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# **Field Techniques for Estimating Water Fluxes Between Surface Water and Ground Water**

Edited by Donald O. Rosenberry and James W. LaBaugh

Techniques and Methods 4–D2

**U.S. Department of the Interior**  
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## Conversion Factors, Definitions, and Abbreviations

### Inch/Pound to SI

Multiply	By	To obtain
<b>Length</b>		
kilometer (km)	0.6214	mile (mi)
meter (m)	3.281	foot (ft)
centimeter (cm)	0.3937	inch (in)
millimeter (mm)	0.03937	inch (in)
<b>Area</b>		
square kilometer (km <sup>2</sup> )	0.3861	square mile (mi <sup>2</sup> )
square meter (m <sup>2</sup> )	10.76	square foot (ft <sup>2</sup> )
square centimeter (cm <sup>2</sup> )	0.1550	square inch (in <sup>2</sup> )
square centimeter (cm <sup>2</sup> )	0.001076	square foot (ft <sup>2</sup> )
<b>Volume</b>		
liter (L)	0.2642	gallon (gal)
liter (L)	1.057	quart (qt)
liter (L)	61.02	cubic inch (in <sup>3</sup> )
milliliter (mL)	0.06102	cubic inch (in <sup>3</sup> )
cubic centimeter (cm <sup>3</sup> )	0.06102	cubic inch (in <sup>3</sup> )
cubic meter (m <sup>3</sup> )	264.2	gallon (gal)
cubic meter (m <sup>3</sup> )	35.31	cubic foot (ft <sup>3</sup> )
<b>Flow rate, velocity</b>		
milliliter per minute (mL/min)	0.06102	cubic inch per minute (in <sup>3</sup> /min)
liter per minute (L/min)	0.2642	gallons per minute (gpm)
centimeter per day (cm/d)	0.0328	feet per day (ft/d)
meter per second (m/s)	283461	feet per day (ft/d)
<b>Pressure</b>		
kilopascal (kPa)	0.1450	pound per square inch (psi)
kilopascal (kPa)	0.009869	atmosphere, standard (atm)
kilopascal (kPa)	0.3346	feet of water (at 39 degrees F)
kilopascal (kPa)	0.01	bar
<b>Mass to weight force</b>		
gram (g)	0.0353	ounce (oz)
gram (g)	0.002205	pound (lb)
<b>Velocity</b>		
knot (kn)	1.151	miles per hour (mph)
meter per second (m/s)	2.237	miles per hour (mph)
<b>Discharge</b>		
cubic meters per second (m <sup>3</sup> /s)	35.315	cubic feet per second (cfs)
liters per second (L/s)	0.03531	cubic feet per second (cfs)
<b>Thermal conductivity</b>		
Watt per meter per degree Celsius (W/m/°C)	0.5778	BTU per foot-hour per degree Fahrenheit (BTU/ft-hr/°F)
<b>Energy</b>		
Joule (J)	0.0009478	British thermal unit (BTU)

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:  

$$^{\circ}\text{F}=(1.8\times^{\circ}\text{C})+32$$

Temperature in degrees Fahrenheit (°F) may be converted to degrees Celsius (°C) as follows:  

$$^{\circ}\text{C}=(^{\circ}\text{F}-32)/1.8$$





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