

2. CALCULATE ANNUAL RUNOFF FOR EACH CATCHMENT AREA

General Equation:

$$\text{catchment area (ft}^2\text{)} \times \text{rainfall (ft)} \times 7.48 \text{ gal/ft}^3 \times \text{runoff coefficient} = \text{net runoff (gal)}$$

Use the Runoff Coefficient Chart to make an educated guess on the runoff coefficient for each.

2a) Roof:

$$\frac{\text{_____ (ft}^2\text{)}}{\text{catchment area}} \times \frac{\text{_____ (ft)}}{\text{rainfall}} \times 7.48 \text{ gal/ft}^3 \times \frac{\text{_____}}{\text{coefficient}} = \frac{\text{_____ (gal)}}{\text{net runoff}}$$

2b) Driveway:

$$\frac{\text{_____ (ft}^2\text{)}}{\text{catchment area}} \times \frac{\text{_____ (ft)}}{\text{rainfall}} \times 7.48 \text{ gal/ft}^3 \times \frac{\text{_____}}{\text{coefficient}} = \frac{\text{_____ (gal)}}{\text{net runoff}}$$

2c) Bare Soil or Landscape:

$$\frac{\text{_____ (ft}^2\text{)}}{\text{catchment area}} \times \frac{\text{_____ (ft)}}{\text{rainfall}} \times 7.48 \text{ gal/ft}^3 \times \frac{\text{_____}}{\text{coefficient}} = \frac{\text{_____ (gal)}}{\text{net runoff}}$$

3. CALCULATE RUNOFF FROM A LARGE STORM (3 INCHES OR 0.25 FT)

The equation for calculating runoff from a storm is the same as annual runoff, just substitute the storm rainfall amount for annual rainfall.

3a) Roof:

$$\frac{\text{_____ (ft}^2\text{)}}{\text{catchment area}} \times \frac{\text{0.25 (ft)}}{\text{rainfall}} \times 7.48 \text{ gal/ft}^3 \times \frac{\text{_____}}{\text{coefficient}} = \frac{\text{_____ (gal)}}{\text{net runoff}}$$

3b) Driveway:

$$\frac{\text{_____ (ft}^2\text{)}}{\text{catchment area}} \times \frac{\text{0.25 (ft)}}{\text{rainfall}} \times 7.48 \text{ gal/ft}^3 \times \frac{\text{_____}}{\text{coefficient}} = \frac{\text{_____ (gal)}}{\text{net runoff}}$$

3c) Bare Soil or Landscape:

$$\frac{\text{_____ (ft}^2\text{)}}{\text{catchment area}} \times \frac{\text{0.25 (ft)}}{\text{rainfall}} \times 7.48 \text{ gal/ft}^3 \times \frac{\text{_____}}{\text{coefficient}} = \frac{\text{_____ (gal)}}{\text{net runoff}}$$