

DC 12/5/79

PROPOSED DAM  
ROUTING OF 10, 50, 100, + 500 YR FLOODS

THRU 2-84" CULVERTS

INVERTS @ 341.2 & 341.8 => PIPE FLOW  
(not inlet control)

INFLOW HYDROGRAPHS, ADJUSTED TO REPRESENT

2.5 in, 3.5 in, 4.0 in + 5.5 in. of

Runoff per flood respectively.

MOORE, GARDNER AND ASSOCIATES, INC.

12/04/79

USER NAME

B NELSON

QUEUE INFORMATION

PRIORITY 1

JOB NUMBER 00003  
LOG NUMBER 00001  
SUSPENSION 00001

DATA ENTRY STATION 00  
DESTINATION STATION 00

RUN TIMES H M S

I/O INFORMATION

CARD INPUT 0-00-16  
LINE OUTPUT 0-01-02  
CPU 0-02-05  
TOTAL 0-03-23

00161 CARDS INPUT  
00622 LINES OUTPUT/PER COPY  
00001 COPY REQUESTED

JOB ENDED BECAUSE, ABORT CODE 0  
SPECIFIED TASKS ARE COMPLETED.

\*\*\*\*\*

// JOB, B NELSON, P=1, TAPE=COMPIL

SYSTEM REQUIREMENTS  
SPECIFIED

MAGNETIC TAPE DRIVE, TAPE=COMPIL

// JOB, E NELSON, P=1, TAPE=COMPIL  
// LIST  
// REWIND TAPE  
// PUNCH  
MAGP-GOR DOWNS PHASE II JOB # 500097  
// CARD DATA

000	000
000	20
001	35
003	70
006	135
010	230
018	340
029	450
046	610
069	740
106	840
151	930
208	1010
268	1070
354	1140
450	1550
565	2750
701	3950

// CARD DATA

// \$

// REWIND TAPE

// XEQ FLOOD

// TAPE DATA

10 YEAR FLOOD ROUTING THROUGH TWO <sup>84</sup>/<sub>4</sub> INCH CMP'S

27	18	25	341.8	1
000				
9				
45				
96				
168				
256				
360				
452				
534				
582				
600				
588				
552				
504				
450				
396				
350				
294				
252				
222				
192				
168				
144				
126				
108				

96

78

// TAPE DATA

// REWIND TAPE

// XEQ FLOOD

// TAPE DATA

50 YEAR FLOOD ROUTING THROUGH TWO <sup>84</sup> INCH CMP'S

27 13 17 341.8 1

0

17

37

186

325

499

696

893

1032

1125

1150

1137

1037

974

870

796

650

568

487

429

371

325

276

244

209

174

150

// TAPE DATA

// REWIND TAPE

// XEQ FLOOD

// TAPE DATA

100 YEAR FLOOD ROUTING THROUGH TWO <sup>84</sup> INCH CMP'S

27 15 14 341.8 1

0

24

120

256

448

680

960

1232

1424

1552

1600

1568

1472

1344

1200

1056

896  
784  
672  
592  
512  
440  
384  
336  
268  
240  
208

// TAPE DATA  
// REWIND TAPE  
// XEQ FLOOD  
// TAPE DATA

500 YEAR FLOOD ROUTING THROUGH TWO <sup>84</sup> INCH MCP'S

27	18	10	341.8	1
0				
46				
229				
498				
354				
1311				
1830				
2349				
2716				
2959				
3050				
2989				
2806				
2562				
2287				
2013				
1704				
1496				
1281				
1129				
876				
854				
732				
640				
549				
458				
397				

// TAPE DATA  
// XEQ STOP  
// EOP

30 JUN 97 1332 BN

MACGREGOR DOWNS PHASE II

FLOOD ROUTING THROUGH RESERVOIRS

MACGREGOR DOWNS PHASE II JOB # 500097  
10 YEAR FLOOD ROUTING THROUGH TWO ~~72~~ INCH CMP'S  
84

INPUT VERIFICATION

NO. INFLOWS NO. STORAGE DELTA T POOL ELEV ELEV INCR

27. 10. 25. 341.80 1.00

INFLOW IN CFS

- 0.00
- 9.00
- 45.00
- 96.00
- 160.00
- 258.00
- 360.00
- 462.00
- 534.00
- 582.00
- 600.00
- 588.00
- 552.00
- 504.00
- 450.00
- 396.00
- 336.00
- 294.00
- 252.00
- 222.00
- 192.00
- 168.00
- 144.00
- 126.00
- 108.00
- 90.00
- 78.00

STORAGE DISCHARGE

- 0.00 0.00
- 0.00 20.00
- 0.01 35.00
- 0.03 70.00
- 0.06 135.00
- 0.10 230.00
- 0.16 340.00

0.29	450.00
0.46	610.00
0.69	740.00
1.06	840.00
1.51	930.00
2.08	1010.00
2.68	1070.00
3.54	1140.00
4.50	1550.00
5.65	2750.00
7.01	3950.00

FLOOD ROUTING THROUGH RESERVOIRS  
 MACGREGOR DAMS PHASE II JOB # 500097  
 16 YEAR FLOOD ROUTING THROUGH TWO <sup>7</sup>/<sub>8</sub> INCH CMP'S  
 84

TIME (MIN)	INFLOW HYDROGRAPH (CFS)	OUTFLOW HYDROGRAPH (CFS)
0.	0.00	0.00
25.	9.00	9.00
50.	45.00	33.23
75.	96.00	75.89
100.	168.00	145.71
125.	258.00	231.50
150.	360.00	310.19
175.	462.00	401.24
200.	534.00	482.99
225.	592.00	545.06
250.	600.00	583.08
275.	588.00	592.11
300.	552.00	573.81
325.	504.00	535.89
350.	450.00	487.15
375.	396.00	433.49
400.	336.00	375.64
425.	294.00	320.64
450.	252.00	272.26
475.	222.00	236.45
500.	192.00	200.41
525.	168.00	174.26

FLOOD ROUTING THROUGH RESERVOIRS

PAGE: 3

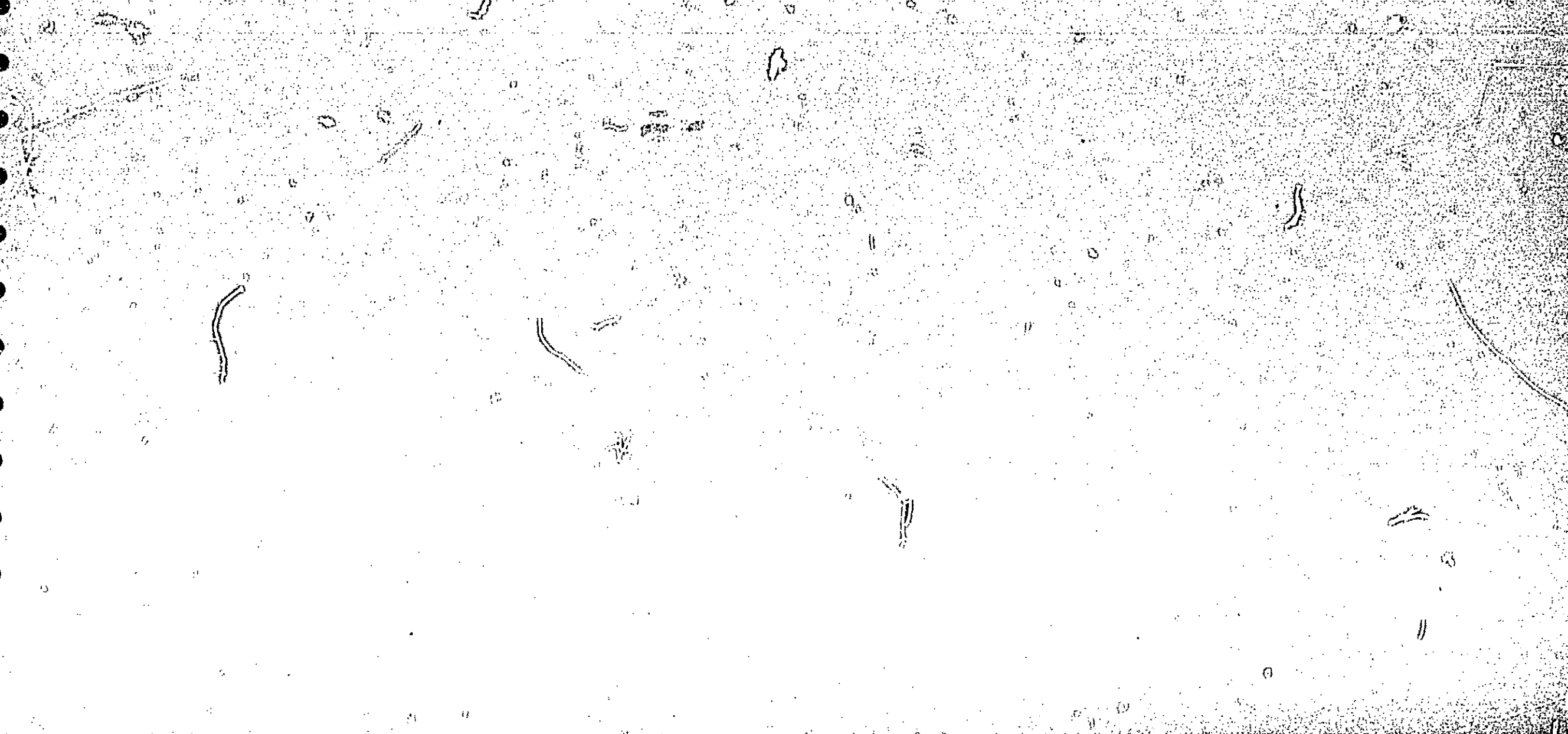
MACGREGOR DAMS PHASE II JOB # 500097  
10 YEAR FLOOD ROUTING THROUGH TWO 72 INCH CMP'S  
34

MAX. INFLOW = 600.00 CFS AT 250. MINUTES

MAX. OUTFLOW = 592.11 CFS AT 275. MINUTES

MAX. POOL ELEV. ATTAINED = 349.68 FT ABOVE DATUM

STORAGE AT MAX POOL ELEV = 440999. CU. FT





FLOOD ROUTING THROUGH RESERVOIRS

MACGREGOR DOWNS PHASE II JOB # 500097  
 50 YEAR FLOOD ROUTING THROUGH TWO 7<sup>1/2</sup> INCH CMP'S  
 84

INPUT VERIFICATION

NO. INFLOWS	NO. STORAGE	DELTA T	POOL ELEV	ELEV INCR
27.	18.	17.	341.80	1.00

INFLOW IN CFS

0.00  
 17.00  
 87.00  
 186.00  
 325.00  
 499.00  
 696.00  
 893.00  
 1032.00  
 1125.00  
 1160.00  
 1137.00  
 1067.00  
 974.00  
 870.00  
 796.00  
 650.00  
 568.00  
 487.00  
 429.00  
 371.00  
 325.00  
 278.00  
 244.00  
 209.00  
 174.00  
 150.00

STORAGE DISCHARGE

0.00	0.00
0.06	20.00
0.01	35.00
0.33	70.00
0.06	135.00
0.10	230.00
0.18	340.00

0.29	450.00
0.46	610.00
0.69	740.00
1.06	840.00
1.51	930.00
2.08	1010.00
2.66	1070.00
3.54	1140.00
4.50	1550.00
5.65	2750.00
7.01	3950.00

FLOOD ROUTING THROUGH RESERVOIRS  
 MACGREGOR DOWNS PHASE II JOB # 500097  
 50 YEAR FLOOD ROUTING THROUGH TWO 72 INCH CMP'S  
 74

TIME (MIN)	INFLOW HYDROGRAPH (CFS)	OUTFLOW HYDROGRAPH (CFS)
0.	0.00	0.00
17.	17.00	17.00
34.	87.00	50.27
51.	186.00	138.72
69.	325.00	257.58
85.	499.00	376.77
102.	696.00	522.05
119.	893.00	671.44
136.	1032.00	773.40
153.	1125.00	845.59
170.	1160.00	900.55
187.	1137.00	941.87
204.	1067.00	963.26
221.	974.00	970.91
238.	870.00	964.37
255.	796.00	946.32
272.	650.00	911.08
289.	568.00	855.81
306.	487.00	781.15
323.	429.00	671.39
340.	371.00	522.94
357.	325.00	407.79
374.	278.00	335.10
391.	244.00	274.01

FLOOD ROUTING THROUGH RESERVOIRS

PAGE 3

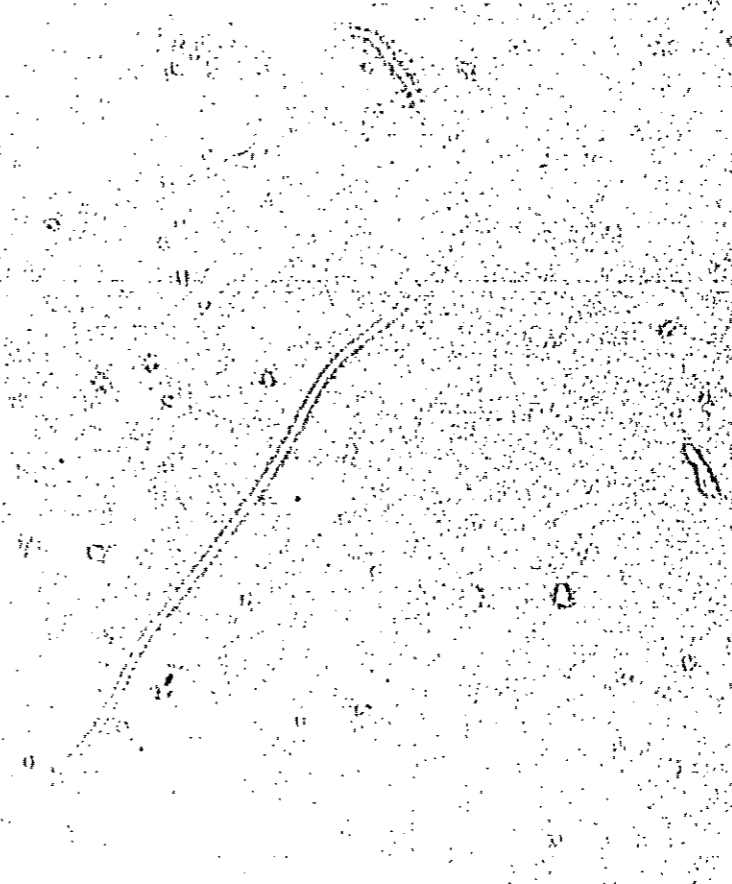
MAGGREGOR DOWNS PHASE II JOB # 500097  
50 YEAR FLOOD ROUTING THROUGH TWO ~~72~~<sup>84</sup> INCH CMP'S

MAX. INFLOW = 1160.00 CFS AT 170. MINUTES

MAX. OUTFLOW = 970.91 CFS AT 221. MINUTES

MAX. POOL ELEV. ATTAINED = 353.31 FT ABOVE DATUM

STORAGE AT MAX POOL ELEV = 1,801 MILLION CU. FT



FLOOD ROUTING THROUGH RESERVOIRS

MACGREGOR DOWNS PHASE II JOB # 500097  
100 YEAR FLOOD ROUTING THROUGH TWO ~~72~~<sup>84</sup> INCH CMCP'S

INPUT VERIFICATION

NO. INFLOWS NO. STORAGE DELTA T FLOOD ELEV. ELEV INCR

27. 18. 14. 341.80 1.00

INFLOW IN CFS

- 0.00
- 24.00
- 120.00
- 286.00
- 448.00
- 688.00
- 960.00
- 1232.00
- 1424.00
- 1552.00
- 1600.00
- 1568.00
- 1472.00
- 1344.00
- 1200.00
- 1056.00
- 896.00
- 784.00
- 672.00
- 592.00
- 512.00
- 448.00
- 384.00
- 336.00
- 288.00
- 240.00
- 208.00

STORAGE DISCHARGE

- 0.00 0.00
- 0.00 20.00
- 0.01 35.00
- 0.03 70.00
- 0.06 135.00
- 0.10 200.00
- 0.18 340.00

0.29	450.00
0.46	610.00
0.69	740.00
1.06	840.00
1.51	930.00
2.06	1010.00
2.68	1070.00
3.54	1140.00
4.50	1550.00
5.65	2750.00
7.01	3950.00

FLOOD ROUTING THROUGH RESERVOIRS  
 MACGREGOR DAMS PHASE II JOB # 500097  
 100 YEAR FLOOD ROUTING THROUGH TWO ~~72~~<sup>84</sup> INCH CMCP'S

TIME (MIN)	INFLOW HYDROGRAPH (CFS)	OUTFLOW HYDROGRAPH (CFS)
0.	0.00	0.00
14.	24.00	21.54
28.	120.00	63.00
42.	256.00	183.46
56.	448.00	319.28
70.	688.00	469.53
84.	960.00	650.88
98.	1232.00	783.39
112.	1424.00	881.37
126.	1352.00	962.60
140.	1600.00	1025.13
154.	1568.00	1070.15
168.	1472.00	1099.89
182.	1344.00	1120.26
196.	1200.00	1130.29
210.	1056.00	1130.14
224.	896.00	1119.95
238.	784.00	1101.44
252.	672.00	1076.75
266.	592.00	1042.38
280.	512.00	1000.12
294.	448.00	952.21
308.	384.00	865.45
322.	336.00	770.43
336.	288.00	621.37

FLOOD ROUTING THROUGH RESERVOIRS

MACGREGOR DOWNS PHASE II JOB # 500097  
100 YEAR FLOOD ROUTING THROUGH TWO ~~72~~ INCH CMCP'S  
84

MAX. INFLOW = 1600.00 CFS AT 140. MINUTES

MAX. OUTFLOW = 1130.29 CFS AT 196. MINUTES

MAX. POOL ELEV. ATTAINED = 355.66 FT ABOVE DATUM

STORAGE AT MAX POOL ELEV = 3.420 MILLION CU FT



FLOOD ROUTING THROUGH RESERVOIRS

MACGREGOR DOWNS PHASE II JOB # 500097  
 500 YEAR FLOOD ROUTING THROUGH TWO 72 INCH CMCP'S  
 84

INPUT VERIFICATION

NO. INFLOWS NO. STORAGE DELTA T POOL ELEV ELEV INCR  
 27. 18. 10. 341.80 1.00

INFLOW IN CFS

0.00  
 46.00  
 229.00  
 488.00  
 854.00  
 1311.00  
 1830.00  
 2349.00  
 2716.00  
 2959.00  
 3050.00  
 2989.00  
 2806.00  
 2562.00  
 2287.00  
 2013.00  
 1708.00  
 1496.00  
 1281.00  
 1129.00  
 976.00  
 854.00  
 732.00  
 640.00  
 549.00  
 458.00  
 397.00

STORAGE DISCHARGE

0.00 0.00  
 0.00 20.00  
 0.01 35.00  
 0.03 70.00  
 0.06 135.00  
 0.10 230.00  
 0.18 340.00

0.29	450.00
0.46	610.00
0.69	740.00
1.06	840.00
1.51	930.00
2.08	1010.00
2.68	1070.00
3.54	1140.00
4.50	1550.00
5.65	2750.00
7.01	3950.00

FLOOD ROUTING THROUGH RESERVOIRS  
 MACGREGOR DAMS PHASE II JOB # 500097  
 500 YEAR FLOOD ROUTING THROUGH TWO 72 INCH CMCP'S

TIME (MIN)	INFLOW HYDROGRAPH (CFS)	OUTFLOW HYDROGRAPH (CFS)
0.	0.00	0.00
10.	46.00	28.06
20.	229.00	107.36
30.	488.00	269.51
40.	854.00	474.97
50.	1311.00	697.25
60.	1830.00	846.69
70.	2349.00	970.96
80.	2716.00	1072.31
90.	2959.00	1210.44
100.	3050.00	1705.53
110.	2969.00	2332.11
120.	2806.00	2601.70
130.	2562.00	2640.94
140.	2287.00	2537.73
150.	2013.00	2352.85
160.	1708.00	2110.09
170.	1495.00	1872.00
180.	1281.00	1641.46
190.	1129.00	1494.42
200.	976.00	1394.04
210.	854.00	1285.23
220.	732.00	1173.42
230.	640.00	1123.77

FLOOD ROUTING THROUGH RESERVOIRS

PAGE 3

MACGREGOR-DOWNS PHASE II JOB # 500097  
500 YEAR FLOOD ROUTING THROUGH TWO 72 INCH CMCP'S  
84

MAX. INFLOW = 3050.00 CFS AT 100. MINUTES

MAX. OUTFLOW = 2640.94 CFS AT 130. MINUTES

MAX. POOL ELEV. ATTAINED = 357.70 FT ABOVE DATUM

STORAGE AT MAX POOL ELEV = 5.545 MILLION CU FT