Table 1. Wastewater constituents of concern and representative concentrations in the effluent of various treatment units.

Constituents of concern	Example direct or indirect measures (units)	Tank-based treatment unit effluent concentration					SWIS percolate into ground water at 3 to 5 ft. depth (% removal)
		Domestic STE[1]	Domestic STE with N-removal recycle[2]	Aerobic unit effluent	Sand filter effluent	Foam or textile filter effluent	
Oxygen demand	BOD (mg/L)	140-200	80-120	5-50	2-15	5-15	>90%
Particulate solids	TSS (mg/L)	50-100	50-80	5-100	5-20	5-10	>90%
Nitrogen	Total N (mg N/L)	40-100	10-30	25-60		10-50	30-60
Phosphorus	Total P (mg P/L)	5-15	5-15	4-10	$<1\text{-}10^3$	$5\text{-}15^3$	$0\text{-}100\%^3$
Bacteria (*e.g., Clostridium, Perfingens, Salmonella, Shigella*)	Fecal coliform (organisms per 100 mL)	$10^5\text{-}10^6$	$10^4\text{-}10^5$	$10^3\text{-}10^4$	$10^1\text{-}10^3$	$10^1\text{-}10^3$	>99.99%
Virus (*e.g.,* hepatitis, polio, echo, coxackie, coliphage	Specific virus (pfu/mL)	$0\text{-}10^5$ (episodically present at high levels)	$0\text{-}10^5$ (episodically present at high levels)	$0\text{-}10^5$ (episodically present at high levels)	$0\text{-}10^5$ (episodically present at high levels)	$0\text{-}10^5$ (episodically present at high levels)	>99.9%
Organic chemicals (*e.g.,* solvents, petro chemicals, pesticides)	Specific organics or totals (mg/L)	0 to trace levels (?)	0 to trace levels (?)	0 to trace levels (?)	0 to trace levels (?)	0 to trace levels (?)	>99%
Heavy metals (*e.g.*, Pb, Cu, Ag, Hg)	Individual metals (mg/L)	0 to trace levels	0 to trace levels	0 to trace levels	0 to trace levels	0 to trace levels	>99%

[1] Septic tank effluent (STE) concentrations given are for domestic wastewater. However, restaurant STE is markedly higher particularly in BOD5, COD, and suspended solids while concentrations in graywater STE are noticeably lower in nitrogen.

[2] N-removal accomplished by recycling STE through a packed bed for nitrification with discharge into the influent end of the septic tank for denitrification.

[3] P-removal by adsorption/precipitation is highly dependent on media capacity, P loading, and system operation