Tool to calculate scenarios for comparing pool refuge and stream volumes

Item	Calculations	Description
		Pool
1	**4**	*Pool width* in ft. Pool width, length, and depth are used to calculate a hypothetical pool volume for comparing with a stream volume.
2	**4**	*Pool length* in ft.
3	**2**	*Pool depth* in ft.
4	32	*Pool volume* in cubic ft (cf).
5	**1**	*Number* of pool volumes. This is used to calculate total pool volume.
6	32	*Total pool volume* in cf.
		Stream
7	**31**	*Period of time* in days. This is used to calculate the stream volume.
8	**3.0**	*Stream flow* in cf/sec. The flow at a stream location for the period of time.
9	2,678,400	*Conversion factor* in sec, for changing a value expressed as a rate (cfs) to one expressed as a volume (cf), that is, the volume during the period of time. (60 sec/min * 60 min/hr * 24 hr/day * period of time, days)
10	8,035,200	*Stream volume* in cf. This is the volume at a stream location for the period of time. (stream flow, cf/sec * conversion factor, which is stream flow, cf/sec * 60 sec/min * 60 min/hr * 24 hr/day * period of time, days)
		Comparison
11	0.000004	*Fraction* of the total pool volume to the stream volume at a stream location for the period of time. (pool volume, cf/stream volume, cf)
12	0.0004	*Percent* of the total pool volume to the stream volume at a stream location for the period of time. (100 * total pool volume, cf/stream volume, cf)
13	**25.1**	*Number* of total pool volumes required to be *0.01 percent* of the stream volume at a stream location for the period of time. (0.0001 * stream volume, cf/total pool volume, cf)
14	**251**	*Number* of total pool volumes required to be *0.1 percent* of the stream volume at a stream location for the period of time. (0.001 * stream volume, cf/total stream volume, cf)
		Comments
15		**Entries** are required in Items 1-3, 5, 7, and 8.
16		For the senarios, it is assumed that all the pond water is lost due to evaporation or infiltration that does not return as baseflow.
17		The flow values are mean flows from application of the U.S. Geological Survey water resources program StreamStats.
18		Flow values from other sources can be used, as well.