

Equation (1) Inputs	(LxW)/43560sqft	Equation (1) Assumptions
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Area Length (ft) Width (ft) Acres

1 acre = 43560 sqft

Equation (2) Inputs	Ksat*27,154gal/(42gal)	Equation (2) Assumptions
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Ksat in Inches per hour located at <https://websoilsurvey.nrcs.usda.gov>
 Karro Loam BBL/Acre/hr

1 acre/inch = 27,154 gal

1 bbl = 42gal

Equation (3)	(Eq2)X(Eq1) Area adjusted volume	
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BBL/hr max

Equation (4) Inputs	(Eq3)X release duration (hours)+recovered volume	Equation (4) Assumptions
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BBL

Duration (hr)

recovered fluids are not in soil solution

BBL

¹ infiltration rate. The rate at which water penetrates the surface of the soil at any given instant, usually expressed in inches per hour. The rate can be limited by the infiltration capacity of the soil or the rate at which water is applied at the surface: (National Soil Survey Handbook (USDA)

² (Ksat) Hydraulic Conductivity. (National Soil Survey Handbook (USDA) conductivity is often referred to as coefficient of permeability, most commonly shortened to permeability