

\*\*\*\*\*

HEC2 VERSION UPDATED JAN 1975

ERROR CORRECTIONS 01,02,03,04,05,06,07,08

MODIFICATIONS 52,53,54,55,56,57,58

\*\*\*\*\*

T1 TRIB. 20 BASIN 22  
T2 FLOODPLAIN STUDY AT WAKE COUNTY M-G JOB NO.6855  
T3 100 YEAR FLOODWAY

J1 ICHECK INQ NINV IDIR STRT METRIC HVINS Q WSEL FQ  
-10. 6. 0. 0. 0.0 0.0 0.0 0. 0.0 0.0

J2 NPROF IPILOT PRFVS XSECV XSECH FN ALLDC IBW CHNIM ITRACE  
15,000 0.0 -1,000 0.0 0.0 0.0 0.0 0.0 0.0 0.0

CCHV= 0.100 CEHV= 0.300  
2800 NAT Q1= 62.87 WSEL= 275.51 ENC Q1= 62.87 WSEL= 276.51 RATIO= 0.0  
NAT Q1= 183, RATIOS LOB,CH,ROB= 0.1339 0.1774 0.6887 WSEL= 276.51  
20% WSEL NOT GIVEN,AVG OF MAX,MIN USED  
3280 CROSS SECTION 1500.00 EXTENDED 49846.84 FEET

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	GCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 1128.0 1230.3 TYPE= 4 TARGET= 0.656  
1500.00 49863.64 50136.34 0.0 275.51 50136.34 0.00 0.0 0.0 275.60  
1230. 0. 418. 812. 30. 1396145. 3707044. 0. 0. 276.20  
0.0 0.00 0.00 0.00 0.085 0.060 0.085 0.0 272.70 1128.00  
0.000000 1500. 1500. 1500. 0 0 1 0.0 102.35 1230.35

2800 NAT Q1= 52.72 WSEL= 309.74 ENC Q1= 52.72 WSEL= 310.74 RATIO= 0.0  
NAT Q1= 127, RATIOS LOB,CH,ROB= 0.5972 0.2029 0.1998 WSEL= 310.74  
3280 CROSS SECTION 5250.00 EXTENDED 49806.74 FEET

3470 ENCROACHMENT STATIONS= 1317.5 1362.0 TYPE= 4 TARGET= 0.586  
5250.00 49830.44 50136.34 0.0 309.74 50136.34 0.00 0.00 0.00 308.50  
1120. 762. 358. 0. 1617506. 597954. 49. 315028. 6. 309.30  
2034.59 0.00 0.00 0.00 0.085 0.060 0.085 0.060 305.90 1317.54  
0.000000 3750. 3750. 3750. 20 0 1 0.0 44.46 1362.00

1 SUMMARY PRINTOUT FOR MULTIPLE PROFILES

4 100 YEAR FLOODWAY

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL OF GROUND	DISCHARGE (CFS)	CWSEL	TQ	EG	TOPWID	STENCL	STENCR	VCH	
9	1500.00	1500.00	0.0	0.0	272.70	600.00	275.51	62.87	275.59	297.41	0.0	0.0	3.27
10	1500.00	1500.00	0.0	0.0	272.70	1230.00	276.14	130.30	276.25	347.75	0.0	0.0	3.85
11	1500.00	1500.00	0.0	0.0	272.70	1660.00	276.46	175.31	276.59	372.08	0.0	0.0	4.20
12	1500.00	1500.00	0.0	0.0	272.70	3230.00	277.36	340.57	277.56	385.51	0.0	0.0	5.16
13	1500.00	1500.00	0.0	0.0	272.70	1230.00	50136.34*****	50136.34	102.35	1128.00	1230.35	0.00	
15	5250.00	3750.00	0.0	0.0	305.90	505.00	309.74	52.72	309.87	172.65	0.0	0.0	4.34
16	5250.00	3750.00	0.0	0.0	305.90	1120.00	310.60	114.68	310.78	193.55	0.0	0.0	5.26
17	5250.00	3750.00	0.0	0.0	305.90	1545.00	311.06	158.08	311.27	204.90	0.0	0.0	5.68
18	5250.00	3750.00	0.0	0.0	305.90	3130.00	312.37	316.94	312.68	245.22	0.0	0.0	6.87
19	5250.00	3750.00	0.0	0.0	305.90	1120.00	50136.34*****	50136.34	44.46	1317.54	1362.00	0.00	

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
23	1500.000	600.000	275.509	0.0	0.0	297.406	0.0	1500.000
24	1500.000	1230.000	276.143	0.634	0.0	347.754	-50.347	1500.000
25	1500.000	1660.000	276.459	0.317	0.0	372.079	-74.672	1500.000
26	1500.000	3230.000	277.363	0.904	0.0	385.509	-88.103	1500.000
27	1500.000	1230.000	50136.340	49858.970	0.0	102.348	195.058	1500.000
29	5250.000	505.000	309.743	0.0	34.235	172.654	0.0	3750.000
30	5250.000	1120.000	310.597	0.854	34.455	193.549	-20.895	3750.000
31	5250.000	1545.000	311.059	0.462	34.599	204.901	-32.248	3750.000
32	5250.000	3130.000	312.369	1.311	35.006	245.219	-72.565	3750.000
33	5250.000	1120.000	50136.340	49823.970	0.0	44.463	128.190	3750.000

35 DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF	
39	1	0.0	0.0	20.233	0.0
40	2	0.0	0.0	23.300	3.067
41	3	0.0	0.0	24.836	4.602
42	4	0.0	0.0	27.149	6.916
43	5	4.000	0.586	6.319	-13.914



\*\*\*\*\*  
 HEC2 VERSION UPDATED JAN 1975  
 ERROR CORRECTIONS 01,02,03,04,05,06,07,08  
 MODIFICATIONS 52,53,54,55,56,57,58  
 \*\*\*\*\*

T1 TRIB. 20 BASIN 22  
 T2 FLOODPLAIN STUDY AT WAKE COUNTY M-G JOB NO.6855  
 T3 100 YEAR FLOODWAY

J1	ICHECK	ING	NINW	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	6.	0.	0.	0.0	0.0	0.0	0.	277.460	0.0
J2	NPROF	IPLT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.0	-1.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0

CCHV= 0.100 CEHV= 0.300  
 2800 NAT Q1= 175.31 WSEL= 276.46 ENC Q1= 175.31 WSEL= 277.46 RATIO= 0.0  
 NAT Q1= 361. RATIOS LOB,CH,ROB= 0.1491 0.1517 0.6992 WSEL= 277.46  
 SECNO DEPTH CWSEL CRIWS WSELK EG HV HL OLOSS BANK ELEV  
 Q QLOB QCH QROB ALOB ACH AROB VOL TWA LEFT/RIGHT  
 TIME VLOB VCH VROB XNL XNCH XNR WTN ELMIN SSTA  
 SLOPE XLOBL XLCH XLOBR ITRIAL IDC ICONT CORAR TOPWID ENDST

3470 ENCROACHMENT STATIONS= 1128.0 1276.3 TYPE= 4 TARGET= 0.514  
 1500.00 4.76 277.46 0.0 276.46 277.71 0.25 0.0 0.0 275.60  
 1660. 0. 510. 1150. 0. 99. 337. 0. 0. 276.20  
 0.0 0.0 5.16 2.41 0.085 0.060 0.085 0.0 272.70 1128.00  
 0.009400 1500. 1500. 1500. 0 0 1 0.0 148.33 1276.33

2800 NAT Q1= 158.08 WSEL= 311.06 ENC Q1= 158.08 WSEL= 312.06 RATIO= 0.0  
 NAT Q1= 274. RATIOS LOB,CH,ROB= 0.6036 0.1530 0.2434 WSEL= 312.06

3470 ENCROACHMENT STATIONS= 1282.7 1369.2 TYPE= 4 TARGET= 0.423  
 5250.00 6.17 312.07 0.0 311.06 312.42 0.36 34.68 0.03 308.50  
 1545. 1076. 400. 68. 261. 63. 20. 34. 10. 309.30  
 0.22 4.12 6.39 3.35 0.085 0.060 0.085 0.060 305.90 1282.73  
 0.009087 3750. 3750. 3750. 8 0 1 0.0 86.43 1369.15

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

100 YEAR FLOODWAY

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	TQ	EG	TOPWID	STENCL	STENCR	VCH	
A	1500.00	1500.00	0.0	0.0	272.70	1660.00	276.46	175.31	276.59	372.08	0.0	0.0	4.20
	1500.00	1500.00	0.0	0.0	272.70	1660.00	277.46	171.22	277.71	148.33	1128.00	1276.33	5.16
B	5250.00	3750.00	0.0	0.0	305.90	1545.00	311.06	158.08	311.27	204.90	0.0	0.0	5.68
	5250.00	3750.00	0.0	0.0	305.90	1545.00	312.06	162.07	312.42	86.43	1282.73	1369.15	6.39

9 1137 139

75 1350 11

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
A	1500.000	276.459	0.0	0.0	0.0	372.079	0.0	1500.000
	1500.000	277.460	1.001	0.0	0.0	148.330	223.748	1500.000
B	5250.000	311.059	0.0	34.599	0.0	204.901	0.0	3750.000
	5250.000	312.065	1.006	34.605	0.0	86.426	118.475	3750.000

low 100 year

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	0.0	0.0	24.836	0.0
2	4.000	0.423	10.105	-14.731

\*\*\*\*\*  
 HEC2 VERSION UPDATED JAN 1975  
 ERROR CORRECTIONS 01,02,03,04,05,06,07,08  
 MODIFICATIONS 52,53,54,55,56,57,58  
 \*\*\*\*\*

T1 IRIG. 20 BASIN 22  
 T2 FLOODPLAIN STUDY AT WAKE COUNTY M-G JOB NO.6855  
 T3 100 YEAR FLOOD WATER SURFACE PROFILE

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	4.	0.	0.	0.009000	0.0	0.0	0.	281.000	0.0
J2	NPROF	IPLT	PREVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.0	-1.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0

CCHV= 0.100 CEHV= 0.300

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	WLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	QVOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XLN	XLNCH	XLNR	WLN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
1500.00	3.76	276.46	0.0	281.00	276.59	0.13	0.0	0.0	275.60
1660.	220.	298.	1142.	100.	71.	450.	0.	0.	276.20
0.0	2.20	4.20	2.54	0.085	0.060	0.085	0.0	272.70	1060.09
0.008967	1500.	1500.	1500.	0	0	6	0.0	372.08	1432.17
5250.00	5.16	311.06	0.0	0.0	311.27	0.21	34.66	0.02	308.50
1545.	927.	288.	330.	291.	51.	125.	47.	25.	309.30
0.30	3.18	5.68	2.63	0.085	0.060	0.085	0.060	305.90	1226.09
0.009552	3750.	3750.	3750.	5	0	1	0.0	204.90	1430.99

\*\*\*\*\*  
 HEC2 VERSION UPDATED JAN 1975  
 ERROR CORRECTIONS 01,02,03,04,05,06,07,08  
 MODIFICATIONS 52,53,54,55,56,57,58  
 \*\*\*\*\*

I1 TRIB. 20 BASIN 22  
 I2 FLOODPLAIN STUDY AT WAKE COUNTY M-G JOB NO.6855  
 I3 500 YEAR FLOOD WATER SURFACE PROFILE

J1 ICHECK INQ NINV IDIR STRT METRIC HVINS Q WSEL FQ  
 -10. 5. 0. 0. 0.009000 0.0 0.0 0. 282.000 0.0

J2 NPROF IPLOT PREVS XSECV XSECH FN ALLDC IBW CHNIM ITRACE  
 4.000 0.0 -1.000 0.0 0.0 0.0 0.0 0.0 0.0 0.0

CCHV= 0.100 CEHV= 0.300

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	QVOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XLN	XNCH	XNR	WTN	ELMIN	ESTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1500.00	4.66	277.36	0.0	282.00	277.56	0.19	0.0	0.0	275.60
3230.	478.	496.	2256.	162.	96.	706.	0.	0.	276.20
0.0	2.95	5.16	3.20	0.085	0.060	0.085	0.0	272.70	1058.12
0.008995	1500.	1500.	1500.	0	0	6	0.0	385.51	1443.63

3265 DIVIDED FLOW

5250.00	6.47	312.37	0.0	0.0	312.68	0.31	35.09	0.03	308.50
3130.	1890.	456.	784.	464.	66.	226.	74.	27.	309.30
0.24	4.07	6.87	3.47	0.085	0.060	0.085	0.060	305.90	1209.35
0.009753	3750.	3750.	3750.	5	0	1	0.0	245.22	1467.62

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

10 YEAR FLOOD WATER SURF

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	TQ	EG	TOPWID	STENCL	STENCR	VCH
2829.00	2829.00	0.0	0.0	177.70	1350.00	180.84	427.61	180.85	806.42	0.0	0.0	1.51
2879.00	50.00	0.0	0.0	178.10	1350.00	181.39	64.45	182.45	79.47	0.0	0.0	8.25
2950.00	71.00	184.60	184.40	178.10	1350.00	181.50	69.58	182.46	79.99	0.0	0.0	7.86
3000.00	50.00	0.0	0.0	178.00	1350.00	182.62	588.25	182.63	927.86	0.0	0.0	1.53
7000.00	4000.00	0.0	0.0	187.40	1050.00	192.77	65.33	193.56	128.33	0.0	0.0	8.30
11000.00	4000.00	0.0	0.0	201.10	750.00	207.12	244.51	207.14	345.38	0.0	0.0	1.70
12500.00	1500.00	0.0	0.0	206.50	750.00	210.78	53.08	211.01	252.87	0.0	0.0	5.97
14662.00	2162.00	0.0	0.0	217.80	750.00	224.22	138.27	224.31	348.54	0.0	0.0	3.32
14712.00	50.00	6.0	0.0	219.50	750.00	225.30	33.94	227.91	11.20	0.0	0.0	12.98
14750.00	38.00	231.40	226.70	219.50	750.00	227.04	51.57	228.50	11.20	0.0	0.0	9.70
14800.00	50.00	0.0	0.0	221.20	750.00	228.66	800.26	228.66	761.36	0.0	0.0	0.65
17800.00	3000.00	0.0	0.0	256.10	750.00	258.57	26.80	258.94	195.74	0.0	0.0	7.72
17850.00	50.00	0.0	0.0	256.70	750.00	260.22	65.00	260.30	346.70	0.0	0.0	4.36
17912.00	62.00	261.60	259.90	256.90	750.00	263.01	581.35	263.01	403.41	0.0	0.0	0.77
18062.00	150.00	0.0	0.0	258.50	750.00	262.89	67.56	263.18	92.21	0.0	0.0	5.66

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
2829.000	1350.000	180.836	0.0	0.0	0.0	806.422	0.0	2829.000
2879.000	1350.000	181.394	0.0	0.558	0.0	79.471	0.0	50.000
2950.000	1350.000	181.497	0.0	0.103	0.0	79.986	0.0	71.000
3000.000	1350.000	182.625	0.0	1.128	0.0	927.856	0.0	50.000
7000.000	1050.000	192.773	0.0	10.149	0.0	128.326	0.0	4000.000
11000.000	750.000	207.120	0.0	14.347	0.0	345.379	0.0	4000.000
12500.000	750.000	210.785	0.0	3.664	0.0	252.866	0.0	1500.000
14662.000	750.000	224.223	0.0	13.438	0.0	348.543	0.0	2162.000
14712.000	750.000	225.299	0.0	1.076	0.0	11.200	0.0	50.000
14750.000	750.000	227.037	0.0	1.738	0.0	11.200	0.0	38.000
14800.000	750.000	228.656	0.0	1.619	0.0	761.363	0.0	50.000

14800,000	750,000	228,656	0.0	1.619	0.0	761,363	0.0	50,000
17800,000	750,000	258,569	0.0	29.913	0.0	195,735	0.0	3000,000
17850,000	750,000	260,219	0.0	1.650	0.0	346,704	0.0	50,000
17900,000	750,000	263,009	0.0	2.790	0.0	403,413	0.0	62,000
18000,000	750,000	262,892	0.0	-0.117	0.0	92,211	0.0	150,000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	0.0	0.0	132.001	0.0