

Global Freshwater Fluxes into the World Oceans (annual runoff volume in km³) - Comparisons with other Estimations

		Atlantic	Pacific	Indian	Arctic	Med. + Black Sea	Endorheic basins	Global Ocean	Notes
1	Baumgartner+Reichel (1975), table XXXV	18823	11565	4714	2611	n.a.	n.a.	37713	Med + Black Sea in Atlantic, without Antarctica
2	UNESCO / USSR IHD Committee (1978) in Gleick (1993), table A.3	19290	13920	4946	5140	n.a.	n.a.	43296	
3	Korzoun et al. (1977) in Dai et al. (2002)	20760	14800	6150	5220	n.a.	n.a.	46930	sum different to estimates of continents below
4	Korzoun et al. (1978) in Fekete et al. (1999)	20800	14800	6100	5200	n.a.	n.a.	46900	sum different to estimates of continents below
5	GRDC (1996)	15100	11000	7900	5900	n.a.	n.a.	39900	number of source stations extended and re-arranged
6	GRDC (2004), online only	20373	11245	5051	3864	n.a.	n.a.	40533	based on runoff coefficient estimates
7	GRDC (2009), online only	19127	9534	4251	3197	n.a.	n.a.	36109	based on WaterGAP 2.1 (Döll et al., 2008)
8	GRDC (2014)	20722	11826	5238	4080			41867	based on WaterGAP 2.2 (Müller-Schmied et al., 2014)
9	Fekete et al. (1999), Table 4	18352	11122	4791	2947	1169	1074	39455	
10	Shiklomanov (1999) at UNESCO IHP web-site (11 Aug. 2003)	19799	12211	4858	4281	n.a.	n.a.	41149	Med + Black Sea in Atlantic
11	Oki (1999) in Dai et al. (2002)	21500	10000	4000	4500	n.a.	n.a.	40000	
12	Dai+Trenberth (2002), Case = 921 River	19169	9090	4532	3658	838	n.a.	37287	
13	Dai+Trenberth (2002), Case = Fekete Runoff	18599	10415	5393	3267	1173	n.a.	38848	
14	Dai+Trenberth (2002), Case = NCEP P-E	16838	8452	3814	4466	952	n.a.	34523	
15	Dai+Trenberth (2002), Case = ECMWF P-E	21048	8722	5628	4078	1152	n.a.	40628	
16	Min	15100	8452	3814	2611	838	1074	34523	
17	Mean	19353	11247	5158	4161	1057	1074	40342	
18	Standard deviation	1654	1964	984	908	137	0	3362	
19	Max	21500	14800	7900	5900	1173	1074	46930	
		Africa	Asia	South America	North America	Australia and Oceania	Europe	World	Notes
20	Baumgartner+Reichel (1975), table XXXV	3409	12467	11039	5840	2394	2564	37713	without Antarctica (1987 km ³)
21	UNESCO / USSR IHD Committee (1978) in Gleick (1993), table A.3	4108	16410	12400	7840	2538	*	43296	*Europe is included in Asia (Eurasia)
22	Korzoun et al. (1978), table 157, in Doell et al. (2003)	4600	14100	12200	8180	2510	2970	44560	sum different to estimates of oceans above
23	L'vovich (1979) in Gleick (1993)	4225	13190	10380	5960	1965	3110	38830	
24	Shiklomanov (1993) in Gleick (1993), Table 2.9	4570	14410	11760	8200	2390	3210	44540	
25	GRDC (1996)	8583	12562	13584	4299	1228	2446	42701	number of source stations extended and re-arranged
26	GRDC (2004), online only	3690	13848	11896	6294	1722	3083	40533	based on runoff coefficient estimates
27	GRDC (2009), online only	3511	11603	11083	5475	1685	2752	36109	based on WaterGAP 2.1 (Döll et al., 2008)
28	GRDC (2014)	4250	13754	11796	6856	1844	3367	41867	based on WaterGAP 2.2 (Müller-Schmied et al., 2014)
29	WMO (1997) in Oki et al. (2001)	4050	13510	12030	7890	2404	2900	42784	
30	Shiklomanov (1998) in Gleick (2000)	4050	13510	12030	7890	2360	2900	42740	
31	Shiklomanov (1999) at UNESCO IHP web-site (11 Aug. 2003)	3656	12744	11925	7860	2376	2588	41149	Med + Black Sea in Atlantic
32	Fekete et al. (1999), table 4	4474	13414	11707	6477	711	2672	39455	
33	Vörösmarty et al. (2000) in Oki et al. (2001)	4520	13700	11700	5890	714	2770	39294	
34	WRI (2000) in Doell et al. (2003)	4040	16410	12030	7770	2400	*	42650	*Europe is included in Asia (Eurasia)
35	Oki et al. (2001)	3616	9385	8789	3824	1680	2191	29485	
36	Doell et al. (2003) WaterGAP2.0	3529	11234	11382	5540	2239	2763	36687	
37	Min	3409	9385	8789	3824	711	2191	29485	
38	Mean	4287	13309	11631	6593	1951	2819	40258	
39	Standard deviation	1140	1645	963	1327	578	297	3677	
40	Max	8583	14410 **	13584	8200	2538	3367	44560	** without the Eurasia use cases (lines 23 and 36)