

INFILTRATION TRENCH & DRY WELL

Qualifying for an Infiltration Trench & Dry-Well Credit

Infiltration practices, such as infiltration trenches (or beds) and dry wells, capture storm water runoff from rooftops and paved areas. Captured runoff infiltrates into the soils, thereby reducing the amount that enters the sewer system. Dry wells and infiltration trenches are buried, perforated structures or pipes surrounded by high porosity stone encapsulated by filter fabric. These features rely solely on the infiltration capacity of the soils, and may not be appropriate in areas with poorly draining soils or shallow water table. To qualify for an Infiltration Trench or Dry Well Credit, the following requirements must be met:

- the runoff from at least 50% of the main home's roof area (or equivalent paved surface area) must be diverted to the infiltration trench or dry well.
- variable credit eligibility based on percentage of main home's roof area (or equivalent paved surface area) being diverted
- perform and submit results of Percolation Test in area where the infiltration trench or dry well is proposed
- dry well or infiltration trench shall be at least 3 feet deep (or more depending on type of structure proposed)
- the area of an infiltration trench varies depending on size of the area draining to it – max 5:1 ratio of impervious area to infiltration feature area
- excavation volume for dry wells shall be 66 cubic feet (500 gallon) minimum
- line excavations for dry wells and infiltrations with geotextile filter fabric
- use washed stone with a porosity of at least 40% for backfill up to 6 to 12 inches below final grade – wrap geotextile filter fabric over top of stone before completing backfill
- Locate at least 15 feet away from building foundations
- overflow from the infiltration trench or dry well shall not be directed onto paved surfaces, or onto adjacent properties
- provide a plan of the roof area of the home, and the location of the infiltration trench or dry well on the site
- property owner is responsible for maintenance of the infiltration trench or dry well, and keeping in working order – infiltration features are subject to clogging if runoff containing sediment or debris is allowed to enter; consider pre-treatment device or measures to reduce sediment load.

More information on Infiltration Practices (infiltration trench & dry wells) can be found in Chapter 7 of the LID Manual for Michigan, published by SEMCOG.