A_{Eo} : 98.73 km²
PNP : NHN+ 84.53 m
Lage : 348.79 km oberhalb der Mündung rechts

Q
m³/s

Pegel : Steinhorst Nr. 3113000000100
Gewässer : Ems
Gebiet : Obere Ems

Tageswerte

Tag	2008 Nov	2008 Dez	2009 Jan	Feb	Mrz	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1.	0.863	0.910	0.769	0.967	1.89	1.28	1.35	0.591	0.510	0.557	0.397	0.734	0.932	1.44
2.	0.844	0.858	0.772	0.944	1.67	1.21	1.19	0.569	0.483	0.557	0.384	0.973	1.30	1.32
3.	0.844	0.905	0.773	0.946	1.53	1.11	1.05	0.547	0.468	0.567	0.389	0.915	1.54	1.27
4.	0.779	0.955	0.776	0.900	1.44	1.09	0.954	0.538	0.450	0.525	0.406	0.774	1.74	1.23
5.	0.749	0.954	0.804	0.916	1.38	1.07	0.898	0.564	0.423	0.499	0.473	0.700	1.77	1.19
6.	0.750	0.964	0.769	0.933	1.40	1.04	0.974	0.585	0.452	0.487	0.529	0.664	1.64	1.32
7.	0.750	1.01	0.721	0.950	1.73	1.04	1.05	0.692	0.503	0.464	0.484	0.750	1.54	1.53
8.	0.753	1.01	0.748	1.01	1.68	1.02	0.984	0.732	0.539	0.443	0.448	1.36	1.49	1.51
9.	0.752	0.970	0.736	1.03	1.64	1.07	0.938	0.714	0.626	0.466	0.437	1.39	1.53	0.779
10.	0.752	0.951	0.735	1.23	1.65	1.05	0.886	0.694	0.628	0.468	0.426	1.38	1.99	1.02
11.	0.753	0.909	0.717	1.72	1.93	1.01	0.853	0.720	0.748	0.461	0.471	1.59	2.47	2.01
12.	0.754	0.895	0.703	1.72	1.87	0.982	0.823	0.748	0.747	0.449	0.477	1.68	2.45	2.02
13.	0.754	0.853	0.732	1.57	1.52	0.952	0.783	0.697	0.745	0.472	0.459	1.58	2.14	1.72
14.	0.902	0.845	0.773	1.53	1.43	0.954	0.762	0.657	0.739	0.473	0.483	1.31	1.55	1.52
15.	0.925	0.840	0.868	1.41	1.58	0.908	0.764	0.651	0.746	0.470	0.569	1.14	1.38	1.36
16.	0.805	0.839	0.878	1.42	1.51	0.860	0.856	0.715	0.644	0.446	0.667	1.10	1.42	1.23
17.	0.758	0.814	0.856	2.34	1.44	0.869	0.826	0.720	0.579	0.447	0.651	1.16	1.39	1.12
18.	0.770	0.796	0.929	2.08	1.34	0.881	0.836	0.675	0.560	0.421	0.623	1.13	1.28	1.07
19.	0.826	0.817	1.08	1.73	1.28	0.839	0.786	0.630	0.560	0.419	0.585	1.06	1.16	1.04
20.	0.892	0.902	1.17	1.68	1.20	0.823	0.765	0.599	0.610	0.406	0.552	1.00	1.08	1.06
21.	1.20	0.975	1.16	1.74	1.17	0.785	0.734	0.589	0.608	0.392	0.546	0.946	1.02	1.07
22.	1.29	1.09	1.10	1.87	1.12	0.783	0.724	0.595	0.765	0.391	0.512	0.895	1.01	1.10
23.	1.26	1.11	1.15	2.07	1.14	0.765	0.719	0.596	0.777	0.390	0.510	0.862	1.15	1.21
24.	1.25	1.06	1.44	1.83	1.33	0.741	0.694	0.578	0.812	0.368	0.510	0.830	1.84	1.16
25.	1.17	1.01	1.37	1.60	1.36	0.730	0.661	0.547	0.796	0.365	0.510	0.858	1.71	1.50
26.	1.13	0.952	1.28	1.54	1.47	0.728	0.644	0.521	0.787	0.383	0.502	0.826	1.55	2.03
27.	1.11	0.904	1.19	1.64	1.63	0.726	0.627	0.520	0.733	0.387	0.476	0.880	1.58	1.72
28.	1.07	0.858	1.13	1.90	1.73	0.875	0.624	0.521	0.663	0.374	0.476	0.873	1.62	1.65
29.	0.988	0.858	1.08		1.75	0.896	0.594	0.541	0.617	0.364	0.475	0.837	1.71	1.47
30.	0.968	0.790	1.04		1.54	0.861	0.591	0.517	0.617	0.381	0.508	1.02	1.61	1.62
31.		0.779	0.994		1.38		0.595		0.591	0.411		0.966		1.92

Hauptwerte

	2008 Nov	2008 Dez	2009 Jan	Feb	Mrz	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
Tag	5.	31.	12.	4.	22.	27.	30.	30.	5.	29.	2.	6.	1.	9.
NQ	0.749	0.779	0.703	0.900	1.12	0.726	0.591	0.517	0.423	0.364	0.384	0.664	0.932	0.779
MQ	0.913	0.916	0.943	1.47	1.51	0.932	0.823	0.619	0.630	0.442	0.498	1.04	1.55	1.39
HQ	1.31	1.29	1.45	2.56	2.11	1.33	1.52	0.757	0.843	0.598	0.669	2.35	2.54	2.21
Tag	24.+	22.	25.+	17.	13.	1.	1.	8.	24.	3.	15.	13.	11.+	11.+
h_N mm	53	36	40	89	88	26	39	49	112	17	54	145	124	- ----
h_A mm	24	25	26	36	41	24	22	16	17	12	13	28	41	38

	1974/2008		1975/2009 35 Kalenderjahre											
Jahr	1976	1999	2007	1996	2001	1997	1976	1986	1976	1976	1976	1976	1976	1999
NQ	0.417	0.391	0.417	0.598	0.340	0.516	0.394	0.311	0.093	0.099	0.165	0.348	0.417	0.391
MNQ	0.798	0.902	1.00	1.03	0.986	0.833	0.667	0.555	0.470	0.453	0.536	0.675	0.796	0.880
MQ	1.16	1.38	1.54	1.42	1.44	1.14	0.960	0.804	0.722	0.720	0.804	0.923	1.16	1.34
MHQ	2.44	2.87	3.15	2.72	2.93	2.05	1.93	1.74	1.78	1.76	1.78	1.90	2.44	2.82
HQ	5.29	5.06	7.09	5.06	6.24	4.65	5.26	5.20	6.00	5.09	5.68	5.09	5.29	5.06
Jahr	1998	1988	1982	1984	1987	1986	1984	1981	1981	2005	2007	1993	1998	1988
Mh_N mm	81	89	85	60	75	56	70	76	84	80	81	68	82	86
Mh_A mm	30	37	42	35	39	30	26	21	20	20	21	25	30	36

	Abflussjahr (*) 2009 Jahr	Datum	Winter	Sommer	Kalenderjahr 2009 Jahr	Datum
NQ m³/s	0.364	am 29.08.2009	0.703	0.364	0.364	am 29.08.2009
MQ m³/s	0.891		1.11	0.676	0.985	
HQ m³/s	2.56	am 17.02.2009 bei W = 76.0 cm	2.56	2.35	2.56	am 17.02.2009 bei W = 76.0 cm
Nq l/(skm²)	3.68		7.12	3.68	3.68	
Mq l/(skm²)	9.03		11.2	6.85	9.97	
Hq l/(skm²)	25.9		25.9	23.8	25.9	
h_N mm	748		332	416	783	
h_A mm	285		176	109	315	

	1975/2009 (*) 35 Jahre				1975/2009	
NQ m³/s	0.093	am 13.07.1976	0.339	0.093	0.093	am 13.07.1976
MNQ m³/s	0.372		0.672	0.377	0.370	
MQ m³/s	1.08		1.35	0.822	1.08	
MHQ m³/s	4.57		4.22	3.17	4.49	
HQ m³/s	7.09	am 31.01.1982 bei W = 132 cm	7.09	6.00	7.09	am 31.01.1982 bei W = 132 cm
HQ_1 m³/s						
HQ_5 m³/s						
MNq l/(skm²)	3.77		6.81	3.82	3.75	
Mq l/(skm²)	11.0		13.6	8.33	10.9	
MHq l/(skm²)	46.3		42.8	32.1	45.5	
Mh_N mm	905		445	460	903	
Mh_A mm	346		214	132	345	

Extremwerte

	Niedrigwasser (n) m³/s	l/(skm²)	Datum	Hochwasser m³/s	l/(skm²)	cm	Datum
1	0.093	0.942	13.07.1976	7.09	71.8	132	31.01.1982
2	0.216	2.19	20.08.1983	6.24	63.2	128	02.03.1987
3	0.237	2.40	05.09.1991	6.00	60.8	151	01.07.1981
4	0.249	2.52	22.08.1989	5.94	60.1	115	04.01.2003
5	0.253	2.56	12.07.1977	5.88	59.6	119	18.03.1987
6	0.258	2.61	02.07.1986	5.68	57.6	115	29.09.2007
7	0.265	2.68	13.08.1990	5.65	57.2	116	18.07.2002
8	0.266	2.70	11.08.1992	5.57	56.5	110	10.03.1981
9	0.276	2.79	04.08.1982	5.56	56.3	113	13.01.1993
10	0.300	3.04	10.07.1993	5.41	54.8	113	29.01.1982

Dauertabelle

Unterschreitungsdauer in Tagen	Unterschrittene Abflüsse m³/s: Abflussjahr (*) 2009	Kalenderjahr 2009	1975/2009 35 Kalenderjahre Obere Hüllkurve	Mittlere Werte	Untere Hüllkurve
364	2.34	2.47	5.66	3.75	2.43
363	2.08	2.45	5.16	3.38	2.19
362	2.07	2.34	5.05	3.22	2.06
361	1.93	2.14	4.91	3.05	2.03
360	1.90	2.08	4.81	2.87	2.03
359	1.89	2.07	4.25	2.74	1.96
358	1.87	2.03	4.14	2.63	1.89
357	1.87	2.02	3.90	2.55	1.85
356	1.83	2.01	3.82	2.47	1.75
350	1.72	1.87	3.09	2.17	1.56
340	1.60	1.73	2.60	1.91	1.37
330	1.51	1.67	2.31	1.75	1.24
320	1.38	1.60	2.12	1.64	1.18
300	1.19	1.50	1.89	1.46	1.10
270	1.05	1.28	1.66	1.28	0.898
240	0.952	1.10	1.43	1.15	0.835
210	0.873	0.982	1.32	1.04	0.751
183	0.823	0.875	1.22	0.961	0.665
150	0.754	0.772	1.16	0.873	0.555
130	0.734	0.734	1.13	0.822	0.492
120	0.720	0.720	1.10	0.799	0.472
110	0.692	0.692	1.08	0.773	0.438
100	0.644	0.644	1.06	0.752	0.414
90	0.608	0.608	1.05	0.730	0.396
80	0.585	0.585	1.04	0.708	0.384
70	0.557	0.557	1.01	0.686	0.373
60	0.525	0.525	0.990	0.656	0.320
50	0.508	0.508	0.964	0.625	0.277
40	0.476	0.476	0.928	0.593	0.240
30	0.464	0.464	0.886	0.557	0.180
25	0.449	0.449	0.814	0.537	0.165
20	0.437	0.437	0.739	0.514	0.148
15	0.411	0.411	0.688	0.488	0.135
10	0.391	0.391	0.671	0.459	0.126
9	0.390	0.390	0.662	0.454	0.123
8	0.389	0.389	0.662	0.450	0.120
7	0.387	0.387	0.646	0.445	0.119
6	0.384	0.384	0.642	0.440	0.115
5	0.383	0.383	0.637	0.434	0.111
4	0.381	0.381	0.636	0.425	0.108
3	0.374	0.374	0.633	0.419	0.107
2	0.368	0.368	0.631	0.410	0.106
1	0.365	0.365	0.625	0.400	0.105
0	0.364	0.364	0.606	0.370	0.093

(*) Abflussjahr: 1.11. des Vorjahres bis 31.10.
, Beeinflussung durch das HRB oh.

LANUV NRW