bremenports GmbH & Co. KG
Gewässerentwicklungsmaßnahmen Billerbeck
Wasserspiegellagenberechnung - Zusammenstellung Wasserstände

Ingenieurgemeinschaft agwa, 04.09.2012

Station Ist [km]	Station Plan [km]	Sohle Ist [m+NN]	Sohle Plan [m+NN]	WSP Ist MQ [m+NN]	WSP Plan MQ [m+NN]	WSP Ist bordvoll [m+NN]	WSP Plan $Qbordvoll_{Ist}$ [m+NN]	WSP Ist HQ5 [m+NN]	WSP Plan HQ5 [m+NN]	WSP Ist HQ50 [m+NN]	WSP Plan HQ50 [m+NN]
3+100	3+100	2,15	2,15	2,35	2,35	2,75	2,75	2,75	2,75	2,83	2,83
3+194	3+194	2,18	2,18	2,50	2,50	2,97	2,97	3,33	3,33	3,47	3,45
3+336	3+336	2,50	2,50	2,77	2,87	3,30	3,36	3,82	3,84	3,95	3,94
3+538	3+538	2,49	2,60	3,02	3,27	3,59	3,74	4,04	4,07	4,13	4,13
3+631	3+641	2,54	2,69	3,04	3,28	3,66	3,77	4,10	4,10	4,19	4,17
3+845	3+855	2,61	2,78	3,10	3,33	3,85	3,95	4,23	4,19	4,31	4,26
4+021	4+031	2,70	2,85	3,20	3,41	3,99	4,11	4,39	4,29	4,62	4,35
4+204	4+214	2,97	2,97	3,21	3,48	4,09	4,13	4,57	4,31	4,65	4,37
4+233	4+243	2,99	2,99	3,35	3,49	4,05	4,09	4,69	4,49	4,82	4,61
-	4+313	-	3,02	-	3,52	-	4,14	-	4,51	-	4,63
4+481	-	3,09	-	3,52	-	4,25	-	4,75	-	4,86	-
-	4+650	-	3,12	-	3,67	-	4,39	-	4,69	-	4,77
-	4+840	-	3,20	-	3,72	-	4,45	-	4,75	-	4,82
4+761	4+921	3,22	3,30	3,63	3,73	4,36	4,47	4,83	4,77	4,93	4,84
-	5+021	-	3,70	-	3,92	-	4,54	-	4,80	-	4,87
4+966	5+136	3,45	3,45	3,83	4,13	4,62	4,60	4,96	4,85	5,04	4,92
5+200	5+395	3,78	3,78	4,16	4,23	4,84	4,82	5,22	5,04	5,28	5,09
-	5+495	-	4,10	-	4,42	-	4,88	-	5,10	-	5,16
5+464	5+659	3,98	3,98	4,43	4,69	5,10	4,97	5,46	5,21	5,54	5,27
5+622	5+832	4,11	4,11	4,54	4,71	5,21	5,09	5,57	5,33	5,65	5,39
-	5+925	-	4,40	-	4,74	-	5,14	-	5,38	-	5,44
5+844	6+069	4,29	4,29	4,73	4,81	5,36	5,24	5,77	5,50	5,85	5,56
5+887	6+112	4,47	4,47	4,78	4,84	5,23	5,20	5,82	5,57	5,91	5,63
5+943	6+170	4,51	4,51	4,84	4,88	5,28	5,23	5,84	5,59	5,92	5,65
6+289	6+559	4,68	4,68	5,16	5,17	5,84	5,71	6,12	5,96	6,18	6,02
6+444	6+724	4,97	4,97	5,31	5,32	6,01	5,94	6,37	6,20	6,44	6,26
6+637	6+932	4,95	5,24	5,48	5,60	6,02	6,12	6,70	6,45	6,81	6,52
6+785	7+080	5,23	5,65	5,62	5,92	6,68	6,70	6,83	6,59	6,94	6,60
-	7+095	-	5,65	-	5,94	-	6,70	-	6,59	-	6,65
-	7+345	-	5,75	-	6,14	-	7,11	-	7,34	-	7,49
7+215	7+510	5,57	5,75	6,01	6,20	6,98	7,22	7,32	7,46	7,45	7,57
7+391	7+686	5,65	5,85	6,14	6,29	7,16	7,31	7,45	7,52	7,56	7,63
7+570	7+895	5,82	6,35	6,29	6,60	7,67	7,36	7,55	7,57	7,72	7,68
7+924	8+269	6,69	6,99	6,99	7,29	8,08	8,02	7,95	7,95	8,14	8,04
8+025	8+370	6,98	7,18	7,33	7,51	8,26	8,30	8,17	8,26	8,30	8,32
8+186	8+531	7,53	7,53	7,77	7,84	8,72	8,78	8,65	8,74	8,74	8,80
8+326	-	7,55	-	7,98	-	-	-	8,84	-	8,94	-
8+346	-	7,55	-	8,01	-	-	-	8,87	-	8,97	-

Ingenieurgemeinschaft agwa, 05.09.2012

Ergebnis: Ist_MQ.ASC

Station	Sohle	Wsp	Links	Rechts	Energie	Ygr	Froude	Q	Tau	V	Qh	
3.1000	2.154	2.350	3.800	3.850	2.360	0.095	0.320	0.343	0.596	0.432	0.340	0.000
3.1050	2.154	2.358	3.800	3.850	2.368	0.101	0.321	0.343	0.761	0.436	0.340	0.000
3.1940	2.180	2.501	3.360	3.660	2.514	0.178	0.330	0.343	3.692	0.500	0.340	0.000
3.3360	2.500	2.774	3.780	3.800	2.790	0.183	0.410	0.343	3.868	0.565	0.340	0.000
3.5380	2.490	3.024	3.720	3.920	3.027	0.166	0.120	0.343	0.584	0.235	0.340	0.000
3.6310	2.540	3.039	3.670	3.970	3.041	0.136	0.110	0.343	0.567	0.224	0.340	0.000
3.8450	2.610	3.096	3.900	3.890	3.103	0.190	0.180	0.343	1.342	0.348	0.340	0.000
4.0210	2.700	3.196	4.340	4.110	3.202	0.215	0.200	0.343	2.197	0.362	0.340	0.000
4.2000	2.971	3.322	4.110	4.460	3.331	0.141	0.229	0.343	0.538	0.417	0.340	0.000
4.2040	2.971	3.325	4.110	4.460	3.334	0.145	0.230	0.343	0.501	0.418	0.340	0.000
4.2080	2.971	3.328	4.110	4.460	3.338	0.154	0.238	0.343	0.796	0.426	0.340	0.000
4.2330	2.990	3.351	4.130	4.200	3.362	0.194	0.290	0.343	2.637	0.478	0.340	0.000
4.4810	3.090	3.522	4.360	4.400	3.525	0.139	0.130	0.251	0.689	0.253	0.250	0.000
4.7610	3.220	3.627	4.580	4.370	3.632	0.175	0.190	0.251	1.452	0.330	0.250	0.000
4.9660	3.450	3.829	4.890	4.720	3.836	0.177	0.230	0.251	3.688	0.386	0.250	0.000
5.2000	3.780	4.157	5.210	4.930	4.163	0.184	0.220	0.251	3.147	0.346	0.250	0.000
5.4640	3.980	4.430	5.180	5.170	4.435	0.166	0.170	0.251	2.051	0.300	0.250	0.000
5.6220	4.110	4.541	5.330	5.220	4.545	0.186	0.160	0.251	1.823	0.277	0.250	0.000
5.8440	4.290	4.733	5.570	5.530	4.739	0.203	0.200	0.251	2.803	0.340	0.250	0.000
5.8870	4.470	4.782	5.250	5.370	4.787	0.130	0.200	0.251	2.575	0.309	0.250	0.000
5.9430	4.510	4.842	5.310	5.910	4.848	0.120	0.190	0.251	2.626	0.326	0.250	0.000
6.2890	4.680	5.159	5.910	5.840	5.164	0.223	0.170	0.251	2.157	0.312	0.250	0.000
6.4440	4.970	5.307	6.190	6.500	5.314	0.137	0.210	0.251	2.800	0.351	0.250	0.000
6.6370	4.950	5.481	6.560	6.530	5.487	0.236	0.170	0.251	1.967	0.328	0.250	0.000
6.7850	5.230	5.618	6.900	6.930	5.626	0.206	0.240	0.251	2.875	0.381	0.250	0.000
7.2150	5.570	6.012	7.200	7.500	6.017	0.202	0.170	0.251	1.679	0.300	0.250	0.000
7.3910	5.650	6.136	7.150	7.550	6.142	0.224	0.190	0.251	2.250	0.343	0.250	0.000
7.5700	5.820	6.285	7.750	7.790	6.292	0.252	0.220	0.213	2.107	0.372	0.210	0.000
7.9240	6.690	6.989	8.090	8.310	7.012	0.195	0.460	0.213	5.895	0.663	0.210	0.000
8.0250	6.980	7.334	8.680	8.750	7.354	0.246	0.440	0.213	6.524	0.622	0.210	0.000
8.1860	7.530	7.771	8.980	9.040	7.782	0.122	0.320	0.213	3.084	0.455	0.210	0.000
8.3260	7.546	7.983	8.980	9.040	7.988	0.114	0.145	0.213	0.551	0.284	0.210	0.000
8.3460	7.546	8.014	8.980	9.040	8.017	0.115	0.120	0.213	0.189	0.260	0.210	0.000

Ingenieurgemeinschaft agwa, 05.09.2012

Ergebnis: Plan_MQ.ASC

Station	Sohle	Wsp	Links	Rechts	Energie	Ygr	Froude	Q	Tau	V	Qh	
3.1000	2.154	2.350	3.800	3.850	2.360	0.095	0.320	0.343	0.596	0.432	0.340	0.000
3.1050	2.154	2.358	3.800	3.850	2.368	0.101	0.321	0.343	0.761	0.436	0.340	0.000
3.1940	2.180	2.501	3.450	3.850	2.514	0.178	0.330	0.343	3.692	0.500	0.340	0.000
3.3360	2.500	2.865	3.810	3.800	2.895	0.293	0.580	0.343	6.180	0.773	0.340	0.000
3.5380	2.600	3.270	3.680	3.840	3.271	0.258	0.090	0.343	0.359	0.165	0.340	0.000
3.6410	2.690	3.280	3.500	3.910	3.281	0.119	0.080	0.343	0.311	0.144	0.340	0.000
3.8550	2.780	3.333	4.030	3.860	3.338	0.254	0.180	0.343	1.278	0.322	0.340	0.000
4.0310	2.850	3.406	4.170	3.910	3.410	0.223	0.140	0.343	1.238	0.268	0.340	0.000
4.2100	2.971	3.474	4.110	4.460	3.479	0.144	0.130	0.343	0.245	0.288	0.340	0.000
4.2140	2.971	3.476	4.110	4.460	3.480	0.145	0.130	0.343	0.223	0.288	0.340	0.000
4.2180	2.971	3.477	4.110	4.460	3.482	0.154	0.136	0.343	0.350	0.292	0.340	0.000
4.2430	2.990	3.485	4.110	4.460	3.490	0.194	0.170	0.343	1.147	0.316	0.340	0.000
4.3130	3.020	3.516	4.430	4.400	3.522	0.198	0.190	0.343	1.671	0.350	0.340	0.000
4.6500	3.120	3.668	4.530	4.500	3.673	0.198	0.160	0.343	1.228	0.303	0.340	0.000
4.8400	3.200	3.715	4.550	4.540	3.717	0.107	0.090	0.251	0.366	0.186	0.250	0.000
4.9210	3.300	3.729	4.490	4.880	3.733	0.126	0.140	0.251	0.894	0.263	0.250	0.000
5.0210	3.700	3.918	4.490	4.880	3.924	0.116	0.320	0.251	4.468	0.364	0.250	0.000
5.1360	3.450	4.133	4.750	4.880	4.135	0.177	0.080	0.251	0.563	0.180	0.250	0.000
5.3950	3.780	4.226	4.680	4.990	4.230	0.184	0.150	0.251	1.690	0.273	0.250	0.000
5.4950	4.100	4.416	5.140	5.000	4.420	0.146	0.250	0.251	3.835	0.272	0.250	0.000
5.6590	3.980	4.692	5.140	5.000	4.694	0.166	0.070	0.251	0.418	0.152	0.250	0.000
5.8320	4.110	4.714	5.170	5.200	4.715	0.186	0.080	0.251	0.525	0.168	0.250	0.000
5.9250	4.400	4.742	5.170	5.200	4.743	0.105	0.140	0.251	1.079	0.193	0.220	0.000
6.0690	4.290	4.814	5.500	5.340	4.817	0.203	0.150	0.251	1.501	0.257	0.250	0.000
6.1120	4.470	4.838	5.360	5.710	4.841	0.130	0.150	0.251	1.500	0.251	0.250	0.000
6.1700	4.510	4.875	6.000	5.270	4.880	0.120	0.160	0.251	1.999	0.294	0.250	0.000
6.5590	4.680	5.166	5.940	5.930	5.171	0.223	0.160	0.251	2.118	0.306	0.250	0.000
6.7240	4.970	5.315	6.060	5.960	5.321	0.137	0.200	0.251	2.627	0.342	0.250	0.000
6.9320	5.240	5.599	6.360	6.270	5.605	0.134	0.240	0.251	3.251	0.338	0.250	0.000
7.0800	5.650	5.917	6.880	6.600	5.919	0.111	0.200	0.251	2.783	0.214	0.250	0.000
7.0950	5.650	5.942	6.880	6.600	5.948	0.109	0.220	0.251	2.740	0.352	0.250	0.000
7.3450	5.750	6.144	7.280	7.000	6.147	0.124	0.140	0.251	1.207	0.255	0.250	0.000
7.5100	5.750	6.203	7.230	7.200	6.205	0.134	0.120	0.251	0.944	0.237	0.250	0.000
7.6860	5.850	6.287	7.150	7.380	6.292	0.203	0.170	0.213	1.716	0.286	0.210	0.000
7.8950	6.350	6.604	7.670	7.710	6.609	0.105	0.280	0.213	3.019	0.323	0.210	0.000
8.2690	6.990	7.286	8.080	8.310	7.293	0.127	0.240	0.213	2.730	0.357	0.210	0.000
8.3700	7.180	7.509	8.490	8.320	7.524	0.228	0.390	0.213	5.662	0.540	0.210	0.000
8.5310	7.530	7.837	8.920	8.600	7.842	0.122	0.220	0.213	1.630	0.341	0.210	0.000

Ingenieurgemeinschaft agwa, 05.09.2012

Ergebnis: Ist_HQ5.ASC

Station	Sohle	Wsp	Links	Rechts	Energie	Ygr	Froude	Q	Tau	V	Qh	
3.1000	2.154	2.750	3.800	3.850	3.030	0.593	0.990	5.940	13.342	2.345	5.940	0.000
3.1050	2.154	2.781	3.800	3.850	3.052	0.606	0.969	5.940	14.020	2.301	5.940	0.000
3.1940	2.180	3.329	3.360	3.660	3.446	0.810	0.590	5.940	26.082	1.512	5.940	0.000
3.3360	2.500	3.822	3.780	3.800	3.864	0.790	0.410	5.940	8.894	0.914	5.760	0.000
3.5380	2.490	4.038	3.720	3.920	4.062	0.807	0.280	5.940	5.071	0.721	5.180	0.000
3.6310	2.540	4.098	3.670	3.970	4.112	0.733	0.230	5.940	3.653	0.568	5.060	0.000
3.8450	2.610	4.230	3.900	3.890	4.240	0.930	0.220	5.940	3.335	0.468	4.600	0.000
4.0210	2.700	4.385	4.340	4.110	4.426	0.935	0.380	5.940	10.001	0.920	5.650	0.000
4.2000	2.971	4.564	4.110	4.460	4.683	0.858	0.390	5.940	5.337	1.523	5.934	0.000
4.2040	2.971	4.569	4.110	4.460	4.689	0.862	0.390	5.940	5.233	1.536	5.940	0.000
4.2080	2.971	4.585	4.110	4.460	4.690	0.876	0.354	5.940	4.693	1.370	5.681	0.000
4.2330	2.990	4.692	4.130	4.200	4.696	0.942	0.130	5.940	1.317	0.335	4.060	0.000
4.4810	3.090	4.749	4.360	4.400	4.754	0.718	0.150	4.339	1.597	0.339	3.380	0.000
4.7610	3.220	4.834	4.580	4.370	4.841	0.792	0.180	4.339	2.080	0.400	3.240	0.000
4.9660	3.450	4.961	4.890	4.720	4.980	0.837	0.340	4.339	6.468	0.661	3.660	0.000
5.2000	3.780	5.215	5.210	4.930	5.235	0.746	0.290	4.339	6.753	0.659	3.760	0.000
5.4640	3.980	5.464	5.180	5.170	5.483	0.803	0.230	4.339	4.828	0.615	4.340	0.000
5.6220	4.110	5.571	5.330	5.220	5.586	0.729	0.260	4.339	4.593	0.614	3.280	0.000
5.8440	4.290	5.765	5.570	5.530	5.794	0.812	0.290	4.339	7.652	0.749	4.340	0.000
5.8870	4.470	5.820	5.250	5.370	5.825	0.629	0.140	4.339	1.549	0.341	3.260	0.000
5.9430	4.510	5.836	5.310	5.910	5.839	0.704	0.180	4.339	1.988	0.393	1.690	0.000
6.2890	4.680	6.115	5.910	5.840	6.134	0.863	0.360	4.339	8.288	0.711	3.010	0.000
6.4440	4.970	6.370	6.190	6.500	6.423	0.733	0.360	4.339	13.658	1.021	4.340	0.000
6.6370	4.950	6.700	6.560	6.530	6.714	0.944	0.270	4.339	4.937	0.578	3.070	0.000
6.7850	5.230	6.832	6.900	6.930	6.867	0.815	0.290	4.339	8.128	0.832	4.340	0.000
7.2150	5.570	7.316	7.200	7.500	7.338	0.783	0.280	4.339	6.553	0.670	4.210	0.000
7.3910	5.650	7.453	7.150	7.550	7.461	0.888	0.170	4.339	2.378	0.418	4.030	0.000
7.5700	5.820	7.552	7.750	7.790	7.579	0.880	0.250	3.678	5.956	0.726	3.680	0.000
7.9240	6.690	7.952	8.090	8.310	7.978	0.868	0.310	3.678	7.016	0.712	3.680	0.000
8.0250	6.980	8.170	8.680	8.750	8.244	0.910	0.490	3.678	18.818	1.204	3.680	0.000
8.1860	7.530	8.645	8.980	9.040	8.688	0.678	0.370	3.678	10.205	0.911	3.680	0.000
8.3260	7.546	8.840	8.980	9.040	8.958	0.753	0.431	3.678	6.504	1.505	3.680	0.000
8.3460	7.546	8.868	8.980	9.040	8.997	0.766	0.440	3.678	5.975	1.590	3.680	0.000

Ingenieurgemeinschaft agwa, 05.09.2012

Ergebnis: Plan_HQ5.ASC

Station	Sohle	Wsp	Links	Rechts	Energie	Ygr	Froude	Q	Tau	V	Qh	
3.1000	2.154	2.750	3.800	3.850	3.030	0.593	0.990	5.940	13.342	2.345	5.940	0.000
3.1050	2.154	2.781	3.800	3.850	3.052	0.606	0.969	5.940	14.020	2.301	5.940	0.000
3.1940	2.180	3.329	3.450	3.850	3.446	0.810	0.590	5.940	26.080	1.512	5.940	0.000
3.3360	2.500	3.837	3.810	3.800	3.883	0.926	0.460	5.940	10.081	0.973	5.680	0.000
3.5380	2.600	4.065	3.680	3.840	4.080	0.795	0.210	5.940	3.113	0.608	4.470	0.000
3.6410	2.690	4.099	3.500	3.910	4.108	0.683	0.150	5.940	1.856	0.439	4.350	0.000
3.8550	2.780	4.191	4.030	3.860	4.202	0.962	0.240	5.940	3.446	0.494	4.930	0.000
4.0310	2.850	4.287	4.170	3.910	4.301	0.955	0.230	5.940	3.829	0.601	3.570	0.000
4.2100	2.971	4.312	4.110	4.460	4.480	0.861	0.504	5.940	7.512	1.807	5.888	0.000
4.2140	2.971	4.312	4.110	4.460	4.484	0.862	0.510	5.940	7.594	1.834	5.940	0.000
4.2180	2.971	4.336	4.110	4.460	4.485	0.876	0.469	5.940	6.895	1.647	5.820	0.000
4.2430	2.990	4.487	4.110	4.460	4.497	0.948	0.210	5.940	2.523	0.477	5.070	0.000
4.3130	3.020	4.513	4.430	4.400	4.532	0.924	0.330	5.940	5.054	0.702	4.230	0.000
4.6500	3.120	4.690	4.530	4.500	4.702	0.924	0.250	5.940	3.264	0.576	3.770	0.000
4.8400	3.200	4.750	4.550	4.540	4.754	0.675	0.130	4.339	1.067	0.295	3.300	0.000
4.9210	3.300	4.768	4.490	4.880	4.776	0.753	0.200	4.339	2.243	0.433	3.410	0.000
5.0210	3.700	4.800	4.490	4.880	4.807	0.496	0.180	4.339	1.928	0.409	3.270	0.000
5.1360	3.450	4.850	4.750	4.880	4.863	0.837	0.240	4.339	4.147	0.552	2.770	0.000
5.3950	3.780	5.035	4.680	4.990	5.044	0.746	0.230	4.339	3.766	0.499	2.480	0.000
5.4950	4.100	5.098	5.140	5.000	5.112	0.518	0.240	4.339	4.142	0.565	3.620	0.000
5.6590	3.980	5.210	5.140	5.000	5.222	0.865	0.260	4.339	4.134	0.541	3.190	0.000
5.8320	4.110	5.326	5.170	5.200	5.340	0.742	0.290	4.339	4.806	0.625	2.850	0.000
5.9250	4.400	5.377	5.170	5.200	5.384	0.472	0.180	4.339	2.359	0.448	2.100	0.000
6.0690	4.290	5.496	5.500	5.340	5.533	0.805	0.450	4.339	10.734	0.903	3.830	0.000
6.1120	4.470	5.567	5.360	5.710	5.573	0.663	0.140	4.339	1.909	0.402	1.590	0.000
6.1700	4.510	5.585	6.000	5.270	5.591	0.723	0.200	4.339	2.791	0.466	1.550	0.000
6.5590	4.680	5.964	5.940	5.930	5.993	1.029	0.410	4.339	10.023	0.865	2.830	0.000
6.7240	4.970	6.200	6.060	5.960	6.221	0.733	0.300	4.339	7.039	0.729	2.660	0.000
6.9320	5.240	6.447	6.360	6.270	6.476	0.663	0.380	4.339	8.690	0.842	3.310	0.000
7.0800	5.650	6.590	6.880	6.600	6.601	0.415	0.190	4.339	2.964	0.490	3.970	0.000
7.0950	5.650	6.585	6.880	6.600	6.683	0.665	0.550	4.339	26.445	1.385	4.340	0.000
7.3450	5.750	7.343	7.280	7.000	7.366	0.673	0.300	4.339	5.861	0.688	4.160	0.000
7.5100	5.750	7.455	7.230	7.200	7.469	0.710	0.220	4.339	3.356	0.544	3.860	0.000
7.6860	5.850	7.518	7.150	7.380	7.523	0.741	0.130	3.678	1.350	0.329	3.340	0.000
7.8950	6.350	7.569	7.670	7.710	7.580	0.505	0.170	3.678	2.400	0.464	3.680	0.000
8.2690	6.990	7.951	8.080	8.310	7.981	0.645	0.340	3.678	8.606	0.762	3.680	0.000
8.3700	7.180	8.255	8.490	8.320	8.304	0.793	0.500	3.678	16.595	0.979	3.680	0.000
8.5310	7.530	8.744	8.920	8.600	8.773	0.678	0.350	3.678	7.134	0.764	3.620	0.000

Ingenieurgemeinschaft agwa, 05.09.2012

Ergebnis: Ist_HQ50.ASC

Station	Sohle	Wsp	Links	Rechts	Energie	Ygr	Froude	Q	Tau	V	Qh	
3.1000	2.154	2.834	3.800	3.850	3.158	0.680	1.000	7.329	15.023	2.521	7.330	0.000
3.1050	2.154	2.867	3.800	3.850	3.180	0.694	0.979	7.329	15.680	2.468	7.329	0.000
3.1940	2.180	3.465	3.360	3.660	3.585	0.915	0.610	7.329	27.378	1.532	7.310	0.000
3.3360	2.500	3.947	3.780	3.800	3.982	0.885	0.380	7.329	7.917	0.876	6.490	0.000
3.5380	2.490	4.128	3.720	3.920	4.153	0.908	0.290	7.329	5.780	0.769	6.000	0.000
3.6310	2.540	4.190	3.670	3.970	4.206	0.862	0.230	7.329	3.926	0.597	5.890	0.000
3.8450	2.610	4.311	3.900	3.890	4.321	1.043	0.200	7.329	3.222	0.477	5.410	0.000
4.0210	2.700	4.462	4.340	4.110	4.508	1.047	0.410	7.329	11.535	0.993	6.590	0.000
4.2000	2.971	4.642	4.110	4.460	4.806	0.984	0.449	7.329	7.291	1.788	7.314	0.000
4.2040	2.971	4.646	4.110	4.460	4.812	0.989	0.450	7.329	7.196	1.806	7.330	0.000
4.2080	2.971	4.669	4.110	4.460	4.813	0.998	0.404	7.329	6.369	1.604	6.966	0.000
4.2330	2.990	4.815	4.130	4.200	4.820	1.038	0.120	7.329	1.201	0.339	4.690	0.000
4.4810	3.090	4.860	4.360	4.400	4.865	0.815	0.130	5.354	1.406	0.330	3.900	0.000
4.7610	3.220	4.928	4.580	4.370	4.934	0.907	0.170	5.354	1.950	0.395	3.610	0.000
4.9660	3.450	5.041	4.890	4.720	5.058	0.950	0.310	5.354	6.303	0.651	3.970	0.000
5.2000	3.780	5.282	5.210	4.930	5.304	0.842	0.300	5.354	7.536	0.708	4.430	0.000
5.4640	3.980	5.540	5.180	5.170	5.564	0.899	0.240	5.354	5.747	0.689	5.350	0.000
5.6220	4.110	5.654	5.330	5.220	5.670	0.822	0.250	5.354	4.867	0.645	3.740	0.000
5.8440	4.290	5.846	5.570	5.530	5.881	0.897	0.300	5.354	8.703	0.825	5.350	0.000
5.8870	4.470	5.907	5.250	5.370	5.913	0.712	0.130	5.354	1.644	0.361	3.870	0.000
5.9430	4.510	5.922	5.310	5.910	5.925	0.795	0.150	5.354	1.629	0.360	1.700	0.000
6.2890	4.680	6.179	5.910	5.840	6.197	0.994	0.330	5.354	8.280	0.707	3.230	0.000
6.4440	4.970	6.444	6.190	6.500	6.511	0.835	0.400	5.354	16.780	1.152	5.350	0.000
6.6370	4.950	6.806	6.560	6.530	6.817	1.046	0.220	5.354	4.295	0.541	3.280	0.000
6.7850	5.230	6.936	6.900	6.930	6.977	0.922	0.340	5.354	9.792	0.904	5.330	0.000
7.2150	5.570	7.445	7.200	7.500	7.465	0.885	0.270	5.354	6.333	0.662	4.830	0.000
7.3910	5.650	7.563	7.150	7.550	7.572	0.981	0.170	5.354	2.424	0.431	4.800	0.000
7.5700	5.820	7.717	7.750	7.790	7.743	1.004	0.310	4.539	7.366	0.713	4.540	0.000
7.9240	6.690	8.135	8.090	8.310	8.156	0.943	0.260	4.539	5.215	0.648	4.530	0.000
8.0250	6.980	8.299	8.680	8.750	8.375	0.982	0.470	4.539	18.335	1.217	4.540	0.000
8.1860	7.530	8.744	8.980	9.040	8.790	0.764	0.390	4.539	11.254	0.959	4.540	0.000
8.3260	7.546	8.939	8.980	9.040	9.093	0.864	0.478	4.539	8.253	1.718	4.540	0.000
8.3460	7.546	8.967	8.980	9.040	9.137	0.881	0.490	4.539	7.824	1.826	4.540	0.000

Ingenieurgemeinschaft agwa, 05.09.2012

Ergebnis: Plan_HQ50.ASC

Station	Sohle	Wsp	Links	Rechts	Energie	Ygr	Froude	Q	Tau	V	Qh	
3.1000	2.154	2.834	3.800	3.850	3.158	0.680	1.000	7.329	15.023	2.521	7.330	0.000
3.1050	2.154	2.867	3.800	3.850	3.180	0.694	0.979	7.329	15.687	2.470	7.329	0.000
3.1940	2.180	3.454	3.450	3.850	3.578	0.915	0.600	7.329	27.498	1.560	7.320	0.000
3.3360	2.500	3.942	3.810	3.800	3.984	1.011	0.430	7.329	8.979	0.954	6.450	0.000
3.5380	2.600	4.129	3.680	3.840	4.148	0.893	0.230	7.329	3.857	0.686	5.350	0.000
3.6410	2.690	4.168	3.500	3.910	4.179	0.751	0.170	7.329	2.260	0.493	5.240	0.000
3.8550	2.780	4.259	4.030	3.860	4.271	1.041	0.230	7.329	3.538	0.519	5.840	0.000
4.0310	2.850	4.352	4.170	3.910	4.369	1.044	0.250	7.329	4.423	0.657	4.180	0.000
4.2100	2.971	4.365	4.110	4.460	4.601	0.988	0.583	7.329	10.496	2.142	7.261	0.000
4.2140	2.971	4.365	4.110	4.460	4.606	0.989	0.590	7.329	10.632	2.175	7.330	0.000
4.2180	2.971	4.399	4.110	4.460	4.608	0.994	0.533	7.329	9.473	1.939	7.112	0.000
4.2430	2.990	4.610	4.110	4.460	4.620	1.004	0.180	7.329	2.229	0.466	5.750	0.000
4.3130	3.020	4.631	4.430	4.400	4.645	1.093	0.260	7.329	4.027	0.646	4.410	0.000
4.6500	3.120	4.767	4.530	4.500	4.779	1.093	0.230	7.329	3.355	0.595	4.210	0.000
4.8400	3.200	4.824	4.550	4.540	4.828	0.797	0.130	5.354	1.119	0.311	3.860	0.000
4.9210	3.300	4.840	4.490	4.880	4.848	0.882	0.200	5.354	2.351	0.455	3.940	0.000
5.0210	3.700	4.871	4.490	4.880	4.878	0.553	0.180	5.354	2.060	0.433	3.810	0.000
5.1360	3.450	4.918	4.750	4.880	4.931	1.106	0.250	5.354	4.314	0.578	3.180	0.000
5.3950	3.780	5.093	4.680	4.990	5.103	1.032	0.230	5.354	3.902	0.523	2.850	0.000
5.4950	4.100	5.155	5.140	5.000	5.172	0.565	0.270	5.354	4.851	0.620	4.310	0.000
5.6590	3.980	5.271	5.140	5.000	5.285	0.918	0.260	5.354	4.359	0.571	3.690	0.000
5.8320	4.110	5.385	5.170	5.200	5.401	0.819	0.280	5.354	5.126	0.658	3.220	0.000
5.9250	4.400	5.437	5.170	5.200	5.446	0.511	0.180	5.354	2.685	0.487	2.450	0.000
6.0690	4.290	5.557	5.500	5.340	5.596	0.884	0.470	5.354	11.568	0.957	4.410	0.000
6.1120	4.470	5.630	5.360	5.710	5.637	0.693	0.150	5.354	2.231	0.443	1.860	0.000
6.1700	4.510	5.650	6.000	5.270	5.656	0.763	0.190	5.354	2.851	0.476	1.700	0.000
6.5590	4.680	6.021	5.940	5.930	6.051	1.090	0.420	5.354	10.463	0.900	3.150	0.000
6.7240	4.970	6.260	6.060	5.960	6.285	0.984	0.300	5.354	7.920	0.780	3.070	0.000
6.9320	5.240	6.521	6.360	6.270	6.550	0.730	0.370	5.354	8.970	0.865	3.720	0.000
7.0800	5.650	6.662	6.880	6.600	6.677	0.454	0.210	5.354	3.606	0.554	4.900	0.000
7.0950	5.650	6.653	6.880	6.600	6.774	0.750	0.590	5.354	32.099	1.546	5.350	0.000
7.3450	5.750	7.493	7.280	7.000	7.511	0.768	0.270	5.354	4.589	0.636	4.510	0.000
7.5100	5.750	7.572	7.230	7.200	7.586	0.818	0.210	5.354	3.322	0.559	4.480	0.000
7.6860	5.850	7.628	7.150	7.380	7.633	0.823	0.130	4.539	1.343	0.340	3.970	0.000
7.8950	6.350	7.679	7.670	7.710	7.691	0.560	0.180	4.539	2.713	0.497	4.540	0.000
8.2690	6.990	8.040	8.080	8.310	8.072	0.700	0.340	4.539	8.861	0.798	4.540	0.000
8.3700	7.180	8.315	8.490	8.320	8.371	0.852	0.500	4.539	17.478	1.049	4.540	0.000
8.5310	7.530	8.796	8.920	8.600	8.831	0.764	0.400	4.539	8.690	0.843	4.340	0.000

bremenports GmbH & Co. KG
Gewässerentwicklungsmaßnahmen Billerbeck
Wasserspiegellagenberechnung - Abflussmengen

Ingenieurgemeinschaft agwa, 04.09.2012

Station Ist [km]	Station Plan [km]	Q Plan $Qbordvoll_{Ist}$ [m/³s]	Unterschreitungs-dauer [d / Jahr]
3+100	3+100	2,500	360-361
3+194	3+194	2,500	360-361
3+336	3+336	2,500	360-361
3+538	3+538	2,500	360-361
3+631	3+641	2,500	360-361
3+845	3+855	2,500	360-361
4+021	4+031	2,500	360-361
4+204	4+214	2,500	360-361
4+233	4+243	2,100	358-359
-	4+313	2,100	358-359
4+481	-	1,534	350-356
-	4+650	2,100	358-359
-	4+840	1,534	350-356
4+761	4+921	1,534	350-356
-	5+021	1,680	350-356
4+966	5+136	1,680	350-356
5+200	5+395	1,680	350-356
-	5+495	1,680	350-356
5+464	5+659	1,680	350-356
5+622	5+832	1,680	350-356
-	5+925	1,680	350-356
5+844	6+069	1,680	350-356
5+887	6+112	1,242	340-350
5+943	6+170	1,242	340-350
6+289	6+559	1,680	350-356
6+444	6+724	1,680	350-356
6+637	6+932	1,680	350-356
6+785	7+080	6,000	(365)
-	7+095	6,000	(365)
-	7+345	2,776	361-362
7+215	7+510	2,776	361-362
7+391	7+686	2,353	360-361
7+570	7+895	2,353	360-361
7+924	8+269	4,335	(365)
8+025	8+370	4,335	(365)
8+186	8+531	4,335	(365)
8+326	-	-	-
8+346	-	-	-