

Equation (1) Inputs	Equation (1) Assumptions
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Area <input style="width: 50px;" type="text" value="0"/> Length (ft) <input style="width: 50px;" type="text" value="0"/> Width (ft) <input style="width: 50px;" type="text" value="0.1000"/> Acres (calculated from GIS)	1 acre = 43560 sqft
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Equation (2) Inputs	Equation (2) Assumptions
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Ksat <input style="width: 50px;" type="text" value="0.06"/> in Inches per hour located at https://websoilsurvey.nrcs.usda.gov H2 - 1.5 to 36 inches: fine sandy loam <input style="width: 50px;" type="text" value="38.79"/> BBL/Acre/hr	1 acre/inch = 27,154 gal 1 bbl = 42gal
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Equation (3)	Equation (3) Assumptions
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(Eq2)X(Eq1) Area adjusted volume <div style="text-align: right;"><input style="width: 50px;" type="text" value="3.88"/> BBL/hr max</div>	
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Equation (4) Inputs	Equation (4) Assumptions
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(Eq3)X release duration (hours)+recovered volume <div style="text-align: right;"><input style="width: 50px;" type="text" value="25"/> BBL</div> <div style="text-align: right;"><input style="width: 50px;" type="text" value="2"/> Duration (hr)</div>	recovered fluids are not in soil solution <div style="text-align: right;"><input style="width: 50px;" type="text" value="32.76"/> BBL</div>
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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



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