

Runoff Footprint

#FLOODED

Grades 5 - 12

Learner Worksheet



Part A: Surface Areas Table

| Surface | Area (L x W = m ²) | Non-Permeable (NP) | Semi-Permeable (SP) | Permeable (P) |
|------------------------|---------------------------------|--------------------|---------------------|---------------|
| Parking Lot | | | | |
| Running Track | | | | |
| Playing Field | | | | |
| Road 1 | | | | |
| Road 2 | | | | |
| Road 3 | | | | |
| Play Area 1 | | | | |
| Play Area 2 | | | | |
| Playground Rubber Mats | | | | |
| Wood Chip Area | | | | |

| Surface | Area (L x W = m ²) | Non-Permeable (NP) | Semi-Permeable (SP) | Permeable (P) |
|-------------------------|---------------------------------|--------------------|---------------------|---------------|
| Artificial Turf | | | | |
| Roof 1 | | | | |
| Roof 2 | | | | |
| Garden | | | | |
| Sidewalk 1 | | | | |
| Sidewalk 2 | | | | |
| Paved Area 1 | | | | |
| Paved Area 2 | | | | |
| Sports Courts | | | | |
| Semi-Permeable Pavement | | | | |
| Paths | | | | |
| Grass | | | | |
| Naturalized Area | | | | |
| Wetlands | | | | |
| Ravines | | | | |

| Surface | Area (L x W = m ²) | Non-Permeable (NP) | Semi-Permeable (SP) | Permeable (P) |
|--------------------------|---------------------------------|--------------------|---------------------|---------------|
| Ditches | | | | |
| Swales and French Drains | | | | |
| Other | | | | |
| TOTALS | | | | |

Part B: Permeability Percentage Table

| | |
|---|--|
| Non-Permeable Total Area (in m ²) (Total of NP surfaces in Part A) | |
| Semi-Permeable (SP) total area (in m ²) (Total of SP surfaces in Part A) | |
| Permeable (P) total area (in m ²) (Total of P surfaces in Part A) | |
| Total Area of Study Area (SA) = NP + SP + P | |
| Percentage Non-Permeable (NP total area/SA total area) x 100 equals % | |
| Percentage Semi-permeable (SP total area/ SA total area) x 100 equals % | |
| Percentage Permeable (P total area/SA total area) x 100 equals % | |

Part C: Rainfall Chart

| Rainfall Event | Amount of Rain (mm) |
|-----------------|---------------------|
| Sample Storm 1 | |
| Sample Storm 2 | |
| Sample Storm 3 | |
| 1 year storm | |
| 100-year storm | |
| Real Time Storm | |

Part D: Runoff Footprint Chart

| Rainfall Event | Amount of Rain (mm) from Part C R | Total Non-Permeable Surface Area (m ²) from Part B TNP | Total Semi-Permeable Surface Area (m ²) from Part B TSP | Runoff Footprint (volume of runoff water in litres) This equals (R*TNP) + ((R*TSP)/2)) |
|-----------------|--|---|--|---|
| Example | 50 mm | 100 m ² | 200 m ² | 10,000 litres |
| Sample Storm 1 | | | | |
| Sample Storm 2 | | | | |
| Sample Storm 3 | | | | |
| 1 year storm | | | | |
| 100-year storm | | | | |
| Real Time Storm | | | | |