

*** INPUT CARD PRINTOUT ***

	1	2	3	4	5	6	7	8
.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0								
1	1	WATAUGA RIVER 100YR AND FLOODWAY		SECOND	52	2	02	99 10
2	159	291861	291961					
3	160	J 1	26 5 2909	6529	99	99		
4	161	14690	14690					
5	162	-470	1 29232	-449	1 29180	-443	1 29135	-437 1 29153 -427 1 29174
5	163	-420	1 29164	-370	1 29143	-270	1 29133	-220 1 29141 -170 1 29115
5	164	-120	1 29114	-84	2 29130	-70	2 29107	-50 2 29108 -38 3 29094
5	165	-30	3 29068	-26	3 29067	-20	3 29061	0 3 29063 28 3 29058
5	166	38	3 29066	42	4 29097	60	4 29119	70 5 29145 80 5 29225
5	167	93	5 29233					
6	169	1	2 035 035	1	2 035 035	4	5 040 040	1 2 060 060 1 2 060 060
3	170	J.3	0 26 5 2913	7216	99	99		
5	172	-470	1 29273	-449	1 29221	-443	1 29176	-437 1 29194 -427 1 29215
5	173	-420	1 29205	-370	1 29184	-270	1 29174	-220 1 29182 -170 1 29156
5	174	-120	1 29155	-84	2 29171	-70	2 29148	-50 2 29149 -38 3 29135
5	175	-30	3 29109	-26	3 29108	-20	3 29102	0 3 29104 28 3 29099
5	176	38	3 29107	42	4 29138	60	4 29160	70 5 29186 80 5 29266
5	177	93	5 29274					
6	179	1	2 035 035	1	2 035 035	4	5 040 040	1 2 060 060 1 2 060 060
3	181	J.7	0 26 5 2917	7903	99	99		
5	183	-470	1 29314	-449	1 29262	-443	1 29217	-437 1 29235 -427 1 29256
5	184	-420	1 29246	-370	1 29225	-270	1 29215	-220 1 29223 -170 1 29197
5	185	-120	1 29196	-84	2 29212	-70	2 29189	-50 2 29190 -38 3 29176
5	186	-30	3 29150	-26	3 29149	-20	3 29143	0 3 29145 28 3 29140
5	187	38	3 29148	42	4 29179	60	4 29201	70 5 29227 80 5 29307
5	188	93	5 29315					
6	190	1	2 035 035	1	2 035 035	4	5 040 040	1 2 060 060 1 2 060 060
3	1175	K 0	46 5 2921	8590	99	99		
5	1177	-894	1 29362	-794	1 29316	-694	1 29297	-594 1 29286 -494 1 29272
5	1178	-394	1 29275	-294	1 29269	-194	2 29270	-94 2 29249 -83 2 29238
5	1179	-63	2 29221	-33	2 29213	-22	2 29201	-7 2 29194 0 2 29181
5	1180	8	2 29186	12	2 29201	15	3 29251	26 3 29255 51 3 29246
5	1181	67	3 29237	106	3 29235	128	4 29242	141 4 29218 178 4 29208
5	1182	190	4 29221	196	4 29197	202	4 29173	206 4 29160 213 4 29154
5	1183	222	4 29164	229	4 29172	233	4 29198	240 4 29207 251 4 29205
5	1184	274	5 29246	306	5 29252	406	5 29240	506 5 29249 606 5 29245
5	1185	706	5 29263	806	5 29277	906	5 29285	984 5 29303 1027 5 29340
5	1186	1046	5 29366					
6	1188	1	2 035 035	4	5 040 040	1	2 045 045	4 5 040 040 1 2 065 065
3	1190	L 1	36 3 2929	9545	99	99		
4	1191	13440	13440					
5	1192	-712	1 29427	-707	1 29388	-701	1 29406	-698 1 29409 -668 1 29422
5	1193	-653	1 29407	-612	1 29378	-512	1 29370	-412 1 29385 -312 1 29388
5	1194	-212	1 29383	-134	1 29352	-95	2 29314	-91 2 29286 -87 2 29289
5	1195	-84	2 29296	-83	2 29290	-62	2 29299	-32 2 29306 -18 2 29298

*** INPUT CARD PRINTOUT ***

	1	2	3	4	5	6	7	8
6 2259	1	2 090 090	4 5 040 040	1 2 085 085				
3 2270	P 0	25 4 2952	12547 99 99					
5 2272	-93	1 29657	-82 1 29632	-75 1 29586	-59 1 29551	-43 2 29565		
5 2273	-13	2 29515	-5 2 29498	0 2 29487	4 2 29494	9 2 29515		
5 2274	16	3 29540	28 4 29572	39 4 29574	65 4 29574	112 4 29611		
5 2275	160	4 29609	212 4 29604	251 4 29609	264 4 29619	276 4 29598		
5 2276	298	4 29600	301 4 29619	312 4 29642	332 4 29659	390 4 29680		
6 2278	1	2 065 065	4 5 045 045	1 2 075 075	1 2 075 075			
3 2284	0 1	43 3 2967	13845 99 99					
4 2285	8930	8930						
5 2286	-741	1 29796	-719 1 29703	-701 1 29698	-678 1 29730	-663 1 29731		
5 2287	-648	1 29743	-618 1 29753	-610 1 29744	-601 1 29707	-549 1 29699		
5 2288	-544	1 29674	-541 1 29668	-538 1 29673	-527 1 29714	-461 1 29727		
5 2289	-401	1 29713	-341 1 29692	-281 1 29677	-236 1 29638	-171 1 29656		
5 2290	-101	1 29671	-80 1 29659	-69 1 29700	-64 2 29700	-55 2 29656		
5 2291	-54	2 29644	-24 2 29655	-15 2 29651	0 2 29648	9 2 29643		
5 2292	25	2 29656	29 2 29670	29 3 29711	54 3 29722	71 3 29717		
5 2293	89	3 29701	98 3 29688	111 3 29692	125 3 29755	142 3 29757		
5 2294	146	3 29745	193 3 29770	219 3 29800				
6 2296	1	2 070 070	4 5 045 045	1 2 065 065				
3 2300	R 0	15 3 2970	14470 99 99					
5 2302	-52	1 29820	-44 1 29796	-26 1 29702	-10 2 29702	-6 2 29682		
5 2303	-5	2 29679	-2 2 29671	0 2 29664	9 2 29669	15 2 29679		
5 2304	32	2 29688	34 3 29705	45 3 29729	75 3 29750	94 3 29809		
6 2306	1	2 085 085	4 5 055 055	1 2 080 080				
3 2310	RX 0	26 3 2975	14540 99 99					
5 2312	-694	1 29842	-680 1 29838	-594 1 29812	-494 1 29803	-394 1 29811		
5 2313	-294	1 29812	-194 1 29801	-94 1 29790	-36 1 29787	-33 2 29787		
5 2314	-33	2 29752	-15 2 29733	-11 2 29725	-5 2 29711	0 2 29712		
5 2315	3	2 29716	5 2 29715	16 2 29720	30 2 29725	30 2 29739		
5 2316	38	2 29742	42 2 29744	42 3 29785	56 3 29791	106 3 29805		
5 2317	200	3 30000						
6 2318	1	2 065 065	4 5 045 045	1 2 070 070				
3 2320	RX.5 0	31 5 2975	14588 99 99					
5 2322	-703	1 29861	-682 1 29827	-671 1 29790	-669 1 29786	-667 1 29788		
5 2323	-666	1 29801	-583 1 29808	-503 1 29799	-457 1 29796	-426 1 29831		
5 2324	-403	1 29829	-318 1 29824	-311 1 29813	-295 1 29755	-97 1 29742		
5 2325	-58	1 29755	-58 1 29751	-33 2 29749	-18 3 29747	-16 3 29729		
5 2326	-9	3 29719	0 3 29728	8 3 29723	13 3 29730	33 3 29732		
5 2327	42	4 29750	50 5 29767	67 5 29774	93 5 29772	100 5 29834		
5 2328	109	5 29857						
6 2330	1	2 045 045	1 2 060 060	4 5 048 048	4 5 065 065	1 2 065 065		
3 3330	S 0	31 5 2975	14635 99 99					
5 3332	-703	1 29869	-682 1 29835	-671 1 29798	-669 1 29794	-667 1 29796		
5 3333	-666	1 29809	-583 1 29816	-503 1 29807	-457 1 29804	-426 1 29839		

*** INPUT CARD PRINTOUT ***

	1	2	3	4	5	6	7	8
5 3334	-403	1 29837	-318	1 29832	-311	1 29821	-295	1 29763 -97 1 29750
5 3335	-68	1 29763	-58	1 29759	-33	2 29757	-18	3 29755 -16 3 29737
5 3336	-9	3 29727	0	3 29731	8	3 29731	13	3 29738 33 3 29740
5 3337	42	4 29758	50	5 29775	67	5 29782	93	5 29780 100 5 29842
5 3338	109	5 29865						
6 3340	1 2 045 045	1 2 060 060	4 5 048 048	4 5 065 065	1 2 065 065			
3 3350	5.5 0	26 3 2980	15075 99	99				
5 3352	-785	1 29913	-780	1 29880	-685	1 29876	-585	1 29870 -485 1 29867
5 3353	-443	1 29863	-415	1 29854	-385	1 29866	-341	1 29849 -326 1 29802
5 3354	-272	1 29805	-240	1 29807	-225	1 29790	-185	1 29798 -115 1 29809
5 3355	-53	1 29807	-35	2 29836	-16	2 29782	-5	2 29773 0 2 29768
5 3356	8	2 29769	17	2 29782	39	3 29826	100	3 29834 111 3 29889
5 3357	118	3 29913						
6 3359	1 2 048 048	4 5 045 045	1 2 080 080					
3 4345	T 0	26 3 2984	15515 99	99				
5 4347	-785	1 29953	-780	1 29920	-685	1 29916	-585	1 29910 -485 1 29907
5 4348	-443	1 29903	-415	1 29894	-385	1 29906	-341	1 29889 -326 1 29842
5 4349	-272	1 29845	-240	1 29847	-225	1 29830	-185	1 29838 -115 1 29849
5 4350	-53	1 29847	-35	2 29816	-16	2 29822	-5	2 29813 0 2 29808
5 4351	8	2 29809	17	2 29822	39	3 29866	100	3 29874 111 3 29929
5 4352	118	3 29953						
6 4354	1 2 048 048	4 5 045 045	1 2 080 080					
3 4360	T.1 0	25 3 2984	15615 99	99				
5 4362	-785	1 29959	-780	1 29926	-685	1 29922	-585	1 29916 -485 1 29913
5 4363	-443	1 29909	-415	1 29900	-385	1 29912	-341	1 29895 -326 1 29848
5 4364	-272	1 29851	-240	1 29853	-225	1 29836	-185	1 29844 -115 1 29855
5 4365	-53	1 29853	-35	2 29882	-16	2 29828	-5	2 29819 0 2 29814
5 4366	8	2 29815	17	2 29828	39	3 29872	100	3 29880 111 3 29935
5 4367	118	3 29959						
6 4369	1 2 048 048	4 5 045 045	1 2 080 080					
3 4380	T.5 0	21 3 2989	16240 99	99				
5 4382	-215	1 30011	-165	1 29993	-115	1 29999	-65	1 29993 -55 1 29984
5 4383	-45	1 29917	-25	2 29911	-20	2 29870	-15	2 29856 -9 2 29850
5 4384	0	2 29861	10	2 29870	18	2 29888	32	3 29904 35 3 29918
5 4385	55	3 29934	60	3 29964	66	3 29984	85	3 29989 125 3 30002
5 4386	178	3 30023						
6 4388	1 2 075 075	4 5 045 045	1 2 080 080					
3 5364	U 0	21 3 2992	16865 99	99				
5 5366	-215	1 30048	-165	1 30035	-115	1 30036	-65	1 30030 -55 1 30021
5 5367	-45	1 29954	-25	2 29948	-20	2 29907	-15	2 29893 -9 2 29887
5 5368	0	2 29898	10	2 29907	18	2 29925	32	3 29941 35 3 29955
5 5369	55	3 29971	60	3 30001	66	3 30021	85	3 30026 125 3 30039
5 5370	178	3 30060						
6 5371	1 2 075 075	4 5 045 045	1 2 080 080					
3 5382	UX 0	26 3 2994	16887 99	99				

*** INPUT CARD PRINTOUT ***

	1	2	3	4	5	6	7	8
5 5384	-83	1 30040	-60	1 30036	-52	2 30036	-52	2 29983 -39 2 29946
5 5385	-21	2 29957	-15	2 29936	-11	2 29936	-11	2 29907 -6 2 29900
5 5386	0	2 29904	9	2 29906	15	2 29913	20	2 29923 25 2 29939
5 5387	29	2 29940	32	2 29927	46	2 29945	58	2 29969 66 2 30000
5 5388	66	3 30036	74	3 30037	124	3 30046	155	3 30055 164 3 30059
5 5389	164	3 30100						
6 5390	1	2 062 062	4	5 050 050	1	2 070 070		
3 5412	V 0	23 5 2995		17000 99 99				
5 5414	-95	1 30071	-82	1 30059	-73	1 30060	-70	1 30046 -52 2 30033
5 5415	-23	3 30012	-10	3 29933	-6	3 29925	0	3 29922 5 3 29927
5 5416	20	3 29933	32	3 29934	33	3 29956	38	3 29969 43 3 30006
5 5417	57	4 30027	65	4 30010	66	5 30012	82	5 30041 97 5 30097
5 5418	105	5 30043	155	5 30055	171	5 30063		
6 5420	1	2 055 055	1	2 055 055	4	5 050 050	1	2 065 065 1 2 065 065
3 5430	W 0	33 3 3003		17490 99 99				
5 5432	-245	1 30127	-215	1 30113	-200	1 30089	-190	1 30048 -175 1 30041
5 5433	-170	1 30034	-163	1 30045	-125	1 30039	-89	2 30038 -87 2 30027
5 5434	-85	2 30039	-78	2 30023	-75	2 30019	-70	2 30016 -64 2 30013
5 5435	-59	2 30015	-52	2 30019	-45	2 30020	-13	2 30004 -7 2 29996
5 5436	0	2 29995	10	2 29995	15	2 30000	28	2 30018 47 2 29997
5 5437	51	2 30022	61	2 30008	64	2 30014	82	3 30025 157 3 30049
5 5438	168	3 30073	194	3 30108	214	3 30123		
6 5439	1	2 055 055	4	5 050 050	1	2 065 065		
3 5440	W.3 0	33 3 3011		18073 99 99				
5 5442	-245	1 30204	-215	1 30190	-200	1 30166	-190	1 30125 -175 1 30118
5 5443	-170	1 30111	-163	1 30122	-125	1 30116	-89	2 30115 -87 2 30104
5 5444	-85	2 30116	-78	2 30100	-75	2 30096	-70	2 30093 -64 2 30090
5 5445	-59	2 30092	-52	2 30096	-45	2 30097	-13	2 30081 -7 2 30073
5 5446	0	2 30072	10	2 30072	15	2 30077	28	2 30095 47 2 30074
5 5447	51	2 30099	61	2 30085	64	2 30091	82	3 30102 157 3 30126
5 5448	168	3 30150	194	3 30185	214	3 30200		
6 5450	1	2 055 055	4	5 050 050	1	2 065 065		
3 5460	W.7 0	28 3 3018		18657 99 99				
5 5462	-357	1 30277	-350	1 30246	-307	1 30215	-257	1 30181 -207 1 30179
5 5463	-157	1 30175	-142	1 30148	-134	1 30172	-107	1 30166 -67 1 30214
5 5464	-57	2 30226	-22	2 30189	-17	2 30170	-9	2 30158 -5 2 30154
5 5465	0	2 30152	6	2 30148	13	2 30158	18	2 30189 23 2 30213
5 5466	24	2 30229	43	3 30245	91	3 30226	93	3 30258 115 3 30265
5 5467	131	3 30268	138	3 30255	143	3 30277		
6 5469	1	2 045 045	4	5 050 050	1	2 055 055		
3 6421	X 0	28 3 3026		19240 99 99				
5 6422	-357	1 30354	-350	1 30323	-307	1 30292	-257	1 30258 -207 1 30256
5 6423	-157	1 30252	-142	1 30225	-134	1 30249	-107	1 30243 -67 1 30291
5 6424	-57	2 30303	-22	2 30266	-17	2 30247	-9	2 30235 -5 2 30231
5 6425	0	2 30229	6	2 30225	13	2 30235	18	2 30266 23 2 30290

*** INPUT CARD PRINTOUT ***

	1	2	3	4	5	6	7	8
5 6426	24	2 30306	43	3 30322	91	3 30303	93	3 30335 115 3 30342
5 6427	131	3 30345	138	3 30332	143	3 30354		
6 6429	1 2 045 045	4	5 050 050	1	2 055 055			
3 6435	X.1 0	28 3 3027	19340	99 99				
5 6437	-357	1 30368	-350	1 30337	-307	1 30306	-257	1 30272 -207 1 30270
5 6438	-157	1 30266	-142	1 30239	-134	1 30263	-107	1 30257 -67 1 30305
5 6439	-57	2 30317	-22	2 30280	-17	2 30261	-9	2 30249 -5 2 30245
5 6440	0	2 30243	6	2 30239	13	2 30249	18	2 30280 -23 2 30304
5 6441	24	2 30320	43	3 30336	91	3 30317	93	3 30349 115 3 30356
5 6442	131	3 30359	138	3 30346	143	3 30368		
6 6444	1 2 045 045	4	5 050 050	1	2 055 055			
3 6450	X.5 0	37 3 3037	20030	99 99				
5 6452	-107	1 30460	-97	1 30457	-74	1 30418	-55	1 30378 -47 1 30379
5 6453	-41	1 30397	-28	2 30383	-22	2 30360	-21	2 30346 -20 2 30336
5 6454	-9	2 30341	0	2 30341	9	2 30339	22	2 30346 26 2 30348
5 6455	35	3 30386	49	3 30375	93	3 30377	143	3 30371 153 3 30490
5 6456	196	3 30388	210	3 30367	243	3 30374	343	3 30366 443 3 30349
5 6457	455	3 30342	458	3 30328	462	3 30347	489	3 30344 493 3 30355
5 6458	518	3 30366	525	3 30379	568	3 30391	603	3 30362 672 3 30362
5 6459	703	3 30442	718	3 30469				
6 6461	1 2 065 065	4	5 050 050	1	2 060 060			
3 6470	Y 0	37 3 3046	20720	99 99				
5 6472	-107	1 30557	-97	1 30554	-74	1 30515	-55	1 30475 -47 1 30476
5 6473	-41	1 30494	-28	2 30480	-22	2 30457	-21	2 30443 -20 2 30433
5 6474	-9	2 30438	0	2 30438	9	2 30436	22	2 30443 26 2 30445
5 6475	35	3 30483	49	3 30472	93	3 30474	143	3 30468 153 3 30487
5 6476	196	3 30485	210	3 30464	243	3 30471	343	3 30463 443 3 30446
5 6477	455	3 30439	458	3 30425	462	3 30444	489	3 30441 493 3 30452
5 6478	518	3 30463	525	3 30476	568	3 30488	603	3 30459 672 3 30459
5 6479	703	3 30539	718	3 30566				
6 6481	1 2 065 065	4	5 050 050	1	2 060 060			
3 6491	YX 0	15 3 3047	20744	99 99				
5 6493	-132	1 30572	-24	2 30545	-24	2 30434	-12	2 30439 2 2 30439
5 6494	14	2 30444	24	2 30438	24	3 30545	68	3 30533 168 3 30491
5 6495	268	3 30469	368	3 30457	468	3 30453	568	3 30479 668 3 30518
6 6497	1 2 062 062	4	5 050 050	1	2 057 057			
3 6521	Z 0	38 5 3047	20820	99 99				
5 6523	-213	1 30585	-207	1 30532	-168	1 30513	-153	1 30499 -136 1 30488
5 6524	-134	1 30482	-116	1 30476	-83	1 30486	-75	1 30502 -48 1 30473
5 6525	-32	2 30504	-24	3 30455	-23	3 30449	-18	3 30440 0 3 30446
5 6526	19	3 30449	24	4 30453	28	4 30453	34	4 30455 37 4 30493
5 6527	47	5 30522	49	5 30513	75	5 30514	97	5 30535 112 5 30531
5 6528	158	5 30452	187	5 30447	242	5 30448	287	5 30446 312 5 30488
5 6529	387	5 30492	477	5 30496	507	5 30490	547	5 30545 565 5 30545
5 6530	618	5 30551	631	5 30545	651	5 30573		

*** INPUT CARD PRINTOUT ***

	1	2	3	4	5	6	7	8
6 6532	1	2 065 065	1	2 065 065	4	5 050 050	1	2 060 060
3 6542	BA 0	24	3 3051	21365	99	99		
5 6544	-548	1 30608	-528	1 30523	-512	1 30559	-461	1 30545
5 6545	-348	1 30544	-314	1 30532	-302	1 30520	-277	1 30533
5 6546	-148	1 30517	-116	1 30523	-68	1 30574	-64	2 30584
5 6547	-8	2 30487	-4	2 30480	0	2 30479	6	2 30480
5 6548	14	2 30518	32	2 30573	35	3 30603	82	3 30611
6 6550	1	2 068 058	4	5 050 050	1	2 055 055		
3 6560	BB 0	28	3 3065	22020	99	99		
5 6562	-432	1 30749	-382	1 30731	-332	1 30722	-282	1 30729
5 6563	-182	1 30691	-132	1 30695	-82	1 30685	-62	1 30660
5 6564	-35	2 30640	-23	2 30636	-16	2 30623	0	2 30628
5 6565	28	2 30636	38	3 30656	43	3 30650	73	3 30684
5 6566	118	3 30698	128	3 30653	138	3 30683	153	3 30636
5 6567	186	3 30674	208	3 30685	218	3 30751		
6 6569	1	2 035 035	4	5 050 050	1	2 065 065		
3 6580	BBX 0	22	3 3066	22052	99	99		
5 6582	-331	1 30760	-310	1 30756	-210	1 30728	-110	1 30711
5 6583	-28	2 30718	-28	2 30637	-21	2 30636	-17	2 30625
5 6584	-9	2 30646	-3	2 30644	-2	2 30700	1	2 30700
5 6585	11	2 30646	20	2 30617	26	2 30631	26	3 30718
5 6586	158	3 30723	158	3 30800				
6 6588	1	2 040 040	4	5 050 050	1	2 060 060		
3 6613	BC 0	34	4 3066	22114	99	99		
5 6615	-331	1 30760	-291	1 30718	-221	1 30712	-181	1 30699
5 6616	-131	1 30711	-94	1 30705	-84	1 30713	-81	1 30689
5 6617	-41	1 30693	-29	2 30695	-22	2 30669	-17	2 30665
5 6618	-5	2 30633	0	2 30640	6	2 30635	14	2 30642
5 6619	26	3 30664	33	4 30686	63	4 30688	71	4 30692
5 6620	94	4 30709	106	4 30705	119	4 30685	138	4 30716
5 6630	177	4 30645	197	4 30691	212	4 30751	219	4 30770
6 6632	1	2 050 050	4	5 050 050	4	5 060 060	1	2 060 060
3 6642	BD 0	34	3 3073	22825	99	99		
5 6644	-263	1 30843	-203	1 30835	-133	1 20834	-93	1 30819
5 6645	-43	2 30824	-27	2 30745	-19	2 30738	-7	2 30734
5 6646	5	2 30731	8	2 30737	13	2 30747	30	2 30756
5 6647	97	3 30790	137	3 30788	187	3 30768	221	3 30754
5 6648	287	3 30810	337	3 30803	387	3 30810	437	3 30802
5 6649	517	3 30802	524	3 30813	535	3 30821	547	3 30813
5 6650	569	3 30782	572	3 30797	581	3 30818	598	3 30856
6 6652	1	2 055 055	4	5 052 052	1	2 060 060		
3 6660	BD.3 0	34	3 3081	23208	99	99		
5 6662	-263	1 30896	-203	1 30888	-133	1 30887	-93	1 30872
5 6663	-43	2 30877	-27	2 30798	-19	2 30791	-7	2 30787
5 6664	5	2 30784	8	2 30790	13	2 30800	30	2 30809

*** INPUT CARD PRINTOUT ***

	1	2	3	4	5	6	7	8			
5	6665	97	3 30843	137	3 30841	187	3 30821	221	3 30807	237	3 30869
5	6666	287	3 30863	337	3 30856	387	3 30863	437	3 30855	487	3 30845
5	6667	517	3 30855	524	3 30866	535	3 30874	547	3 30866	567	3 30846
5	6668	569	3 30835	572	3 30850	581	3 30871	598	3 30909		
6	6670	1	2 055 055	4	5 052 052	1	2 060 060				
3	6680	RD.7	0 29	3 3087	23592	99	99				
5	6682	-361	1 30951	-311	1 30896	-275	1 30887	-267	1 30865	-254	1 30875
5	6683	-198	1 30905	-181	1 30921	-169	1 30917	-161	1 30916	-134	1 30889
5	6684	-106	1 30873	-91	1 30884	-75	1 30883	-58	1 30865	-19	2 30876
5	6685	-17	2 30845	-9	2 30841	0	2 30842	9	2 30835	19	2 30845
5	6686	24	2 30862	27	3 30900	39	3 30898	52	3 30889	63	3 30897
5	6687	64	3 30933	103	3 30939	159	3 30936	192	3 30953		
6	6789	1	2 070 070	4	5 055 055	1	2 065 065				
3	7662	BE 0	30	3 3092	23975	99	99				
5	7664	-361	1 31004	-311	1 30949	-275	1 30940	-267	1 30918	-254	1 30928
5	7665	-224	1 30916	-198	1 30958	-181	1 30974	-169	1 30970	-161	1 30969
5	7666	-134	1 30942	-106	1 30926	-91	1 30937	-75	1 30936	-58	1 30918
5	7667	-19	2 30929	-17	2 30898	-9	2 30894	0	2 30895	9	2 30888
5	7668	19	2 30898	24	2 30915	27	3 30953	39	3 30951	52	3 30942
5	7669	63	3 30950	84	3 30986	103	3 30992	159	3 30989	192	3 31006
6	7671	1	2 070 070	4	5 055 055	1	2 065 065				
3	7680	RE.1	0 30	3 3093	24075	99	99				
5	7682	-361	1 31018	-311	1 30963	-275	1 30954	-267	1 30932	-254	1 30942
5	7683	-224	1 30930	-198	1 30972	-181	1 30988	-169	1 30984	-161	1 30983
5	7684	-134	1 30956	-106	1 30940	-91	1 30951	-75	1 30950	-58	1 30932
5	7685	-19	2 30943	-17	2 30912	-9	2 30908	0	2 30909	9	2 30902
5	7686	19	2 30912	24	2 30929	27	3 30967	39	3 30965	52	3 30956
5	7687	63	3 30964	84	3 31000	103	3 31006	159	3 31003	192	3 31020
6	7689	1	2 070 070	4	5 055 055	1	2 065 065				
3	7700	RF.5	0 31	3 3100	24535	99	99				
5	7702	-137	1 31080	-122	1 31060	-114	1 31049	-112	1 31042	-110	1 31032
5	7703	-109	1 31020	-108	1 31039	-107	1 31043	-87	1 31049	-79	1 31033
5	7704	-63	1 31027	-54	1 31001	-47	1 31005	-37	1 31012	-30	1 31030
5	7705	-21	1 31027	-14	2 31033	-13	2 30993	-7	2 30977	-4	2 30967
5	7706	0	2 30971	5	2 30978	13	2 30990	22	3 31022	50	3 31027
5	7707	63	3 31003	73	3 31000	103	3 31006	126	3 31003	143	3 31058
5	7708	149	3 31078								
6	7710	1	2 070 070	4	5 055 055	1	2 065 065				
3	8681	RF 0	31	3 3106	24995	99	99				
5	8683	-137	1 31144	-122	1 31124	-114	1 31113	-112	1 31106	-110	1 31096
5	8684	-109	1 31084	-108	1 31103	-101	1 31107	-87	1 31113	-79	1 31097
5	8685	-63	1 31091	-54	1 31065	-47	1 31069	-37	1 31076	-30	1 31094
5	8686	-21	1 31091	-14	2 31097	-13	2 31057	-7	2 31041	-4	2 31031
5	8687	0	2 31035	5	2 31042	13	2 31054	22	3 31086	50	3 31091
5	8688	63	3 31067	73	3 31064	103	3 31070	126	3 31067	143	3 31122

*** INPUT CARD PRINTOUT ***

	1	2	3	4	5	6	7	8
5 8689	149	3	31142					
6 8691	1	2	070 070	4	5	055 055	1	2 065 065
3 8700	RF.3	0	31	3	3116	25407	99	99
5 8702	-137	1	31241	-122	1	31221	-114	1 31210 -112 1 31203 -110 1 31193
5 8703	-109	1	31181	-108	1	31200	-101	1 31210 -79 1 31194
5 8704	-63	1	31188	-54	1	31162	-47	1 31166 -37 1 31173 -30 1 31191
5 8705	-21	1	31188	-14	2	31194	-13	2 31154 -7 2 31138 -4 2 31128
5 8706	0	2	31132	5	2	31139	13	2 31151 22 3 31183 50 3 31188
5 8707	63	3	31164	73	3	31161	103	3 31167 126 3 31164 143 3 31219
5 8708	149	3	31239					
6 8710	1	2	070 070	4	5	055 055	1	2 065 065
3 8720	RF.7	0	25	3	3126	25818	99	99
5 8722	-539	1	31335	-524	1	31258	-486	1 31258 -465 1 31242 -383 1 31242
5 8723	-362	1	31279	-339	1	31277	-289	1 31287 -239 1 31278 -189 2 31267
5 8724	-139	2	31234	-105	2	31221	-97	2 31208 -76 2 31210 -42 2 31248
5 8725	-24	2	31230	-11	2	31225	0	2 31225 14 2 31233 33 2 31241
5 8726	41	2	31230	56	3	31279	61	3 31269 126 3 31310 156 3 31338
6 8728	1	2	075 075	4	5	055 055	1	2 080 080
3 9701	RG	0	25	3	3125	26230	99	99
5 9703	-539	1	31432	-524	1	31355	-486	1 31355 -465 1 31339 -383 1 31339
5 9704	-362	1	31376	-339	1	31374	-289	1 31384 -239 1 31375 -189 2 31364
5 9705	-139	2	31331	-105	2	31318	-97	2 31305 -76 2 31307 -42 2 31345
5 9706	-24	2	31327	-11	2	31322	0	2 31322 14 2 31330 33 2 31338
5 9707	41	2	31327	56	3	31376	61	3 31366 126 3 31407 156 3 31435
6 9709	1	2	075 075	4	5	055 055	1	2 080 080
3 9719	RGX	0	23	3	3135	26251	99	99
5 9721	-511	1	31437	-411	1	31402	-311	1 31391 -211 1 31383 -111 1 31372
5 9722	-29	2	31365	-29	2	31316	-22	2 31319 -16 2 31316 -6 2 31319
5 9723	-1	2	31328	-1	2	31350	-2	2 31350 2 2 31332 7 2 31337
5 9724	13	2	31337	17	2	31332	21	2 31331 25 2 31332 29 2 31337
5 9725	29	3	31366	89	3	31392	144	3 31434
6 9727	1	2	072 072	4	5	052 052	1	2 061 061
3 9740	RGX	5	42	5	3135	26288	99	99
5 9742	-650	1	31440	-615	1	31428	-530	1 31408 -450 1 31404 -412 1 31377
5 9743	-410	1	31367	-407	1	31361	-403	1 31359 -396 1 31361 -390 1 31356
5 9744	-360	1	31371	-337	1	31371	-296	1 31365 -282 1 31367 -279 1 31387
5 9745	-253	1	31391	-262	1	31374	-247	1 31371 -204 1 31352 -155 1 31359
5 9746	-106	1	31361	-77	1	31355	-47	1 31350 -36 2 31395 -29 3 31384
5 9747	-24	3	31346	-6	3	31329	-3	3 31326 0 3 31325 3 3 31326
5 9748	6	3	31331	8	3	31334	15	3 31343 29 4 31360 36 4 31369
5 9749	43	5	31371	53	5	31370	104	5 31369 154 5 31382 210 5 31385
5 9750	250	5	31398	281	5	31431		
6 9752	1	2	075 075	1	2	075 075	4	5 055 055 4 5 048 048 1 2 048 048
3 10750	RG	0	42	5	3136	26325	99	99
5 10752	-650	1	31448	-615	1	31436	-530	1 31416 -450 1 31412 -412 1 31395

*** INPUT CARD PRINTOUT ***

	1	2	3	4	5	6	7	8
5 10753	-410	1 31375	-407	1 31369	-403	1 31367	-396	1 31369 -390 1 31364
5 10754	-360	1 31379	-337	1 31379	-296	1 31373	-282	1 31375 -279 1 31395
5 10755	-263	1 31399	-262	1 31382	-247	1 31379	-204	1 31360 -155 1 31367
5 10756	-106	1 31369	-77	1 31363	-47	1 31358	-36	2 31403 -29 3 31392
5 10757	-24	3 31354	-6	3 31337	-3	3 31334	0	3 31333 3 3 31334
5 10758	6	3 31339	8	3 31342	15	3 31351	29	4 31368 36 4 31377
5 10759	43	5 31379	53	5 31378	104	5 31377	154	5 31390 210 5 31393
5 10760	250	5 31406	281	5 31439				
6 10762	1 2 075 075	1 2 075 075	4 5 055 055	4 5 048 048	1 2 048 048			
3 10780	RH.5 0	41 5 3143	26680 99	99				
5 10782	-650	1 31515	-615	1 31503	-530	1 31483	-450	1 31479 -412 1 31452
5 10783	-410	1 31442	-407	1 31436	-403	1 31434	-396	1 31436 -390 1 31431
5 10784	-360	1 31446	-337	1 31446	-296	1 31440	-282	1 31442 -279 1 31462
5 10785	-263	1 31466	-262	1 31449	-247	1 31446	-204	1 31427 -155 1 31434
5 10786	-106	1 31436	-77	1 31430	-47	1 31425	-36	2 31470 -29 3 31459
5 10787	-24	3 31421	-6	3 31404	-3	3 31401	0	3 31400 3 3 31401
5 10788	6	3 31406	8	3 31409	15	3 31418	36	4 31444 43 5 31446
5 10789	53	5 31445	104	5 31444	154	5 31457	210	5 31460 250 5 31473
5 10790	281	5 31506						
6 10792	1 2 075 075	1 2 075 075	4 5 055 055	4 5 048 048	1 2 048 048			
3 11772	BI 0	36 3 3150	27035 99	99				
5 11774	-675	1 31588	-627	1 31581	-614	1 31502	-563	1 31480 -504 1 31477
5 11775	-475	1 31468	-375	1 31456	-275	1 31467	-271	1 31466 -269 1 31453
5 11776	-267	1 31443	-265	1 31439	-260	1 31438	-258	1 31454 -255 1 31467
5 11777	-198	1 31463	-175	1 31461	-125	1 31448	-95	1 31461 -75 1 31483
5 11778	-53	1 31473	-44	1 31510	-23	2 31533	-8	2 31476 -6 2 31472
5 11779	-3	2 31469	0	2 31467	2	2 31467	14	2 31472 25 2 31487
5 11780	36	2 31498	41	3 31524	52	3 31501	66	3 31537 81 3 31544
5 11781	87	3 31580						
6 11783	1 2 075 075	4 5 055 055	1 2 060 060					

INPUT SUMMARY FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND

52 CROSS SECTIONS SPECIFIED (OR ASSUMED)

FOUND 51 TYPE 3 CARDS

KEPT 51 CROSS SECTIONS FOR EDITING

51 " " VALID FOR PROPERTY COMPUTATIONS

51 " " " " PROFILE "

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= J AT DISTANCE= 6529 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2909.0	202	14108	1.00	78	79	-36	41	1851
2918.9	3530	529125	1.16	528	534	-452	75	48118
2923.3	5909	1177775	1.08	563	571	-469	93	104664

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= J.3 AT DISTANCE= 7216 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2913.0	195	13275	1.00	77	79	-35	41	1751
2922.9	3477	517106	1.16	528	534	-451	75	46986
2927.4	5910	1177840	1.08	563	571	-469	93	104670

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= J.7 AT DISTANCE= 7903 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2917.0	187	12456	1.00	77	78	-35	41	1652
2926.9	3424	505162	1.17	527	533	-451	75	45858
2931.5	5910	1177831	1.08	563	571	-469	93	104670

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= K AT DISTANCE= 8590 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2921.0	335	14270	1.04	113	116	-29	254	1877
2930.9	8887	937765	1.51	1748	1755	-756	991	92384
2936.6	19492	3050504	1.27	1940	1947	-893	1046	311311

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= L AT DISTANCE= 9545 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2929.0	72	3940	1.00	39	40	-91	16	555
2938.9	4357	441565	1.58	984	989	-706	356	41369
2944.2	9943	1347088	1.33	1100	1108	-711	388	146993

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= M AT DISTANCE= 10180 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2934.0	127	6481	1.50	148	150	-227	60	546
2943.9	6201	496488	1.79	1025	1032	-824	228	64598
2947.6	10222	1039036	1.49	1120	1129	-854	265	143636

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= N AT DISTANCE= 11245 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2944.0	937	35946	1.43	440	442	-164	420	6493
2953.9	7461	766812	1.40	725	732	-270	454	114828
2957.1	9879	1165582	1.42	780	789	-314	465	167542

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= N.3 AT DISTANCE= 11575 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2947.0	1026	40060	1.19	452	455	-164	421	8045
2956.9	7606	883950	1.36	726	734	-270	455	119730
2959.9	9804	1327024	1.38	738	748	-272	465	172539

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= N.7 AT DISTANCE= 11978 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2950.0	134	8783	1.00	57	58	-30	25	1172
2959.9	2824	244005	2.31	515	523	-71	443	24687
2965.5	5852	677596	2.05	557	570	-88	468	75187

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= O AT DISTANCE= 12380 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2953.0	110	6429	1.00	54	56	-29	24	885
2962.9	2617	219616	2.33	513	521	-70	442	21939
2968.9	6012	680269	2.11	622	635	-153	468	72920

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= P AT DISTANCE= 12547 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2952.0	45	2096	1.00	26	27	-15	10	336
2961.9	1330	114729	2.17	381	385	-79	301	9574
2968.0	3879	408915	2.00	483	490	-92	390	44058

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= Q AT DISTANCE= 13845 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2967.0	436	15733	1.35	279	280	-541	29	2663
2976.9	6679	611003	1.44	926	938	-734	191	84772
2980.0	9604	1064019	1.32	960	974	-740	219	149749

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= R AT DISTANCE= 14470 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2970.0	94	4198	1.00	43	44	-9	33	787
2979.9	1082	106153	1.51	136	141	-44	91	14120
2982.0	1380	147039	1.52	146	152	-51	94	19519

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= RX AT DISTANCE= 14540 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2975.0	163	9010	1.00	73	75	-30	42	1380
2984.9	4052	332165	1.99	821	832	-693	127	36218
2994.8	12418	1779149	1.26	869	890	-693	175	237292
3000.0	17002	2903713	1.20	894	921	-693	200	383900

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= RX.5 AT DISTANCE= 14588 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2975.0	186	7352	1.43	227	228	-218	42	797
2984.9	5467	635936	1.09	801	808	-695	106	77626
2986.1	6436	823619	1.07	812	819	-702	109	99320

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= S AT DISTANCE= 14635 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2975.0	80	3140	1.00	55	56	-16	38	544
2984.9	4830	522903	1.11	793	800	-690	103	64230
2986.9	6436	823699	1.07	812	819	-702	109	99329

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= S.5 AT DISTANCE= 15075 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2980.0	130	5954	1.26	110	111	-233	26	717
2989.9	5447	564682	1.19	897	901	-782	114	69798
2991.3	6707	787229	1.14	903	908	-784	118	96944

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= T AT DISTANCE= 15515 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2984.0	130	5954	1.26	110	111	-233	26	717
2993.9	5447	564682	1.19	897	901	-782	114	69798
2995.3	6707	787229	1.14	903	908	-784	118	96944

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= T.1 AT DISTANCE= 15615 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2984.0	78	3464	1.09	67	67	-228	23	457
2993.9	4910	478981	1.22	894	898	-781	112	59029
2995.9	6707	787247	1.14	903	908	-784	118	96945

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= T.5 AT DISTANCE= 16240 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2989.0	103	6035	1.00	42	43	-21	20	909
2998.9	1029	126788	1.55	146	151	-60	85	12464
3002.3	2054	220285	2.56	393	400	-214	178	16648

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= U AT DISTANCE= 16865 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2992.0	75	3895	1.00	37	38	-21	16	604
3001.9	938	115182	1.43	120	126	-54	65	12430
3006.0	2054	220308	2.56	393	400	-214	178	16650

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= UX AT DISTANCE= 16887 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2994.0	117	5318	1.00	58	62	-15	42	940
3003.9	1180	149445	1.01	162	177	-76	85	17922
3010.0	2621	380351	1.30	247	271	-82	164	42424

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= V AT DISTANCE= 17000 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2995.0	90	4116	1.00	46	47	-12	33	716
3004.9	899	98271	1.23	181	187	-70	130	10264
3009.7	2073	255772	1.42	266	281	-94	171	27571

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= W AT DISTANCE= 17490 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3003.0	317	14287	1.02	180	181	-87	98	2366
3012.7	3824	457295	1.22	459	463	-244	214	56749

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= W.3 AT DISTANCE= 18073 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3011.0	373	18151	1.03	191	193	-87	107	2898
3020.4	3824	457305	1.22	459	463	-244	214	56750

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= W.7 AT DISTANCE= 18657 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3018.0	176	6404	1.29	173	175	-231	17	888
3027.7	3656	464361	1.08	500	507	-356	143	53952

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= X AT DISTANCE= 19240 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3026.0	235	9038	1.24	205	206	-259	17	1284
3035.4	3655	464333	1.08	500	507	-356	143	53949

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= X.1 AT DISTANCE= 19340 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3027.0	160	5933	1.22	147	148	-206	16	859
3036.8	3655	464320	1.08	500	507	-356	143	53948

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= X.5 AT DISTANCE= 20030 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3037.0	494	17026	1.49	381	384	-24	675	2614
3046.9	7562	848685	1.07	814	827	-106	718	126532
3049.0	9284	1172693	1.06	825	843	-106	718	171747

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= Y AT DISTANCE= 20720 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3046.0	271	8341	1.57	273	276	-22	672	1221
3055.9	7240	790168	1.06	821	828	-106	714	118225
3056.6	7816	892014	1.06	825	832	-106	718	132525

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= YX AT DISTANCE= 20744 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	RFW	QC
3047.0	423	15767	1.51	318	325	-23	533	2254
3056.9	6265	685194	1.03	788	815	-119	668	98599
3057.2	6503	724750	1.04	800	828	-131	668	103314

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= Z AT DISTANCE= 20820 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	RFW	QC
3047.0	448	19231	1.07	215	217	-25	311	3543
3056.9	6544	638732	1.14	859	867	-210	648	95926
3058.5	7925	868994	1.11	864	874	-212	651	129358

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= BA AT DISTANCE= 21365 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	RFW	QC
3051.0	63	3141	1.00	28	29	-14	13	538
3060.9	4183	360211	1.08	618	625	-547	70	59456
3061.1	4308	377109	1.08	630	637	-547	82	61498

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= BB AT DISTANCE= 22020 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	RFW	QC
3065.0	159	7129	1.08	89	90	-35	167	1154
3074.9	3895	436091	1.15	650	656	-431	218	50416
3075.1	4024	459799	1.14	650	657	-431	218	53118

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= B3X AT DISTANCE= 22052 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	RFW	QC
3066.0	111	5044	1.00	50	59	-27	26	942
3075.9	2120	183195	1.18	484	515	-325	158	23191
3080.0	4124	527690	1.06	489	528	-330	158	66091

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= 8G AT DISTANCE= 22114 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3066.0	107	4119	1.11	69	71	-15	184	712
3075.9	3407	332770	1.16	545	551	-329	215	44801
3077.0	4009	429040	1.12	550	558	-330	219	57894

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= 8D AT DISTANCE= 22825 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3073.0	53888	13198124	1.00	109	1982	-201	-92	6798795
3082.9	57382	13521224	1.05	789	2686	-202	186	2708194
3085.6	59630	13679893	1.07	861	2760	-262	198	2725916

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= 8D.3 AT DISTANCE= 23208 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3081.0	95	3610	1.02	68	68	-28	222	631
3090.9	4630	396065	1.25	861	868	-262	598	54430

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= 8D.7 AT DISTANCE= 23592 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3087.0	124	5954	1.10	74	76	-268	25	866
3095.3	2976	223966	1.34	553	559	-360	192	33808

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= 8E AT DISTANCE= 23975 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3092.0	107	4916	1.06	68	70	-267	24	742
3100.6	3055	233181	1.31	553	559	-360	192	35533

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= BE.1 AT DISTANCE= 24075 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3093.0	86	3679	1.00	42	44	-17	24	699
3102.0	3055	233185	1.31	553	559	-360	192	35533

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= BE.5 AT DISTANCE= 24535 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3100.0	57	2346	1.00	29	30	-12	16	452
3108.0	1703	132952	1.19	286	295	-136	149	21603

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= BF AT DISTANCE= 24995 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3106.0	45	1678	1.00	28	29	-12	15	330
3114.4	1706	133247	1.19	286	295	-136	149	21674

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= BF.3 AT DISTANCE= 25407 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3116.0	54	2171	1.00	29	30	-12	16	420
3124.1	1706	133246	1.19	286	295	-136	149	21674

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= BF.7 AT DISTANCE= 25818 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3126.0	835	39432	1.20	380	382	-523	50	6407
3133.8	5465	532587	1.28	695	699	-538	156	76730

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= BG AT DISTANCE= 26230 SECOND PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3135.0	596	25197	1.15	319	320	-478	48	4310
3143.5	5465	532590	1.28	695	699	-538	156	76731

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= BGX AT DISTANCE= 26251 SECOND PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3135.0	131	6045	1.00	55	64	-28	29	1144
3143.7	3353	238369	1.48	655	668	-510	144	35397

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID=BGX.5 AT DISTANCE= 26288 SECOND PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3135.0	64	2178	1.00	45	46	-24	21	433
3144.0	5608	442747	1.24	931	937	-649	261	70175

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= BH AT DISTANCE= 26325 SECOND PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3136.0	75	2655	1.03	60	60	-58	22	467
3144.8	5607	442723	1.24	931	937	-649	281	70170

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= BH.5 AT DISTANCE= 26680 SECOND PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3143.0	100	3526	1.20	109	110	-210	25	494
3151.5	5607	441669	1.23	931	937	-649	281	70397

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
SECID= BI AT DISTANCE= 27035 PART 1 OF 1 SECOND

WS	A	K	ALPHA	B	P	LEW	REW	QC
3150.0	1985	87809	1.00	614	617	-608	36	20251
3158.8	8026	792673	1.02	762	771	-674	87	146092

*** INPUT CARD PRINTOUT ***

1 2 3 4 5 6 7 8
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7 15000
8 15001

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0 0

PAGE 1 OF PROFILE NOTES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 PROFILE NUMBER 1, UPSTREAM COMPUTATIONS

SECID; ERROR(WARNING) MESSAGE; INTERMEDIATE RESULTS(IF ANY); ACTION TAKEN

J.3; KU/KD < 0.7 OR > 1.4		ALERTED USER
K; KU/KD < 0.7 OR > 1.4		ALERTED USER
L; FRDN FAILURE		
	: WS = 2929.79 & FR = 15.66;	USED HIGHER WS
L; FRDN FAILURE		
	: WS = 2933.66 & FR = 1.19;	USED HIGHER WS
L; WS NOT FOUND BETWEEN		
	: WS = 2927.20 & WS = 2944.20;	USED DEL = 0.25
L; FRDN FAILURE		
	: WS = 2929.79 & FR = 15.66;	USED HIGHER WS
L; FRDN FAILURE		
	: WS = 2933.66 & FR = 1.19;	USED HIGHER WS
L; WS NOT FOUND BETWEEN		
	: WS = 2927.20 & WS = 2944.20;	USED WSMIN = WSC
L; WS NOT FOUND		
		ASSUMED WS = WSC
M; KU/KD < 0.7 OR > 1.4		ALERTED USER
N; WS TOO LOW		USED WSMIN = WSC
N.7; WS NOT FOUND BETWEEN		
	: WS = 2949.36 & WS = 2965.50;	USED DEL = 0.25
N.7; WS NOT FOUND BETWEEN		
	: WS = 2949.36 & WS = 2965.50;	USED WSMIN = WSC
N.7; WS NOT FOUND		
		ASSUMED WS = WSC
O; WS TOO LOW		USED WSMIN = WSC
R; FRDN FAILURE		
	: WS = 2975.99 & FR = 1.24;	USED HIGHER WS
P; WS NOT FOUND BETWEEN		
	: WS = 2971.55 & WS = 2982.00;	USED DEL = 0.25
R; FRDN FAILURE		
	: WS = 2975.99 & FR = 1.24;	USED HIGHER WS
R; WS NOT FOUND BETWEEN		
	: WS = 2971.55 & WS = 2982.00;	USED WSMIN = WSC
R; WS NOT FOUND		
		ASSUMED WS = WSC
RX; WS NOT FOUND BETWEEN		
	: WS = 2977.16 & WS = 3000.00;	


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RX1 WS NOT FOUND BETWEEN
RX1 WS NOT FOUND
RX.5: KU/KD < 0.7 OR > 1.4
S.5: KU/KD < 0.7 OR > 1.4
T: FRDN FAILURE
T.5: FRDN FAILURE
T.5: WS NOT FOUND BETWEEN
T.5: FRDN FAILURE
T.5: WS NOT FOUND BETWEEN
T.5: WS NOT FOUND
U: KU/KD < 0.7 OR > 1.4
V: KU/KD < 0.7 OR > 1.4
W: KU/KD < 0.7 OR > 1.4
W.3: FRDN FAILURE
W.3: FRDN FAILURE
W.3: WS NOT FOUND BETWEEN
W.3: FRDN FAILURE
W.3: FRDN FAILURE
W.3: WS NOT FOUND BETWEEN
W.3: WS NOT FOUND
W.7: WS TOO LOW
X: WS TOO LOW
X.5: WS TOO LOW
Y: WS TOO LOW

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: WS = 2977.16 & WS = 3000.00
:
: WS = 2983.58 & FR = 14.15
: WS = 2994.58 & FR = 1.33
: WS = 2988.31 & WS = 3002.30
: WS = 2994.58 & FR = 1.33
: WS = 2988.31 & WS = 3002.30
:
: WS = 3009.08 & FR = 20.18
: WS = 3012.48 & FR = 1.26
: WS = 3008.52 & WS = 3020.40
: WS = 3009.08 & FR = 20.18
: WS = 3012.48 & FR = 1.26
: WS = 3008.52 & WS = 3020.40
:
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:

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USED WSMIN = WSC
ASSUMED WS = WSC
ALERTED USER
ALERTED USER
USED HIGHER WS
USED HIGHER WS
USED DEL = 0.25
USED HIGHER WS
USED WSMIN = WSC
ASSUMED WS = WSC
ALERTED USER
ALERTED USER
ALERTED USER
USED HIGHER WS
USED HIGHER WS
USED DEL = 0.25
USED HIGHER WS
USED HIGHER WS
USED WSMIN = WSC
ASSUMED WS = WSC
USED WSMIN = WSC
USED WSMIN = WSC
USED WSMIN = WSC
USED WSMIN = WSC
USED WSMIN = WSC

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PAGE 2 OF PROFILE NOTES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 PROFILE NUMBER 1. UPSTREAM COMPUTATIONS

SECID	ERROR(WARNING) MESSAGE	INTERMEDIATE RESULTS(IF ANY)	ACTION TAKEN
Z:	KU/KD < 0.7 OR > 1.4		ALERTED USER
BA:	FRDN FAILURE	WS = 3051.69 & FR = 11.76	USED HIGHER WS
BA:	KU/KD < 0.7 OR > 1.4		ALERTED USER
BB:	WS TOO LOW		USED WSMIN = WSC
BB:	WS NOT FOUND BETWEEN	WS = 3069.79 & WS = 3075.10	USED DEL = 0.25
BB:	WS NOT FOUND		ASSUMED WS = WSC
BRX:	WS NOT FOUND BETWEEN	WS = 3069.54 & WS = 3080.00	USED DEL = 0.25
RBX:	WS NOT FOUND BETWEEN	WS = 3069.54 & WS = 3080.00	USED WSMIN = WSC
RBX:	WS NOT FOUND		ASSUMED WS = WSC
BC:	KU/KD < 0.7 OR > 1.4		ALERTED USER
BD:	KU/KD < 0.7 OR > 1.4		ALERTED USER
BD.3:	WS TOO LOW		USED WSMIN = WSC
BD.3:	WS NOT FOUND BETWEEN	WS = 3086.66 & WS = 3090.90	USED DEL = 0.25
BD.3:	WS NOT FOUND		ASSUMED WS = WSC
BE.5:	FRDN FAILURE	WS = 3099.81 & FR = 23.18	USED HIGHER WS
BF:	FRDN FAILURE	WS = 3105.66 & FR = 38.83	USED HIGHER WS
BF.3:	WS TOO LOW		USED WSMIN = WSC
BF.3:	WS NOT FOUND BETWEEN	WS = 3121.39 & WS = 3124.10	USED DEL = 0.25
BF.3:	WS NOT FOUND		ASSUMED WS = WSC
BF.7:	FRDN FAILURE	WS = 3121.78 & FR = 80.47	USED HIGHER WS
BF.7:	KU/KD < 0.7 OR > 1.4		ALERTED USER
BG:	WS TOO LOW		USED WSMIN = WSC
BG:	WS NOT FOUND BETWEEN		

BG: WS NOT FOUND
BGX: WS NOT FOUND BETWEEN
BGX: WS NOT FOUND BETWEEN
BGX: WS NOT FOUND
BGX.5: KU/KD < 0.7 OR > 1.4
BH.5: FRDN FAILURE
BH.5: KU/KD < 0.7 OR > 1.4
BI: KU/KD < 0.7 OR > 1.4

; WS = 3136.05 & WS = 3143.70;
; WS = 3136.05 & WS = 3143.70;
; WS = 3143.72 & FR = 6.91;

USED DEL = 0.25
ASSUMED WS = WSC
USED DEL = 0.25
USED WSMIN = WSC
ASSUMED WS = WSC
ALERTED USER
USED HIGHER WS
ALERTED USER
ALERTED USER

WATER-SURFACE PROFILE FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 PAGE 1 OF 4, PROFILE NUMBER 1, UPSTREAM COMPUTATIONS

SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEW	REW
WS ELEV	HV ⁰	HF	HE	EG	V	FN	ACC	ID	
J	AT	6529	0	14690	3377	494526	1.17	-451	75
2918.61		0.34		2918.95	4.35	0.29			*IS*
J.3	AT	7216	687	14690	1754	196757	1.41	-446	71
2919.54		1.54	1.52	0.60	2921.07	8.38	0.70	-0.001	*XS*
J.7	AT	7903	687	14690	1686	197086	1.42	-445	71
2923.49		1.68	4.03	0.07	2925.17	8.71	0.73	0.001	*XS*
K	AT	8590	687	14690	3488	289458	1.69	-512	788
2927.45		0.47	2.74	0.0	2927.91	4.21	0.46	-0.001	*XS*
L	AT	9545	955	13440	1535	107847	1.43	-121	311
2933.98		1.70	*****	*****	2935.68	8.76	1.04	*****	*XS*
M	AT	10180	635	13440	3065	189858	2.39	-635	204
2940.57		0.72	5.60	0.0	2941.29	4.38	0.32	0.004	*XS*
N	AT	11245	1065	13440	2642	158978	1.50	-224	431
2947.06		0.60	6.37	0.0	2947.67	5.09	0.38	0.006	*XS*
N.3	AT	11575	330	13440	2481	151675	1.17	-203	430
2949.61		0.53	2.47	0.0	2950.14	5.42	0.40	0.002	*XS*
N.7	AT	11978	403	13440	1931	149719	2.43	-67	440
2958.15		1.83	*****	*****	2959.98	6.96	0.81	*****	*XS*
O	AT	12380	402	13440	1886	144983	2.43	-67	440
2961.47		1.92	3.35	0.04	2963.38	7.13	0.83	0.013	*XS*
P	AT	12547	167	13440	1644	143681	2.19	-81	305
2962.72		2.28	1.45	0.18	2965.00	8.17	0.79	-0.017	*XS*
Q	AT	13845	1298	8930	2473	158615	1.61	-723	117
2971.80		0.33	7.13	0.0	2972.12	3.61	0.26	0.003	*XS*
R	AT	14470	625	8930	761	66450	1.48	-40	83
2977.41		3.17	*****	*****	2980.59	11.73	0.91	*****	*XS*
RK	AT	14540	70	8930	1668	119765	2.61	-616	113
2981.86		1.16	*****	*****	2983.02	5.35	0.58	*****	*XS*
RX.5	AT	14588	48	8930	3973	387624	1.15	-684	100
2983.01		0.09	0.08	0.0	2983.10	2.25	0.17	-0.000	*XS*

SEE NEXT PAGE

WATER-SURFACE PROFILE FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 PAGE 2 OF 4, PROFILE NUMBER 1, UPSTREAM COMPUTATIONS

SEGID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEW	REW							
WS	ELEV	HV	HF	HE	EG	V	FN	ACC	ID							
S	AT	14685	/	47	/	8930	/	3407	/	330098	/	1.12	/	-681	/	99
		2983.01	/	0.12	/	0.03	/	0.01	/	2983.13	/	2.62	/	0.20	/	-0.015 *XS*
S.5	AT	15075	/	440	/	8930	/	1385	/	99913	/	1.10	/	-337	/	101
		2989.78	/	0.71	/	1.06	/	0.30	/	2984.49	/	6.45	/	0.60	/	0.000 *XS*
T	AT	15515	/	440	/	8930	/	1299	/	90975	/	1.10	/	-337	/	100
		2987.58	/	0.81	/	3.86	/	0.05	/	2988.39	/	6.87	/	0.45	/	-0.008 *XS*
T.1	AT	15615	/	100	/	8930	/	1464	/	108573	/	1.11	/	-338	/	101
		2988.56	/	0.64	/	0.81	/	0.0	/	2989.20	/	6.10	/	0.55	/	-0.000 *XS*
T.5	AT	16240	/	625	/	8930	/	1712	/	79273	/	1.38	/	-52	/	60
		2996.24	/	3.37	/	*****	/	*****	/	2999.62	/	12.55	/	0.92	/	***** *XS*
U	AT	16865	/	625	/	8930	/	1046	/	128863	/	1.97	/	-62	/	89
		3002.71	/	1.78	/	4.88	/	0.0	/	3004.50	/	8.54	/	0.59	/	0.000 *XS*
UX	AT	16887	/	22	/	8930	/	1141	/	142850	/	1.00	/	-62	/	69
		3003.64	/	0.95	/	0.10	/	0.0	/	3004.59	/	7.83	/	0.44	/	-0.000 *XS*
V	AT	17000	/	113	/	8930	/	689	/	71700	/	1.13	/	-55	/	79
		3003.52	/	2.95	/	0.88	/	1.00	/	3006.47	/	12.95	/	0.88	/	-0.001 *XS*
W	AT	17490	/	490	/	8930	/	2208	/	209200	/	1.18	/	-200	/	179
		3008.77	/	0.30	/	2.61	/	0.0	/	3009.07	/	4.04	/	0.31	/	-0.003 *XS*
W.3	AT	18073	/	583	/	8930	/	1038	/	69044	/	1.25	/	-192	/	160
		3013.26	/	1.43	/	*****	/	*****	/	3014.69	/	8.60	/	0.86	/	***** *XS*
W.7	AT	18657	/	584	/	8930	/	1128	/	84105	/	1.00	/	-310	/	23
		3021.73	/	0.98	/	8.02	/	0.0	/	3022.71	/	7.92	/	0.76	/	0.002 *XS*
X	AT	19240	/	583	/	8930	/	1931	/	73934	/	1.00	/	-306	/	23
		3029.12	/	1.17	/	7.48	/	0.10	/	3030.29	/	8.67	/	0.86	/	0.009 *XS*
X.1	AT	19340	/	100	/	8930	/	1052	/	76149	/	1.00	/	-307	/	23
		3030.59	/	1.12	/	1.42	/	0.0	/	3031.72	/	8.49	/	0.83	/	0.006 *XS*
X.5	AT	20030	/	690	/	8930	/	1799	/	90616	/	1.21	/	-62	/	684
		3039.24	/	0.46	/	7.97	/	0.0	/	3039.70	/	4.96	/	0.50	/	0.009 *XS*
Y	AT	20720	/	690	/	8930	/	1444	/	65225	/	1.26	/	-59	/	682
		3048.40	/	0.75	/	9.31	/	0.14	/	3049.15	/	6.18	/	0.67	/	0.000 *XS*

WATER-SURFACE PROFILE FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 PAGE 3 OF 4, PROFILE NUMBER 1, UPSTREAM COMPUTATIONS

SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEW	REW
WS ELEV	HV	HF	HE	EG	V	FN	ACC	ID	
YX	AT	20744	24	8930	1060	52258	1.22	-24	587
3048.65		1.35	0.56	0.30	3050.00	8.43	0.89	-0.011	*XS*
Z	AT	20820	76	8930	1834	105196	1.36	-161	519
3050.60		0.50	1.10	0.0	3051.11	4.87	0.45	-0.000	*XS*
AJA	AT	21365	545	8930	1492	72472	1.32	-537	28
3056.19		0.73	5.70	0.12	3056.92	5.99	0.55	0.001	*XS*
ABB	AT	22020	655	8930	1160	82169	1.53	-235	210
3069.79		1.41	*****	*****	3071.20	7.70	0.77	*****	*XS*
BBX	AT	22052	32	8930	1191	85970	1.42	-246	158
3073.80		1.24	*****	*****	3075.04	7.50	0.60	*****	*XS*
ABC	AT	22114	62	8930	2964	269907	1.20	-322	212
3075.08		0.17	0.21	0.0	3075.25	3.01	0.22	0.000	*XS*
AD*	AD	22825	711	8930	54204	13281216	1.00	-202	24
3085.27		0.00	0.02	0.0	3075.27	0.16	0.00	-0.000	*XS*
BD.3	AT	23208	383	8930	1396	79685	1.76	-73	579
3086.66		1.12	*****	*****	3087.78	6.40	0.75	*****	*XS*
BD.7	AT	23592	384	8930	1330	75350	1.57	-331	75
3091.80		1.10	5.10	0.0	3092.90	6.71	0.53	0.015	*XS*
BAE	AT	23975	383	8930	1384	79494	1.48	-330	75
3097.04		0.96	5.10	0.0	3098.00	6.45	0.51	-0.000	*XS*
BE.1	AT	24075	100	8930	1338	76655	1.47	-329	74
3098.32		1.02	1.31	0.03	3099.34	6.67	0.53	0.003	*XS*
BE.5	AT	24535	460	8930	1034	64198	1.28	-119	142
3105.56		1.48	7.45	0.23	3107.04	8.63	0.71	0.012	*XS*
ADF	AT	24995	460	8930	1257	85142	1.24	-125	145
3112.79		0.97	6.71	0.0	3113.76	7.10	0.55	0.005	*XS*
BF.3	AT	25407	412	8930	969	58391	1.29	-117	141
3121.39		1.71	*****	*****	3123.10	9.21	0.77	*****	*XS*
BF.7	AT	25818	411	8930	1695	102604	1.31	-528	79
3128.00		0.57	5.47	0.0	3128.57	5.27	0.53	-0.001	*XS*

* SEE PRINTOUT IN BACK OF FIA BOOK FOR AD

WATER-SURFACE PROFILE FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 PAGE 4 OF 4, PROFILE NUMBER 1, UPSTREAM COMPUTATIONS

SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEW	REW								
WS	ELEV	HV	HF	HE	EG	V	FN	ACC	ID*								
AGG	AT	26230	/	412	/	8930.	/	1068.	/	55339.	/	1.18	/	-526.	/	52.	
		3136.30	/	1.29	/	*****	/	*****	/	3137.59	/	8.36	/	0.94	/	*****	*XS*
BGX	AT	26251	/	21	/	8930.	/	1451.	/	79937.	/	1.98	/	-419.	/	106.	
		3140.49	/	1.17	/	*****	/	*****	/	3141.65	/	6.16	/	0.70	/	*****	*XS*
BGX.5	AT	26288	/	37	/	8930.	/	3554.	/	224485.	/	1.27	/	-568.	/	268.	
		3141.69	/	0.12	/	0.16	/	0.0	/	3141.82	/	2.51	/	0.18	/	-0.000	*XS*
AH	AT	26325	/	37	/	8930.	/	2939.	/	169820.	/	1.29	/	-536.	/	261.	
		3141.74	/	0.19	/	0.08	/	0.03	/	3141.92	/	3.04	/	0.23	/	-0.000	*XS*
BH.5	AT	26680	/	355	/	8930.	/	959.	/	35687.	/	1.55	/	-416.	/	145.	
		3145.46	/	2.08	/	4.67	/	0.95	/	3147.55	/	9.31	/	0.96	/	0.002	*XS*
AH	AT	27035	/	355	/	8930.	/	3124.	/	181385.	/	1.00	/	-617.	/	59.	
		3151.80	/	0.13	/	4.37	/	0.0	/	3151.93	/	2.86	/	0.22	/	0.005	*XS*

END OF THIS PROFILE

COMPUTED WSC VALUES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
PROFILE NUMBER 1, UPSTREAM COMPUTATIONS

SECID	L	N	N.7	Q	R	RX	T.5	W.3
WSC	2933.98	2945.44	2958.15	2968.99	2977.41	2981.86	2996.24	3013.26
SECID	W.7	X	X.5	Y	BB	BBX	BD.3	BF.3
WSC	3021.00	3028.68	3038.51	3048.20	3069.79	3073.80	3086.66	3121.39
SECID	B6	BGX						
WSC	3136.30	3140.49						

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= J AT DISTANCE= 6529 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2909.0	202	14108	1.00	78	79	-36	41	1851
2918.9	2674	434776	1.12	328	340	-257	70	41020
2923.3	4115	864185	1.08	328	348	-257	70	79690

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= J.3 AT DISTANCE= 7216 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2913.0	195	13275	1.00	77	79	-35	41	1751
2922.9	1833	309616	1.13	196	210	-125	70	29861
2927.4	2716	574390	1.12	196	219	-125	70	54123

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= J.7 AT DISTANCE= 7903 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2917.0	187	12456	1.00	77	78	-35	41	1652
2926.9	1767	297413	1.14	190	204	-119	70	28694
2931.5	2641	558667	1.13	190	213	-119	70	52640

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= K AT DISTANCE= 8590 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2921.0	231	14789	1.06	105	108	-29	246	1893
2930.9	3118	478279	1.05	346	368	-99	246	51728
2936.6	5087	1041488	1.02	346	379	-99	246	109547

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= L AT DISTANCE= 9545 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2929.0	72	3940	1.00	39	40	-91	16	555
2938.9	3662	426904	1.28	432	446	-120	311	53430
2944.2	5951	934791	1.25	432	457	-120	311	111982

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= M AT DISTANCE= 10180 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2934.0	127	6481	1.50	148	150	-227	60	546
2943.9	3987	388640	1.56	500	517	-299	200	51125
2947.6	5837	708851	1.41	500	524	-299	200	95306

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= N AT DISTANCE= 11245 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2944.0	669	29517	1.31	272	276	-164	203	5203
2953.9	4515	503896	1.47	403	424	-199	203	70862
2957.1	5803	752330	1.46	403	431	-199	203	103360

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= N.3 AT DISTANCE= 11575 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2947.0	717	31967	1.12	276	281	-164	200	6202
2956.9	4564	607397	1.29	400	422	-199	200	76886
2959.9	5764	894287	1.32	400	428	-199	200	107838

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= N.7 AT DISTANCE= 11978 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2950.0	134	8783	1.00	57	58	-30	25	1172
2959.9	1786	195942	1.74	272	282	-71	200	19667
2965.5	3376	484144	1.75	289	307	-88	200	49477

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= O AT DISTANCE= 12380 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2953.0	110	6429	1.00	54	56	-29	24	885
2962.9	2612	219606	2.32	507	517	-66	440	22055
2968.9	5654	670543	1.96	507	529	-66	440	76487

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= P AT DISTANCE= 12547 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2952.0	45	2096	1.00	26	27	-15	10	336
2961.9	1330	114729	2.17	381	385	-79	301	9574
2968.0	3683	416156	1.77	386	401	-80	305	48519

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= Q AT DISTANCE= 13645 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2967.0	307	11698	1.42	215	219	-211	29	1744
2976.9	3059	355757	1.29	312	339	-211	100	47697
2980.0	4025	547917	1.27	312	345	-211	100	72686

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= R AT DISTANCE= 14470 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2970.0	94	4198	1.00	43	44	-9	33	787
2979.9	1067	106786	1.45	123	132	-39	83	14801
2982.0	1325	146462	1.43	123	136	-39	83	20608

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= RX AT DISTANCE= 14540 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2975.0	163	9010	1.00	73	75	-30	42	1380
2984.9	1975	217555	1.56	277	292	-149	127	23955
2994.8	4891	798835	1.37	300	331	-149	150	95786
3000.0	6451	1217339	1.33	300	341	-149	150	147158

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= PX.5 AT DISTANCE= 14588 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2975.0	186	7370	1.42	224	225	-215	42	806
2984.9	3171	446320	1.09	322	335	-215	106	54099
2986.1	3559	537208	1.09	325	340	-215	109	63972

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= S AT DISTANCE= 14635 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2975.0	80	3140	1.00	55	56	-16	38	544
2984.9	2872	387580	1.08	310	324	-210	99	47595
2986.9	3492	529633	1.08	310	328	-210	99	63914

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= S.5 AT DISTANCE= 15075 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2980.0	108	5484	1.10	79	80	-202	26	688
2989.9	2760	356351	1.15	302	320	-202	99	44200
2991.3	3182	446479	1.15	302	323	-202	99	54755

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= T AT DISTANCE= 15515 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2984.0	190	5954	1.26	110	111	-233	26	717
2993.9	3721	492310	1.11	400	418	-299	100	61205
2995.3	4281	616422	1.11	400	421	-299	100	75556

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= T.1 AT DISTANCE= 15615 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2984.0	78	3464	1.09	67	67	-228	23	457
2993.9	3481	442482	1.11	400	417	-299	100	55366
2995.9	4281	616447	1.11	400	421	-299	100	75558

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= T.5 AT DISTANCE= 16240 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2989.0	103	6035	1.00	42	43	-21	20	909
2998.9	1029	126788	1.55	146	151	-60	85	12464
3002.3	1935	221520	2.25	315	325	-214	100	18146

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= U AT DISTANCE= 16865 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2992.0	75	3895	1.00	37	38	-21	16	604
3001.9	938	115182	1.43	120	126	-54	65	12430
3006.0	1542	213678	1.61	151	163	-61	89	22029

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= UX AT DISTANCE= 16887 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2994.0	117	5318	1.00	58	62	-15	42	940
3003.9	1178	149435	1.01	147	162	-61	85	18810
3010.0	2099	344547	1.11	151	178	-61	89	42205

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= V AT DISTANCE= 17000 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2995.0	90	4116	1.00	46	47	-12	33	716
3004.9	874	98222	1.16	134	143	-54	79	11741
3009.7	1518	220541	1.15	134	152	-54	79	26964

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= W AT DISTANCE= 17490 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3003.0	317	14287	1.02	180	181	-87	98	2366
3012.7	2681	367170	1.08	250	270	-149	100	47863

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= W.3 AT DISTANCE= 18073 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3011.0	372	18161	1.03	184	186	-87	100	2951
3020.4	2681	367173	1.08	250	270	-149	100	47864

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= W.7 AT DISTANCE= 18657 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3018.0	172	6900	1.12	129	131	-187	17	1061
3027.7	2325	295932	1.09	288	306	-187	100	35873

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= X AT DISTANCE= 19240 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3026.0	235	9038	1.24	205	206	-259	17	1284
3035.4	3083	429746	1.01	329	345	-305	23	53201

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= X.1 AT DISTANCE= 19340 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3027.0	160	5933	1.22	147	148	-206	16	859
3036.8	3003	429734	1.01	329	345	-305	23	53200

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= X.5 AT DISTANCE= 20030 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3037.0	237	9661	1.54	199	202	-24	420	1188
3046.9	4073	517311	1.12	516	538	-106	420	75468
3049.0	5768	713895	1.10	527	554	-106	420	103061

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= Y AT DISTANCE= 20720 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3046.0	175	6421	1.35	142	145	-22	450	952
3055.9	4750	528081	1.07	509	531	-58	450	79529
3056.6	5106	594100	1.07	509	533	-58	450	88791

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= YX AT DISTANCE= 20744 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3047.0	337	13459	1.46	235	243	-23	450	1897
3056.9	4275	462855	1.03	509	544	-58	450	69148
3057.2	4428	489317	1.03	509	545	-58	450	72911

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= Z AT DISTANCE= 20820 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3047.0	448	19231	1.07	215	217	-25	301	3543
3056.9	5102	551133	1.11	561	581	-160	400	82986
3058.5	5999	716652	1.09	561	584	-160	400	106578

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= BA AT DISTANCE= 21365 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3051.0	63	3141	1.00	28	29	-14	13	538
3060.9	2055	193504	1.08	262	278	-233	28	31463
3061.1	2107	201552	1.08	262	278	-233	28	32683

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= BB AT DISTANCE= 22020 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3065.0	159	7129	1.08	89	90	-35	167	1154
3074.9	3433	423062	1.17	445	460	-234	210	50084
3075.1	3522	441119	1.16	445	461	-234	210	52068

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= 5BX AT DISTANCE= 22052 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3066.0	111	5044	1.00	50	59	-27	26	942
3075.9	2016	186084	1.14	393	427	-234	158	24243
3080.0	3627	475913	1.08	393	435	-234	158	60168

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= 80 AT DISTANCE= 22114 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3066.0	76	3259	1.02	44	45	-15	155	557
3075.9	2679	269321	1.18	404	424	-245	158	35948
3077.0	3123	343342	1.15	404	426	-245	158	45990

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= 80 AT DISTANCE= 22825 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3073.0	53888	13198154	1.00	109	1982	-201	-92	6798806
3082.9	55566	13417514	1.01	227	2128	-202	24	4912667
3085.6	56179	13613628	1.01	227	2133	-202	24	4993360

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= 80.3 AT DISTANCE= 23208 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3081.0	94	3601	1.00	60	60	-28	30	665
3090.9	1821	188117	1.21	256	270	-99	156	25086

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= 80.7 AT DISTANCE= 23592 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3087.0	122	5934	1.07	65	68	-62	24	909
3095.3	1700	142175	1.17	236	253	-211	24	23896

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= 8E AT DISTANCE= 23975 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3092.0	104	4898	1.01	52	54	-59	24	831
3100.6	1568	144230	1.19	199	213	-123	75	22869

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= BE.1 AT DISTANCE= 24075 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3093.0	86	3679	1.00	42	44	-17	24	699
3102.0	1568	144240	1.19	199	213	-123	75	22871

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= BE.5 AT DISTANCE= 24535 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3100.0	57	2346	1.00	29	30	-12	16	1452
3108.0	1174	94158	1.21	180	197	-99	80	15468

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= BF AT DISTANCE= 24995 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3106.0	45	1678	1.00	28	29	-12	15	330
3114.4	1327	107413	1.17	200	216	-99	100	17888

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= BF.3 AT DISTANCE= 25407 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3116.0	54	2171	1.00	29	30	-12	16	420
3124.1	1327	107409	1.17	200	216	-99	100	17887

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= BF.7 AT DISTANCE= 25818 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3126.0	587	33910	1.00	185	189	-134	50	5936
3133.8	2323	278080	1.09	235	251	-134	100	39731

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= BG AT DISTANCE= 26230 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3135.0	596	25197	1.15	319	320	-478	48	4310
3143.5	5003	503468	1.21	578	594	-525	52	76011

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= BGX AT DISTANCE= 26251 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3135.0	131	6045	1.00	55	64	-28	29	1144
3143.7	3024	219202	1.49	563	581	-510	52	32537

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= BGX.5 AT DISTANCE= 26288 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3135.0	64	2178	1.00	45	46	-24	21	433
3144.0	4108	324988	1.20	578	593	-525	52	56758

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= BH AT DISTANCE= 26325 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3136.0	75	2655	1.03	60	60	-58	22	467
3144.8	3070	295495	1.11	400	417	-199	200	45802

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= BH.5 AT DISTANCE= 26680 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3143.0	98	3512	1.17	98	99	-182	25	512
3151.5	3070	294432	1.10	400	417	-199	200	45903

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
SECID= BI AT DISTANCE= 27035 PART 1 OF 1
*** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
3150.0	1484	70875	1.00	411	417	-405	36	15985
3158.8	5491	575739	1.02	465	490	-405	59	105996

PAGE 1 OF PROFILE NOTES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 PROFILE NUMBER 2. UPSTREAM COMPUTATIONS

SECID: ERROR(WARNING) MESSAGE: INTERMEDIATE RESULTS (IF ANY): ACTION TAKEN

J.3: KU/KD < 0.7 OR > 1.4		ALERTED USER
K: KU/KD < 0.7 OR > 1.4		ALERTED USER
L: FRDN FAILURE		ALERTED USER
	; WS = 2929.85 & FR = 15.00;	
L: FRDN FAILURE		USED HIGHER WS
	; WS = 2933.96 & FR = 1.05;	
L: WS NOT FOUND BETWEEN		USED HIGHER WS
	; WS = 2928.43 & WS = 2944.20;	
L: FRDN FAILURE		USED DEL = 0.25
	; WS = 2929.85 & FR = 15.00;	
L: FRDN FAILURE		USED HIGHER WS
	; WS = 2933.96 & FR = 1.05;	
L: WS NOT FOUND BETWEEN		USED HIGHER WS
	; WS = 2928.43 & WS = 2944.20;	
L: WS NOT FOUND		USED WSMIN = WSC
M: KU/KD < 0.7 OR > 1.4		ASSUMED WS = WSC
N: WS TOO LOW		ALERTED USER
N.7: WS NOT FOUND BETWEEN		USED WSMIN = WSC
	; WS = 2950.30 & WS = 2965.50;	
N.7: WS NOT FOUND BETWEEN		USED DEL = 0.25
	; WS = 2950.30 & WS = 2965.50;	
N.7: WS NOT FOUND		USED WSMIN = WSC
O: KU/KD < 0.7 OR > 1.4		ASSUMED WS = WSC
Q: WS TOO LOW		ALERTED USER
R: FRDN FAILURE		USED WSMIN = WSC
	; WS = 2976.94 & FR = 1.01;	
R: WS NOT FOUND BETWEEN		USED HIGHER WS
	; WS = 2971.87 & WS = 2982.00;	
R: FRDN FAILURE		USED DEL = 0.25
	; WS = 2976.94 & FR = 1.01;	
R: WS NOT FOUND BETWEEN		USED HIGHER WS
	; WS = 2971.87 & WS = 2982.00;	
R: WS NOT FOUND		USED WSMIN = WSC
	; WS = 2976.94 & FR = 1.01;	
		ASSUMED WS = WSC

	WS = 2977.16 & WS = 3000.00	USED DEL = 0.25
RX: WS NOT FOUND BETWEEN		
	WS = 2977.16 & WS = 3000.00	USED WSMIN = WSC
RX: WS NOT FOUND		ASSUMED WS = WSC
RX.5: KU/KD < 0.7 OR > 1.4		ALERTED USER
S.5: KU/KD < 0.7 OR > 1.4		ALERTED USER
T: KU/KD < 0.7 OR > 1.4		ALERTED USER
T.5: FRDN FAILURE	WS = 2994.37 & FR = 1.40	USED HIGHER WS
T.5: WS NOT FOUND BETWEEN	WS = 2988.75 & WS = 3002.30	USED DEL = 0.25
T.5: (FRDN FAILURE)	WS = 2994.37 & FR = 1.40	USED HIGHER WS
T.5: WS NOT FOUND BETWEEN	WS = 2988.75 & WS = 3002.30	USED WSMIN = WSC
		ASSUMED WS = WSC
T.5: WS NOT FOUND		ALERTED USER
U: KU/KD < 0.7 OR > 1.4		ALERTED USER
V: KU/KD < 0.7 OR > 1.4		ALERTED USER
W: KU/KD < 0.7 OR > 1.4		ALERTED USER
W.3: FRDN FAILURE	WS = 3008.94 & FR = 23.56	USED HIGHER WS
W.3: FRDN FAILURE	WS = 3012.83 & FR = 1.10	USED HIGHER WS
W.3: WS NOT FOUND BETWEEN	WS = 3008.72 & WS = 3020.40	USED DEL = 0.25
W.3: FRDN FAILURE	WS = 3008.94 & FR = 23.56	USED HIGHER WS
W.3: FRDN FAILURE	WS = 3012.83 & FR = 1.10	USED HIGHER WS
W.3: WS NOT FOUND BETWEEN	WS = 3008.72 & WS = 3020.40	USED WSMIN = WSC
		ASSUMED WS = WSC
W.3: WS NOT FOUND		USED WSMIN = WSC
W.7: WS TOO LOW		USED WSMIN = WSC
X: WS TOO LOW		USED WSMIN = WSC
X.5: WS TOO LOW		USED WSMIN = WSC

PAGE 2 OF PROFILE NOTES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
PROFILE NUMBER 2, UPSTREAM COMPUTATIONS

SECID: ERROR (WARNING) MESSAGE: INTERMEDIATE RESULTS (IF ANY): ACTION TAKEN

Y: WS TOO LOW		
Z: KU/KD < 0.7 OR > 1.4		USED WSMIN = WSC
BA: FRDN FAILURE		ALERTED USER
	WS = 3052.27 & FR = 9.01	
BA: KU/KD < 0.7 OR > 1.4		USED HIGHER WS
BB: WS TOO LOW		ALERTED USER
BB: WS NOT FOUND BETWEEN		USED WSMIN = WSC
	WS = 3069.79 & WS = 3075.10	
BB: WS NOT FOUND		USED DEL = 0.25
BBX: WS NOT FOUND BETWEEN		ASSUMED WS = WSC
	WS = 3069.54 & WS = 3080.00	
BBX: WS NOT FOUND BETWEEN		USED DEL = 0.25
	WS = 3069.54 & WS = 3080.00	
BBX: WS NOT FOUND		USED WSMIN = WSC
BC: KU/KD < 0.7 OR > 1.4		ASSUMED WS = WSC
BD: KU/KD < 0.7 OR > 1.4		ALERTED USER
BD.3: WS TOO LOW		ALERTED USER
BD.3: WS NOT FOUND BETWEEN		USED WSMIN = WSC
	WS = 3087.39 & WS = 3090.90	
BD.3: WS NOT FOUND		USED DEL = 0.25
BE.5: FRDN FAILURE		ASSUMED WS = WSC
	WS = 3099.75 & FR = 24.24	
BF.3: FRDN FAILURE		USED HIGHER WS
	WS = 3116.72 & FR = 12.91	
BF.3: FRDN FAILURE		USED HIGHER WS
	WS = 3121.13 & FR = 1.25	
BF.3: WS NOT FOUND BETWEEN		USED HIGHER WS
	WS = 3113.44 & WS = 3124.10	
BF.3: FRDN FAILURE		USED DEL = 0.25
	WS = 3116.72 & FR = 12.91	
BF.3: FRDN FAILURE		USED HIGHER WS
	WS = 3121.13 & FR = 1.25	
BF.3: WS NOT FOUND BETWEEN		USED HIGHER WS

BF.31 WS NOT FOUND		USED WSMIN = WSC
BF.71 TOL FAILURE BETWEEN		ASSUMED WS = WSC
	WS = 3121.69 & WS = 3121.94	
BF.71 KU/KD < 0.7 OR > 1.4		USED HIGHER WS
BG1 WS TOO LOW		ALERTED USER
BG1 WS NOT FOUND BETWEEN		USED WSMIN = WSC
	WS = 3136.30 & WS = 3143.50	
BG1 WS NOT FOUND		USED DEL = 0.25
BGX1 WS NOT FOUND BETWEEN		ASSUMED WS = WSC
	WS = 3136.05 & WS = 3143.70	
BGX1 WS NOT FOUND BETWEEN		USED DEL = 0.25
	WS = 3136.05 & WS = 3143.70	
BGX1 WS NOT FOUND		USED WSMIN = WSC
BGX.51 KU/KD < 0.7 OR > 1.4		ASSUMED WS = WSC
BH.51 FRDN FAILURE		ALERTED USER
	WS = 3143.43 & FR = 9.30	
BH.51 FRDN FAILURE		USED HIGHER WS
	WS = 3146.09 & FR = 1.26	
BH.51 WS NOT FOUND BETWEEN		USED HIGHER WS
	WS = 3141.56 & WS = 3151.50	
BH.51 FRDN FAILURE		USED DEL = 0.25
	WS = 3143.43 & FR = 9.30	
BH.51 FRDN FAILURE		USED HIGHER WS
	WS = 3146.09 & FR = 1.26	
BH.51 WS NOT FOUND BETWEEN		USED HIGHER WS
	WS = 3141.56 & WS = 3151.50	
BH.51 WS NOT FOUND		USED WSMIN = WSC
BI1 KU/KD < 0.7 OR > 1.4		ASSUMED WS = WSC
		ALERTED USER

WATER SURFACE PROFILE FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 PAGE 1 OF 4, PROFILE NUMBER 2, UPSTREAM COMPUTATIONS
 *** FLOODWAY ANALYSIS *** 2ND TRY

SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEW	REW
WS ELEV	HV	HF	HE	EG	V	FN	ACC	ID	
J	AT	6529	0	14690	2907	495952	1.10	-258	70
2919.61	0.44			2920.05	5.05	0.29			*IS*
J.3	AT	7216	687	14690	1323	187812	1.16	-126	70
2920.31	2.23	1.59	0.90	2922.54	11.10	0.74		-0.000	*XS*
J.7	AT	7903	687	14690	1309	187711	1.16	-120	70
2924.49	2.28	4.21	0.02	2926.77	11.22	0.74		0.001	*XS*
K	AT	8590	687	14690	2351	307129	1.08	-100	246
2928.68	0.66	2.57	0.0	2929.34	6.25	0.43		0.001	*XS*
L	AT	9545	955	13440	1553	109819	1.43	-121	311
2934.02	1.66	*****	*****	2935.68	8.66	1.02		*****	*XS*
M	AT	10180	635	13440	2366	175645	1.94	-300	200
2940.66	0.97	5.95	0.0	2941.63	5.68	0.37		0.004	*XS*
N	AT	11245	1065	13440	2099	151858	1.51	-200	203
2947.90	0.96	7.21	0.0	2948.86	6.40	0.41		0.015	*XS*
N.3	AT	11575	330	13440	2025	157416	1.17	-200	200
2950.55	0.80	2.49	0.0	2951.35	6.64	0.71		0.002	*XS*
N.7	AT	11978	403	13440	1358	135397	1.72	-68	200
2958.32	2.62	*****	*****	2960.93	9.89	0.89		*****	*XS*
O	AT	12380	402	13440	2414	197805	2.36	-67	440
2962.51	1.14	2.71	0.0	2963.65	5.57	0.62		-0.000	*XS*
P	AT	12547	167	13440	1786	158119	2.17	-81	305
2963.08	1.91	0.96	0.39	2965.00	7.53	0.72		-0.001	*XS*
Q	AT	13845	1298	8930	1570	132154	1.29	-212	100
2972.12	0.25	7.77	0.0	2972.77	5.69	0.52		0.003	*XS*
R	AT	14470	625	8930	761	66450	1.48	-40	83
2977.41	3.17	*****	*****	2980.59	11.73	0.91		*****	*XS*
RX	AT	14540	70	8930	984	91808	1.60	-150	109
2981.21	2.05	*****	*****	2983.26	9.07	0.75		*****	*XS*
RX.5	AT	14588	48	8930	2632	334744	1.09	-216	100
2983.21	0.19	0.12	0.0	2983.40	3.39	0.22		0.018	*XS*

* SEE ATTACHED
 REPLY FOR
 CORRECT SECTIONS
 4/10

386
 312
 123

WATER-SURFACE PROFILE FOR: WATAUGA RIVER 100YR AND FLOODWAY (SECOND)
 PAGE 2 OF 4, PROFILE NUMBER 2, UPSTREAM COMPUTATIONS
 *** FLOODWAY ANALYSIS *** 2ND TRY

SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEW	REW	WS ELEV	HV	HF	HE	EG	V	FN	ACC	ID
S	AT	14635	/	47	/	8930.	/	2347.	/	281121.	/	1.09	/	-211.	/	99.	310	
		2983.21	/	0.25	/	0.04	/	0.03	/	2983.45	/	3.81	/	0.25	/	-0.015		*XS*
S.5	AT	15075	/	440	/	8930.	/	1049.	/	80451.	/	1.17	/	-203.	/	99.	345	
		2984.22	/	1.32	/	1.55	/	0.54	/	2985.54	/	8.51	/	0.74	/	0.000		*XS*
T	AT	15515	/	440	/	8930.	/	1550.	/	124191.	/	1.12	/	-300.	/	100.	440	
		2988.47	/	0.58	/	3.51	/	0.0	/	2989.05	/	5.76	/	0.49	/	-0.003		*XS*
T.1	AT	15615	/	100	/	8930.	/	1520.	/	120489.	/	1.11	/	-300.	/	100.	480	
		2989.00	/	0.60	/	0.53	/	0.01	/	2989.60	/	5.88	/	0.50	/	0.002		*XS*
T.5	AT	16240	/	625	/	8930.	/	712.	/	79273.	/	1.38	/	-52.	/	60.		
		2996.24	/	3.37	/	*****	/	*****	/	2999.62	/	12.55	/	0.92	/	*****		*XS*
U	AT	16865	/	625	/	8930.	/	1046.	/	128862.	/	1.57	/	-62.	/	89.	151	
		3002.71	/	1.70	/	4.88	/	0.0	/	3004.50	/	8.54	/	0.59	/	0.000		*XS*
UX	AT	16887	/	22	/	8930.	/	1141.	/	142850.	/	1.00	/	-62.	/	69.		
		3003.64	/	0.95	/	0.10	/	0.0	/	3004.59	/	7.83	/	0.44	/	-0.000		*XS*
V	AT	17000	/	113	/	8930.	/	690.	/	71705.	/	1.13	/	-55.	/	79.	134	
		3003.52	/	2.95	/	0.88	/	1.00	/	3006.47	/	12.95	/	0.88	/	-0.001		*XS*
W	AT	17490	/	490	/	8930.	/	1749.	/	184895.	/	1.09	/	-150.	/	100.	250	
		3008.97	/	0.44	/	2.95	/	0.0	/	3009.41	/	5.11	/	0.35	/	0.001		*XS*
W.3	AT	18073	/	583	/	8930.	/	885.	/	63630.	/	1.12	/	-150.	/	100.		
		3013.22	/	1.76	/	*****	/	*****	/	3014.98	/	10.09	/	0.93	/	*****		*XS*
W.7	AT	18657	/	584	/	8930.	/	954.	/	80999.	/	1.02	/	-188.	/	91.		
		3022.63	/	1.39	/	9.04	/	0.0	/	3024.02	/	9.36	/	0.81	/	-0.000		*XS*
X	AT	19240	/	583	/	8930.	/	1165.	/	89074.	/	1.00	/	-306.	/	23.	329	
		3029.55	/	0.92	/	6.44	/	0.0	/	3030.47	/	7.67	/	0.72	/	0.009		*XS*
X.1	AT	19340	/	100	/	8930.	/	1061.	/	77229.	/	1.00	/	-306.	/	23.		
		3030.62	/	1.10	/	1.16	/	0.09	/	3031.73	/	8.42	/	0.82	/	0.000		*XS*
X.5	AT	20030	/	690	/	8930.	/	1358.	/	78741.	/	1.27	/	-65.	/	420.		
		3039.94	/	0.85	/	9.05	/	0.0	/	3040.79	/	6.58	/	0.59	/	0.014		*XS*
Y	AT	20720	/	690	/	8930.	/	1398.	/	74857.	/	1.29	/	-59.	/	450.	509	
		3049.32	/	0.82	/	9.34	/	0.0	/	3050.14	/	6.39	/	0.61	/	0.012		*XS*

WATER-SURFACE PROFILE FOR: WATAUGA RIVER, 100YR AND FLOODWAY SECOND
 PAGE 3 OF 4, PROFILE NUMBER 2, UPSTREAM COMPUTATIONS
 *** FLOODWAY ANALYSIS *** 2ND TRY

SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEW	REW								
WS	ELEV	HV	HF	HE	EG	V	FN	ACC	ID*								
YX	AT	20744	/	24	/	8930.	/	1064.	/	61918.	/	1.16	/	-24.	/	450.	
		3049.50	/	1.27	/	0.41	/	0.23	/	3050.77	/	8.39	/	0.78	/	-0.002	*XS*
Z	AT	20820	/	76	/	8930.	/	1939.	/	130918.	/	1.23	/	-161.	/	400.	
		3051.11	/	0.41	/	0.75	/	0.0	/	3051.52	/	4.61	/	0.38	/	-0.000	*XS*
AA	AT	21365	/	545	/	8930.	/	909.	/	55607.	/	1.15	/	-234.	/	28.	
		3056.43	/	1.73	/	5.97	/	0.66	/	3058.16	/	9.82	/	0.76	/	0.006	*XS*
AB	AT	22020	/	655	/	8930.	/	1160.	/	82169.	/	1.53	/	-235.	/	210.	
		3069.79	/	1.41	/	*****	/	*****	/	3071.20	/	7.70	/	0.77	/	*****	*XS*
BB	AT	22052	/	32	/	8930.	/	1190.	/	86542.	/	1.40	/	-235.	/	158.	
		3073.80	/	1.23	/	*****	/	*****	/	3075.02	/	7.51	/	0.60	/	*****	*XS*
AC	AT	22114	/	62	/	8930.	/	2317.	/	214671.	/	1.23	/	-246.	/	158.	
		3075.00	/	0.28	/	0.27	/	0.0	/	3075.29	/	3.85	/	0.28	/	-0.001	*XS*
AD	AT	22825	/	711	/	8930.	/	54211.	/	13282914.	/	1.00	/	-202.	/	24.	
		3075.31	/	0.00	/	0.02	/	0.0	/	3075.31	/	0.16	/	0.00	/	-0.000	*XS*
BD.3	AT	23208	/	383	/	8930.	/	924.	/	73255.	/	1.31	/	-98.	/	156.	
		3087.39	/	1.90	/	*****	/	*****	/	3089.29	/	9.66	/	0.83	/	*****	*XS*
BD.7	AT	23592	/	384	/	8930.	/	1193.	/	83360.	/	1.32	/	-212.	/	24.	
		3093.15	/	1.15	/	5.01	/	0.0	/	3094.30	/	7.48	/	0.50	/	0.000	*XS*
AE	AT	23975	/	383	/	8930.	/	1021.	/	75070.	/	1.29	/	-124.	/	75.	
		3097.84	/	1.53	/	4.88	/	0.19	/	3099.38	/	8.75	/	0.76	/	0.002	*XS*
BE.1	AT	24075	/	100	/	8930.	/	1028.	/	75856.	/	1.29	/	-124.	/	75.	
		3099.28	/	1.51	/	1.40	/	0.0	/	3100.79	/	8.69	/	0.75	/	0.012	*XS*
BE.5	AT	24535	/	460	/	8930.	/	919.	/	64683.	/	1.27	/	-100.	/	80.	
		3106.58	/	1.87	/	7.48	/	0.18	/	3108.45	/	9.72	/	0.86	/	0.005	*XS*
AF	AT	24995	/	460	/	8930.	/	1185.	/	90098.	/	1.20	/	-100.	/	100.	
		3113.69	/	1.06	/	6.29	/	0.0	/	3114.75	/	7.54	/	0.51	/	0.003	*XS*
BF.3	AT	25407	/	412	/	8930.	/	895.	/	58661.	/	1.27	/	-100.	/	100.	
		3121.94	/	1.96	/	*****	/	*****	/	3123.91	/	9.98	/	0.94	/	*****	*XS*
BF.7	AT	25818	/	411	/	8930.	/	1144.	/	95592.	/	1.04	/	-135.	/	91.	
		3128.77	/	0.99	/	5.84	/	0.0	/	3129.75	/	7.81	/	0.58	/	0.003	*XS*

NO FLOODWAY

226

199

200

24
135
91
51

WATER-SURFACE PROFILE FOR: WATAUGA RIVER, 100YR AND FLOODWAY SECOND
 PAGE 4 OF 4, PROFILE NUMBER 2, UPSTREAM COMPUTATIONS
 *** FLOODWAY ANALYSIS *** 2ND TRY

SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEW	PEW	WS ELEV	HV	HF	HE	EG	V	FN	ACC	ID
AGG	AT	26230	12	8930	1068	55341	1.18	526	52	3136.30	1.29	*****	*****	3137.59	8.36	0.94	*****	XS
BGX	AT	26251	21	8930	1376	78039	1.93	-420	52	3140.51	1.27	*****	*****	3141.78	6.49	0.72	*****	XS
BGX.5	AT	26288	37	8930	2831	179305	1.30	-526	52	3141.79	0.20	0.21	0.0	3141.99	3.15	0.22	0.000	XS
APH	AT	26325	37	8930	1876	132202	1.15	-200	200	3141.81	0.40	0.12	0.10	3142.22	4.76	0.30	-0.000	XS
BH.5	AT	26680	355	8930	1125	58786	1.25	-200	200	3146.64	1.23	*****	*****	3147.86	7.94	0.64	*****	XS
AAI	AT	27035	355	8930	2107	123749	1.00	-406	57	3151.48	0.28	3.89	0.0	3151.76	4.24	0.33	0.003	XS

END OF THIS PROFILE

NO FLOODWAY

COMPUTED WSC VALUES FOR: WATAUGA RIVER, 100YR AND FLOODWAY SECOND
PROFILE NUMBER 2, UPSTREAM COMPUTATIONS

SECID	L	N	N.7	O	R	RX	T.5	W.3
WSC	2934.02	2946.25	2958.32	2969.68	2977.41	2981.21	2996.24	3013.22

SECID	W.7	X	X.5	Y	BB	BBX	BD.3	BF.3
WSC	3021.83	3028.70	3039.49	3049.03	3069.79	3073.80	3087.39	3121.94

SECID	B0	BGX	BH.5
WSC	3136.30	3140.51	3146.64

SUMMARY OF ENCROACHMENTS FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 RESULTS OF THE FLOODWAY ANALYSIS ENTITLED 2ND TRY (PROFILE
 NUMBER 2, UPSTREAM COMPUTATIONS) ARE COMPARED TO THE RESULTS OF THE
 BASE PROFILE (PROFILE NUMBER 1, UPSTREAM COMPUTATIONS). PAGE 1 OF 2

SECID	CARD 3 SEQUENCE	TYPE	FW OPTION	ENCROACHMENT		SURCHARGE		CHANNEL WIDTH	
				LEFT	RIGHT	IDEAL	ACTUAL	NATURAL	FLOODWAY
J	160	1	VHD	YES	CONS	1.00	1.00	527	328
J.3	170	0	VHD	YES	CONS	1.00	0.77	517	196 -230 70
J.7	181	0	VHD	YES	CONS	1.00	1.00	516	190 -230 70
K	1175	0	VHD	CONS	YES	1.00	1.24	1299	346
L	1190	1	VHD	CONS	CONS	1.00	0.04	433	432
M	1210	0	VHD	YES	CONS	1.00	0.09	839	500
N	1230	0	VHD	CONS	YES	1.00	0.83	655	403
N.3	1240	0	VHD	CONS	CONS	1.00	0.94	633	400
N.7	1260	0	VHD	NO	CONS	1.00	0.16	507	268
O	2250	0	VHD	CONS	CONS	1.00	1.04	507	507
P	2270	0	VHD	CONS	CONS	1.00	0.37	386	386
Q	2284	1	VHD	YES	CONS	1.00	0.32	839	312
R	2300	0	VHD	CONS	CONS	1.00	0.0	123	123
RX	2310	0	VHD	CONS	CONS	1.00	-0.65	728	259
RX.5	2320	0	VHD	YES	NO	1.00	0.19	783	315
S	3330	0	VHD	YES	CONS	1.00	0.19	779	310
S.5	3350	0	VHD	YES	CONS	1.00	0.44	438	302
T	4345	0	VHD	CONS	CONS	1.00	0.89	437	400
T.1	4360	0	VHD	CONS	CONS	1.00	0.44	439	400
T.5	4380	0	VHD	NO	CONS	1.00	0.0	112	112
U	5364	0	VHD	CONS	CONS	1.00	0.0	150	150
UX	5382	0	VHD	CONS	CONS	1.00	0.0	131	131
V	5412	0	VHD	CONS	CONS	1.00	0.90	134	134
W	5430	0	VHD	CONS	CONS	1.00	0.20	379	250
W.3	5440	0	VHD	CONS	CONS	1.00	-0.04	352	250
W.7	5460	0	VHD	YES	CONS	1.00	0.90	334	279
X	6421	0	VHD	CONS	CONS	1.00	0.43	329	329
X.1	6435	0	VHD	CONS	CONS	1.00	0.03	330	329
X.5	6450	0	VHD	NO	YES	1.00	0.70	746	485
Y	6470	0	VHD	CONS	CONS	1.00	0.91	741	509
YX	6491	0	VHD	CONS	CONS	1.00	0.85	611	474
Z	6521	0	VHD	CONS	CONS	1.00	0.51	674	561
RA	6542	0	VHD	YES	CONS	1.00	0.24	566	262
RR	6560	0	VHD	CONS	CONS	1.00	0.0	445	445
BBX	6580	0	VHD	CONS	NO	1.00	0.0	404	393
BC	6613	0	VHD	CONS	CONS	1.00	-0.08	534	404
SD	6642	0	VHD	YES	YES	1.00	0.04	226	226
RD.3	6660	0	VHD	CONS	YES	1.00	0.73	652	254
RD.7	6680	0	VHD	YES	CONS	1.00	1.35	406	236
BE	7662	0	VHD	YES	CONS	1.00	0.80	405	199

SUMMARY OF ENCROACHMENTS FOR WATAUGA RIVER 100YR AND FLOODWAY SECOND
 RESULTS OF THE FLOODWAY ANALYSIS ENTITLED 2ND TRY (PROFILE
 NUMBER 2, UPSTREAM COMPUTATIONS) ARE COMPARED TO THE RESULTS OF THE
 BASE PROFILE (PROFILE NUMBER 1, UPSTREAM COMPUTATIONS). PAGE 2 OF 2

SECID	CARD 3 SEQUENCE	TYPE	FW OPTION	ENCROACHMENT		SURCHARGE		CHANNEL WIDTH	
				LEFT	RIGHT	IDEAL	ACTUAL	NATURAL	FLOODWAY
BE.1	7680	0	VHD	YES	CONS	1.00	0.96	404	199
BE.5	7700	0	VHD	CONS	YES	1.00	1.03	261	180
BF	8681	0	VHD	CONS	CONS	1.00	0.90	270	200
BF.3	8700	0	VHD	CONS	CONS	1.00	0.55	258	200
BF.7	8720	0	VHD	YES	CONS	1.00	0.76	607	225
BG	9701	0	VHD	CONS	CONS	1.00	0.0	578	578
BGX	9719	0	VHD	NO	CONS	1.00	0.03	525	472
BGX.5	9740	0	VHD	CONS	CONS	1.00	0.10	836	578
BH	10750	0	VHD	CONS	CONS	1.00	0.08	797	400
BH.5	10780	0	VHD	CONS	CONS	1.00	1.17	561	400
BI	11772	0	VHD	YES	CONS	1.00	-0.32	675	464

*** INPUT CARD PRINTOUT ***

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.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0
1     1 WATAUGA RIVER 100YR AND FLOODWAY          SECOND 10 2 02 99 10
2     159 291861 291961
3     160    J 1  26  5 2909    6529 99 99
4     161  14690  14690
5     162   -470  1 29232 -449  1 29180 -443  1 29135 -437  1 29153 -427  1 29174
5     163   -420  1 29164 -370  1 29143 -270  1 29133 -220  1 29141 -170  1 29115
5     164   -120  1 29114 -84  2 29130 -70  2 29107 -50  2 29108 -38  3 29094
5     165    -30  3 29068 -26  3 29067 -20  3 29061  0  3 29063  28  3 29058
5     166    38  3 29066  42  4 29097  60  4 29119  70  5 29145  80  5 29225
5     167    93  5 29233
6     169  1  2 035 035  1  2 035 035  4  5 040 040  1  2 060 060  1  2 060 060
3     170  J.3 0  26  5 2913    7216 99 99
5     172   -470  1 29273 -449  1 29221 -443  1 29176 -437  1 29194 -427  1 29215
5     173   -420  1 29205 -370  1 29184 -270  1 29174 -220  1 29182 -170  1 29156
5     174   -120  1 29155 -84  2 29171 -70  2 29148 -50  2 29149 -38  3 29135
5     175    -30  3 29109 -26  3 29108 -20  3 29102  0  3 29104  28  3 29099
5     176    38  3 29107  42  4 29138  60  4 29160  70  5 29186  80  5 29266
5     177    93  5 29274
6     179  1  2 035 035  1  2 035 035  4  5 040 040  1  2 060 060  1  2 060 060
3     181  J.7 0  26  5 2917    7903 99 99
5     183   -470  1 29314 -449  1 29262 -443  1 29217 -437  1 29235 -427  1 29256
5     184   -420  1 29246 -370  1 29225 -270  1 29215 -220  1 29223 -170  1 29197
5     185   -120  1 29196 -84  2 29212 -70  2 29189 -50  2 29190 -38  3 29176
5     186    -30  3 29150 -26  3 29149 -20  3 29143  0  3 29145  28  3 29140
5     187    38  3 29148  42  4 29179  60  4 29201  70  5 29227  80  5 29307
5     188    93  5 29315
6     190  1  2 035 035  1  2 035 035  4  5 040 040  1  2 060 060  1  2 060 060
3     1175  K 0  46  5 2921    8590 99 99
5     1177  -894  1 29362 -794  1 29316 -694  1 29297 -594  1 29286 -494  1 29272
5     1178  -394  1 29275 -294  1 29269 -194  2 29270 -94  2 29249 -83  2 29238
5     1179  -63  2 29221 -33  2 29213 -22  2 29201 -7  2 29194  0  2 29181
5     1180    8  2 29186  12  2 29201  15  3 29251  26  3 29255  51  3 29246
5     1181   67  3 29237  106  3 29235  128  4 29242  141  4 29218  178  4 29208
5     1182  190  4 29221  196  4 29197  202  4 29173  206  4 29160  213  4 29154
5     1183  222  4 29164  229  4 29172  233  4 29198  240  4 29207  251  4 29205
5     1184  274  5 29246  306  5 29252  406  5 29240  506  5 29249  606  5 29245
5     1185  706  5 29263  806  5 29277  906  5 29285  984  5 29303 1027  5 29340
5     1186  1046  5 29366
6     1188  1  2 035 035  4  5 040 040  1  2 045 045  4  5 040 040  1  2 065 065
3     1190  L 1  36  3 2929    9545 99 99
4     1191  13440  13440
5     1192  -712  1 29427 -707  1 29388 -701  1 29406 -698  1 29409 -668  1 29422
5     1193  -653  1 29407 -612  1 29378 -512  1 29370 -412  1 29385 -312  1 29388
5     1194  -212  1 29383 -134  1 29352 -95  2 29314 -92  2 29286 -87  2 29289
5     1195   -84  2 29296 -83  2 29290 -62  2 29299 -32  2 29306 -18  2 29298
    
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*** INPUT CARD PRINTOUT ***

	1	2	3	4	5	6	7	8
5 1196	-15	2 29277	-8	2 29272	0	2 29255	9	2 29267
5 1197	17	2 29300	31	3 29331	38	3 29326	88	3 29302
5 1198	148	3 29296	188	3 29299	238	3 29305	208	3 29324
5 1199	388	3 29442						3 29358
6 1201	1	2 045 045	4	5 040 040	1	2 065 065		
3 1210	N 0	40	3 2934	10180	99 99			
5 1212	-855	1 29465	-830	1 29447	-825	1 29439	-775	1 29421
5 1213	-766	1 29410	-756	1 29435	-753	1 29441	-728	1 29444
5 1214	-705	1 29419	-605	1 29400	-505	1 29388	-405	1 29399
5 1215	-300	1 29349	-375	1 29358	-285	1 29361	-270	1 29354
5 1216	-205	1 29337	-155	1 29366	-85	1 29405	-83	1 29396
5 1217	-25	2 29344	-15	2 29333	-10	2 29314	-5	2 29309
5 1218	10	2 29308	17	2 29314	20	3 29339	50	3 29339
5 1219	110	3 29398	135	3 29383	185	3 29378	225	3 29436
6 1221	1	2 070 070	4	5 040 040	1	2 065 065		
3 1230	N 0	29	3 2944	11245	99 99			
5 1232	-315	1 29569	-308	1 29545	-300	1 29554	-273	1 29552
5 1233	-170	1 29464	-161	1 29421	-159	1 29413	-154	1 29418
5 1234	-115	1 29446	-40	2 29447	-20	2 29416	-17	2 29410
5 1235	13	2 29407	20	2 29415	25	3 29420	50	3 29411
5 1236	175	3 29417	205	3 29412	255	3 29427	275	3 29450
5 1237	365	3 29434	385	3 29486	410	3 29411	465	3 29571
6 1239	1	2 080 080	4	5 040 040	1	2 075 075		
3 1240	N 3 0	26	3 2947	11575	99 99			
5 1242	-273	1 29580	-260	1 29503	-170	1 29492	-161	1 29449
5 1243	-154	2 29446	-150	2 29461	-115	2 29474	-40	2 29475
5 1244	-17	2 29438	0	2 29438	13	2 29435	20	2 29443
5 1245	50	3 29439	150	3 29439	175	3 29445	205	3 29440
5 1246	275	3 29478	302	3 29443	365	3 29462	385	3 29514
5 1247	465	3 29599						
6 1249	1	2 080 080	4	5 040 040	1	2 075 075		
3 1260	N 7 0	22	3 2950	11978	99 99			
5 1262	-89	1 29633	-72	1 29598	-62	2 29563	-39	2 29545
5 1263	24	2 29473	0	2 29475	16	2 29469	21	2 29480
5 1264	2	3 29565	51	3 29530	59	3 29549	112	3 29547
5 1265	296	3 29563	396	3 29559	421	3 29528	431	3 29523
5 1266	467	3 29627	468	3 29655				
6 1268	1	2 090 090	4	5 040 040	1	2 085 085		
3 2250	0 0	26	3 2953	12380	99 99			
5 2252	-154	1 29667	-126	1 29663	-98	1 29663	-89	1 29667
5 2253	-62	2 29597	-39	2 29579	-31	2 29533	-24	2 29513
5 2254	0	2 29509	16	2 29503	21	2 29514	33	2 29569
5 2255	51	3 29564	59	3 29583	112	3 29581	196	3 29585
5 2256	396	3 29593	421	3 29562	431	3 29557	447	3 29659
5 2257	468	3 29689						

INPUT SUMMARY FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND

10 CROSS SECTIONS SPECIFIED (OR ASSUMED)

FOUND 10 TYPE 3 CARDS

KEPT 10 CROSS SECTIONS FOR EDITING

10 " " VALID FOR PROPERTY COMPUTATIONS

10 " " " " PROFILE "

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= J AT DISTANCE= 6529 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2909.0	202	14108	1.00	78	79	-36	41	1851
2918.9	3530	529125	1.16	528	534	-452	75	48118
2923.3	5909	1177775	1.08	563	571	-469	93	104664

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= J.3 AT DISTANCE= 7216 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2913.0	195	13275	1.00	77	79	-35	41	1751
2922.9	3477	517106	1.16	528	534	-451	75	46986
2927.4	5910	1177840	1.08	563	571	-469	93	104670

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= J.7 AT DISTANCE= 7903 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2917.0	187	12456	1.00	77	78	-35	41	1652
2926.9	3424	505162	1.17	527	533	-451	75	45858
2931.5	5910	1177831	1.08	563	571	-469	93	104670

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= K AT DISTANCE= 8590 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2921.0	235	14270	1.04	113	116	-29	254	1877
2930.9	8887	937765	1.51	1748	1755	-756	991	92384
2936.6	19492	3050504	1.27	1940	1947	-893	1046	311311

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= L AT DISTANCE= 9545 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2929.0	72	3940	1.00	39	40	-91	16	555
2938.9	4357	441565	1.58	984	989	-706	356	41369
2944.2	9943	1347088	1.33	1100	1108	-711	388	146993

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= M AT DISTANCE= 10180 SECOND PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2934.0	127	6481	1.50	148	150	-227	60	546
2943.9	6201	496488	1.79	1025	1032	-824	228	64598
2947.6	10222	1039036	1.49	1120	1129	-854	265	143636

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= N AT DISTANCE= 11245 SECOND PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2944.0	937	35946	1.43	440	442	-164	420	6493
2953.9	7461	766812	1.40	725	732	-270	454	114828
2957.1	9879	1165582	1.42	780	789	-314	465	167542

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= N.3 AT DISTANCE= 11575 SECOND PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2947.0	1026	40060	1.19	452	455	-164	421	8045
2956.9	7606	883950	1.36	726	734	-270	455	119730
2959.9	9804	1327024	1.38	738	748	-272	465	172539

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= N.7 AT DISTANCE= 11978 SECOND PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2950.0	134	8783	1.00	57	58	-30	25	1172
2959.9	2824	244005	2.31	515	523	-71	443	24687
2965.5	5852	677596	2.05	557	570	-88	468	75187

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY
 SECID= O AT DISTANCE= 12380 SECOND PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2953.0	110	6429	1.00	54	56	-29	24	885
2962.9	2617	219616	2.33	513	521	-70	442	21939
2968.9	6012	680269	2.11	622	635	-153	468	72920

*** INPUT CARD PRINTOUT ***

1 2 3 4 5 6 7 8
.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0

7 15000

8 15001

0 1

0 0

PAGE 1 OF PROFILE NOTES FOR WATAUGA RIVER, 100YR AND FLOODWAY SECOND
PROFILE NUMBER 1, UPSTREAM COMPUTATIONS

SECID: ERROR (WARNING) MESSAGE: INTERMEDIATE RESULTS (IF ANY): ACTION TAKEN

J.3: KU/KD < 0.7 OR > 1.4	:	ALERTED USER
K: KU/KD < 0.7 OR > 1.4	:	ALERTED USER
L: FRDN FAILURE	:	WS = 2929.79 & FR = 15.66
	:	USED HIGHER WS
L: FRDN FAILURE	:	WS = 2933.66 & FR = 1.19
	:	USED HIGHER WS
L: WS NOT FOUND BETWEEN	:	WS = 2927.20 & WS = 2944.20
	:	USED DEL = 0.25
L: FRDN FAILURE	:	WS = 2929.79 & FR = 15.66
	:	USED HIGHER WS
L: FRDN FAILURE	:	WS = 2933.66 & FR = 1.19
	:	USED HIGHER WS
L: WS NOT FOUND BETWEEN	:	WS = 2927.20 & WS = 2944.20
	:	USED WSMIN = WSC
L: WS NOT FOUND	:	ASSUMED WS = WSC
M: KU/KD < 0.7 OR > 1.4	:	ALERTED USER
N: WS TOO LOW	:	USED WSMIN = WSC
N.7: WS NOT FOUND BETWEEN	:	WS = 2949.36 & WS = 2965.50
	:	USED DEL = 0.25
N.7: WS NOT FOUND BETWEEN	:	WS = 2949.36 & WS = 2965.50
	:	USED WSMIN = WSC
N.7: WS NOT FOUND	:	ASSUMED WS = WSC

WATER-SURFACE PROFILE FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 PAGE 1 OF 1, PROFILE NUMBER 1, UPSTREAM COMPUTATIONS

SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEW	REW
WS ELEV	HV	HF	HE	EG	V	FN	ACC	ID*	
J	AT	6529 /	0 /	14690. /	3377. /	494526. /	1.17 /	-451. /	75.
2918.61	/	0.34 /		/	2918.95 /	4.35 /	0.29 /		*IS*
J.3	AT	7216 /	687 /	14690. /	1754. /	196757. /	1.41 /	-446. /	71.
2919.54	/	1.54 /	1.52 /	0.60 /	2921.07 /	8.38 /	0.70 /	-0.001	*XS*
J.7	AT	7903 /	687 /	14690. /	1686. /	187086. /	1.42 /	-445. /	71.
2923.49	/	1.68 /	4.03 /	0.07 /	2925.17 /	8.71 /	0.73 /	0.001	*XS*
K	AT	8590 /	687 /	14690. /	3488. /	289458. /	1.69 /	-512. /	788.
2927.45	/	0.47 /	2.74 /	0.0 /	2927.91 /	4.21 /	0.46 /	0.001	*XS*
L	AT	9545 /	955 /	13440. /	1535. /	107847. /	1.43 /	-121. /	311.
2933.98	/	1.70 /	***** /	***** /	2935.68 /	8.76 /	1.04 /	*****	*XS*
M	AT	10180 /	635 /	13440. /	3065. /	189858. /	2.39 /	-535. /	204.
2940.57	/	0.72 /	5.60 /	0.0 /	2941.29 /	4.38 /	0.32 /	0.004	*XS*
N	AT	11245 /	1065 /	13440. /	2642. /	158978. /	1.50 /	-224. /	431.
2947.06	/	0.60 /	6.37 /	0.0 /	2947.67 /	5.09 /	0.38 /	0.006	*XS*
N.3	AT	11575 /	330 /	13440. /	2481. /	151675. /	1.17 /	-203. /	430.
2949.61	/	0.53 /	2.47 /	0.0 /	2950.14 /	5.42 /	0.40 /	0.002	*XS*
N.7	AT	11978 /	403 /	13440. /	1931. /	149719. /	2.43 /	-67. /	440.
2958.15	/	1.83 /	***** /	***** /	2959.98 /	6.96 /	0.81 /	*****	*XS*
O	AT	12380 /	402 /	13440. /	1886. /	144983. /	2.43 /	-67. /	440.
2961.47	/	1.92 /	3.35 /	0.04 /	2963.38 /	7.13 /	0.83 /	0.013	*XS*

END OF THIS PROFILE

100 YR

512
288
1300

COMPUTED WSC VALUES FOR: WATAUGA RIVER - 100YR AND FLOODWAY - SECOND
PROFILE NUMBER 1, UPSTREAM COMPUTATIONS

SECID	L	N	N.7
WSC	2933.98	2945.44	2958.15

*** INPUT CARD PRINTOUT ***

.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0

9 15002	160	VHD	100	-70	70
9 15003	170	VHD	100	-230	70
9 15004	181	VHD	100	-230	70
9 15005	1175	VHD	100	-100	100
9 15006	1190	VHD	100	-121	311
9 15007	1210	VHD	100	-300	200
9 15008	1230	VHD	100	-200	200
9 15009	2250	VHD	100	-67	440
9 15029	END				

2ND TRY

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= J AT DISTANCE= 6529 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2909.0	202	14108	1.00	78	79	-36	41	1851
2918.9	2674	434776	1.12	328	340	-257	70	41020
2923.3	4115	864185	1.08	328	348	-257	70	79690

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= J.3 AT DISTANCE= 7216 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2913.0	195	13275	1.00	77	79	-35	41	1751
2922.9	2502	409586	1.11	300	312	-229	70	38848
2927.4	3852	814381	1.08	300	321	-229	70	75321

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= J.7 AT DISTANCE= 7903 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2917.0	187	12456	1.00	77	78	-35	41	1652
2926.9	2472	401887	1.11	300	311	-229	70	38125
2931.5	3852	814401	1.08	300	321	-229	70	75323

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= K AT DISTANCE= 8590 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2921.0	231	14789	1.06	105	108	-29	246	1893
2930.9	3118	478279	1.05	346	368	-99	246	51728
2936.6	5087	1041488	1.02	346	379	-99	246	109547

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= L AT DISTANCE= 9545 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2929.0	72	3940	1.00	39	40	-91	16	555
2938.9	3662	426904	1.28	432	446	-120	311	53430
2944.2	5951	934791	1.25	432	457	-120	311	111982

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= M AT DISTANCE= 10180 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2934.0	127	6481	1.50	148	150	-227	60	546
2943.9	3987	388640	1.56	500	517	-299	200	51125
2947.6	5837	708851	1.41	500	524	-299	200	95306

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= N AT DISTANCE= 11245 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2944.0	669	29517	1.31	272	276	-164	203	5203
2953.9	4515	503896	1.47	403	424	-199	203	70862
2957.1	5803	752330	1.46	403	431	-199	203	103360

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= N.3 AT DISTANCE= 11575 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2947.0	717	31967	1.12	276	281	-164	200	6202
2956.9	4564	607397	1.29	400	422	-199	200	76886
2959.9	5764	894287	1.32	400	428	-199	200	107838

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= N.7 AT DISTANCE= 11978 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2950.0	134	8783	1.00	57	58	-30	25	1172
2959.9	1786	195942	1.74	272	282	-71	200	19667
2965.5	3376	484144	1.75	289	307	-88	200	49477

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 SECID= O AT DISTANCE= 12380 PART 1 OF 1
 *** FLOODWAY ANALYSIS *** 2ND TRY

WS	A	K	ALPHA	B	P	LEW	REW	QC
2953.0	110	6429	1.00	54	56	-29	24	885
2962.9	2612	219606	2.32	507	517	-66	440	22055
2968.9	5654	670543	1.96	507	529	-66	440	76487

PAGE 1 OF PROFILE NOTES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
PROFILE NUMBER 2, UPSTREAM COMPUTATIONS

SECID: ERROR(WARNING) MESSAGE: INTERMEDIATE RESULTS (IF ANY): ACTION TAKEN

J.3: KU/KD < 0.7 OR > 1.4

L: FRDN FAILURE

WS = 2929.56 & FR = 10.37

ALERTED USER

L: KU/KD < 0.7 OR > 1.4

USED HIGHER WS

M: KU/KD < 0.7 OR > 1.4

ALERTED USER

N: WS TOO LOW

ALERTED USER

N.7: WS NOT FOUND BETWEEN

USED WSMIN = WSC

WS = 2950.30 & WS = 2965.50

N.7: WS NOT FOUND BETWEEN

USED DEL = 0.25

WS = 2950.30 & WS = 2965.50

N.7: WS NOT FOUND

USED WSMIN = WSC

O: KU/KD < 0.7 OR > 1.4

ASSUMED WS = WSC

ALERTED USER

WATER-SURFACE PROFILE FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
 PAGE 1 OF 1, PROFILE NUMBER 2, UPSTREAM COMPUTATIONS
 *** FLOODWAY ANALYSIS *** 2ND TRY

SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEW	REW	WS ELEV	HV	HF	HE	EG	V	FN	ACC	ID*
J	AT	6529	0	14690.	2907.	495952.	1.10	-258.	70.	2919.61	0.44			2920.05	5.05	0.29		328
																		IS
J.3	AT	7216	687	14690.	1765.	238844.	1.18	-230.	70.	2920.45	1.27	1.25	0.42	2921.72	8.32	0.58	-0.000	*XS*
J.7	AT	7903	687	14690.	1465.	181087.	1.24	-230.	70.	2923.54	1.93	3.43	0.33	2925.48	10.03	0.76	0.001	*XS*
K	AT	8590	687	14690.	2069.	252061.	1.10	-100.	246.	2927.86	0.86	3.25	0.0	2928.72	7.10	0.51	0.001	*XS*
L	AT	9545	955	13440.	1589.	113718.	1.42	-121.	311.	2934.10	1.58	6.59	0.36	2935.68	8.46	0.99	0.005	*XS*
M	AT	10180	635	13440.	2321.	170798.	1.95	-300.	200.	2940.57	1.02	5.91	0.0	2941.59	5.79	0.38	-0.000	*XS*
N	AT	11245	1065	13440.	2121.	154272.	1.51	-200.	203.	2947.95	0.94	7.30	0.0	2948.89	6.34	0.41	0.003	*XS*
N.3	AT	11575	330	13440.	2024.	157266.	1.17	-200.	200.	2950.55	0.80	2.46	0.0	2951.35	6.64	0.72	0.002	*XS*
N.7	AT	11978	403	13440.	1358.	135397.	1.72	-68.	200.	2958.32	2.62	*****	*****	2960.93	9.89	0.89	*****	*XS*
O	AT	12380	402	13440.	2414.	197805.	2.36	-67.	440.	2962.51	1.14	2.71	0.0	2963.65	5.57	0.62	-0.000	*XS*

END OF THIS PROFILE

COMPUTED WSC VALUES FOR: WATAUGA RIVER 100YR AND FLOODWAY SECOND
PROFILE NUMBER 2. UPSTREAM COMPUTATIONS

SECID	N	N.7
WSC	2946.25	2958.32

SUMMARY OF ENCROACHMENTS FOR WATAUGA RIVER 100YR AND FLOODWAY SECOND
 RESULTS OF THE FLOODWAY ANALYSIS ENTITLED 2ND TRY (PROFILE
 NUMBER 2, UPSTREAM COMPUTATIONS) ARE COMPARED TO THE RESULTS OF THE
 BASE PROFILE (PROFILE NUMBER 1, UPSTREAM COMPUTATIONS). PAGE 1 OF 1

SECID	CARD 3 SEQUENCE	TYPE	FW OPTION	ENCROACHMENT		SURCHARGE		CHANNEL WIDTH	
				LEFT	RIGHT	IDEAL	ACTUAL	NATURAL	FLOODWAY
J	160	1	VHD	YES	CONS	1.00	1.00	527	328
J.3	170	0	VHD	CONS	CONS	1.00	0.91	517	300
J.7	181	0	VHD	CONS	CONS	1.00	0.05	516	300
K	1175	0	VHD	CONS	YES	1.00	0.42	299	346
L	1190	1	VHD	CONS	CONS	1.00	0.12	433	432
M	1210	0	VHD	YES	CONS	1.00	0.00	839	500
N	1230	0	VHD	CONS	YES	1.00	0.89	655	403
N.3	1240	0	VHD	CONS	CONS	1.00	0.94	633	400
N.7	1260	0	VHD	NO	CONS	1.00	0.16	507	268
0	2250	0	VHD	CONS	CONS	1.00	1.04	507	507

*** INPUT CARD PRINTOUT ***

104R, 504R, 1004R

S

	1	2	3	4	5	6	7	8
1	1	WATAUGA RIVER AT OLD DAM SITE NR NC 105	A-D	13	3	02	10	15
2	2	286829 287292 287378						
3	3	A 1 17 4 2864	0 99 99					
4	4	5620 11240 14690						
5	5	-240 1 28645 -234 1 28792 -230 1 28752 -226 1 28731 -208 2 28721						
5	6	-52 3 28719 -40 3 28627 -28 3 28626 -20 3 28614 -8 3 28628						
5	7	13 3 28625 21 3 28636 46 3 28667 57 4 28762 72 4 28765						
5	8	38 4 28769 97 4 28823						
6	10	1 2 055 065 1 2 031 030 4 5 055 040 1 2 060 050						
3	12	A P 0 25 4 2866	4 99 99					
5	14	-240 1 28645 -234 1 28792 -230 1 28752 -226 1 28731 -208 2 28721						
5	15	-208 2 28671 -182 4 28699 -169 2 28677 -140 2 28564 -90 2 28590						
5	16	-52 2 28635 -58 3 28719 -40 3 28627 -28 3 28626 -20 3 28614						
5	17	-8 3 28628 13 3 28625 21 3 28636 36 3 28655 40 3 28667						
5	18	57 4 28762 72 4 28765 88 4 28769 92 4 28753 97 4 28823						
6	19	1 2 065 055 1 2 051 053 4 5 065 055 1 2 060 050						
3	20	B 0 28 3 2870	760 99 99					
5	22	-75 1 28894 -57 1 28889 -51 1 28860 -49 1 28777 -39 1 28744						
5	23	-29 2 28726 -27 2 28694 -26 2 28688 -21 2 28672 -5 2 28674						
5	24	10 2 28678 23 2 28686 26 2 28700 30 2 28690 53 2 28675						
5	25	55 2 28666 64 2 28696 75 2 28691 80 2 28680 83 2 28672						
5	26	72 2 28718 95 3 28748 115 3 28777 123 3 28772 129 3 28742						
5	27	129 3 28742 148 1 28777 165 3 28925						
6	29	1 2 075 075 4 5 053 053 1 2 070 070						
3	30	C 0 33 3 2873	1200 99 99					
5	32	-50 1 28901 -40 1 28821 -23 2 28722 -12 2 28705 0 2 28701						
5	33	6 2 28709 11 2 28713 20 2 28706 35 2 28722 39 2 28744						
5	34	50 3 28737 64 3 28750 74 3 28766 84 3 28791 100 3 28795						
5	35	120 3 28793 130 3 28779 143 3 28788 153 3 28750 165 3 28741						
5	36	176 3 28739 194 3 28762 189 3 28756 193 3 28763 199 3 28759						
5	37	205 3 28777 210 3 28788 215 3 28926 217 3 28834 243 3 28854						
5	38	248 3 28866 254 3 28890 256 3 28900						
6	40	1 2 075 075 4 5 055 055 1 2 070 070						
3	45	D 0 37 3 2885	1115 99 99					
5	47	-70 1 29035 -52 2 29074 -30 2 28949 -19 2 28838 -16 2 28821						
5	48	-19 2 28819 -4 2 28814 2 2 28818 6 2 28825 14 2 28837						
5	49	23 2 28852 27 2 28880 37 3 28893 80 3 28911 130 3 28881						
5	50	230 3 28883 319 3 28884 330 3 28911 430 3 28922 480 3 28896						
5	51	530 3 28914 621 3 28930 690 3 28925 708 3 28903 739 3 28925						
5	52	785 3 28915 801 3 28908 820 3 28903 823 3 28879 826 3 28873						
5	53	830 3 28872 831 3 28875 836 3 28879 842 3 28908 864 3 28918						
5	54	880 3 28943 897 3 29013						
6	56	1 2 065 065 4 5 040 040 1 2 035 035						

INPUT SUMMARY FOR WATAUGA RIVER AT OLD DAM SITE NR NC 1105 A-D

13 CROSS SECTIONS SPECIFIED (OR ASSUMED)

FOUND 5 TYPE 3 CARDS

KEPT 5 CROSS SECTIONS FOR EDITING

5 " " VALID FOR PROPERTY COMPUTATIONS

5 " " " " PROFILE "

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER AT OLD DAM SITE NR NC 105 A-D
 SECID= A AT DISTANCE= 0 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2854.0	93	2548	1.00	55	67	-41	24	523
2855.0	163	6211	1.00	75	76	-42	32	1364
2866.0	243	11139	1.00	85	86	-43	40	2339
2867.0	332	17682	1.00	92	94	-45	46	3583
2868.0	425	32430	1.00	94	97	-46	48	5123
2869.0	521	50231	1.00	97	100	-47	49	6856
2870.0	619	76031	1.00	99	103	-49	50	8769
2871.0	710	95755	1.00	102	107	-50	51	10856
2872.0	817	117502	1.01	182	188	-129	52	9947
2873.0	1111	144962	1.18	277	283	-223	53	11275
2874.0	1311	193331	1.20	282	289	-227	54	15673
2875.0	1355	247053	1.16	285	292	-229	56	20986
2876.0	1442	308352	1.12	288	295	-230	57	26999
2877.0	2044	379081	1.11	320	328	-231	88	32005
2878.0	2516	458460	1.11	323	332	-232	90	38943
2879.0	2310	545481	1.11	325	335	-233	92	45332
2880.0	3216	539725	1.11	328	339	-234	93	54108
2881.0	3116	740917	1.12	331	342	-235	95	62245
2882.0	3358	848833	1.12	334	345	-236	97	70724
2883.0	4113	963421	1.13	335	348	-237	97	79676
2884.0	4369	1084331	1.14	336	351	-238	97	89014
2884.5	4117	1147073	1.14	337	352	-239	97	93800

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER AT OLD DAM SITE NR NC 105 A-D
 SECID= APP AT DISTANCE= 4 PART 1 OF 2

WS	A	K	ALPHA	B	P	LEW	REW	QC
2856.0	956	77220	1.15	195	201	-164	38	11215
2867.0	1124	100455	1.13	201	209	-166	41	14757
2868.0	1362	122429	1.09	216	227	-207	42	18567
2869.0	1508	146713	1.06	235	248	-207	44	22773
2870.0	1331	175651	1.04	251	267	-207	46	27521
2871.0	1054	214545	1.04	255	273	-207	48	33253
2872.0	1540	256535	1.03	257	279	-207	49	39373
2873.0	1606	303872	1.04	275	297	-223	51	44595
2874.0	2885	355011	1.05	281	303	-227	53	51217
2875.0	1168	409731	1.06	284	307	-229	55	58351
2876.0	3450	467948	1.06	290	313	-230	93	65679
2877.0	1751	531275	1.07	325	350	-231	93	70126
2878.0	4087	599490	1.05	327	352	-232	94	78816
2879.0	4415	671817	1.09	328	355	-233	95	87982
2880.0	3144	749023	1.09	330	358	-234	95	97552
2881.0	1675	827952	1.10	332	361	-235	96	107510

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER AT OLD DAM SITE NR NC 105 A-D
 SECID= A AT DISTANCE= 4 PART 2 OF 2

NS	A	K	ALPHA	B	P	LEN	REN	QC
2882.0	5408	911592	1.10	334	363	-236	97	117838
2883.0	5443	998759	1.10	335	366	-237	97	128617
2884.0	6379	1089421	1.10	336	368	-238	97	139777
2884.5	6357	1135992	1.10	337	370	-239	97	145479

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER AT OLD DAM SITE NR NC 105 A-D
 SECID= B AT DISTANCE= 760 PART 1 OF 1

NS	A	K	ALPHA	B	P	LEN	REN	QC
2870.0	110	5645	1.00	110	119	-26	88	1605
2871.0	327	17751	1.00	118	122	-27	90	3085
2872.0	447	29327	1.00	121	125	-28	92	4874
2873.0	609	43313	1.00	124	130	-30	93	6893
2874.0	877	59633	1.01	131	137	-36	94	9058
2875.0	1333	78286	1.03	143	150	-40	123	11226
2876.0	1855	99823	1.06	161	168	-43	139	13405
2877.0	2525	124075	1.10	179	186	-46	144	15841
2878.0	3445	151326	1.15	198	206	-48	148	18529
2879.0	4544	182112	1.18	200	209	-50	149	22400
2880.0	5745	215731	1.19	203	212	-51	151	26592
2881.0	7050	252049	1.20	206	216	-53	152	31078
2882.0	8457	290971	1.21	208	219	-54	153	35837
2883.0	9966	332421	1.21	211	222	-56	154	40855
2884.0	11578	376335	1.21	213	225	-57	155	46118
2885.0	13293	422673	1.22	216	229	-59	156	51615
2886.0	15010	471381	1.22	218	232	-60	157	57341
2887.0	16730	522231	1.23	222	236	-62	159	63173
2888.0	18453	575433	1.23	225	240	-64	160	69218
2889.0	20180	630259	1.24	229	245	-68	161	75148
2890.0	21915	686532	1.25	237	253	-74	162	80682
2891.0	23652	747800	1.25	238	256	-74	163	87583
2892.0	25391	811237	1.25	239	258	-74	164	95295
2892.5	27135	880321	1.25	240	260	-74	165	99840

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER AT OLD DAM SITE NR NC 105 A-D
 SECID= C AT DISTANCE= 1200 PART 1 OF 2

NS	A	K	ALPHA	B	P	LEN	REN	QC
2873.0	119	4975	1.00	61	62	-23	136	940
2874.0	183	9289	1.01	78	79	-25	176	1579
2875.0	255	15724	1.13	117	125	-27	180	2362

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER AT OLD DAM SITE NR NC 105 A-D
 SECTION C AT DISTANCE = 1200 PART 2 OF 2

WS	A	V	ALPHA	B	P	LEN	REN	QC
2876.0	112	25285	1.21	140	143	-29	199	3647
2877.0	166	37733	1.26	162	165	-30	203	5352
2878.0	134	52990	1.27	176	180	-32	206	7534
2879.0	127	70366	1.33	206	211	-34	210	9657
2880.0	1160	90042	1.40	248	254	-35	212	12017
2881.0	110	118423	1.34	251	257	-37	213	16341
2882.0	1662	149380	1.29	254	261	-39	214	21207
2883.0	1918	184874	1.25	257	265	-40	216	26433
2884.0	2179	221851	1.26	267	275	-41	225	31413
2885.0	2433	261010	1.27	281	290	-43	238	36394
2886.0	2740	305616	1.27	290	299	-44	246	42362
2887.0	3033	355209	1.26	295	304	-45	249	49197
2888.0	3330	408555	1.24	299	309	-46	251	56535
2889.0	3631	465153	1.23	303	313	-48	254	64235
2890.0	3935	525237	1.22	306	317	-49	256	72371
2890.1	3955	531537	1.22	306	317	-49	256	73235

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER AT OLD DAM SITE NR NC 105 A-D
 SECTION D AT DISTANCE = 2115 PART 1 OF 2

WS	A	V	ALPHA	B	P	LEN	REN	QC
2885.0	103	6039	1.00	52	53	-29	22	828
2886.0	158	11555	1.00	56	57	-31	24	1504
2887.0	215	18600	1.00	59	61	-32	26	2333
2888.0	282	27210	1.03	75	78	-33	836	3059
2889.0	183	39834	1.41	286	290	-35	838	2996
2890.0	195	66980	1.39	353	358	-36	840	5731
2891.0	1112	105347	1.41	495	501	-38	846	9055
2892.0	1110	159501	1.44	714	720	-39	865	13625
2893.0	1114	247857	1.32	869	875	-41	872	22382
2894.0	1522	377589	1.18	921	923	-42	878	36031
2895.0	4146	542430	1.09	926	933	-43	881	52967
2896.0	5173	733293	1.05	929	937	-45	883	71643
2897.0	6114	948225	1.03	932	941	-46	885	91828
2898.0	7217	1185954	1.01	936	945	-48	887	113420
2899.0	8175	1445457	1.01	939	949	-49	889	136347
2900.0	9116	1725804	1.00	942	952	-50	891	160550
2901.0	10011	2026512	1.00	945	956	-52	892	185977
2902.0	11015	2347705	1.00	947	959	-53	893	212718
2903.0	11953	2688364	1.00	949	962	-55	893	240647
2904.0	12913	3047273	1.00	950	965	-56	893	269659
2905.0	13874	3423476	1.00	952	968	-58	893	299747
2906.0	14816	3818029	1.00	953	970	-59	893	330947

5620 → .96
 11240 → .48
 14490 → .12

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER AT OLD DAM SITE NR NC 105 A=0
 SECTION ID AT DISTANCE = 2115 PART 2 OF 2

NS	A	K	ALPHA	B	P	LEN	REN	QC
2907.0	15150	4229025	1.00	954	973	-60	893	362941
2908.0	15216	4659780	1.00	959	979	-65	893	395415
2909.6	17292	4927419	1.00	963	983	-69	893	415083

PAGE 1 OF PROFILE NOTES FOR: CATAUGA RIVER AT OLD DAM SITE NR NC 105 A=0
INITIAL VALUES ARE: W = 0. H = 0.00

SECID, ERROR OR WARNING MESSAGE, INTERMEDIATE RESULTS (IF ANY), ACTION TAKEN

APP, KU/KD < 0.7 DR > 1.4	USED COMPUTED NSJ
B, KU/KD < 0.7 DR > 1.4	USED COMPUTED NSJ
C, KU/KD < 0.7 DR > 1.4	USED COMPUTED NSJ
D, KU/KD < 0.7 DR > 1.4	USED COMPUTED NSJ

10 TR

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WATER SURFACE PROFILE FORT WATAUGA RIVER AT OLD DAM SITE NR NC 105 A-D

PAGE 1 OF 1

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SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEN	HEW
NS	ELEV	HV	HF	HE	EG	V	FN	ACC	ID
A	AT	0	0	5520.	453.	40793.	1.00	47.	48.
2868.29		2.39			2870.68	12.41	1.00/02		*IS*
A	PP	4	4	5520.	1975.	197418.	1.04	208.	47.
2870.57		0.13	0.02	0.00	2870.70	2.85	0.19	0.000	*XS*
B	AT	700	756	5520.	544.	40358.	1.00	30.	93.
2872.80		1.66	3.00	0.76	2874.46	10.32	0.86	0.001	*XS*
C	AT	1200	440	5520.	887.	66511.	1.33	34.	210.
2878.61		0.83	5.18	0.00	2879.64	6.33	0.54	0.001	*XS*
D	AT	2115	915	5520.	461.	38349.	1.40	36.	838.
2888.42		3.23	11.33	1.20	2892.16	12.18	1.20	0.012	*XS*

C.D. = 2889.96

END OF THIS PROFILE

PAGE 1 OF PROFILE NOTES FOR: WATAUGA RIVER AT OLD DAM SITE NR VC 105 A-D
INITIAL VALUES ARE: U = 0. H = 0.00

SECID ERROR OR WARNING MESSAGE INTERMEDIATE RESULTS (IF ANY) ACTION TAKEN

APP. KU/KD < 0.7 DR > 1.0
B. KU/KD < 0.7 DR > 1.4

USED COMPUTED WSU
USED COMPUTED WSU

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WATER SURFACE PROFILE FOR NATAUGA RIVER AT OLD DAM SITE NR NC 105 A=0

PAGE 1 OF 1

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SOYR

SECTION	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEN	REN
NS ELEV	HV	HF	HE	EQ	V	FN	ACC	ID	
A	AT	0	0	11240.	1069.	146894.	1.18	-223.	53.
2872.92	2.03			2874.95	10.52	0.70		*IS*	
APP	AT	4	4	11240.	3093.	395056.	1.05	-229.	54.
2874.74	0.22	0.01	0.00	2874.95	3.63	0.20		*XS*	
B	AT	700	756	11240.	1010.	103407.	1.07	-44.	140.
2876.15	2.06	2.34	0.92	2878.21	11.13	0.73		*XS*	
C	AT	1200	440	11240.	1476.	126439.	1.33	-39.	213.
2881.27	1.20	4.25	0.00	2882.47	7.61	0.59		*XS*	
D	AT	1115	915	11240.	1059.	91162.	1.01	-38.	842.
2890.57	2.47	10.03	0.63	2893.14	10.62	1.05		*XS*	

C.D. = 2891.48

END OF THIS PROFILE

USGS STEP-BACKWATER PROGRAM - VERSION 77.190 *** PAGE COUNT = 11, DATE=03/06/78

PAGE 1 OF PROFILE NOTES FOR WATAUGA RIVER AT OLD DAM SITE NR VC 105 A-D
INITIAL VALUES ARE: Q = 0. H = 0.00

SECID, ERROR OR WARNING MESSAGE, INTERMEDIATE RESULTS (IF ANY), ACTION TAKEN

A, KU/KD < 0.7 OR > 1.4
B, KU/KD < 0.7 OR > 1.4

USED COMPUTED NSU
USED COMPUTED NSU

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WATER SURFACE PROFILE FORT WATAUGA RIVER AT OLD DAM SITE NR NC 105 A-D

PAGE 1 OF 1

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100 YR

SECTION	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEN	REM
NS ELEV	HV	HF	HE	EG	V	FN	ACC	ID	
A	AT	0	0	14590.	1309.	183424.	1.20	-227.	54. 281
2873.79	2.35			2875.13	11.22	0.74		*IS*	
APP	AT	4	4	14590.	3407.	458130.	1.06	-231.	92.
2875.84	0.31	0.01	0.00	2875.14	4.31	0.23	0.000	*XS*	
B	AT	750	756	14590.	1225.	134185.	1.12	-48.	146. 194
2877.39	2.51	2.65	1.10	2879.90	11.99	0.76	0.000	*XS*	
C	AT	1270	440	14590.	1843.	174143.	1.27	-41.	215. 256
2882.71	3.26	4.08	0.00	2883.96	7.97	0.58	0.001	*XS*	
D	AT	2115	915	14590.	1405.	122841.	1.42	-39.	354. 282
2891.36	2.42	9.23	0.58	2893.78	10.45	1.05	0.009	*XS*	

C.D. = 2892.12

5' NEXT REPAIR

END OF THIS PROFILE

*** INPUT CARD PRINTOUT ***

101R, 511P, 100YR

.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0

1	43	NATAUGA RIVER REACH # 2	0	19	F	3	03	02	10	15							
2	44	289996	289148	289212													
3	45	0	1	37	3	2885	2	15	90	97							
4	46	5000	11240	14890													
5	47	-70	1	29055	-62	2	29074	-30	2	28949	-19	2	28938	-16	2	28921	
5	48	-10	2	28919	-4	2	28814	2	2	28916	6	2	28825	14	2	28837	
5	49	23	2	28852	27	2	28880	37	3	28993	30	3	28911	130	3	28881	
5	50	230	3	28883	313	3	28889	330	3	28911	430	3	28922	480	3	28896	
5	51	530	3	28914	521	3	28934	680	3	28925	708	3	28903	739	3	28925	
5	52	786	3	28919	603	3	28908	820	3	28903	820	3	28879	826	3	28873	
5	53	880	3	28872	830	3	28875	836	3	28879	842	3	28908	864	3	28918	
5	54	880	3	28943	832	3	29013										
6	56	1	2	055	065	4	5	040	1	2	035	035					
3	60	0	0	42	4	28891	3	255	90	99							
5	62	-315	1	29125	-290	1	28950	-279	1	28958	-265	1	28936	-252	1	28893	
5	63	-245	1	28974	-233	1	28892	-229	1	28928	-215	2	28942	-165	2	28941	
5	64	-115	2	28943	-65	3	28940	-51	3	28935	-44	3	28911	-31	3	28889	
5	65	-26	3	28879	-14	3	28971	-2	3	28853	6	3	28888	7	3	28902	
5	66	-11	3	28868	24	3	28982	35	3	29002	85	4	28989	185	4	28955	
5	67	285	4	28952	385	4	28954	485	4	28960	585	4	28942	685	4	28931	
5	68	785	4	28931	875	4	28931	889	4	28917	890	4	28903	891	4	28897	
5	69	884	4	28896	898	4	28898	900	4	28902	903	4	28911	926	4	28967	
5	70	884	4	28972	888	4	29028										
6	72	1	2	055	060	4	5	035	065	1	2	040	040	1	2	035	035
3	73	0	0	27	3	28948	4	255	99	69							
5	82	-44	1	29097	-81	1	29022	-69	1	28930	-55	1	28955	-16	2	28959	
5	83	-10	2	28923	-7	2	28912	0	2	28911	11	2	28908	20	2	28922	
5	84	26	3	28972	165	3	28987	156	3	29016	256	3	29008	356	3	29014	
5	85	406	3	29010	556	3	28988	572	3	28973	594	3	28972	596	3	28959	
5	86	594	3	28959	504	3	28984	606	3	28961	608	3	28971	614	3	28978	
5	87	626	3	29031	637	3	29004										
6	89	1	2	070	070	4	5	045	045	1	2	040	040				

INPJI SUMMARY FORI WATAJUA RIVER REACH # 2 D TO F

3 CROSS SECTIONS SPECIFIED (OR ASSUMED)

EDITS 3 TYPE 2 CARDS

SEPT 3 CROSS SECTIONS FOR EDITING

3 " " VALID FOR PROPERTY COMPUTATIONS

3 " " " " PROFILE "

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER REACH # 2 D TO F
SECTION # 3 AT DISTANCE= 2115 PART 1 OF 1

NS	K	ALPHA	B	P	LEW	REN	JC
2885.0	103	1.00	52	53	-29	22	828
2886.0	108	1.00	56	57	-31	24	1504
2887.0	115	1.00	59	61	-32	26	2333
2888.0	122	1.03	75	78	-33	836	3059
2889.0	183	1.41	286	290	-35	838	2996
2890.0	795	1.39	353	358	-36	840	5731
2891.0	1112	1.41	495	501	-38	846	9056
2892.0	1110	1.44	714	720	-39	865	13625
2893.0	2514	1.32	869	875	-41	872	22382
2894.0	3522	1.15	921	928	-42	878	36031
2895.0	4145	1.09	926	933	-43	881	52967
2896.0	5173	1.05	929	937	-45	883	71543
2897.0	6104	1.03	932	941	-46	885	91825
2898.0	7137	1.01	936	945	-48	887	113420
2899.0	8175	1.01	939	949	-49	889	136347
2900.0	9115	1.00	942	952	-50	891	150550
2901.0	10159	1.00	945	956	-52	892	183977
2902.0	11105	1.00	947	959	-53	893	212719
2903.0	11103	1.00	949	962	-55	893	240647
2904.0	12003	1.00	950	965	-56	893	269669
2905.0	13054	1.00	952	968	-58	893	299747
2906.0	14108	1.00	953	970	-59	893	330847
2907.0	15160	1.00	954	973	-60	893	362941
2908.0	16216	1.00	959	979	-65	893	395415
2908.5	17272	1.00	963	983	-69	893	415083

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER REACH # 2 D TO F
SECTION # 4 AT DISTANCE= 3255 PART 1 OF 2

NS	K	ALPHA	B	P	LEW	REN	JC
2889.0	73	1.05	54	55	-250	6	470
2890.0	137	1.06	75	77	-253	999	1019
2891.0	120	1.03	90	94	-256	903	1897
2892.0	167	1.05	105	111	-259	907	3029
2893.0	433	1.07	124	136	-262	911	4347
2894.0	702	1.34	437	445	-267	915	5162
2895.0	1153	1.29	662	671	-273	919	10021
2896.0	2121	1.35	1052	1062	-290	923	16051
2897.0	3125	1.13	1099	1106	-292	932	30694
2898.0	4045	1.05	1142	1153	-293	938	48510
2899.0	5017	1.02	1183	1195	-295	940	68660
2900.0	6013	1.03	1230	1243	-296	942	90720
2901.0	6913	1.01	1243	1256	-298	944	115925

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER REACH # 2 D TO F
 SECTION E AT DISTANCE= 3255 PART 2 OF 2

AS	A	K	ALPHA	B	P	LEN	REN	JC
2902.0	922.2	1482598	1.01	1246	1260	-299	946	143511
2903.0	1054.0	1900540	1.01	1249	1264	-300	948	173239
2904.0	1179.6	2167139	1.01	1251	1267	-302	948	204779
2905.0	1304.8	2560352	1.01	1252	1269	-303	948	238020
2906.0	1430.1	2979257	1.01	1254	1272	-305	948	272886
2907.0	1555.5	3423033	1.01	1255	1275	-306	948	309303
2908.0	1681.1	3890974	1.01	1257	1278	-308	948	347211
2909.0	1806.8	4382430	1.01	1258	1280	-309	948	386554
2910.0	1932.7	4896616	1.01	1259	1283	-310	948	427283
2911.0	2058.7	5433544	1.01	1261	1286	-312	948	469353
2912.0	2184.9	5992277	1.01	1262	1289	-313	948	512726
2912.5	22480	6279690	1.01	1263	1290	-314	948	534858

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER REACH # 2 D TO F
 SECTION E AT DISTANCE= 4055 PART 1 OF 1

AS	A	K	ALPHA	B	P	LEN	REN	JC
2894.0	90	5200	1.05	42	44	-59	22	737
2895.0	137	5957	1.12	51	54	-71	23	1199
2896.0	213	13701	1.35	107	111	-72	605	1370
2897.0	313	21834	1.48	113	119	-73	608	2432
2898.0	455	32924	1.61	183	189	-75	614	3217
2899.0	678	50253	1.67	256	263	-76	615	4836
2900.0	1007	75324	1.61	322	329	-77	616	7484
2901.0	1427	108570	1.55	440	453	-78	618	10112
2902.0	1956	154576	1.70	599	708	-80	619	14343
2903.0	2667	235635	1.39	752	712	-81	620	24977
2904.0	3611	340954	1.24	706	716	-83	622	37508
2905.0	4840	480104	1.15	711	721	-85	625	51427
2906.0	6473	694956	1.12	715	726	-87	625	66498
2907.0	8610	944670	1.10	720	731	-88	630	82508
2908.0	11359	130576	1.08	724	736	-90	633	99593
2909.0	14894	1780123	1.07	728	740	-92	635	117719
2909.7	17159	213455	1.07	731	744	-93	637	130898

← 5620 → .30
 ← 11240 → .27
 ← 14690 → .03

PAGE 1 OF PROFILE NOTES FOR WATAUGA RIVER REACH # 2 D TO F
INITIAL VALUES ARE: W = 0. H = 0.00

SECID# ERROR OR WARNING MESSAGE# INTERMEDIATE RESULTS (IF ANY)# ACTION TAKEN

E, KU/KO < 0.7 OR > 1.4
F, KU/KO < 0.7 OR > 1.4

USED COMPUTED WSU
USED COMPUTED WSU

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WATER SURFACE PROFILE FOR WATAUGA RIVER REACH # 2 D TO F

PAGE 1 OF 1

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10YR

SECTION	AT DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEN	NEW
AS ELEV	HV	ME	EG	V	FN	ACC	ID	
D AT	2115 /	0 /	5520 /	751 /	65654 /	1.39 /	-37 /	840 /
2889.95	1.12 /		2891.08 /	7.20 /	0.73 /		*IS*	
E AT	2255 /	1140 /	5520 /	1625 /	121416 /	1.36 /	-290 /	920 /
2895.34	0.25 /	4.52 /	0.00 /	2895.59 /	3.46 /	0.39 /	*0.009	*KS*
F AT	4355 /	500 /	5520 /	643 /	47417 /	1.67 /	-77 /	615 /
2898.85	1.99 /	4.39 /	0.37 /	2903.85 /	8.74 /	0.91 /	0.001	*XS*

C.D. = 2899.30

END OF THIS PROFILE

PAGE 1 OF PROFILE NOTES FOR NATAUGA RIVER REACH # 2 D TO F
INITIAL VALUES ARE: W = 0. H = 0.00

SECID, ERROR OR WARNING MESSAGE, INTERMEDIATE RESULTS (IF ANY), ACTION TAKEN

E, KU/KD < 0.7 OR > 1.4
F, KU/KD < 0.7 OR > 1.4

USED COMPUTED NSU
USED COMPUTED NSU

=====

WATER SURFACE PROFILE FOR NATAUGA RIVER REACH # 2 D TO F

PAGE 1 OF 1

=====

SECTION	AT DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEN	REW
WS ELEV	HV	HF	HE	EU	V	FN	ACC	*ID*
D AT	2115	0	11240	1472	128856	1.43	39	857
2891.48	1.29			2892.77	7.64	0.76		*IS*
E AT	3255	1140	11240	3044	265093	1.19	292	927
2896.74	0.25	4.22	0.00	2895.99	3.69	0.36	0.003	*XS*
F AT	4055	900	11240	1009	79283	1.60	78	617
2900.13	3.09	4.81	1.42	2903.22	11.14	1.12	0.000	*XS*

=====

S O T R

C D = 2901.27

END OF THIS PROFILE

PAGE 1 OF PROFILE NOTES FOR: WATAUGA RIVER REACH # 2: D TO F
INITIAL VALUES ARE: W = 0. H = 0.00

SECID#ERROR ? WARNING MESSAGE#INTERMEDIATE RESULTS(IF ANY)#ACTION TAKEN

E,KU/KD < 0.7 OR > 1.4 #USED COMPUTED WSU
F,FRON FAILURE #WS = 2897.53 FN = 4.00#USED HIGHER WS
F,KU/KD < 0.7 OR > 1.4 #USED COMPUTED WSU

=====
 WATER-SURFACE PROFILE FORT WATAUGA RIVER REACH # 2 D TO F
 PAGE 1 OF 1
 =====

SECID AT DISTANCE/ LENGTH/DISCHARGE/ AREA / CONVEYANCE/ ALPHA/ LEN / REA
 WS ELEV / HV / HF / HE / EG / V / FN / ACC *ID*

D AT 2115 / 0 / 14690. / 1898. / 167492. / 1.44 / -40. / 666. 906
 28112.12 / 1.34 / / 2893.46 / 7.74 / 0.74 / *IS*

E AT 3135 / 1140 / 14690. / 3713. / 353550. / 1.10 / -293. / 936. 1229
 2897.35 / 0.27 / 4115 / 0.00 / 2897.62 / 3.96 / 0.37 / 0.002 *XS*

F AT 4015 / 800 / 14690. / 1201. / 97573. / 1.55 / -79. / 617.
 2900.69 / 1.62 / 5.00 / 1.67 / 2904.30 / 12.23 / 1.20 -0.001 *XS*

C.D.=2902.03

END OF THIS PROFILE

100YR

2115
 1140
 3255

*** INPUT CARD PRINTOUT ***

.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0

1	2	3	4	5	6	7	8
1	78	WATAUGA RIVER REACH #	3	F	TD	H	7 03 02 10 15
2	79	289930 290127 290203					
3	80	F 1 27 3 2894	4055	99	99		
4	81	5620 11240 14690					
5	82	-94 1 29097 -81	1 29022	-69	1 28930	-35	1 28956 -16 2 28959
5	83	-10 2 28923 -7	2 28912	0	2 28911	11	2 28908 20 2 28922
5	84	26 3 28972 106	3 28987	156	3 28916	256	3 29008 356 3 29014
5	85	456 3 29010 556	3 28988	592	3 28973	594	3 28972 596 3 28959
5	86	599 3 28959 604	3 28959	606	3 28961	608	3 28971 614 3 28978
5	87	620 3 29031 637	3 29096				
6	89	1 2 070 070 4	5 045 045	1	2 040 040		
3	100	G 0 37 3 2896	4735	99	99		
5	103	-182 1 29138 -144	1 29078	-122	2 29065	-92	2 29013 -79 2 28981
5	104	-72 2 28961 -69	2 28944	-67	2 28933	-60	2 28950 -22 2 28975
5	105	-17 2 28969 -16	2 28959	-9	2 28961	0	2 28929 15 2 28933
5	106	24 2 28959 27	2 28975	31	2 28992	34	2 29035 38 2 29042
5	107	56 2 29041 59	2 29036	62	3 29066	76	3 29087 86 3 29106
5	108	88 3 29102 118	3 29065	168	3 29071	268	3 29073 368 3 29065
5	109	443 3 29067 458	3 29043	485	3 29033	539	3 29044 540 3 29058
5	110	573 3 29070 600	3 29136				
6	113	1 2 060 060 4	5 040 040	1	2 035 035		
3	120	H 0 21 3 2902	5490	99	99		
5	122	-50 1 29174 -28	2 29004	-26	2 28991	-6	2 28990 -1 2 29005
5	123	6 2 29014 10	2 29004	19	2 28987	26	2 28996 32 2 29004
5	124	37 3 29037 60	3 29060	68	3 29077	86	3 29081 92 3 29113
5	125	120 3 29106 138	3 29120	200	3 29117	250	3 29124 277 3 29136
5	126	283 3 29174					
6	128	1 2 050 050 4	5 040 040	1	2 045 045		

INPUT SUMMARY FOR: WATAUGA RIVER REACH # 3 F TO M

7 CROSS SECTIONS SPECIFIED (OR ASSUMED)

FOUND 3 TYPE 3 CARDS

KEPT 3 CROSS SECTIONS FOR EDITING

3 " " VALID FOR PROPERTY COMPUTATIONS

3 " " " " PROFILE "

CROSS-SECTION PROPERTIES FOR: HATAUGA RIVER REACH # 3 F TO H
 SECID# F AT DISTANCE# 4055 PART 1 OF 1

NS	A	K	ALPHA	B	P	LEN	REN	QC
2894.0	90	5200	1.05	42	44	-69	22	737
2895.0	137	8957	1.12	51	54	-71	23	1198
2896.0	203	13701	1.35	107	111	-72	605	1370
2897.0	313	21834	1.48	113	119	-73	608	2432
2898.0	456	32924	1.61	183	189	-75	614	3217
2899.0	678	50255	1.67	256	263	-76	615	4836
2900.0	967	75384	1.61	322	329	-77	616	7484
2901.0	1327	105670	1.65	445	453	-78	618	10112
2902.0	1966	154576	1.70	699	708	-80	619	14343
2903.0	2667	238636	1.39	702	712	-81	620	24977
2904.0	3371	340963	1.24	706	716	-83	622	37508
2905.0	4080	460104	1.16	711	721	-85	625	51427
2906.0	4793	594955	1.12	715	726	-87	628	66498
2907.0	5510	744670	1.10	720	731	-88	630	82608
2908.0	6232	908576	1.08	724	736	-90	633	99696
2909.0	6958	1086123	1.07	728	740	-92	635	117719
2909.7	7469	1218453	1.07	731	744	-93	637	130898

CROSS-SECTION PROPERTIES FOR: HATAUGA RIVER REACH # 3 F TO H
 SECID# G AT DISTANCE# 4735 PART 1 OF 1

NS	A	K	ALPHA	B	P	LEN	REN	QC
2896.0	113	5824	1.00	67	69	-71	24	827
2897.0	191	11552	1.00	89	92	-74	26	1579
2898.0	292	20851	1.00	107	110	-78	28	2734
2899.0	402	34165	1.00	113	116	-82	31	4292
2900.0	518	50495	1.00	118	122	-86	32	6141
2901.0	638	69565	1.00	123	128	-90	32	8244
2902.0	764	90802	1.00	129	134	-95	33	10547
2903.0	896	114483	1.00	135	141	-101	34	13076
2904.0	1055	138243	1.03	200	207	-107	519	13537
2905.0	1300	163223	1.08	260	267	-112	539	15891
2906.0	1567	206522	1.09	279	287	-118	546	20192
2907.0	1924	252739	1.24	508	517	-129	573	19044
2908.0	2570	332763	1.38	588	697	-144	577	23997
2909.0	3271	441033	1.35	713	722	-151	581	34214
2910.0	3995	570011	1.29	736	746	-157	585	46386
2911.0	4742	720197	1.24	754	764	-163	589	60583
2912.0	5500	891158	1.19	764	774	-170	593	76642
2913.0	6270	1080131	1.16	774	785	-176	598	93985
2913.8	6892	1244255	1.14	782	793	-181	600	108767

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER REACH # 3 F TO H
 SECID# H AT DISTANCE= 5490 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEN	REN	QC
2902.0	144	9085	1.01	64	67	29	34	1215
2903.0	210	16508	1.02	67	70	30	36	2084
2904.0	279	25817	1.03	73	76	32	40	3058
2905.0	357	37334	1.07	84	88	33	50	4050
2906.0	447	51049	1.11	95	99	34	60	5206
2907.0	545	67232	1.14	101	106	36	65	6710
2908.0	651	84927	1.20	119	124	37	81	7876
2909.0	776	106637	1.23	127	132	38	88	9828
2910.0	905	131335	1.23	130	136	39	90	12191
2911.0	1041	155085	1.31	154	161	41	125	13398
2912.0	1225	177124	1.56	264	272	42	221	11983
2913.0	1517	216554	1.67	308	315	43	264	14768
2914.0	1835	265663	1.68	323	331	45	278	19123
2915.0	2160	323494	1.63	326	335	46	279	24725
2916.0	2487	388017	1.56	329	338	47	281	31050
2917.0	2818	458873	1.50	332	342	48	282	38029
2917.4	2951	488923	1.48	333	343	49	283	40990

5420 → .28
 11240 → .60
 14690 → .97

PAGE 1 OF PROFILE NOTES FOR WATAUGA RIVER REACH # 3 P TO H
INITIAL VALUES ARE: G = 0.0 H = 0.00

SECID, ERROR OR WARNING MESSAGE, INTERMEDIATE RESULTS (IF ANY), ACTION TAKEN

G, KU/KD < 0.7 OR > 1.4
H, KU/KD < 0.7 OR > 1.4

USED COMPUTED NSU
USED COMPUTED NSU

 WATER-SURFACE PROFILE FOR NATAUGA RIVER REACH # 3 F TO H
 PAGE 1 OF 1

10 YR

SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEN	REW
NS	ELEV	HV	HF	HE	EG	V	FN	ACC	ID
F	AT	4055	0	5520	758	56928	1.66	-77	616
2899.30	1.42			2903.72	7.42	0.76			*IS*
G	AT	4735	680	5520	938	121281	1.00	-103	34
2903.27	0.56	3.11	0.00	2903.83	6.02	0.41		0.001	*KS*
H	AT	5490	755	5520	849	51319	1.11	-35	60
2906.02	2.72	3.83	1.08	2909.74	12.53	0.95		-0.005	*KS*

C.D. - 2906.28

END OF THIS PROFILE

USGS STEP=BACKWATER PROGRAM * VERSION 77.180 *** PAGE COUNT= 7 * DATE=03/06/78

PAGE 1 OF PROFILE NOTES FOR WATAUGA RIVER REACH 8 3 F TO H
INITIAL VALUES ARE: Q = 0.0 H = 0.00

SECID * ERROR OR WARNING MESSAGE * INTERMEDIATE RESULTS (IF ANY) * ACTION TAKEN

Q * KU/KD < 0.7 OR > 1.0
H * KU/KD < 0.7 OR > 1.0

* USED COMPUTED NSU
* USED COMPUTED NSU

WATER-SURFACE PROFILE FOR WATAUGA RIVER REACH # 3 F TO H
PAGE 1 OF 1

50 TR

SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEN	REN
HS	ELEV	HV	HF	HE	EG	V	FN	ACC	ID
F	AT	4055	0	11240	1468	111186	1.86	80	618
2901.27	1.69			2902.96	7.66	0.81			*IS*
G	AT	4735	600	11240	1537	201679	1.09	-118	543
2905.89	0.90	3.83	0.00	2906.80	7.31	0.50	0.001		*XS*
H	AT	5490	755	11240	755	102761	1.23	39	57
2908.83	4.23	4.60	1.66	2913.06	14.89	1.01	0.000		*XS*

C.D. = 2909.60

END OF THIS PROFILE

USGS STEP-BACKWATER PROGRAM - VERSION 77.180 *** PAGE COUNT = 9 DATE=03/06/78

PAGE 1 OF PROFILE NOTES FOR WATAUGA RIVER REACH # 3 F TO H
INITIAL VALUES ARE: G = 0.0 H = 0.00

SECID ERROR OR WARNING MESSAGE INTERMEDIATE RESULTS (IF ANY) ACTION TAKEN

G, KU/KD < 0.7 OR > 1.4
H, KU/KD < 0.7 OR > 1.4

*USED COMPUTED NSU
*USED COMPUTED NSU

WATER-SURFACE PROFILE FOR WATAUGA RIVER REACH # 3 F TO H
PAGE 1 OF 1

100YR

SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEN	REN
WS ELEV	HV	HF	HE	EQ	V	FN	ACC	ID	
F	AT	4055	0	14690	1987	158809	1.69	81	619
2902.03		1.43		2903.46	7.39	0.69		IS	
G	AT	4735	680	14690	1685	222501	1.10	121	555
2906.34		1.33	4.21	0.00	2907.67	8.82	0.60	0.002	KS
H	AT	5490	755	14690	910	132378	1.23	40	90
2910.04		5.00	5.53	1.84	2915.04	16.14	1.05	0.000	KS

700

676

C.D. = 2912.97

END OF THIS PROFILE

*** INPUT CARD PRINTOUT ***

.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0

1 118 WATAUGA RIVER REACH # 4 H TO J 5 03 02 10 15

2 119 290628 290960 291297

3 120 H 1 21 3 2902 5490 99 99

4 121 5620 11240 14690

5 122 -50 1 29174 -28 2 29004 -26 2 28991 -6 2 28990 -1 2 29005

5 123 6 2 29014 10 2 29004 19 2 28987 26 2 28996 32 2 29004

5 124 37 3 29037 60 3 29060 66 3 29077 86 3 29081 92 3 29113

5 125 120 3 29106 138 3 29120 200 3 29117 250 3 29124 277 3 29136

5 126 283 3 29174

6 128 1 2 050 050 4 5 040 040 1 2 045 045

3 130 1 0 25 3 2907 6305 99 99

5 132 -479 1 29218 -457 1 29207 -434 1 29174 -379 1 29146 -329 1 29132

5 133 -279 1 29140 -229 1 29123 -179 1 29110 -129 1 29102 -79 1 29093

5 134 -36 2 29086 -33 2 29076 -25 2 29050 -24 2 29048 -19 2 29038

5 135 0 2 29038 23 2 29038 39 2 29048 44 3 29128 62 3 29156

5 136 68 3 29142 85 3 29132 121 3 29137 221 3 29121

6 136 1 2 045 045 4 5 040 040 1 2 055 055

3 150 13R 0 24 3 2908 6348 99 99

5 151 -500 1 29208 -400 1 29189 -300 1 29188 -200 1 29184 -100 1 29185

5 152 -91 2 29185 -69 2 29150 -68 2 29136 -63 2 29135 -57 2 29100

5 153 -44 2 29098 -34 2 29072 -30 2 29061 -26 2 29047 -22 2 29041

5 154 0 2 29047 27 2 29036 39 2 29042 42 2 29048 46 2 29059

5 155 50 2 29086 53 2 29127 55 3 29185 93 3 29185

6 157 1 2 035 035 4 5 040 040 1 2 035 035

3 160 1 0 26 5 2909 6529 99 99

5 162 -470 1 29232 -449 1 29180 -443 1 29135 -437 1 29153 -427 1 29174

5 163 -420 1 29164 -370 1 29143 -270 1 29133 -220 1 29141 -170 1 29115

5 164 -120 1 29114 -94 2 29130 -70 2 29107 -50 2 29108 -38 3 29094

5 165 -30 3 29068 -26 3 29067 -20 3 29061 0 3 29063 28 3 29058

5 166 38 3 29066 42 4 29097 60 4 29119 70 5 29145 80 5 29225

5 167 93 5 29233

6 169 1 2 035 035 1 2 035 035 4 5 040 040 1 2 060 060 1 2 060 060

ERROR(S)

PAGE 1 OF EDITING NOTES FOR NATAUGA RIVER REACH B # H TO J

SECID	ERROR SEVERITY	FIRST VARIABLE	NO.	ERROR MESSAGE	SECOND VARIABLE	NO.	VALUE ASSUMED
I	WARNING	NPTS		WRONG			24

INPUT SUMMARY FOR: NATAUGA RIVER REACH # 4. H TO J.

5 CROSS SECTIONS SPECIFIED (OR ASSUMED)

FOUND 4 TYPE 3 CARDS

SEPT 4 CROSS SECTIONS FOR EDITING

4 " " VALID FOR PROPERTY COMPUTATIONS

4 " " " " PROFILE " "

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER REACH # 4 H TO J
 SECID# H AT DISTANCE# 5490 PART 1 OF 1

NS	A	K	ALPHA	B	P	LEW	REN	QC
2902.0	144	9085	1.01	64	67	-29	34	1215
2903.0	210	16509	1.02	67	70	-30	36	2084
2904.0	279	25817	1.03	73	76	-32	40	3053
2905.0	357	37334	1.07	84	88	-33	50	4050
2906.0	447	51049	1.11	95	99	-34	60	5206
2907.0	545	67232	1.14	101	106	-36	65	6710
2908.0	651	84927	1.20	119	124	-37	81	7875
2909.0	776	106637	1.23	127	132	-38	88	9828
2910.0	905	131335	1.23	130	136	-39	90	12191
2911.0	1041	155085	1.31	154	161	-41	125	13398
2912.0	1225	177124	1.56	264	272	-42	221	11983
2913.0	1517	216554	1.67	308	315	-43	264	14768
2914.0	1835	265663	1.68	323	331	-45	278	19123
2915.0	2160	323494	1.63	326	335	-46	279	24725
2916.0	2487	388017	1.56	329	338	-47	281	31050
2917.0	2818	458873	1.50	332	342	-48	282	38029
2917.4	2951	488923	1.48	333	343	-49	283	40990

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER REACH # 4 H TO J
 SECID# I AT DISTANCE# 6305 PART 1 OF 1

NS	A	K	ALPHA	B	P	LEW	REN	QC
2907.0	201	14664	1.00	72	73	-30	40	1909
2908.0	274	23701	1.00	75	78	-33	41	2970
2909.0	356	34903	1.02	102	105	-60	42	3724
2910.0	468	49765	1.18	160	164	-117	42	4450
2911.0	678	69553	1.35	222	226	-178	43	5785
2912.0	920	96234	1.44	261	266	-216	44	8173
2913.0	1223	130565	1.50	351	356	-249	165	10578
2914.0	1677	169419	1.82	559	566	-357	221	12227
2915.0	2261	233582	1.79	601	610	-386	221	18573
2916.0	2876	312999	1.69	628	637	-406	221	26897
2917.0	3514	405968	1.58	647	658	-425	221	36925
2918.0	4168	514087	1.48	659	671	-437	221	48804
2919.0	4831	636135	1.40	666	679	-444	221	62278
2920.0	5501	769909	1.34	673	687	-451	221	76929
2921.0	6178	912217	1.30	684	699	-452	221	92249
2921.8	6731	1028894	1.28	700	716	-478	221	104493

CROSS-SECTION PROPERTIES FOR NATAUGA RIVER REACH # 4 H TO J
 SECID# IHR AT DISTANCE# 6348 PART 1 OF 1

NS	A	K	ALPHA	B	P	LEN	REN	QC
2908.0	268	23657	1.00	86	88	-36	49	2979
2909.0	376	35562	1.00	91	93	-40	50	4336
2910.0	471	46115	1.00	108	111	-56	51	5579
2911.0	580	64047	1.00	110	114	-58	52	7544
2912.0	692	84299	1.00	113	117	-59	52	9717
2913.0	806	106800	1.00	115	120	-61	53	12093
2914.0	924	128800	1.00	122	128	-67	53	14450
2915.0	1047	156633	1.00	123	130	-68	54	17334
2916.0	1173	182851	1.00	129	137	-74	54	20026
2917.0	1306	210631	1.00	136	145	-81	54	22940
2918.0	1445	241250	1.00	143	152	-87	55	26081
2919.0	1724	281478	1.14	498	509	-404	93	17047
2920.0	2248	347867	1.34	551	562	-457	93	22236
2920.8	2706	415082	1.41	593	605	-499	93	27630

CROSS-SECTION PROPERTIES FOR NATAUGA RIVER REACH # 4 H TO J
 SECID# J AT DISTANCE# 6529 PART 1 OF 1

NS	A	K	ALPHA	B	P	LEN	REN	QC
2909.0	292	14100	1.00	78	79	-36	41	1850
2910.0	284	24026	1.01	85	89	-42	44	2882
2911.0	385	36935	1.08	124	126	-71	53	3688
2912.0	550	54941	1.24	211	213	-179	60	4524
2913.0	788	81059	1.34	263	265	-198	64	6677
2914.0	1103	114577	1.48	402	405	-443	68	8503
2915.0	1548	168049	1.45	464	468	-444	71	13298
2916.0	2027	237606	1.36	495	499	-445	72	19971
2917.0	2535	322984	1.27	516	521	-447	73	28240
2918.0	3056	425218	1.20	523	529	-448	74	38218
2919.0	3582	541193	1.15	529	535	-452	76	44252
2920.0	4113	669799	1.12	534	541	-456	77	61149
2921.0	4650	810501	1.10	539	546	-460	78	73835
2922.0	5192	962864	1.09	545	552	-464	79	87262
2923.0	5741	1126111	1.08	557	565	-468	88	100666
2923.3	5909	1177649	1.08	563	571	-469	93	104654

USGS STEP-BACKWATER PROGRAM - VERSION 77.190 *** PAGE COUNT= 6 DATE=03/06/78

PAGE 1 OF PROFILE NOTES FOR: WATAUGA RIVER REACH # 4 H TO J
INITIAL VALUES ARE: 0 0: H 0:00

SECID ERROR OR WARNING MESSAGE INTERMEDIATE RESULTS (IF ANY) ACTION TAKEN

I>KU/KD < 0.7 OR > 1.4

USED COMPUTED WSU

WATER SURFACE PROFILE FORT WATAUGA RIVER REACH B 4 M TO J
PAGE 1 OF 1

10-15

SECTION	AT DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEN	REN
NS ELEV	HV	HF	HE	EG	V	FN	ACC	ID
H	AT 5490	/ 0	/ 5620	/ 474	/ 55347	/ 1.12	/ -36	/ 61
2906.28	/ 2.46	/	/ 2909.74	/ 11.86	/ 0.89	/		*IS*
I	AT 6305	/ 815	/ 5620	/ 1020	/ 107760	/ 1.45	/ -231	/ 204
2912.37	/ 0.69	/ 4.32	/ 0.00	/ 2913.05	/ 5.51	/ 0.46	/ 0.002	*XS*
IBR	AT 6348	/ 43	/ 5620	/ 737	/ 92893	/ 1.00	/ -61	/ 53
2912.39	/ 0.91	/ 0.14	/ 0.11	/ 2913.30	/ 7.63	/ 0.53	/ -0.000	*XS*
J	AT 6529	/ 181	/ 5620	/ 808	/ 83583	/ 1.34	/ -200	/ 65
2913.08	/ 1.01	/ 0.74	/ 0.05	/ 2914.09	/ 6.95	/ 0.60	/ -0.000	*XS*

END OF THIS PROFILE

PAGE 1 OF PROFILE NOTES FOR WATAUGA RIVER REACH # 4 H TO J
INITIAL VALUES ARE: Q = 0, H = 0.00

SECID, ERROR OR WARNING MESSAGE, INTERMEDIATE RESULTS (IF ANY), ACTION TAKEN

I, RIGHT BANK EXTENDED				USED COMPUTED NSU
I, KU/KD < 0.7 OR > 1.4				USED COMPUTED NSU
IBR, NS NOT FOUND BETWEEN	LD = 2915.27	HI = 2920.80	USED DELI = 0.25	
IBR, NS NOT FOUND BETWEEN	LD = 2915.27	HI = 2920.80	USED LOWER NS	
IBR, FRON FAILURE	NS = 2908.83	FN = 2.75	USED HIGHER NS	
IBR, KU/KD < 0.7 OR > 1.4				USED COMPUTED NSU
J, KU/KD < 0.7 OR > 1.4				USED COMPUTED NSU

=====

WATER SURFACE PROFILE FOR WATAUGA RIVER REACH # 4 H TO J 507R

PAGE 1 OF 1

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SECID AT DISTANCE/ LENGTH/DISCHARGE/ AREA / CONVEYANCE/ ALPHA/ LEN / REW
 NS ELEV / HV / HF / HE / CEG / V / FN / ACC *ID*

=====

H AT 5490 / 0 / 11240. / 853. / 121138. / 1.23 / -40. / 89.
 2909.60 / 3.33 / / 2912.93 / 13.18 / 0.87 / *IS*

=====

I AT 6305 / 815 / 11240. / 2580. / 273413. / 1.74 / -397. / 221.
 2915.52 / 0.51 / 3.11 / 0.00 / 2916.04 / 4.36 / 0.39 / 0.001 *XS*

=====

IBR AT 6348 / 43 / 11240. / 1048. / 156980. / 1.00 / -69. / 54.
 2915.01 / 1.79 / 0.13 / 0.64 / 2915.80 / 10.72 / 0.65 / 0.000 *XS*

=====

J AT 6529 / 181 / 11240. / 2460. / 309501. / 1.28 / -447. / 73.
 2916.85 / 0.42 / 0.47 / 0.00 / 2917.27 / 4.57 / 0.35 / 0.001 *XS*

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END OF THIS PROFILE

1004F

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WATER-SURFACE PROFILE FOR NATAUGA RIVER REACH # 4 H TO J

PAGE 1 OF 1

=====

SECID AT DISTANCE / LENGTH / DISCHARGE / AREA / CONVEYANCE / ALPHA / LEW / REN

WS ELEV / HV / HF / HE / EG / V / FN / ACC *ID*

=====

H AT 5490 / 0 / 14690. / 1508. / 215223. / 1.67 / 44. / 263. 307

2912.97 / 2.47 / / 2915.44 / 9.74 / 0.67 / *IS*

=====

I AT 6305 / 815 / 14690. / 3524. / 407537. / 1.58 / 426. / 221. 647

2917.02 / 0.43 / 2.01 / 0.00 / 2917.44 / 4.17 / 0.35 / 0.000 *KS*

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IBR AT 6348 / 43 / 14690. / 1197. / 167478. / 1.00 / 76. / 54.

2916.19 / 2.34 / 0.12 / 0.96 / 2915.53 / 12.27 / 0.71 / 0.006 *KS*

=====

J AT 6429 / 181 / 14690. / 3373. / 493799. / 1.17 / 451. / 75. 526

2918.60 / 0.34 / 0.42 / 0.00 / 2918.95 / 11.35 / 0.29 / 0.000 *KS*

=====

END OF THIS PROFILE

INPUT SUMMARY FOR: WATAUGA RIVER AT OLD DAM SITE NR NC 105 A=0

13 CROSS SECTIONS SPECIFIED (OR ASSUMED)

FOUND 5 TYPE 3 CARDS

KEPT 5 CROSS SECTIONS FOR EDITING

5 " " VALID FOR PROPERTY COMPUTATIONS

5 " " " " PROFILE "

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER AT OLD DAM SITE NR NC 105 A=0
 SECTION A AT DISTANCE= 0 PART 1 OF 1

NS	A	K	ALPHA	B	P	LEN	REN	QC
2864.0	93	2649	1.00	66	67	-41	24	523
2865.0	163	6211	1.00	75	76	-42	32	1364
2866.0	243	11139	1.00	85	86	-43	40	2339
2867.0	332	17682	1.00	92	94	-45	46	3583
2868.0	425	32430	1.00	94	97	-46	48	5123
2869.0	521	58231	1.00	97	100	-47	49	6856
2870.0	619	76031	1.00	99	103	-49	50	8769
2871.0	720	95758	1.00	102	107	-50	51	10856
2872.0	827	117502	1.01	182	188	-129	52	9947
2873.0	1091	149952	1.18	277	283	-223	53	11275
2874.0	1371	193931	1.20	232	289	-227	54	15673
2875.0	1655	247053	1.16	285	292	-229	56	20786
2876.0	1942	308352	1.12	288	295	-230	57	26999
2877.0	2244	379081	1.11	320	328	-231	88	32005
2878.0	2566	458460	1.11	323	332	-232	90	38943
2879.0	2990	545481	1.11	325	335	-233	92	46332
2880.0	3216	639723	1.11	328	339	-234	93	54108
2881.0	3546	740919	1.12	331	342	-235	95	62245
2882.0	3878	848838	1.12	334	345	-236	97	70724
2883.0	4213	963421	1.13	335	348	-237	97	79676
2884.0	4549	1084331	1.14	336	351	-238	97	89014
2884.5	4717	1147073	1.14	337	352	-239	97	93800

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER AT OLD DAM SITE NR NC 105 A=0
 SECTION A AT DISTANCE= 4 PART 1 OF 2

NS	A	K	ALPHA	B	P	LEN	REN	QC
2866.0	956	77220	1.15	195	201	-164	38	11215
2867.0	1104	100455	1.13	201	209	-166	41	14757
2868.0	1302	122429	1.09	216	227	-207	42	18567
2869.0	1508	146713	1.06	235	248	-207	44	22773
2870.0	1831	175651	1.04	251	267	-207	46	27521
2871.0	2084	214545	1.04	255	273	-207	48	33253
2872.0	2340	256536	1.03	257	279	-207	49	39373
2873.0	2606	303872	1.04	275	297	-223	51	44595
2874.0	2885	355011	1.05	291	303	-227	53	51217
2875.0	3169	409731	1.06	294	307	-229	55	58351
2876.0	3454	467948	1.06	290	313	-230	93	65679
2877.0	3761	531275	1.07	325	350	-231	93	70124
2878.0	4087	599490	1.08	327	352	-232	94	78618
2879.0	4415	671817	1.09	328	355	-233	95	87982
2880.0	4744	748023	1.09	330	358	-234	95	97552
2881.0	5075	827982	1.10	332	361	-235	96	107510

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER AT OLD DAM SITE NR NC 105 A-D
 SECID= APP AT DISTANCE= 4 PART 2 OF 2

NS	A	K	ALPHA	B	P	LEN	REN	QC
2882.0	5408	911592	1.10	334	363	-236	97	117838
2883.0	5743	998789	1.10	335	366	-237	97	128617
2884.0	6079	1089421	1.10	336	368	-238	97	139777
2884.5	6247	1135992	1.10	337	370	-239	97	145479

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER AT OLD DAM SITE NR NC 105 A-D
 SECID= B AT DISTANCE= 760 PART 1 OF 1

NS	A	K	ALPHA	B	P	LEN	REN	QC
2870.0	210	8646	1.00	116	119	-26	89	1605
2871.0	327	17751	1.00	118	122	-27	90	3085
2872.0	447	29327	1.00	121	125	-28	92	4874
2873.0	569	43313	1.00	124	130	-30	93	6893
2874.0	697	59633	1.01	131	137	-36	94	9058
2875.0	833	78286	1.03	143	150	-40	133	11226
2876.0	965	99823	1.05	161	168	-43	139	13405
2877.0	1155	124075	1.10	179	186	-46	144	15841
2878.0	1345	151326	1.15	198	206	-48	148	18529
2879.0	1544	182112	1.18	200	209	-50	149	22400
2880.0	1745	215731	1.19	203	212	-51	151	26592
2881.0	1950	252049	1.20	206	216	-53	152	31078
2882.0	2157	290971	1.21	208	219	-54	153	35537
2883.0	2366	332421	1.21	211	222	-56	154	40855
2884.0	2578	376339	1.21	213	225	-57	155	46118
2885.0	2793	422673	1.22	216	229	-59	156	51616
2886.0	3010	471391	1.22	218	232	-60	157	57341
2887.0	3230	522231	1.23	222	236	-62	159	63173
2888.0	3453	575433	1.23	225	240	-64	160	69218
2889.0	3680	630288	1.24	229	245	-68	161	75148
2890.0	3915	686532	1.25	237	253	-74	162	80682
2891.0	4122	747800	1.25	238	256	-74	163	87833
2892.0	4341	811237	1.25	239	258	-74	164	95295
2892.6	4535	850321	1.25	240	260	-74	165	99840

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER AT OLD DAM SITE NR NC 105 A-D
 SECID= C AT DISTANCE= 1200 PART 1 OF 2

NS	A	K	ALPHA	B	P	LEN	REN	QC
2873.0	119	4976	1.00	61	62	-23	36	940
2874.0	183	9289	1.01	78	79	-25	176	1579
2875.0	285	15724	1.13	119	121	-27	180	2362

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER AT OLD DAM SITE NR NC 105 A=0
 SECTION C AT DISTANCE= 1200 PART 2 OF 2

NS	A	K	ALPHA	B	P	LEN	REN	QC
2876.0	412	25288	1.21	140	143	-29	199	3047
2877.0	566	37733	1.26	162	165	-30	203	5352
2878.0	734	52990	1.27	176	180	-32	206	7534
2879.0	927	70366	1.33	206	211	-34	210	9657
2880.0	1160	90948	1.40	246	254	-35	212	12017
2881.0	1410	118423	1.34	251	257	-37	213	16341
2882.0	1662	149380	1.29	254	261	-39	214	21207
2883.0	1918	184874	1.26	257	265	-40	216	26433
2884.0	2179	221851	1.26	267	275	-41	225	31413
2885.0	2453	261010	1.27	281	290	-43	238	36394
2886.0	2740	305616	1.27	290	299	-44	246	42362
2887.0	3033	355208	1.26	295	304	-45	249	49197
2888.0	3330	408555	1.24	299	309	-46	251	56535
2889.0	3631	465153	1.23	303	313	-48	254	64235
2890.0	3935	525257	1.22	306	317	-49	256	72371
2890.1	3965	531537	1.22	306	317	-49	256	73236

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER AT OLD DAM SITE NR NC 105 A=0
 SECTION D AT DISTANCE= 2115 PART 1 OF 2

NS	A	K	ALPHA	B	P	LEN	REN	QC
2885.0	103	6039	1.00	52	53	-29	22	828
2886.0	158	11556	1.00	56	57	-31	24	1504
2887.0	215	18600	1.00	59	61	-32	26	2333
2888.0	282	27210	1.03	75	78	-33	836	3059
2889.0	453	39834	1.41	286	290	-35	838	2956
2890.0	795	66960	1.37	353	358	-36	840	5731
2891.0	1212	105347	1.41	495	501	-38	846	9056
2892.0	1810	159501	1.44	714	720	-39	860	13625
2893.0	2614	247867	1.32	869	875	-41	872	22382
2894.0	3522	377589	1.18	921	928	-42	877	36031
2895.0	4846	542450	1.09	926	933	-43	881	52967
2896.0	6373	733293	1.05	929	937	-45	883	71643
2897.0	8304	948225	1.03	932	941	-46	885	91828
2898.0	10737	1185954	1.01	936	945	-48	887	113420
2899.0	1375	1445407	1.01	939	949	-49	889	136347
2900.0	1715	1725884	1.00	942	952	-50	891	160550
2901.0	2059	2026512	1.00	945	956	-52	892	185977
2902.0	2405	2347785	1.00	947	959	-53	893	212718
2903.0	2753	2688384	1.00	949	962	-55	893	240547
2904.0	3103	3047276	1.00	950	965	-56	893	269669
2905.0	3454	3423975	1.00	952	968	-58	893	299747
2906.0	3806	3819026	1.00	953	970	-59	893	330847

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER AT OLD DAM SITE NR NC 105 A-D
SECTION 0 AT DISTANCE= 2115 PART 2 OF 2

WS	A	X	ALPHA	B	P	LEW	REN	QC
2907.0	15760	4229025	1.00	954	973	-60	893	362941
2908.0	16716	4659780	1.00	959	979	-65	893	395415
2908.6	17292	4927419	1.00	963	983	-69	893	415083

PAGE 1 OF PROFILE NOTES FOR WATAUGA RIVER AT OLD DAM SITE NR NC 105 A=0
INITIAL VALUES ARE: Q = 0. H = 0.00

SECID, ERROR OR WARNING MESSAGE, INTERMEDIATE RESULTS (IF ANY), ACTION TAKEN

A, KU/KD < 0.7 OR > 1.4

B, KU/KD < 0.7 OR > 1.4

C, KU/KD < 0.7 OR > 1.4

D, FROD FAILURE

WS = 2888.04

FN =

7.82 USED HIGHER WS

USED COMPUTED WSU

USED COMPUTED WSU

USED COMPUTED WSU

USED HIGHER WS

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WATER SURFACE PROFILE FOR KATAUGA RIVER AT OLD DAM SITE NR NC 105 A-D

PAGE 1 OF 1

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500 TR

SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEN	REN
MS ELEV		HV	HF	HE	EG	V	FN	ACC	ID
A	AT	0	0	26280.	1910.	301231.	1.13	231.	57.
2875.89		3.32		2879.21		13.76		0.82	*IS*
APP	AT	4	4	26280.	4278.	641334.	1.09	233.	94.
2878.59		0.64		2879.22		6.14		0.30	*XS*
B	AT	760	756	26280.	1848.	233741.	1.20	53.	151.
2860.51		3.76		2884.27		14.22		0.82	*XS*
C	AT	1200	440	26280.	2905.	333053.	1.26	46.	248.
2886.56		1.61		2885.17		9.05		0.57	*XS*
D	AT	2115	915	26280.	2080.	280745.	1.28	42.	874.
2893.30		1.66		2894.96		9.13		0.83	*XS*

END OF THIS PROFILE.

INPUT SUMMARY FOR: WATAUGA RIVER REACH # 2 0 TO F

3 CROSS SECTIONS SPECIFIED (OR ASSUMED)

FOUND 3 TYPE 3 CARDS

KEPT 3 CROSS SECTIONS FOR EDITING

3 " " VALID FOR PROPERTY COMPUTATIONS

3 " " " " PROFILE "

CROSS-SECTION PROPERTIES FOR: KATAUGA RIVER REACH # 2 0 TO F
 SECID = D AT DISTANCE = 2115 PART 1 OF 1

MS	A	K	ALPHA	B	P	LEM	REN	GC
2885.0	103	6039	1.00	52	53	-29	22	828
2886.0	158	11596	1.00	56	57	-31	24	1504
2887.0	215	18600	1.00	59	61	-32	26	2333
2888.0	282	27210	1.03	75	78	-33	36	3059
2889.0	483	39834	1.41	286	290	-35	838	2996
2890.0	795	66950	1.39	353	358	-36	840	5731
2891.0	1212	105347	1.41	495	501	-38	846	9056
2892.0	1810	159501	1.44	714	720	-39	865	13625
2893.0	2614	247867	1.32	869	875	-41	872	22382
2894.0	3522	377589	1.18	921	928	-42	878	36031
2895.0	4646	542430	1.09	926	933	-43	881	52967
2896.0	5373	733293	1.05	929	937	-45	883	71843
2897.0	6304	948225	1.03	932	941	-46	885	91828
2898.0	7237	1185954	1.01	936	945	-48	887	113420
2899.0	8175	1445457	1.01	939	949	-49	889	136347
2900.0	9115	1725884	1.00	942	952	-50	891	160550
2901.0	10059	2029512	1.00	945	956	-52	892	185977
2902.0	11005	2347785	1.00	947	959	-53	893	212718
2903.0	11953	2688384	1.00	949	962	-55	893	240647
2904.0	12903	3047279	1.00	950	965	-56	893	269669
2905.0	13854	3423976	1.00	952	968	-58	893	299747
2906.0	14806	3818028	1.00	953	970	-59	893	330847
2907.0	15760	4229025	1.00	954	973	-60	893	362941
2908.0	16716	4659720	1.00	959	979	-65	893	395415
2909.6	17292	4927419	1.00	963	983	-69	893	415083

CROSS-SECTION PROPERTIES FOR: KATAUGA RIVER REACH # 2 0 TO F
 SECID = E AT DISTANCE = 3255 PART 1 OF 2

MS	A	K	ALPHA	B	P	LEM	REN	GC
2899.0	73	3451	1.06	54	55	-250	5	470
2890.0	137	8044	1.06	75	77	-253	899	1019
2891.0	220	15105	1.05	90	94	-256	903	1897
2892.0	317	25021	1.05	106	111	-259	907	3029
2893.0	433	37580	1.07	129	136	-262	911	4347
2894.0	735	55848	1.34	437	445	-267	915	5152
2895.0	1388	105039	1.29	562	671	-273	919	10021
2896.0	2253	171313	1.36	1052	1062	-290	923	16061
2897.0	3325	300929	1.15	1095	1106	-292	932	30694
2898.0	4645	462573	1.05	1142	1153	-293	938	48510
2899.0	5607	658008	1.02	1183	1195	-295	940	68660
2900.0	6813	879341	1.00	1230	1243	-296	942	90720
2901.0	8053	1153823	1.01	1243	1256	-298	944	115921

CROSS-SECTION PROPERTIES FOR NATAUGA RIVER REACH # 2 D TO F
 SECID# E AT DISTANCE# 3255 PART 2 OF 2

WS	A	K	ALPHA	B	P	LEN	REN	QC
2902.0	9298	1462594	1.01	1246	1260	-299	946	143611
2903.0	10546	1800530	1.01	1249	1264	-300	948	173239
2904.0	11796	2167139	1.01	1251	1267	-302	948	204778
2905.0	13048	2560352	1.01	1252	1269	-303	948	238020
2906.0	14301	2979252	1.01	1254	1272	-305	948	272686
2907.0	15555	3423033	1.01	1255	1275	-306	948	309303
2908.0	16811	3890974	1.01	1257	1278	-308	948	347211
2909.0	18068	4382430	1.01	1258	1280	-309	948	386554
2910.0	19327	4896814	1.01	1259	1283	-310	948	427283
2911.0	20587	5433594	1.01	1261	1286	-312	948	469353
2912.0	21849	5992277	1.01	1262	1289	-313	948	512726
2912.5	22460	6279690	1.01	1263	1290	-314	948	534888

CROSS-SECTION PROPERTIES FOR NATAUGA RIVER REACH # 2 D TO F
 SECID# F AT DISTANCE# 4055 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEN	REN	QC
2894.0	90	5200	1.05	42	44	-69	22	737
2895.0	137	8957	1.12	51	54	-71	23	1198
2896.0	203	13701	1.35	107	111	-72	605	1370
2897.0	313	21834	1.48	113	119	-73	608	2432
2898.0	456	32924	1.61	183	189	-75	614	3217
2899.0	678	50258	1.67	256	263	-76	615	4836
2900.0	967	75384	1.61	322	329	-77	616	7484
2901.0	1327	105670	1.65	445	453	-78	618	10112
2902.0	1966	154575	1.70	599	708	-80	619	14343
2903.0	2607	238635	1.39	702	712	-81	620	24977
2904.0	3371	340963	1.24	706	716	-83	622	37508
2905.0	4080	460104	1.16	711	721	-85	625	51427
2906.0	4793	594955	1.12	715	726	-87	628	66498
2907.0	5510	744670	1.10	720	731	-88	630	82608
2908.0	6232	908575	1.05	724	736	-90	633	99596
2909.0	6958	1085123	1.07	728	740	-92	635	117719
2909.7	7469	1218455	1.07	731	744	-93	637	130898

2028.0 → .10

PAGE 1 OF PROFILE NOTES FOR WATAUGA RIVER REACH # 2 D TO F
INITIAL VALUES ARE: D = 0. H = 0.00

SECID, ERROR OR WARNING MESSAGE, INTERMEDIATE RESULTS (IF ANY), ACTION TAKEN

E, KU/KD < 0.7 OR > 1.4

F, ERDN FAILURE

F, KU/KD < 0.7 OR > 1.4

WS = 2899.49

FN =

3.33 USED HIGHER WS

USED COMPUTED WSU

USED COMPUTED WSU

WATER-SURFACE PROFILE FOR HATAUGA RIVER REACH # 2 D TO F
PAGE 1 OF 1

500 TR

SECTION AT DISTANCE / LENGTH / DISCHARGE / AREA / CONVEYANCE / ALPHA / LEN / REW
WS ELEV / HV / HF / HE / EG / V / FN / ACC / ID

D AT 215 / 0 / 26280. / 2880. / 280762. / 1.28 / -42. / 874.
2893.30 / 1.66 / / 2894.96 / 9.13 / 0.83 / *IS*

E AT 325 / 1.140 / 26280. / 5543. / 647262. / 1.02 / -296. / 940.
2898.95 / 0.36 / 4.33 / 0.00 / 2899.30 / 4.74 / 0.39 / 0.008 *XS*

C.D. - 2903.10

F AT 405 / 800 / 26280. / 2099. / 169048. / 1.62 / -81. / 619.
2902.19 / 3.95 / 5.05 / 1.80 / 2906.15 / 12.52 / 1.15 / 0.003 *XS*

END OF THIS PROFILE

*** INPUT CARD PRINTOUT ***

Line	Station	Code	Flow (CFS)	Stage (FT)	Flow (CFS)	Stage (FT)	Flow (CFS)	Stage (FT)	Flow (CFS)	Stage (FT)
1	78	MATAUGA RIVER REACH	3	F 10 H	7	01 02 10 15				
2	79	290310								
3	80	F 1 27	3 2894	4055	99 99					
4	81	2628 00								
5	82	-94	1 29097	-51	1 29021	-59	1 28930	-55	1 28956	-16
5	83	-10	2 28923	-7	2 28912	0	2 28911	11	2 28908	20
5	84	26	3 28972	106	3 28987	156	3 29016	256	3 29008	356
5	85	456	3 29010	556	3 28988	592	3 28973	594	3 28972	596
5	86	599	3 28959	604	3 28959	606	3 28961	608	3 28971	614
5	87	620	3 29031	637	3 29096					
6	89	1 2 070 070	4 5 045 045	1 2 040 040						
3	100	6 0 37	3 2896	4735	99 99					
5	103	-182	1 29138	-144	1 29078	-122	2 29065	-92	2 29013	-79
5	104	-72	2 28961	-69	2 28944	-67	2 28933	-60	2 28950	-22
5	105	-17	2 28969	-16	2 28959	-9	2 28941	0	2 28929	15
5	106	24	2 28959	27	2 28975	31	2 28992	34	2 29035	36
5	107	56	2 29041	59	2 29034	62	3 29066	76	3 29087	86
5	108	88	3 29102	118	3 29065	168	3 29071	268	3 29073	368
5	109	443	3 29067	458	3 29043	485	3 29033	539	3 29044	540
5	110	573	3 29070	600	3 29136					
6	113	1 2 060 060	4 5 040 040	1 2 035 035						
3	120	H 0 21	3 2902	5490	99 99					
5	122	-50	1 29174	-28	2 29004	-26	2 28991	-6	2 28990	-1
5	123	6	2 29014	10	3 29004	19	2 28987	26	2 28996	32
5	124	37	3 29037	60	3 29060	68	3 29077	86	3 29081	92
5	125	120	3 29106	138	3 29120	200	3 29117	250	3 29124	277
5	126	283	3 29174							
6	128	1 2 050 050	4 5 040 040	1 2 045 045						

INPUT SUMMARY FOR: WATAUGA RIVER REACH # 3 F TO H

7 CROSS SECTIONS SPECIFIED (OR ASSUMED)

FOUND 3 TYPE 3 CARDS

KEPT 3 CROSS SECTIONS FOR EDITING

3 " " VALID FOR PROPERTY COMPUTATIONS

3 " " " " PROFILE "

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER REACH # 3 F TO H
 SECID = F AT DISTANCE = 4055 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REN	QC
2894.0	90	5200	1.05	42	44	-69	22	737
2895.0	137	8957	1.12	51	54	-71	23	1198
2896.0	203	13701	1.35	107	111	-72	605	1370
2897.0	313	21834	1.48	113	119	-73	608	2432
2898.0	456	32924	1.61	183	189	-75	614	3217
2899.0	678	50258	1.67	256	263	-76	615	4836
2900.0	967	75384	1.61	322	329	-77	616	7484
2901.0	1327	105670	1.65	445	453	-78	618	10112
2902.0	1966	154575	1.70	699	708	-80	619	14343
2903.0	2667	238636	1.39	702	712	-81	620	24977
2904.0	3371	340963	1.24	706	716	-83	622	37508
2905.0	4080	460104	1.16	711	721	-85	623	51427
2906.0	4793	594956	1.12	715	726	-87	628	66498
2907.0	5510	744670	1.10	720	731	-88	630	82608
2908.0	6232	908576	1.08	724	736	-90	633	99696
2909.0	6958	1086123	1.07	728	740	-92	635	117719
2909.7	7469	1218455	1.07	731	744	-93	637	130898

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER REACH # 3 F TO H
 SECID = G AT DISTANCE = 4735 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REN	QC
2896.0	113	5824	1.00	67	69	-71	24	827
2897.0	191	11552	1.00	89	92	-74	26	1579
2898.0	292	20851	1.00	107	110	-78	28	2734
2899.0	402	34165	1.00	113	116	-82	31	4292
2900.0	518	50495	1.00	118	122	-86	32	6141
2901.0	638	69565	1.00	123	128	-90	32	8244
2902.0	764	90802	1.00	129	134	-95	33	10547
2903.0	896	114483	1.00	135	141	-101	34	13076
2904.0	1055	138243	1.03	200	207	-107	519	13537
2905.0	1300	163223	1.09	260	267	-112	539	15891
2906.0	1567	206522	1.09	279	287	-118	546	20192
2907.0	1924	252739	1.24	508	517	-129	573	19044
2908.0	2570	332769	1.33	689	697	-144	577	23997
2909.0	3271	441033	1.35	713	722	-151	581	34214
2910.0	3995	570011	1.29	736	746	-157	585	46385
2911.0	4742	720197	1.24	754	764	-163	589	60583
2912.0	5500	891159	1.19	764	774	-170	593	76642
2913.0	6270	1080131	1.16	774	785	-176	598	93985
2913.6	6872	1244256	1.14	782	793	-181	600	108767

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER REACH # 3 F TO H
 SECID# H AT DISTANCE# 5490 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEN	REN	DC
2902.0	144	9085	1.01	64	67	29	34	1215
2903.0	210	16508	1.02	67	70	30	36	2084
2904.0	279	25817	1.03	73	76	32	40	3058
2905.0	357	37334	1.07	84	88	33	50	4050
2906.0	447	51049	1.11	95	99	34	60	5206
2907.0	545	67232	1.14	101	106	36	65	6710
2908.0	651	84927	1.20	119	124	37	81	7876
2909.0	776	106637	1.23	127	132	38	88	9828
2910.0	905	131335	1.23	130	136	39	90	12191
2911.0	1041	155085	1.31	154	161	41	125	13398
2912.0	1225	177124	1.56	264	272	42	221	11983
2913.0	1517	216554	1.67	308	315	43	264	14768
2914.0	1835	265663	1.68	323	331	45	278	19123
2915.0	2160	323494	1.63	326	335	46	279	24725
2916.0	2487	388017	1.56	329	338	47	281	31050
2917.0	2818	458873	1.50	332	342	48	282	38029
2917.4	2951	488923	1.48	333	343	49	283	40990

26280 → 25

PAGE 1 OF PROFILE NOTES FOR WATAUGA RIVER REACH # 3 F TO H
INITIAL VALUES ARE: U = 0.7 H = 0.00

SECTION, ERROR OR WARNING MESSAGE, INTERMEDIATE RESULTS (IF ANY), ACTION TAKEN

G, KU/KO < 0.7 OR > 1.4
H, KU/KO < 0.7 OR > 1.4

USED COMPUTED WSU
USED COMPUTED WSU

=====

WATER SURFACE PROFILE FOR WATAUGA RIVER REACH # 3 F TO H

PAGE 1 OF 1

=====

500 YR

SECTION	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEN	REW
MS ELEV	HV	HF	HE	EG	V	FN	ACC	ID	
F	AT	4055	0	26280	2737	248089	1.37	83	620
2903.10		1.97		2905.07	9.60	0.83			*IS*
G	AT	4735	680	26280	2812	368189	1.38	147	579
2908.35		1.87	5.14	0.00	2910.22	9.34	0.67	0.009	*X5*
H	AT	5490	755	26280	1179	174416	1.45	43	208
2911.81		11.18	8.12	4.65	2922.98	22.29	1.47	0.010	*XS*

C.D. = 2915.25

END OF THIS PROFILE

*** INPUT CARD PRINTOUT ***

.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0

1	118	WATAUGA RIVER REACH # 4 H TO J										5	01	02	10	15	
2	119	291525															
3	120	H	1	21	3	2902	5490	99	99								
4	121	26280															
5	122	-50	1	29174	-28	2	29004	-26	2	28991	-6	2	28990	-1	2	29005	
5	123	6	2	29014	10	2	29004	19	2	28987	26	2	28996	32	2	29004	
5	124	37	3	29037	60	3	29060	68	3	29077	86	3	29081	92	3	29113	
5	125	120	3	29106	138	3	29120	200	3	29117	250	3	29124	277	3	29136	
5	126	283	3	29174													
6	128	1	2	050	050	4	5	040	040	1	2	045	045				
3	130	1	0	25	3	2907	6305	99	99								
5	132	-479	1	29218	-457	1	29207	-434	1	29174	-379	1	29146	-329	1	29132	
5	133	-279	1	29140	-229	1	29123	-179	1	29110	-129	1	29102	-79	1	29093	
5	134	-36	2	29086	-33	2	29076	-25	2	29050	-24	2	29048	-19	2	29038	
5	135	0	2	29038	23	2	29038	39	2	29048	44	3	29128	62	3	29156	
5	136	68	3	29142	85	3	29132	121	3	29137	221	3	29121				
6	138	1	2	045	045	4	5	040	040	1	2	055	055				
3	150	13R	0	24	3	2908	6348	99	99								
5	151	-500	1	29208	-400	1	29189	-300	1	29188	-200	1	29184	-100	1	29185	
5	152	-91	2	29185	-59	2	29150	-68	2	29136	-63	2	29135	-57	2	29100	
5	153	-44	2	29098	-34	2	29072	-30	2	29061	-26	2	29047	-22	2	29041	
5	154	0	2	29047	27	2	29036	38	2	29042	42	2	29048	46	2	29059	
5	155	50	2	29086	53	2	29127	55	3	29185	93	3	29185				
6	157	1	2	035	035	4	5	040	040	1	2	035	035				
3	160	1	0	26	5	2909	6529	99	99								
5	162	-470	1	29232	-449	1	29180	-443	1	29135	-437	1	29153	-427	1	29174	
5	163	-420	1	29164	-370	1	29143	-270	1	29133	-220	1	29141	-170	1	29115	
5	164	-120	1	29114	-84	2	29130	-70	2	29107	-50	2	29108	-38	3	29094	
5	165	-30	3	29068	-26	3	29067	-20	3	29061	0	3	29063	28	3	29058	
5	166	38	3	29066	42	4	29097	60	4	29119	70	5	29145	80	5	29225	
5	167	93	5	29233													
6	169	1	2	035	035	1	2	035	035	4	5	040	040	1	2	060	060

ERROR(S)

PAGE 1 OF EDITING NOTES FUR1 NATAUGA RIVER REACH # 4 H TO J

SECID	ERROR II SEVERITY	FIRST VARIABLE	NO.	ERROR MESSAGE	SECOND VARIABLE	NO.	VALUE ASSUMED
I	WARNING	NPTS		WRONG		24	0

INPUT SUMMARY FOR WATAUGA RIVER REACH # 4 H TO J

5 CROSS SECTIONS SPECIFIED (OR ASSUMED)

FOUND 4 TYPE 3 CARDS

KEPT 4 CROSS SECTIONS FOR EDITING

4 " " VALID FOR PROPERTY COMPUTATIONS

4 " " " " PROFILE " "

8

CROSS-SECTION PROPERTIES FOR: NATAUGA RIVER REACH # 4 H TO J
 SECID= H AT DISTANCE= 5490 PART 1 OF 1

HS	A	K	ALPHA	B	P	LEN	REN	QC
2902.0	144	9085	1.01	64	67	-29	34	1215
2903.0	210	16508	1.02	67	70	-30	36	2084
2904.0	279	25817	1.03	73	76	-32	40	3058
2905.0	357	37334	1.07	84	88	-33	50	4050
2906.0	447	51049	1.11	95	99	-34	60	5206
2907.0	545	67232	1.14	101	106	-36	65	6710
2908.0	651	84927	1.20	119	124	-37	81	7876
2909.0	776	106637	1.23	127	132	-38	88	9828
2910.0	905	131335	1.23	130	136	-39	90	12191
2911.0	1041	155085	1.31	154	161	-41	125	13398
2912.0	1225	177124	1.56	264	272	-42	221	11983
2913.0	1517	216554	1.67	308	315	-43	264	14768
2914.0	1835	265663	1.68	323	331	-45	278	19123
2915.0	2160	323494	1.63	326	335	-46	279	24725
2916.0	2487	388017	1.56	329	338	-47	281	31050
2917.0	2818	458873	1.50	332	342	-48	282	38029
2917.4	2951	488923	1.48	333	343	-49	283	40990

CROSS-SECTION PROPERTIES FOR: NATAUGA RIVER REACH # 4 H TO J
 SECID= I AT DISTANCE= 6305 PART 1 OF 1

HS	A	K	ALPHA	B	P	LEN	REN	QC
2907.0	201	14664	1.00	72	73	-30	40	1909
2908.0	274	23701	1.00	75	78	-33	41	2970
2909.0	356	34903	1.02	102	105	-60	42	3724
2910.0	488	49765	1.18	160	164	-117	42	4450
2911.0	678	69553	1.35	222	226	-178	43	5785
2912.0	920	96234	1.44	261	266	-216	44	8173
2913.0	1223	130565	1.50	351	356	-249	165	10578
2914.0	1677	169419	1.82	559	566	-357	221	12227
2915.0	2261	233582	1.79	501	610	-386	221	18573
2916.0	2876	312999	1.69	528	637	-406	221	26897
2917.0	3514	405965	1.58	647	658	-425	221	36925
2918.0	4168	514087	1.48	659	671	-437	221	48804
2919.0	4831	636135	1.40	566	679	-444	221	62278
2920.0	5501	769909	1.34	573	687	-451	221	76929
2921.0	6178	912217	1.30	584	699	-462	221	92249
2921.8	6731	1028894	1.28	700	716	-478	221	104493

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER REACH # 4 H TO J

SECID* IBR AT DISTANCE# 6348

PART 1 OF 1

WS	A	K	ALPHA	B	P	LEN	REN	QC
2908.0	288	23657	1.00	86	88	-36	49	2979
2909.0	376	35562	1.00	91	93	-40	50	4336
2910.0	471	46116	1.00	108	111	-56	51	5579
2911.0	580	64047	1.00	110	114	-58	52	7544
2912.0	692	84299	1.00	113	117	-59	52	9717
2913.0	806	106800	1.00	115	120	-61	53	12093
2914.0	924	128860	1.00	122	128	-67	53	14450
2915.0	1047	156633	1.00	123	130	-68	54	17334
2916.0	1173	182451	1.00	129	137	-74	54	20026
2917.0	1306	210631	1.00	136	145	-81	54	22940
2918.0	1445	241250	1.00	143	152	-87	55	26081
2919.0	1724	281478	1.14	498	509	-404	93	17047
2920.0	2248	347867	1.34	551	562	-457	93	22236
2920.8	2706	415082	1.41	593	605	-499	93	27630 → 24280 .75

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER REACH # 4 H TO J

SECID* J AT DISTANCE# 6529

PART 1 OF 1

WS	A	K	ALPHA	B	P	LEN	REN	QC
2909.0	202	14100	1.00	78	79	-36	41	1850
2910.0	284	24025	1.01	88	89	-42	44	2882
2911.0	365	36935	1.08	124	126	-71	53	3688
2912.0	550	54941	1.24	211	213	-179	60	4524
2913.0	788	81059	1.34	263	265	-198	64	6677
2914.0	1103	114577	1.48	402	405	-443	68	8503
2915.0	1548	168049	1.45	464	468	-444	71	13298
2916.0	2027	237606	1.34	495	495	-445	72	19971
2917.0	2535	322984	1.27	516	521	-447	73	28240
2918.0	3056	425213	1.20	523	529	-448	74	38216
2919.0	3582	541195	1.15	529	535	-452	76	49252
2920.0	4113	669799	1.12	534	541	-456	77	61149
2921.0	4550	817501	1.10	539	546	-460	78	73835
2922.0	5192	962884	1.09	545	552	-464	79	87262
2923.0	5741	1126111	1.08	557	565	-468	88	100668
2923.3	5909	1177649	1.08	563	571	-469	93	104654

WATER-SURFACE PROFILE FOR WATAUGA RIVER REACH # 4 H TO J
 PAGE 1 OF 1

500 YR

SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEN	REN
NS	ELEV	HV	HF	HE	EG	V	FN	ACC	ID
H	AT	5890	0	26280	2241	339013	1.61	-47	280
2915.25		3.44			2919.69	11.72	0.79		15
I	AT	6305	815	26280	5701	811880	1.33	-45	221
2920.30		0.44	2.05	0.00	2920.74	4.61	0.27	0.000	XS
IBR	AT	6348	43	26280	1471	247158	1.00	-89	55
2918.18		4.96	0.15	2.26	2923.15	17.86	0.98	0.000	XS
J	AT	6529	191	26280	5877	1167773	1.08	-470	92
2923.24		0.33	0.43	0.00	2923.58	4.47	0.24	0.000	XS

C.D. = 2920.75

See
 NEXT
 REACH

END OF THIS PROFILE

*** INPUT CARD PRINTOUT ***

.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0

1	146	WATAGUA RIVER REACH # 5	IBR TO J	2	1	02	10	15									
2	147	292075															
3	148	IBR 1	24	3	2908	6348	99	99									
4	149	26280															
5	151	-500	1	29208	-400	1	29189	-300	1	29188	-200	1	29184	-100	1	29185	
5	152	-91	2	29185	-69	2	29150	-68	2	29136	-63	2	29135	-57	2	29100	
5	153	0	-44	2	29098	-34	2	29072	-30	2	29061	-26	2	29047	-22	2	29041
5	154	0	2	29047	27	2	29036	38	2	29042	42	2	29048	46	2	29059	
5	155	50	2	29086	53	2	29127	55	3	29185	93	3	29185				
6	157	1	2	035	035	4	5	040	040	1	2	035	035				
3	160	J	0	26	5	2909	6529	99	99								
5	162	-470	1	29232	-449	1	29180	-443	1	29135	-437	1	29153	-427	1	29174	
5	163	-420	1	29164	-370	1	29143	-270	1	29133	-220	1	29141	-170	1	29115	
5	164	-130	1	29114	-84	2	29130	-70	2	29107	-50	2	29108	-38	3	29094	
5	165	-30	3	29068	-26	3	29067	-20	3	29061	0	3	29063	28	3	29058	
5	166	38	3	29066	42	4	29097	60	4	29119	70	5	29145	80	5	29225	
5	167	93	5	29233													
6	169	1	2	035	035	1	2	035	035	4	5	040	040	1	2	060	060

INPUT SUMMARY FOR: NATAGUA RIVER REACH # 5 I/R TO J

2 CROSS SECTIONS SPECIFIED (OR ASSUMED)

FOUND 2 TYPE 3 CARDS

KEPT 2 CROSS SECTIONS FOR EDITING

2 " " VALID FOR PROPERTY COMPUTATIONS

2 " " " " PROFILE "

CROSS-SECTION PROPERTIES FOR NATAGUA RIVER REACH # 5 IBR TO J
 SECTID = IBR AT DISTANCE = 6348 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEN	REN	QC
2908.0	288	23657	1.00	86	88	-36	49	2979
2909.0	376	35562	1.00	91	93	-40	50	4336
2910.0	471	46115	1.00	108	111	-56	51	5579
2911.0	580	64047	1.00	110	114	-58	52	7544
2912.0	692	84299	1.00	113	117	-59	52	9717
2913.0	806	106800	1.00	115	120	-61	53	12093
2914.0	924	128860	1.00	122	128	-67	53	14450
2915.0	1047	156633	1.00	123	130	-68	54	17339
2916.0	1173	182451	1.00	129	137	-74	54	20026
2917.0	1306	210631	1.00	136	145	-81	54	22940
2918.0	1445	241250	1.00	143	152	-87	55	26081
2919.0	1724	281478	1.14	498	509	-404	93	17087
2920.0	2248	347867	1.34	551	562	-457	93	22236
2920.8	2706	415062	1.41	593	605	-499	93	27630

CROSS-SECTION PROPERTIES FOR NATAGUA RIVER REACH # 5 IBR TO J
 SECTID = J AT DISTANCE = 6529 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEN	REN	QC
2909.0	202	14100	1.00	78	79	-36	41	1850
2910.0	264	24026	1.01	88	89	-42	44	2842
2911.0	335	36935	1.08	124	126	-71	53	3688
2912.0	550	54941	1.24	211	213	-179	60	4524
2913.0	788	91059	1.34	263	265	-198	64	6677
2914.0	1103	114577	1.48	402	405	-443	68	8503
2915.0	1543	168049	1.45	464	468	-444	71	13298
2916.0	2027	237606	1.36	495	499	-445	72	19971
2917.0	2535	322984	1.27	516	521	-447	73	28240
2918.0	3056	425213	1.20	523	529	-448	74	38216
2919.0	3582	541198	1.15	529	535	-452	76	49252
2920.0	4113	669799	1.12	534	541	-456	77	61149
2921.0	4650	810501	1.10	539	546	-460	78	73835
2922.0	5192	962834	1.09	545	552	-464	79	87262
2923.0	5741	1126111	1.08	557	565	-468	88	100668
2923.3	5909	1177649	1.08	563	571	-469	93	104654

PAGE 1 OF PROFILE NOTES FOR NATAGUA RIVER REACH # 5 IBR TO J
INITIAL VALUES ARE: 0.0 0.0 H 0.00

SECID, ERROR OR WARNING MESSAGE, INTERMEDIATE RESULTS (IF ANY), ACTION TAKEN

IBR RIGHT BANK EXTENDED
JAKU40 < 0.7 OR > 1.4

USED COMPUTED WSU
USED COMPUTED WSU

=====

WATER-SURFACE PROFILE FOR: MATAGUA RIVER REACH # 5 IBR TO J

PAGE 1 OF 1

=====

500 YR

SECTID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEN	REN
HS	ELEV	HV	HF	HE	EG	V	FN	ACC	ID
IBR	AT	6348	0	26280	2676	410533	1.41	497	93
2920.75		2.11			2922.86	9.82	0.61		*IS*
J	AT	5529	181	26280	5802	1084316	1.08	468	84
2922.75		0.37	0.25	0.00	2923.12	8.69	0.26	0.019	*XS*

END OF THIS PROFILE

*** INPUT CARD PRINTOUT ***

	1	2	3	4	5	6	7	8
1	158	WATAUGA RIVER FROM SECT J TO END						
2	159	291308	291685	291861	292275	FIRST	56	4 02 99 10
3	160	J 1	26	5	2909	6529	99	99
4	161	5620	11240	14690	26280			
5	162	-470	1	29232	-449	1	29180	-443
5	163	-420	1	29164	-370	1	29143	-270
5	164	-120	1	29114	-84	2	29130	-70
5	165	-30	3	29060	-26	3	29067	-20
5	166	38	3	29066	42	4	29097	60
5	167	93	5	29233				
6	169	1	2	035	035	1	2	035
3	170	J.3	0	26	5	2913	7216	99
5	172	-470	1	29273	-449	1	29221	-443
5	173	-420	1	29205	-370	1	29184	-270
5	174	-120	1	29155	-84	2	29171	-70
5	175	-30	3	29109	-26	3	29108	-20
5	175	38	3	29107	42	4	29138	60
5	177	93	5	29274				
6	179	1	2	035	035	1	2	035
3	181	J.7	0	26	5	2917	7903	99
5	183	-470	1	29314	-449	1	29262	-443
5	184	-420	1	29246	-370	1	29225	-270
5	185	-120	1	29196	-84	2	29212	-70
5	186	-30	3	29150	-26	3	29149	-20
5	187	38	3	29148	42	4	29179	60
5	188	93	5	29315				
6	190	1	2	035	035	1	2	035
3	1175	K 0	46	5	2921	8590	99	99
5	1177	-894	1	29362	-794	1	29316	-694
5	1178	-394	1	29275	-294	1	29269	-194
5	1179	-13	2	29221	-33	2	29213	-22
5	1180	8	2	29186	12	2	29201	15
5	1181	67	3	29237	106	3	29235	128
5	1182	190	4	29221	196	4	29197	202
5	1183	222	4	29164	229	4	29172	233
5	1184	274	5	29246	306	5	29252	406
5	1185	706	5	29263	806	5	29277	906
5	1186	1046	5	29366				
6	1188	1	2	035	035	4	5	040
3	1190	L 1	36	3	2929	9545	99	99
4	1191	5110	10270	13440	24130			
5	1192	-712	1	29427	-707	1	29388	-701
5	1193	-653	1	29407	-612	1	29378	-512
5	1194	-212	1	29383	-134	1	29352	-95
5	1195	-84	2	29296	-83	2	29290	-62

*** INPUT CARD PRINTOUT ***

	1	2	3	4	5	6	7	8
5 1196	-15	2 29277	-8	2 29272	0	2 29255	9	2 29267
5 1197	17	2 29300	31	3 29331	38	3 29326	88	3 29302
5 1198	148	3 29296	188	3 29298	238	3 29305	288	3 29324
5 1199	388	3 29442						3 29358
6 1201	1	2 045 045	4	5 040 040	1	2 065 065		
3 1210	M 0	40	3 2934	10180	99	99		
5 1212	-855	1 29465	-830	1 29447	-825	1 29439	-775	1 29421
5 1213	-766	1 29410	-756	1 29435	-753	1 29441	-728	1 29444
5 1214	-705	1 29419	-605	1 29400	-505	1 29388	-405	1 29399
5 1215	-380	1 29349	-375	1 29358	-285	1 29361	-270	1 29354
5 1216	-205	1 29337	-155	1 29366	-85	1 29405	-83	1 29396
5 1217	-25	2 29344	-15	2 29333	-10	2 29314	-5	2 29309
5 1218	10	2 29308	17	2 29314	20	3 29339	60	3 29339
5 1219	110	3 29398	135	3 29383	185	3 29378	225	3 29436
6 1221	1	2 070 070	4	5 040 040	1	2 065 065		
3 1230	N 0	29	3 2944	11245	99	99		
5 1232	-315	1 29569	-308	1 29545	-300	1 29554	-273	1 29552
5 1233	-170	1 29464	-161	1 29421	-159	1 29417	-154	1 29418
5 1234	-115	1 29446	-40	2 29447	-20	2 29413	-17	2 29410
5 1235	13	2 29407	20	2 29415	25	3 29420	50	3 29411
5 1236	175	3 29417	205	3 29412	255	3 29427	275	3 29450
5 1237	365	3 29434	385	3 29486	410	3 29411	465	3 29571
6 1239	1	2 080 080	4	5 040 040	1	2 075 075		
3 1240	N 3 0	26	3 2947	11575	99	99		
5 1242	-273	1 29580	-260	1 29503	-170	1 29492	-161	1 29449
5 1243	-154	2 29446	-150	2 29461	-115	2 29474	-40	2 29475
5 1244	-17	2 29438	0	2 29438	13	2 29435	20	2 29443
5 1245	50	3 29439	150	3 29439	175	3 29445	205	3 29440
5 1246	275	3 29478	302	3 29443	365	3 29462	385	3 29514
5 1247	465	3 29599						3 29439
6 1249	1	2 080 080	4	5 040 040	1	2 075 075		
3 1260	N 7 0	22	3 2950	11978	99	99		
5 1262	-89	1 29633	-72	1 29598	-62	2 29563	-39	2 29545
5 1263	-24	2 29473	0	2 29475	16	2 29469	21	2 29480
5 1264	42	3 29565	51	3 29530	59	3 29549	112	3 29547
5 1265	296	3 29563	396	3 29559	421	3 29528	431	3 29523
5 1266	467	3 29627	468	3 29655				3 29625
6 1268	1	2 090 090	4	5 040 040	1	2 085 085		
3 2250	0 0	26	3 2953	12380	99	99		
5 2252	-154	1 29667	-126	1 29663	-98	1 29663	-89	1 29667
5 2253	-62	2 29597	-39	2 29579	-31	2 29533	-24	2 29513
5 2254	0	2 29509	16	2 29503	21	2 29514	33	2 29569
5 2255	51	3 29564	59	3 29583	112	3 29581	196	3 29585
5 2256	396	3 29593	421	3 29562	431	3 29557	447	3 29659
5 2257	468	3 29689						3 29661

*** INPUT CARD PRINTOUT ***

	1	2	3	4	5	6	7	8
6 2259	1	2 090 090	4 5 040 040	1 2 085 085				
3 2270		P 0 25	4 2952	12547 99 99				
5 2272		-93 1 29657	-82 1 29632	-75 1 29586	-59 1 29551	-43 2 29565		
5 2273		-13 2 29515	-5 2 29498	0 2 29487	4 2 29494	9 2 29515		
5 2274		16 3 29540	28 4 29572	39 4 29574	65 4 29574	112 4 29611		
5 2275		160 4 29609	212 4 29604	251 4 29609	264 4 29619	276 4 29598		
5 2276		288 4 29600	301 4 29619	312 4 29642	332 4 29659	390 4 29680		
6 2278	1	2 065 065	4 5 045 045	1 2 075 075	1 2 075 075			
3 2284		Q 1 43	3 2967	13845 99 99				
4 2285		3320 6780	8930 16330					
5 2286		-741 1 29796	-719 1 29703	-701 1 29698	-678 1 29730	-663 1 29731		
5 2287		-648 1 29743	-618 1 29753	-610 1 29744	-601 1 29707	-549 1 29699		
5 2288		-544 1 29674	-541 1 29668	-538 1 29673	-527 1 29714	-461 1 29727		
5 2289		-401 1 29713	-341 1 29692	-281 1 29677	-236 1 29638	-171 1 29656		
5 2290		-101 1 29671	-80 1 29659	-69 1 29700	-64 2 29700	-55 2 29656		
5 2291		-54 2 29644	-24 2 29655	-15 2 29651	0 2 29648	9 2 29643		
5 2292		25 2 29656	29 2 29670	29 3 29711	54 3 29722	71 3 29717		
5 2293		89 3 29701	98 3 29688	111 3 29692	125 3 29755	142 3 29757		
5 2294		146 3 29745	193 3 29770	219 3 29800				
6 2296	1	2 070 070	4 5 045 045	1 2 065 065				
3 2300		R 0 15	3 2970	14470 99 99				
5 2302		-52 1 29820	-44 1 29796	-26 1 29702	-10 2 29702	-6 2 29682		
5 2303		-5 2 29679	-2 2 29671	0 2 29664	9 2 29669	15 2 29679		
5 2304		32 2 29688	34 3 29705	45 3 29729	75 3 29750	94 3 29809		
6 2306	1	2 085 085	4 5 055 055	1 2 080 080				
3 2310		RX 0 26	3 2975	14540 99 99				
5 2312		-694 1 29842	-680 1 29838	-594 1 29812	-494 1 29803	-394 1 29811		
5 2313		-294 1 29812	-194 1 29801	-94 1 29790	-36 1 29787	-33 2 29787		
5 2314		-33 2 29752	-15 2 29733	-11 2 29725	-5 2 29711	0 2 29712		
5 2315		3 2 29716	5 2 29715	16 2 29720	30 2 29725	30 2 29739		
5 2316		38 2 29742	42 2 29744	42 3 29785	56 3 29791	106 3 29805		
5 2317		200 3 30000						
6 2318	1	2 065 065	4 5 045 045	1 2 070 070				
3 2320		RX 5 0 31	5 2975	14588 99 99				
5 2322		-703 1 29861	-682 1 29827	-671 1 29790	-669 1 29786	-667 1 29788		
5 2323		-666 1 29801	-583 1 29808	-503 1 29799	-457 1 29796	-426 1 29831		
5 2324		-403 1 29829	-318 1 29824	-311 1 29813	-295 1 29755	-97 1 29742		
5 2325		-68 1 29755	-58 1 29751	-33 2 29749	-18 3 29747	-16 3 29729		
5 2326		-9 3 29719	0 3 29723	8 3 29723	13 3 29730	33 3 29732		
5 2327		42 4 29750	50 5 29767	67 5 29774	93 5 29772	100 5 29834		
5 2328		109 5 29857						
6 2330	1	2 045 045	1 2 060 060	4 5 048 048	4 5 065 065	1 2 065 065		
3 3330		S 0 31	5 2975	14635 99 99				
5 3332		-703 1 29869	-682 1 29835	-671 1 29798	-669 1 29794	-667 1 29796		
5 3333		-666 1 29809	-583 1 29816	-503 1 29807	-457 1 29804	-426 1 29839		

*** INPUT CARD PRINTOUT ***

	1	2	3	4	5	6	7	8		
.....	5.....05.....05.....05.....05.....05.....05.....05.....0		
5 3334	-403	1 29837	-318	1 29832	-311	1 29821	-295	1 29763	-97	1 29750
5 3335	-68	1 29763	-58	1 29759	-33	2 29757	-18	3 29755	-16	3 29737
5 3336	-9	3 29727	0	3 29731	8	3 29731	13	3 29738	33	3 29740
5 3337	42	4 29758	50	5 29775	67	5 29782	93	5 29780	100	5 29842
5 3338	109	5 29865								
6 3340	1	2 045 045	1	2 060 060	4	5 048 048	4	5 065 065	1	2 065 065
3 3350	S.5 0	26	3 2980	15075	99	99				
5 3352	-785	1 29913	-780	1 29880	-685	1 29876	-585	1 29870	-485	1 29867
5 3353	-443	1 29863	-415	1 29854	-385	1 29866	-341	1 29849	-326	1 29802
5 3354	-272	1 29805	-240	1 29807	-225	1 29790	-185	1 29798	-115	1 29809
5 3355	-53	1 29807	-35	2 29836	-16	2 29782	-5	2 29773	0	2 29768
5 3356	8	2 29769	17	2 29782	39	3 29826	100	3 29834	111	3 29889
5 3357	118	3 29913								
6 3359	1	2 048 048	4	5 045 045	1	2 080 080				
3 4345	T 0	26	3 2984	15515	99	99				
5 4347	-785	1 29953	-780	1 29920	-685	1 29916	-585	1 29910	-485	1 29907
5 4348	-443	1 29903	-415	1 29894	-385	1 29906	-341	1 29889	-326	1 29842
5 4349	-272	1 29845	-240	1 29847	-225	1 29830	-185	1 29838	-115	1 29849
5 4350	-53	1 29847	-35	2 29876	-16	2 29822	-5	2 29813	0	2 29808
5 4351	8	2 29809	17	2 29822	39	3 29866	100	3 29874	111	3 29929
5 4352	118	3 29953								
6 4354	1	2 048 048	4	5 045 045	1	2 080 080				
3 4360	T.1 0	26	3 2984	15615	99	99				
5 4362	-785	1 29959	-780	1 29926	-685	1 29922	-585	1 29916	-485	1 29913
5 4363	-443	1 29909	-415	1 29900	-385	1 29912	-341	1 29895	-326	1 29848
5 4364	-272	1 29851	-240	1 29853	-225	1 29836	-185	1 29844	-115	1 29855
5 4365	-53	1 29853	-35	2 29882	-16	2 29828	-5	2 29819	0	2 29814
5 4366	8	2 29815	17	2 29828	39	3 29872	100	3 29880	111	3 29935
5 4367	118	3 29959								
6 4369	1	2 048 048	4	5 045 045	1	2 080 080				
3 4380	T.5 0	21	3 2989	16240	99	99				
5 4382	-215	1 30011	-165	1 29998	-115	1 29999	-65	1 29993	-55	1 29984
5 4383	-45	1 29917	-25	2 29911	-20	2 29870	-15	2 29856	-9	2 29850
5 4384	0	2 29861	10	2 29870	18	2 29888	32	3 29904	35	3 29918
5 4385	55	3 29934	60	3 29964	66	3 29984	85	3 29989	125	3 30002
5 4386	178	3 30023								
6 4388	1	2 075 075	4	5 045 045	1	2 080 080				
3 5364	U 0	21	3 2992	16865	99	99				
5 5366	-215	1 30048	-165	1 30035	-115	1 30036	-65	1 30030	-55	1 30021
5 5367	-45	1 29954	-25	2 29948	-20	2 29907	-15	2 29893	-9	2 29887
5 5368	0	2 29898	10	2 29907	18	2 29925	32	3 29941	35	3 29955
5 5369	55	3 29971	60	3 30001	66	3 30021	85	3 30026	125	3 30039
5 5370	178	3 30060								
6 5371	1	2 075 075	4	5 045 045	1	2 080 080				
3 5382	UX 0	26	3 2994	16887	99	99				

*** INPUT CARD PRINTOUT ***

	1	2	3	4	5	6	7	8		
.....	5.....	0.....	5.....	0.....	5.....	0.....	5.....	0.....		
5 5384	-83	1 30040	-60	1 30036	-52	2 30036	-52	2 29983	-39	2 29946
5 5385	-21	2 29957	-15	2 29936	-11	2 29936	-11	2 29907	-6	2 29900
5 5386	0	2 29904	9	2 29906	15	2 29913	20	2 29923	25	2 29939
5 5387	29	2 29940	32	2 29927	46	2 29945	58	2 29969	66	2 30000
5 5388	66	3 30036	74	3 30037	124	3 30046	155	3 30055	164	3 30059
5 5389	164	3 30100								
6 5390	1	2 062 062	4	5 050 050	1	2 070 070				
3 5412	V 0	23	5 2995	17000	99	99				
5 5414	-95	1 30071	-82	1 30059	-73	1 30060	-70	1 30046	-52	2 30033
5 5415	-23	3 30012	-10	3 29933	-6	3 29925	0	3 29922	5	3 29927
5 5416	20	3 29933	32	3 29934	33	3 29956	38	3 29969	43	3 30006
5 5417	57	4 30027	65	4 30010	66	5 30012	82	5 30041	97	5 30097
5 5418	105	5 30043	155	5 30055	171	5 30063				
6 5420	1	2 055 055	1	2 055 055	4	5 050 050	1	2 065 065	1	2 065 065
3 5430	W 0	33	3 3003	17490	99	99				
5 5432	-245	1 30127	-215	1 30113	-200	1 30089	-190	1 30048	-175	1 30041
5 5433	-170	1 30034	-163	1 30045	-125	1 30039	-89	2 30038	-87	2 30027
5 5434	-85	2 30039	-78	2 30023	-75	2 30019	-70	2 30016	-64	2 30013
5 5435	-59	2 30015	-52	2 30019	-45	2 30020	-13	2 30004	-7	2 29996
5 5436	0	2 29995	10	2 29995	15	2 30000	28	2 30018	47	2 29997
5 5437	51	2 30022	61	2 30008	64	2 30014	82	3 30025	157	3 30049
5 5438	168	3 30073	194	3 30108	214	3 30123				
6 5439	1	2 055 055	4	5 050 050	1	2 065 065				
3 5440	W.3 0	33	3 3011	18073	99	99				
5 5442	-245	1 30204	-215	1 30190	-200	1 30166	-190	1 30125	-175	1 30118
5 5443	-170	1 30111	-163	1 30122	-125	1 30116	-89	2 30115	-87	2 30104
5 5444	-85	2 30116	-78	2 30100	-75	2 30096	-70	2 30093	-64	2 30090
5 5445	-59	2 30092	-52	2 30096	-45	2 30097	-13	2 30081	-7	2 30073
5 5446	0	2 30072	10	2 30072	15	2 30077	28	2 30095	47	2 30074
5 5447	51	2 30099	61	2 30085	64	2 30091	82	3 30102	157	3 30126
5 5448	168	3 30150	194	3 30185	214	3 30200				
6 5450	1	2 055 055	4	5 050 050	1	2 065 065				
3 5460	W.7 0	28	3 3018	18657	99	99				
5 5462	-357	1 30277	-350	1 30246	-307	1 30215	-257	1 30181	-207	1 30179
5 5463	-157	1 30175	-142	1 30148	-134	1 30172	-107	1 30166	-67	1 30214
5 5464	-57	2 30226	-22	2 30189	-17	2 30170	-9	2 30158	-5	2 30154
5 5465	0	2 30152	6	2 30148	13	2 30158	18	2 30189	23	2 30213
5 5466	24	2 30229	43	3 30245	91	3 30226	93	3 30258	115	3 30265
5 5467	131	3 30268	138	3 30255	143	3 30277				
6 5469	1	2 045 045	4	5 050 050	1	2 055 055				
3 6421	X 0	28	3 3026	19240	99	99				
5 6422	-357	1 30354	-350	1 30323	-307	1 30292	-257	1 30258	-207	1 30256
5 6423	-157	1 30252	-142	1 30225	-134	1 30249	-107	1 30243	-67	1 30291
5 6424	-57	2 30303	-22	2 30266	-17	2 30247	-9	2 30235	-5	2 30231
5 6425	0	2 30229	6	2 30225	13	2 30235	18	2 30266	23	2 30290

*** INPUT CARD PRINTOUT ***

	1	2	3	4	5	6	7	8
5 6426	24	2 30306	43	3 30322	91	3 30303	93	3 30335 115 3 30342
5 6427	131	3 30345	138	3 30332	143	3 30354		
6 6429	1 2 045 045	4 5 050 050	1 2 055 055					
3 6435	X.1 0	28 3 3027	19340 99 99					
5 6437	-357	1 30368	-350	1 30337	-307	1 30306	-257	1 30272 -207 1 30270
5 6438	-157	1 30266	-142	1 30239	-134	1 30263	-107	1 30257 -67 1 30305
5 6439	-57	2 30317	-22	2 30280	-17	2 30261	-9	2 30249 -5 2 30245
5 6440	0	2 30243	6	2 30239	13	2 30249	18	2 30280 23 2 30304
5 6441	24	2 30320	43	3 30336	91	3 30317	93	3 30349 115 3 30356
5 6442	131	3 30359	138	3 30346	143	3 30368		
6 6444	1 2 045 045	4 5 050 050	1 2 055 055					
3 6450	X.5 0	37 3 3037	20030 99 99					
5 6452	-107	1 30460	-97	1 30457	-74	1 30418	-55	1 30378 -47 1 30379
5 6453	-41	1 30397	-28	2 30383	-22	2 30360	-21	2 30346 -20 2 30336
5 6454	-9	2 30341	0	2 30341	9	2 30339	22	2 30346 26 2 30348
5 6455	35	3 30386	49	3 30375	93	3 30377	143	3 30371 153 3 30490
5 6456	196	3 30398	210	3 30367	243	3 30374	343	3 30366 443 3 30349
5 6457	455	3 30342	458	3 30328	462	3 30347	489	3 30344 493 3 30355
5 6458	518	3 30366	525	3 30379	568	3 30391	603	3 30362 672 3 30362
5 6459	703	3 30442	718	3 30469				
6 6461	1 2 065 065	4 5 050 050	1 2 060 060					
3 6470	Y 0	37 3 3046	20720 99 99					
5 6472	-107	1 30557	-97	1 30554	-74	1 30515	-55	1 30475 -47 1 30476
5 6473	-41	1 30494	-28	2 30480	-22	2 30457	-21	2 30443 -20 2 30433
5 6474	-9	2 30438	0	2 30438	9	2 30436	22	2 30443 26 2 30445
5 6475	35	3 30483	49	3 30472	93	3 30474	143	3 30468 153 3 30487
5 6476	196	3 30485	210	3 30464	243	3 30471	343	3 30463 443 3 30446
5 6477	455	3 30439	458	3 30425	462	3 30444	489	3 30441 493 3 30452
5 6478	518	3 30463	525	3 30476	568	3 30488	603	3 30459 672 3 30459
5 6479	703	3 30539	718	3 30566				
6 6481	1 2 065 065	4 5 050 050	1 2 060 060					
3 6491	YX 0	15 3 3047	20744 99 99					
5 6493	-132	1 30572	-24	2 30545	-24	2 30434	-12	2 30439 2 2 30439
5 6494	14	2 30444	24	2 30438	24	3 30545	68	3 30533 168 3 30491
5 6495	268	3 30469	368	3 30457	468	3 30453	568	3 30479 668 3 30518
6 6497	1 2 062 062	4 5 050 050	1 2 057 057					
3 6521	Z 0	38 5 3047	20820 99 99					
5 6523	-213	1 30585	-207	1 30532	-168	1 30513	-153	1 30499 -136 1 30488
5 6524	-134	1 30482	-116	1 30476	-83	1 30486	-75	1 30502 -48 1 30473
5 6525	-32	2 30504	-24	3 30455	-23	3 30449	-18	3 30440 0 3 30446
5 6526	19	3 30449	24	4 30453	28	4 30453	34	4 30455 37 4 30493
5 6527	47	5 30522	49	5 30513	75	5 30514	97	5 30535 112 5 30531
5 6528	158	5 30452	187	5 30447	242	5 30448	287	5 30446 312 5 30488
5 6529	387	5 30492	477	5 30496	507	5 30490	547	5 30545 565 5 30545
5 6530	618	5 30551	631	5 30545	651	5 30573		

*** INPUT CARD PRINTOUT ***

	1	2	3	4	5	6	7	8
6	6532	1 2 065 065	1 2 065 065	4 5 050 050	1 2 060 060	1 2 060 060		
3	6542	BA 0 24	3 3051	21365 99	99			
5	6544	-548 1 30608	-528 1 30523	-512 1 30559	-461 1 30545	-368 1 30545		
5	6545	-348 1 30544	-314 1 30532	-302 1 30520	-277 1 30533	-198 1 30527		
5	6546	-148 1 30517	-116 1 30523	-68 1 30574	-64 2 30584	-16 2 30514		
5	6547	-8 2 30487	-4 2 30480	0 2 30479	6 2 30480	10 2 30487		
5	6548	14 2 30518	32 2 30573	35 3 30603	82 3 30611			
6	6550	1 2 068 068	4 5 050 050	1 2 055 055				
3	6560	BB 0 28	3 3065	22020 99	99			
5	6562	-432 1 30749	-382 1 30731	-332 1 30722	-282 1 30729	-232 1 30696		
5	6563	-182 1 30691	-132 1 30695	-82 1 30685	-62 1 30660	-37 2 30665		
5	6564	-35 2 30640	-23 2 30636	-16 2 30623	0 2 30628	13 2 30617		
5	6565	28 2 30636	38 3 30656	43 3 30650	73 3 30684	103 3 30699		
5	6566	118 3 30698	128 3 30653	138 3 30683	153 3 30636	158 3 30639		
5	6567	186 3 30674	208 3 30685	218 3 30751				
6	6569	1 2 035 035	4 5 050 050	1 2 065 065				
3	6580	BBX 0 22	3 3066	22052 99	99			
5	6582	-331 1 30760	-310 1 30756	-210 1 30728	-110 1 30711	-30 1 30718		
5	6583	-28 2 30718	-28 2 30637	-21 2 30636	-17 2 30625	-16 2 30642		
5	6584	-9 2 30646	-3 2 30644	-2 2 30700	1 2 30700	2 2 30647		
5	6585	11 2 30646	20 2 30617	26 2 30631	26 3 30718	90 3 30713		
5	6586	158 3 30723	158 3 30800					
6	6588	1 2 040 040	4 5 050 050	1 2 060 060				
3	6613	BC 0 34	4 3066	22114 99	99			
5	6615	-331 1 30760	-291 1 30718	-221 1 30712	-181 1 30699	-141 1 30718		
5	6616	-131 1 30711	-94 1 30705	-84 1 30713	-81 1 30689	-59 1 30676		
5	6617	-41 1 30693	-29 2 30695	-22 2 30669	-17 2 30665	-12 2 30640		
5	6618	-5 2 30633	0 2 30640	6 2 30635	14 2 30642	24 2 30656		
5	6619	26 3 30664	33 4 30686	63 4 30688	71 4 30692	83 4 30706		
5	6620	94 4 30709	106 4 30705	119 4 30685	138 4 30716	159 4 30647		
5	6630	177 4 30645	197 4 30691	212 4 30751	219 4 30770			
6	6632	1 2 050 050	4 5 050 050	4 5 060 060	1 2 060 060			
3	6642	BD 0 34	3 3076	22825 99	99			
5	6644	-263 1 30843	-203 1 30835	-133 1 20834	-93 1 30819	-63 1 30011		
5	6645	-43 2 30024	-27 2 30745	-19 2 30738	-7 2 30734	0 2 30730		
5	6646	5 2 30731	8 2 30737	13 2 30747	30 2 30756	40 3 30801		
5	6647	97 3 30790	137 3 30788	187 3 30768	221 3 30754	237 3 30816		
5	6648	287 3 30810	337 3 30803	387 3 30810	437 3 30802	487 3 30792		
5	6649	517 3 30802	524 3 30813	535 3 30821	547 3 30813	567 3 30793		
5	6650	569 3 30782	572 3 30797	581 3 30818	598 3 30856			
6	6652	1 2 055 055	4 5 052 052	1 2 060 060				
3	6660	BD.3 0 34	3 3081	23208 99	99			
5	6662	-263 1 30896	-203 1 30888	-133 1 30887	-93 1 30872	-63 1 30864		
5	6663	-43 2 30877	-27 2 30798	-19 2 30791	-7 2 30787	0 2 30783		
5	6664	5 2 30784	8 2 30790	13 2 30800	30 2 30809	40 3 30854		

*** INPUT CARD PRINTOUT ***

	1	2	3	4	5	6	7	8		
5 6665	97	3 30843	137	3 30841	187	3 30821	221	3 30807	237	3 30869
5 6666	287	3 30863	337	3 30856	387	3 30863	437	3 30855	487	3 30845
5 6667	517	3 30855	524	3 30866	535	3 30874	547	3 30866	567	3 30846
5 6668	569	3 30835	572	3 30850	581	3 30871	598	3 30909		
6 6670	1 2 055	055 4	5 052	052 1	2 060	060				
3 6680	BD.7 0	29 3 3087	23592	99 99						
5 6682	-361	1 30951	-311	1 30896	-275	1 30887	-267	1 30865	-254	1 30875
5 6683	-198	1 30905	-181	1 30921	-169	1 30917	-161	1 30916	-134	1 30889
5 6684	-106	1 30873	-91	1 30884	-75	1 30883	-58	1 30865	-19	2 30876
5 6685	-17	2 30845	-9	2 30841	0	2 30842	9	2 30835	19	2 30845
5 6686	24	2 30862	27	3 30900	39	3 30898	52	3 30889	63	3 30897
5 6687	84	3 30933	103	3 30939	159	3 30936	192	3 30953		
6 6789	1 2 070	070 4	5 055	055 1	2 065	065				
3 7662	BE 0	30 3 3092	23975	99 99						
5 7664	-361	1 31004	-311	1 30949	-275	1 30940	-267	1 30918	-254	1 30928
5 7665	-224	1 30916	-198	1 30958	-181	1 30974	-169	1 30970	-161	1 30969
5 7666	-134	1 30942	-106	1 30926	-91	1 30937	-75	1 30936	-58	1 30910
5 7667	-19	2 30929	-17	2 30898	-9	2 30894	0	2 30895	9	2 30888
5 7668	19	2 30898	24	2 30915	27	3 30953	39	3 30951	52	3 30942
5 7669	63	3 30950	84	3 30986	103	3 30992	159	3 30989	192	3 31006
6 7671	1 2 070	070 4	5 055	055 1	2 065	065				
3 7680	BE.1 0	30 3 3093	24075	99 99						
5 7682	-361	1 31018	-311	1 30963	-275	1 30954	-267	1 30932	-254	1 30942
5 7683	-224	1 30930	-198	1 30972	-181	1 30988	-169	1 30984	-161	1 30983
5 7684	-134	1 30956	-106	1 30940	-91	1 30951	-75	1 30950	-58	1 30932
5 7685	-19	2 30943	-17	2 30912	-9	2 30908	0	2 30909	9	2 30902
5 7686	19	2 30912	24	2 30929	27	3 30967	39	3 30965	52	3 30956
5 7687	63	3 30964	84	3 31000	103	3 31006	159	3 31003	192	3 31020
6 7689	1 2 070	070 4	5 055	055 1	2 065	065				
3 7700	BE.5 0	31 3 3100	24535	99 99						
5 7702	-137	1 31080	-122	1 31060	-114	1 31049	-112	1 31042	-110	1 31032
5 7703	-109	1 31020	-108	1 31039	-107	1 31043	-87	1 31049	-79	1 31033
5 7704	-63	1 31027	-54	1 31001	-47	1 31005	-37	1 31012	-30	1 31030
5 7705	-21	1 31027	-14	2 31033	-13	2 30993	-7	2 30977	-4	2 30967
5 7706	0	2 30971	5	2 30978	13	2 30990	22	3 31022	50	3 31027
5 7707	63	3 31003	73	3 31000	103	3 31006	126	3 31003	143	3 31058
5 7708	149	3 31078								
6 7710	1 2 070	070 4	5 055	055 1	2 065	065				
3 8681	BF 0	31 3 3106	24995	99 99						
5 8683	-137	1 31144	-122	1 31124	-114	1 31113	-112	1 31106	-110	1 31096
5 8684	-109	1 31084	-108	1 31103	-101	1 31107	-87	1 31113	-79	1 31097
5 8685	-63	1 31091	-54	1 31065	-47	1 31069	-37	1 31076	-30	1 31094
5 8686	-21	1 31091	-14	2 31097	-13	2 31057	-7	2 31041	-4	2 31031
5 8687	0	2 31035	5	2 31042	13	2 31054	22	3 31086	50	3 31091
5 8688	63	3 31067	73	3 31064	103	3 31070	126	3 31067	143	3 31122

*** INPUT CARD PRINTOUT ***

	1	2	3	4	5	6	7	8
5 8689	149	3	31142					
6 8691	1 2 070 070	4	5 055 055	1	2 065 065			
3 8700	BF.3 0	31	3 3116	25407	99 99			
5 8702	-137	1	31241	-122	1 31221	-114	1 31210	-112 1 31203 -110 1 31193
5 8703	-109	1	31181	-108	1 31200	-101	1 31204	-87 1 31210 -79 1 31194
5 8704	-63	1	31188	-54	1 31162	-47	1 31166	-37 1 31173 -30 1 31191
5 8705	-21	1	31188	-14	2 31194	-13	2 31154	-7 2 31138 -4 2 31128
5 8706	0	2	31132	5	2 31139	13	2 31151	22 3 31183 50 3 31188
5 8707	63	3	31164	73	3 31161	103	3 31167	126 3 31164 143 3 31219
5 8708	149	3	31239					
6 8710	1 2 070 070	4	5 055 055	1	2 065 065			
3 8720	BF.7 0	25	3 3126	25818	99 99			
5 8722	-539	1	31335	-524	1 31258	-486	1 31258	-465 1 31242 -383 1 31242
5 8723	-362	1	31279	-339	1 31277	-289	1 31287	-239 1 31278 -189 2 31267
5 8724	-139	2	31234	-105	2 31221	-97	2 31208	-76 2 31210 -42 2 31248
5 8725	-24	2	31230	-11	2 31225	0	2 31225	14 2 31233 33 2 31241
5 8726	41	2	31230	56	3 31279	61	3 31269	126 3 31310 156 3 31338
6 8728	1 2 075 075	4	5 055 055	1	2 080 080			
3 9701	BG 0	25	3 3135	26230	99 99			
5 9703	-539	1	31432	-524	1 31355	-486	1 31355	-465 1 31339 -383 1 31339
5 9704	-362	1	31376	-339	1 31374	-289	1 31384	-239 1 31375 -189 2 31364
5 9705	-139	2	31331	-105	2 31318	-97	2 31305	-76 2 31307 -42 2 31345
5 9706	-24	2	31327	-11	2 31322	0	2 31322	14 2 31330 33 2 31338
5 9707	41	2	31327	56	3 31376	61	3 31366	126 3 31407 156 3 31435
6 9709	1 2 075 075	4	5 055 055	1	2 080 080			
3 9719	BGX 0	23	3 3135	26251	99 99			
5 9721	-511	1	31437	-411	1 31402	-311	1 31391	-211 1 31383 -111 1 31372
5 9722	-29	2	31365	-29	2 31316	-22	2 31319	-16 2 31316 -6 2 31319
5 9723	-1	2	31328	-1	2 31350	2	2 31350	2 2 31332 7 2 31337
5 9724	13	2	31337	17	2 31332	21	2 31331	25 2 31332 29 2 31337
5 9725	29	3	31366	89	3 31392	144	3 31434	
6 9727	1 2 072 072	4	5 052 052	1	2 061 061			
3 9740	BGX.5 0	42	5 3135	26288	99 99			
5 9742	-650	1	31440	-615	1 31428	-530	1 31408	-450 1 31404 -412 1 31377
5 9743	-410	1	31367	-407	1 31361	-403	1 31359	-396 1 31361 -390 1 31356
5 9744	-360	1	31371	-337	1 31371	-296	1 31365	-282 1 31367 -279 1 31387
5 9745	-263	1	31391	-262	1 31374	-247	1 31371	-204 1 31352 -155 1 31359
5 9746	-106	1	31361	-77	1 31355	-47	1 31350	-36 2 31395 -29 3 31384
5 9747	-24	3	31346	-6	3 31329	-3	3 31326	0 3 31325 3 3 31326
5 9748	6	3	31331	8	3 31334	15	3 31343	29 4 31360 36 4 31369
5 9749	43	5	31371	53	5 31370	104	5 31369	154 5 31382 210 5 31385
5 9750	250	5	31398	281	5 31431			
6 9752	1 2 075 075	1	2 075 075	4	5 055 055	4	5 048 048	1 2 048 048
3 10750	BH 0	42	5 3136	26325	99 99			
5 10752	-650	1	31448	-615	1 31436	-530	1 31416	-450 1 31412 -412 1 31385

*** INPUT CARD PRINTOUT ***

	1	2	3	4	5	6	7	8
5 10753	-410	1 31375	-407	1 31369	-403	1 31367	-396	1 31369
5 10754	-360	1 31379	-337	1 31379	-296	1 31373	-282	1 31375
5 10755	-263	1 31399	-262	1 31382	-247	1 31379	-204	1 31360
5 10756	-106	1 31369	-77	1 31363	-47	1 31358	-36	2 31403
5 10757	-24	3 31354	-6	3 31337	-3	3 31334	0	3 31333
5 10758	6	3 31339	8	3 31342	15	3 31351	29	4 31368
5 10759	43	5 31379	53	5 31378	104	5 31377	154	5 31390
5 10760	250	5 31406	281	5 31439				
6 10762	1	2 075 075	1	2 075 075	4	5 055 055	4	5 048 048
3 10780	BH.5 0	41	5 3143	26680	99	99		
5 10782	-650	1 31515	-615	1 31503	-530	1 31483	-450	1 31479
5 10783	-410	1 31442	-407	1 31436	-403	1 31434	-396	1 31436
5 10784	-360	1 31446	-337	1 31446	-296	1 31440	-282	1 31442
5 10785	-263	1 31466	-262	1 31449	-247	1 31446	-204	1 31427
5 10786	-106	1 31436	-77	1 31430	-47	1 31425	-36	2 31470
5 10787	-24	3 31421	-6	3 31404	-3	3 31401	0	3 31400
5 10788	6	3 31406	8	3 31409	15	3 31418	36	4 31444
5 10789	53	5 31445	104	5 31444	154	5 31457	210	5 31460
5 10790	281	5 31506						
6 10792	1	2 075 075	1	2 075 075	4	5 055 055	4	5 048 048
3 11772	BI 0	36	3 3150	27035	99	99		
5 11774	-675	1 31588	-627	1 31581	-614	1 31502	-563	1 31480
5 11775	-475	1 31468	-375	1 31456	-275	1 31467	-271	1 31466
5 11776	-267	1 31443	-265	1 31439	-260	1 31438	-258	1 31454
5 11777	-198	1 31463	-175	1 31461	-125	1 31448	-95	1 31461
5 11778	-53	1 31473	-44	1 31510	-23	2 31533	-8	2 31476
5 11779	-3	2 31469	0	2 31467	2	2 31467	14	2 31472
5 11780	36	2 31498	41	3 31524	52	3 31501	66	3 31537
5 11781	87	3 31580						
6 11783	1	2 075 075	4	5 055 055	1	2 060 060		
3 11800	BI.5 0	33	5 3156	27320	99	99		
5 11802	-171	1 31612	-149	1 31500	-131	2 31507	-119	2 31497
5 11803	-102	2 31492	-87	3 31508	-65	3 31503	-61	3 31492
5 11804	-42	3 31533	-39	3 31575	-27	4 31615	-13	4 31549
5 11805	-4	4 31532	0	4 31531	4	4 31526	8	4 31540
5 11806	14	5 31593	29	5 31594	59	5 31587	79	5 31582
5 11807	88	5 31557	94	5 31597	129	5 31613	148	5 31622
5 11808	229	5 31624	255	5 31631	261	5 31659		
6 11810	1	2 075 075	4	5 055 055	1	2 065 065	4	5 055 055
3 12793	BJ 0	33	5 3161	27605	99	99		
5 12795	-171	1 31670	-149	1 31558	-131	2 31565	-119	2 31555
5 12796	-102	2 31550	-87	3 31566	-65	3 31561	-61	3 31550
5 12797	-42	3 31591	-39	3 31633	-27	4 31673	-13	4 31607
5 12798	-4	4 31590	0	4 31589	4	4 31584	8	4 31598
5 12799	14	5 31651	29	5 31652	59	5 31645	79	5 31640

*** INPUT CARD PRINTOUT ***

	1	2	3	4	5	6	7	8
5 12800	88	5 31615	94	5 31655	129	5 31671	148	5 31680 203 5 31686
5 12801	229	5 31682	255	5 31689	261	5 31717		
6 12803	1 2 075 075	4	5 055 055	1	2 065 065	4	5 055 055	1 2 065 065
3 12813	BK 0	27 3 3173	28145	99 99				
5 12815	-376	1 31845	-341	1 31812	-296	1 31803	-286	1 31786 -269 1 31725
5 12816	-244	1 31708	-176	1 31711	-149	1 31711	-116	1 31715 -89 1 31723
5 12817	-76	1 31770	-59	1 31773	-33	2 31805	-21	2 31796 -11 2 31726
5 12818	-7	2 31716	0	2 31715	9	2 31726	24	2 31789 33 3 31808
5 12819	48	3 31791	104	3 31788	204	3 31785	224	3 31786 314 3 31789
5 12820	324	3 31780	342	3 31840				
6 12822	1 2 080 080	4	5 055 055	1	2 040 040			
3 12900	BK.5 0	27 3 3175	28174	99 99				
5 12902	-376	1 31851	-341	1 31818	-296	1 31809	-286	1 31792 -269 1 31731
5 12903	-244	1 31714	-176	1 31717	-149	1 31717	-116	1 31721 -89 1 31729
5 12904	-76	1 31776	-59	1 31779	-33	2 31811	-21	2 31802 -11 2 31732
5 12905	-7	2 31722	0	2 31721	9	2 31732	24	2 31795 33 3 31814
5 12906	48	3 31797	104	3 31794	204	3 31791	224	3 31792 314 3 31795
5 12907	324	3 31786	342	3 31846				
6 12909	1 2 080 080	4	5 055 055	1	2 040 040			
3 13832	BKX 0	22 3 3176	28203	99 99				
5 13834	-304	1 31889	-104	1 31821	-27	1 31836	-18	1 31834 -10 2 31832
5 13835	-10	2 31822	-8	2 31734	-5	2 31728	0	2 31730 4 2 31729
5 13836	11	2 31734	16	2 31756	18	2 31785	21	2 31819 22 2 31818
5 13837	22	3 31843	62	3 31820	96	3 31802	196	3 31783 296 3 31785
5 13838	304	3 31785	304	3 31900				
6 13839	1 2 055 055	4	5 053 053	1	2 041 041			
3 13862	BL 0	25 4 3176	28242	99 99				
5 13864	-215	1 31845	-165	1 31824	-106	1 31821	-65	1 31816 -18 2 31820
5 13865	-15	2 31776	-6	2 31743	-2	2 31733	0	2 31733 6 2 31734
5 13866	9	2 31743	14	3 31750	22	4 31806	45	4 31822 67 4 31828
5 13867	92	4 31822	130	4 31809	185	4 31807	238	4 31796 244 4 31788
5 13868	252	4 31807	282	4 31820	294	4 31818	309	4 31850 325 4 31880
6 13870	1 2 035 035	4	5 055 055	1	2 055 055	1	2 040 040	
3 13880	BL.3 0	25 4 3188	28648	99 99				
5 13882	-215	1 31958	-165	1 31937	-106	1 31934	-65	1 31929 -18 2 31933
5 13883	-15	2 31889	-6	2 31856	-2	2 31846	0	2 31846 6 2 31847
5 13884	9	2 31856	14	3 31863	22	4 31919	45	4 31935 67 4 31941
5 13885	92	4 31935	130	4 31922	185	4 31920	238	4 31909 244 4 31901
5 13886	252	4 31920	282	4 31933	294	4 31931	309	4 31963 325 4 31993
6 13888	1 2 035 035	4	5 055 055	1	2 055 055	1	2 040 040	
3 13900	BL.7 0	24 3 3199	29054	99 99				
5 13902	-248	1 32076	-236	1 32022	-198	1 32011	-148	1 31993 -129 1 32020
5 13903	-116	1 32017	-107	1 31995	-98	1 31999	-48	1 32004 -13 2 32008
5 13904	-12	2 31971	-3	2 31958	0	2 31963	9	2 31962 13 2 31967
5 13905	42	2 31971	61	2 31948	71	2 31965	78	3 31996 93 3 31981

*** INPUT CARD PRINTOUT ***

	1	2	3	4	5	6	7	8
.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0								
5 13906	102	3 31989	110	3 32041	134	3 32065	152	3 32076
6 13908	1	2 038 038	4	5 055 055	1	2 045 045		
3 14880	BM 1	24	3 3210	29460	99	99		
4 14881	1990	4120	5480	10250				
5 14882	-248	1 32189	-236	1 32135	-198	1 32124	-148	1 32106 -129 1 32133
5 14883	-116	1 32130	-107	1 32108	-98	1 32112	-48	1 32117 -13 2 32121
5 14884	-12	2 32084	-3	2 32071	0	2 32076	9	2 32075 13 2 32080
5 14885	42	2 32084	61	2 32061	71	2 32078	78	3 32109 93 3 32094
5 14886	102	3 32102	110	3 32154	134	3 32178	152	3 32189
6 14888	1	2 038 038	4	5 055 055	1	2 045 045		

USGS STEP-BACKWATER PROGRAM - VERSION 77,180 *** PAGE COUNT= 13; DATE= 3/ 9/78

INPUT SUMMARY FOR: WATAUGA RIVER FROM SECT J TO END FIRST

56 CROSS SECTIONS SPECIFIED (OR ASSUMED)

FOUND 60 TYPE 3 CARDS

KEPT 60 CROSS SECTIONS FOR EDITING

60 " " VALID FOR PROPERTY COMPUTATIONS

60 " " " " PROFILE "

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= J AT DISTANCE= 6529 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2909.0	202	14108	1.00	78	79	-36	41	1851
2918.9	3530	529125	1.16	528	534	-452	75	48118
2923.3	5909	1177775	1.08	563	571	-469	93	104664

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= J.3 AT DISTANCE= 7216 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2913.0	195	13275	1.00	77	79	-35	41	1751
2922.9	3477	517106	1.16	528	534	-451	75	46986
2927.4	5910	1177840	1.08	563	571	-469	93	104670

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= J.7 AT DISTANCE= 7903 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2917.0	187	12456	1.00	77	78	-35	41	1652
2926.9	3424	505162	1.17	527	533	-451	75	45858
2931.5	5910	1177831	1.08	563	571	-469	93	104670

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= K AT DISTANCE= 8590 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2921.0	235	14270	1.04	113	116	-29	254	1877
2930.9	8887	937765	1.51	1748	1755	-756	991	92384
2936.6	19492	3050504	1.27	1940	1947	-893	1046	311311

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= L AT DISTANCE= 9545 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2929.0	72	3940	1.00	39	40	-91	16	555
2938.9	4357	441565	1.58	984	989	-706	356	41369
2944.2	9943	1347088	1.33	1100	1108	-711	388	146998

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= M AT DISTANCE= 10180 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2934.0	127	6481	1.50	148	150	-227	60	546
2943.9	6201	496488	1.79	1025	1032	-824	228	64598
2947.6	10222	1039036	1.49	1120	1129	-854	265	143636

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= N AT DISTANCE= 11245 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2944.0	937	35946	1.43	440	442	-164	420	6493
2953.9	7461	766812	1.40	725	732	-270	454	114828
2957.1	9879	1165582	1.42	780	789	-314	465	167542

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= N.3 AT DISTANCE= 11575 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2947.0	1026	40060	1.19	452	455	-164	421	8045
2956.9	7606	883950	1.36	726	734	-270	455	119730
2959.9	9804	1327024	1.38	738	748	-272	465	172539

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= N.7 AT DISTANCE= 11978 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2950.0	134	8783	1.00	57	58	-30	25	1172
2959.9	2824	244005	2.31	515	523	-71	443	24687
2965.5	5852	677596	2.05	557	570	-88	468	75187

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= O AT DISTANCE= 12380 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2953.0	110	6429	1.00	54	56	-29	24	885
2962.9	2617	219616	2.33	513	521	-70	442	21939
2968.9	6012	680269	2.11	622	635	-153	468	72920

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= P AT DISTANCE= 12547 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2952.0	45	2096	1.00	26	27	-15	10	336
2961.9	1330	114729	2.17	381	385	-79	301	9574
2968.0	3879	408915	2.00	483	490	-92	390	44058

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= Q AT DISTANCE= 13845 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2967.0	436	15733	1.35	279	280	-541	29	2663
2976.9	6679	611003	1.44	926	938	-734	191	84772
2980.0	9604	1064019	1.32	960	974	-740	219	149749

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= R AT DISTANCE= 14470 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2970.0	94	4198	1.00	43	44	-9	33	787
2979.9	1082	106153	1.51	136	141	-44	91	14120
2982.0	1380	147039	1.52	146	152	-51	94	19519

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= RX AT DISTANCE= 14540 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2975.0	163	9010	1.00	73	75	-30	42	1380
2984.9	4052	332165	1.99	821	832	-693	127	36218
2994.8	12418	1779149	1.26	869	890	-693	175	237292
3000.0	17002	2903713	1.20	894	921	-693	200	383900

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= RX.5 AT DISTANCE= 14588 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2975.0	186	7352	1.43	227	228	-218	42	797
2984.9	5467	635936	1.09	801	808	-695	106	77626
2986.1	6436	823619	1.07	812	819	-702	109	99320

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= S AT DISTANCE= 14635 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2975.0	80	3140	1.00	55	56	-16	38	544
2984.9	4830	522903	1.11	793	800	-690	103	64230
2986.9	6436	823699	1.07	812	819	-702	109	99329

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= S.5 AT DISTANCE= 15075 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2980.0	130	5954	1.26	110	111	-233	26	717
2989.9	5447	564682	1.19	897	901	-782	114	69798
2991.3	6707	787229	1.14	903	908	-784	118	96944

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= T AT DISTANCE= 15515 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2984.0	130	5954	1.26	110	111	-233	26	717
2993.9	5447	564682	1.19	897	901	-782	114	69798
2995.3	6707	787229	1.14	903	908	-784	118	96944

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= T.1 AT DISTANCE= 15615 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2984.0	79	3464	1.09	67	67	-228	23	457
2993.9	4910	478981	1.22	894	898	-781	112	59029
2995.9	6707	787247	1.14	903	908	-784	118	96945

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= T.5 AT DISTANCE= 16240 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2989.0	103	6035	1.00	42	43	-21	20	909
2998.9	1029	126788	1.55	146	151	-60	85	12464
3002.3	2054	220285	2.56	393	400	-214	178	16648

Handwritten notes:
 2108.9
 2187.2
 9.7
 11555
 2311
 2108.9
 1.18
 2110.78

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= U AT DISTANCE= 16865 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2992.0	75	3895	1.00	37	38	-21	16	604
3001.9	938	115182	1.43	120	126	-54	65	12430
3006.0	2054	220308	2.56	393	400	-214	178	16650

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= UX AT DISTANCE= 16887 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2994.0	117	5318	1.00	58	62	-15	42	940
3003.9	1180	149445	1.01	162	177	-76	85	17922
3010.0	2621	380351	1.30	247	271	-82	164	42424

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= V AT DISTANCE= 17000 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
2995.0	90	4116	1.00	46	47	-12	33	716
3004.9	899	98271	1.23	181	187	-70	130	10264
3009.7	2073	255772	1.42	266	281	-94	171	27571

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= W AT DISTANCE= 17490 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3003.0	317	14287	1.02	180	181	-87	98	2366
3012.7	3824	457295	1.22	459	463	-244	214	56749

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= W.3 AT DISTANCE= 18073 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3011.0	373	18151	1.03	191	193	-87	107	2898
3020.4	3824	457305	1.22	459	463	-244	214	56750

Handwritten notes:
 3/11/78
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CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END
 SECID= W.7 AT DISTANCE= 18657 FIRST PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3018.0	176	6404	1.29	173	175	-231	17	888
3027.7	3656	464361	1.08	500	507	-356	143	53952

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END
 SECID= X AT DISTANCE= 19240 FIRST PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3026.0	235	9038	1.24	205	206	-259	17	1284
3035.4	3655	464333	1.08	500	507	-356	143	53949

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END
 SECID= X.1 AT DISTANCE= 19340 FIRST PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3027.0	160	5933	1.22	147	148	-206	16	859
3036.8	3655	464320	1.08	500	507	-356	143	53948

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END
 SECID= X.5 AT DISTANCE= 20030 FIRST PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3037.0	494	17026	1.49	381	384	-24	575	2614
3046.9	7562	848685	1.07	814	827	-106	718	126532
3049.0	9284	1172693	1.06	825	843	-106	718	171747

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END
 SECID= Y AT DISTANCE= 20720 FIRST PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3046.0	271	8341	1.57	273	276	-22	672	1221
3055.9	7240	790168	1.06	821	828	-106	714	118225
3056.6	7816	892014	1.06	825	832	-106	718	132525

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= YX AT DISTANCE= 20744 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3047.0	423	15767	1.51	318	325	-23	533	2254
3056.9	6265	685194	1.03	788	815	-119	668	98599
3057.2	6503	724756	1.04	800	828	-131	668	103314

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= Z AT DISTANCE= 20820 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3047.0	448	19231	1.07	215	217	-25	301	3543
3056.9	6544	638732	1.14	859	867	-210	648	95926
3058.5	7925	868994	1.11	864	874	-212	651	129358

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= BA AT DISTANCE= 21365 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3051.0	63	3141	1.00	28	29	-14	13	538
3060.9	4183	360211	1.08	618	625	-547	70	59456
3061.1	4308	377109	1.08	630	637	-547	82	61498

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= BB AT DISTANCE= 22020 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3065.0	159	7129	1.08	89	90	-35	167	1154
3074.9	3895	436091	1.15	650	656	-431	218	50416
3075.1	4024	459799	1.14	650	657	-431	218	53118

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= BBX AT DISTANCE= 22052 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3066.0	111	5044	1.00	50	59	-27	26	942
3075.9	2120	183195	1.18	484	515	-325	158	23191
3090.0	4124	527690	1.06	489	528	-330	158	66091

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= BC AT DISTANCE= 2214 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3066.0	107	4119	1.11	69	71	-15	184	712
3075.9	3407	332770	1.16	545	551	-329	215	44801
3077.0	4009	429040	1.12	550	558	-330	219	57894

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= BD AT DISTANCE= 22825 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3076.0	54332	13309905	1.00	186	2066	-201	223	5254268
3085.6	59630	13679893	1.07	861	2760	-262	598	2725916

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= BD.3 AT DISTANCE= 23208 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3081.0	95	3610	1.02	68	68	-28	222	631
3090.9	4630	396065	1.25	861	868	-262	598	54430

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= BD.7 AT DISTANCE= 23592 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3087.0	124	5954	1.10	74	76	-268	25	866
3095.3	2976	223966	1.34	553	559	-360	192	33808

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= BE AT DISTANCE= 23975 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3092.0	107	4916	1.06	68	70	-267	24	742
3100.6	3055	233181	1.31	553	559	-360	192	35533

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= BE.1 AT DISTANCE= 24075 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3093.0	86	3679	1.00	42	44	-17	24	699
3102.0	3055	233185	1.31	553	559	-360	192	35533

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= BE.5 AT DISTANCE= 24535 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3100.0	57	2346	1.00	29	30	-12	16	452
3108.0	1703	132952	1.19	286	295	-136	149	21603

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= BE AT DISTANCE= 24995 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3106.0	45	1678	1.00	28	29	-12	15	330
3114.4	1706	133247	1.19	286	295	-136	149	21674

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= BF.3 AT DISTANCE= 25407 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3116.0	54	2171	1.00	29	30	-12	16	420
3124.1	1706	133246	1.19	286	295	-136	149	21674

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= BF.7 AT DISTANCE= 25818 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3126.0	835	39432	1.20	380	382	-523	50	6407
3133.8	5465	532587	1.28	695	699	-538	156	76730

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END
 SECID= BG AT DISTANCE= 26230 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3135.0	596	25197	1.15	319	320	-478	48	4310
3143.5	5465	532590	1.28	695	699	-538	156	76731

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END
 SECID= BGX AT DISTANCE= 26251 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3135.0	131	6045	1.00	55	64	-28	29	1144
3143.7	3353	238369	1.48	655	668	-510	144	35397

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END
 SECID=BGX.5 AT DISTANCE= 26298 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3135.0	64	2178	1.00	45	46	-24	21	433
3144.0	5608	442747	1.24	931	937	-649	281	70175

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END
 SECID= BH AT DISTANCE= 26325 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3136.0	75	2655	1.03	60	60	-58	22	467
3144.8	5607	442723	1.24	931	937	-649	281	70170

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END
 SECID= BH.5 AT DISTANCE= 26680 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3143.0	100	3526	1.20	109	110	-210	25	494
3151.5	5607	441669	1.23	931	937	-649	281	70397

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= BI AT DISTANCE= 27035 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3150.0	1985	87809	1.00	614	671	-608	36	20251
3158.8	8026	792673	1.02	762	771	-674	87	146092

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= BI.5 AT DISTANCE= 27320 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3156.0	712	50936	1.18	155	160	-160	88	7977
3165.9	3659	401466	1.39	432	451	-170	261	51311

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= BJ AT DISTANCE= 27605 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3161.0	593	39059	1.18	144	148	-158	12	6293
3170.9	3314	350725	1.42	430	448	-170	259	43853
3171.7	3659	401464	1.39	432	451	-170	261	51310

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= BK AT DISTANCE= 28145 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3173.0	334	8877	1.00	205	206	-269	10	2419
3182.9	4362	360746	1.04	696	705	-358	339	60722
3184.5	5496	526691	1.09	718	726	-375	342	82695

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= BK.5 AT DISTANCE= 28174 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3175.0	630	24618	1.00	218	220	-273	13	6066
3184.9	5352	504232	1.08	716	724	-373	342	79835
3185.1	5496	526669	1.09	718	726	-375	342	82693

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= BKX AT DISTANCE= 28203 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3176.0	65	3203	1.00	25	28	-8	16	592
3185.9	2594	273403	1.18	520	542	-215	304	30252
3190.0	4955	680945	1.22	608	635	-303	304	72575

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= BL AT DISTANCE= 28242 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3176.0	48	1956	1.01	26	27	-10	15	367
3185.9	2439	253944	1.02	529	536	-214	314	29378
3188.0	3561	466874	1.00	540	550	-214	325	51756

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= BL.3 AT DISTANCE= 28648 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3188.0	67	3200	1.02	29	30	-12	16	574
3197.9	2810	318731	1.01	533	541	-214	318	36407
3199.3	3561	466829	1.00	540	550	-214	325	51752

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= BL.7 AT DISTANCE= 29054 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3199.0	235	11413	1.03	107	110	-12	102	1946
3207.6	2923	382032	1.04	400	407	-247	152	43947

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 SECID= BM AT DISTANCE= 29460 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3210.0	204	9255	1.02	101	103	-11	100	1626
3218.9	2923	382039	1.04	400	407	-247	152	43947

3188.0
 3197.9
 3199.3

PAGE 1 OF PROFILE NOTES FOR: YATAUGA RIVER FROM SECT U TO END
 PROFILE NUMBER 1; UPSTREAM COMPUTATIONS

FIRST

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SECID; ERROR(WARNING) MESSAGE; INTERMEDIATE RESULTS(IF ANY); ACTION TAKEN

L; WS TOO LOW		USED WSMIN = WSC
L; WS NOT FOUND BETWEEN	WS = 2932.02 & WS = 2944.20	USED DEL = 0.25
L; WS NOT FOUND		ASSUMED WS = WSC
M; KU/KD < 0.7 OR > 1.4		ALERTED USER
N; WS TOO LOW		USED WSMIN = WSC
N; KU/KD < 0.7 OR > 1.4		ALERTED USER
N.7; FRDN FAILURE	WS = 2948.02 & FR = 36.50	USED HIGHER WS
N.7; FRDN FAILURE	WS = 2952.29 & FR = 1.62	USED HIGHER WS
N.7; WS NOT FOUND BETWEEN	WS = 2947.43 & WS = 2965.50	USED DEL = 0.25
N.7; FRDN FAILURE	WS = 2948.02 & FR = 36.50	USED HIGHER WS
N.7; FRDN FAILURE	WS = 2952.29 & FR = 1.62	USED HIGHER WS
N.7; WS NOT FOUND BETWEEN	WS = 2947.43 & WS = 2965.50	USED WSMIN = WSC
N.7; WS NOT FOUND		ASSUMED WS = WSC
Q; WS TOO LOW		USED WSMIN = WSC
Q; KU/KD < 0.7 OR > 1.4		ALERTED USER
R; KU/KD < 0.7 OR > 1.4		ALERTED USER
RX; WS NOT FOUND BETWEEN	WS = 2973.65 & WS = 3000.00	USED DEL = 0.25
RX; WS NOT FOUND BETWEEN	WS = 2973.65 & WS = 3000.00	USED WSMIN = WSC
RX; WS NOT FOUND		ASSUMED WS = WSC
RX.5; KU/KD < 0.7 OR > 1.4		ALERTED USER
S.5; FRDN FAILURE	WS = 2979.53 & FR = 5.54	USED HIGHER WS
S.5; FRDN FAILURE	WS = 2981.18 & FR = 1.34	USED HIGHER WS

S.5: WS NOT FOUND BETWEEN	WS = 2978.61 & WS = 2991.30	USED DEL = 0.25
S.5: FRDN FAILURE	WS = 2979.53 & FR = 5.54	USED HIGHER WS
S.5: FRDN FAILURE	WS = 2981.18 & FR = 1.34	USED HIGHER WS
S.5: WS NOT FOUND BETWEEN	WS = 2978.61 & WS = 2991.30	USED WSMIN = WSC
S.5: WS NOT FOUND		ASSUMED WS = WSC
T: TOL FAILURE BETWEEN	WS = 2981.44 & WS = 2981.69	USED HIGHER WS
T: KU/KD < 0.7 OR > 1.4		ALERTED USER
T.5: KU/KD < 0.7 OR > 1.4		ALERTED USER
U: KU/KD < 0.7 OR > 1.4		ALERTED USER
V: KU/KD < 0.7 OR > 1.4		ALERTED USER
W: WS TOO LOW		USED WSMIN = WSC
W: KU/KD < 0.7 OR > 1.4		ALERTED USER
W.3: WS TOO LOW		USED WSMIN = WSC
W.3: WS NOT FOUND BETWEEN	WS = 3011.18 & WS = 3020.40	USED DEL = 0.25
W.3: WS NOT FOUND		ASSUMED WS = WSC
W.7: WS TOO LOW		USED WSMIN = WSC
W.7: KU/KD < 0.7 OR > 1.4		ALERTED USER
X: WS TOO LOW		USED WSMIN = WSC
X: KU/KD < 0.7 OR > 1.4		ALERTED USER
X.5: WS TOO LOW		USED WSMIN = WSC
Y: WS TOO LOW		USED WSMIN = WSC
Z: KU/KD < 0.7 OR > 1.4		ALERTED USER
BA: FRDN FAILURE	WS = 3049.25 & FR = 28.53	USED HIGHER WS

PAGE 2 OF PROFILE NOTES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 PROFILE NUMBER 1, UPSTREAM COMPUTATIONS

SECID: ERROR (WARNING) MESSAGE: INTERMEDIATE RESULTS (IF ANY): ACTION TAKEN

BA: KU/KD < 0.7 OR > 1.4		ALERTED USER
BB: WS TOO LOW		USED WSMIN = WSC
BBX: WS NOT FOUND BETWEEN	WS = 3066.82 & WS = 3080.00	USED DEL = 0.25
BBX: WS NOT FOUND BETWEEN	WS = 3066.82 & WS = 3080.00	USED WSMIN = WSC
BBX: WS NOT FOUND		ASSUMED WS = WSC
BC: KU/KD < 0.7 OR > 1.4		ALERTED USER
BD: KU/KD < 0.7 OR > 1.4		ALERTED USER
BD.3: WS TOO LOW		USED WSMIN = WSC
BD.3: WS NOT FOUND BETWEEN	WS = 3083.76 & WS = 3090.90	USED DEL = 0.25
BD.3: WS NOT FOUND		ASSUMED WS = WSC
BD.7: TOL FAILURE BETWEEN	WS = 3084.01 & WS = 3084.26	USED HIGHER WS
BD.7: KU/KD < 0.7 OR > 1.4		ALERTED USER
BE.5: WS TOO LOW		USED WSMIN = WSC
BF: TOL FAILURE BETWEEN	WS = 3104.12 & WS = 3104.37	USED HIGHER WS
BF.3: WS TOO LOW		USED WSMIN = WSC
BF.3: WS NOT FOUND BETWEEN	WS = 3119.34 & WS = 3124.10	USED DEL = 0.25
BF.3: WS NOT FOUND		ASSUMED WS = WSC
BF.7: WS TOO LOW		USED WSMIN = WSC
BF.7: KU/KD < 0.7 OR > 1.4		ALERTED USER
BG: WS TOO LOW		USED WSMIN = WSC
BG: WS NOT FOUND BETWEEN	WS = 3134.67 & WS = 3143.50	USED DEL = 0.25
BG: WS NOT FOUND		ASSUMED WS = WSC
BGX: WS NOT FOUND BETWEEN	WS = 3134.42 & WS = 3143.70	USED DEL = 0.25
BGX: WS NOT FOUND BETWEEN		

	; WS = 3134.42 & WS = 3143.70;	USED WSMIN = WSC
BGX; WS NOT FOUND	;	ASSUMED WS = WSC
BGX.5; KU/KD < 0.7 OR > 1.4	;	ALERTED USER
BH; KU/KD < 0.7 OR > 1.4	;	ALERTED USER
BH.5; WS TOO LOW	;	USED WSMIN = WSC
BH.5; WS NOT FOUND BETWEEN	; WS = 3145.00 & WS = 3151.50;	USED DEL = 0.25
BH.5; WS NOT FOUND	;	ASSUMED WS = WSC
BI; TOL FAILURE BETWEEN	; WS = 3144.75 & WS = 3145.00;	USED HIGHER WS
BI; KU/KD < 0.7 OR > 1.4	;	ALERTED USER
BI.5; WS TOO LOW	;	USED WSMIN = WSC
BI.5; WS NOT FOUND BETWEEN	; WS = 3153.54 & WS = 3165.90;	USED DEL = 0.25
BI.5; WS NOT FOUND	;	ASSUMED WS = WSC
BJ; WS TOO LOW	;	USED WSMIN = WSC
BK; WS TOO LOW	;	USED WSMIN = WSC
BK; KU/KD < 0.7 OR > 1.4	;	ALERTED USER
BKX; WS NOT FOUND BETWEEN	; WS = 3174.59 & WS = 3190.00;	USED DEL = 0.25
BKX; WS NOT FOUND BETWEEN	; WS = 3174.59 & WS = 3190.00;	USED WSMIN = WSC
BKX; WS NOT FOUND	;	ASSUMED WS = WSC
BL; WS NOT FOUND BETWEEN	; WS = 3180.09 & WS = 3188.00;	USED DEL = 0.25
BL; WS NOT FOUND BETWEEN	; WS = 3180.09 & WS = 3188.00;	USED WSMIN = WSC
BL; WS NOT FOUND	;	ASSUMED WS = WSC
BL.3; WS TOO LOW	;	USED WSMIN = WSC

PAGE 3 OF PROFILE NOTES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
PROFILE NUMBER 1, UPSTREAM COMPUTATIONS

SECID: ERROR(WARNING) MESSAGE; INTERMEDIATE RESULTS(IF ANY); ACTION TAKEN

BL.3: WS NOT FOUND BETWEEN	; WS = 3193.44 & WS = 3199.30;	USED DEL = 0.25
BL.3: WS NOT FOUND	;	ASSUMED WS = WSC
BL.7: WS TOO LOW	;	USED WSMIN = WSC
BL.7: WS NOT FOUND BETWEEN	; WS = 3200.20 & WS = 3207.60;	USED DEL = 0.25
BL.7: WS NOT FOUND	;	ASSUMED WS = WSC
BM: WS TOO LOW	;	USED WSMIN = WSC
BM: KU/KD < 0.7 OR > 1.4	;	ALERTED USER

WATER-SURFACE PROFILE FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 PAGE 1 OF 4, PROFILE NUMBER 1, UPSTREAM COMPUTATIONS

SECT	AT	WS ELEV	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEW	REW	ID
		HV / HF / HE	EG / V / FN	ACC					
J	AT	6529 / 0 / 5620.	809. / 83651. / 1.34	-200. / 65.					
		2913.08 / 1.01 /	/ 2914.09 / 6.95 / 0.60 /						*IS*
J.3	AT	7216 / 687 / 5620.	678. / 68664. / 1.31	-190. / 63.					
		2916.66 / 1.40 / 3.78 / 0.20	/ 2918.06 / 8.29 / 0.72 / 0.002						*XS*
J.7	AT	7903 / 687 / 5620.	745. / 76188. / 1.33	-196. / 64.					
		2921.03 / 1.18 / 4.15 / 0.0	/ 2922.21 / 7.54 / 0.65 / 0.001						*XS*
K	AT	8590 / 687 / 5620.	1139. / 95749. / 1.20	-92. / 619.					
		2924.73 / 0.45 / 2.97 / 0.0	/ 2925.19 / 4.94 / 0.49 / 0.002						*XS*
L	AT	9545 / 955 / 5110.	749. / 39186. / 1.47	-101. / 278.					
		2932.02 / 1.06 /***** /*****	/ 2933.08 / 6.82 / 1.00 /*****						*XS*
M	AT	10180 / 635 / 5110.	1379. / 79962. / 2.12	-401. / 186.					
		2937.93 / 0.45 / 5.29 / 0.0	/ 2938.38 / 3.71 / 0.28 / 0.001						*XS*
N	AT	11245 / 1065 / 5110.	1220. / 52556. / 1.41	-166. / 422.					
		2944.62 / 0.38 / 6.62 / 0.0	/ 2945.00 / 4.19 / 0.40 / 0.005						*XS*
N.3	AT	11575 / 330 / 5110.	1364. / 56697. / 1.02	-167. / 423.					
		2947.68 / 0.22 / 2.89 / 0.0	/ 2947.90 / 3.75 / 0.38 / 0.009						*XS*
N.7	AT	11978 / 403 / 5110.	429. / 45412. / 1.12	-38. / 434.					
		2954.11 / 2.46 /***** /*****	/ 2956.57 / 11.92 / 0.95 /*****						*XS*
O	AT	12380 / 402 / 5110.	715. / 62285. / 1.64	-53. / 436.					
		2958.97 / 1.30 / 3.71 / 0.0	/ 2960.28 / 7.15 / 0.70 / -0.002						*XS*
P	AT	12547 / 167 / 5110.	807. / 74241. / 1.62	-77. / 290.					
		2960.22 / 1.01 / 0.94 / 0.0	/ 2961.24 / 6.33 / 0.56 / 0.014						*XS*
Q	AT	13845 / 1298 / 3320.	859. / 41742. / 1.35	-546. / 29.					
		2968.38 / 0.31 / 7.44 / 0.0	/ 2968.70 / 3.87 / 0.34 / 0.018						*XS*
R	AT	14470 / 625 / 3320.	369. / 26636. / 1.33	-33. / 59.					
		2973.90 / 1.67 / 6.20 / 0.68	/ 2975.57 / 8.99 / 0.79 / 0.002						*XS*
RX	AT	14540 / 70 / 3320.	295. / 23227. / 1.00	-33. / 42.					
		2976.77 / 1.96 /***** /*****	/ 2978.73 / 11.24 / 1.00 /*****						*XS*
RX.5	AT	14588 / 48 / 3320.	1564. / 128129. / 1.09	-670. / 95.					
		2978.83 / 0.08 / 0.18 / 0.0	/ 2978.91 / 2.12 / 0.19 / -0.000						*XS*

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WATER-SURFACE PROFILE FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 PAGE 2 OF 4, PROFILE NUMBER 1, UPSTREAM COMPUTATIONS

SECT	AT	WS ELEV	HV	HF	HE	EG	V	FN	LEW	ACC	REW	ID*
S	AT	14635	47	3320.	1254.	91962.	1.10	-302.	94.			
		2978.86	0.12	0.04	0.02	2978.98	2.65	0.25	-0.000	*XS*		
S.5	AT	15075	440	3320.	578.	28058.	1.31	-331.	34.			
		2981.69	0.67	*****	*****	2982.36	5.75	0.68	*****	*XS*		
T	AT	15515	440	3320.	756.	41308.	1.17	-332.	37.			
		2986.20	0.35	4.18	0.0	2986.55	4.39	0.49	0.002	*XS*		
T.1	AT	15615	100	3320.	774.	42768.	1.16	-333.	37.			
		2986.85	0.33	0.62	0.0	2987.18	4.29	0.47	0.007	*XS*		
T.5	AT	16240	625	3320.	295.	25639.	1.11	-46.	40.			
		2992.21	2.19	6.28	0.93	2994.40	11.24	0.96	0.007	*XS*		
U	AT	16865	625	3320.	548.	55933.	1.33	-50.	57.			
		2998.45	0.76	4.80	0.0	2999.20	6.05	0.47	0.001	*XS*		
UX	AT	16887	22	3320.	567.	47491.	1.00	-52.	63.			
		2998.76	0.53	0.09	0.0	2999.30	5.85	0.46	-0.001	*XS*		
V	AT	17000	113	3320.	311.	26412.	1.00	-20.	41.			
		2999.14	1.77	0.99	0.62	3000.91	10.67	0.83	-0.001	*XS*		
W	AT	17490	490	3320.	790.	47887.	1.24	-190.	155.			
		3004.85	0.34	4.27	0.0	3005.19	4.20	0.45	0.010	*XS*		
W.3	AT	18073	583	3320.	407.	20642.	1.05	-171.	113.			
		3011.18	1.08	*****	*****	3012.26	8.15	0.97	*****	*XS*		
W.7	AT	18657	584	3320.	646.	37961.	1.00	-286.	20.			
		3020.07	0.41	8.21	0.0	3020.49	5.14	0.58	0.012	*XS*		
X	AT	19240	583	3320.	463.	23603.	1.03	-275.	19.			
		3027.04	0.83	7.17	0.21	3027.86	7.17	0.90	-0.001	*XS*		
X.1	AT	19340	100	3320.	557.	30730.	1.01	-281.	20.			
		3028.83	0.56	1.52	0.0	3029.39	5.96	0.71	0.001	*XS*		
X.5	AT	20030	690	3320.	789.	28538.	1.51	-26.	678.			
		3037.64	0.42	8.67	0.0	3038.05	4.21	0.53	-0.003	*XS*		
Y	AT	20720	690	3320.	764.	27555.	1.51	-26.	677.			
		3047.29	0.44	9.67	0.01	3047.73	4.35	0.54	-0.006	*XS*		

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14.50

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14.50

WATER-SURFACE PROFILE FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 PAGE 3 OF 4, PROFILE NUMBER 1, UPSTREAM COMPUTATIONS

SECT	AT	WS ELEV	HV	HF	HE	EG	V	FN	LEW	ACC	REW	ID*
	YX	20744 / 3047.58	24 / 0.61	3320. / 0.37	622. / 0.08	25749. / 3048.19	1.37 / 5.34	-24. / 0.63	556. / -0.001			*XS*
	Z	20820 / 3048.58	76 / 0.27	3320. / 0.67	846. / 0.0	48249. / 3048.85	1.14 / 3.92	-135. / 0.37	311. / -0.011			*XS*
AA	BA	21365 / 3054.08	545 / 1.05	3320. / 5.87	525. / 0.39	21195. / 3055.13	1.69 / 6.33	-532. / 0.98	21. / 0.017			*XS*
AB	BB	22020 / 3067.07	655 / 1.18	3320. / 13.05	435. / 0.06	26103. / 3068.25	1.30 / 7.64	-71. / 0.83	183. / -0.000			*XS*
	BBX	22052 / 3068.97	32 / 2.54	3320. / *****	260. / *****	18411. / 3071.51	1.00 / 12.78	-28. / 0.99	26. / *****			*XS*
AC	BC	22114 / 3071.80	62 / 0.17	3320. / 0.46	1275. / 0.0	81342. / 3071.97	1.62 / 2.60	-291. / 0.29	204. / -0.000			*XS*
AD	BD	22825 / 3071.98	711 / 0.00	3320. / 0.01	53776. / 0.0	13161712. / 3071.98	1.00 / 0.06	-202. / 0.00	-93. / -0.000			*XS*
	BD.3	23208 / 3083.76	383 / 1.33	3320. / *****	401. / *****	23055. / 3085.08	1.24 / 8.29	-35. / 0.90	570. / *****			*XS*
	BD.7	23592 / 3089.98	384 / 0.64	3320. / 5.53	686. / 0.0	33194. / 3090.62	1.70 / 4.84	-314. / 0.60	65. / 0.004			*XS*
AE	BE	23975 / 3094.64	383 / 0.89	3320. / 4.78	574. / 0.12	26616. / 3095.53	1.70 / 5.78	-301. / 0.74	58. / 0.009			*XS*
	BE.1	24075 / 3096.20	100 / 0.76	3320. / 1.43	617. / 0.0	28871. / 3096.96	1.70 / 5.38	-307. / 0.68	60. / -0.002			*XS*
	BE.5	24535 / 3103.37	460 / 0.93	3320. / 7.24	514. / 0.08	24270. / 3104.29	1.43 / 6.46	-110. / 0.79	135. / 0.017			*XS*
AF	BF	24995 / 3110.27	460 / 0.60	3320. / 6.56	624. / 0.0	31865. / 3110.87	1.36 / 5.32	-111. / 0.61	137. / 0.018			*XS*
	BF.3	25407 / 3119.34	412 / 1.04	3320. / *****	487. / *****	22595. / 3120.39	1.44 / 6.82	-110. / 0.84	135. / *****			*XS*
	BF.7	25818 / 3125.78	411 / 0.35	3320. / 5.74	753. / 0.0	34927. / 3126.13	1.15 / 4.41	-486. / 0.53	50. / 0.000			*XS*

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WATER-SURFACE PROFILE FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 PAGE 4 OF 4, PROFILE NUMBER 1, UPSTREAM COMPUTATIONS

10 YR

SECT	AT	WS ELEV	HV	HF	HE	EG	V	FN	ACC	REW	*ID*
BG	AT	26230	412	3320.	492.	19364.	1.14	-475.	47.		
		3134.67	0.81	*****	*****	3135.48	6.74	0.92	*****	*XS*	
BGX	AT	26251	21	3320.	479.	27280.	1.65	-194.	64.		
		3138.11	1.23	*****	*****	3139.34	6.94	0.72	*****	*XS*	
BGX.5	AT	26288	37	3320.	1866.	90277.	1.34	-437.	239.		
		3139.44	0.07	0.17	0.0	3139.51	1.78	0.15	-0.000	*XS*	
BH	AT	26325	37	3320.	1375.	58765.	1.45	-426.	216.		
		3139.49	0.13	0.08	0.03	3139.62	2.42	0.23	-0.000	*XS*	
BH.5	AT	26680	355	3320.	718.	24031.	1.75	-412.	127.		
		3145.00	0.58	*****	*****	3145.58	4.62	0.79	*****	*XS*	
BI	AT	27035	355	3320.	1342.	47639.	1.00	-584.	27.		
		3148.92	0.10	3.42	0.0	3149.01	2.47	0.28	0.016	*XS*	
BI.5	AT	27320	285	3320.	369.	19460.	1.16	-156.	7.		
		3153.54	1.46	*****	*****	3155.00	8.99	1.01	*****	*XS*	
BJ	AT	27605	285	3320.	460.	26986.	1.17	-157.	9.		
		3160.04	0.94	5.98	0.0	3160.99	7.21	0.75	0.005	*XS*	
BK	AT	28145	540	3320.	488.	16373.	1.00	-272.	12.		
		3173.74	0.72	13.47	0.0	3174.46	6.80	0.77	0.001	*XS*	
BK.5	AT	28174	29	3320.	596.	22540.	1.00	-274.	13.		
		3174.84	0.48	0.87	0.0	3175.33	5.57	0.57	0.000	*XS*	
BKX	AT	28203	29	3320.	500.	29699.	1.22	-10.	304.		
		3180.34	0.84	*****	*****	3181.18	6.64	0.76	*****	*XS*	
BL	AT	28242	39	3320.	575.	36633.	1.51	-114.	296.		
		3182.14	0.78	*****	*****	3182.93	5.77	0.56	*****	*XS*	
BL.3	AT	28648	406	3320.	575.	36636.	1.51	-114.	296.		
		3193.44	0.78	*****	*****	3194.23	5.77	0.56	*****	*XS*	
BL.7	AT	29054	406	3320.	396.	23097.	1.10	-173.	104.		
		3200.20	1.21	*****	*****	3201.41	8.39	0.83	*****	*XS*	
BM	AT	29460	406	1990.	248.	12334.	1.03	-13.	102.		
		3210.42	1.03	10.05	0.0	3211.45	8.02	0.89	0.001	*XS*	

END OF THIS PROFILE

COMPUTED WSC VALUES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 PROFILE NUMBER 1, UPSTREAM COMPUTATIONS

SECID	L	N	N.7	Q	RX	S.5	W	Y.3
WSC	2932.02	2943.69	2954.11	2967.31	2976.77	2981.69	3003.47	3011.18
SECID	W.7	X	X.5	Y	BB	BBX	BD.3	BE.5
WSC	3019.29	3026.99	3037.27	3046.98	3067.02	3068.97	3083.76	3103.24
SECID	BF.3	BF.7	BG	BGX	BH.5	BI.5	BJ	BK
WSC	3119.34	3124.97	3134.67	3138.11	3145.00	3153.54	3159.34	3173.40
SECID	BKX	BL	BL.3	BL.7	BM			
WSC	3180.34	3182.14	3193.44	3200.20	3210.31			

PAGE 1 OF PROFILE NOTES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 PROFILE NUMBER 2, UPSTREAM COMPUTATIONS

SECTID	ERROR(WARNING) MESSAGE	INTERMEDIATE RESULTS(IF ANY)	ACTION TAKEN
J.3	KU/KD < 0.7 OR > 1.4		ALERTED USER
J.7	KU/KD < 0.7 OR > 1.4		ALERTED USER
L	FRDN FAILURE	WS = 2929.17 & FR = 17.31	USED HIGHER WS
L	FRDN FAILURE	WS = 2933.28 & FR = 1.07	USED HIGHER WS
L	WS NOT FOUND BETWEEN	WS = 2926.18 & WS = 2944.20	USED DEL = 0.25
L	FRDN FAILURE	WS = 2929.17 & FR = 17.31	USED HIGHER WS
L	FRDN FAILURE	WS = 2933.27 & FR = 1.07	USED HIGHER WS
L	WS NOT FOUND BETWEEN	WS = 2926.18 & WS = 2944.20	USED WSMIN = WSC
L	WS NOT FOUND		ASSUMED WS = WSC
M	KU/KD < 0.7 OR > 1.4		ALERTED USER
N	WS TOO LOW		USED WSMIN = WSC
N.7	FRDN FAILURE	WS = 2950.71 & FR = 6.08	USED HIGHER WS
N.7	FRDN FAILURE	WS = 2952.70 & FR = 2.86	USED HIGHER WS
N.7	WS NOT FOUND BETWEEN	WS = 2948.66 & WS = 2965.50	USED DEL = 0.25
N.7	FRDN FAILURE	WS = 2950.70 & FR = 6.09	USED HIGHER WS
N.7	FRDN FAILURE	WS = 2952.70 & FR = 2.86	USED HIGHER WS
N.7	WS NOT FOUND BETWEEN	WS = 2948.66 & WS = 2965.50	USED WSMIN = WSC
N.7	WS NOT FOUND		ASSUMED WS = WSC
O	WS TOO LOW		USED WSMIN = WSC
R	FRDN FAILURE	WS = 2975.39 & FR = 1.09	USED HIGHER WS
R	WS NOT FOUND BETWEEN	WS = 2970.53 & WS = 2982.00	

R: FRDN FAILURE	:	USED DEL = 0.25
	: WS = 2975.38 & FR = 1.09:	
	:	USED HIGHER WS
R: WS NOT FOUND BETWEEN	:	
	: WS = 2970.53 & WS = 2982.00:	
	:	USED WSMIN = WSC
R: WS NOT FOUND	:	ASSUMED WS = WSC
RX: WS NOT FOUND BETWEEN	:	
	: WS = 2975.95 & WS = 3000.00:	
	:	USED DEL = 0.25
RX: WS NOT FOUND BETWEEN	:	
	: WS = 2975.95 & WS = 3000.00:	
	:	USED WSMIN = WSC
RX: WS NOT FOUND	:	ASSUMED WS = WSC
RX.5: KU/KD < 0.7 OR > 1.4	:	ALERTED USER
S.5: KU/KD < 0.7 OR > 1.4	:	ALERTED USER
T.5: FRDN FAILURE	:	
	: WS = 2993.90 & FR = 1.19:	
	:	USED HIGHER WS
T.5: WS NOT FOUND BETWEEN	:	
	: WS = 2987.75 & WS = 3002.30:	
	:	USED DEL = 0.25
T.5: FRDN FAILURE	:	
	: WS = 2993.90 & FR = 1.20:	
	:	USED HIGHER WS
T.5: WS NOT FOUND BETWEEN	:	
	: WS = 2987.75 & WS = 3002.30:	
	:	USED WSMIN = WSC
T.5: WS NOT FOUND	:	ASSUMED WS = WSC
U: KU/KD < 0.7 OR > 1.4	:	ALERTED USER
V: KU/KD < 0.7 OR > 1.4	:	ALERTED USER
W: KU/KD < 0.7 OR > 1.4	:	ALERTED USER
W.3: FRDN FAILURE	:	
	: WS = 3008.72 & FR = 24.25:	
	:	USED HIGHER WS
W.3: FRDN FAILURE	:	
	: WS = 3011.93 & FR = 1.28:	
	:	USED HIGHER WS
W.3: WS NOT FOUND BETWEEN	:	
	: WS = 3007.35 & WS = 3020.40:	
	:	USED DEL = 0.25
W.3: FRDN FAILURE	:	
	: WS = 3008.72 & FR = 24.25:	
	:	USED HIGHER WS
W.3: FRDN FAILURE	:	
	: WS = 3011.93 & FR = 1.28:	
	:	USED HIGHER WS
W.3: WS NOT FOUND BETWEEN	:	
	: WS = 3007.35 & WS = 3020.40:	
	:	USED WSMIN = WSC
W.3: WS NOT FOUND	:	ASSUMED WS = WSC
W.7: WS TOO LOW	:	USED WSMIN = WSC

PAGE 2 OF PROFILE NOTES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 PROFILE NUMBER 2, UPSTREAM COMPUTATIONS:

SECID; ERROR(WARNING) MESSAGE; INTERMEDIATE RESULTS(IF ANY); ACTION TAKEN

X;	WS TOO LOW	;	USED WSMIN = WSC
X.5;	WS TOO LOW	;	USED WSMIN = WSC
Y;	WS TOO LOW	;	USED WSMIN = WSC
Z;	KU/KD < 0.7 OR > 1.4	;	ALERTED USER
BA;	FRDN FAILURE	;	
		;	WS = 3050.49 & FR = 17.74;
BB;	WS TOO LOW	;	USED HIGHER WS
BB;	WS NOT FOUND BETWEEN	;	USED WSMIN = WSC
		;	WS = 3068.61 & WS = 3075.10;
BB;	WS NOT FOUND	;	USED DEL = 0.25
BBX;	WS NOT FOUND BETWEEN	;	ASSUMED WS = WSC
		;	WS = 3068.36 & WS = 3080.00;
BBX;	WS NOT FOUND BETWEEN	;	USED DEL = 0.25
		;	WS = 3068.36 & WS = 3080.00;
BBX;	WS NOT FOUND	;	USED WSMIN = WSC
		;	ASSUMED WS = WSC
BC;	KU/KD < 0.7 OR > 1.4	;	ALERTED USER
BD;	KU/KD < 0.7 OR > 1.4	;	ALERTED USER
BD.3;	WS TOO LOW	;	USED WSMIN = WSC
BD.3;	WS NOT FOUND BETWEEN	;	
		;	WS = 3085.62 & WS = 3090.90;
BD.3;	WS NOT FOUND	;	USED DEL = 0.25
		;	ASSUMED WS = WSC
BE.5;	FRDN FAILURE	;	
		;	WS = 3099.02 & FR = 37.10;
BF;	TOL FAILURE BETWEEN	;	USED HIGHER WS
		;	WS = 3104.86 & WS = 3105.11;
BF.3;	WS TOO LOW	;	USED HIGHER WS
BF.3;	WS NOT FOUND BETWEEN	;	USED WSMIN = WSC
		;	WS = 3120.65 & WS = 3124.10;
BF.3;	WS NOT FOUND	;	USED DEL = 0.25
		;	ASSUMED WS = WSC
BF.7;	WS TOO LOW	;	USED WSMIN = WSC
BF.7;	KU/KD < 0.7 OR > 1.4	;	ALERTED USER
BG;	WS TOO LOW	;	

RG:	WS NOT FOUND BETWEEN	:	WS = 3135.82 & WS = 3143.50:	USED WSMIN = WSC
		:		USED DEL = 0.25
BG:	WS NOT FOUND	:		ASSUMED WS = WSC
RGX:	WS NOT FOUND BETWEEN	:	WS = 3135.57 & WS = 3143.70:	USED DEL = 0.25
		:		USED WSMIN = WSC
RGX:	WS NOT FOUND BETWEEN	:	WS = 3135.57 & WS = 3143.70:	ASSUMED WS = WSC
		:		ALERTED USER
RGX.5:	KU/KD < 0.7 OR > 1.4	:		
BH.5:	FRDN FAILURE	:	WS = 3143.56 & FR = 6.17:	USED HIGHER WS
		:		USED HIGHER WS
BH.5:	FRDN FAILURE	:	WS = 3144.99 & FR = 1.65:	USED HIGHER WS
		:		USED DEL = 0.25
BH.5:	WS NOT FOUND BETWEEN	:	WS = 3140.86 & WS = 3151.50:	USED DEL = 0.25
		:		USED HIGHER WS
BH.5:	FRDN FAILURE	:	WS = 3143.56 & FR = 6.17:	USED HIGHER WS
		:		USED HIGHER WS
BH.5:	FRDN FAILURE	:	WS = 3144.99 & FR = 1.65:	USED HIGHER WS
		:		USED HIGHER WS
BH.5:	WS NOT FOUND BETWEEN	:	WS = 3140.86 & WS = 3151.50:	USED WSMIN = WSC
		:		ASSUMED WS = WSC
BH.5:	WS NOT FOUND	:		ALERTED USER
BI:	KU/KD < 0.7 OR > 1.4	:		
BI.5:	FRDN FAILURE	:	WS = 3150.94 & FR = 16.25:	USED HIGHER WS
		:		USED HIGHER WS
BI.5:	FRDN FAILURE	:	WS = 3152.77 & FR = 1.88:	USED HIGHER WS
		:		USED HIGHER WS
BI.5:	WS NOT FOUND BETWEEN	:	WS = 3150.03 & WS = 3165.90:	USED DEL = 0.25
		:		USED HIGHER WS
BI.5:	FRDN FAILURE	:	WS = 3150.94 & FR = 16.25:	USED HIGHER WS
		:		USED HIGHER WS
BI.5:	FRDN FAILURE	:	WS = 3153.77 & FR = 1.88:	USED HIGHER WS
		:		USED HIGHER WS
BI.5:	WS NOT FOUND BETWEEN	:	WS = 3150.03 & WS = 3165.90:	USED WSMIN = WSC
		:		ASSUMED WS = WSC
BI.5:	WS NOT FOUND	:		

PAGE 3 OF PROFILE NOTES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 PROFILE NUMBER 2, UPSTREAM COMPUTATIONS

SECID: ERROR(WARNING) MESSAGE: INTERMEDIATE RESULTS(IF ANY): ACTION TAKEN

BJ: TOL FAILURE BETWEEN	: WS = 3155.67 & WS = 3155.92:	USED HIGHER WS
BK: WS TOO LOW	:	USED WSMIN = WSC
BKX: WS NOT FOUND BETWEEN	: WS = 3176.02 & WS = 3190.00:	USED DEL = 0.25
BKX: WS NOT FOUND BETWEEN	: WS = 3176.02 & WS = 3190.00:	USED WSMIN = WSC
BKX: WS NOT FOUND	:	ASSUMED WS = WSC
BL: WS NOT FOUND BETWEEN	: WS = 3181.12 & WS = 3188.00:	USED DEL = 0.25
BL: WS NOT FOUND BETWEEN	: WS = 3181.12 & WS = 3188.00:	USED WSMIN = WSC
BL: WS NOT FOUND	:	ASSUMED WS = WSC
BL.3: WS TOO LOW	:	USED WSMIN = WSC
BL.3: WS NOT FOUND BETWEEN	: WS = 3194.49 & WS = 3199.30:	USED DEL = 0.25
BL.3: WS NOT FOUND	:	ASSUMED WS = WSC
RL.7: WS TOO LOW	:	USED WSMIN = WSC
RL.7: WS NOT FOUND BETWEEN	: WS = 3201.71 & WS = 3207.60:	USED DEL = 0.25
RL.7: WS NOT FOUND	:	ASSUMED WS = WSC
BM: WS TOO LOW	:	USED WSMIN = WSC
BM: WS NOT FOUND BETWEEN	: WS = 3212.19 & WS = 3218.90:	USED DEL = 0.25
BM: WS NOT FOUND	:	ASSUMED WS = WSC

WATER-SURFACE PROFILE FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 PAGE 1 OF 4, PROFILE NUMBER 2, UPSTREAM COMPUTATIONS

SECT	AT	WS ELEV	HV	HF	HE	EG	V	FN	ACC	RFW	ID
J	AT	6529 / 2916.85	0 / 0.42	11240. /	2458. / 2917.27	309187. / 4.57	1.29 / 0.35	-447. /	73. /	73.	45*
J.3	AT	7216 / 2918.29	687 / 2.12	11240. / 2.29	1181. / 0.85	122678. / 2920.41	1.51 / 9.52	-444. / 0.83	69. / -0.000	69.	*XS*
J.7	AT	7903 / 2923.33	687 / 1.09	11240. / 4.01	1608. / 0.0	176284. / 2924.42	1.44 / 6.99	-445. / 0.59	71. / 0.001	71.	*XS*
K	AT	8590 / 2926.43	687 / 0.54	11240. / 2.54	2445. / 0.0	193671. / 2926.97	1.64 / 4.60	-167. / 0.51	715. / 0.002	715.	*XS*
L	AT	9545 / 2933.35	955 / 1.47	10270. / *****	1270. / *****	81562. / 2934.82	1.45 / 8.09	-115. / 1.03	302. / *****	302.	*XS*
M	AT	10180 / 2939.82	635 / 0.70	10270. / 5.70	2456. / 0.0	144139. / 2940.52	2.57 / 4.18	-590. / 0.32	199. / -0.003	199.	*XS*
N	AT	11245 / 2946.35	1065 / 0.49	10270. / 6.32	2206. / 0.0	123399. / 2946.84	1.45 / 4.66	-170. / 0.37	428. / 0.005	428.	*XS*
N.3	AT	11575 / 2948.91	330 / 0.42	10270. / 2.49	2067. / 0.0	113238. / 2949.33	1.10 / 4.97	-169. / 0.40	427. / 0.003	427.	*XS*
N.7	AT	11978 / 2957.45	403 / 1.60	10270. / *****	1577. / *****	118323. / 2959.05	2.42 / 6.51	-65. / 0.77	439. / *****	439.	*XS*
O	AT	12380 / 2960.63	402 / 1.84	10270. / 3.30	1465. / 0.12	108624. / 2962.47	2.40 / 7.01	-65. / 0.83	439. / 0.001	439.	*XS*
P	AT	12547 / 2961.98	167 / 1.93	10270. / 1.38	1301. / 0.04	117433. / 2963.91	2.18 / 7.54	-80. / 0.73	301. / 0.010	301.	*XS*
Q	AT	13845 / 2970.78	1298 / 0.32	6780. / 7.18	1873. / 0.0	111806. / 2971.09	1.56 / 3.62	-720. / 0.27	115. / 0.002	115.	*XS*
R	AT	14470 / 2976.20	625 / 2.75	6780. / *****	617. / *****	50406. / 2978.95	1.46 / 11.00	-37. / 0.89	79. / *****	79.	*XS*
RX	AT	14540 / 2980.16	70 / 2.01	6780. / *****	730. / *****	67027. / 2982.17	1.50 / 9.29	-199. / 0.76	94. / *****	94.	*XS*
RX.5	AT	14588 / 2982.20	48 / 0.07	6780. / 0.10	3397. / 0.0	328579. / 2982.27	1.12 / 2.00	-681. / 0.15	99. / -0.000	99.	*XS*

BOYR

WATER-SURFACE PROFILE FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 PAGE 2 OF 4, PROFILE NUMBER 2, UPSTREAM COMPUTATIONS

SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEW	REW							
WS	ELEV	HV	HF	HE	EG	V	FN	ACC	ID*							
S	AT	14635	/	47	/	6780.	/	2874.	/	254850.	/	1.16	/	-678.	/	98.
		2982.20	/	0.10	/	0.03	/	0.02	/	2982.30	/	2.36	/	0.19	/	-0.011 *XS*
S.5	AT	15075	/	440	/	6780.	/	1073.	/	69511.	/	1.09	/	-335.	/	73.
		2983.05	/	0.68	/	1.14	/	0.29	/	2983.73	/	6.32	/	0.63	/	0.002 *XS*
T	AT	15515	/	440	/	6780.	/	1102.	/	72223.	/	1.09	/	-335.	/	79.
		2987.12	/	0.64	/	4.03	/	0.0	/	2987.77	/	6.15	/	0.60	/	0.007 *XS*
T.1	AT	15615	/	100	/	6780.	/	1220.	/	83337.	/	1.10	/	-336.	/	100.
		2988.00	/	0.53	/	0.76	/	0.0	/	2988.53	/	5.56	/	0.53	/	-0.001 *XS*
T.5	AT	16240	/	625	/	6780.	/	575.	/	59481.	/	1.34	/	-50.	/	58.
		2994.99	/	2.90	/	*****	/	*****	/	2997.89	/	11.80	/	0.91	/	***** *XS*
U	AT	16865	/	625	/	6780.	/	860.	/	102424.	/	1.41	/	-54.	/	63.
		3001.24	/	1.37	/	4.72	/	0.0	/	3002.61	/	7.88	/	0.55	/	0.005 *XS*
UX	AT	16887	/	22	/	6780.	/	934.	/	104124.	/	1.00	/	-52.	/	66.
		3001.88	/	0.82	/	0.09	/	0.0	/	3002.70	/	7.26	/	0.46	/	-0.001 *XS*
V	AT	17000	/	113	/	6780.	/	494.	/	48931.	/	1.02	/	-32.	/	69.
		3001.82	/	2.98	/	1.02	/	1.08	/	3004.80	/	13.72	/	0.95	/	-0.000 *XS*
W	AT	17490	/	490	/	6780.	/	1771.	/	150325.	/	1.19	/	-197.	/	170.
		3007.60	/	0.27	/	3.06	/	0.0	/	3007.87	/	3.83	/	0.32	/	0.001 *XS*
W.3	AT	18073	/	583	/	6780.	/	847.	/	52408.	/	1.25	/	-191.	/	158.
		3012.71	/	1.24	/	*****	/	*****	/	3013.96	/	8.00	/	0.84	/	***** *XS*
W.7	AT	18657	/	584	/	6780.	/	935.	/	64346.	/	1.00	/	-301.	/	23.
		3021.11	/	0.82	/	7.96	/	0.0	/	3021.93	/	7.25	/	0.74	/	0.010 *XS*
X	AT	19240	/	583	/	6780.	/	845.	/	55769.	/	1.00	/	-297.	/	22.
		3028.50	/	1.00	/	7.47	/	0.09	/	3029.50	/	8.02	/	0.84	/	0.017 *XS*
X.1	AT	19340	/	100	/	6780.	/	868.	/	57924.	/	1.00	/	-298.	/	22.
		3029.98	/	0.95	/	1.42	/	0.0	/	3030.93	/	7.81	/	0.81	/	0.004 *XS*
X.5	AT	20030	/	690	/	6780.	/	1461.	/	66711.	/	1.25	/	-59.	/	682.
		3038.74	/	0.42	/	8.21	/	0.0	/	3039.16	/	4.64	/	0.50	/	0.019 *XS*
Y	AT	20720	/	690	/	6780.	/	1205.	/	50542.	/	1.31	/	-58.	/	680.
		3048.03	/	0.64	/	9.41	/	0.11	/	3048.68	/	5.62	/	0.64	/	0.002 *XS*

WATER-SURFACE PROFILE FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 PAGE 3 OF 4, PROFILE NUMBER 2, UPSTREAM COMPUTATIONS

SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEW	REW								
WS ELEV	HV	HF	HE	EG	V	FN	ACC	ID*									
YX	AT	20744	/	24	/	6780.	/	918.	/	43117.	/	1.26	/	-24.	/	579.	
3048.33		/	1.07	/	0.51	/	0.21	/	3049.40	/	7.38	/	0.80	/	-0.002	*XS*	
Z	AT	20820	/	76	/	6780.	/	1464.	/	76289.	/	1.46	/	-154.	/	514.	
3049.97		/	0.49	/	1.06	/	0.0	/	3050.46	/	4.63	/	0.45	/	-0.001	*XS*	
AB	AT	21365	/	545	/	6780.	/	1246.	/	56268.	/	1.43	/	-536.	/	27.	
3055.72		/	0.66	/	5.84	/	0.09	/	3056.38	/	5.44	/	0.53	/	0.003	*XS*	
AB	BB	AT	22020	/	655	/	6780.	/	767.	/	53080.	/	1.38	/	-88.	/	208.
3068.61		/	1.68	/	*****	/	*****	/	3070.29	/	8.84	/	0.88	/	*****	*XS*	
BB	AT	22052	/	32	/	6780.	/	978.	/	68085.	/	1.51	/	-226.	/	158.	
3073.25		/	1.13	/	*****	/	*****	/	3074.38	/	6.94	/	0.57	/	*****	*XS*	
AC	BC	AT	22114	/	62	/	6780.	/	2625.	/	224830.	/	1.24	/	-316.	/	210.
3074.44		/	0.13	/	0.19	/	0.0	/	3074.57	/	2.58	/	0.17	/	-0.000	*XS*	
BD	AT	22825	/	711	/	6780.	/	54098.	/	132554.5.	/	1.00	/	-202.	/	12.	
3074.58		/	0.00	/	0.01	/	0.0	/	3074.58	/	0.13	/	0.00	/	-0.000	*XS*	
BD.3	AT	23208	/	383	/	6780.	/	878.	/	50408.	/	1.62	/	-39.	/	575.	
3085.62		/	1.50	/	*****	/	*****	/	3087.12	/	7.72	/	0.88	/	*****	*XS*	
BD.7	AT	23592	/	384	/	6780.	/	1221.	/	68083.	/	1.57	/	-328.	/	74.	
3091.52		/	0.75	/	5.14	/	0.0	/	3092.27	/	5.55	/	0.45	/	0.008	*XS*	
BE	BE	AT	23975	/	383	/	6780.	/	1037.	/	54954.	/	1.54	/	-322.	/	69.
3096.09		/	1.03	/	4.71	/	0.14	/	3097.12	/	6.54	/	0.54	/	0.005	*XS*	
BE.1	AT	24075	/	100	/	6780.	/	1083.	/	58153.	/	1.53	/	-323.	/	70.	
3097.63		/	0.93	/	1.44	/	0.0	/	3098.56	/	6.26	/	0.52	/	-0.001	*XS*	
BE.5	AT	24535	/	460	/	6780.	/	856.	/	49030.	/	1.32	/	-114.	/	140.	
3104.86		/	1.29	/	7.42	/	0.18	/	3106.15	/	7.92	/	0.69	/	0.002	*XS*	
BF	BF	AT	24995	/	460	/	6780.	/	1042.	/	64829.	/	1.28	/	-119.	/	142.
3111.98		/	0.84	/	6.65	/	0.0	/	3112.81	/	6.51	/	0.53	/	0.007	*XS*	
BF.3	AT	25407	/	412	/	6780.	/	782.	/	43370.	/	1.33	/	-113.	/	139.	
3120.65		/	1.55	/	*****	/	*****	/	3122.20	/	8.67	/	0.77	/	*****	*XS*	
BF.7	AT	25818	/	411	/	6780.	/	1366.	/	78189.	/	1.21	/	-527.	/	68.	
3127.32		/	0.47	/	5.57	/	0.0	/	3127.78	/	4.96	/	0.52	/	0.005	*XS*	

WATER-SURFACE PROFILE FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 PAGE 4 OF 4, PROFILE NUMBER 2, UPSTREAM COMPUTATIONS

SOYR

SECT	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEW	REW
WS ELEV	HV	HF	HE	EG	V	FN	ACC	ID*	
AG	AG	26230	412	6780.	881.	42396.	1.20	-525.	51.
3135.82	1.10	*****	*****	3136.92	7.69	0.91	*****	*XS*	
BG	BG	26251	21	6780.	1132.	60552.	2.07	-380.	98.
3139.86	1.15	*****	*****	3141.01	5.99	0.69	*****	*XS*	
BGX.5	AT	26288	37	6780.	3042.	178598.	1.29	-541.	262.
3141.07	0.10	0.16	0.0	3141.17	2.23	0.17	-0.000	*XS*	
AH	BH	26325	37	6780.	2468.	137706.	1.24	-449.	255.
3141.11	0.15	0.07	0.02	3141.26	2.75	0.21	-0.000	*XS*	
BH.5	AT	26680	355	6780.	1086.	42473.	1.48	-419.	154.
3145.70	0.89	*****	*****	3146.59	6.24	0.62	*****	*XS*	
BI	BI	27035	355	6780.	2159.	100236.	1.00	-614.	53.
3150.28	0.15	3.83	0.0	3150.43	3.14	0.29	0.008	*XS*	
BI.5	AT	27320	285	6780.	626.	42194.	1.18	-160.	13.
3155.42	2.15	*****	*****	3157.57	10.84	1.02	*****	*XS*	
BJ	BJ	27605	285	6780.	727.	52471.	1.18	-161.	89.
3161.90	1.59	5.92	0.0	3163.49	9.32	0.84	0.001	*XS*	
BK	BK	28145	540	6780.	814.	36897.	1.00	-277.	15.
3175.23	1.08	12.82	0.0	3176.31	8.33	0.75	-0.001	*XS*	
BK.5	AT	28174	29	6780.	914.	44285.	1.00	-278.	16.
3176.27	0.86	0.82	0.0	3177.13	7.42	0.63	-0.000	*XS*	
BKX	AT	28203	29	6780.	758.	53143.	1.06	-10.	304.
3181.37	1.32	*****	*****	3182.69	8.94	0.94	*****	*XS*	
BL	BL	28242	39	6780.	1042.	71164.	1.31	-184.	300.
3183.19	0.87	*****	*****	3184.05	6.50	0.70	*****	*XS*	
BL.3	AT	28648	406	6780.	1042.	71162.	1.32	-184.	300.
3194.49	0.87	*****	*****	3195.35	6.50	0.70	*****	*XS*	
BL.7	AT	29054	406	6780.	798.	53766.	1.14	-219.	106.
3201.71	1.28	*****	*****	3202.99	8.50	0.77	*****	*XS*	
BM	BM	29460	406	4120.	559.	34131.	1.18	-192.	105.
3212.19	1.00	*****	*****	3213.19	7.37	0.72	*****	*XS*	

END OF THIS PROFILE

COMPUTED WSC VALUES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 PROFILE NUMBER 2. UPSTREAM COMPUTATIONS

SECID	L	N	N.7	Q	R	RX	T.5	W.3
WSC	2933.35	2944.88	2957.45	2968.39	2976.20	2980.16	2994.99	3012.71
SECID	W.7	X	X.5	Y	BB	BBX	BD.3	BF.3
WSC	3020.41	3028.10	3038.19	3047.88	3068.61	3073.25	3085.62	3120.65
SECID	BF.7	BG	BGX	BH.5	BI.5	BK	BKX	BL
WSC	3126.10	3135.82	3139.86	3145.70	3155.42	3174.64	3181.37	3183.19
SECID	BL.3	BL.7	BM					
WSC	3194.49	3201.71	3212.19					

PAGE 1 OF PROFILE NOTES FOR: WATAUGA RIVER FROM SECT J TO END FIRST /00712
 PROFILE NUMBER 3, UPSTREAM COMPUTATIONS

SECID; ERROR(WARNING) MESSAGE; INTERMEDIATE RESULTS(IF ANY); ACTION TAKEN

J.3;	KU/KD < 0.7 OR > 1.4		ALERTED USER
K;	KU/KD < 0.7 OR > 1.4		ALERTED USER
L;	FRDN FAILURE	WS = 2929.79 & FR = 15.66	USED HIGHER WS
L;	FRDN FAILURE	WS = 2933.66 & FR = 1.19	USED HIGHER WS
L;	WS NOT FOUND BETWEEN	WS = 2927.20 & WS = 2944.20	USED DEL = 0.25
L;	FRDN FAILURE	WS = 2929.79 & FR = 15.66	USED HIGHER WS
L;	FRDN FAILURE	WS = 2933.66 & FR = 1.19	USED HIGHER WS
L;	WS NOT FOUND BETWEEN	WS = 2927.20 & WS = 2944.20	USED WSMIN = WSC
L;	WS NOT FOUND		ASSUMED WS = WSC
M;	KU/KD < 0.7 OR > 1.4		ALERTED USER
N;	WS TOO LOW		USED WSMIN = WSC
N.7;	WS NOT FOUND BETWEEN	WS = 2949.36 & WS = 2965.50	USED DEL = 0.25
N.7;	WS NOT FOUND BETWEEN	WS = 2949.36 & WS = 2965.50	USED WSMIN = WSC
N.7;	WS NOT FOUND		ASSUMED WS = WSC
Q;	WS TOO LOW		USED WSMIN = WSC
R;	FRDN FAILURE	WS = 2975.99 & FR = 1.24	USED HIGHER WS
R;	WS NOT FOUND BETWEEN	WS = 2971.55 & WS = 2982.00	USED DEL = 0.25
R;	FRDN FAILURE	WS = 2975.99 & FR = 1.24	USED HIGHER WS
R;	WS NOT FOUND BETWEEN	WS = 2971.55 & WS = 2982.00	USED WSMIN = WSC
R;	WS NOT FOUND		ASSUMED WS = WSC
RX;	WS NOT FOUND BETWEEN	WS = 2977.16 & WS = 3000.00	USED DEL = 0.25

RX; WS NOT FOUND BETWEEN	; WS = 2977.16 & WS = 3000.00;	USED WSMIN = WSC
RX; WS NOT FOUND	;	ASSUMED WS = WSC
RX.5; KU/KD < 0.7 OR > 1.4	;	ALERTED USER
S.5; KU/KD < 0.7 OR > 1.4	;	ALERTED USER
T; FRDN FAILURE	; WS = 2983.58 & FR = 14.15;	USED HIGHER WS
T.5; FRDN FAILURE	; WS = 2994.58 & FR = 1.33;	USED HIGHER WS
T.5; WS NOT FOUND BETWEEN	; WS = 2988.31 & WS = 3002.30;	USED DEL = 0.25
T.5; FRDN FAILURE	; WS = 2994.58 & FR = 1.33;	USED HIGHER WS
T.5; WS NOT FOUND BETWEEN	; WS = 2988.31 & WS = 3002.30;	USED WSMIN = WSC
T.5; WS NOT FOUND	;	ASSUMED WS = WSC
U; KU/KD < 0.7 OR > 1.4	;	ALERTED USER
V; KU/KD < 0.7 OR > 1.4	;	ALERTED USER
W; KU/KD < 0.7 OR > 1.4	;	ALERTED USER
W.3; FRDN FAILURE	; WS = 3009.08 & FR = 20.18;	USED HIGHER WS
W.3; FRDN FAILURE	; WS = 3012.48 & FR = 1.26;	USED HIGHER WS
W.3; WS NOT FOUND BETWEEN	; WS = 3008.52 & WS = 3020.40;	USED DEL = 0.25
W.3; FRDN FAILURE	; WS = 3009.08 & FR = 20.18;	USED HIGHER WS
W.3; FRDN FAILURE	; WS = 3012.48 & FR = 1.26;	USED HIGHER WS
W.3; WS NOT FOUND BETWEEN	; WS = 3008.52 & WS = 3020.40;	USED WSMIN = WSC
W.3; WS NOT FOUND	;	ASSUMED WS = WSC
W.7; WS TOO LOW	;	USED WSMIN = WSC
X; WS TOO LOW	;	USED WSMIN = WSC
X.5; WS TOO LOW	;	USED WSMIN = WSC
Y; WS TOO LOW	;	USED WSMIN = WSC

1004R

PAGE 2 OF PROFILE NOTES FOR: WATAUGA RIVER FROM SECT J TO END
 PROFILE NUMBER 3, UPSTREAM COMPUTATIONS

FIRST 10042

SECID; ERROR(WARNING) MESSAGE; INTERMEDIATE RESULTS(IF ANY); ACTION TAKEN

Z;	KU/KD < 0.7 OR > 1.4			ALERTED USER
BA;	FRDN FAILURE			
		WS = 3051.69 & FR = 11.76;		USED HIGHER WS
BA;	KU/KD < 0.7 OR > 1.4			ALERTED USER
BB;	WS TOO LOW			USED WSMIN = WSC
BB;	WS NOT FOUND BETWEEN			
		WS = 3069.79 & WS = 3075.10;		USED DEL = 0.25
BB;	WS NOT FOUND			ASSUMED WS = WSC
BBX;	WS NOT FOUND BETWEEN			
		WS = 3069.54 & WS = 3080.00;		USED DEL = 0.25
BBX;	WS NOT FOUND BETWEEN			
		WS = 3069.54 & WS = 3080.00;		USED WSMIN = WSC
BBX;	WS NOT FOUND			ASSUMED WS = WSC
BC;	KU/KD < 0.7 OR > 1.4			ALERTED USER
BD;	KU/KD < 0.7 OR > 1.4			ALERTED USER
BD.3;	WS TOO LOW			USED WSMIN = WSC
BD.3;	WS NOT FOUND BETWEEN			
		WS = 3086.66 & WS = 3090.90;		USED DEL = 0.25
BD.3;	WS NOT FOUND			ASSUMED WS = WSC
BE.5;	FRDN FAILURE			
		WS = 3099.81 & FR = 23.18;		USED HIGHER WS
BF;	FRDN FAILURE			
		WS = 3105.64 & FR = 38.83;		USED HIGHER WS
BF.3;	WS TOO LOW			USED WSMIN = WSC
BF.3;	WS NOT FOUND BETWEEN			
		WS = 3121.39 & WS = 3124.10;		USED DEL = 0.25
BF.3;	WS NOT FOUND			ASSUMED WS = WSC
BF.7;	FRDN FAILURE			
		WS = 3121.78 & FR = 80.47;		USED HIGHER WS
BF.7;	KU/KD < 0.7 OR > 1.4			ALERTED USER
BG;	WS TOO LOW			USED WSMIN = WSC
BG;	WS NOT FOUND BETWEEN			
		WS = 3136.30 & WS = 3143.50;		

BG: WS NOT FOUND
BGX: WS NOT FOUND BETWEEN
BGX: WS NOT FOUND BETWEEN
BGX: WS NOT FOUND
BGX.5: KU/KD < 0.7 OR > 1.4
BH.5: FRDN FAILURE
BH.5: KU/KD < 0.7 OR > 1.4
BI: KU/KD < 0.7 OR > 1.4
BI.5: WS NOT FOUND BETWEEN
BI.5: WS NOT FOUND BETWEEN
BI.5: WS NOT FOUND
BJ: FRDN FAILURE
BK: WS TOO LOW
BKX: WS NOT FOUND BETWEEN
BKX: WS NOT FOUND BETWEEN
BKX: WS NOT FOUND
BL: WS NOT FOUND BETWEEN
BL: WS NOT FOUND BETWEEN
BL: WS NOT FOUND
BL.3: WS TOO LOW
BL.3: WS NOT FOUND BETWEEN
BL.3: WS NOT FOUND

; WS = 3136.05 & WS = 3143.70;
; WS = 3136.05 & WS = 3143.70;
; WS = 3143.72 & FR = 6.91;
; WS = 3151.55 & WS = 3165.90;
; WS = 3151.55 & WS = 3165.90;
; WS = 3156.17 & FR = 54.31;
; WS = 3176.78 & WS = 3190.00;
; WS = 3176.78 & WS = 3190.00;
; WS = 3181.67 & WS = 3188.00;
; WS = 3181.67 & WS = 3188.00;
; WS = 3194.84 & WS = 3199.30;

USED DEL = 0.25
ASSUMED WS = WSC
USED DEL = 0.25
USED WSMIN = WSC
ASSUMED WS = WSC
ALERTED USER
USED HIGHER WS
ALERTED USER
ALERTED USER
USED DEL = 0.25
USED WSMIN = WSC
ASSUMED WS = WSC
USED HIGHER WS
USED WSMIN = WSC
USED DEL = 0.25
USED WSMIN = WSC
ASSUMED WS = WSC
USED DEL = 0.25
USED WSMIN = WSC
ASSUMED WS = WSC
USED WSMIN = WSC
USED DEL = 0.25
ASSUMED WS = WSC

1004R

PAGE 3 OF PROFILE NOTES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
PROFILE NUMBER 3, UPSTREAM COMPUTATIONS

10092

SECID; ERROR(WARNING) MESSAGE; INTERMEDIATE RESULTS(IF ANY); ACTION TAKEN

BL.7; WS TOO LOW	:		USED WSMIN = WSC
BL.7; WS NOT FOUND BETWEEN	:		
	:	WS = 3202.38 & WS = 3207.60;	
	:		USED DEL = 0.25
BL.7; WS NOT FOUND	:		ASSUMED WS = WSC
BM; WS TOO LOW	:		USED WSMIN = WSC
BM; WS NOT FOUND BETWEEN	:		
	:	WS = 3212.67 & WS = 3218.90;	
	:		USED DEL = 0.25
BM; WS NOT FOUND	:		ASSUMED WS = WSC

WATER-SURFACE PROFILE FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 PAGE 1 OF 4, PROFILE NUMBER 3, UPSTREAM COMPUTATIONS

SECT	AT	WS ELEV	HV	HF	HE	EG	V	FN	ACC	REW	ID
J	AT	6529 / 2918.61	0 / 0.34	14690. /	3377. / 2918.95	494526. / 4.35	1.17 / 0.29	-451. /	75. /		*IS*
J.3	AT	7216 / 2919.54	687 / 1.54	14690. / 1.52	1754. / 0.60	196757. / 2921.07	1.41 / 8.38	-446. / 0.70	71. / -0.001		*XS*
J.7	AT	7903 / 2923.49	687 / 1.68	14690. / 4.03	1686. / 0.07	187086. / 2925.17	1.42 / 8.71	-445. / 0.73	71. / 0.001		*XS*
K	AT	8590 / 2927.45	687 / 0.47	14690. / 2.74	3488. / 0.0	289458. / 2927.91	1.69 / 4.21	-512. / 0.46	788. / 0.001		*XS*
L	AT	9545 / 2933.98	955 / 1.70	13440. / *****	1535. / *****	107847. / 2935.68	1.43 / 8.76	-121. / 1.04	311. / *****		*XS*
M	AT	10180 / 2940.57	635 / 0.72	13440. / 5.60	3065. / 0.0	189858. / 2941.29	2.39 / 4.38	-635. / 0.32	204. / 0.004		*XS*
N	AT	11245 / 2947.06	1065 / 0.60	13440. / 6.37	2642. / 0.0	158978. / 2947.67	1.50 / 5.09	-224. / 0.38	431. / 0.006		*XS*
N.3	AT	11575 / 2949.61	330 / 0.53	13440. / 2.47	2481. / 0.0	151675. / 2950.14	1.17 / 5.42	-203. / 0.40	430. / 0.002		*XS*
N.7	AT	11978 / 2958.15	403 / 1.83	13440. / *****	1931. / *****	149719. / 2959.98	2.43 / 6.96	-67. / 0.81	440. / *****		*XS*
O	AT	12380 / 2961.47	402 / 1.92	13440. / 3.35	1886. / 0.04	144983. / 2963.38	2.43 / 7.13	-67. / 0.83	440. / 0.013		*XS*
P	AT	12547 / 2962.72	167 / 2.28	13440. / 1.45	1644. / 0.18	143681. / 2965.00	2.19 / 8.17	-81. / 0.79	305. / -0.017		*XS*
Q	AT	13845 / 2971.80	1298 / 0.33	8930. / 7.13	2473. / 0.0	158615. / 2972.12	1.61 / 3.61	-723. / 0.26	117. / 0.003		*XS*
R	AT	14470 / 2977.41	625 / 3.17	8930. / *****	761. / *****	66450. / 2980.59	1.48 / 11.73	-40. / 0.91	83. / *****		*XS*
RX	AT	14540 / 2981.86	70 / 1.16	8930. / *****	1668. / *****	119765. / 2983.02	2.61 / 5.35	-616. / 0.58	113. / *****		*XS*
RX.5	AT	14588 / 2983.01	40 / 0.09	8930. / 0.08	3973. / 0.0	387624. / 2983.10	1.15 / 2.25	-684. / 0.17	100. / -0.000		*XS*

100 R

WATER-SURFACE PROFILE FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 PAGE 2 OF 4, PROFILE NUMBER 3, UPSTREAM COMPUTATIONS

SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEW	REW
WS ELEV	HV	HF	HE	EG	V	FN	ACC	*ID*	
S	AT	14635	47	8930.	3407.	330098.	1.12	-681.	99.
2983.01		0.12	0.03	0.01	2983.13	2.62	0.20	-0.015	*XS*
S.5	AT	15075	440	8930.	1385.	99913.	1.10	-337.	101.
2983.78		0.71	1.06	0.30	2984.49	6.45	0.60	0.000	*XS*
T	AT	15515	440	8930.	1299.	90975.	1.10	-337.	100.
2987.58		0.81	3.86	0.05	2988.39	6.87	0.65	-0.008	*XS*
T.1	AT	15615	100	8930.	1464.	108573.	1.11	-338.	101.
2988.56		0.64	0.81	0.0	2989.20	6.10	0.55	-0.000	*XS*
T.5	AT	16240	625	8930.	712.	79273.	1.38	-52.	60.
2996.24		3.37	*****	*****	2999.62	12.55	0.92	*****	*XS*
U	AT	16865	625	8930.	1046.	128863.	1.57	-62.	89.
3002.71		1.78	4.88	0.0	3004.50	8.54	0.59	0.000	*XS*
UX	AT	16887	22	8930.	1141.	142850.	1.00	-62.	69.
3003.64		0.95	0.10	0.0	3004.59	7.83	0.44	-0.000	*XS*
V	AT	17000	113	8930.	689.	71700.	1.13	-55.	79.
3003.52		2.95	0.88	1.00	3006.47	12.95	0.88	-0.001	*XS*
W	AT	17490	490	8930.	2208.	209200.	1.18	-200.	179.
3008.77		0.30	2.61	0.0	3009.07	4.04	0.31	-0.003	*XS*
W.3	AT	18073	583	8930.	1038.	69044.	1.25	-192.	160.
3013.26		1.43	*****	*****	3014.69	8.60	0.86	*****	*XS*
W.7	AT	18657	584	8930.	1128.	84105.	1.00	-310.	23.
3021.73		0.98	8.02	0.0	3022.71	7.92	0.76	0.002	*XS*
X	AT	19240	583	8930.	1031.	73934.	1.00	-306.	23.
3029.12		1.17	7.48	0.10	3030.29	8.67	0.86	0.009	*XS*
X.1	AT	19340	100	8930.	1052.	76149.	1.00	-307.	23.
3030.59		1.12	1.42	0.0	3031.72	8.49	0.83	0.006	*XS*
X.5	AT	20030	690	8930.	1799.	90616.	1.21	-62.	684.
3039.24		0.46	7.97	0.0	3039.70	4.96	0.50	0.009	*XS*
Y	AT	20720	690	8930.	1444.	65225.	1.26	-59.	682.
3048.40		0.75	9.31	0.14	3049.15	6.18	0.67	0.000	*XS*

100 TR

3048.40

WATER-SURFACE PROFILE FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 PAGE 3 OF 4, PROFILE NUMBER 3, UPSTREAM COMPUTATIONS

SECID	AT	DISTANCE / WS ELEV	LENGTH / HV	DISCHARGE / HF	AREA / HE	CONVEYANCE / EG	ALPHA / V	LEW / FN	REW / ACC	*ID*
YX	AT	20744 / 3048.65	24 / 1.35	8930. / 0.56	1060. / 0.30	52268. / 3050.00	1.22 / 8.43	-24. / 0.89	587. / -0.011	*XS*
Z	AT	20820 / 3050.60	76 / 0.50	8930. / 1.10	1834. / 0.0	105196. / 3051.11	1.36 / 4.87	-161. / 0.45	519. / -0.000	*XS*
AA	AT	21365 / 3056.19	545 / 0.73	8930. / 5.70	1492. / 0.12	72472. / 3056.92	1.32 / 5.99	-537. / 0.55	28. / 0.001	*XS*
BB	AT	22020 / 3069.79	655 / 1.41	8930. / *****	1160. / *****	82169. / 3071.20	1.53 / 7.70	-235. / 0.77	210. / *****	*XS*
BBX	AT	22052 / 3073.80	32 / 1.24	8930. / *****	1191. / *****	85970. / 3075.04	1.42 / 7.50	-246. / 0.60	158. / *****	*XS*
BC	AT	22114 / 3075.08	62 / 0.17	8930. / 0.21	2964. / 0.0	269907. / 3075.25	1.20 / 3.01	-322. / 0.22	212. / 0.000	*XS*
BD	AT	22825 / 3075.27	711 / 0.00	8930. / 0.02	54204. / 0.0	13281216. / 3075.27	1.00 / 0.16	-202. / 0.00	24. / -0.000	*XS*
BD.3	AT	23208 / 3086.66	383 / 1.12	8930. / *****	1396. / *****	79685. / 3087.78	1.76 / 6.40	-73. / 0.75	579. / *****	*XS*
BD.7	AT	23592 / 3091.80	384 / 1.10	8930. / 5.10	1330. / 0.0	75350. / 3092.90	1.57 / 6.71	-331. / 0.53	75. / 0.015	*XS*
BE	AT	23975 / 3097.04	383 / 0.96	8930. / 5.10	1384. / 0.0	79494. / 3098.00	1.48 / 6.45	-330. / 0.51	75. / -0.000	*XS*
BE.1	AT	24075 / 3098.32	100 / 1.02	8930. / 1.31	1338. / 0.03	76655. / 3099.34	1.47 / 6.67	-329. / 0.53	74. / 0.003	*XS*
BE.5	AT	24535 / 3105.56	460 / 1.48	8930. / 7.45	1034. / 0.23	64198. / 3107.04	1.28 / 8.63	-119. / 0.71	142. / 0.012	*XS*
BF	AT	24995 / 3112.79	460 / 0.97	8930. / 6.71	1257. / 0.0	85142. / 3113.76	1.24 / 7.10	-125. / 0.55	145. / 0.005	*XS*
BF.3	AT	25407 / 3121.39	412 / 1.71	8930. / *****	969. / *****	58391. / 3123.10	1.29 / 9.21	-117. / 0.77	141. / *****	*XS*
BF.7	AT	25818 / 3128.00	411 / 0.57	8930. / 5.47	1695. / 0.0	102604. / 3128.57	1.31 / 5.27	-528. / 0.53	79. / -0.001	*XS*

1004R

WATER-SURFACE PROFILE FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 PAGE 4 OF 4, PROFILE NUMBER 3, UPSTREAM COMPUTATIONS

1005R

SECTID	AT DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEW	REW
WS ELEV	HV	HF	HE	EG	V	FN	ACC	ID*
ABG	AT 26230	/ 412	/ 8930.	/ 1068.	/ 55339.	/ 1.18	/ -526.	/ 52.
	3136.30	/ 1.29	/*****	/*****	/ 3137.59	/ 8.36	/ 0.94	/***** XS*
BGX	AT 26251	/ 21	/ 8930.	/ 1451.	/ 79937.	/ 1.98	/ -419.	/ 106.
	3140.49	/ 1.17	/*****	/*****	/ 3141.65	/ 6.16	/ 0.70	/***** XS*
BGX.5	AT 26288	/ 37	/ 8930.	/ 3554.	/ 224485.	/ 1.27	/ -568.	/ 268.
	3141.69	/ 0.12	/ 0.16	/ 0.0	/ 3141.82	/ 2.51	/ 0.18	/ -0.000 XS*
BH	AT 26325	/ 37	/ 8930.	/ 2939.	/ 169820.	/ 1.29	/ -536.	/ 261.
	3141.74	/ 0.19	/ 0.08	/ 0.03	/ 3141.92	/ 3.04	/ 0.23	/ -0.000 XS*
BH.5	AT 26680	/ 355	/ 8930.	/ 959.	/ 35687.	/ 1.55	/ -416.	/ 145.
	3145.46	/ 2.08	/ 4.67	/ 0.95	/ 3147.55	/ 9.31	/ 0.96	/ 0.002 XS*
ABI	AT 27035	/ 355	/ 8930.	/ 3124.	/ 181385.	/ 1.00	/ -617.	/ 59.
	3151.80	/ 0.13	/ 4.37	/ 0.0	/ 3151.93	/ 2.86	/ 0.22	/ 0.005 XS*
BI.5	AT 27320	/ 285	/ 8930.	/ 771.	/ 57071.	/ 1.18	/ -162.	/ 89.
	3156.38	/ 2.46	/*****	/*****	/ 3158.84	/ 11.58	/ 1.02	/***** XS*
ABJ	AT 27605	/ 285	/ 8930.	/ 868.	/ 67618.	/ 1.19	/ -163.	/ 90.
	3162.78	/ 1.95	/ 5.89	/ 0.0	/ 3164.73	/ 10.29	/ 0.87	/ 0.002 XS*
ARK	AT 28145	/ 540	/ 8930.	/ 998.	/ 50760.	/ 1.30	/ -279.	/ 17.
	3176.03	/ 1.25	/ 12.55	/ 0.0	/ 3177.28	/ 8.95	/ 0.74	/ 0.002 XS*
BK.5	AT 28174	/ 29	/ 8930.	/ 1092.	/ 58402.	/ 1.00	/ -280.	/ 18.
	3177.03	/ 1.05	/ 0.78	/ 0.0	/ 3178.07	/ 8.18	/ 0.65	/ 0.013 XS*
BKX	AT 28203	/ 29	/ 8930.	/ 903.	/ 68045.	/ 1.02	/ -10.	/ 304.
	3181.92	/ 1.56	/*****	/*****	/ 3183.47	/ 9.89	/ 0.99	/***** XS*
ABL	AT 28242	/ 39	/ 8930.	/ 1228.	/ 89440.	/ 1.22	/ -193.	/ 302.
	3183.56	/ 1.00	/*****	/*****	/ 3184.57	/ 7.27	/ 0.75	/***** XS*
BL.3	AT 28648	/ 406	/ 8930.	/ 1218.	/ 88425.	/ 1.22	/ -192.	/ 302.
	3194.84	/ 1.02	/*****	/*****	/ 3195.87	/ 7.33	/ 0.76	/***** XS*
BL.7	AT 29054	/ 406	/ 8930.	/ 1020.	/ 74732.	/ 1.10	/ -236.	/ 107.
	3202.38	/ 1.31	/*****	/*****	/ 3203.69	/ 8.75	/ 0.74	/***** XS*
AM	AT 29460	/ 406	/ 5480.	/ 695.	/ 44860.	/ 1.16	/ -207.	/ 106.
	3212.67	/ 1.12	/*****	/*****	/ 3213.79	/ 7.89	/ 0.74	/***** XS*

END OF THIS PROFILE

COMPUTED WSC VALUES FOR: WATAUGA RIVER, FROM SECT J TO END:
 PROFILE NUMBER 3, UPSTREAM COMPUTATIONS

FIRST:

10042

SECID	L	N	N.7	Q	R	RX	T.5	W.3
WSC	2933.98	2945.44	2958.15	2968.99	2977.41	2981.86	2996.24	3013.26
SECID	W.7	X	X.5	Y	BB	BBX	BD.3	BF.3
WSC	3021.00	3028.68	3038.51	3048.20	3069.79	3073.80	3086.66	3121.39
SECID	BG	BGX	BI.5	BK	BKX	BL	BL.3	BL.7
WSC	3136.30	3140.49	3156.38	3175.29	3181.92	3183.56	3194.84	3202.38
SECID	BM							
WSC	3212.67							

PAGE 1 OF PROFILE NOTES FOR: WATAUGA RIVER FROM SECT J TO END
 PROFILE NUMBER 4, UPSTREAM COMPUTATIONS

FIRST 5007A

SECID	ERROR(WARNING) MESSAGE	INTERMEDIATE RESULTS(IF ANY)	ACTION TAKEN
J.3	KU/KD < 0.7 OR > 1.4		ALERTED USER
J.7	KU/KD < 0.7 OR > 1.4		ALERTED USER
K	KU/KD < 0.7 OR > 1.4		ALERTED USER
L	FRDN FAILURE	WS = 2930.42 & FR = 17.58	USED HIGHER WS
L	FRDN FAILURE	WS = 2934.83 & FR = 1.39	USED HIGHER WS
L	WS NOT FOUND BETWEEN	WS = 2929.10 & WS = 2944.20	USED DEL = 0.25
L	TOL FAILURE BETWEEN	WS = 2930.35 & WS = 2930.48	USED HIGHER WS
L	FRDN FAILURE	WS = 2934.83 & FR = 1.39	USED HIGHER WS
L	WS NOT FOUND BETWEEN	WS = 2929.10 & WS = 2944.20	USED WSMIN = WSC
L	WS NOT FOUND		ASSUMED WS = WSC
M	KU/KD < 0.7 OR > 1.4		ALERTED USER
N.7	WS NOT FOUND BETWEEN	WS = 2951.16 & WS = 2965.50	USED DEL = 0.25
N.7	WS NOT FOUND BETWEEN	WS = 2951.16 & WS = 2965.50	USED WSMIN = WSC
N.7	WS NOT FOUND		ASSUMED WS = WSC
Q	KU/KD < 0.7 OR > 1.4		ALERTED USER
R	FRDN FAILURE	WS = 2974.66 & FR = 3.16	USED HIGHER WS
R	FRDN FAILURE	WS = 2976.43 & FR = 2.06	USED HIGHER WS
R	FRDN FAILURE	WS = 2976.45 & FR = 2.05	USED HIGHER WS
R	WS NOT FOUND BETWEEN	WS = 2974.04 & WS = 2982.00	USED DEL = 0.25
R	FRDN FAILURE	WS = 2974.65 & FR = 3.17	USED HIGHER WS
R	FRDN FAILURE	WS = 2976.42 & FR = 2.06	USED HIGHER WS

R: FRDN FAILURE	; WS = 2976.45 & FR = 2.05;	USED HIGHER WS
R: WS NOT FOUND BETWEEN	; WS = 2974.04 & WS = 2982.00;	USED HIGHER WS
R: WS NOT FOUND		USED WSMIN = WSC
RX: FRDN FAILURE		ASSUMED WS = WSC
RX: KU/KD < 0.7 OR > 1.4	; WS = 2981.23 & FR = 1.36;	USED HIGHER WS
RX: LEFT BANK EXTENDED		ALERTED USER
RX.5: KU/KD < 0.7 OR > 1.4		ALERTED USER
S.5: KU/KD < 0.7 OR > 1.4		ALERTED USER
T.5: FRDN FAILURE		ALERTED USER
T.5: FRDN FAILURE	; WS = 2990.14 & FR = 10.75;	USED HIGHER WS
T.5: FRDN FAILURE	; WS = 2996.13 & FR = 1.73;	USED HIGHER WS
T.5: WS NOT FOUND BETWEEN	; WS = 2989.87 & WS = 3002.30;	USED DEL = 0.25
T.5: FRDN FAILURE	; WS = 2990.14 & FR = 10.75;	USED HIGHER WS
T.5: FRDN FAILURE	; WS = 2996.13 & FR = 1.73;	USED HIGHER WS
T.5: WS NOT FOUND BETWEEN	; WS = 2989.87 & WS = 3002.30;	USED WSMIN = WSC
T.5: WS NOT FOUND		ASSUMED WS = WSC
T.5: LEFT BANK EXTENDED		ALERTED USER
U: LEFT BANK EXTENDED		ALERTED USER
UX: LEFT BANK EXTENDED		ALERTED USER
V: KU/KD < 0.7 OR > 1.4		ALERTED USER
V: LEFT BANK EXTENDED		ALERTED USER
V: RIGHT BANK EXTENDED		ALERTED USER
W: KU/KD < 0.7 OR > 1.4		ALERTED USER
W.3: FRDN FAILURE	; WS = 3014.40 & FR = 1.03;	USED HIGHER WS
W.3: WS NOT FOUND BETWEEN	; WS = 3011.53 & WS = 3020.40;	USED DEL = 0.25

5004R

PAGE 2 OF PROFILE NOTES FOR: WATAUGA RIVER FROM SECT J TO END FIRST 500YR
 PROFILE NUMBER 4, UPSTREAM COMPUTATIONS

SECID: ERROR(WARNING) MESSAGE: INTERMEDIATE RESULTS(IF ANY): ACTION TAKEN

W.3: FRDN FAILURE	: WS = 3014.39 & FR = 1.03:	USED HIGHER WS
W.3: WS NOT FOUND BETWEEN	: WS = 3011.53 & WS = 3020.40:	USED WSMIN = WSC
W.3: WS NOT FOUND	:	ASSUMED WS = WSC
W.7: WS TOO LOW	:	USED WSMIN = WSC
X: TOL FAILURE BETWEEN	: WS = 3024.70 & WS = 3024.95:	USED HIGHER WS
X.5: WS TOO LOW	:	USED WSMIN = WSC
Y: WS TOO LOW	:	USED WSMIN = WSC
Y: KU/KD < 0.7 OR > 1.4	:	ALERTED USER
YX: FRDN FAILURE	: WS = 3049.47 & FR = 1.11:	USED HIGHER WS
YX: WS NOT FOUND BETWEEN	: WS = 3049.12 & WS = 3057.20:	USED DEL = 0.25
YX: FRDN FAILURE	: WS = 3049.47 & FR = 1.11:	USED HIGHER WS
YX: WS NOT FOUND BETWEEN	: WS = 3049.12 & WS = 3057.20:	USED WSMIN = WSC
YX: WS NOT FOUND	:	ASSUMED WS = WSC
7: KU/KD < 0.7 OR > 1.4	:	ALERTED USER
BA: FRDN FAILURE	: WS = 3052.72 & FR = 12.70:	USED HIGHER WS
BB: WS TOO LOW	:	USED WSMIN = WSC
BB: WS NOT FOUND BETWEEN	: WS = 3071.24 & WS = 3075.10:	USED DEL = 0.25
BB: WS NOT FOUND	:	ASSUMED WS = WSC
BBX: WS NOT FOUND BETWEEN	: WS = 3070.99 & WS = 3080.00:	USED DEL = 0.25
BBX: WS NOT FOUND BETWEEN	: WS = 3070.99 & WS = 3080.00:	USED WSMIN = WSC
BBX: WS NOT FOUND	:	ASSUMED WS = WSC
BC: KU/KD < 0.7 OR > 1.4	:	ALERTED USER

BC: LEFT BANK EXTENDED	:	ALERTED USER
BD: KU/KD < 0.7 OR > 1.4	:	ALERTED USER 500 YR
BD.3: WS TOO LOW	:	USED WSMIN = WSC
BD.3: WS NOT FOUND BETWEEN	:	USED DEL = 0.25
	:	ASSUMED WS = WSC
BD.3: WS NOT FOUND	:	USED HIGHER WS
BE.5: FRDN FAILURE	:	USED DEL = 0.25
	:	USED WSMIN = WSC
BF: WS NOT FOUND BETWEEN	:	ASSUMED WS = WSC
	:	USED HIGHER WS
BF: WS NOT FOUND BETWEEN	:	USED DEL = 0.25
	:	USED WSMIN = WSC
BF: WS NOT FOUND	:	ASSUMED WS = WSC
BF.3: FRDN FAILURE	:	USED HIGHER WS
	:	ALERTED USER
BF.7: KU/KD < 0.7 OR > 1.4	:	USED WSMIN = WSC
BG: WS TOO LOW	:	USED DEL = 0.25
BG: WS NOT FOUND BETWEEN	:	ASSUMED WS = WSC
	:	USED HIGHER WS
BG: WS NOT FOUND	:	USED DEL = 0.25
BGX: WS NOT FOUND BETWEEN	:	USED WSMIN = WSC
	:	ASSUMED WS = WSC
BGX: WS NOT FOUND BETWEEN	:	USED HIGHER WS
	:	ALERTED USER
BGX: WS NOT FOUND	:	ALERTED USER
BGX.5: KU/KD < 0.7 OR > 1.4	:	USED HIGHER WS
BGX.5: RIGHT BANK EXTENDED	:	ALERTED USER
BH.5: FRDN FAILURE	:	ALERTED USER
	:	USED HIGHER WS
BH.5: KU/KD < 0.7 OR > 1.4	:	ALERTED USER
BI: KU/KD < 0.7 OR > 1.4	:	ALERTED USER
BI.5: WS NOT FOUND BETWEEN	:	USED DEL = 0.25

PAGE 3 OF PROFILE NOTES FOR: WATAUGA RIVER FROM SECT J TO END
 PROFILE NUMBER 4, UPSTREAM COMPUTATIONS

FIRST 500 YR

SECID; ERROR(WARNING) MESSAGE; INTERMEDIATE RESULTS(IF ANY); ACTION TAKEN

BI.5; WS NOT FOUND BETWEEN	; WS = 3152.80 & WS = 3165.90;	USED WSMIN = WSC
BI.5; WS NOT FOUND	;	ASSUMED WS = WSC
BK; WS TOO LOW	;	USED WSMIN = WSC
BKX; WS NOT FOUND BETWEEN	; WS = 3179.09 & WS = 3190.00;	USED DEL = 0.25
BKX; WS NOT FOUND BETWEEN	; WS = 3179.09 & WS = 3190.00;	USED WSMIN = WSC
BKX; WS NOT FOUND	;	ASSUMED WS = WSC
BL; LEFT BANK EXTENDED	;	ALERTED USER
BL.3; WS NOT FOUND BETWEEN	; WS = 3184.63 & WS = 3199.30;	USED DEL = 0.25
BL.3; WS NOT FOUND BETWEEN	; WS = 3184.63 & WS = 3199.30;	USED WSMIN = WSC
BL.3; WS NOT FOUND	;	ASSUMED WS = WSC
BL.3; LEFT BANK EXTENDED	;	ALERTED USER
BL.7; FRDN FAILURE	; WS = 3197.18 & FR = 48.49;	USED HIGHER WS
BL.7; FRDN FAILURE	; WS = 3202.84 & FR = 1.12;	USED HIGHER WS
BL.7; WS NOT FOUND BETWEEN	; WS = 3195.65 & WS = 3207.60;	USED DEL = 0.25
BL.7; FRDN FAILURE	; WS = 3197.18 & FR = 48.49;	USED HIGHER WS
BL.7; FRDN FAILURE	; WS = 3202.83 & FR = 1.12;	USED HIGHER WS
BL.7; WS NOT FOUND BETWEEN	; WS = 3195.65 & WS = 3207.60;	USED WSMIN = WSC
BL.7; WS NOT FOUND	;	ASSUMED WS = WSC
BM; WS TOO LOW	;	USED WSMIN = WSC
BM; WS NOT FOUND BETWEEN	; WS = 3213.93 & WS = 3218.90;	USED DEL = 0.25
BM; WS NOT FOUND	;	ASSUMED WS = WSC

WATER-SURFACE PROFILE FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 PAGE 1 OF 4, PROFILE NUMBER 4, UPSTREAM COMPUTATIONS

500 TR

SECT	AT	WS ELEV	HV	HF	HE	EG	V	FN	ACC	REW	ID					
J	AT	6529	/	0	/	26280.	/	5603.	/	1084468.	/	1.08	/	-468.	/	84.
		2922.75	/	0.37	/		/	2923.12	/	4.69	/	0.26	/		/	*IS*
J.3	AT	7216	/	687	/	26280.	/	3662.	/	559847.	/	1.15	/	-454.	/	76.
		2923.25	/	0.92	/	0.78	/	0.27	/	2924.17	/	7.18	/	0.47	/	-0.007 *XS*
J.7	AT	7903	/	687	/	26280.	/	2561.	/	327773.	/	1.27	/	-448.	/	73.
		2925.25	/	2.08	/	2.59	/	0.58	/	2927.33	/	10.26	/	0.77	/	-0.006 *XS*
K	AT	8590	/	687	/	26280.	/	6278.	/	585080.	/	1.65	/	-663.	/	943.
		2929.35	/	0.45	/	2.47	/	0.0	/	2929.80	/	4.19	/	0.42	/	0.002 *XS*
L	AT	9545	/	955	/	24130.	/	2302.	/	195003.	/	1.41	/	-146.	/	336.
		2935.66	/	2.42	/	*****	/	*****	/	2938.08	/	10.48	/	1.09	/	***** *XS*
M	AT	10180	/	635	/	24130.	/	4931.	/	359289.	/	1.97	/	-790.	/	218.
		2942.63	/	0.73	/	5.28	/	0.0	/	2943.36	/	4.89	/	0.33	/	0.001 *XS*
N	AT	11245	/	1065	/	24130.	/	3855.	/	274194.	/	1.50	/	-262.	/	437.
		2948.83	/	0.91	/	6.29	/	0.09	/	2949.75	/	6.26	/	0.42	/	0.003 *XS*
N.3	AT	11575	/	330	/	24130.	/	3697.	/	279131.	/	1.28	/	-262.	/	436.
		2951.41	/	0.85	/	2.51	/	0.0	/	2952.26	/	6.53	/	0.41	/	0.000 *XS*
N.7	AT	11978	/	403	/	24130.	/	2872.	/	249620.	/	2.30	/	-73.	/	443.
		2959.99	/	2.52	/	*****	/	*****	/	2962.52	/	8.40	/	0.90	/	***** *XS*
O	AT	12380	/	402	/	24130.	/	3072.	/	272833.	/	2.26	/	-75.	/	444.
		2963.78	/	2.17	/	3.44	/	0.0	/	2965.95	/	7.85	/	0.83	/	-0.001 *XS*
P	AT	12547	/	167	/	24130.	/	2491.	/	235893.	/	2.08	/	-89.	/	320.
		2964.86	/	3.04	/	1.51	/	0.43	/	2967.90	/	9.69	/	0.89	/	-0.001 *XS*
Q	AT	13845	/	1298	/	16330.	/	4378.	/	335309.	/	1.54	/	-728.	/	122.
		2974.29	/	0.33	/	6.72	/	0.0	/	2974.62	/	3.73	/	0.24	/	0.007 *XS*
R	AT	14470	/	625	/	16330.	/	1194.	/	120908.	/	1.52	/	-48.	/	93.
		2980.71	/	4.41	/	*****	/	*****	/	2985.13	/	13.67	/	0.97	/	***** *XS*
RX	AT	14540	/	70	/	16330.	/	4227.	/	352248.	/	1.94	/	-694.	/	128.
		2985.11	/	0.45	/	0.44	/	0.0	/	2985.56	/	3.86	/	0.24	/	-0.001 *XS*
RX.5	AT	14588	/	48	/	16330.	/	5939.	/	724850.	/	1.08	/	-699.	/	108.
		2985.49	/	0.13	/	0.05	/	0.0	/	2985.61	/	2.75	/	0.18	/	-0.000 *XS*

WATER-SURFACE PROFILE FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 PAGE 2 OF 4, PROFILE NUMBER 4, UPSTREAM COMPUTATIONS

SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEW	REW	WS ELEV	HV	HF	HE	EG	V	FN	ACC	ID
S	AT	14635	/	47	/	16330.	/	5297.	/	604875.	/	1.09	/	-694.	/	105.		
		2985.49	/	0.16	/	0.03	/	0.02	/	2985.65	/	3.08	/	0.21	/	-0.012		*XS*
S.5	AT	15075	/	440	/	16330.	/	2427.	/	215641.	/	1.14	/	-436.	/	105.		
		2986.06	/	0.81	/	0.90	/	0.32	/	2986.87	/	6.73	/	0.53	/	-0.000		*XS*
T	AT	15515	/	440	/	16330.	/	1967.	/	168682.	/	1.11	/	-346.	/	103.		
		2989.10	/	1.19	/	3.23	/	0.19	/	2990.29	/	8.30	/	0.68	/	0.001		*XS*
T.1	AT	15615	/	100	/	16330.	/	2162.	/	190492.	/	1.12	/	-419.	/	104.		
		2990.12	/	0.99	/	0.83	/	0.0	/	2991.12	/	7.55	/	0.60	/	-0.001		*XS*
T.5	AT	16240	/	625	/	16330.	/	1933.	/	207828.	/	2.53	/	-215.	/	170.		
		3001.99	/	2.81	/	*****	/	*****	/	3004.79	/	8.45	/	0.70	/	*****		*XS*
U	AT	16865	/	625	/	16330.	/	2013.	/	216095.	/	2.55	/	-215.	/	175.		
		3005.90	/	2.61	/	3.71	/	0.0	/	3008.50	/	8.11	/	0.67	/	-0.002		*XS*
UX	AT	16887	/	22	/	16330.	/	1929.	/	257086.	/	1.27	/	-83.	/	164.		
		3007.20	/	1.41	/	0.11	/	0.0	/	3008.61	/	8.47	/	0.48	/	-0.001		*XS*
V	AT	17000	/	113	/	16330.	/	1411.	/	159123.	/	1.42	/	-95.	/	171.		
		3007.16	/	2.96	/	0.74	/	0.77	/	3010.12	/	11.57	/	0.77	/	-0.000		*XS*
W	AT	17490	/	490	/	16330.	/	3415.	/	392947.	/	1.20	/	-225.	/	207.		
		3011.78	/	0.43	/	2.09	/	0.0	/	3012.21	/	4.78	/	0.32	/	0.000		*XS*
W.3	AT	18073	/	583	/	16330.	/	1558.	/	124238.	/	1.20	/	-195.	/	167.		
		3014.71	/	2.06	/	*****	/	*****	/	3016.77	/	10.48	/	0.92	/	*****		*XS*
W.7	AT	18657	/	584	/	16330.	/	1726.	/	154881.	/	1.02	/	-334.	/	92.		
		3023.45	/	1.42	/	8.09	/	0.0	/	3024.87	/	9.46	/	0.79	/	0.004		*XS*
X	AT	19240	/	583	/	16330.	/	1567.	/	135298.	/	1.01	/	-328.	/	91.		
		3030.73	/	1.70	/	7.42	/	0.14	/	3032.43	/	10.42	/	0.90	/	0.003		*XS*
X.1	AT	19340	/	100	/	16330.	/	1604.	/	139814.	/	1.01	/	-330.	/	91.		
		3032.23	/	1.63	/	1.41	/	0.0	/	3033.86	/	10.18	/	0.87	/	0.016		*XS*
X.5	AT	20030	/	690	/	16330.	/	2782.	/	178718.	/	1.12	/	-68.	/	689.		
		3040.63	/	0.60	/	7.36	/	0.0	/	3041.23	/	5.87	/	0.50	/	0.012		*XS*
Y	AT	20720	/	690	/	16330.	/	2147.	/	114698.	/	1.19	/	-64.	/	685.		
		3049.37	/	1.07	/	8.98	/	0.24	/	3050.45	/	7.61	/	0.74	/	0.001		*XS*

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WATER-SURFACE PROFILE FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 PAGE 3 OF 4, PROFILE NUMBER 4, UPSTREAM COMPUTATIONS

SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEW	REW	WS ELEV	HV	HF	HE	EG	V	FN	ACC	ID
YX	AT	20744	/	24	/	16330.	/	1744.	/	104416.	/	1.12	/	-24.	/	623.		
		3050.05	/	1.52	/	*****	/	*****	/	3051.57	/	9.36	/	0.87	/	*****		*XS*
Z	AT	20820	/	76	/	16330.	/	2662.	/	175768.	/	1.29	/	-181.	/	528.		
		3051.93	/	0.75	/	1.10	/	0.0	/	3052.68	/	6.13	/	0.51	/	-0.001		*XS*
A8A	AT	21365	/	545	/	16330.	/	2334.	/	141570.	/	1.13	/	-541.	/	32.		
		3057.72	/	0.86	/	5.84	/	0.05	/	3058.58	/	7.00	/	0.56	/	0.004		*XS*
ABB	AT	22020	/	655	/	16330.	/	1822.	/	151302.	/	1.32	/	-257.	/	212.		
		3071.24	/	1.65	/	*****	/	*****	/	3072.89	/	8.96	/	0.79	/	*****		*XS*
BBX	AT	22052	/	32	/	16330.	/	1759.	/	142569.	/	1.24	/	-293.	/	158.		
		3075.13	/	1.66	/	*****	/	*****	/	3076.78	/	9.28	/	0.68	/	*****		*XS*
ABC	AT	22114	/	62	/	16330.	/	3876.	/	406886.	/	1.13	/	-331.	/	218.		
		3076.76	/	0.31	/	0.29	/	0.0	/	3077.07	/	4.21	/	0.28	/	-0.000		*XS*
BD	AT	22825	/	711	/	16330.	/	54556.	/	13355568.	/	1.01	/	-203.	/	225.		
		3077.10	/	0.00	/	0.03	/	0.0	/	3077.10	/	0.30	/	0.00	/	-0.000		*XS*
BD.3	AT	23208	/	383	/	16330.	/	2187.	/	139366.	/	1.52	/	-111.	/	584.		
		3087.86	/	1.32	/	*****	/	*****	/	3089.18	/	7.47	/	0.61	/	*****		*XS*
BD.7	AT	23592	/	384	/	16330.	/	1986.	/	131644.	/	1.38	/	-345.	/	86.		
		3093.38	/	1.46	/	5.58	/	0.07	/	3094.83	/	8.22	/	0.59	/	0.001		*XS*
A8E	AT	23975	/	383	/	16330.	/	2160.	/	148009.	/	1.33	/	-347.	/	93.		
		3098.89	/	1.18	/	5.24	/	0.0	/	3100.08	/	7.56	/	0.53	/	0.003		*XS*
BE.1	AT	24075	/	100	/	16330.	/	2094.	/	141819.	/	1.34	/	-346.	/	89.		
		3100.14	/	1.26	/	1.27	/	0.04	/	3101.41	/	7.80	/	0.56	/	0.019		*XS*
BE.5	AT	24535	/	460	/	16330.	/	1524.	/	112866.	/	1.21	/	-132.	/	148.		
		3107.37	/	2.15	/	7.66	/	0.45	/	3109.52	/	10.71	/	0.78	/	0.004		*XS*
A8F	AT	24995	/	460	/	16330.	/	1437.	/	103471.	/	1.21	/	-130.	/	147.		
		3113.44	/	2.44	/	*****	/	*****	/	3115.88	/	11.37	/	0.84	/	*****		*XS*
BF.3	AT	25407	/	412	/	16330.	/	1492.	/	109369.	/	1.21	/	-131.	/	147.		
		3123.34	/	2.25	/	9.71	/	0.0	/	3125.59	/	10.94	/	0.80	/	0.003		*XS*
BF.7	AT	25818	/	411	/	16330.	/	2815.	/	201287.	/	1.36	/	-532.	/	108.		
		3129.84	/	0.71	/	4.98	/	0.0	/	3130.55	/	5.80	/	0.53	/	-0.017		*XS*

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WATER-SURFACE PROFILE FOR: WATAUGA RIVER FROM SECT J TO END FIRST
 PAGE 4 OF 4. PROFILE NUMBER 4, UPSTREAM COMPUTATIONS

SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEW	REW							
WS ELEV	HV	HF	HE	EG	V	FN	ACC	ID								
ABG	AT	26230	/	412	/	16330.	/	1544.	/	92366.	/	1.24	/	-528.	/	74.
3137.41	/	2.16	/*****	*****/	*****/	3139.56	/	10.57	/	1.07	/*****	*XS*				
BGX	AT	26251	/	21	/	16330.	/	2140.	/	130573.	/	1.72	/	-455.	/	122.
3141.74	/	1.55	/*****	*****/	*****/	3143.29	/	7.63	/	0.55	/*****	*XS*				
BGX.5	AT	26288	/	37	/	16330.	/	4951.	/	366141.	/	1.24	/	-629.	/	281.
3143.29	/	0.21	/	0.21	/	0.0	/	3143.50	/	3.30	/	0.21	/	-0.000	/	*XS*
ABH	AT	26325	/	37	/	16330.	/	4283.	/	294977.	/	1.25	/	-604.	/	276.
3143.34	/	0.28	/	0.09	/	0.04	/	3143.63	/	3.81	/	0.25	/	-0.000	/	*XS*
BH.5	AT	26680	/	355	/	16330.	/	1680.	/	76969.	/	1.35	/	-433.	/	230.
3146.66	/	1.98	/	4.17	/	0.85	/	3148.65	/	9.72	/	0.87	/	0.002	/	*XS*
AB1	AT	27035	/	355	/	16330.	/	3963.	/	263347.	/	1.01	/	-619.	/	63.
3153.05	/	0.27	/	4.67	/	0.0	/	3153.32	/	4.12	/	0.29	/	0.004	/	*XS*
RI.5	AT	27320	/	285	/	16330.	/	1257.	/	110924.	/	1.25	/	-167.	/	93.
3159.13	/	3.27	/*****	*****/	*****/	3162.40	/	12.99	/	1.02	/*****	*XS*				
ABJ	AT	27605	/	285	/	16330.	/	1325.	/	117695.	/	1.27	/	-168.	/	94.
3165.22	/	3.00	/	5.82	/	0.0	/	3168.22	/	12.33	/	0.96	/	0.003	/	*XS*
ABK	AT	28145	/	540	/	16330.	/	1640.	/	103116.	/	1.01	/	-286.	/	326.
3178.54	/	1.56	/	11.87	/	0.0	/	3180.10	/	9.95	/	0.70	/	0.007	/	*XS*
BK.5	AT	28174	/	29	/	16330.	/	1715.	/	108495.	/	1.03	/	-287.	/	326.
3179.34	/	1.45	/	0.69	/	0.0	/	3180.79	/	9.52	/	0.67	/	0.001	/	*XS*
BKX	AT	28203	/	29	/	16330.	/	1542.	/	136621.	/	1.10	/	-152.	/	304.
3183.74	/	1.92	/*****	*****/	*****/	3185.66	/	10.59	/	0.96	/*****	*XS*				
ABL	AT	28242	/	39	/	16330.	/	1902.	/	171295.	/	1.06	/	-215.	/	308.
3184.88	/	1.22	/	0.44	/	0.0	/	3186.10	/	8.59	/	0.77	/	-0.005	/	*XS*
BL.3	AT	28648	/	406	/	16330.	/	1755.	/	151138.	/	1.08	/	-215.	/	307.
3195.90	/	1.46	/*****	*****/	*****/	3197.36	/	9.31	/	0.87	/*****	*XS*				
BL.7	AT	29054	/	406	/	16330.	/	1465.	/	130373.	/	1.02	/	-239.	/	109.
3203.66	/	1.98	/*****	*****/	*****/	3205.64	/	11.15	/	0.81	/*****	*XS*				
AB4	AT	29460	/	406	/	10250.	/	1107.	/	84422.	/	1.08	/	-237.	/	108.
3213.93	/	1.44	/*****	*****/	*****/	3215.37	/	9.26	/	0.76	/*****	*XS*				

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END OF THIS PROFILE

COMPUTED WSC VALUES FOR: WATAUGA RIVER FROM SECT J TO END FIRST
PROFILE NUMBER 4, UPSTREAM COMPUTATIONS

SECID	L	N.7	R	T.5	W.3	W.7	X.5	Y
WSC	2935.66	2959.99	2980.71	3001.99	3014.71	3022.65	3039.47	3049.23
SECID	YX	BB	BBX	BD.3	BF	BG	BGX	BI.5
WSC	3050.05	3071.24	3075.13	3087.86	3113.44	3137.41	3141.74	3159.13
SECID	BK	BKX	BL.3	BL.7	BM			
WSC	3177.15	3183.74	3195.90	3203.66	3213.93			

*** INPUT CARD PRINTOUT ***

	1	2	3	4	5	6	7	8			
1	6610	WATAUGA RIVER SECTIONS BC TO BD.7							4 5 15 10 15		
2	6611	307180	307440	307508	307508	307676			02		
3	6613	AC 1	14	4 3056	22114	99 99					
4	6614	3320	6780	8930	8930	16330					
5	6615	-331	1 30760	-291	1 30718	-221	1 30712	-181	1 30699	-141	1 30716
5	6616	-131	1 30711	-94	1 30705	-84	1 30713	-81	1 30689	-59	1 30676
5	6617	-41	1 30693	-28	2 30695	-22	2 30669	-17	2 30665	-12	2 30640
5	6618	-5	2 30633	0	2 30640	6	2 30635	14	2 30642	20	2 30656
5	6619	26	3 30664	33	3 30686	63	4 30688	71	4 30692	83	4 30706
5	6620	94	4 30709	166	4 30705	119	4 30685	138	4 30716	159	4 30647
5	6630	177	4 30645	197	4 30691	212	4 30751	219	4 30770		
6	6632	1	2 050 050	4	5 050 050	4	5 060 060	1	2 060 060		
3	6642	AD 0	20	3 3076	22025	99 99					
5	6644	-263	1 30843	-133	1 30834	-63	1 30811	-43	2 30824	-27	2 30745
5	6645	-19	2 30738	-7	2 30734	8	2 30737	13	2 30747	30	2 30756
5	6646	40	3 30801	97	3 30790	221	3 30754	237	3 30816	337	3 30803
5	6647	447	3 30792	535	3 30821	569	3 30782	581	3 30818	598	3 30856
6	6652	1	2 055 055	4	5 052 052	1	2 060 060				
3	6660	AD 3	0 20	3 3082	23208	99 99					
5	6662	-263	1 30896	-133	1 30887	-63	1 30864	-43	2 30877	-27	2 30798
5	6663	-19	2 30791	-7	2 30787	8	2 30790	13	2 30800	30	2 30809
5	6664	40	3 30854	97	3 30843	221	3 30807	237	3 30869	337	3 30856
5	6665	447	3 30845	535	3 30874	569	3 30835	581	3 30871	598	3 30909
6	6674	1	2 055 055	4	5 052 052	1	2 060 060				
3	6680	AD 7	0 19	3 3087	23592	99 99					
5	6682	-361	1 30951	-311	1 30896	-254	1 30875	-181	1 30921	-161	② 30916
5	6683	-106	1 30873	-58	1 30865	-19	2 30876	-17	2 30845	-9	2 30841
5	6684	9	2 30835	19	2 30845	24	2 30862	27	3 30900	52	3 30889
5	6685	44	3 30931	103	3 30930	159	3 30936	192	3 30953		
6	6688	1	2 070 070	1	5 055 055	1	2 065 065				

Notes:
 1. Data based on sections AD, The creek
 2. Data based on sections AD, The creek
 3. Data based on sections AD, The creek
 4. Data based on sections AD, The creek
 5. Data based on sections AD, The creek

PAGE 1 OF EDITING NOTES FOR WATAUGA RIVER SECTIONS BC TO BD, 7

SECID	ERROR SEVERITY	FIRST VARIABLE NO.	ERROR MESSAGE	SECOND VARIABLE NO.	VALUE ASSUMED
AD,7	WARNING ABORTIVE	TOL SA	HIGH OUT OF ORDER	6	0

INPUT SUMMARY FOR WATAUGA RIVER SECTIONS BC TO BD.7

4 CROSS SECTIONS SPECIFIED (OR ASSUMED)

FOUND 4 TYPE 3 CARDS

KEPT 4 CROSS SECTIONS FOR EDITING

3 " " VALID FOR PROPERTY COMPUTATIONS

3 " " " " PROFILE "

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER SECTIONS BC TO BD.7

SECTION AC AT DISTANCE= 22114

PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3066.0	107	4116	1.11	369	771	-15	184	712
3067.0	184	8675	1.09	86	88	-21	188	1457
3068.0	278	15002	1.12	110	113	-65	192	2370
3069.0	420	24432	1.30	169	192	-80	197	3111
3070.0	636	38472	1.41	241	245	-183	199	4927
3071.0	931	57066	1.61	374	379	-214	202	6570
3072.0	1375	89588	1.57	497	503	-292	204	10340
3073.0	1878	137560	1.39	509	515	-301	207	17370
3074.0	2394	195917	1.27	521	527	-311	209	25796
3075.0	2921	263927	1.20	533	540	-320	212	35365
3076.0	3461	340784	1.16	546	553	-330	215	45883
3077.0	4009	428965	1.12	550	558	-330	218	57875

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER SECTIONS BC TO BD.7

SECTION AD AT DISTANCE= 22825

PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3076.0	113	4457	1.08	83	84	-29	223	720
3077.0	217	10081	1.21	124	126	-31	225	1472
3078.0	362	18826	1.28	165	168	-33	228	2682
3079.0	552	31134	1.32	217	219	-35	272	4344
3080.0	853	45845	1.07	410	413	-37	275	5408
3081.0	1338	74926	1.65	543	547	-39	278	9267
3082.0	1948	118391	1.52	663	668	-89	282	15383
3083.0	2636	180584	1.36	707	712	-120	286	24759
3084.0	3381	255920	1.30	811	816	-219	291	38358
3085.0	4231	349190	1.26	858	864	-262	295	47551
3085.6	4747	413692	1.22	861	868	-262	298	57156

Handwritten calculations:
 $\frac{1}{3320} = \frac{1}{1372} \Rightarrow \gamma = \frac{1372}{5857} = .36$
 $\frac{1}{2930} = \frac{1}{3522} \Rightarrow \gamma = \frac{3522}{3857} = .91$

CROSS-SECTION PROPERTIES FOR WATAUGA RIVER SECTIONS BC TO BD.7

SECTION AD.3 AT DISTANCE= 23208

PART 1 OF 2

WS	A	K	ALPHA	B	P	LEW	REW	QC
3082.0	181	6097	1.18	112	113	-30	224	1203
3083.0	314	15037	1.27	153	155	-32	227	2265
3084.0	489	27001	1.31	201	203	-35	271	3783
3085.0	747	40374	1.57	343	346	-37	274	4917
3086.0	1160	64824	1.68	510	514	-39	277	7854
3087.0	1753	103122	1.58	640	644	-80	281	13105
3088.0	2426	160307	1.40	697	702	-111	285	21727
3089.0	3145	231898	1.31	766	771	-175	290	31601

CROSS-SECTION PROPERTIES FOR: WATAUGA RIVER SECTIONS BC TO BD, 7
 SECID= AD.3 AT DISTANCE= 23208 PART 2 OF 2

WS	A	K	ALPHA	R	P	LEN	REN	QC
3096.0	3974	319246	1.27	857	863	-262	894	43024
3093.9	4747	413092	1.22	861	868	-262	898	57156

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*** INPUT CARD REINTOUT ***

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PAGE 1 OF PROFILE NOTES FOR WATAUGA RIVER SECTIONS Bc TO B0.7

INITIAL VALUES ARE: Q = 0, H = 0.00

SECTID, ERROR OR WARNING MESSAGE, INTERMEDIATE RESULTS (IF ANY), ACTION TAKEN

AD, KU/KD < 0.7 OR > 1.4

USED COMPUTED WSU

AD.3, KU/KD < 0.7 OR > 1.4

USED COMPUTED WSU

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WATER-SURFACE PROFILE FOR WATAUGA RIVER SECTIONS BC TO BD.7

PAGE 1 OF 1

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SECTION AT DISTANCE / LENGTH / DISCHARGE / AREA / CONVEYANCE / ALPHA / LEW / REW
 WS ELEV / HY / HF / HE / EG / Y / EN / ACC *ID*

AC AT 22114 / 0 / 3320. / 1276. / 81336. / 1.62 / -291. / 204.
 3071.80 / 0.17 / / 3071.97 / 2.60 / 0.29 / *IS*

AD AT 22825 / 711 / 3320. / 284. / 14023. / 1.35 / -33. / 226.
 3077.80 / 2.66 / 6.87 / 1.25 / 3080.16 / 1.69 / 1.42 / 0.076 *XS*

AD.3 AT 23208 / 383 / 3320. / 979. / 52558. / 1.71 / -39. / 576.
 3085.59 / 0.31 / 5.73 / 0.00 / 3085.89 / 3.39 / 0.41 / 0.001 *XS*

END OF THIS PROFILE

PAGE 1 OF PROFILE NOTES FOR WATAUGA RIVER SECTIONS BC TO BD.7

INITIAL VALUES ARE: Q = 0.0 H = 0.00

SECID, ERROR OR WARNING MESSAGE, INTERMEDIATE RESULTS (IF ANY), ACTION TAKEN

AD,FRDN FAILURE , WS = 3078.34 FN R = 1.86, USED HIGHER WS
AD, WS NOT FOUND , ABORTED PROFILE

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WATER-SURFACE PROFILE FOR WATAUGA RIVER SECTIONS BC TO BD,7

PAGE 1 OF 1

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SECID AT DISTANCE/ LENGTH/DISCHARGE/ AREA /CONVEYANCE/ ALPHA/ LEM / REW

MS ELEV / HV / HE / HE / EG / V / FN / ACC *ID*

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AC AT 22110 / 0 / 6780 / 2624 / 224684 / 1.24 / -316 / 210

3074.44 / 0.13 / / 3074.57 / 2.58 / 0.20 / *IS*

AD 3080-36 VNS

END OF THIS PROFILE

38 576

PAGE 1 OF PROFILE NOTES FOR WATAUGA RIVER SECTIONS BC TO BD.7

INITIAL VALUES ARE: Q = 0. H = 0.00

SECID, ERROR OR WARNING MESSAGE, INTERMEDIATE RESULTS (IF ANY), ACTION TAKEN

AD, FROM FAILURE, WS = 3076.39, FN = 7.98, USED HIGHER WS
AD, FROM FAILURE, WS = 3079.14, FN = 1.70, USED HIGHER WS
AD, WS NOT FOUND, ABORTED PROFILE

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WATER SURFACE PROFILE FOR WATAUGA RIVER SECTIONS BC TO HD,7 /00711
PAGE 1 OF 1
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SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEW	REW
WS	ELEV	HV	HF	HE	EG	V	FN	ACC	ID*
AC	AT	22114	0	8930	2964	269774	1.20	-322	212
3075.08	10.17			3075.25	3.01	0.22			*19*

END OF THIS PROFILE

AD 3080-91/NLS

-39 578

USGS STEP-BACKWATER PROGRAM - VERSION 77.100 *** PAGE COUNT= 13, DATE=04/20/78

PAGE 1 OF PROFILE NOTES FOR WATAUGA RIVER SECTIONS AC TO AD.7

INITIAL VALUES ARE: Q = 0, H = 0.00

SECID, ERROR OR WARNING MESSAGE, INTERMEDIATE RESULTS (IF ANY), ACTION TAKEN

AC, FLOODWAY DATA FLUSHED

ABORTED PROFILE

PAGE 1 OF PROFILE NOTES FOR WATAUGA RIVER SECTIONS BC TO BD,7

INITIAL VALUES ARE: Q = 0, H = 0.00

SECID, ERROR OR WARNING MESSAGE, INTERMEDIATE RESULTS (IF ANY), ACTION TAKEN

AC, LEFT BANK EXTENDED, USED COMPUTED WSU

AD, FRDN FAILURE, WS = 3077.47, FN = 7.10, USED HIGHER WS

AD, KU/KD < 0.7 OR > 1.4, USED COMPUTED WSU

AD, 3, KU/KD < 0.7 OR > 1.4, USED COMPUTED WSU

5004R

WATER-SURFACE PROFILE FOR WATAUGA RIVER SECTIONS BC TO BD.7
PAGE 1 OF 1

SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEW	REH		
WS	ELEV	HV	HF	HE	EG	V	FN	ACC	*IDA		
	AD	AT	22114	0	16330.	3877.	407022.	1.13	-331.	218.	
			3076.76	0.31		3077.07	4.21	0.28		*18*	
	AD	AT	22825	711	16330.	1391.	78431.	1.64	-40.	579.	
			3081.10	3.52	5.90	1.60	3084.62	11.74	1.38	0.001	*XS*
	AD.3	AT	23208	383	16330.	3341.	251808.	1.30	-212.	591.	
			3089.25	0.48	5.17	0.00	3089.73	4.89	0.36	-0.054	*XS*

C.D. = 5002.10

END OF THIS PROFILE

*** INPUT CARD PRINTOUT ***

	1	2	3	4	5	6	7	8	
1	0010	ANTAGONA RIVER SECTIONS FC 11 RD.7						3	5 02 10 15
2	0011	307030	308030	309091	308091	308210			
3	0042	NO 1	20	3 3070	22825	94 94			
4	0043	3072	5700	0530	5430	10330			
5	0044	223	1 3084	7134	1 30834	703	1 30811	43 2 30824 27 2 30745	
5	0045	19	2 30730	77	2 30730	0	2 30737	13 2 30747 30 2 30750	
5	0046	40	3 30801	77	3 30795	221	3 30754	237 3 30810 337 3 30803	
5	0047	47	3 30792	534	3 30821	509	3 30752	501 3 30810 590 3 30850	
6	0052								
3	0000								
5	0002	223	1 30890	7134	1 30887	703	1 30854	43 2 30877 27 2 30790	
5	0003	19	2 30790	77	2 30787	0	2 30790	13 2 30800 30 2 30809	
5	0004	40	3 30800	77	3 30803	221	3 30807	237 3 30869 337 3 30850	
5	0005	47	3 30800	534	3 30771	509	3 30850	501 3 30871 590 3 30909	
6	0070								
3	0000								
5	0007	223	1 30721	7134	1 30721	704	1 30775	43 1 30721 161 1 30910	
5	0003	19	2 30775	77	2 30775	717	2 30770	17 2 30845 7 2 30841	
5	0004	40	3 30775	77	3 30775	221	3 30775	237 3 30700 32 3 30889	
5	0005	47	3 30775	534	3 30775	509	3 30775	501 3 30755	
6	0000								

USGS STEP-BACKWATER PROGRAM - VERSION 77.180 *** PAGE COUNT = 2 DATE=04/21/78

INPUT SUPPLY POINT WATAUGA RIVER SECTIONS BC TO BD.7

3 CROSS SECTIONS SPECIFIED (OR ASSUMED)

FOUND 3 TYPE 3 CARDS

LEAD 3 CROSS SECTIONS FOR EDITING

3 " " VALID FOR PROPERTY COMPUTATIONS

3 " " " " PROFILE "

CROSS-SECTION PROPERTIES FOR NATAGUA RIVER SECTIONS BC TO BU.7
 SECTION= RD AT DISTANCE= 22825 PART 1 OF 1

WS	K	R	ALPHA	B	P	LEN	REN	QC
3076.0	113	4457	1.03	83	84	-29	223	720
3077.0	217	10061	1.21	124	126	-31	225	1472
3078.0	302	18020	1.20	160	168	-33	228	2602
3079.0	532	31130	1.32	217	219	-35	572	4344
3080.0	838	45840	1.57	410	413	-37	575	5408
3081.0	1310	74920	1.65	543	547	-39	578	9267
3082.0	1940	116391	1.92	863	868	-89	582	15383
3083.0	2830	180509	1.90	707	712	-120	586	24759
3084.0	3361	255920	1.90	811	816	-219	591	34350
3085.0	4251	349190	1.90	850	864	-262	595	47551
3086.0	5737	413092	1.82	861	868	-262	598	57156

CROSS-SECTION PROPERTIES FOR NATAGUA RIVER SECTIONS BC TO BU.7
 SECTION= RD AT DISTANCE= 23200 PART 1 OF 1

WS	K	R	ALPHA	B	P	LEN	REN	QC
3076.0	113	4457	1.03	112	113	-30	224	1203
3077.0	217	10061	1.21	153	155	-32	227	2202
3078.0	302	18020	1.20	201	203	-35	571	3753
3079.0	532	31130	1.32	343	346	-37	574	4717
3080.0	838	45840	1.57	510	514	-39	577	7554
3081.0	1310	74920	1.65	640	644	-80	581	13105
3082.0	1940	116391	1.90	697	702	-111	585	21727
3083.0	2830	180509	1.90	700	711	-175	590	31001
3084.0	3361	255920	1.90	857	863	-262	594	43024
3085.0	4251	349190	1.82	861	868	-262	598	57156

CROSS-SECTION PROPERTIES FOR NATAGUA RIVER SECTIONS BC TO BU.7
 SECTION= RD AT DISTANCE= 23575 PART 1 OF 1

WS	K	R	ALPHA	B	P	LEN	REN	QC
3076.0	113	4457	1.03	91	93	-27	25	837
3077.0	217	10061	1.21	102	105	-207	25	1587
3078.0	302	18020	1.20	221	223	-294	25	2025
3079.0	532	31130	1.32	381	385	-314	00	4831
3080.0	838	45840	1.57	343	350	-323	07	5076
3081.0	1310	74920	1.65	432	400	-332	75	11997
3082.0	1940	116391	1.90	424	428	-341	02	17902
3083.0	2830	180509	1.90	518	523	-350	107	22082
3084.0	3361	255920	1.90	540	551	-359	100	30931
3085.0	4251	349190	1.82	553	558	-360	192	33717

USGS STEP-BACKWATER PROGRAM - VERSION 77.180 *** PAGE COUNT# 5 DATE=04/21/78

PAGE 1 OF PROFILE DD15 FORT WATAUGA RIVER SECTIONS BC TO BD.7
INITIAL VALUES ARE: U = 0. H = 0.00

SEND MESSAGE OR WARNING MESSAGE/INTERMEDIATE RESULTS IF ANY ACTION TAKEN

DISCARD < OR > 1.4

USED COMPUTED WSU

107

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WATER SURFACE PROFILE FORT CATARACT RIVER SECTIONS BC TO BD.7

PAGE 1 OF 1

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SECTION	NO	LEVEE	HT	HE	EA	V	FN	ALL	*ID*
AD.AT	20025	0	3320	428	23040	1.30	35	570	
	3078.32	1.21			3079.59	7.76	0.89		*15*
AD.3	20006	383	3320	384	33209	1.34	36	572	
	3084.61	0.7	3.52	0.00	3085.12	3.00	0.53	0.005	*15*
AD.7	20012	384	3320	326	25234	1.70	303	55	
	3087.31	1.05	5.05	0.19	3090.37	6.31	0.70	0.007	*15*

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END OF THIS PROFILE

WATER CONTROL PROFILE FOR KATAOHA RIVER SECTIONS BY ID NO.7

PAGE 1 OF 1

SECTION ID	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEN	REV
NO	FEET	CU FT	SQ FT	CU FT	SEC	FEET	
0001	1225	0	1180	54359	1.71	39	576
0002	1119	0	1081.55	6064	0.81	39	577
0003	1039	0	1039	56101	1.00	324	577
0004	1039	0	1039	56101	1.00	324	577

END OF THIS PROFILE

0808 STEPHENSCHEWATER PROGRAM - VERSION 77.180 *** PAUL COUNT= 8 DATE=06/21/78

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WATERBODIES AND PROFILE FOR KATAOBA RIVER SECTIONS BC TO BD.7

PAUL 1 OF 1

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SECTION	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEN	REN
AS	EL	FT	MG	MG	MG	FT	MG	MG
BC	1000	1000	0930	1204	71790	1.00	40	570
BD	1000	1000	3082.15	6.93	0.82			15
BC	1000	300	0930	1418	50215	1.04	44	579
BD	1000	1000	3087.46	0.30	0.74			15
BC	1000	1000	0930	1210	72335	1.05	350	12
BD	1000	1000	3092.84	1.03	0.56			15

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10078

END OF THIS PROFILE