

Level Spreader Trenches

Level Spreader trenches, or infiltration trenches, are devices which intercept and disperse the “first flush” of stormwater runoff. They are typically constructed of like-graded rock, (rock of the same size), pipe, and synthetic fabric. The piping used in the trench provides more storage volume for the trench, and is not usually provided a “daylight” point of discharge. Trenches can promote filtration, then infiltration of runoff into the ground. The permeability of the existing soil around the trench determines how effective infiltration will be.

Level Spreaders are used adjacent to parking areas and streets, where runoff would otherwise be collected into a storm drain inlet and pipe system. The length of trench is based on the size of drainage area upstream, and volume of the first-flush from a rainfall event. This is known as the “water quality” volume.

While the filter rock is extended to the surface of the ground, over time the rock surface is covered by vegetation. As long as the surface is not filled with sediment, the porosity of the trench remains effective, even when covered in vegetation.

