



Issue Date	April 5, 2021
Code/Section	City of Phoenix Storm Water Policies and Standards, Section 6.8.12&13
Approved:	April 5, 2021
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Background:

The purpose of this policy is to establish a method for determining percolation rates under storm water storage systems. Also, it is intended to provide consistency among designers, plan review and inspection staff by providing a clear process on when and how percolation tests shall be done, and how dry-up calculations shall be performed during the plan review process.

Interpretation:

The following procedure has been established:

1. For plan approval, dry-up calculations shall be prepared assuming that no surface percolation will take place and that storage systems will be drained only using drywells. The number of drywells shall be determined using a disposal rate of 0.1 cubic feet per second per drywell and the 36-hour maximum dry-up time per City of Phoenix's Storm Water Policies and Standards Manual. The calculated number of drywells shall be shown on the grading and drainage plans.
2. During construction, once the storm water systems have been excavated and/or a drywell installed, the developer will have an option to reduce the number of drywells shown on the plans by performing percolation tests and providing a certified soils report with actual drywell disposal rates and/or surface stabilized permeability rates. The certified soils report and revised dry-up calculations shall be submitted directly to the assigned field inspector for review and approval. The revised number of drywells needs to be shown on the "As-Built" plans. No plan revisions or fees shall be associated with this process.
3. Percolation rates shall be established using the Standard Percolation Test and Stabilized Percolation Rate procedures adopted from Engineering Bulletin No. 12, "Minimum Requirements for the Design and Installation of Septic Tank Systems and Alternative On-Site Disposal Systems", published by the Arizona Department of Environmental Quality, latest edition or ASTM D 3385 Standard Test Method for Infiltration Rate of Soils in Field Using Double-Ring Infiltrometer.

4. The number of percolation tests required for each storm water storage system shall be based on the bottom surface area as follows:

BOTTOM SURFACE AREA	PERCOLATION TEST REQUIRED
1000 ft ² or less	1
between 1000 ft ² and 5000 ft ²	2
5000 ft ² or greater	3