1 \text{ wetland} \times \frac{20 \text{ ft}^2}{1 \text{ wetland}} \times \frac{10 \text{ amphibians}}{1 \text{ ft}^2} \times \frac{100 \text{ mosquitos}}{1 \text{ amphibian eats}} = \text{Total \# of mosquitos eaten by amphibians}$$

* Assuming incidence rate of disease is proportional to disease prevalence in mosquito population, we can calculate the total number of avoided human cases

$$\text{Total \# of mosquitos eaten by amphibians} \times \text{Proportion of mosquitos that carry disease} \times R_0 = \text{Total \# of human cases avoided}$$