Assumptions Used to Calculate Wastewater Loads

Region	Surface WWTP's (b)	GW WWTP's	Septic Tanks (c)	CessPits (c)	Live-Aboard Boats
Wastewater Basis (a)	**mgd**	**mgd**	**units**	**units**	**boats**
Lower Keys	0.165	0.717	5020	1049	326
Middle Keys	0.177	0.527	3853	801	712
Upper Keys	0.002	1.024	5476	1150	462
Total	0.344	2.268	14348	3001	1500
Volume Scale Factor (a)	1	1	0.00025	0.00025	0.000025
Wastewater Volumes (mgd) = Basis x Volume Scale Factor					
Lower Keys (b)	0.165	0.717	1.255	0.262	0.008
Middle Keys	0.177	0.527	0.963	0.200	0.018
Upper Keys	0.002	1.024	1.369	0.288	0.012
Total	0.344	2.268	3.587	0.750	0.038
Wastewater Concentrations (ppm) (a)					
Total P	8	8	8	24	96
Ortho P	7	7	7	15	60
Total N	41	41	45	68	272
NOxN	5	5	13	1	4
NH3N	35	35	31	12	48
Organic N (d)	1	1	1	55	220
TSS	20	20	36	245	980
Load Attenuation Factors = Load Reaching Receiving Water / Source Load (e)					
Phosphorus	100%	50%	50%	50%	100%
Nitrogen	100%	50%	50%	50%	100%
Suspended Solids	100%	50%	50%	50%	100%
Load Distribution Factors (e)					
To Bay	0%	50%	50%	50%	80%
To Reef	100%	50%	50%	50%	20%
Outside of Model	0%	0%	0%	0%	0%

a - Estimates from USEPA (1992,1993)

b - WWTP excludes City of Key West, assumed to discharge outside of model domain.

c - Numbers of septic tanks & cesspits adjusted to give unattenuated load estimates similar to those reported by Kruczynski (1998).

d - Organic N estimates added here, apparently ignored in USEPA (1992) estimates

e - Nominal estimates of load attenuation & load distribution factors are used; additional research would be needed to estimate these values.

Input values are red (other cells are calculated).