

DEVELOPMENT IMPACT ON BLACK'S ARROYO AND 7-BAR CHANNEL

**CHANNEL FLOW COMPARISONS
BASIN MAP
PROPOSED HYMO RUN
"INTEL" HYMO RUN
EXCERPTS FROM INTEL STUDY**

CHANNEL FLOW COMPARISONS

SEVEN BAR RANCH NORTH
DEVELOPMENT IMPACT ON BLACK'S ARROYO AND SEVEN BAR CHANNEL
FILE: CDP:\C9321740.HYDRO\CHNLFLOW.WK3

PEAK FLOWS INTO CHANNEL
"INTEL STUDY" VS PROPOSED CONDITIONS

CHANNEL	"INTEL STUDY"					PROPOSED CONDITIONS				
	Qp.CFS CHANNEL	Ip.HRS CHANNEL	CONTRIB. BASINS	Qp.CFS BASIN	Ip.HRS BASIN	Qp.CFS CHANNEL	Ip.HRS CHANNEL	CONTRIB. BASINS	Qp.CFS BASIN	Ip.HRS BASIN
BLACK'S ARROYO	2504.5	2.30	PQT E RU FC GH JL SUBTOTAL (L11) ACD TOTAL			2511.4	2.35			
									239.9	1.50
									142.4	1.50
									382.3	1.50
SEVEN BAR CHANNEL	1063.7	2.20				1042.4	2.20			
								S1B	17.1	1.50
								A3A	13.4	1.50
								A3B	13.6	1.50
								A3C	13.6	1.50
CONFLUENCE								A3D	18.3	1.50
								A2	70.7	1.50
								A1B	57.2	1.50
								TOTAL	203.9	1.50
	3555.7	2.20				3527.4	2.20			

NOTES: 1 DATA SHOWN ARE TAKEN FROM THE INTEL STUDY HYMO ANALYSIS AND A PROPOSED ANALYSIS AS MODIFIED FOR DESIGNED DEVELOPED CONDITIONS.
2 BASINS PQT, E, RU, FC, GH & JL IN THE INTEL STUDY CORRESPOND TO BASIN 7BAROUT IN THE PROPOSED STUDY.
3 BASIN ACD IN THE INTEL STUDY CORRESPONDS TO BASIN WESTOUT IN THE PROPOSED STUDY.
4 BASIN 38 IN THE INTEL STUDY CORRESPONDS TO BASINS S1B, A3A, A3B, A3C, A3D, A2 & A1B IN THE PROPOSED STUDY.

SEVEN BAR RANCH NORTH DEVELOPMENT IMPACT ON BLACK'S ARROYO AND SEVEN BAR CHANNEL

FILE: CDP:[C9321740.HYDRO]CHNLFLOW.WK3

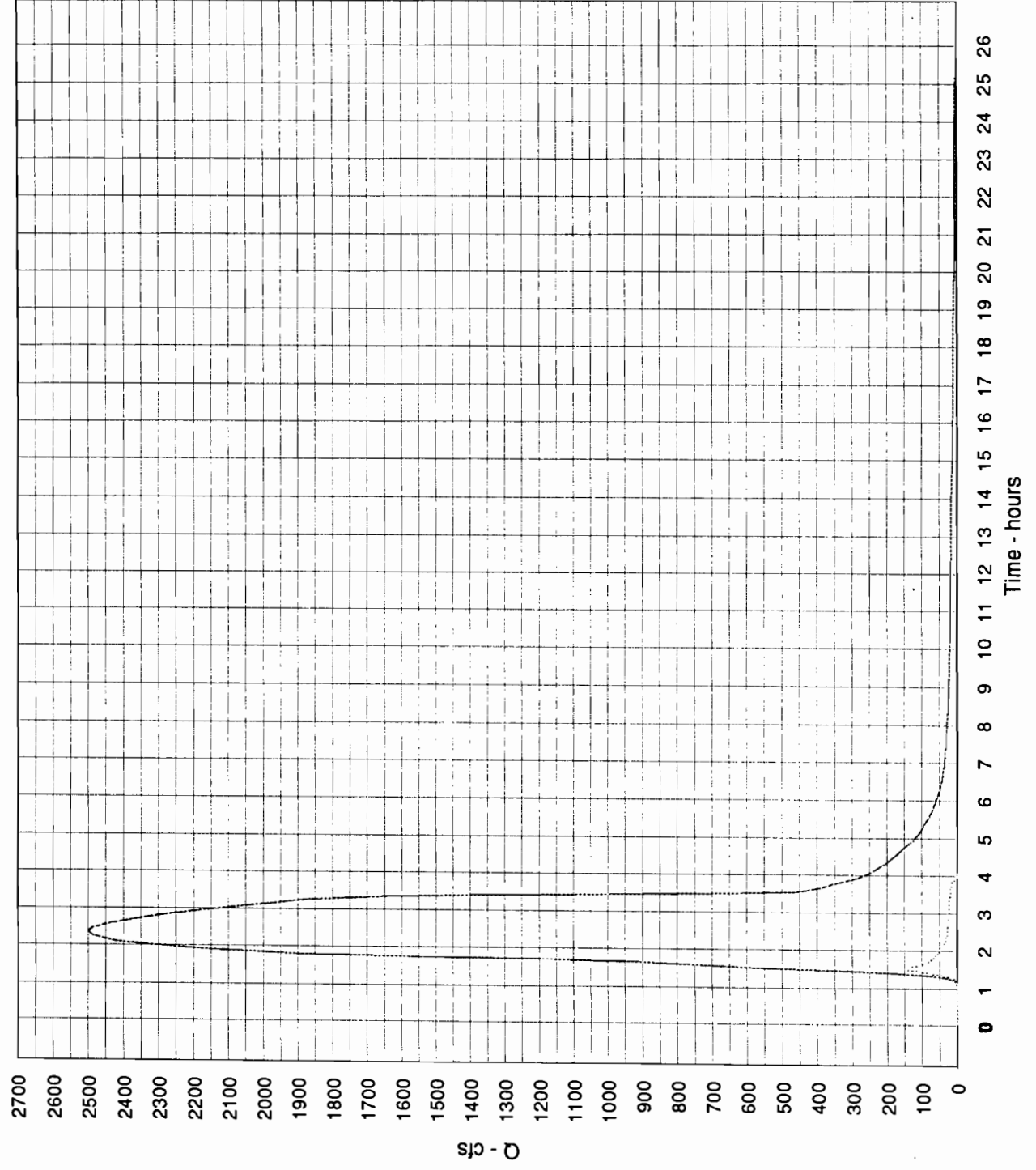
COMPARISON OF PEAKS

CHANNEL CONDITIONS				BASIN CONDITIONS			CHANNEL CONDITIONS @ BASIN			BASIN CONDITIONS @		
CHANNEL	Qp,CFS	Tp,HRS	CONTRIB. BASINS	Qp,CFS	Tp,HRS	Qchannel, cfs	NORMAL DEPTH channel, ft	Qbasin, cfs	RESIDUAL	Qbasin, cfs	TP, hrs	CHANNEL PEAK FLOW
CHANNEL	CHANNEL	CHANNEL										
BLACK'S ARROYO	2511.4	2.35										
			WESTOUT	105.7	1.50	506	2.1	10			2.35	
			7BAROUT	290.3	1.50	692	3.9	38			2.35	
SEVEN BAR CHANNEL	1042.4	2.20										
			S1B	17.1	1.50	37	0.7	3			2.20	
			A3A	13.4	1.50	49	0.8	1			2.20	
			A3B	13.6	1.50	59	0.9	1			2.20	
			A3C	13.6	1.50	71	1.0	1			2.20	
			A3D	18.3	1.50	88	1.1	2			2.20	
			A2	70.7	1.50	142	1.1	7			2.20	
			A1B	57.2	1.50	192	1.7	5			2.20	
			TOTAL	203.9	1.50							
CONFLUENCE	3527.4	2.20										

NOTES: 1 DATA SHOWN ARE TAKEN FROM THE PROPOSED ANALYSIS AS MODIFIED FOR DESIGNED DEVELOPED CONDITIONS.
2 SEE MASTER DRAINAGE PLAN PLATE FOR CONTRIBUTING BASIN DESCRIPTIONS.

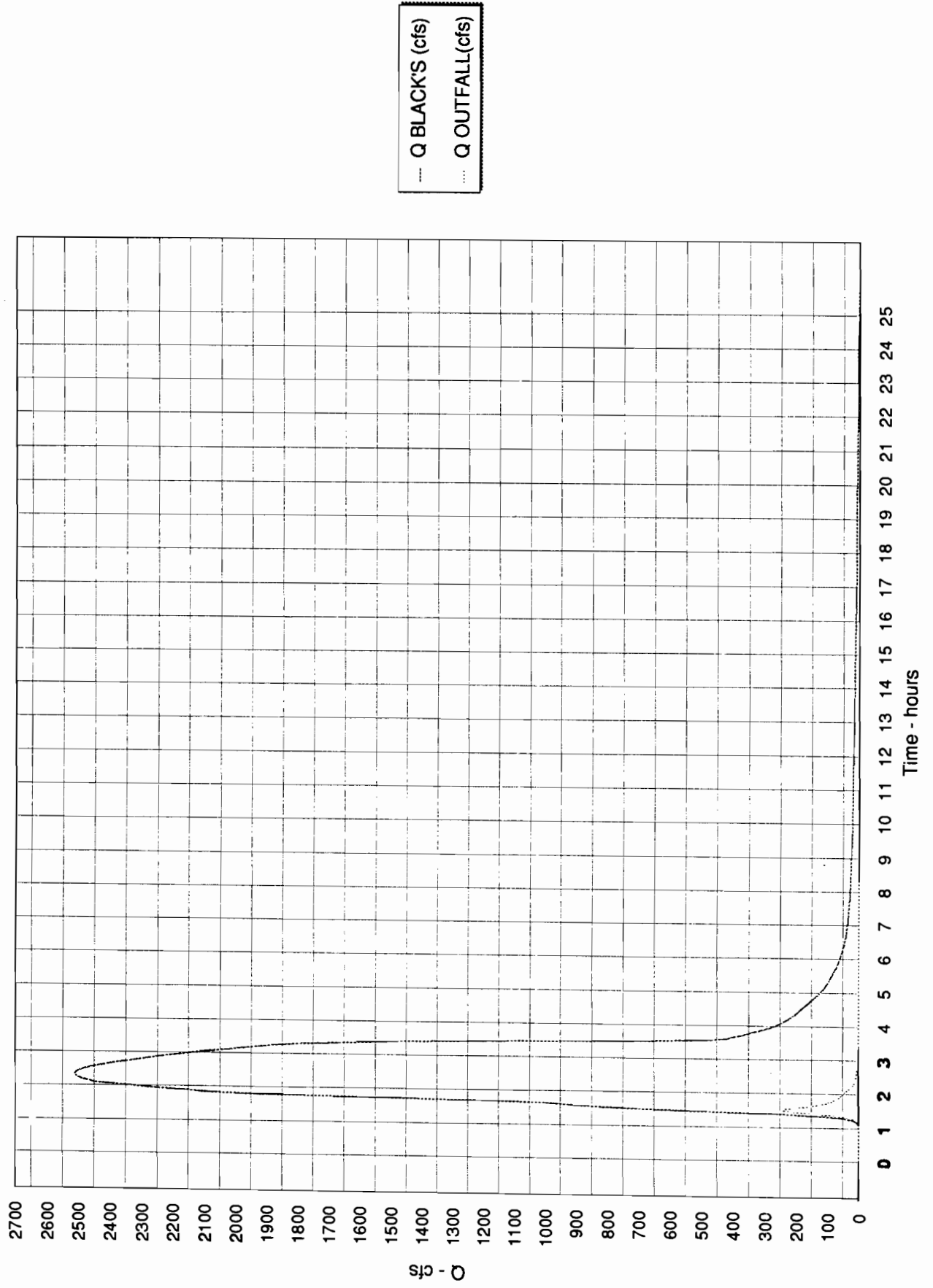
HYDROGRAPH COMPARISON

BLACK'S ARROYO (HYD=AP7) & WEST SUBDIVISION OUTFALL (HYD=WESTOUT)



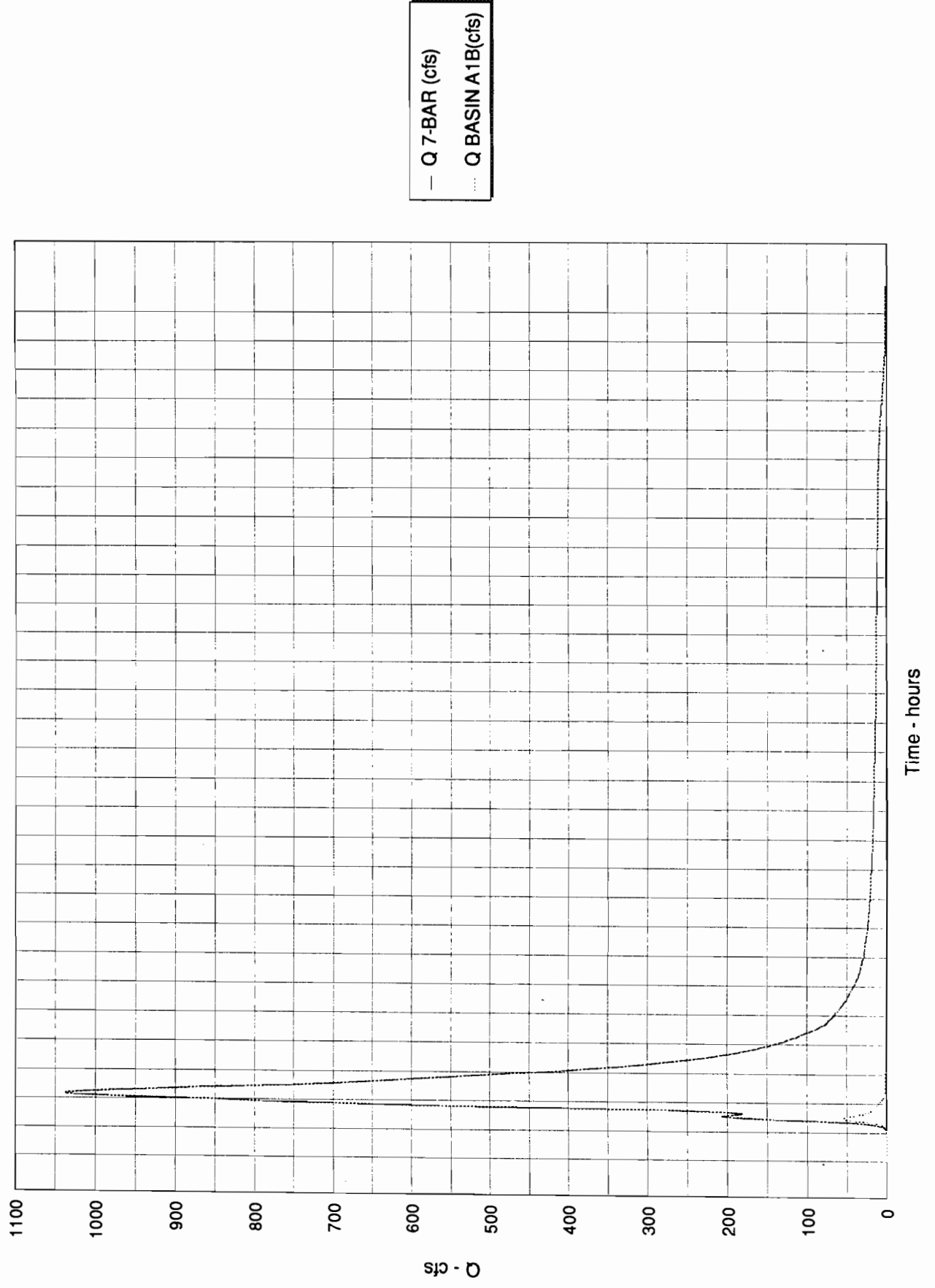
HYDROGRAPH COMPARISON

BLACK'S ARROYO (HYD=7BARIN) & SEVEN BAR LOOP ROAD OUTFALL (HYD=7BAROUT)



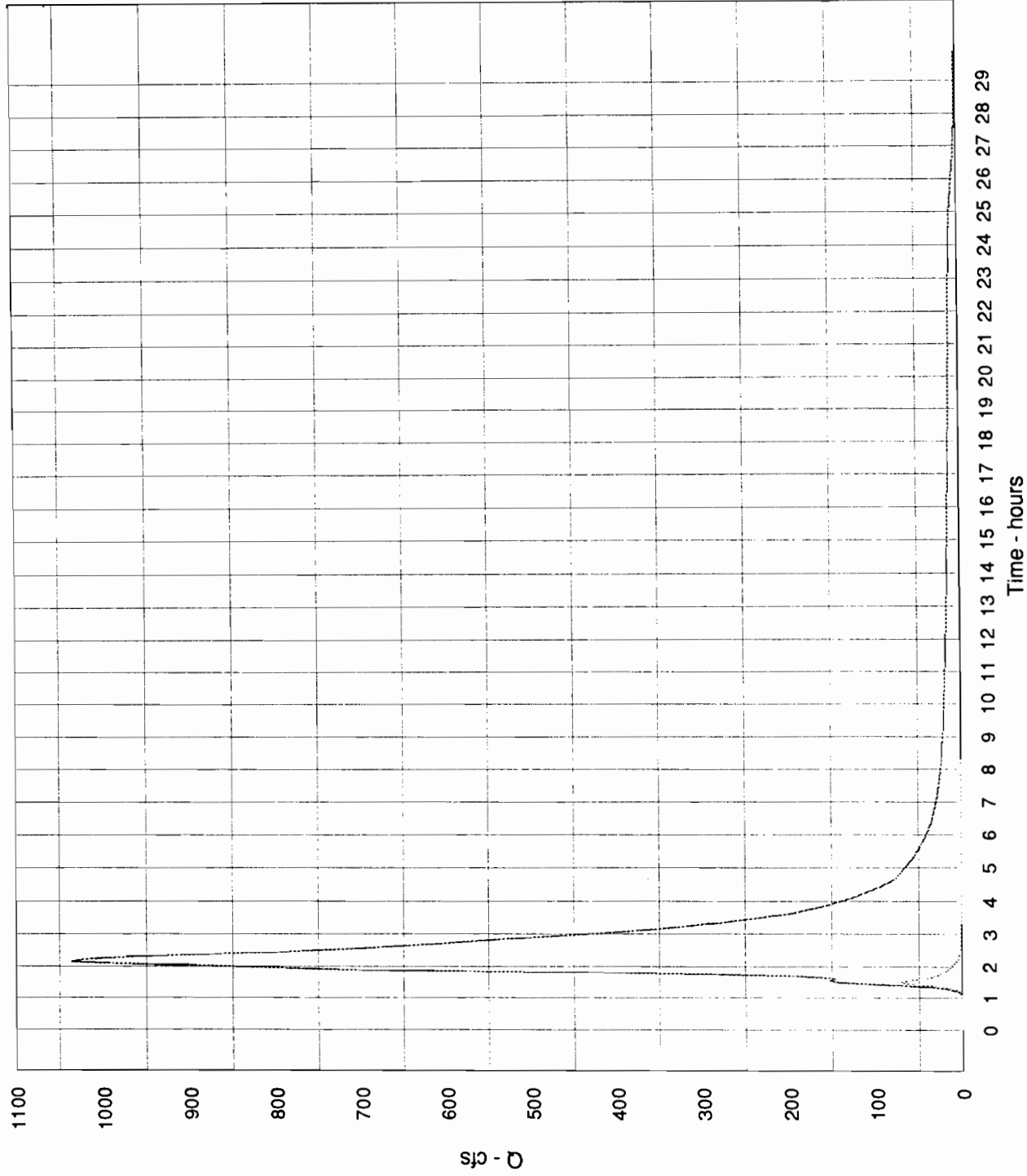
HYDROGRAPH COMPARISON

7-BAR CHANNEL (HYD=CHNLA1B) & BASIN A1B (HYD=A1B)



HYDROGRAPH COMPARISON

7-BAR CHANNEL (HYD=CHNLA1B) & BASIN A2 (HYD=A2)



7 BAR CHANNEL - TRAPEZOIDAL SECTION

@ BASINS A3A, A3B, A3C & A3D INFLAWS

MANNING'S N = .0150

SLOPE = .0050

POINT	DIST	ELEV	POINT	DIST	ELEV	POINT	DIST	ELEV
1	0.00	10.00	3	25.00	0.00			
2	15.00	0.00	4	40.00	10.00			

WSEL (FT)	DEPTH INC	FLOW AREA (SQ FT)	FLOW RATE (CFS)	WETTED PER (FT)	FLOW VEL (FPS)	TOP WID
0.10	0.10	1.0	1.5	10.4	1.5	10.30
0.20	0.20	2.1	4.8	10.7	2.3	10.60
0.30	0.30	3.1	9.5	11.1	3.0	10.90
0.40	0.40	4.2	15.3	11.4	3.6	11.20
0.50	0.50	5.4	22.3	11.8	4.1	11.50
0.60	0.60	6.5	30.3	12.2	4.6	11.80
0.70	0.70	7.7	39.3	12.5	5.1	12.10
0.80	0.80	9.0	49.3	12.9	5.5	12.40
0.90	0.90	10.2	60.2	13.2	5.9	12.70
1.00	1.00	11.5	72.0	13.6	6.3	13.00
1.10	1.10	12.8	84.8	14.0	6.6	13.30
1.20	1.20	14.2	98.4	14.3	7.0	13.60
1.30	1.30	15.5	113.0	14.7	7.3	13.90
1.40	1.40	16.9	128.4	15.0	7.6	14.20
1.50	1.50	18.4	144.8	15.4	7.9	14.50
1.60	1.60	19.8	162.0	15.8	8.2	14.80
1.70	1.70	21.3	180.1	16.1	8.4	15.10
1.80	1.80	22.9	199.1	16.5	8.7	15.40
1.90	1.90	24.4	219.0	16.9	9.0	15.70
2.00	2.00	26.0	239.8	17.2	9.2	16.00
2.10	2.10	27.6	261.5	17.6	9.5	16.30
2.20	2.20	29.3	284.1	17.9	9.7	16.60
2.30	2.30	30.9	307.6	18.3	9.9	16.90
2.40	2.40	32.6	332.0	18.7	10.2	17.20
2.50	2.50	34.4	357.4	19.0	10.4	17.50
2.60	2.60	36.1	383.6	19.4	10.6	17.80
2.70	2.70	37.9	410.8	19.7	10.8	18.10
2.80	2.80	39.8	439.0	20.1	11.0	18.40
2.90	2.90	41.6	468.0	20.5	11.2	18.70
3.00	3.00	43.5	498.1	20.8	11.4	19.00
3.10	3.10	45.4	529.1	21.2	11.6	19.30
3.20	3.20	47.4	561.0	21.5	11.8	19.60
3.30	3.30	49.3	593.9	21.9	12.0	19.90
3.40	3.40	51.3	627.8	22.3	12.2	20.20
3.50	3.50	53.4	662.7	22.6	12.4	20.50
3.60	3.60	55.4	698.6	23.0	12.6	20.80
3.70	3.70	57.5	735.5	23.3	12.8	21.10
3.80	3.80	59.7	773.3	23.7	13.0	21.40
3.90	3.90	61.8	812.2	24.1	13.1	21.70
4.00	4.00	64.0	852.2	24.4	13.3	22.00
4.10	4.10	66.2	893.1	24.8	13.5	22.30
4.20	4.20	68.5	935.1	25.1	13.7	22.60
4.30	4.30	70.7	978.1	25.5	13.8	22.90
4.40	4.40	73.0	1022.2	25.9	14.0	23.20
4.50	4.50	75.4	1067.4	26.2	14.2	23.50
4.60	4.60	77.7	1113.6	26.6	14.3	23.80
4.70	4.70	80.1	1160.9	26.9	14.5	24.10
4.80	4.80	82.6	1209.2	27.3	14.6	24.40
4.90	4.90	85.0	1258.7	27.7	14.8	24.70

5.00	5.00	87.5	1309.3	28.0	15.0	25.00
5.10	5.10	90.0	1361.0	28.4	15.1	25.30
5.20	5.20	92.6	1413.7	28.7	15.3	25.60
5.30	5.30	95.1	1467.7	29.1	15.4	25.90
5.40	5.40	97.7	1522.7	29.5	15.6	26.20
5.50	5.50	100.4	1578.9	29.8	15.7	26.50
5.60	5.60	103.0	1636.2	30.2	15.9	26.80
5.70	5.70	105.7	1694.7	30.6	16.0	27.10
5.80	5.80	108.5	1754.3	30.9	16.2	27.40
5.90	5.90	111.2	1815.1	31.3	16.3	27.70
6.00	6.00	114.0	1877.1	31.6	16.5	28.00
6.10	6.10	116.8	1940.3	32.0	16.6	28.30
6.20	6.20	119.7	2004.6	32.4	16.8	28.60
6.30	6.30	122.5	2070.2	32.7	16.9	28.90
6.40	6.40	125.4	2137.0	33.1	17.0	29.20
6.50	6.50	128.4	2205.0	33.4	17.2	29.50
6.60	6.60	131.3	2274.2	33.8	17.3	29.80
6.70	6.70	134.3	2344.6	34.2	17.5	30.10
6.80	6.80	137.4	2416.3	34.5	17.6	30.40
6.90	6.90	140.4	2489.2	34.9	17.7	30.70
7.00	7.00	143.5	2563.4	35.2	17.9	31.00
7.10	7.10	146.6	2638.8	35.6	18.0	31.30
7.20	7.20	149.8	2715.6	36.0	18.1	31.60
7.30	7.30	152.9	2793.5	36.3	18.3	31.90
7.40	7.40	156.1	2872.8	36.7	18.4	32.20
7.50	7.50	159.4	2953.4	37.0	18.5	32.50
7.60	7.60	162.6	3035.2	37.4	18.7	32.80
7.70	7.70	165.9	3118.4	37.8	18.8	33.10
7.80	7.80	169.3	3202.9	38.1	18.9	33.40
7.90	7.90	172.6	3288.7	38.5	19.1	33.70
8.00	8.00	176.0	3375.8	38.8	19.2	34.00
8.10	8.10	179.4	3464.3	39.2	19.3	34.30
8.20	8.20	182.9	3554.1	39.6	19.4	34.60
8.30	8.30	186.3	3645.3	39.9	19.6	34.90
8.40	8.40	189.8	3737.8	40.3	19.7	35.20
8.50	8.50	193.4	3831.7	40.6	19.8	35.50
8.60	8.60	196.9	3927.0	41.0	19.9	35.80
8.70	8.70	200.5	4023.6	41.4	20.1	36.10
8.80	8.80	204.2	4121.7	41.7	20.2	36.40
8.90	8.90	207.8	4221.1	42.1	20.3	36.70
9.00	9.00	211.5	4321.9	42.4	20.4	37.00
9.10	9.10	215.2	4424.2	42.8	20.6	37.30
9.20	9.20	219.0	4527.8	43.2	20.7	37.60
9.30	9.30	222.7	4632.9	43.5	20.8	37.90
9.40	9.40	226.5	4739.5	43.9	20.9	38.20
9.50	9.50	230.4	4847.4	44.3	21.0	38.50
9.60	9.60	234.2	4956.8	44.6	21.2	38.80
9.70	9.70	238.1	5067.7	45.0	21.3	39.10
9.80	9.80	242.1	5180.0	45.3	21.4	39.40
9.90	9.90	246.0	5293.8	45.7	21.5	39.70
10.00	10.00	250.0	5409.1	46.1	21.6	40.00

7' Bait Channel - Rectangular Section
e Basin Air Inflow

MANNING'S N = .0150

SLOPE = .0100

POINT	DIST	ELEV	POINT	DIST	ELEV	POINT	DIST	ELEV
1	0.00	10.00	3	10.00	0.00			
2	0.00	0.00	4	10.00	10.00			

WSEL (FT)	DEPTH INC	FLOW AREA (SQ FT)	FLOW RATE (CFS)	WETTED PER (FT)	FLOW VEL (FPS)	TOP WID
0.10	0.10	1.0	2.1	10.2	2.1	10.00
0.20	0.20	2.0	6.6	10.4	3.3	10.00
0.30	0.30	3.0	12.8	10.6	4.3	10.00
0.40	0.40	4.0	20.4	10.8	5.1	10.00
0.50	0.50	5.0	29.3	11.0	5.9	10.00
0.60	0.60	6.0	39.2	11.2	6.5	10.00
0.70	0.70	7.0	50.1	11.4	7.2	10.00
0.80	0.80	8.0	61.9	11.6	7.7	10.00
0.90	0.90	9.0	74.4	11.8	8.3	10.00
1.00	1.00	10.0	87.7	12.0	8.8	10.00
1.10	1.10	11.0	101.7	12.2	9.2	10.00
1.20	1.20	12.0	116.3	12.4	9.7	10.00
1.30	1.30	13.0	131.5	12.6	10.1	10.00
1.40	1.40	14.0	147.2	12.8	10.5	10.00
1.50	1.50	15.0	163.5	13.0	10.9	10.00
1.60	1.60	16.0	180.2	13.2	11.3	10.00
1.70	1.70	17.0	197.4	13.4	11.6	10.00
1.80	1.80	18.0	215.0	13.6	11.9	10.00
1.90	1.90	19.0	233.0	13.8	12.3	10.00
2.00	2.00	20.0	251.3	14.0	12.6	10.00
2.10	2.10	21.0	270.0	14.2	12.9	10.00
2.20	2.20	22.0	289.1	14.4	13.1	10.00
2.30	2.30	23.0	308.5	14.6	13.4	10.00
2.40	2.40	24.0	328.2	14.8	13.7	10.00
2.50	2.50	25.0	348.2	15.0	13.9	10.00
2.60	2.60	26.0	368.4	15.2	14.2	10.00
2.70	2.70	27.0	388.9	15.4	14.4	10.00
2.80	2.80	28.0	409.7	15.6	14.6	10.00
2.90	2.90	29.0	430.7	15.8	14.9	10.00
3.00	3.00	30.0	451.9	16.0	15.1	10.00
3.10	3.10	31.0	473.4	16.2	15.3	10.00
3.20	3.20	32.0	495.0	16.4	15.5	10.00
3.30	3.30	33.0	516.9	16.6	15.7	10.00
3.40	3.40	34.0	538.9	16.8	15.9	10.00
3.50	3.50	35.0	561.1	17.0	16.0	10.00
3.60	3.60	36.0	583.6	17.2	16.2	10.00
3.70	3.70	37.0	606.1	17.4	16.4	10.00
3.80	3.80	38.0	628.9	17.6	16.5	10.00
3.90	3.90	39.0	651.8	17.8	16.7	10.00
4.00	4.00	40.0	674.8	18.0	16.9	10.00
4.10	4.10	41.0	698.0	18.2	17.0	10.00
4.20	4.20	42.0	721.3	18.4	17.2	10.00
4.30	4.30	43.0	744.8	18.6	17.3	10.00
4.40	4.40	44.0	768.4	18.8	17.5	10.00
4.50	4.50	45.0	792.1	19.0	17.6	10.00
4.60	4.60	46.0	815.9	19.2	17.7	10.00
4.70	4.70	47.0	839.9	19.4	17.9	10.00
4.80	4.80	48.0	864.0	19.6	18.0	10.00
4.90	4.90	49.0	888.1	19.8	18.1	10.00

5.00	5.00	50.0	912.4	20.0	18.2	10.00
5.10	5.10	51.0	936.8	20.2	18.4	10.00
5.20	5.20	52.0	961.3	20.4	18.5	10.00
5.30	5.30	53.0	985.8	20.6	18.6	10.00
5.40	5.40	54.0	1010.5	20.8	18.7	10.00
5.50	5.50	55.0	1035.3	21.0	18.8	10.00
5.60	5.60	56.0	1060.1	21.2	18.9	10.00
5.70	5.70	57.0	1085.0	21.4	19.0	10.00
5.80	5.80	58.0	1110.0	21.6	19.1	10.00
5.90	5.90	59.0	1135.1	21.8	19.2	10.00
6.00	6.00	60.0	1160.3	22.0	19.3	10.00
6.10	6.10	61.0	1185.5	22.2	19.4	10.00
6.20	6.20	62.0	1210.8	22.4	19.5	10.00
6.30	6.30	63.0	1236.2	22.6	19.6	10.00
6.40	6.40	64.0	1261.6	22.8	19.7	10.00
6.50	6.50	65.0	1287.2	23.0	19.8	10.00
6.60	6.60	66.0	1312.7	23.2	19.9	10.00
6.70	6.70	67.0	1338.4	23.4	20.0	10.00
6.80	6.80	68.0	1364.1	23.6	20.1	10.00
6.90	6.90	69.0	1389.8	23.8	20.1	10.00
7.00	7.00	70.0	1415.6	24.0	20.2	10.00
7.10	7.10	71.0	1441.5	24.2	20.3	10.00
7.20	7.20	72.0	1467.4	24.4	20.4	10.00
7.30	7.30	73.0	1493.4	24.6	20.5	10.00
7.40	7.40	74.0	1519.4	24.8	20.5	10.00
7.50	7.50	75.0	1545.5	25.0	20.6	10.00
7.60	7.60	76.0	1571.6	25.2	20.7	10.00
7.70	7.70	77.0	1597.8	25.4	20.8	10.00
7.80	7.80	78.0	1624.0	25.6	20.8	10.00
7.90	7.90	79.0	1650.3	25.8	20.9	10.00
8.00	8.00	80.0	1676.6	26.0	21.0	10.00
8.10	8.10	81.0	1702.9	26.2	21.0	10.00
8.20	8.20	82.0	1729.3	26.4	21.1	10.00
8.30	8.30	83.0	1755.8	26.6	21.2	10.00
8.40	8.40	84.0	1782.3	26.8	21.2	10.00
8.50	8.50	85.0	1808.8	27.0	21.3	10.00
8.60	8.60	86.0	1835.3	27.2	21.3	10.00
8.70	8.70	87.0	1861.9	27.4	21.4	10.00
8.80	8.80	88.0	1888.5	27.6	21.5	10.00
8.90	8.90	89.0	1915.2	27.8	21.5	10.00
9.00	9.00	90.0	1941.9	28.0	21.6	10.00
9.10	9.10	91.0	1968.6	28.2	21.6	10.00
9.20	9.20	92.0	1995.4	28.4	21.7	10.00
9.30	9.30	93.0	2022.2	28.6	21.7	10.00
9.40	9.40	94.0	2049.0	28.8	21.8	10.00
9.50	9.50	95.0	2075.9	29.0	21.9	10.00
9.60	9.60	96.0	2102.8	29.2	21.9	10.00
9.70	9.70	97.0	2129.7	29.4	22.0	10.00
9.80	9.80	98.0	2156.6	29.6	22.0	10.00
9.90	9.90	99.0	2183.6	29.8	22.1	10.00
10.00	10.00	100.0	2210.6	30.0	22.1	10.00

7 BAR CHANNEL - TRAPEZOIDAL SECTION
@ BASIN A2 INFLOW

MANNING'S N = .0150

SLOPE = .0150

POINT	DIST	ELEV	POINT	DIST	ELEV	POINT	DIST	ELEV
1	0.00	10.00	3	25.00	0.00			
2	15.00	0.00	4	40.00	10.00			

WSEL (FT)	DEPTH INC	FLOW AREA (SQ FT)	FLOW RATE (CFS)	WETTED PER (FT)	FLOW VEL (FPS)	TOP WID
0.10	0.10	1.0	2.6	10.4	2.6	10.30
0.20	0.20	2.1	8.3	10.7	4.0	10.60
0.30	0.30	3.1	16.4	11.1	5.2	10.90
0.40	0.40	4.2	26.5	11.4	6.3	11.20
0.50	0.50	5.4	38.6	11.8	7.2	11.50
0.60	0.60	6.5	52.5	12.2	8.0	11.80
0.70	0.70	7.7	68.1	12.5	8.8	12.10
0.80	0.80	9.0	85.3	12.9	9.5	12.40
0.90	0.90	10.2	104.2	13.2	10.2	12.70
1.00	1.00	11.5	124.7	13.6	10.8	13.00
1.10	1.10	12.8	146.8	14.0	11.5	13.30
1.20	1.20	14.2	170.5	14.3	12.0	13.60
1.30	1.30	15.5	195.7	14.7	12.6	13.90
1.40	1.40	16.9	222.4	15.0	13.1	14.20
1.50	1.50	18.4	250.7	15.4	13.6	14.50
1.60	1.60	19.8	280.5	15.8	14.1	14.80
1.70	1.70	21.3	311.9	16.1	14.6	15.10
1.80	1.80	22.9	344.8	16.5	15.1	15.40
1.90	1.90	24.4	379.3	16.9	15.5	15.70
2.00	2.00	26.0	415.3	17.2	16.0	16.00
2.10	2.10	27.6	452.9	17.6	16.4	16.30
2.20	2.20	29.3	492.0	17.9	16.8	16.60
2.30	2.30	30.9	532.8	18.3	17.2	16.90
2.40	2.40	32.6	575.1	18.7	17.6	17.20
2.50	2.50	34.4	619.0	19.0	18.0	17.50
2.60	2.60	36.1	664.5	19.4	18.4	17.80
2.70	2.70	37.9	711.6	19.7	18.8	18.10
2.80	2.80	39.8	760.3	20.1	19.1	18.40
2.90	2.90	41.6	810.7	20.5	19.5	18.70
3.00	3.00	43.5	862.7	20.8	19.8	19.00
3.10	3.10	45.4	916.3	21.2	20.2	19.30
3.20	3.20	47.4	971.7	21.5	20.5	19.60
3.30	3.30	49.3	1028.7	21.9	20.9	19.90
3.40	3.40	51.3	1087.4	22.3	21.2	20.20
3.50	3.50	53.4	1147.8	22.6	21.5	20.50
3.60	3.60	55.4	1210.0	23.0	21.8	20.80
3.70	3.70	57.5	1273.9	23.3	22.1	21.10
3.80	3.80	59.7	1339.5	23.7	22.5	21.40
3.90	3.90	61.8	1406.8	24.1	22.8	21.70
4.00	4.00	64.0	1476.0	24.4	23.1	22.00
4.10	4.10	66.2	1546.9	24.8	23.4	22.30
4.20	4.20	68.5	1619.6	25.1	23.7	22.60
4.30	4.30	70.7	1694.2	25.5	24.0	22.90
4.40	4.40	73.0	1770.5	25.9	24.2	23.20
4.50	4.50	75.4	1848.7	26.2	24.5	23.50
4.60	4.60	77.7	1928.8	26.6	24.8	23.80
4.70	4.70	80.1	2010.7	26.9	25.1	24.10
4.80	4.80	82.6	2094.5	27.3	25.4	24.40
4.90	4.90	85.0	2180.2	27.7	25.6	24.70

5.00	5.00	87.5	2267.7	28.0	25.9	25.00
5.10	5.10	90.0	2357.2	28.4	26.2	25.30
5.20	5.20	92.6	2448.7	28.7	26.5	25.60
5.30	5.30	95.1	2542.1	29.1	26.7	25.90
5.40	5.40	97.7	2637.4	29.5	27.0	26.20
5.50	5.50	100.4	2734.7	29.8	27.2	26.50
5.60	5.60	103.0	2834.0	30.2	27.5	26.80
5.70	5.70	105.7	2935.3	30.6	27.8	27.10
5.80	5.80	108.5	3038.6	30.9	28.0	27.40
5.90	5.90	111.2	3143.9	31.3	28.3	27.70
6.00	6.00	114.0	3251.3	31.6	28.5	28.00
6.10	6.10	116.8	3360.7	32.0	28.8	28.30
6.20	6.20	119.7	3472.2	32.4	29.0	28.60
6.30	6.30	122.5	3585.7	32.7	29.3	28.90
6.40	6.40	125.4	3701.4	33.1	29.5	29.20
6.50	6.50	128.4	3819.1	33.4	29.7	29.50
6.60	6.60	131.3	3939.0	33.8	30.0	29.80
6.70	6.70	134.3	4061.0	34.2	30.2	30.10
6.80	6.80	137.4	4185.2	34.5	30.5	30.40
6.90	6.90	140.4	4311.5	34.9	30.7	30.70
7.00	7.00	143.5	4439.9	35.2	30.9	31.00
7.10	7.10	146.6	4570.6	35.6	31.2	31.30
7.20	7.20	149.8	4703.5	36.0	31.4	31.60
7.30	7.30	152.9	4838.6	36.3	31.6	31.90
7.40	7.40	156.1	4975.9	36.7	31.9	32.20
7.50	7.50	159.4	5115.4	37.0	32.1	32.50
7.60	7.60	162.6	5257.2	37.4	32.3	32.80
7.70	7.70	165.9	5401.2	37.8	32.6	33.10
7.80	7.80	169.3	5547.6	38.1	32.8	33.40
7.90	7.90	172.6	5696.2	38.5	33.0	33.70
8.00	8.00	176.0	5847.1	38.8	33.2	34.00
8.10	8.10	179.4	6000.3	39.2	33.4	34.30
8.20	8.20	182.9	6155.9	39.6	33.7	34.60
8.30	8.30	186.3	6313.8	39.9	33.9	34.90
8.40	8.40	189.8	6474.1	40.3	34.1	35.20
8.50	8.50	193.4	6636.7	40.6	34.3	35.50
8.60	8.60	196.9	6801.7	41.0	34.5	35.80
8.70	8.70	200.5	6969.1	41.4	34.8	36.10
8.80	8.80	204.2	7138.9	41.7	35.0	36.40
8.90	8.90	207.8	7311.2	42.1	35.2	36.70
9.00	9.00	211.5	7485.8	42.4	35.4	37.00
9.10	9.10	215.2	7662.9	42.8	35.6	37.30
9.20	9.20	219.0	7842.5	43.2	35.8	37.60
9.30	9.30	222.7	8024.5	43.5	36.0	37.90
9.40	9.40	226.5	8209.0	43.9	36.2	38.20
9.50	9.50	230.4	8396.0	44.3	36.4	38.50
9.60	9.60	234.2	8585.5	44.6	36.7	38.80
9.70	9.70	238.1	8777.5	45.0	36.9	39.10
9.80	9.80	242.1	8972.1	45.3	37.1	39.40
9.90	9.90	246.0	9169.2	45.7	37.3	39.70
10.00	10.00	250.0	9368.8	46.1	37.5	40.00

Black's Arroyo - c 7 BAR LOOP ROAD WFLOW

MANNING'S N = .0150

SLOPE = .0030

POINT	DIST	ELEV	POINT	DIST	ELEV	POINT	DIST	ELEV
1	0.00	10.00	3	30.00	0.00			
2	20.00	0.00	4	50.00	10.00			

WSEL	DEPTH	FLOW	FLOW	WETTED	FLOW	TOP
(FT)	INC	AREA	RATE	PER	VEL	WID
		(SQ FT)	(CFS)	(FT)	(FPS)	
0.10	0.10	1.0	1.2	10.4	1.2	10.40
0.20	0.20	2.1	3.7	10.9	1.8	10.80
0.30	0.30	3.2	7.4	11.3	2.3	11.20
0.40	0.40	4.3	12.0	11.8	2.8	11.60
0.50	0.50	5.5	17.5	12.2	3.2	12.00
0.60	0.60	6.7	23.9	12.7	3.6	12.40
0.70	0.70	8.0	31.1	13.1	3.9	12.80
0.80	0.80	9.3	39.1	13.6	4.2	13.20
0.90	0.90	10.6	47.9	14.0	4.5	13.60
1.00	1.00	12.0	57.5	14.5	4.8	14.00
1.10	1.10	13.4	67.9	14.9	5.1	14.40
1.20	1.20	14.9	79.0	15.4	5.3	14.80
1.30	1.30	16.4	91.0	15.8	5.6	15.20
1.40	1.40	17.9	103.7	16.3	5.8	15.60
1.50	1.50	19.5	117.3	16.7	6.0	16.00
1.60	1.60	21.1	131.6	17.2	6.2	16.40
1.70	1.70	22.8	146.8	17.6	6.4	16.80
1.80	1.80	24.5	162.8	18.0	6.6	17.20
1.90	1.90	26.2	179.5	18.5	6.8	17.60
2.00	2.00	28.0	197.1	18.9	7.0	18.00
2.10	2.10	29.8	215.6	19.4	7.2	18.40
2.20	2.20	31.7	234.8	19.8	7.4	18.80
2.30	2.30	33.6	255.0	20.3	7.6	19.20
2.40	2.40	35.5	276.0	20.7	7.8	19.60
2.50	2.50	37.5	297.8	21.2	7.9	20.00
2.60	2.60	39.5	320.5	21.6	8.1	20.40
2.70	2.70	41.6	344.1	22.1	8.3	20.80
2.80	2.80	43.7	368.6	22.5	8.4	21.20
2.90	2.90	45.8	394.0	23.0	8.6	21.60
3.00	3.00	48.0	420.3	23.4	8.8	22.00
3.10	3.10	50.2	447.5	23.9	8.9	22.40
3.20	3.20	52.5	475.6	24.3	9.1	22.80
3.30	3.30	54.8	504.7	24.8	9.2	23.20
3.40	3.40	57.1	534.7	25.2	9.4	23.60
3.50	3.50	59.5	565.7	25.7	9.5	24.00
3.60	3.60	61.9	597.7	26.1	9.7	24.40
3.70	3.70	64.4	630.6	26.5	9.8	24.80
3.80	3.80	66.9	664.5	27.0	9.9	25.20
3.90	3.90	69.4	699.3	27.4	10.1	25.60
4.00	4.00	72.0	735.2	27.9	10.2	26.00
4.10	4.10	74.6	772.1	28.3	10.3	26.40
4.20	4.20	77.3	810.0	28.8	10.5	26.80
4.30	4.30	80.0	849.0	29.2	10.6	27.20
4.40	4.40	82.7	889.0	29.7	10.7	27.60
4.50	4.50	85.5	930.0	30.1	10.9	28.00
4.60	4.60	88.3	972.1	30.6	11.0	28.40
4.70	4.70	91.2	1015.2	31.0	11.1	28.80
4.80	4.80	94.1	1059.5	31.5	11.3	29.20
4.90	4.90	97.0	1104.8	31.9	11.4	29.60

5.00	5.00	100.0	1151.2	32.4	11.5	30.00
5.10	5.10	103.0	1198.7	32.8	11.6	30.40
5.20	5.20	106.1	1247.3	33.3	11.8	30.80
5.30	5.30	109.2	1297.0	33.7	11.9	31.20
5.40	5.40	112.3	1347.9	34.1	12.0	31.60
5.50	5.50	115.5	1399.9	34.6	12.1	32.00
5.60	5.60	118.7	1453.1	35.0	12.2	32.40
5.70	5.70	122.0	1507.4	35.5	12.4	32.80
5.80	5.80	125.3	1562.9	35.9	12.5	33.20
5.90	5.90	128.6	1619.5	36.4	12.6	33.60
6.00	6.00	132.0	1677.3	36.8	12.7	34.00
6.10	6.10	135.4	1736.4	37.3	12.8	34.40
6.20	6.20	138.9	1796.6	37.7	12.9	34.80
6.30	6.30	142.4	1858.0	38.2	13.0	35.20
6.40	6.40	145.9	1920.7	38.6	13.2	35.60
6.50	6.50	149.5	1984.6	39.1	13.3	36.00
6.60	6.60	153.1	2049.7	39.5	13.4	36.40
6.70	6.70	156.8	2116.1	40.0	13.5	36.80
6.80	6.80	160.5	2183.7	40.4	13.6	37.20
6.90	6.90	164.2	2252.6	40.9	13.7	37.60
7.00	7.00	168.0	2322.7	41.3	13.8	38.00
7.10	7.10	171.8	2394.2	41.8	13.9	38.40
7.20	7.20	175.7	2466.9	42.2	14.0	38.80
7.30	7.30	179.6	2540.9	42.6	14.1	39.20
7.40	7.40	183.5	2616.3	43.1	14.3	39.60
7.50	7.50	187.5	2692.9	43.5	14.4	40.00
7.60	7.60	191.5	2770.9	44.0	14.5	40.40
7.70	7.70	195.6	2850.2	44.4	14.6	40.80
7.80	7.80	199.7	2930.8	44.9	14.7	41.20
7.90	7.90	203.8	3012.8	45.3	14.8	41.60
8.00	8.00	208.0	3096.2	45.8	14.9	42.00
8.10	8.10	212.2	3180.9	46.2	15.0	42.40
8.20	8.20	216.5	3267.0	46.7	15.1	42.80
8.30	8.30	220.8	3354.5	47.1	15.2	43.20
8.40	8.40	225.1	3443.3	47.6	15.3	43.60
8.50	8.50	229.5	3533.6	48.0	15.4	44.00
8.60	8.60	233.9	3625.3	48.5	15.5	44.40
8.70	8.70	238.4	3718.4	48.9	15.6	44.80
8.80	8.80	242.9	3812.9	49.4	15.7	45.20
8.90	8.90	247.4	3908.8	49.8	15.8	45.60
9.00	9.00	252.0	4006.2	50.2	15.9	46.00
9.10	9.10	256.6	4105.1	50.7	16.0	46.40
9.20	9.20	261.3	4205.4	51.1	16.1	46.80
9.30	9.30	266.0	4307.1	51.6	16.2	47.20
9.40	9.40	270.7	4410.4	52.0	16.3	47.60
9.50	9.50	275.5	4515.1	52.5	16.4	48.00
9.60	9.60	280.3	4621.3	52.9	16.5	48.40
9.70	9.70	285.2	4729.0	53.4	16.6	48.80
9.80	9.80	290.1	4838.2	53.8	16.7	49.20
9.90	9.90	295.0	4948.9	54.3	16.8	49.60
10.00	10.00	300.0	5061.2	54.7	16.9	50.00

Black's Arroyo - e West subDIVISION INFLOW

MANNING'S N = .0150

SLOPE = .0188

POINT	DIST	ELEV	POINT	DIST	ELEV	POINT	DIST	ELEV
1	0.00	10.00	3	30.00	0.00			
2	20.00	0.00	4	50.00	10.00			

WSEL	DEPTH	FLOW	FLOW	WETTED	FLOW	TOP
(FT)	INC	AREA	RATE	PER	VEL	WID
		(SQ FT)	(CFS)	(FT)	(FPS)	
0.10	0.10	1.0	2.9	10.4	2.9	10.40
0.20	0.20	2.1	9.4	10.9	4.5	10.80
0.30	0.30	3.2	18.5	11.3	5.8	11.20
0.40	0.40	4.3	30.0	11.8	7.0	11.60
0.50	0.50	5.5	43.8	12.2	8.0	12.00
0.60	0.60	6.7	59.8	12.7	8.9	12.40
0.70	0.70	8.0	77.8	13.1	9.7	12.80
0.80	0.80	9.3	97.8	13.6	10.5	13.20
0.90	0.90	10.6	119.8	14.0	11.3	13.60
1.00	1.00	12.0	143.9	14.5	12.0	14.00
1.10	1.10	13.4	169.9	14.9	12.7	14.40
1.20	1.20	14.9	197.8	15.4	13.3	14.80
1.30	1.30	16.4	227.8	15.8	13.9	15.20
1.40	1.40	17.9	259.7	16.3	14.5	15.60
1.50	1.50	19.5	293.6	16.7	15.1	16.00
1.60	1.60	21.1	329.5	17.2	15.6	16.40
1.70	1.70	22.8	367.5	17.6	16.1	16.80
1.80	1.80	24.5	407.4	18.0	16.6	17.20
1.90	1.90	26.2	449.4	18.5	17.1	17.60
2.00	2.00	28.0	493.5	18.9	17.6	18.00
2.10	2.10	29.8	539.6	19.4	18.1	18.40
2.20	2.20	31.7	587.9	19.8	18.6	18.80
2.30	2.30	33.6	638.3	20.3	19.0	19.20
2.40	2.40	35.5	690.8	20.7	19.4	19.60
2.50	2.50	37.5	745.5	21.2	19.9	20.00
2.60	2.60	39.5	802.3	21.6	20.3	20.40
2.70	2.70	41.6	861.4	22.1	20.7	20.80
2.80	2.80	43.7	922.7	22.5	21.1	21.20
2.90	2.90	45.8	986.3	23.0	21.5	21.60
3.00	3.00	48.0	1052.1	23.4	21.9	22.00
3.10	3.10	50.2	1120.2	23.9	22.3	22.40
3.20	3.20	52.5	1190.7	24.3	22.7	22.80
3.30	3.30	54.8	1263.5	24.8	23.1	23.20
3.40	3.40	57.1	1338.6	25.2	23.4	23.60
3.50	3.50	59.5	1416.2	25.7	23.8	24.00
3.60	3.60	61.9	1496.1	26.1	24.2	24.40
3.70	3.70	64.4	1578.5	26.5	24.5	24.80
3.80	3.80	66.9	1663.4	27.0	24.9	25.20
3.90	3.90	69.4	1750.7	27.4	25.2	25.60
4.00	4.00	72.0	1840.5	27.9	25.6	26.00
4.10	4.10	74.6	1932.9	28.3	25.9	26.40
4.20	4.20	77.3	2027.8	28.8	26.2	26.80
4.30	4.30	80.0	2125.3	29.2	26.6	27.20
4.40	4.40	82.7	2225.4	29.7	26.9	27.60
4.50	4.50	85.5	2328.1	30.1	27.2	28.00
4.60	4.60	88.3	2433.5	30.6	27.6	28.40
4.70	4.70	91.2	2541.5	31.0	27.9	28.80
4.80	4.80	94.1	2652.2	31.5	28.2	29.20
4.90	4.90	97.0	2765.6	31.9	28.5	29.60

5.00	5.00	100.0	2881.8	32.4	28.8	30.00
5.10	5.10	103.0	3000.7	32.8	29.1	30.40
5.20	5.20	106.1	3122.4	33.3	29.4	30.80
5.30	5.30	109.2	3246.9	33.7	29.7	31.20
5.40	5.40	112.3	3374.3	34.1	30.0	31.60
5.50	5.50	115.5	3504.4	34.6	30.3	32.00
5.60	5.60	118.7	3637.5	35.0	30.6	32.40
5.70	5.70	122.0	3773.5	35.5	30.9	32.80
5.80	5.80	125.3	3912.3	35.9	31.2	33.20
5.90	5.90	128.6	4054.2	36.4	31.5	33.60
6.00	6.00	132.0	4198.9	36.8	31.8	34.00
6.10	6.10	135.4	4346.7	37.3	32.1	34.40
6.20	6.20	138.9	4497.5	37.7	32.4	34.80
6.30	6.30	142.4	4651.3	38.2	32.7	35.20
6.40	6.40	145.9	4808.1	38.6	33.0	35.60
6.50	6.50	149.5	4968.1	39.1	33.2	36.00
6.60	6.60	153.1	5131.1	39.5	33.5	36.40
6.70	6.70	156.8	5297.2	40.0	33.8	36.80
6.80	6.80	160.5	5466.5	40.4	34.1	37.20
6.90	6.90	164.2	5639.0	40.9	34.3	37.60
7.00	7.00	168.0	5814.6	41.3	34.6	38.00
7.10	7.10	171.8	5993.4	41.8	34.9	38.40
7.20	7.20	175.7	6175.5	42.2	35.2	38.80
7.30	7.30	179.6	6360.8	42.6	35.4	39.20
7.40	7.40	183.5	6549.4	43.1	35.7	39.60
7.50	7.50	187.5	6741.3	43.5	36.0	40.00
7.60	7.60	191.5	6936.5	44.0	36.2	40.40
7.70	7.70	195.6	7135.0	44.4	36.5	40.80
7.80	7.80	199.7	7336.9	44.9	36.7	41.20
7.90	7.90	203.8	7542.1	45.3	37.0	41.60
8.00	8.00	208.0	7750.8	45.8	37.3	42.00
8.10	8.10	212.2	7962.9	46.2	37.5	42.40
8.20	8.20	216.5	8178.4	46.7	37.8	42.80
8.30	8.30	220.8	8397.4	47.1	38.0	43.20
8.40	8.40	225.1	8619.8	47.6	38.3	43.60
8.50	8.50	229.5	8845.8	48.0	38.5	44.00
8.60	8.60	233.9	9075.3	48.5	38.8	44.40
8.70	8.70	238.4	9308.3	48.9	39.0	44.80
8.80	8.80	242.9	9544.9	49.4	39.3	45.20
8.90	8.90	247.4	9785.1	49.8	39.5	45.60
9.00	9.00	252.0	10028.9	50.2	39.8	46.00
9.10	9.10	256.6	10276.4	50.7	40.0	46.40
9.20	9.20	261.3	10527.4	51.1	40.3	46.80
9.30	9.30	266.0	10782.2	51.6	40.5	47.20
9.40	9.40	270.7	11040.6	52.0	40.8	47.60
9.50	9.50	275.5	11302.7	52.5	41.0	48.00
9.60	9.60	280.3	11568.6	52.9	41.3	48.40
9.70	9.70	285.2	11838.3	53.4	41.5	48.80
9.80	9.80	290.1	12111.6	53.8	41.8	49.20
9.90	9.90	295.0	12388.8	54.3	42.0	49.60
10.00	10.00	300.0	12669.8	54.7	42.2	50.00

BASIN MAP

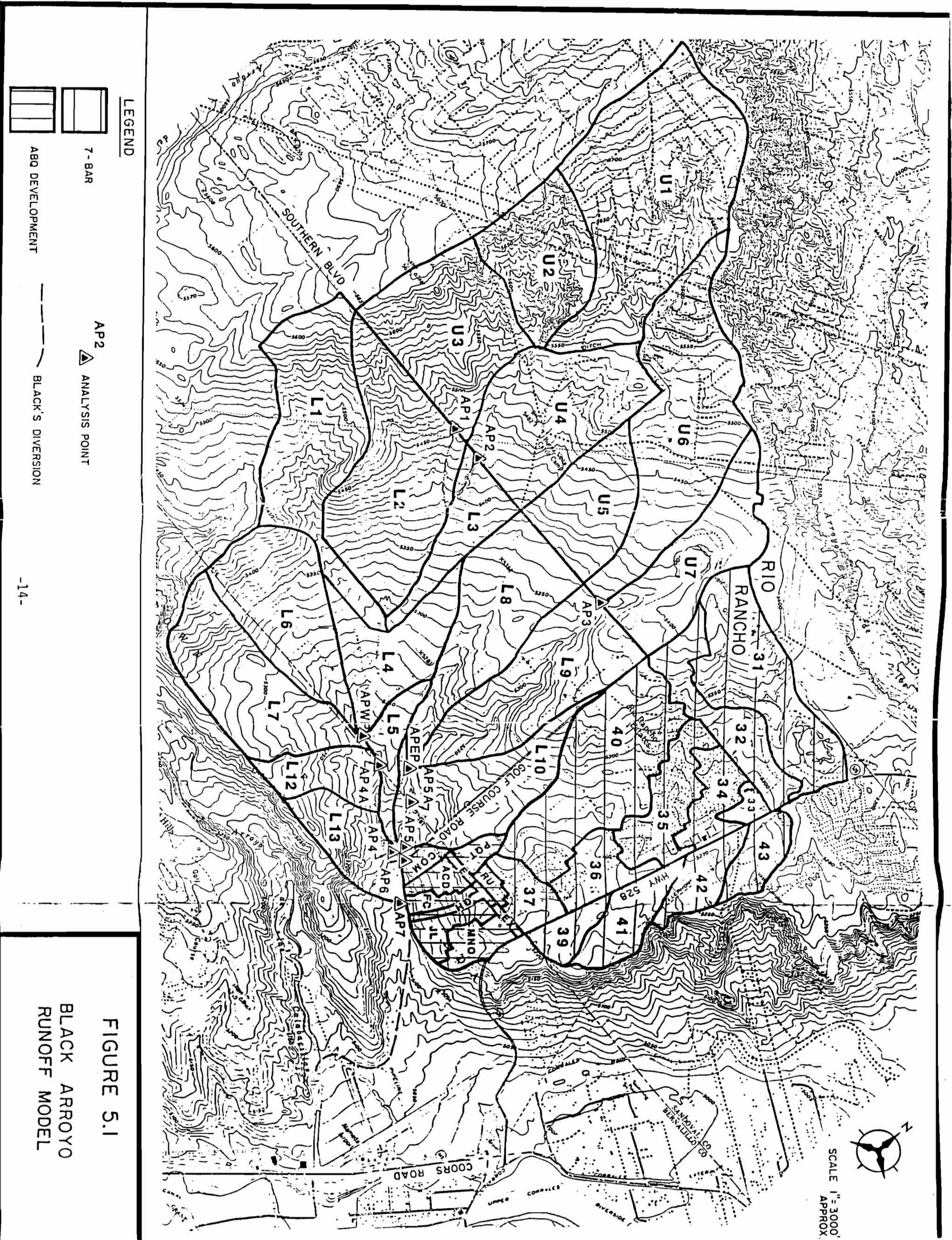


FIGURE 5.1

BLACK ARROYO
RUNOFF MODEL

LEGEND

7-BAR

ABQ DEVELOPMENT

AP2 ANALYSIS POINT

BLACK'S DIVERSION

PROPOSED HYMO RUN

HYMO SUMMARY TABLE

Pg. 1

SEVEN BAR TRACTS A&D FULLY DEVELOPED

0	DESCRIPTION	HYDROGRAPH LABEL	FROM ID NO	TO ID NO	AREA SQ MI	DISCHARGE CFS	CURVE NO	TIME TO PEAK HR	CFS PER ACRE
	HYDROGRAPH AT ROUTED	31.00	1	-	0.4090	294.5	NA	1.80	1.1
			1	4					
		31.00	1		0.4090	294.5		1.80	
		31.Rt	4		0.4090	294.7		1.80	
	HYDROGRAPH AT COMBINED FLOW AT ROUTED	32.00	2	-	0.2860	336.4	NA	1.70	1.8
		32.SM	2& 4	1	0.6950	615.5		1.75	
			1	4					
		32.SM	1		0.6950	615.5		1.75	
		32.Rt	4		0.6950	609.7		1.75	
	HYDROGRAPH AT COMBINED FLOW AT ROUTED	33.00	2	-	0.0530	124.2	NA	1.55	3.6
		33.SM	2& 4	1	0.7480	675.8		1.75	
			1	4					
		33.SM	1		0.7480	675.8		1.75	
		33.Rt	4		0.7480	665.7		1.80	
	HYDROGRAPH AT COMBINED FLOW AT ROUTED	34.00	2	-	0.1320	160.3	NA	1.70	1.9
		34.SM	2& 4	1	0.8800	805.0		1.80	
			1	4					
		34.SM	1		0.8800	805.0		1.80	
		34.Rt	4		0.8800	805.1		1.80	
	HYDROGRAPH AT COMBINED FLOW AT ROUTED	35.00	2	-	0.2650	330.5	NA	1.65	1.9
		35.SM	2& 4	1	1.1450	1082.6		1.80	
			1	4					
		35.SM	1		1.1450	1082.6		1.80	
		35.Rt	4		1.1450	1030.2		1.85	
	HYDROGRAPH AT COMBINED FLOW AT ROUTED	36.00	2	-	0.1540	185.7	NA	1.70	1.8
		36.SM	2& 4	1	1.2990	1176.2		1.85	
			1	4					
		36.SM	1		1.2990	1176.2		1.85	
		36.Rt	4		1.2990	1155.1		1.90	
	HYDROGRAPH AT COMBINED FLOW AT RESERVOIR HYD	37	2	-	0.1020	147.5	NA	1.60	2.2
		37.SM	2& 4	50	1.4010	1233.6		1.85	
		37.SM	50	49	1.4010	802.0		2.20	
	HYDROGRAPH AT HYDROGRAPH AT	T	1	-	0.0022	6.1	NA	1.50	4.3
		S	2	-	0.0070	13.0	NA	1.55	2.9
	COMBINED FLOW AT ROUTED	S&T	1& 2	3	0.0092	18.7		1.50	
			3	23					
		S&T	3		0.0092	18.7		1.50	
		T&S&Rt	23		0.0092	5.9		1.80	
	HYDROGRAPH AT HYDROGRAPH AT ROUTED	R	4	-	0.0096	13.4	NA	1.65	2.1
		B	5	-	0.0059	13.4	NA	1.50	3.5
			5	25					
		B	5		0.0059	13.4		1.50	
		B&Rt	25		0.0059	4.5		1.70	
	HYDROGRAPH AT ROUTED	D2	6	-	0.0038	8.6	NA	1.50	3.5
			6	26					
		D2	6		0.0038	8.6		1.50	
		D2&Rt	26		0.0038	3.0		1.70	

HYMO SUMMARY TABLE

Pg. 2

SEVEN BAR TRACTS A&D FULLY DEVELOPED

0	DESCRIPTION	HYDROGRAPH LABEL	FROM ID NO	TO ID NO	AREA SQ MI	DISCHARGE CFS	CURVE NO	TIME TO PEAK HR	CFS PER ACRE
	HYDROGRAPH AT	5	7	-	0.0050	7.1	NA	1.50	2.2
	COMBINED FLOW AT	ST&R	23& 4	29	0.0188	18.9		1.65	
	COMBINED FLOW AT	&B	29&25	29	0.0247	23.3		1.65	
	COMBINED FLOW AT	&D2	29&26	29	0.0285	26.2		1.65	
	COMBINED FLOW AT	&5	29& 7	29	0.0335	30.3		1.65	
	HYDROGRAPH AT	P	8	-	0.0095	10.3	NA	1.70	1.7
	ROUTED		29	39					
		&5	29		0.0335	30.3		1.65	
		&Rt	39		0.0335	18.8		1.90	
	COMBINED FLOW AT	P&SM	39& 8	39	0.0430	27.7		1.80	
	HYDROGRAPH AT	A	9	-	0.0142	33.2	NA	1.50	3.6
	RESERVOIR HYD	A	9	19	0.0142	20.1		1.65	
	ROUTED 24"		19	20					
		A	19		0.0142	20.1		1.65	
		A&R24	20		0.0142	20.1		1.65	
	ROUTED 36"		20	21					
		A&R24	20		0.0142	20.1		1.65	
		A&R36	21		0.0142	20.2		1.65	
	HYDROGRAPH AT	C1.1	20	-	0.0150	34.8	NA	1.50	3.6
	COMBINED FLOW AT	C1&A&R36	20&21	20	0.0292	49.6		1.50	
	ROUTED 36"		20	21					
		C1&A&R36	20		0.0292	49.6		1.50	
		C1&A&R60	21		0.0292	49.6		1.55	
	HYDROGRAPH AT	C1.2	10	-	0.0050	11.7	NA	1.50	3.6
	RECALL HYD	3A	20	-	0.0016	0.3		1.57	
	HYDROGRAPH AT	D3	11	-	0.0030	8.0	NA	1.50	4.1
	COMBINED FLOW AT	3A&D3	11&20	11	0.0046	8.2		1.00	
	ROUTED 24"		11	31					
		3A&D3	11		0.0046	8.2		1.00	
		3AD3R24	31		0.0046	8.1		1.00	
	HYDROGRAPH AT	1	12	-	0.0068	18.7	NA	1.50	4.3
	COMBINED FLOW AT	1&R24	12&31	41	0.0114	19.5		1.50	
	ROUTED 30"		41	42					
		1&R24	41		0.0114	19.5		1.50	
		1&D3&R30	42		0.0114	19.3		1.50	
	COMBINED FLOW AT	C12&R	10&42	43	0.0164	31.0		1.50	
	ROUTED 30"		43	22					
		C12&R	43		0.0164	31.0		1.50	
		C12R30	22		0.0164	30.6		1.50	
	HYDROGRAPH AT	2.1N	19	-	0.0030	8.3	NA	1.50	4.3
	COMBINED FLOW AT	21NR30	22&19	20	0.0194	38.9		1.50	
	ROUTED 36"		20	10					
		21NR30	20		0.0194	38.9		1.50	
		2.1N&R30	10		0.0194	38.4		1.50	
	HYDROGRAPH AT	FAB9	12	-	0.0085	23.5	NA	1.50	4.3
	ROUTED 30"		12	11					
		FAB9	12		0.0085	23.5		1.50	
		FAB&R30	11		0.0085	23.6		1.50	
	HYDROGRAPH AT	2.2N	19	-	0.0020	5.5	NA	1.50	4.3

HYMO SUMMARY TABLE

Pg. 3

SEVEN BAR TRACTS A&D FULLY DEVELOPED

0	DESCRIPTION	HYDROGRAPH LABEL	FROM ID NO	TO ID NO	AREA SQ MI	DISCHARGE CFS	CURVE NO	TIME TO PEAK HR	CFS PER ACRE
	COMBINED FLOW AT	22NFAB	11&19	11	0.0105	29.1		1.50	
	COMBINED FLOW AT	22NFB36	11&10	22	0.0299	67.5		1.50	
	ROUTED 42"		22	20					
		22NFB36	22		0.0299	67.5		1.50	
		2NFAB&R4	20		0.0299	67.1		1.50	
	HYDROGRAPH AT	2.3-NRT	12	-	0.0040	7.2	NA	1.50	2.8
	COMBINED FLOW AT	42R23N	20&12	20	0.0339	74.3		1.50	
	COMBINED FLOW AT	R42RAC1	20&21	23	0.0631	121.9		1.50	
	ROUTED 60"		23	24					
		R42RAC1	23		0.0631	121.9		1.50	
		R&60	24		0.0631	123.0		1.55	
	HYDROGRAPH AT	2SOUTH	12	-	0.0110	24.9	NA	1.50	3.5
	ROUTED 36"		12	23					
		2SOUTH	12		0.0110	24.9		1.50	
		SOUTH&R3	23		0.0110	25.0		1.50	
	COMBINED FLOW AT	CULVRT&S	24&23	25	0.0741	145.5		1.55	
	RECALL HYD	PMP	12	-	0.0103	5.0		1.57	
	COMBINED FLOW AT	CLVRT&PS	25&12	24	0.0844	149.0		1.53	
	ROUTED 72"		24	26					
		CLVRT&PS	24		0.0844	149.0		1.53	
		CULVRT	26		0.0844	145.9		1.55	
	HYDROGRAPH AT	GNORTH	15	-	0.0230	59.2	NA	1.50	4.0
	COMBINED FLOW AT	CLVRT&GN	15&26	27	0.1074	197.6		1.55	
	ROUTED 72"		27	30					
		CLVRT&GN	27		0.1074	197.6		1.55	
		R72	30		0.1074	191.6		1.55	
	HYDROGRAPH AT	GSOUTH	17	-	0.0260	58.4	NA	1.50	3.5
	ROUTED 54"		17	27					
		GSOUTH	17		0.0260	58.4		1.50	
		Rt54	27		0.0260	58.6		1.50	
	COMBINED FLOW AT	GSO&Rt54	27&30	24	0.1334	244.3		1.55	
	ROUTED 90"		24	27					
		GSO&Rt54	24		0.1334	244.3		1.55	
		Rt90	27		0.1334	238.3		1.55	
	HYDROGRAPH AT	J	16	-	0.0450	84.2	NA	1.65	2.9
	ROUTED 42"		16	30					
		J	16		0.0450	84.2		1.65	
		Rt42	30		0.0450	84.3		1.65	
	COMBINED FLOW AT	R42&R90	30&27	16	0.1784	313.6		1.60	
	ROUTED 90"		16	30					
		R42&R90	16		0.1784	313.6		1.60	
		90.00	30		0.1784	315.1		1.60	
	HYDROGRAPH AT	GMID	36	-	0.0860	155.6	NA	1.65	2.8
	ROUTED 54"		36	16					
		GMID	36		0.0860	155.6		1.65	
		Rt54	16		0.0860	156.4		1.65	
	COMBINED FLOW AT	197	16&30	36	0.2644	463.6		1.60	
	HYDROGRAPH AT	TERMNUS	16	-	0.0060	15.7	NA	1.50	4.0
	ROUTED 90"		36	30					

HYMO SUMMARY TABLE

Pg. 4

SEVEN BAR TRACTS A&D FULLY DEVELOPED

0	DESCRIPTION	HYDROGRAPH LABEL	FROM ID NO	TO ID NO	AREA SQ MI	DISCHARGE CFS	CURVE NO	TIME TO PEAK HR	CFS PER ACRE
		197	36		0.2644	463.6		1.60	
		RtCUL	30		0.2644	456.7		1.60	
	COMBINED FLOW AT	COMBO	16&30	32	0.2704	467.3		1.60	
	COMBINED FLOW AT	COMBO	32&39	40	0.3134	484.3		1.60	
	RESERVOIR HYD	COMBO	40	40	0.3134	231.1		2.00	
	ROUTED		40	39					
		COMBO	40		0.3134	231.1		2.00	
		RtCOMBO	39		0.3134	231.1		2.00	
	COMBINED FLOW AT	37.2	49&39	1	1.7144	1013.7		2.15	
	HYDROGRAPH AT	EX	2	-	0.0031	7.8	NA	1.50	3.8
	COMBINED FLOW AT	ROADRRP	2& 1	1	1.7176	1014.5		2.15	
	ROUTED		1	2					
		ROADRRP	1		1.7176	1014.5		2.15	
		ROAD	2		1.7176	1015.4		2.15	
	HYDROGRAPH AT	S1B	3	-	0.0070	17.1	NA	1.50	3.8
	COMBINED FLOW AT	CHNLS1B	2& 3	2	1.7245	1018.1		2.15	
	ROUTED		2	1					
		CHNLS1B	2		1.7245	1018.1		2.15	
		CHNL	1		1.7245	1020.0		2.15	
	HYDROGRAPH AT	A3A	2	-	0.0062	13.4	NA	1.50	3.3
	COMBINED FLOW AT	CHNLA3A	2& 1	1	1.7307	1021.3		2.15	
	ROUTED		1	2					
		CHNLA3A	1		1.7307	1021.3		2.15	
		CHNL	2		1.7307	1021.7		2.15	
	HYDROGRAPH AT	A3B	1	-	0.0063	13.6	NA	1.50	3.3
	COMBINED FLOW AT	CHNLA3B	2& 1	1	1.7370	1023.0		2.15	
	ROUTED		1	2					
		CHNLA3B	1		1.7370	1023.0		2.15	
		CHNL	2		1.7370	1022.7		2.15	
	HYDROGRAPH AT	A3C	1	-	0.0063	13.6	NA	1.50	3.3
	COMBINED FLOW AT	CHNLA3C	2& 1	1	1.7433	1024.0		2.15	
	ROUTED		1	2					
		CHNLA3C	1		1.7433	1024.0		2.15	
		CHNL	2		1.7433	1024.3		2.15	
	HYDROGRAPH AT	A3DB	1	-	0.0085	18.3	NA	1.50	3.3
	COMBINED FLOW AT	CHNLA3D	2& 1	1	1.7518	1026.1		2.15	
	ROUTED		1	2					
		CHNLA3D	1		1.7518	1026.1		2.15	
		CHNL	2		1.7518	1028.8		2.15	
	HYDROGRAPH AT	A2	1	-	0.0334	70.7	NA	1.50	3.3
	COMBINED FLOW AT	CHNLA2	2& 1	1	1.7852	1035.7		2.15	
	ROUTED		1	2					
		CHNLA2	1		1.7852	1035.7		2.15	
		CHNL	2		1.7852	1033.2		2.20	
	HYDROGRAPH AT	A1B	1	-	0.0281	57.2	NA	1.50	3.1
	COMBINED FLOW AT	CHNLA1B	2& 1	2	1.8133	1038.1		2.15	
	ROUTED		2	50					
		CHNLA1B	2		1.8133	1038.1		2.15	
		EASTCONF	50		1.8133	1042.4		2.20	

HYMO SUMMARY TABLE

Pg. 5

SEVEN BAR TRACTS A&D FULLY DEVELOPED

0	DESCRIPTION	HYDROGRAPH LABEL	FROM ID NO	TO ID NO	AREA SQ MI	DISCHARGE CFS	CURVE NO	TIME TO PEAK HR	CFS PER ACRE
	HYDROGRAPH AT ROUTED	101.10	2	-	0.0310	26.0	NA	1.55	1.3
			2	14					
		101.10	2		0.0310	26.0		1.55	
		101.2	14		0.0310	19.3		1.70	
	HYDROGRAPH AT	101.30	4	-	0.1060	69.2	NA	1.65	1.0
	COMBINED FLOW AT	101.4	14& 4	15	0.1370	88.2		1.65	
	HYDROGRAPH AT	101.50	3	-	0.0650	46.2	NA	1.60	1.1
	ROUTED		3	16					
		101.50	3		0.0650	46.2		1.60	
		101.6	16		0.0650	36.4		1.70	
	HYDROGRAPH AT	101.70	5	-	0.0770	57.1	NA	1.60	1.1
	COMBINED FLOW AT	101.8	16& 5	17	0.1420	87.8		1.65	
	COMBINED FLOW AT	101.9	15&17	18	0.2790	176.0		1.65	
	ROUTED		18	19					
		101.9	18		0.2790	176.0		1.65	
		101.10	19		0.2790	162.9		1.70	
	HYDROGRAPH AT	101.11	6	-	0.0940	62.7	NA	1.60	1.0
	ROUTED		6	20					
		101.11	6		0.0940	62.7		1.60	
		101.12	20		0.0940	63.0		1.65	
	HYDROGRAPH AT	101.13	7	-	0.0990	65.1	NA	1.65	1.0
	COMBINED FLOW AT	101.14	20& 7	21	0.1930	128.2		1.65	
	ROUTED		21	22					
		101.14	21		0.1930	128.2		1.65	
		101.15	22		0.1930	127.6		1.65	
	HYDROGRAPH AT	101.16	8	-	0.1680	119.5	NA	1.60	1.1
	COMBINED FLOW AT	101.17	19& 8	23	0.4470	269.6		1.70	
	COMBINED FLOW AT	101.18	23&22	24	0.6400	396.8		1.65	
	ROUTED		24	25					
		101.18	24		0.6400	396.8		1.65	
		101.19	25		0.6400	399.1		1.70	
	HYDROGRAPH AT	101.20	10	-	0.1120	66.6	NA	1.65	0.9
	COMBINED FLOW AT	101.21	25&10	26	0.7520	464.7		1.70	
	HYDROGRAPH AT	101.22	9	-	0.1590	103.4	NA	1.65	1.0
	ROUTED		9	27					
		101.22	9		0.1590	103.4		1.65	
		101.23	27		0.1590	87.4		1.75	
	ROUTED		26	28					
		101.21	26		0.7520	464.7		1.70	
		101.24	28		0.7520	453.0		1.75	
	HYDROGRAPH AT	101.25	11	-	0.1540	87.0	NA	1.70	0.8
	COMBINED FLOW AT	101.26	28&11	29	0.9060	536.6		1.75	
	HYDROGRAPH AT	101.27	12	-	0.0630	38.2	NA	1.65	0.9
	COMBINED FLOW AT	101.28	27&12	30	0.2220	121.6		1.75	
	COMBINED FLOW AT	101.29	30&29	31	1.1280	658.2		1.75	
	ROUTED		31	32					
		101.29	31		1.1280	658.2		1.75	
		101.30	32		1.1280	487.9		1.85	
	HYDROGRAPH AT	101.31	13	-	0.1600	81.7	NA	1.75	0.8

HYMO SUMMARY TABLE

Pg. 6

SEVEN BAR TRACTS A&D FULLY DEVELOPED

0	DESCRIPTION	HYDROGRAPH LABEL	FROM ID NO	TO ID NO	AREA SQ MI	DISCHARGE CFS	CURVE NO	TIME TO PEAK HR	CFS PER ACRE
	COMBINED FLOW AT	AP101	32&13	33	1.2880	560.9		1.85	
	HYDROGRAPH AT	102.10	2	-	0.1140	108.1	NA	1.60	1.4
	ROUTED		2	7					
		102.10	2		0.1140	108.1		1.60	
		102.2	7		0.1140	108.0		1.65	
	HYDROGRAPH AT	102.30	5	-	0.0200	27.2	NA	1.50	2.1
	ROUTED		5	8					
		102.30	5		0.0200	27.2		1.50	
		102.4	8		0.0200	16.8		1.65	
	HYDROGRAPH AT	102.50	3	-	0.1130	115.2	NA	1.60	1.5
	COMBINED FLOW AT	102.5	7& 3	9	0.2270	220.1		1.60	
	ROUTED		9	10					
		102.5	9		0.2270	220.1		1.60	
		102.6	10		0.2270	218.6		1.65	
	HYDROGRAPH AT	102.70	4	-	0.0600	69.6	NA	1.55	1.8
	COMBINED FLOW AT	102.8	10& 4	11	0.2870	278.6		1.60	
	ROUTED		11	12					
		102.8	11		0.2870	278.6		1.60	
		102.9	12		0.2870	278.2		1.65	
	HYDROGRAPH AT	102.10	6	-	0.1730	147.0	NA	1.65	1.3
	COMBINED FLOW AT	102.11	8& 6	13	0.1930	163.8		1.65	
	COMBINED FLOW AT	102.12	13&12	14	0.4800	442.1		1.65	
	ROUTED		33	15					
		AP101	33		1.2880	560.9		1.85	
		102.13	15		1.2880	561.0		1.85	
	COMBINED FLOW AT	AP102	14&15	16	1.7680	852.2		1.80	
	HYDROGRAPH AT	103.10	2	-	0.1390	208.0	NA	1.55	2.3
	ROUTED		2	7					
		103.10	2		0.1390	208.0		1.55	
		103.2	7		0.1390	200.4		1.60	
	HYDROGRAPH AT	103.30	4	-	0.0990	146.2	NA	1.60	2.3
	COMBINED FLOW AT	103.4	7& 4	8	0.2380	346.6		1.60	
	ROUTED		16	9					
		AP102	16		1.7680	852.2		1.80	
		103.5	9		1.7680	853.0		1.80	
	COMBINED FLOW AT	103.6	8& 9	10	2.0060	1074.3		1.75	
	ROUTED		10	42					
		103.6	10		2.0060	1074.3		1.75	
		103.7	42		2.0060	1068.1		1.80	
	HYDROGRAPH AT	103.80	3	-	0.2590	355.5	NA	1.60	2.1
	ROUTED		3	12					
		103.80	3		0.2590	355.5		1.60	
		103.9	12		0.2590	352.6		1.65	
	HYDROGRAPH AT	103.10	6	-	0.0640	109.1	NA	1.55	2.6
	COMBINED FLOW AT	AP1	12& 6	41	0.3230	437.5		1.60	
	HYDROGRAPH AT	104.10	2	-	0.1370	91.1	NA	1.80	1.0
	HYDROGRAPH AT	104.20	3	-	0.0520	49.3	NA	1.65	1.4
	ROUTED		2	7					
		104.10	2		0.1370	91.1		1.80	

HYMO SUMMARY TABLE

Pg. 7

SEVEN BAR TRACTS A&D FULLY DEVELOPED

0	DESCRIPTION	HYDROGRAPH LABEL	FROM ID NO	TO ID NO	AREA SQ MI	DISCHARGE CFS	CURVE NO	TIME TO PEAK HR	CFS PER ACRE
		104.3	7		0.1370	90.8		1.85	
	HYDROGRAPH AT	104.40	4	-	0.1210	114.9	NA	1.65	1.4
	COMBINED FLOW AT	104.5	7& 4	8	0.2580	186.1		1.75	
	ROUTED		8	9					
		104.5	8		0.2580	186.1		1.75	
		104.6	9		0.2580	183.9		1.75	
	ROUTED		3	10					
		104.20	3		0.0520	49.3		1.65	
		104.7	10		0.0520	48.6		1.70	
	ROUTED		10	11					
		104.7	10		0.0520	48.6		1.70	
		104.8	11		0.0520	46.9		1.75	
	COMBINED FLOW AT	AP109	9&11	12	0.3100	230.8		1.75	
	ROUTED		12	13					
		AP109	12		0.3100	230.8		1.75	
		104.9	13		0.3100	229.2		1.80	
	HYDROGRAPH AT	104.10	6	-	0.1330	149.5	NA	1.60	1.7
	COMBINED FLOW AT	AP103	13& 6	33	0.4430	325.5		1.75	
	HYDROGRAPH AT	104.11	5	-	0.1470	122.6	NA	1.70	1.3
	COMBINED FLOW AT	AP110	42& 5	42	2.1530	1185.6		1.75	
	ROUTED		42	14					
		AP110	42		2.1530	1185.6		1.75	
		103.11	14		2.1530	1184.7		1.75	
	HYDROGRAPH AT	103.12	5	-	0.0990	128.7	NA	1.65	2.0
	COMBINED FLOW AT	AP2	14& 5	42	2.2520	1289.8		1.75	
	HYDROGRAPH AT	106.10	2	-	0.0090	13.7	NA	1.55	2.3
	HYDROGRAPH AT	106.20	3	-	0.1110	123.1	NA	1.65	1.7
	ROUTED		2	13					
		106.10	2		0.0090	13.7		1.55	
		106.3	13		0.0090	7.5		1.75	
	COMBINED FLOW AT	106.4	13& 3	14	0.1200	130.0		1.65	
	HYDROGRAPH AT	106.50	4	-	0.0880	107.5	NA	1.65	1.9
	ROUTED		4	15					
		106.50	4		0.0880	107.5		1.65	
		106.6	15		0.0880	102.9		1.70	
	HYDROGRAPH AT	106.70	6	-	0.0760	81.1	NA	1.70	1.6
	COMBINED FLOW AT	106.8	15& 6	16	0.1640	184.0		1.70	
	ROUTED		16	17					
		106.8	16		0.1640	184.0		1.70	
		106.9	17		0.1640	178.2		1.75	
	HYDROGRAPH AT	106.10	9	-	0.0890	83.2	NA	1.75	1.4
	COMBINED FLOW AT	106.11	17& 9	18	0.2530	261.4		1.75	
	ROUTED		18	19					
		106.11	18		0.2530	261.4		1.75	
		106.13	19		0.2530	239.1		1.85	
	HYDROGRAPH AT	106.14	11	-	0.1070	107.1	NA	1.70	1.5
	COMBINED FLOW AT	106.15	19&11	20	0.3600	335.1		1.80	
	ROUTED		20	21					
		106.15	20		0.3600	335.1		1.80	

HYMO SUMMARY TABLE

Pg. 8

SEVEN BAR TRACTS A&D FULLY DEVELOPED

0	DESCRIPTION	HYDROGRAPH LABEL	FROM ID NO	TO ID NO	AREA SQ MI	DISCHARGE CFS	CURVE NO	TIME TO PEAK HR	CFS PER ACRE
		106.16	21		0.3600	318.1		1.90	
	HYDROGRAPH AT	106.17	12	-	0.1350	129.0	NA	1.75	1.4
	COMBINED FLOW AT	106.18	21&12	43	0.4950	434.6		1.85	
	ROUTED		14	22					
		106.4	14		0.1200	130.0		1.65	
		106.19	22		0.1200	129.4		1.70	
	HYDROGRAPH AT	106.20	5	-	0.0370	40.8	NA	1.65	1.7
	COMBINED FLOW AT	106.21	22& 5	23	0.1570	170.0		1.70	
	ROUTED		23	24					
		106.21	23		0.1570	170.0		1.70	
		106.22	24		0.1570	167.5		1.75	
	HYDROGRAPH AT	106.23	8	-	0.0360	50.4	NA	1.60	2.1
	COMBINED FLOW AT	106.24	24& 8	25	0.1930	204.1		1.70	
	ROUTED		25	26					
		106.24	25		0.1930	204.1		1.70	
		106.25	26		0.1930	201.7		1.75	
	HYDROGRAPH AT	106.26	7	-	0.0620	85.1	NA	1.60	2.1
	ROUTED		7	27					
		106.26	7		0.0620	85.1		1.60	
		106.27	27		0.0620	85.0		1.60	
	COMBINED FLOW AT	106.28	26&27	28	0.2550	272.2		1.70	
	ROUTED		28	29					
		106.28	28		0.2550	272.2		1.70	
		106.29	29		0.2550	272.6		1.70	
	HYDROGRAPH AT	106.30	10	-	0.1120	144.4	NA	1.60	2.0
	COMBINED FLOW AT	106.31	29&10	30	0.3670	399.3		1.70	
	ROUTED		30	31					
		106.31	30		0.3670	399.3		1.70	
		106.32	31		0.3670	359.8		1.75	
	COMBINED FLOW AT	106.33	31&43	43	0.8620	779.1		1.85	
	HYDROGRAPH AT	107.10	2	-	0.1260	103.3	NA	1.65	1.2
	ROUTED		2	5					
		107.10	2		0.1260	103.3		1.65	
		107.2	5		0.1260	68.0		1.85	
	HYDROGRAPH AT	107.30	3	-	0.2170	68.5	NA	2.30	0.4
	COMBINED FLOW AT	107.4	5& 3	6	0.3430	118.6		2.05	
	COMBINED FLOW AT	AP3	43& 6	43	1.2050	888.2		1.85	
	HYDROGRAPH AT	105.00	35	-	0.0470	40.6	NA	1.65	1.3
	HYDROGRAPH AT	105.10	2	-	0.1350	133.7	NA	1.65	1.5
	ROUTED		2	5					
		105.10	2		0.1350	133.7		1.65	
		105.2	5		0.1350	133.5		1.70	
	HYDROGRAPH AT	105.30	4	-	0.0650	67.7	NA	1.65	1.6
	COMBINED FLOW AT	AP107	5& 4	37	0.2000	199.9		1.65	
	HYDROGRAPH AT	108.00	38	-	0.1100	113.8	NA	1.65	1.6
	HYDROGRAPH AT	201.10	2	-	0.1510	88.5	NA	1.60	0.9
	ROUTED		2	8					
		201.10	2		0.1510	88.5		1.60	
		201.2	8		0.1510	84.6		1.65	

HYMO SUMMARY TABLE

Pg. 9

SEVEN BAR TRACTS A&D FULLY DEVELOPED

0	DESCRIPTION	HYDROGRAPH LABEL	FROM ID NO	TO ID NO	AREA SQ MI	DISCHARGE CFS	CURVE NO	TIME TO PEAK HR	CFS PER ACRE
	HYDROGRAPH AT	201.30	3	-	0.2160	112.8	NA	1.65	0.8
	COMBINED FLOW AT	201.4	8& 3	9	0.3670	197.4		1.65	
	ROUTED		9	10					
		201.4	9		0.3670	197.4		1.65	
		201.5	10		0.3670	197.4		1.65	
	HYDROGRAPH AT	201.60	4	-	0.1520	78.3	NA	1.65	0.8
	COMBINED FLOW AT	201.7	10& 4	11	0.5190	275.7		1.65	
	ROUTED		11	12					
		201.7	11		0.5190	275.7		1.65	
		201.8	12		0.5190	268.2		1.70	
	HYDROGRAPH AT	201.90	5	-	0.1950	99.4	NA	1.65	0.8
	COMBINED FLOW AT	201.10	12& 5	13	0.7140	362.6		1.70	
	ROUTED		13	14					
		201.10	13		0.7140	362.6		1.70	
		201.11	14		0.7140	364.9		1.70	
	HYDROGRAPH AT	201.12	6	-	0.0120	8.7	NA	1.55	1.1
	COMBINED FLOW AT	201.13	14& 6	15	0.7260	370.2		1.70	
	ROUTED		15	16					
		201.13	15		0.7260	370.2		1.70	
		201.14	16		0.7260	336.9		1.80	
	HYDROGRAPH AT	201.15	7	-	0.0550	23.9	NA	1.65	0.6
	COMBINED FLOW AT	AP201	16& 7	45	0.7810	357.1		1.75	
	HYDROGRAPH AT	202.10	2	-	0.0560	35.4	NA	1.55	0.9
	ROUTED		2	12					
		202.10	2		0.0560	35.4		1.55	
		202.2	12		0.0560	32.3		1.65	
	HYDROGRAPH AT	202.30	3	-	0.0410	25.6	NA	1.60	0.9
	ROUTED		3	13					
		202.30	3		0.0410	25.6		1.60	
		202.4	13		0.0410	24.2		1.65	
	COMBINED FLOW AT	AP210	12&13	14	0.0970	56.4		1.65	
	ROUTED		14	15					
		AP210	14		0.0970	56.4		1.65	
		202.5	15		0.0970	51.6		1.70	
	HYDROGRAPH AT	202.60	6	-	0.0750	42.0	NA	1.60	0.8
	COMBINED FLOW AT	202.7	15& 6	16	0.1720	88.6		1.65	
	ROUTED		16	17					
		202.7	16		0.1720	88.6		1.65	
		202.8	17		0.1720	77.3		1.75	
	ROUTED		41	18					
		AP1	41		0.3230	437.5		1.60	
		202.9	18		0.3230	432.6		1.65	
	HYDROGRAPH AT	202.10	4	-	0.0970	50.0	NA	1.65	0.8
	COMBINED FLOW AT	202.11	18& 4	19	0.4200	482.5		1.65	
	ROUTED		19	20					
		202.11	19		0.4200	482.5		1.65	
		202.12	20		0.4200	484.7		1.65	
	ROUTED		42	21					
		AP2	42		2.2520	1289.8		1.75	

HYMO SUMMARY TABLE

Pg. 10

SEVEN BAR TRACTS A&D FULLY DEVELOPED

0	DESCRIPTION	HYDROGRAPH LABEL	FROM ID NO	TO ID NO	AREA SQ MI	DISCHARGE CFS	CURVE NO	TIME TO PEAK HR	CFS PER ACRE
		202.13	21		2.2520	1279.4		1.80	
	COMBINED FLOW AT	AP211	20&21	22	2.6720	1709.4		1.75	
	ROUTED		22	23					
		AP211	22		2.6720	1709.4		1.75	
		202.14	23		2.6720	1713.1		1.75	
	COMBINED FLOW AT	AP212	17&23	24	2.8440	1790.4		1.75	
	ROUTED		24	25					
		AP212	24		2.8440	1790.4		1.75	
		202.15	25		2.8440	1792.5		1.75	
	HYDROGRAPH AT	202.16	5	-	0.0940	45.3	NA	1.65	0.7
	COMBINED FLOW AT	202.17	25& 5	26	2.9380	1832.8		1.75	
	HYDROGRAPH AT	202.18	7	-	0.1370	79.2	NA	1.60	0.9
	ROUTED		7	27					
		202.18	7		0.1370	79.2		1.60	
		202.19	27		0.1370	71.0		1.70	
	HYDROGRAPH AT	202.20	9	-	0.0940	41.3	NA	1.65	0.6
	COMBINED FLOW AT	202.21	27& 9	28	0.2310	112.1		1.70	
	ROUTED		28	29					
		202.21	28		0.2310	112.1		1.70	
		202.22	29		0.2310	113.8		1.70	
	HYDROGRAPH AT	202.23	8	-	0.0770	52.7	NA	1.55	1.0
	ROUTED		8	30					
		202.23	8		0.0770	52.7		1.55	
		202.24	30		0.0770	38.2		1.70	
	ROUTED		26	31					
		202.17	26		2.9380	1832.8		1.75	
		202.25	31		2.9380	1775.2		1.80	
	COMBINED FLOW AT	202.26	29&30	32	0.3080	152.0		1.70	
	COMBINED FLOW AT	202.27	32&31	49	3.2460	1908.5		1.80	
	HYDROGRAPH AT	202.27	10	-	0.1330	57.5	NA	1.70	0.6
	COMBINED FLOW AT	AP213	49&10	48	3.3790	1959.8		1.80	
	ROUTED		48	47					
		AP213	48		3.3790	1959.8		1.80	
		202.28	47		3.3790	1966.2		1.80	
	COMBINED FLOW AT	202.29	45&47	46	4.1600	2323.2		1.80	
	ROUTED		33	4					
		AP103	33		0.4430	325.5		1.75	
		203.1	4		0.4430	307.4		1.80	
	HYDROGRAPH AT	203.20	2	-	0.1540	84.1	NA	1.65	0.8
	COMBINED FLOW AT	202.4	4& 2	5	0.5970	378.0		1.80	
	ROUTED		5	6					
		202.4	5		0.5970	378.0		1.80	
		203.2	6		0.5970	363.7		1.85	
	HYDROGRAPH AT	203.30	3	-	0.0400	18.4	NA	1.70	0.7
	COMBINED FLOW AT	202.4	6& 3	7	0.6370	379.8		1.85	
	COMBINED FLOW AT	AP201	46& 7	31	4.7970	2694.0		1.80	
	ROUTED		31	6					
		AP201	31		4.7970	2694.0		1.80	
		204.1	6		4.7970	2690.1		1.80	

HYMO SUMMARY TABLE

Pg. 11

SEVEN BAR TRACTS A&D FULLY DEVELOPED

0	DESCRIPTION	HYDROGRAPH LABEL	FROM ID NO	TO ID NO	AREA SQ MI	DISCHARGE CFS	CURVE NO	TIME TO PEAK HR	CFS PER ACRE
	HYDROGRAPH AT	204.20	2	-	0.0840	32.7	NA	1.70	0.6
	COMBINED FLOW AT	202.4	6& 2	7	4.8810	2720.4		1.80	
	ROUTED		7	8					
		202.4	7		4.8810	2720.4		1.80	
		203.2	8		4.8810	2709.4		1.80	
	HYDROGRAPH AT	204.20	3	-	0.1210	43.9	NA	1.75	0.5
	COMBINED FLOW AT	202.4	8& 3	9	5.0020	2752.0		1.80	
	ROUTED		9	10					
		202.4	9		5.0020	2752.0		1.80	
		203.2	10		5.0020	2764.4		1.85	
	HYDROGRAPH AT	204.20	4	-	0.0940	41.0	NA	1.65	0.6
	COMBINED FLOW AT	202.4	10& 4	11	5.0960	2795.4		1.85	
	ROUTED		11	12					
		202.4	11		5.0960	2795.4		1.85	
		203.2	12		5.0960	2818.2		1.85	
	HYDROGRAPH AT	204.20	5	-	0.0890	32.0	NA	1.75	0.5
	COMBINED FLOW AT	202.4	12& 5	13	5.1850	2847.4		1.85	
	HYDROGRAPH AT	206.10	2	-	0.2810	172.1	NA	1.60	0.9
	ROUTED		2	4					
		206.10	2		0.2810	172.1		1.60	
		206.2	4		0.2810	168.9		1.65	
	HYDROGRAPH AT	206.40	3	-	0.1640	69.0	NA	1.70	0.6
	COMBINED FLOW AT	206.5	4& 3	5	0.4450	236.6		1.65	
	ROUTED		5	6					
		206.5	5		0.4450	236.6		1.65	
		206.2	6		0.4450	219.9		1.70	
	HYDROGRAPH AT	206.40	4	-	0.0790	31.7	NA	1.70	0.6
	COMBINED FLOW AT	206.5	6& 4	7	0.5240	251.6		1.70	
	COMBINED FLOW AT	206.5	13& 7	36	5.7090	3054.2		1.85	
	ROUTED		36	22					
		206.5	36		5.7090	3054.2		1.85	
		206.2	22		5.7090	3073.9		1.85	
	HYDROGRAPH AT	207.10	2	-	0.2390	156.5	NA	1.60	1.0
	ROUTED		2	5					
		207.10	2		0.2390	156.5		1.60	
		207.2	5		0.2390	127.1		1.70	
	HYDROGRAPH AT	207.30	3	-	0.2480	103.0	NA	1.70	0.6
	COMBINED FLOW AT	207.4	5& 3	6	0.4870	230.2		1.70	
	ROUTED		6	7					
		207.4	6		0.4870	230.2		1.70	
		206.2	7		0.4870	225.8		1.75	
	HYDROGRAPH AT	207.40	4	-	0.0490	26.0	NA	1.60	0.8
	COMBINED FLOW AT	207.5	7& 4	8	0.5360	246.6		1.70	
	ROUTED		8	9					
		207.5	8		0.5360	246.6		1.70	
		206.2	9		0.5360	249.0		1.75	
	HYDROGRAPH AT	205.10	2	-	0.0860	37.5	NA	1.70	0.6
	COMBINED FLOW AT	207.5	9& 2	10	0.6220	284.9		1.75	
	COMBINED FLOW AT	207.5	22&10	11	6.3310	3320.4		1.85	

HYMO SUMMARY TABLE

Pg. 12

SEVEN BAR TRACTS A&D FULLY DEVELOPED

0	DESCRIPTION	HYDROGRAPH LABEL	FROM ID NO	TO ID NO	AREA SQ MI	DISCHARGE CFS	CURVE NO	TIME TO PEAK HR	CFS PER ACRE
	ROUTED		11	12					
		207.5	11		6.3310	3320.4		1.85	
		206.2	12		6.3310	3335.8		1.85	
	HYDROGRAPH AT	207.40	5	-	0.0170	10.2	NA	1.60	0.9
	COMBINED FLOW AT	207.5	12& 5	13	6.3480	3340.3		1.85	
	ROUTED		13	14					
		207.5	13		6.3480	3340.3		1.85	
		206.2	14		6.3480	3353.1		1.85	
	HYDROGRAPH AT	205.10	3	-	0.0230	11.4	NA	1.65	0.7
	COMBINED FLOW AT	207.5	14& 3	15	6.3710	3360.7		1.85	
	HYDROGRAPH AT	212.10	2	-	0.1380	64.6	NA	1.65	0.7
	ROUTED		2	4					
		212.10	2		0.1380	64.6		1.65	
		207.2	4		0.1380	63.5		1.70	
	HYDROGRAPH AT	212.30	3	-	0.0560	40.8	NA	1.55	1.1
	COMBINED FLOW AT	207.4	4& 3	5	0.1940	92.5		1.65	
	COMBINED FLOW AT	207.4	15& 5	27	6.5650	3422.8		1.85	
	ROUTED		37	6					
		AP107	37		0.2000	199.9		1.65	
		207.2	6		0.2000	171.0		1.80	
	HYDROGRAPH AT	208.20	2	-	0.1870	75.5	NA	1.70	0.6
	COMBINED FLOW AT	208.4	6& 2	7	0.3870	244.3		1.75	
	ROUTED		7	8					
		208.4	7		0.3870	244.3		1.75	
		208.3	8		0.3870	244.1		1.75	
	HYDROGRAPH AT	208.30	3	-	0.1670	58.3	NA	1.75	0.5
	COMBINED FLOW AT	208.4	8& 3	9	0.5540	302.4		1.75	
	ROUTED		9	10					
		208.4	9		0.5540	302.4		1.75	
		208.2	10		0.5540	292.7		1.85	
	HYDROGRAPH AT	208.40	4	-	0.1510	52.6	NA	1.75	0.5
	COMBINED FLOW AT	208.5	10& 4	11	0.7050	342.7		1.85	
	ROUTED		11	12					
		208.5	11		0.7050	342.7		1.85	
		206.2	12		0.7050	335.0		1.85	
	HYDROGRAPH AT	208.40	5	-	0.0490	29.3	NA	1.60	0.9
	COMBINED FLOW AT	208.5	12& 5	13	0.7540	348.4		1.85	
	ROUTED		38	6					
		108.00	38		0.1100	113.8		1.65	
		208.2	6		0.1100	102.8		1.70	
	ROUTED		43	7					
		AP3	43		1.2050	888.2		1.85	
		208.2	7		1.2050	889.2		1.85	
	COMBINED FLOW AT	209.4	6& 7	8	1.3150	978.4		1.85	
	ROUTED		8	9					
		209.4	8		1.3150	978.4		1.85	
		208.2	9		1.3150	966.3		1.90	
	ROUTED		35	10					
		105.00	35		0.0470	40.6		1.65	

HYMO SUMMARY TABLE

Pg. 13

SEVEN BAR TRACTS A&D FULLY DEVELOPED

0	DESCRIPTION	HYDROGRAPH LABEL	FROM ID NO	TO ID NO	AREA SQ MI	DISCHARGE CFS	CURVE NO	TIME TO PEAK HR	CFS PER ACRE
		208.2	10		0.0470	29.9		1.80	
	COMBINED FLOW AT	209.4	9&10	11	1.3620	994.9		1.90	
	ROUTED		11	12					
		209.4	11		1.3620	994.9		1.90	
		208.2	12		1.3620	997.8		1.90	
	HYDROGRAPH AT	209.20	2	-	0.2260	95.0	NA	1.75	0.6
	COMBINED FLOW AT	209.4	12& 2	14	1.5880	1075.2		1.90	
	ROUTED		14	15					
		209.4	14		1.5880	1075.2		1.90	
		209.3	15		1.5880	1063.7		1.90	
	HYDROGRAPH AT	209.30	3	-	0.1700	70.1	NA	1.70	0.6
	COMBINED FLOW AT	209.4	15& 3	16	1.7580	1120.7		1.90	
	ROUTED		16	17					
		209.4	16		1.7580	1120.7		1.90	
		209.2	17		1.7580	1093.9		1.95	
	HYDROGRAPH AT	209.40	4	-	0.1280	62.0	NA	1.65	0.7
	COMBINED FLOW AT	209.5	17& 4	18	1.8860	1128.0		1.95	
	ROUTED		18	19					
		209.5	18		1.8860	1128.0		1.95	
		209.2	19		1.8860	1127.3		1.95	
	HYDROGRAPH AT	209.40	5	-	0.0100	8.4	NA	1.50	1.3
	COMBINED FLOW AT	209.5	19& 5	20	1.8960	1128.5		1.95	
	COMBINED FLOW AT	209.5	13&20	24	2.6500	1461.2		1.95	
	HYDROGRAPH AT	210.20	2	-	0.0950	38.6	NA	1.80	0.6
	ROUTED		2	8					
		210.20	2		0.0950	38.6		1.80	
		210.3	8		0.0950	37.1		1.85	
	HYDROGRAPH AT	210.30	3	-	0.0660	43.6	NA	1.60	1.0
	HYDROGRAPH AT	210.30	5	-	0.0380	25.1	NA	1.60	1.0
	COMBINED FLOW AT	210.4	8& 3	9	0.1610	67.6		1.70	
	COMBINED FLOW AT	210.4	9& 5	10	0.1990	90.4		1.65	
	ROUTED		10	11					
		210.4	10		0.1990	90.4		1.65	
		210.3	11		0.1990	77.6		1.80	
	HYDROGRAPH AT	210.30	4	-	0.1910	117.4	NA	1.65	0.9
	COMBINED FLOW AT	210.4	11& 4	12	0.3900	182.3		1.70	
	ROUTED		12	13					
		210.4	12		0.3900	182.3		1.70	
		210.3	13		0.3900	181.9		1.70	
	ROUTED		24	14					
		209.5	24		2.6500	1461.2		1.95	
		210.3	14		2.6500	1448.4		2.00	
	COMBINED FLOW AT	210.4	14&13	15	3.0400	1573.4		1.95	
	HYDROGRAPH AT	210.30	6	-	0.0770	47.0	NA	1.65	0.9
	COMBINED FLOW AT	210.4	15& 6	26	3.1170	1594.6		1.95	
	ROUTED		27	20					
		207.4	27		6.5650	3422.8		1.85	
		210.3	20		6.5650	3404.8		1.85	
	ROUTED		26	21					

HYMO SUMMARY TABLE

Pg. 14

SEVEN BAR TRACTS A&D FULLY DEVELOPED

0	DESCRIPTION	HYDROGRAPH LABEL	FROM ID NO	TO ID NO	AREA SQ MI	DISCHARGE CFS	CURVE NO	TIME TO PEAK HR	CFS PER ACRE
		210.4	26		3.1170	1594.6		1.95	
		210.3	21		3.1170	1589.0		2.00	
	COMBINED FLOW AT	210.4	20&21	22	9.6820	4797.1		1.90	
	HYDROGRAPH AT	210.30	7	-	0.0460	39.2	NA	1.55	1.3
	COMBINED FLOW AT	210.4	22& 7	23	9.7280	4807.0		1.90	
	HYDROGRAPH AT	213.10	2	-	0.1110	64.4	NA	1.65	0.9
	ROUTED		2	4					
		213.10	2		0.1110	64.4		1.65	
		210.3	4		0.1110	64.9		1.65	
	HYDROGRAPH AT	213.30	3	-	0.0200	15.5	NA	1.55	1.2
	COMBINED FLOW AT	210.4	4& 3	28	0.1310	77.9		1.60	
	ROUTED		28	24					
		210.4	28		0.1310	77.9		1.60	
		210.3	24		0.1310	77.1		1.65	
	COMBINED FLOW AT	APDAM	23&24	25	9.8590	4851.8		1.90	
	PUNCHED HYD	APDAM	25	-	9.8590	4851.8		1.90	
	RESERVOIR HYD	DAMOUT	25	40	9.8590	2442.1		2.35	
	HYDROGRAPH AT	210.30	8	-	0.0270	67.1	NA	1.50	3.8
	COMBINED FLOW AT	AP301	40& 8	40	9.8860	2446.0		2.35	
	ROUTED		40	3					
		AP301	40		9.8860	2446.0		2.35	
		211.5	3		9.8860	2445.4		2.35	
	HYDROGRAPH AT	413.00	2	-	0.0280	54.2	NA	1.50	3.0
	COMBINED FLOW AT	414.20	3& 2	1	9.9140	2447.8		2.35	
	ROUTED		1	3					
		414.20	1		9.9140	2447.8		2.35	
		211.7	3		9.9140	2447.5		2.40	
	HYDROGRAPH AT	213.40	4	-	0.1530	218.4	NA	1.60	2.2
	COMBINED FLOW AT	PREWESTO	4& 3	25	10.0670	2468.8		2.35	
	HYDROGRAPH AT	OFF1	2	-	0.0780	130.5	NA	1.55	2.6
	RESERVOIR HYD	OFF1.RT	2	1	0.0780	24.9		2.00	
	HYDROGRAPH AT	S1B	8	-	0.0082	17.8	NA	1.50	3.3
	COMBINED FLOW AT	SD1A	1& 8	1	0.0862	39.0		1.50	
	ROUTED		1	22					
		SD1A	1		0.0862	39.0		1.50	
		SD1B	22		0.0862	38.8		1.55	
	HYDROGRAPH AT	A8	1	-	0.0233	55.0	NA	1.50	3.6
	ROUTED		1	2					
		A8	1		0.0233	55.0		1.50	
		SD1D	2		0.0233	55.1		1.50	
	HYDROGRAPH AT	A9	3	-	0.0294	61.6	NA	1.50	3.2
	ROUTED		3	4					
		A9	3		0.0294	61.6		1.50	
		SD2	4		0.0294	59.4		1.50	
	HYDROGRAPH AT	S3A	5	-	0.0020	5.1	NA	1.50	4.0
	ROUTED		5	3					
		S3A	5		0.0020	5.1		1.50	
		S3A2	3		0.0020	3.9		1.60	
	HYDROGRAPH AT	S3B	10	-	0.0023	5.9	NA	1.50	4.0

HYMO SUMMARY TABLE

Pg. 15

SEVEN BAR TRACTS A&D FULLY DEVELOPED

0	DESCRIPTION	HYDROGRAPH LABEL	FROM ID NO	TO ID NO	AREA SQ MI	DISCHARGE CFS	CURVE NO	TIME TO PEAK HR	CFS PER ACRE
	COMBINED FLOW AT	S3	3&10	10	0.0042	9.1		1.50	
	HYDROGRAPH AT	A7	7	-	0.0237	52.4	NA	1.50	3.4
	COMBINED FLOW AT	A7.SD2	7& 4	7	0.0531	111.8		1.50	
	COMBINED FLOW AT	SD1E	7& 2	2	0.0764	166.9		1.50	
	ROUTED 54"		2	1					
		SD1E	2		0.0764	166.9		1.50	
		SD1E	1		0.0764	165.8		1.50	
	HYDROGRAPH AT	S2B	3	-	0.0026	7.0	NA	1.50	4.1
	ROUTED		3	4					
		S2B	3		0.0026	7.0		1.50	
		S2B	4		0.0026	6.6		1.55	
	COMBINED FLOW AT	S2CST	4&10	4	0.0068	15.6		1.55	
	HYDROGRAPH AT	S2C	10	-	0.0012	3.3	NA	1.50	4.1
	COMBINED FLOW AT	S2CST	4&10	4	0.0081	18.8		1.50	
	ROUTED		4	2					
		S2CST	4		0.0081	18.8		1.50	
		S2DST	2		0.0081	18.3		1.55	
	HYDROGRAPH AT	S2D	4	-	0.0020	5.2	NA	1.50	4.1
	COMBINED FLOW AT	S2ST	2& 4	2	0.0100	22.8		1.55	
	HYDROGRAPH AT	A4	3	-	0.0206	45.1	NA	1.50	3.4
	HYDROGRAPH AT	A1A	4	-	0.0038	8.0	NA	1.50	3.2
	COMBINED FLOW AT	A4.S2ST	2& 3	2	0.0306	66.1		1.50	
	COMBINED FLOW AT	A4.S2ST.	2& 4	2	0.0345	74.1		1.50	
	COMBINED FLOW AT	7BAROUT	2& 1	20	0.1109	239.9		1.50	
	HYDROGRAPH AT	A6A	1	-	0.0118	25.4	NA	1.50	3.3
	ROUTED 21"		1	2					
		A6A	1		0.0118	25.4		1.50	
		A5SDA	2		0.0118	25.1		1.50	
	HYDROGRAPH AT	A6ST	1	-	0.0092	19.8	NA	1.50	3.3
	ROUTED		1	3					
		A6ST	1		0.0092	19.8		1.50	
		A6ST	3		0.0092	18.6		1.55	
	HYDROGRAPH AT	A5A	1	-	0.0138	30.2	NA	1.50	3.4
	HYDROGRAPH AT	A5B	4	-	0.0045	9.9	NA	1.50	3.4
	COMBINED FLOW AT	A6ST.A5B	3& 4	3	0.0137	27.4		1.55	
	COMBINED FLOW AT	A5SDB	2& 3	2	0.0255	52.2		1.50	
	COMBINED FLOW AT	A5A.SD1B	22& 1	1	0.1000	67.3		1.50	
	COMBINED FLOW AT	A5SDC	2& 1	2	0.1255	119.6		1.50	
	HYDROGRAPH AT	A5C	1	-	0.0112	24.6	NA	1.50	3.4
	ROUTED 30"		2	3					
		A5SDC	2		0.1255	119.6		1.50	
		A5SDD	3		0.1255	119.1		1.55	
	COMBINED FLOW AT	WESTOUT	1& 3	30	0.1367	141.0		1.50	
	HYDROGRAPH AT	A5D	3	-	0.0006	1.3	NA	1.50	3.4
	COMBINED FLOW AT	WESTOUT	30& 3	30	0.1373	142.4		1.50	
	COMBINED FLOW AT	AP7	25&30	30	10.2043	2499.3		2.35	
	ROUTED		30	4					
		AP7	30		10.2043	2499.3		2.35	
		BEFORE7B	4		10.2043	2499.0		2.35	

HYMO SUMMARY TABLE

Pg. 16

SEVEN BAR TRACTS A&D FULLY DEVELOPED

0	DESCRIPTION	HYDROGRAPH LABEL	FROM ID NO	TO ID NO	AREA SQ MI	DISCHARGE CFS	CURVE NO	TIME TO PEAK HR	CFS PER ACRE
	COMBINED FLOW AT	7BARIN	20& 4	20	10.3152	2511.4		2.35	
	ROUTED		20	3					
		7BARIN	20		10.3152	2511.4		2.35	
		WESTCONF	3		10.3152	2511.7		2.35	
	COMBINED FLOW AT	100	3&50	3	12.1285	3527.4		2.20	
	ROUTED		3	4					
		100	3		12.1285	3527.4		2.20	
		BLACK	4		12.1285	3518.3		2.25	
	HYDROGRAPH AT	39.00	5	-	0.0020	5.5	NA	1.50	4.2
	HYDROGRAPH AT	40.00	6	-	0.0213	53.1	NA	1.50	3.8
	COMBINED FLOW AT	38.1	5& 6	7	0.0234	58.6		1.50	
	ROUTED 42"		7	8					
		38.1	7		0.0234	58.6		1.50	
		RCP1	8		0.0234	54.9		1.50	
	COMBINED FLOW AT	110	8& 4	9	12.1518	3523.1		2.25	