



平成31年(ワ)第100号 損害賠償請求事件
 原告 片倉一美 ほか31名
 被告 国

証拠説明書(9)

令和3年11月11日

水戸地方裁判所民事第1部合議係 御中

被告指定代理人

稲	玉		祐
前	川		悠
山	口	友	寛
湯	浅	哲	史
藤	丸		遠
近	藤	敦	哉
森	田	大	輔
関	根	八	千 栄
林		孝	博
高	橋		裕
塩	井	直	彦
藤	本	雄	介
須	藤	純	一
大	舘	雅	史
瀧	ヶ 崎	由	一
森	川		卓
関	口		豊
清	水	邦	芳

村	田	和	基
後	藤	祐	也
三	枝	伸	太
高	橋		郎
上	市	貴	靖
霞		安	之
藤	枝	達	行
矢	部	隆	也
工	藤	美	紀
青	木	孝	幸
栗	山	広	男
栗	原		夫
長	内	博	宣
			寛
			昭

略語は従前の例による。

号証	標目 (作成者)	作成 年月日	立証趣旨
乙80	鬼怒川流下能力算定表 〔平成13年度測量〕 (関東地方整備局下館 河川事務所)	写し 令和 3.11	整備概要図2の上段(平成13年以降 の整備)に示した治水安全度の算出の 基礎となった流下能力の根拠資料の存 在及びその内容(乙79の「HWL流 下能力」欄の数値を訂正したもの)

乙第80号証

距離標	HQ式		HWL	計画堤防高	スライドダウン堤防高		スライドダウン流下能力		HWL 流下能力
	Q=A(H+B) ²				左岸	右岸	左岸	右岸	
[km]	係数A	係数B	(Y.P.m)	(Y.P.m)	(Y.P.m)	(Y.P.m)	[m ³ /s]	[m ³ /s]	[m ³ /s]
3.00	490.71	-10.63	13.940	15.440	15.440	15.440	5,389	5,389	5,389
3.25	436.27	-10.57	14.045	15.545	15.545	15.545	5,274	5,274	5,274
3.50	1204.63	-11.41	14.150	15.650	15.650	15.650	9,070	9,070	9,070
3.75	975.96	-11.25	14.250	15.750	15.750	15.750	8,801	8,801	8,801
4.00	113.42	-8.78	14.350	15.850	15.850	15.850	3,520	3,520	3,520
4.25	106.25	-8.70	14.455	15.955	15.955	15.955	3,519	3,519	3,519
4.50	112.91	-8.81	14.560	16.060	16.060	16.060	3,740	3,740	3,740
4.75	79.10	-8.15	14.660	16.160	16.160	16.160	3,352	3,352	3,352
5.00	77.39	-8.17	14.760	16.260	16.260	16.260	3,361	3,361	3,361
5.25	70.88	-7.99	14.865	16.365	15.780	16.365	2,802	3,347	3,347
5.50	70.72	-8.03	14.970	16.470	16.470	16.470	3,410	3,410	3,410
5.75	70.08	-8.04	15.070	16.570	16.500	16.570	3,393	3,462	3,462
6.00	67.28	-7.93	15.170	16.670	16.670	16.670	3,532	3,532	3,532
6.25	65.31	-7.98	15.275	16.775	16.260	16.775	3,006	3,479	3,479
6.50	61.89	-7.89	15.380	16.880	15.556	16.230	2,357	2,900	3,477
6.75	55.41	-7.65	15.485	16.985	16.985	16.617	3,406	3,093	3,406
7.00	55.45	-7.67	15.590	17.090	17.090	15.197	3,474	2,011	3,474
7.25	51.91	-7.58	15.685	17.185	17.185	16.220	3,413	2,649	3,413
7.50	54.00	-7.67	15.780	17.280	16.774	15.618	3,126	2,249	3,556
7.75	52.56	-7.73	15.890	17.390	17.390	16.264	3,501	2,602	3,501
8.00	57.39	-7.94	16.000	17.500	16.674	16.723	3,004	3,045	3,729
8.25	56.22	-7.84	16.105	17.610	16.608	17.114	2,972	3,400	3,843
8.50	51.03	-7.69	16.210	17.720	17.167	17.068	3,249	3,168	3,706
8.75	46.96	-7.54	16.315	17.820	16.088	16.570	2,334	2,664	3,617
9.00	47.92	-7.63	16.420	17.920	16.717	17.011	2,759	2,977	3,703
9.25	48.69	-7.72	16.525	18.025	16.642	16.625	2,684	2,672	3,777
9.50	40.71	-7.17	16.630	18.130	16.430	16.981	2,454	2,815	3,646
9.75	43.67	-7.46	16.735	18.235	17.186	16.956	2,953	2,790	3,754
10.00	42.62	-7.47	16.840	18.340	17.368	16.465	3,005	2,393	3,740
10.25	42.98	-7.48	16.945	18.445	17.623	16.904	3,209	2,697	3,849
10.50	40.01	-7.35	17.050	18.550	17.320	17.543	2,871	3,024	3,765
10.75	39.88	-7.39	17.155	18.655	17.332	18.655	2,842	3,803	3,803
11.00	39.63	-7.35	17.260	18.760	17.195	18.760	2,759	3,891	3,891
11.25	39.67	-7.37	17.345	18.845	18.845	17.906	3,949	3,241	3,949
11.50	40.05	-7.42	17.430	18.930	18.457	18.930	3,641	4,011	4,011
11.75	42.19	-7.55	17.515	19.015	17.913	18.862	3,315	4,062	4,190
12.00	40.46	-7.56	17.600	19.100	18.197	18.014	3,378	3,244	4,079
12.25	38.34	-7.46	17.695	19.195	19.195	19.195	4,018	4,018	4,018
12.50	35.60	-7.38	17.790	19.290	19.290	19.002	3,862	3,651	3,862
12.75	37.60	-7.53	17.875	19.375	19.360	19.350	4,014	4,006	4,026
13.00	39.09	-7.66	17.960	19.460	19.460	19.460	4,151	4,151	4,151
13.25	36.84	-7.55	18.050	19.550	18.515	18.474	3,304	3,276	4,066

距離標	HQ式		HWL	計画堤防高	スライドダウン堤防高		スライドダウン流下能力		HWL 流下能力
	$Q=A(H+B)^2$				左岸	右岸	左岸	右岸	
[km]	係数A	係数B	(Y.P.m)	(Y.P.m)	(Y.P.m)	(Y.P.m)	[m ³ /s]	[m ³ /s]	[m ³ /s]
13.50	38.07	-7.69	18.140	19.640	18.432	18.367	3,249	3,204	4,155
13.75	35.87	-7.59	18.230	19.730	18.524	19.313	3,194	3,750	4,062
14.00	35.03	-7.61	18.320	19.820	18.565	18.704	3,129	3,222	4,015
14.25	34.76	-7.63	18.410	19.910	19.071	18.685	3,433	3,171	4,037
14.50	34.82	-7.63	18.500	20.000	19.141	18.627	3,490	3,141	4,115
14.75	32.59	-7.64	18.585	20.085	18.681	18.543	2,966	2,881	3,903
15.00	30.99	-7.48	18.670	20.170	18.780	18.948	2,978	3,081	3,882
15.25	30.51	-7.59	18.760	20.260	18.836	18.744	2,897	2,842	3,805
15.50	32.09	-7.78	18.850	20.350	18.778	18.895	2,893	2,965	3,930
15.75	31.76	-7.81	18.940	20.440	18.836	18.942	2,883	2,947	3,935
16.00	32.11	-7.90	19.030	20.530	19.661	19.017	3,378	2,967	3,974
16.25	31.87	-7.91	19.120	20.625	20.625	19.011	4,006	2,939	4,006
16.50	30.99	-7.90	19.210	20.720	18.874	19.363	2,784	3,078	3,966
16.75	30.47	-7.90	19.300	20.805	20.027	18.866	3,442	2,731	3,961
17.00	30.46	-7.91	19.390	20.890	19.780	19.048	3,276	2,830	4,014
17.25	30.15	-7.91	19.480	20.980	19.291	19.649	2,945	3,162	4,037
17.50	30.34	-8.05	19.570	21.070	19.709	20.076	3,130	3,361	4,026
17.75	30.45	-8.20	19.660	21.160	19.760	20.463	3,084	3,529	4,001
18.00	30.16	-8.16	19.750	21.250	19.937	20.361	3,186	3,454	4,051
18.25	31.43	-8.30	19.845	21.345	19.850	20.189	3,176	3,393	4,191
18.50	31.65	-8.38	19.940	21.440	20.125	20.079	3,321	3,291	4,228
18.75	30.87	-8.42	20.030	21.530	19.834	21.066	3,036	3,837	4,163
19.00	30.58	-8.51	20.120	21.620	20.109	20.685	3,118	3,484	4,121
19.25	29.33	-8.35	20.205	21.705	20.344	21.148	3,228	3,742	4,120
19.50	30.06	-8.71	20.290	21.790	20.882	20.965	3,421	3,475	4,028
19.75	29.30	-8.68	20.380	21.880	20.348	20.918	3,030	3,379	4,011
20.00	29.27	-8.77	20.470	21.970	20.249	21.351	2,915	3,594	4,007
20.25	29.68	-8.88	20.555	22.055	20.091	21.148	2,799	3,441	4,045
20.50	29.83	-9.02	20.640	22.140	20.475	20.622	2,956	3,044	4,028
20.75	30.30	-9.22	20.735	22.235	20.609	21.993	2,966	3,854	4,021
21.00	30.56	-9.28	20.830	22.330	20.909	22.330	3,132	4,073	4,073
21.25	30.62	-9.40	20.920	22.420	21.145	21.981	3,213	3,759	4,063
21.50	30.63	-9.53	21.010	22.510	21.014	21.351	3,056	3,266	4,040
21.75	30.78	-9.61	21.100	22.600	21.673	21.100	3,432	3,070	4,061
22.00	30.95	-9.65	21.190	22.690	21.729	21.667	3,464	3,423	4,122
22.25	31.34	-9.74	21.280	22.780	22.090	22.032	3,692	3,653	4,177
22.50	31.09	-9.83	21.370	22.870	21.395	21.641	3,152	3,308	4,143
22.75	31.32	-9.93	21.460	22.960	21.976	21.749	3,482	3,334	4,163
23.00	32.45	-10.14	21.550	23.050	22.996	23.050	4,186	4,226	4,226
23.25	32.37	-10.29	21.640	23.140	21.195	22.040	2,865	3,403	4,173
23.50	33.11	-10.54	21.730	23.230	22.158	22.220	3,389	3,431	4,146
23.75	33.42	-10.54	21.815	23.315	21.980	22.850	3,302	3,905	4,249

距離標	HQ式		HWL	計画堤防高	スライドダウン堤防高		スライドダウン流下能力		HWL 流下能力
	Q=A(H+B)^2				左岸	右岸	左岸	右岸	
[km]	係数A	係数B	(Y.P.m)	(Y.P.m)	(Y.P.m)	(Y.P.m)	[m ³ /s]	[m ³ /s]	[m ³ /s]
24.00	33.70	-10.70	21.900	23.400	22.211	22.200	3,377	3,369	4,226
24.25	33.65	-10.78	21.990	23.490	22.649	22.142	3,620	3,275	4,231
24.50	34.06	-10.89	22.080	23.580	22.760	23.331	3,666	4,081	4,269
24.75	34.31	-10.99	22.170	23.670	23.400	22.540	4,087	3,469	4,292
25.00	35.27	-11.20	22.260	23.760	23.160	22.298	3,861	3,251	4,317
25.25	35.48	-11.26	22.350	23.850	23.430	22.201	4,040	3,063	4,365
25.50	35.44	-11.39	22.440	23.940	23.940	22.457	4,328	3,244	4,328
25.75	35.71	-11.44	22.530	24.030	24.030	22.784	4,396	3,464	4,396
26.00	37.35	-11.67	22.620	24.120	23.820	22.807	4,233	3,466	4,475
26.25	35.98	-11.58	22.785	24.285	24.285	23.840	4,516	4,164	4,516
26.50	37.04	-11.87	22.950	24.450	24.450	23.985	4,546	4,172	4,546
26.75	41.90	-12.67	23.115	24.615	24.615	23.712	4,574	3,817	4,574
27.00	41.81	-12.72	23.280	24.780	24.018	24.200	4,010	4,161	4,659
27.25	43.03	-12.99	23.445	24.945	23.988	24.396	3,880	4,220	4,701
27.50	43.86	-13.18	23.610	25.110	24.820	24.303	4,512	4,064	4,774
27.75	42.11	-12.97	23.780	25.280	25.154	24.765	4,807	4,464	4,921
28.00	51.19	-14.35	23.950	25.450	25.450	25.450	4,719	4,719	4,719
28.25	52.88	-14.58	24.115	25.615	25.444	25.615	4,638	4,809	4,809
28.50	51.73	-14.66	24.280	25.780	25.590	25.362	4,602	4,382	4,789
28.75	50.76	-14.64	24.450	25.950	25.712	24.998	4,649	3,981	4,883
29.00	47.18	-14.52	24.620	26.120	25.544	25.767	4,281	4,484	4,814
29.25	49.32	-15.06	24.795	26.295	25.564	25.285	3,998	3,754	4,673
29.50	47.51	-14.97	24.970	26.470	26.012	25.650	4,327	4,005	4,752
29.75	53.69	-15.26	25.140	26.640	26.521	26.262	5,121	4,853	5,246
30.00	52.76	-15.33	25.310	26.810	26.810	25.887	5,257	4,330	5,257
30.25	39.51	-14.80	25.455	26.955	26.280	26.427	3,932	4,049	4,482
30.50	38.12	-14.88	25.600	27.100	25.660	26.337	3,280	3,776	4,377
30.75	40.46	-15.17	25.785	27.285	26.730	26.536	4,093	3,937	4,558
31.00	44.66	-15.39	25.970	27.470	26.510	26.319	4,136	3,973	5,002
31.25	43.61	-15.30	26.135	27.635	27.530	27.220	5,024	4,738	5,122
31.50	41.06	-15.27	26.300	27.800	27.800	27.205	4,993	4,469	4,993
31.75	46.71	-16.12	26.470	27.970	27.970	27.970	5,006	5,006	5,006
32.00	41.52	-15.78	26.640	28.140	27.448	27.612	4,295	4,435	4,899
32.25	34.94	-15.42	26.810	28.310	28.310	27.368	4,532	3,813	4,532
32.50	34.79	-15.79	26.980	28.480	28.344	27.399	4,249	3,553	4,354
32.75	35.82	-16.35	27.145	28.645	27.630	28.267	3,423	3,884	4,171
33.00	33.05	-16.16	27.310	28.810	28.810	28.448	4,110	3,847	4,110
33.25	34.52	-16.30	27.475	28.975	28.744	28.864	4,134	4,225	4,311
33.50	34.59	-16.56	27.640	29.140	28.869	29.140	4,041	4,246	4,246
33.75	33.81	-16.80	27.820	29.320	28.818	28.518	3,739	3,529	4,105
34.00	34.94	-16.95	28.000	29.500	28.817	29.308	3,752	4,116	4,263
34.25	36.89	-17.11	28.165	29.665	29.405	28.781	4,302	3,819	4,512

距離標	HQ式		HWL	計画堤防高	スライドダウン堤防高		スライドダウン流下能力		HWL 流下能力
	Q=A(H+B)^2				左岸	右岸	左岸	右岸	
[km]	係数A	係数B	(Y.P.m)	(Y.P.m)	(Y.P.m)	(Y.P.m)	[m ³ /s]	[m ³ /s]	[m ³ /s]
34.50	37.04	-17.29	28.330	29.830	29.830	29.515	4,511	4,257	4,511
34.75	36.44	-17.34	28.495	29.995	29.423	29.188	4,085	3,906	4,539
35.00	34.71	-17.38	28.660	30.160	29.657	29.606	4,033	3,995	4,419
35.25	32.00	-17.25	28.835	30.335	29.232	29.641	3,514	3,793	4,292
35.50	31.43	-17.48	29.010	30.510	30.085	30.085	3,876	3,876	4,179
35.75	33.72	-17.72	29.175	30.675	30.220	29.961	4,082	3,892	4,427
36.00	33.15	-17.78	29.340	30.840	30.454	30.312	4,139	4,034	4,430
36.25	33.48	-18.13	29.515	31.015	31.015	31.015	4,342	4,342	4,342
36.50	30.93	-17.96	29.690	31.190	31.190	30.813	4,258	3,989	4,258
36.75	29.79	-17.97	29.855	31.355	31.082	30.764	4,014	3,797	4,205
37.00	29.55	-18.06	30.020	31.520	30.825	31.350	3,749	4,107	4,226
37.25	29.03	-18.13	30.185	31.685	31.300	30.918	3,955	3,701	4,221
37.50	29.27	-18.06	30.350	31.850	31.850	31.239	4,421	3,993	4,421
37.75	28.90	-18.06	30.525	32.025	31.550	31.604	4,155	4,193	4,491
38.00	29.44	-18.20	30.700	32.200	31.751	31.772	4,278	4,293	4,603
38.25	29.87	-18.36	30.840	32.340	31.630	32.274	4,136	4,602	4,651
38.50	30.29	-18.51	30.980	32.480	32.075	31.816	4,407	4,220	4,708
38.75	30.45	-18.70	31.115	32.615	31.973	32.409	4,223	4,541	4,696
39.00	29.94	-18.58	31.250	32.750	32.027	32.750	4,271	4,803	4,803
39.25	30.63	-18.75	31.390	32.890	32.242	32.478	4,405	4,580	4,894
39.50	31.51	-19.01	31.530	33.030	32.086	32.238	4,220	4,332	4,937
39.75	32.42	-19.24	31.665	33.165	32.424	32.332	4,423	4,354	5,002
40.00	32.22	-19.19	31.800	33.300	32.580	31.478	4,552	3,747	5,120
40.25	33.44	-19.48	31.940	33.440	33.406	32.953	5,164	4,794	5,192
40.50	34.85	-19.82	32.080	33.580	32.786	32.370	4,582	4,256	5,239
40.75	35.39	-20.11	32.225	33.725	32.298	32.000	4,045	3,822	5,196
41.00	35.87	-20.23	32.370	33.870	32.821	31.200	4,409	3,214	5,283
41.25	37.75	-20.62	32.520	34.020	33.216	33.448	4,645	4,841	5,343
41.50	40.13	-20.87	32.670	34.170	33.505	32.991	4,974	4,525	5,586
41.75	41.46	-21.14	32.810	34.310	33.151	33.846	4,581	5,207	5,647
42.00	42.68	-21.31	32.950	34.450	33.046	33.139	4,473	4,554	5,784
42.25	44.35	-21.58	33.090	34.590	33.913	33.556	5,203	4,866	5,874
42.50	45.25	-21.82	33.230	34.730	33.966	34.092	5,128	5,250	5,890
42.75	46.40	-22.11	33.370	34.870	33.954	33.870	4,966	4,886	5,884
43.00	48.59	-22.41	33.510	35.010	33.818	33.414	4,775	4,394	5,993
43.25	49.34	-22.41	33.645	35.145	33.656	33.914	4,683	4,934	6,224
43.50	51.45	-22.85	33.780	35.280	34.635	34.750	5,443	5,565	6,147
43.75	52.36	-23.17	33.920	35.420	34.590	34.614	5,156	5,181	6,054
44.00	52.07	-23.15	34.060	35.560	35.560	35.093	6,196	5,677	6,196
44.25	53.89	-23.63	34.195	35.695	32.000	33.630	2,545	3,896	6,018
44.50	52.64	-23.75	34.330	35.830	35.830	31.600	5,888	2,120	5,888
44.75	57.14	-24.03	34.470	35.970	35.740	32.111	5,954	2,473	6,225

距離標	HQ式		HWL	計画堤防高	スライドダウン堤防高		スライドダウン流下能力		HWL 流下能力
	Q=A(H+B)^2				左岸	右岸	左岸	右岸	
[km]	係数A	係数B	(Y.P.m)	(Y.P.m)	(Y.P.m)	(Y.P.m)	[m ³ /s]	[m ³ /s]	[m ³ /s]
45.00	53.60	-24.06	34.610	36.110	36.110	35.675	5,963	5,482	5,963
45.25	52.57	-24.21	34.750	36.250	36.250	36.159	5,841	5,740	5,841
45.50	53.39	-24.32	34.890	36.390	36.390	36.390	5,969	5,969	5,969
45.75	56.37	-24.72	35.025	36.525	32.400	36.525	2,152	5,985	5,985
46.00	56.00	-24.82	35.160	36.660	33.100	36.660	2,577	5,992	5,992
46.25	54.99	-25.03	35.295	36.795	34.987	36.795	3,936	5,798	5,798
46.50	55.07	-25.22	35.430	36.930	32.680	36.777	1,958	5,573	5,744
46.75	59.28	-25.66	35.570	37.070	37.070	36.597	5,819	5,277	5,819
47.00	65.34	-26.22	35.710	37.210	37.210	36.853	5,884	5,450	5,884
47.25	69.13	-26.56	35.855	37.355	34.100	37.289	2,525	5,892	5,977
47.50	73.46	-26.91	36.000	37.500	36.720	37.500	5,068	6,065	6,065
47.75	76.77	-27.26	36.135	37.635	37.600	37.635	6,005	6,053	6,053
48.00	79.44	-27.49	36.270	37.770	37.770	37.770	6,121	6,121	6,121
48.25	87.11	-27.94	36.720	38.220	38.220	38.220	6,717	6,717	6,717
48.50	107.83	-28.76	37.170	38.670	38.670	38.670	7,632	7,632	7,632
48.75	153.37	-29.81	37.655	39.155	38.554	39.155	8,051	9,442	9,442
49.00	119.28	-30.12	38.140	39.640	39.640	39.640	7,665	7,665	7,665
49.25	110.19	-30.48	38.595	40.095	39.970	40.095	7,028	7,249	7,249
49.50	119.38	-30.87	39.050	40.550	40.550	40.550	7,992	7,992	7,992
49.75	130.96	-31.52	39.515	41.015	40.560	41.015	7,447	8,373	8,373
50.00	138.03	-32.08	39.980	41.480	41.480	41.480	8,623	8,623	8,623
50.25	150.39	-32.54	40.430	41.930	41.930	41.930	9,355	9,355	9,355
50.50	157.08	-32.97	40.880	42.380	42.380	42.380	9,821	9,821	9,821
50.75	153.37	-33.32	41.350	42.850	42.850	42.850	9,899	9,899	9,899
51.00	157.86	-34.08	41.820	43.320	42.060	43.320	6,637	9,467	9,467
51.25	157.95	-34.48	42.270	43.770	42.200	43.770	6,117	9,592	9,592
51.50	173.63	-34.87	42.720	44.220	44.220	44.220	10,708	10,708	10,708
51.75	212.00	-35.48	43.185	44.685	44.685	44.685	12,573	12,573	12,573
52.00	302.71	-36.50	43.650	45.150	45.150	45.150	15,458	15,458	15,458
52.25	342.74	-37.26	44.115	45.615	45.615	45.615	16,096	16,096	16,096
52.50	445.21	-38.01	44.580	46.080	46.080	46.080	19,229	19,229	19,229
52.75	470.33	-38.80	45.060	46.560	46.560	46.560	18,413	18,413	18,413
53.00	315.93	-39.09	45.540	47.040	47.040	47.040	13,139	13,139	13,139
53.25	345.17	-39.71	46.015	47.515	47.515	47.515	13,722	13,722	13,722
53.50	323.97	-40.33	46.490	47.990	47.990	47.990	12,281	12,281	12,281
53.75	306.36	-40.82	46.940	48.440	48.440	48.440	11,493	11,493	11,493
54.00	340.50	-41.39	47.390	48.890	48.890	48.890	12,250	12,250	12,250
54.25	328.56	-41.86	47.860	49.360	49.360	49.360	11,836	11,836	11,836
54.50	246.92	-41.81	48.330	49.830	49.830	49.830	10,490	10,490	10,490
54.75	163.64	-41.87	48.800	50.300	50.300	50.300	7,863	7,863	7,863
55.00	178.50	-43.22	49.270	50.770	50.770	50.770	6,542	6,542	6,542
55.25	178.86	-43.39	49.740	51.240	51.240	51.240	7,223	7,223	7,223

距離標	HQ式		HWL	計画堤防高	スライドダウン堤防高		スライドダウン流下能力		HWL 流下能力
	Q=A(H+B)^2				左岸	右岸	左岸	右岸	
[km]	係数A	係数B	(Y.P.m)	(Y.P.m)	(Y.P.m)	(Y.P.m)	[m ³ /s]	[m ³ /s]	[m ³ /s]
55.50	198.86	-43.91	50.210	51.710	51.710	51.710	7,900	7,900	7,900
55.75	237.56	-44.59	50.680	52.180	52.180	51.970	8,813	8,813	8,813
56.00	325.76	-45.68	51.150	52.650	52.650	52.650	9,740	9,740	9,740
56.25	345.26	-46.10	51.610	53.110	53.110	53.110	10,474	10,474	10,474
56.50	498.32	-47.13	52.070	53.570	53.570	53.570	12,156	12,156	12,156
56.75	307.36	-47.61	52.690	54.190	54.190	54.190	7,944	7,944	7,944
57.00	293.15	-47.85	53.310	54.810	54.810	54.810	8,727	8,727	8,727
57.25	305.18	-48.41	53.935	55.435	55.435	55.344	9,309	9,309	9,309
57.50	349.67	-49.27	54.560	56.060	56.060	56.060	9,771	9,771	9,771
57.75	409.53	-50.26	55.165	56.665	56.665	56.365	9,841	9,841	9,841
58.00	387.92	-50.49	55.770	57.270	56.994	57.270	9,702	10,802	10,802
58.25	373.46	-51.01	56.345	57.845	57.754	57.410	10,282	10,641	10,641
58.50	483.40	-51.65	56.920	58.420	58.420	57.955	13,446	13,446	13,446
58.75	439.10	-52.17	57.540	59.040	59.040	59.032	12,648	12,648	12,648
59.00	347.08	-52.90	58.160	59.660	59.660	59.660	9,592	9,592	9,592
59.25	319.26	-53.30	58.760	60.260	59.825	59.764	8,068	9,525	9,525
59.50	353.29	-54.09	59.360	60.860	60.510	60.860	8,545	9,804	9,804
59.75	343.83	-54.73	59.965	61.465	61.275	61.465	8,737	9,408	9,408
60.00	349.38	-55.24	60.570	62.070	61.860	62.070	9,170	9,937	9,937
60.25	379.22	-55.94	61.205	62.705	62.684	62.177	10,436	10,520	10,520
60.50	405.55	-56.72	61.840	63.340	63.204	63.340	10,066	10,623	10,623
60.75	421.21	-57.32	62.455	63.958	63.958	63.958	11,120	11,120	11,120
61.00	490.52	-58.12	63.070	64.575	64.575	64.299	12,043	12,043	12,043
61.25	485.40	-58.82	63.690	65.193	65.193	65.193	11,503	11,503	11,503
61.50	447.08	-59.53	64.310	65.810	65.810	65.810	10,206	10,206	10,206
61.75	338.49	-59.74	64.900	66.400	66.210	66.400	8,375	9,027	9,027
62.00	441.28	-60.39	65.490	66.990	66.854	66.990	10,896	11,500	11,500
62.25	392.77	-61.54	66.100	67.600	67.600	67.600	8,181	8,181	8,181
62.50	354.05	-61.85	66.710	68.210	68.210	68.210	8,359	8,359	8,359
62.75	535.60	-63.12	67.320	68.820	68.820	68.820	9,466	9,466	9,466
63.00	461.98	-63.62	67.930	69.430	69.430	69.430	8,602	8,602	8,602
63.25	374.81	-63.95	68.520	70.020	70.020	70.020	7,845	7,845	7,845
63.50	370.12	-64.36	69.110	70.610	70.610	70.610	8,354	8,354	8,354
63.75	482.89	-65.45	69.705	71.205	71.205	71.205	8,739	8,739	8,739
64.00	528.26	-66.03	70.300	71.800	71.800	71.800	9,636	9,636	9,636
64.25	357.41	-66.16	70.925	72.425	72.425	72.425	8,125	8,125	8,125
64.50	329.14	-66.46	71.550	73.050	73.050	73.050	8,514	8,514	8,514
64.75	363.60	-67.02	72.135	73.635	73.635	73.635	9,528	9,528	9,528
65.00	308.56	-67.25	72.720	74.220	74.220	74.220	9,232	9,232	9,232
65.25	249.14	-67.68	73.355	74.855	74.855	74.855	8,021	8,021	8,021
65.50	204.55	-68.33	73.990	75.490	75.490	75.490	6,555	6,555	6,555
65.75	243.58	-69.07	74.695	76.195	76.195	76.195	7,702	7,702	7,702

距離標 [km]	HQ式 $Q=A(H+B)^2$		HWL (Y.P.m)	計画堤防高 (Y.P.m)	スライドダウン堤防高		スライドダウン流下能力		HWL 流下能力 [m ³ /s]
	係数A	係数B			左岸 (Y.P.m)	右岸 (Y.P.m)	左岸 [m ³ /s]	右岸 [m ³ /s]	
66.00	255.70	-69.81	75.400	76.900	76.900	76.900	7,979	7,979	7,979
66.25	225.34	-69.89	76.135	77.635	77.635	77.635	8,783	8,783	8,783
66.50	270.36	-70.60	76.870	78.370	78.370	78.370	10,622	10,622	10,622
66.75	355.00	-72.33	77.610	79.110	79.110	79.110	9,886	9,886	9,886
67.00	278.90	-73.86	78.350	79.850	79.850	79.850	5,628	5,628	5,628
67.25	282.80	-74.10	79.090	80.590	80.590	80.590	7,033	7,033	7,033
67.50	249.62	-74.60	79.830	81.330	81.330	81.330	6,825	6,825	6,825
67.75	264.65	-75.27	80.555	82.055	82.055	82.055	7,395	7,395	7,395
68.00	299.13	-75.83	81.280	82.780	82.780	82.780	8,901	8,901	8,901
68.25	346.99	-76.54	82.000	83.500	83.500	83.500	10,344	10,344	10,344
68.50	373.01	-77.41	82.720	84.220	84.220	84.220	10,533	10,533	10,533
68.75	391.16	-78.09	83.460	84.960	84.960	84.960	11,271	11,271	11,271
69.00	493.00	-78.97	84.200	85.700	83.511	85.700	4,562	13,490	13,490
69.25	564.48	-80.16	84.925	86.425	86.425	86.425	12,827	12,827	12,827
69.50	529.33	-80.65	85.650	87.150	87.150	87.150	13,255	13,255	13,255
69.75	156.94	-79.84	86.370	87.870	87.870	87.870	6,698	6,698	6,698
70.00	221.85	-81.31	87.090	88.590	88.590	88.590	7,422	7,422	7,422
70.25	270.70	-82.20	87.775	89.275	89.275	89.275	8,408	8,408	8,408
70.50	330.97	-83.01	88.460	89.960	89.960	89.960	9,816	9,816	9,816
70.75	363.67	-83.51	89.220	90.720	90.720	90.720	11,861	11,861	11,861
71.00	620.68	-85.12	89.980	91.480	91.480	91.480	14,648	14,648	14,648
71.25	284.72	-85.33	90.665	92.165	92.165	92.165	8,119	8,119	8,119
71.50	269.55	-85.84	91.350	92.850	92.597	92.769	7,438	8,172	8,172
71.75	297.40	-86.85	92.115	93.615	93.553	93.615	8,067	8,260	8,260
72.00	371.64	-87.95	92.880	94.380	94.338	94.380	8,890	9,044	9,044
72.25	386.15	-88.82	93.610	95.110	94.870	95.110	8,005	8,871	8,871
72.50	398.47	-89.29	94.340	95.840	95.840	95.840	10,170	10,170	10,170
72.75	496.36	-90.14	95.040	96.540	96.540	96.540	11,898	11,898	11,898
73.00	502.23	-91.06	95.730	97.230	97.230	97.230	10,967	10,967	10,967
73.25	322.03	-91.14	96.445	97.945	97.945	97.945	9,049	9,049	9,049
73.50	194.44	-91.25	97.160	98.660	98.660	98.660	6,782	6,782	6,782
73.75	270.74	-92.52	97.875	99.375	99.375	99.375	7,778	7,778	7,778
74.00	338.16	-93.71	98.590	100.090	100.090	100.090	8,056	8,056	8,056
74.25	403.38	-94.77	99.310	100.810	100.810	100.810	8,318	8,318	8,318
74.50	370.97	-95.73	100.030	101.530	101.530	101.530	6,869	6,869	6,869
74.75	286.63	-96.09	100.745	102.245	102.245	102.245	6,200	6,200	6,200
75.00	291.79	-96.78	101.460	102.960	102.960	102.960	6,399	6,399	6,399
75.25	296.13	-97.79	102.230	103.730	103.730	103.730	5,843	5,843	5,843
75.50	336.06	-98.82	103.000	104.500	104.500	104.500	5,877	5,877	5,877
75.75	401.27	-100.00	103.860	105.360	105.360	105.360	5,969	5,969	5,969
76.00	506.88	-100.93	104.720	106.220	106.220	106.220	7,300	7,300	7,300
76.25	611.62	-101.82	105.545	107.045	107.045	107.045	8,482	8,482	8,482

距離標	HQ式		HWL	計画堤防高	スライドダウン堤防高		スライドダウン流下能力		HWL 流下能力
	Q=A(H+B)^2				左岸	右岸	左岸	右岸	
[km]	係数A	係数B	(Y.P.m)	(Y.P.m)	(Y.P.m)	(Y.P.m)	[m ³ /s]	[m ³ /s]	[m ³ /s]
76.50	360.00	-101.97	106.370	107.870	107.870	107.870	6,970	6,970	6,970
76.75	273.18	-102.59	107.220	108.720	108.720	108.720	5,846	5,846	5,846
77.00	210.05	-102.90	108.070	109.570	109.570	109.570	5,623	5,623	5,623
77.25	249.78	-103.93	108.900	110.400	110.400	110.400	6,167	6,167	6,167
77.50	567.00	-106.75	109.730	111.230	111.230	111.230	5,039	5,039	5,039
77.75	490.80	-106.84	110.560	112.060	112.060	112.060	6,803	6,803	6,803
78.00	433.00	-107.34	111.390	112.890	112.890	112.890	7,113	7,113	7,113
78.25	456.27	-108.20	112.295	113.795	113.795	113.795	7,662	7,662	7,662
78.50	406.85	-108.75	113.200	114.700	114.700	114.700	8,075	8,075	8,075
78.75	455.81	-110.04	114.070	115.570	115.570	115.570	7,406	7,406	7,406
79.00	468.69	-110.72	114.940	116.440	116.440	116.440	8,351	8,351	8,351
79.25	432.46	-111.52	115.815	117.315	116.964	117.315	6,730	7,981	7,981
79.50	414.74	-112.28	116.690	118.190	118.190	118.190	8,077	8,077	8,077
79.75	368.30	-113.22	117.540	119.040	119.040	119.040	6,877	6,877	6,877
80.00	338.93	-114.11	118.390	119.890	119.824	119.890	6,024	6,214	6,214
80.25	327.99	-114.72	119.350	120.850	120.850	120.850	7,031	7,031	7,031
80.50	405.43	-115.72	120.310	121.810	120.510	121.719	4,383	8,534	8,534
80.75	453.40	-116.79	121.385	122.885	122.885	122.885	9,586	9,586	9,586
81.00	265.61	-117.07	122.460	123.960	123.960	123.831	7,722	7,722	7,722
81.25	280.39	-117.98	123.520	125.020	125.020	124.992	8,593	8,593	8,593
81.50	388.06	-119.45	124.580	126.080	126.080	126.080	10,204	10,204	10,204
81.75	412.87	-120.68	125.595	127.095	127.095	127.095	9,962	9,962	9,962
82.00	405.92	-121.59	126.610	128.110	128.110	128.110	10,250	10,250	10,250
82.25	499.54	-122.87	127.645	129.145	129.145	129.145	11,380	11,380	11,380
82.50	438.14	-123.71	128.680	130.180	130.180	130.180	10,818	10,818	10,818
82.75	488.75	-124.87	129.720	131.220	131.220	131.220	11,482	11,482	11,482
83.00	355.99	-126.19	130.760	132.260	132.260	132.260	7,428	7,428	7,428
83.25	307.77	-126.59	131.795	133.295	133.295	133.295	8,341	8,341	8,341
83.50	253.84	-127.53	132.830	134.330	134.330	134.330	7,120	7,120	7,120
83.75	337.68	-128.55	133.880	135.380	134.839	135.180	7,757	8,900	8,900
84.00	448.65	-129.43	134.930	136.430	135.730	136.002	10,333	11,665	11,665
84.25	449.15	-130.48	135.980	137.480	137.125	136.996	11,899	11,899	11,899
84.50	452.67	-131.56	137.030	138.530	138.220	138.067	12,062	12,062	12,062
84.75	408.86	-132.33	138.080	139.580	139.245	138.717	12,006	12,006	12,006
85.00	472.84	-133.56	139.130	140.630	139.726	140.118	10,308	12,850	12,850
85.25	388.67	-134.36	140.180	141.680	140.267	141.340	7,545	11,668	11,668
85.50	566.48	-135.89	141.230	142.730	142.222	142.410	13,243	14,292	14,292
85.75	482.14	-137.15	142.280	143.780	142.886	143.485	8,664	11,285	11,285
86.00	552.29	-138.22	143.330	144.830	144.050	143.601	10,340	12,922	12,922
86.25	352.01	-138.92	144.380	145.880	144.863	145.124	6,955	9,289	9,289
86.50	506.60	-139.95	145.430	146.930	145.923	146.225	10,150	13,192	13,192
86.75	690.06	-141.39	146.480	147.980	147.199	147.358	12,795	15,159	15,159
87.00	270.03	-141.57	147.530	149.030	148.289	148.454	7,352	8,285	8,285

距離標 [km]	HQ式 $Q=A(H+B)^{-2}$		HWL (Y.P.m)	計画堤防高 (Y.P.m)	スライドダウン堤防高		スライドダウン流下能力		HWL 流下能力 [m ³ /s]
	係数A	係数B			左岸 (Y.P.m)	右岸 (Y.P.m)	左岸 [m ³ /s]	右岸 [m ³ /s]	
87.25	396.43	-143.34	148.160	149.660	149.470	149.615	8,498	9,210	9,210
87.50	514.34	-144.54	149.210	150.710	150.710	150.710	11,217	11,217	11,217
87.75	493.54	-145.55	150.230	151.730	151.730	151.729	10,805	10,805	10,805
88.00	399.84	-146.33	151.250	152.750	152.750	152.497	9,679	9,679	9,679
88.25	349.55	-147.14	152.285	153.785	153.785	153.785	9,253	9,253	9,253
88.50	177.92	-147.67	153.320	154.820	154.820	154.820	5,677	5,677	5,677
88.75	216.51	-148.56	154.365	155.865	155.865	155.865	7,286	7,286	7,286
89.00	391.31	-150.49	155.410	156.910	156.910	156.910	9,480	9,480	9,480
89.25	458.71	-151.76	156.690	158.190	158.190	158.190	11,144	11,144	11,144
89.50	470.60	-152.83	157.970	159.470	159.470	159.470	12,438	12,438	12,438
89.75	655.01	-154.35	159.270	160.770	160.770	160.770	15,888	15,888	15,888
90.00	372.73	-155.62	160.570	162.070	161.740	162.070	7,966	9,144	9,144
90.25	448.65	-156.58	161.875	163.375	163.375	163.375	12,569	12,569	12,569
90.50	415.99	-157.61	163.180	164.680	164.680	164.680	12,929	12,929	12,929
90.75	602.33	-159.27	164.455	165.955	165.955	165.955	16,168	16,168	16,168
91.00	295.33	-159.72	165.730	167.230	166.987	167.230	9,836	10,681	10,681
91.25	383.63	-161.54	167.085	168.585	168.089	168.507	9,768	11,783	11,783
91.50	415.36	-162.85	168.440	169.940	169.111	169.940	9,435	13,003	13,003
91.75	545.27	-164.10	169.545	171.045	170.134	171.045	11,194	16,148	16,148
92.00	468.49	-165.21	170.650	172.150	171.415	171.978	10,384	13,880	13,880
92.25	371.04	-166.21	172.125	173.625	173.353	173.142	11,836	13,004	13,004
92.50	349.34	-168.01	173.600	175.100	175.100	175.100	10,928	10,928	10,928
92.75	341.75	-168.70	174.925	176.425	176.425	176.425	13,230	13,230	13,230
93.00	414.56	-170.19	176.250	177.750	177.750	177.750	15,204	15,204	15,204
93.25	467.69	-171.53	177.505	179.005	179.005	179.005	16,703	16,703	16,703
93.50	411.20	-172.91	178.760	180.260	180.260	180.260	14,077	14,077	14,077
93.75	313.49	-173.82	180.040	181.540	181.540	181.540	12,120	12,120	12,120
94.00	415.91	-175.46	181.320	182.820	182.712	182.820	13,765	14,287	14,287
94.25	384.05	-176.86	182.585	184.085	184.085	183.056	12,601	12,601	12,601
94.50	398.67	-178.21	183.850	185.350	185.350	185.350	12,682	12,682	12,682
94.75	428.83	-179.99	185.185	186.685	186.685	186.607	11,569	11,569	11,569
95.00	412.20	-181.07	186.520	188.020	188.020	187.642	12,230	12,230	12,230
95.25	479.92	-182.43	187.780	189.280	189.280	189.280	13,731	13,731	13,731
95.50	426.21	-184.41	189.040	190.540	190.540	190.540	9,137	9,137	9,137
95.75	371.06	-184.95	190.315	191.815	191.815	191.815	10,680	10,680	10,680
96.00	379.73	-186.36	191.590	193.090	193.090	193.090	10,395	10,395	10,395
96.25	463.70	-187.47	192.875	194.375	194.165	194.375	12,534	13,567	13,567
96.50	350.09	-188.89	194.160	195.660	195.660	195.660	9,738	9,738	9,738
96.75	180.91	-189.10	195.450	196.950	196.950	196.950	7,304	7,304	7,304
97.00	165.78	-189.74	196.740	198.240	198.240	198.240	8,119	8,119	8,119
97.25	232.06	-191.54	198.250	199.750	199.750	199.750	10,445	10,445	10,445
97.50	365.80	-193.49	199.760	201.260	201.260	201.250	14,394	14,394	14,394
97.75	619.09	-195.37	200.900	202.400	202.400	202.210	18,912	18,912	18,912

距離標 [km]	Hq式 $Q=A(H+B)^2$		HWL (Y.P.m)	計画堤防高 (Y.P.m)	スライドダウン堤防高 (Y.P.m)		スライドダウン流下能力 [m ³ /s]		HWL 流下能力 [m ³ /s]
	係数A	係数B			左岸	右岸	左岸	右岸	
98.00	305.98	-195.99	202.040	203.540	203.540	201.783	11,192	11,192	11,192
98.25	373.91	-197.17	203.365	204.865	204.865	203.030	14,345	14,345	14,345
98.50	301.80	-198.25	204.690	206.190	206.190	204.473	12,505	12,505	12,505
98.75	359.16	-199.74	206.005	207.505	206.750	205.730	10,900	14,093	14,093
99.00	473.61	-201.64	207.320	208.820	207.847	207.065	10,516	15,307	15,307
99.25	482.06	-203.31	208.620	210.120	210.120	210.120	13,607	13,607	13,607
99.50	393.11	-205.04	209.920	211.420	211.420	211.420	9,346	9,346	9,346
99.75	321.49	-205.76	211.185	212.685	212.685	212.685	9,479	9,479	9,479
100.00	234.15	-206.54	212.450	213.950	213.950	213.950	8,181	8,181	8,181
100.25	111.80	-206.99	213.740	215.240	215.240	215.240	5,095	5,095	5,095
100.50	135.27	-208.13	215.030	216.530	216.530	216.530	6,442	6,442	6,442
100.75	193.27	-210.00	216.330	217.830	217.830	217.577	7,744	7,744	7,744
101.00	277.88	-212.02	217.630	219.130	219.130	219.130	8,755	8,755	8,755
101.25	241.42	-214.01	219.020	220.520	220.520	220.520	6,064	6,064	6,064
101.50	360.97	-215.45	220.410	221.910	221.910	221.910	8,887	8,887	8,887