

*SECNO 108.000
 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

07-24-89 16:20:28

PAGE 21

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLUSS	BANK ELEV
Q	QLOB	QCH	QRUB	ALOB	ACH	ARUB	VDL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VRUB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLORR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENOST

108.00	1.33	7143.33	7143.33	.00	7143.68	.34	5.68	.01	7144.00
115.	0.	115.	0.	0.	24.	0.	4.	6.	7144.00
.27	.00	4.70	.00	.040	.030	.040	.000	7142.00	249.99
.015504	365.	380.	400.	20	15	0	.00	36.68	286.67

0

*SECNO 110.000
 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

110.00	.93	7158.93	7158.93	.00	7159.34	.41	5.72	.02	7160.00
115.	0.	115.	0.	0.	22.	0.	4.	6.	7160.00
.29	.00	5.13	.00	.040	.030	.040	.000	7158.00	162.66
.014596	375.	380.	380.	20	19	0	.00	27.94	190.61

1

07-24-89 16:20:28

PAGE 22

THIS RUN EXECUTED 07-24-89

 HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984
 ERROR CORR - 01,02,03,04,05,06
 MODIFICATION - 50,51,52,53,54,55,56
 IBM-PC-YT VERSION AUGUST 1985

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

FOR EXISTING FLOODWAY

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10K*5	VCH	AREA	.01K
*	74.000	.00	.00	.00	6938.00	1235.00	6945.45	6945.45	6947.19	102.53	10.58	116.71	121.97
*	74.000	.00	.00	.00	6938.00	1045.00	6945.05	6945.05	6946.64	105.45	10.14	103.05	101.77
*	74.000	.00	.00	.00	6938.00	650.00	6944.06	6944.06	6945.33	118.17	9.04	71.87	59.79
*	74.000	.00	.00	.00	6938.00	410.00	6943.23	6943.23	6944.31	126.49	8.35	49.12	36.45

*	90.000	330.00	.00	.00	6954.00	515.00	6959.50	6959.50	6960.67	16.02	9.28	98.02	128.65
*	90.000	330.00	.00	.00	6954.00	375.00	6958.84	6958.84	6959.96	18.35	8.79	59.73	87.54
*	90.000	330.00	.00	.00	6954.00	270.00	6958.04	6958.04	6959.21	26.17	8.75	33.66	52.78
*	90.000	330.00	.00	.00	6954.00	160.00	6957.25	6957.25	6958.15	32.48	7.61	21.20	28.07
*	92.000	1205.00	.00	.00	7000.00	515.00	7005.39	7005.39	7006.96	20.76	10.36	63.78	113.04
*	92.000	1205.00	.00	.00	7000.00	375.00	7004.68	7004.68	7006.03	22.85	9.50	46.56	78.45
*	92.000	1205.00	.00	.00	7000.00	270.00	7004.04	7004.04	7005.21	26.17	8.75	33.65	52.78
*	92.000	1205.00	.00	.00	7000.00	160.00	7003.28	7003.28	7004.15	30.94	7.50	21.54	28.76
*	94.000	177.00	.00	.00	7010.90	515.00	7015.49	7015.49	7016.26	36.12	11.04	119.21	85.69
*	94.000	177.00	.00	.00	7010.90	375.00	7015.21	7015.21	7015.82	29.17	9.46	100.56	69.43
*	94.000	177.00	.00	.00	7010.90	270.00	7014.89	7014.89	7015.43	26.51	8.51	79.84	52.44
*	94.000	177.00	.00	.00	7010.90	160.00	7014.41	7014.41	7014.90	24.15	7.37	53.04	32.56
*	96.100	10.00	7018.00	7020.20	7010.90	515.00	7020.26	7020.26	7020.62	73.65	8.00	140.00	60.01
*	96.100	10.00	7018.00	7020.20	7010.90	375.00	7019.97	7019.97	7020.40	86.57	8.25	101.85	40.30
*	96.100	10.00	7018.00	7020.20	7010.90	270.00	7019.86	7019.86	7020.18	63.42	6.91	87.93	33.90
*	96.100	10.00	7018.00	7020.20	7010.90	160.00	7019.65	7019.65	7019.90	45.57	5.61	63.34	23.70
	96.200	60.00	7018.00	7020.20	7010.90	515.00	7020.74	.00	7020.87	23.29	4.87	208.02	106.72
	96.200	60.00	7018.00	7020.20	7010.90	375.00	7020.55	.00	7020.65	18.69	4.23	181.09	86.74
	96.200	60.00	7018.00	7020.20	7010.90	270.00	7020.30	.00	7020.39	17.89	3.97	146.36	63.83
	96.200	60.00	7018.00	7020.20	7010.90	160.00	7019.98	.00	7020.06	15.20	3.46	103.40	41.04
*	98.000	150.00	.00	.00	7020.00	625.00	7023.12	7023.12	7023.82	53.33	7.73	129.10	85.59
*	98.000	150.00	.00	.00	7020.00	395.00	7022.39	7022.39	7023.17	73.54	7.60	65.47	46.06
*	98.000	150.00	.00	.00	7020.00	270.00	7021.78	7021.78	7022.56	104.00	7.42	41.60	26.48
*	98.000	150.00	.00	.00	7020.00	170.00	7021.34	7021.34	7021.93	113.44	6.41	29.48	15.96

1

07-24-89 16:20:28

PAGE 23

	SECND	XLCH	ELTRD	ELLC	ELMIN	Q	DWSEL	CRWS	EG	10KFS	VCH	AREA	JOIK
*	100.000	450.00	.00	.00	7038.00	625.00	7042.21	7042.21	7042.77	73.02	8.12	131.74	73.14
*	100.000	450.00	.00	.00	7038.00	395.00	7041.75	7041.75	7042.28	71.99	7.44	90.46	46.55
*	100.000	450.00	.00	.00	7038.00	270.00	7041.37	7041.37	7041.69	69.99	6.90	63.65	32.27
*	100.000	450.00	.00	.00	7038.00	170.00	7040.96	7040.96	7041.44	68.27	6.20	40.25	20.88
*	102.000	700.00	.00	.00	7070.00	625.00	7070.90	7070.90	7071.22	126.95	5.20	159.13	55.47
*	102.000	700.00	.00	.00	7070.00	395.00	7070.69	7070.69	7070.96	139.32	4.57	109.41	33.47
*	102.000	700.00	.00	.00	7070.00	270.00	7070.56	7070.56	7070.77	146.46	4.06	81.44	22.31
*	102.000	700.00	.00	.00	7070.00	170.00	7070.42	7070.42	7070.59	168.92	3.60	55.65	13.08
*	104.000	220.00	.00	.00	7078.00	590.00	7079.11	7079.11	7079.59	135.01	5.58	105.67	50.78
*	104.000	220.00	.00	.00	7078.00	380.00	7078.84	7078.84	7079.22	147.34	4.94	76.89	31.31
*	104.000	220.00	.00	.00	7078.00	260.00	7078.67	7078.67	7078.96	153.94	4.39	59.28	20.96
*	104.000	220.00	.00	.00	7078.00	170.00	7078.50	7078.50	7078.74	170.80	3.89	43.71	13.01
*	106.000	1200.00	.00	.00	7126.00	495.00	7128.70	7128.70	7129.47	118.55	7.06	70.10	45.46
*	106.000	1200.00	.00	.00	7126.00	325.00	7128.29	7128.29	7128.90	123.92	6.26	51.92	29.20
*	106.000	1200.00	.00	.00	7126.00	215.00	7127.95	7127.95	7128.45	135.66	5.65	38.03	18.46
*	106.000	1200.00	.00	.00	7126.00	130.00	7127.60	7127.60	7128.00	144.82	5.11	25.45	10.80
*	108.000	380.00	.00	.00	7142.00	390.00	7144.16	7144.16	7144.74	123.98	6.09	64.30	35.03
*	108.000	380.00	.00	.00	7142.00	280.00	7143.92	7143.92	7144.39	133.26	5.55	50.48	24.26
*	108.000	380.00	.00	.00	7142.00	200.00	7143.66	7143.66	7144.09	144.21	5.25	38.08	16.65

*	108.000	380.00	.00	.00	7142.00	115.00	7143.33	7143.33	7143.68	155.04	4.70	24.47	9.24
*	110.000	380.00	.00	.00	7158.00	390.00	7159.97	7159.97	7160.73	116.68	7.00	55.72	36.10
*	110.000	380.00	.00	.00	7158.00	280.00	7159.62	7159.62	7160.28	123.28	6.45	43.41	25.22
*	110.000	380.00	.00	.00	7158.00	200.00	7159.32	7159.32	7159.86	131.92	5.94	33.66	17.41
*	110.000	380.00	.00	.00	7158.00	115.00	7158.93	7158.93	7159.34	145.96	5.13	22.40	9.52

07-24-89 16:20:28

PAGE 24

EAR EXISTING FLOODWAY

SUMMARY PRINTOUT TABLE 150

	SECD	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	74.000	1235.00	6945.45	.00	.00	.02	34.35	.00
*	74.000	1045.00	6945.05	-.40	.00	.01	33.14	.00
*	74.000	650.00	6944.06	-.98	.00	299.81	30.19	.00
*	74.000	410.00	6943.23	-.83	.00	-.10	24.22	.00
*	90.000	515.00	6959.50	.00	14.05	.00	68.41	330.00
*	90.000	375.00	6958.84	-.67	13.79	.00	45.99	330.00
*	90.000	270.00	6958.04	-.80	13.97	.00	19.19	330.00
*	90.000	160.00	6957.25	-.78	14.02	.00	13.51	330.00
*	92.000	515.00	7005.39	.00	45.88	.00	26.33	1205.00
*	92.000	375.00	7004.68	-.71	45.84	.00	22.06	1205.00
*	92.000	270.00	7004.04	-.64	46.00	.00	18.21	1205.00
*	92.000	160.00	7003.28	-.76	46.02	.00	13.66	1205.00
*	94.000	515.00	7015.49	.00	10.10	.00	71.07	177.00
*	94.000	375.00	7015.21	-.27	10.54	.00	66.31	177.00
*	94.000	270.00	7014.89	-.33	10.85	.00	60.58	177.00
*	94.000	160.00	7014.41	-.48	11.14	.00	52.25	177.00
*	96.100	515.00	7020.26	.00	4.77	.00	140.00	10.00
*	96.100	375.00	7019.97	-.28	4.76	.00	137.44	10.00
*	96.100	270.00	7019.86	-.11	4.97	.00	136.17	10.00
*	96.100	160.00	7019.65	-.22	5.23	.00	133.73	10.00
	96.200	515.00	7020.74	.00	.49	.00	140.00	60.00
	96.200	375.00	7020.55	-.19	.58	.00	140.00	60.00
	96.200	270.00	7020.30	-.25	.44	.00	140.00	60.00
	96.200	160.00	7019.98	-.32	.34	.00	137.58	60.00
*	98.000	625.00	7023.12	.00	2.38	.00	114.30	150.00
*	98.000	395.00	7022.39	-.73	1.84	.00	59.33	150.00
*	98.000	270.00	7021.78	-.61	1.48	.00	28.69	150.00
*	98.000	170.00	7021.34	-.44	1.35	.00	26.03	150.00
*	100.000	625.00	7042.21	.00	19.08	.00	99.38	450.00
*	100.000	395.00	7041.75	-.46	19.35	.00	79.65	450.00
*	100.000	270.00	7041.37	-.37	19.59	.00	64.49	450.00
*	100.000	170.00	7040.96	-.42	19.62	.00	47.46	450.00
*	102.000	625.00	7070.90	.00	28.69	.00	259.05	700.00
*	102.000	395.00	7070.69	-.21	28.95	.00	221.27	700.00

*	102.000	270.00	7070.56	-.13	29.18	.00	196.85	700.00
*	102.000	170.00	7070.42	-.14	29.46	.00	171.28	700.00

07-24-89 16:20:28

PAGE 25

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	ALCH
*	104.000	590.00	7079.11	.00	8.21	.00	110.51	220.00
*	104.000	380.00	7078.84	-.27	8.15	.00	103.10	220.00
*	104.000	260.00	7078.67	-.17	8.11	.00	98.29	220.00
*	104.000	170.00	7078.50	-.16	8.08	.00	93.83	220.00
*	106.000	495.00	7128.70	.00	49.59	.00	46.39	1200.00
*	106.000	325.00	7128.29	-.41	49.45	.00	42.65	1200.00
*	106.000	215.00	7127.95	-.34	49.29	.00	39.00	1200.00
*	106.000	130.00	7127.60	-.35	49.09	.00	31.90	1200.00
*	108.000	390.00	7144.16	.00	15.47	.00	58.68	380.00
*	108.000	280.00	7143.92	-.25	15.63	.00	52.89	380.00
*	108.000	200.00	7143.66	-.25	15.71	.00	45.76	380.00
*	108.000	115.00	7143.33	-.33	15.74	.00	36.68	380.00
*	110.000	390.00	7159.97	.00	15.80	.00	36.71	380.00
*	110.000	280.00	7159.62	-.35	15.70	.00	33.73	380.00
*	110.000	200.00	7159.32	-.30	15.65	.00	31.18	380.00
*	110.000	115.00	7158.93	-.38	15.60	.00	27.94	380.00

07-24-89 16:20:28

PAGE 26

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION	SECNO=	74.000	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	74.000	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	74.000	PROFILE= 3	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	74.000	PROFILE= 4	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	90.000	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	90.000	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	90.000	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	90.000	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	90.000	PROFILE= 2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	90.000	PROFILE= 2	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	90.000	PROFILE= 3	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	90.000	PROFILE= 3	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	90.000	PROFILE= 3	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	90.000	PROFILE= 4	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	90.000	PROFILE= 4	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	90.000	PROFILE= 4	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	92.000	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	92.000	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	92.000	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	92.000	PROFILE= 2	CRITICAL DEPTH ASSUMED

* U.S. ARMY CORPS OF ENGINEERS

* THE HYDROLOGIC ENGINEERING CENTER

* 607 SECOND STREET, SUITE D

* DAVIS, CALIFORNIA 95616

* (916) 440-2105 (FIS) 448-2105

[illegible]

PAGE 1

T3 100-YEAR EXISTING FLOODWAY

NE	.060	.060	.040	.100	.300	.000	.000	.000	.000	.000
QT	4.000	390.000	220.000	175.000	150.000	.000	.000	.000	.000	.000
Y1	68.000	16.000	255.000	465.000	.000	.000	.000	.000	.000	.000

GR	6822.000	108.000	6820.000	125.000	6810.000	192.000	6808.000	208.000	6806.000	226.000
GR	6804.000	255.000	6802.000	285.000	6800.000	325.000	6800.000	415.000	6800.000	445.000
GR	6802.000	455.000	6804.000	465.000	6806.000	475.000	6808.000	478.000	6810.000	498.000
GR	6820.000	578.000	.000	.000	.000	.000	.000	.000	.000	.000
X1	200.000	7.000	65.000	110.000	660.000	700.000	685.000	.000	.000	.000
GR	6830.000	.000	6824.000	50.000	6822.000	65.000	6819.000	90.000	6822.000	110.000
GR	6830.000	150.000	6837.000	200.000	.000	.000	.000	.000	.000	.000
X1	202.000	9.000	75.000	200.000	500.000	550.000	565.000	.000	.000	.000
GR	6850.000	.000	6842.000	50.000	6840.000	75.000	6838.000	130.000	6837.000	160.000
GR	6838.000	175.000	6840.000	200.000	6844.000	220.000	6847.000	350.000	.000	.000
X1	204.000	8.000	130.000	220.000	560.000	600.000	590.000	.000	.000	.000
GR	6880.000	.000	6870.000	70.000	6860.000	130.000	6858.000	140.000	6857.500	155.000
GR	6858.000	190.000	6860.000	220.000	6870.000	300.000	.000	.000	.000	.000
X1	206.000	7.000	175.000	205.000	160.000	175.000	160.000	.000	.000	.000
GR	6880.000	.000	6874.000	25.000	6874.000	160.000	6870.000	175.000	6864.000	190.000
GR	6868.000	205.000	6870.000	240.000	.000	.000	.000	.000	.000	.000

1

07-24-89 16:35:54

PAGE 2

X1	208.000	8.000	145.000	235.000	80.000	65.000	75.000	.000	.000	.000
GR	6880.000	.000	6876.000	15.000	6874.000	145.000	6868.000	170.000	6868.000	190.000
GR	6870.000	235.000	6874.000	240.000	6876.000	265.000	.000	.000	.000	.000
EJ	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

1

07-24-89 16:35:54

PAGE 3

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLUSS	BANK	ELEV
Q	QLOB	QCH	QRDB	ALOR	ACH	AROR	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELNTH	SSIA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

*PROF 1

CEHV= .100 CEHV= .300

*SECNO 68.000

3720 CRITICAL DEPTH ASSUMED

68.00	.67	6800.67	6800.67	6801.90	6800.99	.32	.00	.00	6804.00	
390.	0.	390.	0.	0.	86.	0.	0.	0.	6804.00	
.00	.00	4.51	.00	.060	.040	.060	.000	6800.00	311.54	
.027272	0.	0.	0.	0	21	0	.00	136.82	448.36	

0

*SECNO 200.000

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

200.00	2.78	6821.78	6821.78	.00	6822.48	.70	16.50	.12	6822.00	
390.	0.	390.	0.	0.	58.	0.	1.	1.	6822.00	
.03	.00	6.73	.00	.060	.040	.060	.000	6819.00	66.84	
.021427	660.	685.	700.	20	26	0	.00	41.69	108.53	

1

*SECNO 202.000

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

202.00	1.79	6838.79	6838.79	.00	6839.26	.47	12.96	.02	6840.00
390.	0.	390.	0.	0.	71.	0.	2.	2.	6840.00
.06	.00	5.52	.00	.060	.040	.060	.000	6837.00	108.22
.024628	500.	565.	550.	3	14	0	.00	76.68	184.90

0

*SECNO 204.000

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

204.00	1.44	6858.94	6858.94	.00	6859.45	.50	14.21	.01	6860.00
390.	0.	390.	0.	0.	69.	0.	3.	3.	6860.00
.09	.00	5.68	.00	.060	.040	.060	.000	6857.50	135.28
.023572	560.	590.	600.	4	15	0	.00	68.89	204.17

0

*SECNO 206.000

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

1

07-24-89 16:35:54

PAGE 4

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

3720 CRITICAL DEPTH ASSUMED

206.00	3.95	6867.95	6867.95	.00	6868.94	.99	3.46	.15	6870.00
390.	0.	390.	0.	0.	49.	0.	3.	3.	6868.00
.09	.00	7.99	.00	.060	.040	.060	.000	6864.00	180.12
.019952	160.	160.	175.	20	20	0	.00	24.70	204.82

0

*SECNO 208.000

3301 HV CHANGED MORE THAN HVINS

208.00	1.85	6869.85	.00	.00	6870.19	.35	1.19	.06	6874.00
390.	0.	390.	0.	0.	83.	0.	3.	3.	6870.00
.10	.00	4.72	.00	.060	.040	.060	.000	6868.00	162.30
.012862	80.	75.	65.	2	0	0	.00	69.31	231.61

0

1

07-24-89 16:35:54

PAGE 5

THIS RUN EXECUTED 07-24-89

HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984

ERROR CORR - 01,02,03,04,05,06

MODIFICATION - 50,51,52,53,54,55,56

IBM-PC-XT VERSION AUGUST 1985

T1 BLACK FOREST DRAINAGE STUDY

T2 PAUMA VALLEY TRIBUTARY

F3 50-YEAR EXISTING FLOODWAY

01	ICHECK	IND	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	-1.000000	.00	.0	0.	6801.620	.000

02	NPROF	IPLDT	PRFVS	XSECV	XSECH	FN	ALLDC	IRW	CHNTH	TRKCE
	2.000	.000	-1.000	.000	.000	.000	.000	.000	.000	.000

1

07-24-89 16:35:54

PAGE 6

SECHD	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TIME	VLOB	VCH	VROR	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENOST

*PROF 2

CEHV= .100 CEHV= .300

*SECHD 68.000

3720 CRITICAL DEPTH ASSUMED

68.00	.46	6800.46	6800.46	6801.62	6800.68	.22	.00	.00	6804.00
220.	0.	220.	0.	0.	58.	0.	0.	0.	6804.00
.00	.00	3.79	.00	.060	.040	.060	.000	6800.00	315.76
.030913	0.	0.	0.	0	13	0	.00	131.55	447.31

0

*SECHD 200.000

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

200.00	2.21	6821.21	6821.21	.00	6821.77	.56	18.33	.10	6822.00
220.	0.	220.	0.	0.	36.	0.	1.	1.	6822.00
.03	.00	6.03	.00	.060	.040	.060	.000	6819.00	71.62
.023401	660.	685.	700.	5	29	0	.00	33.08	104.70

0

*SECHD 202.000

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

202.00	1.42	6838.42	6838.42	.00	6838.79	.37	13.97	.02	6840.00
220.	0.	220.	0.	0.	45.	0.	1.	2.	6840.00
.06	.00	4.86	.00	.060	.040	.060	.000	6837.00	118.32
.026150	500.	565.	550.	4	14	0	.00	61.99	180.31

0

*SECHD 204.000

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

204.00	1.08	6858.58	6858.58	.00	6858.95	.38	15.71	.00	6860.00
220.	0.	220.	0.	0.	45.	0.	2.	3.	6860.00
.10	.00	4.93	.00	.060	.040	.060	.000	6857.50	137.12
.027122	560.	590.	600.	5	15	0	.00	61.51	198.64

0

*SECHD 206.000

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

1

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	QLOSS	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	TUPWID	ENDST

206.00	3.13	6867.13	6867.13	.00	6867.93	.81	3.91	.13	6870.00
220.	0.	220.	0.	0.	31.	0.	2.	3.	6868.00
.10	.00	7.20	.00	.060	.040	.060	.000	6864.00	182.19
.022177	160.	160.	175.	20	23	0	.00	19.54	201.72

0

*SECNO 208.000

208.00	1.24	6869.24	.00	.00	6869.61	.37	1.64	.04	6874.00
220.	0.	220.	0.	0.	45.	0.	2.	3.	6870.00
.11	.00	4.88	.00	.060	.040	.060	.000	6868.00	164.85
.021448	80.	75.	65.	2	0	0	.00	52.97	217.82

0

1

THIS RUN EXECUTED 07-24-89

HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984

ERROR CORR - 01,02,03,04,05,06

MODIFICATION - 50,51,52,53,54,55,56

IBM-PC-XT VERSION AUGUST 1985

T1 BLACK FOREST DRAINAGE STUDY

T2 PAUMA VALLEY TRIBUTARY

T3 25-YEAR EXISTING FLOODWAY

J1	ICHECK	IND	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	4.	0.	0.	-1.000000	.00	.0	0.	6801.300	.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FW	ALLDC	IBW	CHNIN	ITRACE
	3.000	.000	-1.000	.000	.000	.000	.000	.000	.000	.000

1

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	QLOSS	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	TUPWID	ENDST

*PROF 3

CEHV= .100 CEHV= .300

*SECNO 68.000

3720 CRITICAL DEPTH ASSUMED

68.00	.40	6800.40	6800.40	6801.30	6800.59	.19	.00	.00	6804.00
175.	0.	175.	0.	0.	50.	0.	0.	0.	6804.00
.00	.00	3.52	.00	.060	.040	.060	.000	6800.00	317.05
.032438	0.	0.	0.	0	16	0	.00	129.94	446.99

0

*SECNO 200.000

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

200.00	2.02	6821.02	6821.02	.00	6821.53	.51	18.99	.10	6822.00
175.	0.	175.	0.	0.	30.	0.	1.	1.	6822.00
.03	.00	5.75	.00	.060	.040	.060	.000	6819.00	73.21
.023967	660.	685.	700.	5	29	0	.00	30.23	103.43

0

*SECNO 202.000

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

202.00	1.30	6838.30	6838.30	.00	6838.63	.34	14.46	.02	6840.00
175.	0.	175.	0.	0.	38.	0.	1.	2.	6840.00
.07	.00	4.66	.00	.060	.040	.060	.000	6837.00	121.88
.027408	500.	565.	550.	5	14	0	.00	56.82	178.69

0

*SECNO 204.000

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

204.00	.97	6858.47	6858.47	.00	6858.80	.32	16.11	.00	6860.00
175.	0.	175.	0.	0.	38.	0.	2.	3.	6860.00
.10	.00	4.57	.00	.060	.040	.060	.000	6857.50	137.64
.027202	560.	590.	600.	6	19	0	.00	59.43	197.08

0

*SECNO 206.000

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

1

07-24-89 16:35:54

PAGE 10

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

206.00	2.85	6866.85	6866.85	.00	6867.59	.73	3.98	.12	6870.00
175.	0.	175.	0.	0.	25.	0.	2.	3.	6868.00
.11	.00	6.88	.00	.060	.040	.060	.000	6864.00	182.86
.022801	160.	160.	175.	20	23	0	.00	17.84	200.70

0

*SECNO 208.000

208.00	1.06	6869.06	6869.05	.00	6869.42	.37	1.80	.04	6874.00
175.	0.	175.	0.	0.	36.	0.	2.	3.	6870.00
.11	.00	4.86	.00	.060	.040	.060	.000	6868.00	165.60
.025263	80.	75.	65.	6	18	0	.00	48.19	213.79

0

1

07-24-89 16:35:54

PAGE 11

 HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984
 ERROR CORR - 01,02,03,04,05,06
 MODIFICATION - 50,51,52,53,54,55,56
 IBM-PC-XT VERSION AUGUST 1985

T1 BLACK FOREST DRAINAGE STUDY
 T2 PAUMA VALLEY TRIBUTARY
 T3 10-YEAR EXISTING FLOODWAY

J1	ICHECK	INQ	NINQ	IDIR	STRT	METRIC	HVINS	D	WSEL	FO
	-10.	5.	0.	0.	-1.000000	.00	.0	0.	6800.920	.000

J2	NPROF	1PLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	TRACE
	15.000	.000	-1.000	.000	.000	.000	.000	.000	.000	.000

07-24-89 16:35:54

PAGE 12

SECH0	DEPTH	CNSL	CRWS	WSELK	ER	HV	HL	QLOSS	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

*PROF 4

CEHV= .100 CEHV= .300

*SECH0 68.000

3720 CRITICAL DEPTH ASSUMED

68.00	.36	6800.36	6800.36	6800.92	6800.53	.18	.00	.00	6804.00
150.	0.	150.	0.	0.	44.	0.	0.	0.	6804.00
.00	.00	3.39	.00	.060	.040	.060	.000	6800.00	317.89
.034688	0.	0.	0.	0	17	0	.00	128.89	446.78

*SECH0 200.000

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

200.00	1.90	6820.90	6820.90	.00	6821.38	.48	19.66	.09	6822.00
150.	0.	150.	0.	0.	27.	0.	1.	1.	6822.00
.03	.00	5.54	.00	.060	.040	.060	.000	6819.00	74.17
.024138	660.	685.	700.	5	29	0	.00	28.49	102.66

*SECH0 202.000

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

202.00	1.21	6838.21	6838.21	.00	6838.53	.32	14.76	.02	6840.00
150.	0.	150.	0.	0.	33.	0.	1.	2.	6840.00
.07	.00	4.53	.00	.060	.040	.060	.000	6837.00	124.09
.028361	500.	565.	550.	5	14	0	.00	53.59	177.69

0

*SECNO 204.000

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

204.00	.89	6858.39	6858.39	.00	6858.70	.31	17.04	.00	6860.00
150.	0.	150.	0.	0.	34.	0.	1.	3.	6860.00
.11	.00	4.44	.00	.060	.040	.060	.000	6857.50	138.03
.029411	560.	590.	600.	5	19	0	.00	57.88	195.91

0

*SECNO 206.000

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

206.00	2.68	6866.68	6866.68	.00	6867.37	.69	4.19	.12	6870.00
150.	0.	150.	0.	0.	22.	0.	2.	3.	6868.00
.11	.00	6.68	.00	.060	.040	.060	.000	6864.00	183.30
.023422	160.	160.	175.	11	23	0	.00	16.75	200.05

0

1

07-24-89 16:35:54

PAGE 13

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	WLOSS	BANK ELEV
9	BLOR	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOR	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSIA
SLOPE	XLORL	XLCH	XLORR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 208.000

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

208.00	.96	6868.96	6868.96	.00	6869.31	.35	1.87	.03	6874.00
150.	0.	150.	0.	0.	32.	0.	2.	3.	6870.00
.12	.00	4.74	.00	.060	.040	.060	.000	6868.00	165.99
.026680	80.	75.	65.	5	18	0	.00	45.69	211.68

0

1

07-24-89 16:35:54

PAGE 14

THIS RUN EXECUTED 07-24-89

HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984

ERROR CORR - 01,02,03,04,05,06

MODIFICATION - 50,51,52,53,54,55,56

IBM-PC-XT VERSION AUGUST 1985

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

EAR EXISTING FLOODWAY

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10K#S	VCH	AREA	.01K
-------	------	-------	------	-------	---	-------	------	----	-------	-----	------	------

*	68.000	.00	.00	.00	6800.00	390.00	6800.67	6800.67	6800.99	272.72	4.51	86.40	23.62
*	68.000	.00	.00	.00	6800.00	220.00	6800.46	6800.46	6800.68	307.13	3.79	58.10	12.51
*	68.000	.00	.00	.00	6800.00	175.00	6800.40	6800.40	6800.59	324.38	3.52	49.67	9.72
*	68.000	.00	.00	.00	6800.00	150.00	6800.36	6800.36	6800.53	346.68	3.39	44.24	8.05
*	200.000	685.00	.00	.00	6819.00	390.00	6821.78	6821.78	6822.48	214.27	6.73	57.93	26.64
*	200.000	685.00	.00	.00	6819.00	220.00	6821.21	6821.21	6821.77	234.01	6.03	36.48	14.38
*	200.000	685.00	.00	.00	6819.00	175.00	6821.02	6821.02	6821.53	239.67	5.75	30.46	11.30
*	200.000	685.00	.00	.00	6819.00	150.00	6820.90	6820.90	6821.38	241.38	5.54	27.06	9.65
*	202.000	565.00	.00	.00	6837.00	390.00	6838.79	6838.79	6839.26	246.28	5.52	70.88	24.85
*	202.000	565.00	.00	.00	6837.00	220.00	6838.42	6838.42	6838.79	261.50	4.86	45.23	13.60
*	202.000	565.00	.00	.00	6837.00	175.00	6838.30	6838.30	6838.63	274.08	4.66	37.54	10.57
*	202.000	565.00	.00	.00	6837.00	150.00	6838.21	6838.21	6838.53	283.61	4.53	33.09	8.91
*	204.000	590.00	.00	.00	6857.50	390.00	6858.94	6858.94	6859.45	235.72	5.68	68.63	25.40
*	204.000	590.00	.00	.00	6857.50	220.00	6858.58	6858.58	6858.95	271.22	4.93	44.60	13.36
*	204.000	590.00	.00	.00	6857.50	175.00	6858.47	6858.47	6858.80	272.02	4.57	38.31	10.61
*	204.000	590.00	.00	.00	6857.50	150.00	6858.39	6858.39	6858.70	294.11	4.44	33.75	8.75
*	206.000	160.00	.00	.00	6864.00	390.00	6867.95	6867.95	6868.94	199.52	7.99	48.81	27.61
*	206.000	160.00	.00	.00	6864.00	220.00	6867.13	6867.13	6867.93	221.77	7.20	30.54	14.77
*	206.000	160.00	.00	.00	6864.00	175.00	6866.85	6866.85	6867.59	228.01	6.88	25.45	11.59
*	206.000	160.00	.00	.00	6864.00	150.00	6866.68	6866.68	6867.37	234.22	6.68	22.45	9.80
	208.000	75.00	.00	.00	6868.00	390.00	6869.85	.00	6870.19	128.62	4.72	82.57	34.39
	208.000	75.00	.00	.00	6868.00	220.00	6869.24	.00	6869.61	214.48	4.88	45.11	15.02
	208.000	75.00	.00	.00	6868.00	175.00	6869.06	6869.05	6869.42	252.63	4.86	36.04	11.01
*	208.000	75.00	.00	.00	6868.00	150.00	6868.96	6868.96	6869.31	266.80	4.74	31.64	9.18

1

07-24-89 16:35:54

PAGE 15

EAR EXISTING FLOODWAY

SUMMARY PRINTOUT TABLE 150

	SECD	Q	CWSL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	68.000	390.00	6800.67	.00	.00	-1.23	136.82	.00
*	68.000	220.00	6800.46	-.21	.00	-1.16	131.55	.00
*	68.000	175.00	6800.40	-.06	.00	-.90	129.94	.00
*	68.000	150.00	6800.36	-.04	.00	-.56	128.69	.00
*	200.000	390.00	6821.78	.00	21.11	.00	41.69	685.00
*	200.000	220.00	6821.21	-.57	20.74	.00	33.08	685.00
*	200.000	175.00	6821.02	-.19	20.62	.00	30.23	685.00
*	200.000	150.00	6820.90	-.12	20.54	.00	28.49	685.00
*	202.000	390.00	6838.79	.00	17.01	.00	76.68	565.00
*	202.000	220.00	6838.42	-.37	17.22	.00	61.99	565.00
*	202.000	175.00	6838.30	-.13	17.28	.00	56.82	565.00
*	202.000	150.00	6838.21	-.08	17.32	.00	53.59	565.00
*	204.000	390.00	6858.94	.00	20.15	.00	68.89	590.00
*	204.000	220.00	6858.58	-.37	20.15	.00	61.51	590.00
*	204.000	175.00	6858.47	-.10	20.18	.00	59.43	590.00

*	204.000	150.00	6858.39	-.08	20.18	.00	57.88	590.00
*	206.000	390.00	6867.95	.00	9.01	.00	24.70	160.00
*	206.000	220.00	6867.13	-.83	8.55	.00	19.54	160.00
*	206.000	175.00	6866.85	-.27	8.38	.00	17.84	160.00
*	206.000	150.00	6866.68	-.17	8.29	.00	16.75	160.00
	208.000	390.00	6869.85	.00	1.90	.00	69.31	75.00
	208.000	220.00	6869.24	-.61	2.12	.00	52.97	75.00
	208.000	175.00	6869.06	-.19	2.20	.00	48.19	75.00
*	208.000	150.00	6868.96	-.09	2.28	.00	45.69	75.00

1

07-24-89 16:35:54

PAGE 16

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION	SECNO=	68.000	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	68.000	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	68.000	PROFILE= 3	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	68.000	PROFILE= 4	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	200.000	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	200.000	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	200.000	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	200.000	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	200.000	PROFILE= 2	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	200.000	PROFILE= 3	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	200.000	PROFILE= 3	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	200.000	PROFILE= 4	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	200.000	PROFILE= 4	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	202.000	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	202.000	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	202.000	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	202.000	PROFILE= 2	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	202.000	PROFILE= 3	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	202.000	PROFILE= 3	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	202.000	PROFILE= 4	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	202.000	PROFILE= 4	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	204.000	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	204.000	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	204.000	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	204.000	PROFILE= 2	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	204.000	PROFILE= 3	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	204.000	PROFILE= 3	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	204.000	PROFILE= 4	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	204.000	PROFILE= 4	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	206.000	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	206.000	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	206.000	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	206.000	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	206.000	PROFILE= 2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	206.000	PROFILE= 2	20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 206.000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 206.000 PROFILE= 3 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 206.000 PROFILE= 3 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 206.000 PROFILE= 4 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 206.000 PROFILE= 4 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 208.000 PROFILE= 4 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 208.000 PROFILE= 4 MINIMUM SPECIFIC ENERGY

07-24-89 16:37:23

PAGE 1

THIS RUN EXECUTED 07-24-89

HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984
ERROR CORR - 01,02,03,04,05,06
MODIFICATION - 50,51,52,53,54,55,56
IBM-PC-XT VERSION AUGUST 1985

TABLE 3

EXISTING CONDITIONS			SOIL			SOIL			SOIL			TOTAL		AREA
AREA	TOTAL AREA		TYPE	CN	CN	TYPE	CN	CN	TYPE	CN	CN	CN	CN	
NAME	(ACRES)	(SQ.MI.)	B	(II)	(III)	C	(II)	(III)	D	(II)	(III)	(II)	(III)	NAME
*****	*****	*****	*****	****	****	*****	****	****	*****	****	****	*****	*****	*****
2	45.948	0.072	44.566	65.0	81.0				1.382	82.0	92.0	65.5	81.3	2
4	59.624	0.093	57.297	65.0	81.0				2.387	82.0	92.0	65.7	81.4	4
6	21.815	0.034	21.513	79.0	91.0							79.0	91.0	6
7	42.863	0.064	40.863	65.0	81.0							78.5	89.0	7
8	79.566	0.124	79.566	65.0	81.0							65.0	81.0	8
10	49.731	0.078	49.731	68.5	83.5							68.5	83.5	10
11	14.080	0.022	14.080	68.5	83.5							68.5	83.5	11
12	76.936	0.120	74.443	65.0	81.0				2.493	82.0	92.0	65.6	81.4	12
14	8.889	0.014	8.889	79.0	91.0							79.0	91.0	14
16	16.169	0.025	16.169	65.0	81.0							65.0	81.0	16
17	38.200	0.060	38.200	64.0	79.5							64.0	79.5	17
18	34.835	0.054	34.835	65.0	81.0							65.0	81.0	18
19	20.224	0.032	20.224	65.0	81.0							65.0	81.0	19
20	50.813	0.079	50.813	67.5	82.3							67.5	82.3	20
22	76.727	0.120	76.727	67.5	82.0							67.5	82.0	22
24	60.693	0.095	60.693	63.5	80.0							63.5	80.0	24
25	29.844	0.046	29.844	63.5	80.0							63.5	80.0	25
26	70.546	0.110	70.546	71.8	85.0							71.8	85.0	26
28	91.381	0.143	90.480	65.0	81.0				0.901	82.0	92.0	65.2	81.1	28
30	46.644	0.073	46.644	65.0	81.0							65.0	81.0	30
32	31.716	0.050	31.716	65.0	81.0							65.0	81.0	32
33	7.724	0.012	7.724	61.0	78.0							61.0	78.0	33
34	120.819	0.189	120.819	65.0	81.0							65.0	81.0	34
36	33.542	0.052	33.542	65.0	81.0							65.0	81.0	36
37	9.479	0.015	9.479	65.0	81.0							65.0	81.0	37
38	21.160	0.033	21.160	65.0	81.0							65.0	81.0	38
39	21.050	0.033	21.050	65.0	81.0							65.0	81.0	39
40	41.387	0.065	41.387	61.0	78.0							61.0	78.0	40
42	58.717	0.092	47.229	61.0	78.0	10.261	74.0	87.0	1.227	80.0	91.0	63.7	79.8	42
44	60.847	0.095	39.230	67.5	82.0	17.764	78.1	90.4	3.853	83.5	92.0	71.6	85.7	44
46	8.067	0.013	3.356	69.3	84.0	4.711	79.3	91.0				75.1	88.1	46
47	18.825	0.029	6.428	67.5	82.0	12.397	78.1	90.4				77.9	82.0	47
48	86.503	0.135	86.503	66.1	81.0							66.1	81.0	48
50	49.950	0.078	32.032	67.1	82.5	17.918	77.9	90.2				71.8	85.3	50
52	14.979	0.023	14.979	61.0	78.0							61.0	78.0	52
54	39.345	0.061	26.891	61.0	78.0	12.454	74.0	87.0				65.1	80.0	54
56	47.191	0.074	40.703	68.5	82.0	6.488	78.0	90.0				69.9	93.2	56
58	57.926	0.091	57.926	63.0	79.5							63.0	79.5	58
60	40.819	0.064	40.369	65.0	81.0				0.45	81.0	92.0	65.2	81.1	60
62	25.299	0.040	10.967	70.5	84.5	14.332	76.5	91.3				73.9	88.4	62
64	47.218	0.074	47.218	70.3	84.0							70.3	84.0	64
66	105.459	0.170	105.360	68.6	83.6	3.139	79.0	89.5				68.9	83.9	66
68	60.148	0.094	54.128	65.9	81.9	5.554	76.5	89.5	0.466	82.7	92.6	67.0	82.7	68
70	24.891	0.039	11.797	66.5	82.0	12.776	77.5	90.0	0.318	82.4	92.4	72.3	86.2	70
72	71.161	0.111	66.154	65.5	81.5	2.043	76.5	89.5	2.164	81.0	92.5	66.4	82.2	72
73	27.900	0.044	27.900	66.0	82.0							66.0	82.0	73
74	34.386	0.054	34.386	69.5	84.0							69.5	84.0	74
76	4.108	0.006	4.108	70.0	85.0							70.0	85.0	76
78	27.102	0.042	27.102	65.0	81.0							65.0	81.0	78
80	35.273	0.055	35.273	65.0	81.0							65.0	81.0	80
82	58.550	0.091	57.453	65.5	81.5				1.097	81.0	92.5	65.8	81.7	82
84	47.310	0.074	43.324	66.0	81.5				3.986	83.0	92.5	67.4	82.4	84
86	63.720	0.100	63.187	66.0	82.0				0.533	83.0	93.0	66.1	82.1	86
88	73.178	0.114	71.786	66.0	82.0				1.392	83.0	93.0	66.3	82.2	88
90	88.545	0.138	88.545	66.0	82.0							66.0	82.0	90

TABLE 4

FUTURE CONDITIONS

AREA			SOIL			SOIL			SOIL			TOTAL		NAME
NAME	TOTAL AREA (ACRES)	(SQ.MI.)	TYPE	CN	CN	TYPE	CN	CN	TYPE	CN	CN	CN	CN	
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
2	45.948	0.272	44.566	85.0	81.0				1.382	82.0	92.0	65.5	81.3	2
4	59.684	0.363	57.297	85.0	81.0				2.387	82.0	92.0	65.7	81.4	4
6	21.513	0.134	21.513	79.0	91.0							79.0	91.0	6
7	40.863	0.264	40.863	78.5	89.0							78.5	89.0	7
8	29.782	0.186	29.782	90.0	96.0							90.0	96.0	8
10	49.731	0.308	49.731	76.0	88.3							76.0	88.3	10
11	14.880	0.092	14.880	76.0	88.3							76.0	88.3	11
12	76.936	0.480	74.443	65.0	81.0				2.493	82.0	92.0	65.6	81.4	12
14	8.889	0.054	8.889	79.0	91.0							79.0	91.0	14
16	16.169	0.101	16.169	71.8	85.0							71.8	85.0	16
17	38.220	0.240	38.220	75.8	87.4							75.8	87.4	17
18	34.835	0.216	34.835	81.2	91.6							81.2	91.6	18
19	20.224	0.127	20.224	84.9	93.4							84.9	93.4	19
20	50.813	0.317	50.813	76.8	89.0							76.8	89.0	20
22	76.727	0.480	76.727	65.7	76.5							65.7	76.5	22
24	60.693	0.381	60.693	64.3	80.4							64.3	80.4	24
25	29.844	0.186	29.844	64.3	80.4							64.3	80.4	25
26	70.546	0.441	70.546	71.8	85.3							71.8	85.3	26
28	91.381	0.571	91.381	65.0	81.0				0.901	82.0	92.0	65.0	81.0	28
30	46.644	0.291	46.644	65.0	81.0							65.0	81.0	30
32	31.716	0.198	31.716	78.5	89.0							78.5	89.0	32
33	7.724	0.048	7.724	92.0	97.0							92.0	97.0	33
34	120.819	0.755	120.819	79.1	89.8							79.1	89.8	34
36	33.542	0.209	33.542	65.0	81.0							65.0	81.0	36
37	9.479	0.059	9.479	81.2	90.6							81.2	90.6	37
38	21.180	0.132	21.180	83.6	92.0							83.6	92.0	38
39	21.050	0.131	21.050	73.1	85.8							73.1	85.8	39
40	41.387	0.258	41.387	82.3	92.0							82.3	92.0	40
42	58.717	0.367	47.729	80.1	90.6	10.261	86.2	94.5	1.227	89.5	96.0	81.4	91.4	42
44	42.022	0.263	32.802	69.2	84.0	5.367	79.2	91.0	3.853	84.4	93.2	71.9	83.7	44
46	8.067	0.051	3.356	72.0	86.0	4.711	81.0	92.0				77.3	89.5	46
47	19.825	0.124	6.420	72.0	70.3	12.397	81.0	80.1				77.9	82.0	47
48	86.503	0.539	86.503	67.1	82.5							67.1	82.5	48
50	49.950	0.311	32.032	71.7	85.8	17.918	80.8	91.9				75.0	88.0	50
52	14.979	0.093	14.979	77.8	89.5							77.8	89.5	52
54	39.345	0.246	26.891	73.8	86.9	12.454	82.2	92.5				76.5	88.7	54
56	47.191	0.295	40.703	73.3	86.7	6.488	81.8	92.4				74.5	87.5	56
58	57.926	0.362	57.926	76.6	88.4							76.6	88.4	58
60	40.819	0.255	40.369	76.5	88.0				0.45	82.0	92.0	76.6	88.0	60
62	25.299	0.158	10.967	79.2	89.7	14.332	85.4	94.1				82.7	92.2	62
64	47.210	0.295	47.210	71.7	85.8							71.7	85.8	64
66	100.499	0.625	105.360	71.3	85.7	3.139	80.7	92.0				71.6	85.9	66
68	60.148	0.376	54.128	72.3	86.1	5.554	76.5	89.5	0.466	93.0	98.0	72.9	86.5	68
70	24.891	0.155	11.797	81.4	91.1	12.776	86.8	94.9	0.318	92.0	98.0	84.3	93.1	70
72	71.161	0.445	66.154	81.3	89.8	2.843	86.8	94.9	2.164	90.0	96.0	81.8	90.2	72
73	27.900	0.174	27.900	72.0	86.0							72.0	86.0	73
74	34.386	0.214	34.386	89.2	95.6							89.2	95.6	74
76	4.100	0.026	4.100	75.6	87.6							75.6	87.6	76
78	27.102	0.169	27.102	84.6	92.9							84.6	92.9	78
80	35.273	0.220	35.273	75.4	87.3							75.4	87.3	80
82	58.550	0.366	57.453	68.8	83.8				1.097	82.5	93.3	69.1	84.0	82
84	47.310	0.295	43.324	65.5	81.5				3.986	82.5	92.5	66.9	82.4	84
86	63.720	0.398	63.187	66.0	82.0				0.533	83.0	93.0	66.1	82.1	86
88	73.178	0.457	71.786	66.0	82.0				1.392	83.0	93.0	66.3	82.2	88
90	88.545	0.553	88.545	66.0	82.0							66.0	82.0	90

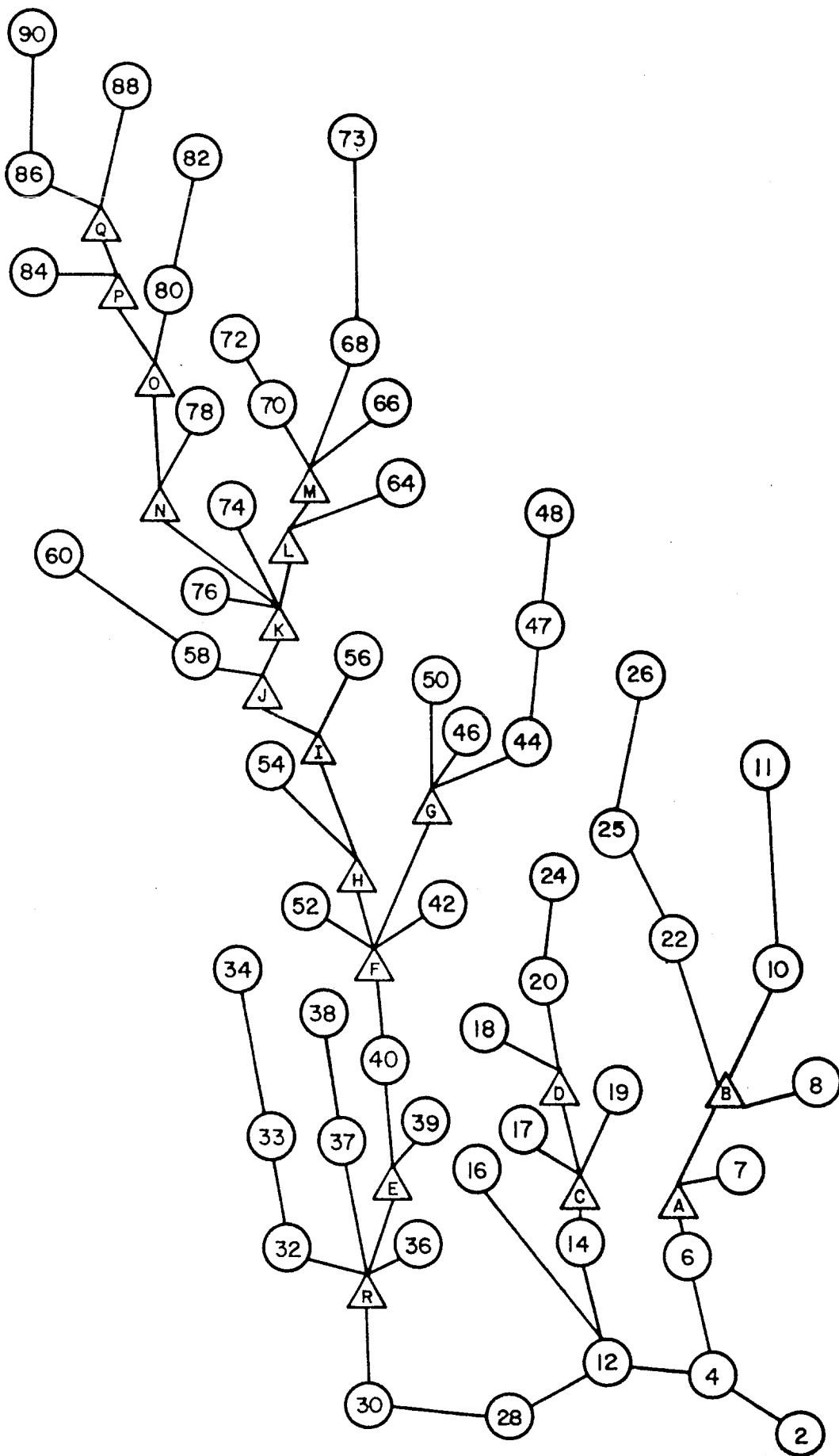


FIGURE 3
TR-20 FLOW DIAGRAM
EXISTING CONDITIONS

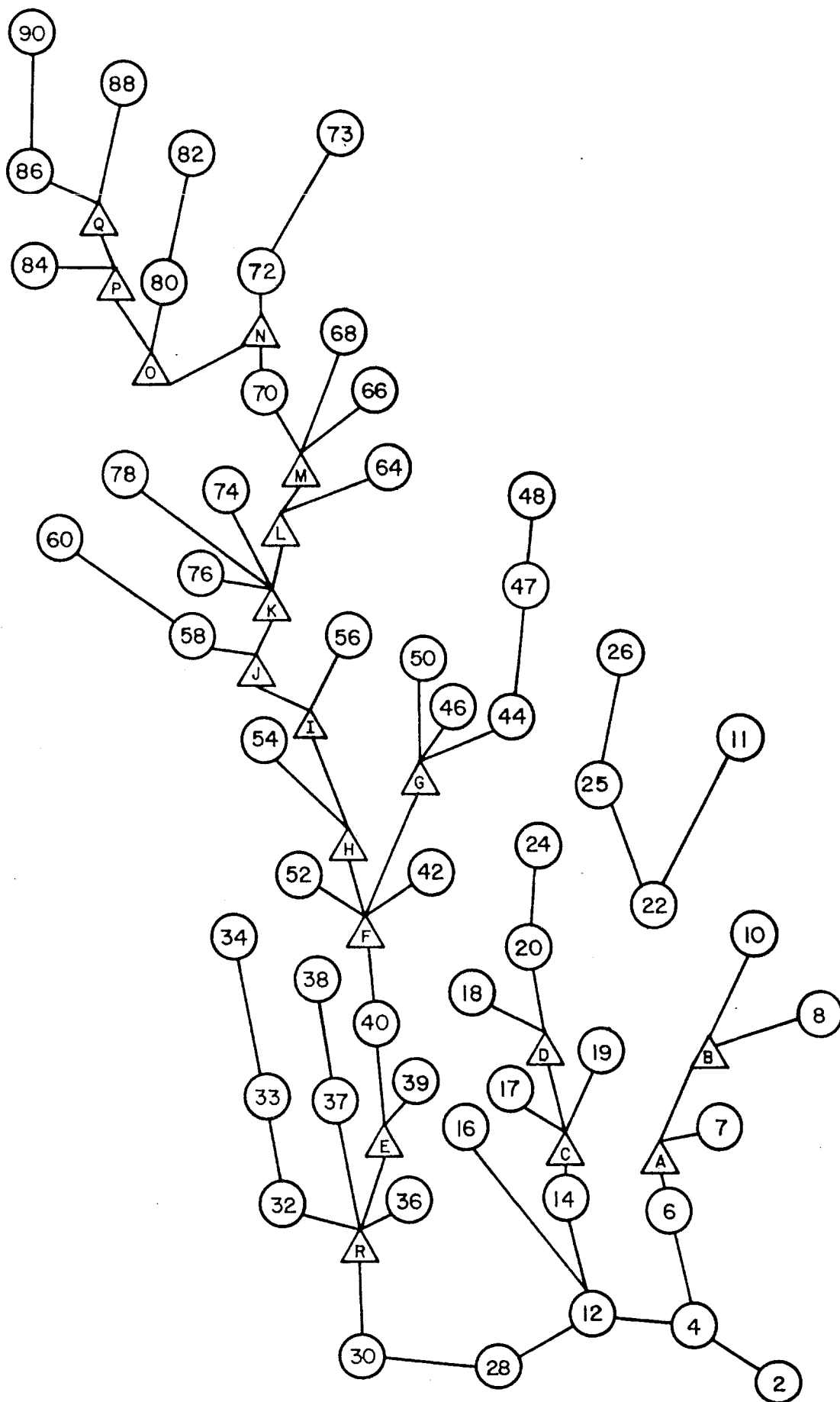


FIGURE 4
TR-20 FLOW DIAGRAM
FUTURE CONDITIONS