UIC Program Guidance
For
Calculating the Average Weekly Injection Rate

The UIC Program does not dictate what method you use to calculate the Average Weekly Injection Rate for your injection well. The following are options you can use to make your calculation or for guidance to develop your own method. Document your calculation by using one of the options below or attaching your calculation. This information is required in Section I.D.

Example 1 – Heat Pump (Injection well class 5A7)

Pumping rate of heat pump in gallons per minute (gpm)		Hours per day heat pump will run on coldest day of year		Number of days per week heat pump will run during week coldest day occurs		Constant to convert to gallons per minute (gpm)		Average Weekly Injection Rate (gpm)
8 gal/min	x	18 hours/day	x	7 days/wk	x	0.00595 wks/hour	=	6.0 gpm
	x		x		x		=	
	x		x		x		=	

Example 2 – Sprinkler Irrigation Return Flow (Injection well class 5F1)

Number of acres drained		Volume of water applied		% waste water		Constant to convert to gallons per minute (gpm)		Average Weekly Injection Rate
40 acres	x	9 gal/min/acre X 10080 min/wk	x	0.05	x	0.000099 wk/min	=	18 gpm
	x		x		x		=	
40 acres	x	$0.02 \text{ ft}^3/\text{sec/acre}$ x 604800 min/wk	x	0.05	x	0.0000017 wk/min	=	0.04 cfs
	x		x		x		=	
	x		x		x		=	

Example 3 – Theoretical Calculation of Flow Through a Pipe

> The calculation used to generate this table assumes unrestricted flow through a well casing of the designated size. The calculation represents the maximum injection rate that is theoretically possible, which may be significantly larger than the subsurface will actually allow. Using this calculation will result in a relatively large radius of influence, which may cause your permit to include a monitoring requirement.

Well Diameter	Average Weekly Injection Rate
6"	2.5 cfs
8"	4.4 cfs
10"	6.8 cfs
12"	9.8 cfs
14"	13.4 cfs