CERTIFIED ENGINEERING DESIGN, P.A.

810 W. Douglas, Suite C
Wichita, KS 67203
(316) 262-8808 Office
(316) 262-1669 Fax

LETTER OF TRANSMITTAL

DATE: October 1, 2002

TO: Ms. Vicki Huang, P.E.
Engineering Division
City of Wichita
7th Floor, City Hall
455 North Main
Wichita, KS 67202

SUBJ: Drainage Plan
Helping Hands Addition
Wichita, KS

FROM: Harlan D. Foraker, P.E. HDF

COMMENTS: Attached please find the drainage plan the above referenced project. If you have any questions, please contact me at (316) 262-8808.

attachments

cc: Don Armstrong, Armstrong Land Survey, 250 N. Mathewson, Wichita, KS 67214

HELPING HANDS DETENTION POND
WICHITA, KANSAS

POND BOTTOM WIDTH = N/A FEET
POND BOTTOM LENGTH = N/A FEET

LAGOON STAGE(FT.)	LAGOON SURFACE AREA(SQ.FT.)	INCREMENTAL LAGOON VOLUME(CU.FT.)	TOTAL LAGOON VOLUME(CU.FT.)	TOTAL LAGOON VOLUME(AC.FT.)
130.00	32244.00	0.00	0.00	0.00
131.00	35701.00	33972.50	33972.50	0.78
132.00	39390.00	37545.50	71518.00	1.64
133.00	43121.00	41255.50	112773.50	2.59

Table
Rating Table for Broad Crested Weir

Project Description	
Worksheet	Weir - 1
Type	Broad Crested \
Solve For	Discharge

Input Data		
Crest Elevation	2.00	ft
Tailwater Elevati	0.00	ft
Crest Surface Ty	aved	
Crest Breadth	1.00	ft
Crest Length	6.00	ft

Attribute	Minimum	Maximum	Increment
Headwater Elevation	2.00	5.00	0.50

Headwate Elevation (ft)	Discharge (cfs)	Velocity (ft/s)
2.00	N/A	N/A
2.50	6.55	2.18
3.00	18.52	3.09
3.50	34.03	3.78
4.00	52.39	4.37
4.50	73.21	4.88
5.00	96.24	5.35

```
*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*             FEBRUARY 1981             *
*           REVISED 01 JUN 88           *
*                                       *
*  RUN DATE  10/01/2002  TIME  14:29:16 *
*                                       *
*****************************************
```


```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*  THE HYDROLOGIC ENGINEERING CENTER    *
*         609 SECOND STREET             *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 551-1748              *
*                                       *
*****************************************
```


```
X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X              X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X              X
X     X  X        X     X        X
X     X  XXXXXXX   XXXXX         XXX
```

100 YEAR RETURN PERIOD

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

HIS HELPING HANDS OPERATION PO-O

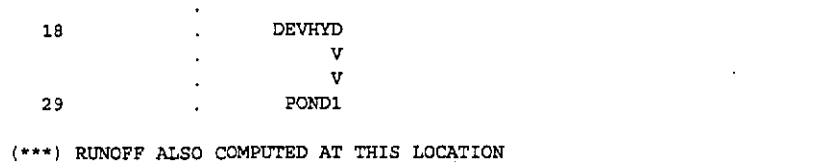
```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

    1         ID   HELPING HANDS ADDITION, WICHITA, KANSAS
    2         ID   DETENTION POND ANALYSIS
    3         ID   CERTIFIED ENGINEERING DESIGN, P.A.
    4         ID   BY HARLAN D. FORAKER, P.E. 10-01-2002
              *DIAGRAM
    5         IT       4 01OCT02     600       0 01OCT02    1800
    6         IN      30 01OCT02       0

    7         KK  UNDHYD    EXISTING CONDITIONS FOR 18.5 ACRES HELPING HANDS ADDITION
    8         KM            FOR 100 YEAR-24 HOUR STORM
    9         BA    .0289
   10         PB      7.8
   11         PC        0  0.0055   0.011   0.017   0.022   0.029   0.035   0.042   0.048   0.056
   12         PC    0.064   0.072   0.080   0.090   0.100   0.110   0.120   0.133   0.147   0.163
   13         PC    0.181   0.204   0.235   0.283   0.663   0.735   0.772   0.799   0.820   0.835
   14         PC    0.850   0.865   0.880   0.890   0.910   0.916   0.925   0.934   0.943   0.952
   15         PC    0.958   0.964   0.970   0.976   0.982   0.988   0.994   1.000
   16         LS        0      69       0
   17         UD      .76

   18         KK  DEVHYD    PROPOSED RUNOFF FOR 18.5 ACRES HELPING HANDS ADDITION
   19         KM            FOR 100 YEAR-24 HOUR STORM
   20         BA    .0289
   21         PB      7.8
   22         PC        0  0.0055   0.011   0.017   0.022   0.029   0.035   0.042   0.048   0.056
   23         PC    0.064   0.072   0.080   0.090   0.100   0.110   0.120   0.133   0.147   0.163
   24         PC    0.181   0.204   0.235   0.283   0.663   0.735   0.772   0.799   0.820   0.835
   25         PC    0.850   0.865   0.880   0.890   0.910   0.916   0.925   0.934   0.943   0.952
   26         PC    0.958   0.964   0.970   0.976   0.982   0.988   0.994   1.000
   27         LS        0      80       0
   28         UD      .51

   29         KK   POND1    PROPOSED HELPING HANDS ADDITION DET. POND W/6' WIDE WEIR OUTLET
   30         RS       1    ELEV       1
   31         SV       0    0.78    1.64    2.59
   32         SQ       0    6.55   18.52   34.03
   33         SE     130     131     132     133
   34         IO       0       2
   35         ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

INPUT LINE NO.

(V) ROUTING (---->) DIVERSION OR PUMP FLOW

(.) CONNECTOR (<----) RETURN OF DIVERTED OR PUMPED FLOW



(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
*****************************************                    ***************************************
*                                       *                    *                                     *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                    *   U.S. ARMY CORPS OF ENGINEERS      *
*           FEBRUARY 1981               *                    * THE HYDROLOGIC ENGINEERING CENTER   *
*         REVISED 01 JUN 88             *                    *         609 SECOND STREET           *
*                                       *                    *      DAVIS, CALIFORNIA 95616        *
* RUN DATE  10/01/2002  TIME  14:29:16  *                    *          (916) 551-1748             *
*                                       *                    *                                     *
*****************************************                    ***************************************
```

```
                              HELPING HANDS ADDITION, WICHITA, KANSAS
                              DETENTION POND ANALYSIS
                              CERTIFIED ENGINEERING DESIGN, P.A.
                              BY HARLAN D. FORAKER, P.E. 10-01-2002

*** ERROR *** SPECIFIED START AND END DATES RESULT IN TOO MANY TIME PERIODS

    IT          HYDROGRAPH TIME DATA
                       NMIN            4  MINUTES IN COMPUTATION INTERVAL
                      IDATE       1OCT 2  STARTING DATE
                      ITIME         0600  STARTING TIME
                         NQ          300  NUMBER OF HYDROGRAPH ORDINATES
                     NDDATE       2OCT 2  ENDING DATE
                     NDTIME         0156  ENDING TIME
                      ICENT           19  CENTURY MARK

                 COMPUTATION INTERVAL     .07 HOURS
                      TOTAL TIME BASE   19.93 HOURS

         ENGLISH UNITS
              DRAINAGE AREA          SQUARE MILES
              PRECIPITATION DEPTH    INCHES
              LENGTH, ELEVATION      FEET
              FLOW                   CUBIC FEET PER SECOND
              STORAGE VOLUME         ACRE-FEET
              SURFACE AREA           ACRES
              TEMPERATURE            DEGREES FAHRENHEIT

*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

              **************
              *            *
   7 KK       *   UNDHYD   *         EXISTING CONDITIONS FOR 18.5 ACRES HELPING HANDS ADDITION
              *            *
              **************
                                      FOR 100 YEAR-24 HOUR STORM

   6 IN           TIME DATA FOR INPUT TIME SERIES
                       JXMIN          30  TIME INTERVAL IN MINUTES
                      JXDATE      1OCT 2  STARTING DATE
                      JXTIME           0  STARTING TIME

                SUBBASIN RUNOFF DATA

   9 BA           SUBBASIN CHARACTERISTICS
                       TAREA         .03  SUBBASIN AREA

                  PRECIPITATION DATA

  10 PB                STORM        7.80  BASIN TOTAL PRECIPITATION

  11 PI             INCREMENTAL PRECIPITATION PATTERN
                          .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                          .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                          .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                          .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                          .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                          .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                          .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                          .00       .00       .00       .00       .00       .01       .01       .01       .01       .01
                          .01       .01       .03       .05       .05       .05       .05       .05       .05       .05
                          .01       .01       .01       .01       .01       .01       .01       .01       .00       .00
                          .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
```

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00							

16 LS SCS LOSS RATE

STRTL	.90	INITIAL ABSTRACTION
CRVNBR	69.00	CURVE NUMBER
RTIMP	.00	PERCENT IMPERVIOUS AREA

17 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.76	LAG

***

UNIT HYDROGRAPH
59 END-OF-PERIOD ORDINATES

0.	1.	3.	4.	6.	8.	11.	14.	16.	17.
17.	18.	17.	17.	16.	15.	13.	12.	10.	8.
7.	6.	6.	5.	4.	4.	3.	3.	2.	2.
2.	2.	1.	1.	1.	1.	1.	1.	1.	1.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	

****

HYDROGRAPH AT STATION UNDHYD

****

DA MON HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA MON HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1 OCT 0600	1	.00	.00	.00	0.	*	1 OCT 1600	151	.02	.00	.01	4.
1 OCT 0604	2	.01	.01	.00	0.	*	1 OCT 1604	152	.01	.00	.01	4.
1 OCT 0608	3	.01	.01	.00	0.	*	1 OCT 1608	153	.01	.00	.01	4.
1 OCT 0612	4	.01	.01	.00	0.	*	1 OCT 1612	154	.01	.00	.01	4.
1 OCT 0616	5	.01	.01	.00	0.	*	1 OCT 1616	155	.01	.00	.01	4.
1 OCT 0620	6	.01	.01	.00	0.	*	1 OCT 1620	156	.01	.00	.01	4.
1 OCT 0624	7	.01	.01	.00	0.	*	1 OCT 1624	157	.01	.00	.01	4.
1 OCT 0628	8	.01	.01	.00	0.	*	1 OCT 1628	158	.01	.00	.01	4.
1 OCT 0632	9	.01	.01	.00	0.	*	1 OCT 1632	159	.02	.00	.01	4.
1 OCT 0636	10	.01	.01	.00	0.	*	1 OCT 1636	160	.02	.00	.02	4.
1 OCT 0640	11	.01	.01	.00	0.	*	1 OCT 1640	161	.02	.00	.02	4.
1 OCT 0644	12	.01	.01	.00	0.	*	1 OCT 1644	162	.02	.00	.02	3.
1 OCT 0648	13	.01	.01	.00	0.	*	1 OCT 1648	163	.02	.00	.02	3.
1 OCT 0652	14	.01	.01	.00	0.	*	1 OCT 1652	164	.02	.00	.02	3.
1 OCT 0656	15	.01	.01	.00	0.	*	1 OCT 1656	165	.02	.00	.02	3.
1 OCT 0700	16	.01	.01	.00	0.	*	1 OCT 1700	166	.02	.00	.02	3.
1 OCT 0704	17	.01	.01	.00	0.	*	1 OCT 1704	167	.01	.00	.01	4.
1 OCT 0708	18	.01	.01	.00	0.	*	1 OCT 1708	168	.01	.00	.01	4.
1 OCT 0712	19	.01	.01	.00	0.	*	1 OCT 1712	169	.01	.00	.01	4.
1 OCT 0716	20	.01	.01	.00	0.	*	1 OCT 1716	170	.01	.00	.01	4.
1 OCT 0720	21	.01	.01	.00	0.	*	1 OCT 1720	171	.01	.00	.01	4.
1 OCT 0724	22	.01	.01	.00	0.	*	1 OCT 1724	172	.01	.00	.01	4.
1 OCT 0728	23	.01	.01	.00	0.	*	1 OCT 1728	173	.01	.00	.01	4.
1 OCT 0732	24	.01	.01	.00	0.	*	1 OCT 1732	174	.01	.00	.01	4.
1 OCT 0736	25	.01	.01	.00	0.	*	1 OCT 1736	175	.01	.00	.01	4.
1 OCT 0740	26	.01	.01	.00	0.	*	1 OCT 1740	176	.01	.00	.01	4.
1 OCT 0744	27	.01	.01	.00	0.	*	1 OCT 1744	177	.01	.00	.01	3.
1 OCT 0748	28	.01	.01	.00	0.	*	1 OCT 1748	178	.01	.00	.01	3.
1 OCT 0752	29	.01	.01	.00	0.	*	1 OCT 1752	179	.01	.00	.01	3.
1 OCT 0756	30	.01	.01	.00	0.	*	1 OCT 1756	180	.01	.00	.01	3.
1 OCT 0800	31	.01	.01	.00	0.	*	1 OCT 1800	181	.01	.00	.01	3.
1 OCT 0804	32	.01	.01	.00	0.	*	1 OCT 1804	182	.01	.00	.01	3.
1 OCT 0808	33	.01	.01	.00	0.	*	1 OCT 1808	183	.01	.00	.01	3.
1 OCT 0812	34	.01	.01	.00	0.	*	1 OCT 1812	184	.01	.00	.01	3.
1 OCT 0816	35	.01	.01	.00	0.	*	1 OCT 1816	185	.01	.00	.01	3.
1 OCT 0820	36	.01	.01	.00	0.	*	1 OCT 1820	186	.01	.00	.01	2.

1 OCT 0824	37	.01	.01	.00	0.	*	1 OCT 1824	187	.01	.00	.01	2.
1 OCT 0828	38	.01	.01	.00	0.	*	1 OCT 1828	188	.01	.00	.01	2.
1 OCT 0832	39	.02	.02	.00	0.	*	1 OCT 1832	189	.01	.00	.01	2.
1 OCT 0836	40	.02	.02	.00	0.	*	1 OCT 1836	190	.01	.00	.01	2.
1 OCT 0840	41	.02	.02	.00	0.	*	1 OCT 1840	191	.01	.00	.01	2.
1 OCT 0844	42	.02	.02	.00	0.	*	1 OCT 1844	192	.01	.00	.01	2.
1 OCT 0848	43	.02	.02	.00	0.	*	1 OCT 1848	193	.01	.00	.01	2.
1 OCT 0852	44	.02	.02	.00	0.	*	1 OCT 1852	194	.01	.00	.01	2.
1 OCT 0856	45	.02	.02	.00	0.	*	1 OCT 1856	195	.01	.00	.01	2.
1 OCT 0900	46	.02	.02	.00	0.	*	1 OCT 1900	196	.01	.00	.01	2.
1 OCT 0904	47	.02	.02	.00	0.	*	1 OCT 1904	197	.01	.00	.01	2.
1 OCT 0908	48	.02	.02	.00	0.	*	1 OCT 1908	198	.01	.00	.01	2.
1 OCT 0912	49	.02	.02	.00	0.	*	1 OCT 1912	199	.01	.00	.01	2.
1 OCT 0916	50	.02	.02	.00	0.	*	1 OCT 1916	200	.01	.00	.01	2.
1 OCT 0920	51	.02	.02	.00	0.	*	1 OCT 1920	201	.01	.00	.01	2.
1 OCT 0924	52	.02	.02	.00	0.	*	1 OCT 1924	202	.01	.00	.01	2.
1 OCT 0928	53	.02	.02	.00	0.	*	1 OCT 1928	203	.01	.00	.01	2.
1 OCT 0932	54	.02	.02	.00	0.	*	1 OCT 1932	204	.01	.00	.01	2.
1 OCT 0936	55	.02	.02	.00	0.	*	1 OCT 1936	205	.01	.00	.01	2.
1 OCT 0940	56	.02	.02	.00	0.	*	1 OCT 1940	206	.01	.00	.01	2.
1 OCT 0944	57	.02	.02	.00	0.	*	1 OCT 1944	207	.01	.00	.01	2.
1 OCT 0948	58	.02	.02	.00	0.	*	1 OCT 1948	208	.01	.00	.01	2.
1 OCT 0952	59	.02	.02	.00	0.	*	1 OCT 1952	209	.01	.00	.01	2.
1 OCT 0956	60	.02	.02	.00	0.	*	1 OCT 1956	210	.01	.00	.01	2.
1 OCT 1000	61	.02	.02	.00	0.	*	1 OCT 2000	211	.01	.00	.01	2.
1 OCT 1004	62	.03	.03	.00	0.	*	1 OCT 2004	212	.01	.00	.01	2.
1 OCT 1008	63	.03	.03	.00	0.	*	1 OCT 2008	213	.01	.00	.01	2.
1 OCT 1012	64	.03	.03	.00	0.	*	1 OCT 2012	214	.01	.00	.01	2.
1 OCT 1016	65	.03	.03	.00	0.	*	1 OCT 2016	215	.01	.00	.01	2.
1 OCT 1020	66	.03	.03	.00	0.	*	1 OCT 2020	216	.01	.00	.01	2.
1 OCT 1024	67	.03	.02	.00	0.	*	1 OCT 2024	217	.01	.00	.01	2.
1 OCT 1028	68	.03	.02	.00	0.	*	1 OCT 2028	218	.01	.00	.01	2.
1 OCT 1032	69	.03	.03	.00	0.	*	1 OCT 2032	219	.01	.00	.01	2.
1 OCT 1036	70	.04	.03	.00	0.	*	1 OCT 2036	220	.01	.00	.01	2.
1 OCT 1040	71	.04	.03	.00	0.	*	1 OCT 2040	221	.01	.00	.01	2.
1 OCT 1044	72	.04	.03	.00	0.	*	1 OCT 2044	222	.01	.00	.01	2.
1 OCT 1048	73	.04	.03	.00	0.	*	1 OCT 2048	223	.01	.00	.01	2.
1 OCT 1052	74	.04	.03	.00	0.	*	1 OCT 2052	224	.01	.00	.01	2.
1 OCT 1056	75	.04	.03	.01	0.	*	1 OCT 2056	225	.01	.00	.01	2.
1 OCT 1100	76	.04	.03	.01	0.	*	1 OCT 2100	226	.01	.00	.01	2.
1 OCT 1104	77	.05	.04	.01	0.	*	1 OCT 2104	227	.01	.00	.01	2.
1 OCT 1108	78	.05	.04	.01	0.	*	1 OCT 2108	228	.01	.00	.01	2.
1 OCT 1112	79	.05	.04	.01	0.	*	1 OCT 2112	229	.01	.00	.01	2.
1 OCT 1116	80	.05	.04	.01	1.	*	1 OCT 2116	230	.01	.00	.01	2.
1 OCT 1120	81	.05	.04	.01	1.	*	1 OCT 2120	231	.01	.00	.01	2.
1 OCT 1124	82	.05	.04	.01	1.	*	1 OCT 2124	232	.01	.00	.01	2.
1 OCT 1128	83	.05	.04	.01	1.	*	1 OCT 2128	233	.01	.00	.01	2.
1 OCT 1132	84	.24	.17	.07	1.	*	1 OCT 2132	234	.01	.00	.01	2.
1 OCT 1136	85	.43	.26	.17	1.	*	1 OCT 2136	235	.01	.00	.01	2.
1 OCT 1140	86	.43	.23	.20	2.	*	1 OCT 2140	236	.01	.00	.01	2.
1 OCT 1144	87	.43	.20	.23	3.	*	1 OCT 2144	237	.01	.00	.01	2.
1 OCT 1148	88	.43	.18	.25	4.	*	1 OCT 2148	238	.01	.00	.01	2.
1 OCT 1152	89	.43	.16	.27	5.	*	1 OCT 2152	239	.01	.00	.01	2.
1 OCT 1156	90	.43	.14	.29	7.	*	1 OCT 2156	240	.01	.00	.01	2.
1 OCT 1200	91	.43	.13	.30	10.	*	1 OCT 2200	241	.01	.00	.01	2.
1 OCT 1204	92	.08	.02	.06	13.	*	1 OCT 2204	242	.01	.00	.01	2.
1 OCT 1208	93	.08	.02	.06	17.	*	1 OCT 2208	243	.01	.00	.01	2.
1 OCT 1212	94	.08	.02	.06	20.	*	1 OCT 2212	244	.01	.00	.01	2.
1 OCT 1216	95	.08	.02	.06	24.	*	1 OCT 2216	245	.01	.00	.01	2.
1 OCT 1220	96	.08	.02	.06	27.	*	1 OCT 2220	246	.01	.00	.01	2.
1 OCT 1224	97	.08	.02	.06	30.	*	1 OCT 2224	247	.01	.00	.01	2.
1 OCT 1228	98	.08	.02	.06	32.	*	1 OCT 2228	248	.01	.00	.01	2.
1 OCT 1232	99	.06	.01	.05	34.	*	1 OCT 2232	249	.01	.00	.01	2.
1 OCT 1236	100	.04	.01	.03	34.	*	1 OCT 2236	250	.01	.00	.01	2.
1 OCT 1240	101	.04	.01	.03	34.	*	1 OCT 2240	251	.01	.00	.01	2.
1 OCT 1244	102	.04	.01	.03	34.	*	1 OCT 2244	252	.01	.00	.01	2.
1 OCT 1248	103	.04	.01	.03	33.	*	1 OCT 2248	253	.01	.00	.01	2.
1 OCT 1252	104	.04	.01	.03	31.	*	1 OCT 2252	254	.01	.00	.01	2.
1 OCT 1256	105	.04	.01	.03	30.	*	1 OCT 2256	255	.01	.00	.01	2.
1 OCT 1300	106	.04	.01	.03	28.	*	1 OCT 2300	256	.01	.00	.01	2.
1 OCT 1304	107	.03	.01	.02	26.	*	1 OCT 2304	257	.01	.00	.01	2.
1 OCT 1308	108	.03	.01	.02	24.	*	1 OCT 2308	258	.01	.00	.01	2.
1 OCT 1312	109	.03	.01	.02	22.	*	1 OCT 2312	259	.01	.00	.01	2.
1 OCT 1316	110	.03	.01	.02	21.	*	1 OCT 2316	260	.01	.00	.01	2.
1 OCT 1320	111	.03	.01	.02	19.	*	1 OCT 2320	261	.01	.00	.01	2.
1 OCT 1324	112	.03	.01	.02	18.	*	1 OCT 2324	262	.01	.00	.01	2.
1 OCT 1328	113	.03	.01	.02	17.	*	1 OCT 2328	263	.01	.00	.01	2.
1 OCT 1332	114	.03	.01	.02	16.	*	1 OCT 2332	264	.00	.00	.00	2.
1 OCT 1336	115	.02	.01	.02	15.	*	1 OCT 2336	265	.00	.00	.00	2.
1 OCT 1340	116	.02	.01	.02	14.	*	1 OCT 2340	266	.00	.00	.00	2.

1	OCT	1344	117	.02	.01	.02	13.	*	1	OCT	2344	267	.00	.00	.00	2.
1	OCT	1348	118	.02	.01	.02	12.	*	1	OCT	2348	268	.00	.00	.00	2.
1	OCT	1352	119	.02	.00	.02	11.	*	1	OCT	2352	269	.00	.00	.00	1.
1	OCT	1356	120	.02	.00	.02	11.	*	1	OCT	2356	270	.00	.00	.00	1.
1	OCT	1400	121	.02	.00	.02	10.	*	2	OCT	0000	271	.00	.00	.00	1.
1	OCT	1404	122	.02	.00	.01	10.	*	2	OCT	0004	272	.00	.00	.00	1.
1	OCT	1408	123	.02	.00	.01	9.	*	2	OCT	0008	273	.00	.00	.00	1.
1	OCT	1412	124	.02	.00	.01	9.	*	2	OCT	0012	274	.00	.00	.00	1.
1	OCT	1416	125	.02	.00	.01	8.	*	2	OCT	0016	275	.00	.00	.00	1.
1	OCT	1420	126	.02	.00	.01	8.	*	2	OCT	0020	276	.00	.00	.00	1.
1	OCT	1424	127	.02	.00	.01	7.	*	2	OCT	0024	277	.00	.00	.00	1.
1	OCT	1428	128	.02	.00	.01	7.	*	2	OCT	0028	278	.00	.00	.00	1.
1	OCT	1432	129	.02	.00	.01	7.	*	2	OCT	0032	279	.00	.00	.00	1.
1	OCT	1436	130	.02	.00	.01	6.	*	2	OCT	0036	280	.00	.00	.00	1.
1	OCT	1440	131	.02	.00	.01	6.	*	2	OCT	0040	281	.00	.00	.00	0.
1	OCT	1444	132	.02	.00	.01	6.	*	2	OCT	0044	282	.00	.00	.00	0.
1	OCT	1448	133	.02	.00	.01	6.	*	2	OCT	0048	283	.00	.00	.00	0.
1	OCT	1452	134	.02	.00	.01	5.	*	2	OCT	0052	284	.00	.00	.00	0.
1	OCT	1456	135	.02	.00	.01	5.	*	2	OCT	0056	285	.00	.00	.00	0.
1	OCT	1500	136	.02	.00	.01	5.	*	2	OCT	0100	286	.00	.00	.00	0.
1	OCT	1504	137	.02	.00	.01	5.	*	2	OCT	0104	287	.00	.00	.00	0.
1	OCT	1508	138	.02	.00	.01	5.	*	2	OCT	0108	288	.00	.00	.00	0.
1	OCT	1512	139	.02	.00	.01	5.	*	2	OCT	0112	289	.00	.00	.00	0.
1	OCT	1516	140	.02	.00	.01	5.	*	2	OCT	0116	290	.00	.00	.00	0.
1	OCT	1520	141	.02	.00	.01	4.	*	2	OCT	0120	291	.00	.00	.00	0.
1	OCT	1524	142	.02	.00	.01	4.	*	2	OCT	0124	292	.00	.00	.00	0.
1	OCT	1528	143	.02	.00	.01	4.	*	2	OCT	0128	293	.00	.00	.00	0.
1	OCT	1532	144	.02	.00	.01	4.	*	2	OCT	0132	294	.00	.00	.00	0.
1	OCT	1536	145	.02	.00	.01	4.	*	2	OCT	0136	295	.00	.00	.00	0.
1	OCT	1540	146	.02	.00	.01	4.	*	2	OCT	0140	296	.00	.00	.00	0.
1	OCT	1544	147	.02	.00	.01	4.	*	2	OCT	0144	297	.00	.00	.00	0.
1	OCT	1548	148	.02	.00	.01	4.	*	2	OCT	0148	298	.00	.00	.00	0.
1	OCT	1552	149	.02	.00	.01	4.	*	2	OCT	0152	299	.00	.00	.00	0.
1	OCT	1556	150	.02	.00	.01	4.	*	2	OCT	0156	300	.00	.00	.00	0.
								*								

****

TOTAL RAINFALL = 7.80, TOTAL LOSS = 3.62, TOTAL EXCESS = 4.18

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	19.93-HR
34.	6.67	(CFS)	11.	4.	4.	4.
		(INCHES)	3.435	4.179	4.179	4.179
		(AC-FT)	5.	6.	6.	6.

CUMULATIVE AREA = .03 SQ MI

*** ***

```
          **************
          *            *
 18 KK    *    DEVHYD  *        PROPOSED RUNOFF FOR 18.5 ACRES HELPING HANDS ADDITION
          *            *
          **************
                                FOR 100 YEAR-24 HOUR STORM

  6 IN          TIME DATA FOR INPUT TIME SERIES
                     JXMIN          30  TIME INTERVAL IN MINUTES
                    JXDATE      1OCT 2  STARTING DATE
                    JXTIME           0  STARTING TIME

              SUBBASIN RUNOFF DATA

  20 BA         SUBBASIN CHARACTERISTICS
                     TAREA         .03  SUBBASIN AREA

              PRECIPITATION DATA

  21 PB              STORM        7.80  BASIN TOTAL PRECIPITATION

  22 PI           INCREMENTAL PRECIPITATION PATTERN
                    .00    .00    .00    .00    .00    .00    .00    .00    .00    .00
                    .00    .00    .00    .00    .00    .00    .00    .00    .00    .00
                    .00    .00    .00    .00    .00    .00    .00    .00    .00    .00
                    .00    .00    .00    .00    .00    .00    .00    .00    .00    .00
                    .00    .00    .00    .00    .00    .00    .00    .00    .00    .00
```

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.01	.01	.01	.01	.01
.01	.01	.03	.05	.05	.05	.05	.05	.05	.05
.01	.01	.01	.01	.01	.01	.01	.01	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00							

```
27 LS        SCS LOSS RATE
                  STRTL        .50  INITIAL ABSTRACTION
                 CRVNBR      80.00  CURVE NUMBER
                  RTIMP        .00  PERCENT IMPERVIOUS AREA

28 UD        SCS DIMENSIONLESS UNITGRAPH
                   TLAG        .51  LAG
```

***

UNIT HYDROGRAPH
40 END-OF-PERIOD ORDINATES

1.	4.	7.	12.	18.	22.	25.	26.	25.	23.
21.	18.	15.	12.	9.	8.	6.	5.	4.	4.
3.	2.	2.	2.	1.	1.	1.	1.	1.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

****

HYDROGRAPH AT STATION DEVHYD

****

DA MON HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA MON HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1 OCT 0600	1	.00	.00	.00	0.	*	1 OCT 1600	151	.02	.00	.02	4.
1 OCT 0604	2	.01	.01	.00	0.	*	1 OCT 1604	152	.01	.00	.01	4.
1 OCT 0608	3	.01	.01	.00	0.	*	1 OCT 1608	153	.01	.00	.01	4.
1 OCT 0612	4	.01	.01	.00	0.	*	1 OCT 1612	154	.01	.00	.01	4.
1 OCT 0616	5	.01	.01	.00	0.	*	1 OCT 1616	155	.01	.00	.01	4.
1 OCT 0620	6	.01	.01	.00	0.	*	1 OCT 1620	156	.01	.00	.01	4.
1 OCT 0624	7	.01	.01	.00	0.	*	1 OCT 1624	157	.01	.00	.01	4.
1 OCT 0628	8	.01	.01	.00	0.	*	1 OCT 1628	158	.01	.00	.01	4.
1 OCT 0632	9	.01	.01	.00	0.	*	1 OCT 1632	159	.02	.00	.02	4.
1 OCT 0636	10	.01	.01	.00	0.	*	1 OCT 1636	160	.02	.00	.02	4.
1 OCT 0640	11	.01	.01	.00	0.	*	1 OCT 1640	161	.02	.00	.02	4.
1 OCT 0644	12	.01	.01	.00	0.	*	1 OCT 1644	162	.02	.00	.02	4.
1 OCT 0648	13	.01	.01	.00	0.	*	1 OCT 1648	163	.02	.00	.02	4.
1 OCT 0652	14	.01	.01	.00	0.	*	1 OCT 1652	164	.02	.00	.02	4.
1 OCT 0656	15	.01	.01	.00	0.	*	1 OCT 1656	165	.02	.00	.02	4.
1 OCT 0700	16	.01	.01	.00	0.	*	1 OCT 1700	166	.02	.00	.02	4.
1 OCT 0704	17	.01	.01	.00	0.	*	1 OCT 1704	167	.01	.00	.01	4.
1 OCT 0708	18	.01	.01	.00	0.	*	1 OCT 1708	168	.01	.00	.01	5.
1 OCT 0712	19	.01	.01	.00	0.	*	1 OCT 1712	169	.01	.00	.01	5.
1 OCT 0716	20	.01	.01	.00	0.	*	1 OCT 1716	170	.01	.00	.01	5.
1 OCT 0720	21	.01	.01	.00	0.	*	1 OCT 1720	171	.01	.00	.01	5.
1 OCT 0724	22	.01	.01	.00	0.	*	1 OCT 1724	172	.01	.00	.01	4.
1 OCT 0728	23	.01	.01	.00	0.	*	1 OCT 1728	173	.01	.00	.01	4.
1 OCT 0732	24	.01	.01	.00	0.	*	1 OCT 1732	174	.01	.00	.01	4.
1 OCT 0736	25	.01	.01	.00	0.	*	1 OCT 1736	175	.01	.00	.01	4.
1 OCT 0740	26	.01	.01	.00	0.	*	1 OCT 1740	176	.01	.00	.01	3.
1 OCT 0744	27	.01	.01	.00	0.	*	1 OCT 1744	177	.01	.00	.01	3.
1 OCT 0748	28	.01	.01	.00	0.	*	1 OCT 1748	178	.01	.00	.01	3.
1 OCT 0752	29	.01	.01	.00	0.	*	1 OCT 1752	179	.01	.00	.01	3.
1 OCT 0756	30	.01	.01	.00	0.	*	1 OCT 1756	180	.01	.00	.01	3.
1 OCT 0800	31	.01	.01	.00	0.	*	1 OCT 1800	181	.01	.00	.01	3.
1 OCT 0804	32	.01	.01	.00	0.	*	1 OCT 1804	182	.01	.00	.01	3.

1 OCT 0808	33	.01	.01	.00	0.	*	1 OCT 1808	183	.01	.00	.01	3.
1 OCT 0812	34	.01	.01	.00	0.	*	1 OCT 1812	184	.01	.00	.01	3.
1 OCT 0816	35	.01	.01	.00	0.	*	1 OCT 1816	185	.01	.00	.01	3.
1 OCT 0820	36	.01	.01	.00	0.	*	1 OCT 1820	186	.01	.00	.01	3.
1 OCT 0824	37	.01	.01	.00	0.	*	1 OCT 1824	187	.01	.00	.01	3.
1 OCT 0828	38	.01	.01	.00	0.	*	1 OCT 1828	188	.01	.00	.01	3.
1 OCT 0832	39	.02	.02	.00	0.	*	1 OCT 1832	189	.01	.00	.01	3.
1 OCT 0836	40	.02	.02	.00	0.	*	1 OCT 1836	190	.01	.00	.01	3.
1 OCT 0840	41	.02	.02	.00	0.	*	1 OCT 1840	191	.01	.00	.01	3.
1 OCT 0844	42	.02	.02	.00	0.	*	1 OCT 1844	192	.01	.00	.01	3.
1 OCT 0848	43	.02	.02	.00	0.	*	1 OCT 1848	193	.01	.00	.01	3.
1 OCT 0852	44	.02	.02	.00	0.	*	1 OCT 1852	194	.01	.00	.01	3.
1 OCT 0856	45	.02	.02	.00	0.	*	1 OCT 1856	195	.01	.00	.01	3.
1 OCT 0900	46	.02	.02	.00	0.	*	1 OCT 1900	196	.01	.00	.01	3.
1 OCT 0904	47	.02	.02	.00	0.	*	1 OCT 1904	197	.01	.00	.01	3.
1 OCT 0908	48	.02	.02	.00	0.	*	1 OCT 1908	198	.01	.00	.01	3.
1 OCT 0912	49	.02	.02	.00	0.	*	1 OCT 1912	199	.01	.00	.01	3.
1 OCT 0916	50	.02	.02	.00	0.	*	1 OCT 1916	200	.01	.00	.01	3.
1 OCT 0920	51	.02	.02	.00	0.	*	1 OCT 1920	201	.01	.00	.01	3.
1 OCT 0924	52	.02	.02	.00	0.	*	1 OCT 1924	202	.01	.00	.01	3.
1 OCT 0928	53	.02	.02	.00	0.	*	1 OCT 1928	203	.01	.00	.01	3.
1 OCT 0932	54	.02	.02	.00	0.	*	1 OCT 1932	204	.01	.00	.01	3.
1 OCT 0936	55	.02	.02	.00	0.	*	1 OCT 1936	205	.01	.00	.01	3.
1 OCT 0940	56	.02	.02	.00	0.	*	1 OCT 1940	206	.01	.00	.01	3.
1 OCT 0944	57	.02	.02	.00	0.	*	1 OCT 1944	207	.01	.00	.01	3.
1 OCT 0948	58	.02	.02	.00	0.	*	1 OCT 1948	208	.01	.00	.01	3.
1 OCT 0952	59	.02	.02	.00	1.	*	1 OCT 1952	209	.01	.00	.01	2.
1 OCT 0956	60	.02	.02	.00	1.	*	1 OCT 1956	210	.01	.00	.01	2.
1 OCT 1000	61	.02	.02	.00	1.	*	1 OCT 2000	211	.01	.00	.01	2.
1 OCT 1004	62	.03	.02	.01	1.	*	1 OCT 2004	212	.01	.00	.01	2.
1 OCT 1008	63	.03	.02	.01	1.	*	1 OCT 2008	213	.01	.00	.01	2.
1 OCT 1012	64	.03	.02	.01	1.	*	1 OCT 2012	214	.01	.00	.01	2.
1 OCT 1016	65	.03	.02	.01	1.	*	1 OCT 2016	215	.01	.00	.01	2.
1 OCT 1020	66	.03	.02	.01	1.	*	1 OCT 2020	216	.01	.00	.01	2.
1 OCT 1024	67	.03	.02	.01	1.	*	1 OCT 2024	217	.01	.00	.01	2.
1 OCT 1028	68	.03	.02	.01	1.	*	1 OCT 2028	218	.01	.00	.01	2.
1 OCT 1032	69	.03	.02	.01	1.	*	1 OCT 2032	219	.01	.00	.01	2.
1 OCT 1036	70	.04	.02	.01	1.	*	1 OCT 2036	220	.01	.00	.01	2.
1 OCT 1040	71	.04	.02	.01	2.	*	1 OCT 2040	221	.01	.00	.01	2.
1 OCT 1044	72	.04	.02	.01	2.	*	1 OCT 2044	222	.01	.00	.01	2.
1 OCT 1048	73	.04	.02	.01	2.	*	1 OCT 2048	223	.01	.00	.01	2.
1 OCT 1052	74	.04	.02	.01	2.	*	1 OCT 2052	224	.01	.00	.01	2.
1 OCT 1056	75	.04	.02	.01	2.	*	1 OCT 2056	225	.01	.00	.01	2.
1 OCT 1100	76	.04	.02	.01	2.	*	1 OCT 2100	226	.01	.00	.01	2.
1 OCT 1104	77	.05	.03	.02	3.	*	1 OCT 2104	227	.01	.00	.01	2.
1 OCT 1108	78	.05	.03	.02	3.	*	1 OCT 2108	228	.01	.00	.01	2.
1 OCT 1112	79	.05	.03	.03	3.	*	1 OCT 2112	229	.01	.00	.01	2.
1 OCT 1116	80	.05	.03	.03	3.	*	1 OCT 2116	230	.01	.00	.01	2.
1 OCT 1120	81	.05	.03	.03	4.	*	1 OCT 2120	231	.01	.00	.01	2.
1 OCT 1124	82	.05	.03	.03	4.	*	1 OCT 2124	232	.01	.00	.01	2.
1 OCT 1128	83	.05	.03	.03	5.	*	1 OCT 2128	233	.01	.00	.01	2.
1 OCT 1132	84	.24	.10	.14	5.	*	1 OCT 2132	234	.01	.00	.01	2.
1 OCT 1136	85	.43	.16	.27	6.	*	1 OCT 2136	235	.01	.00	.01	2.
1 OCT 1140	86	.43	.13	.30	8.	*	1 OCT 2140	236	.01	.00	.01	2.
1 OCT 1144	87	.43	.11	.32	10.	*	1 OCT 2144	237	.01	.00	.01	2.
1 OCT 1148	88	.43	.09	.34	15.	*	1 OCT 2148	238	.01	.00	.01	2.
1 OCT 1152	89	.43	.08	.35	20.	*	1 OCT 2152	239	.01	.00	.01	2.
1 OCT 1156	90	.43	.07	.36	27.	*	1 OCT 2156	240	.01	.00	.01	2.
1 OCT 1200	91	.43	.06	.37	35.	*	1 OCT 2200	241	.01	.00	.01	2.
1 OCT 1204	92	.08	.01	.07	42.	*	1 OCT 2204	242	.01	.00	.01	2.
1 OCT 1208	93	.08	.01	.07	49.	*	1 OCT 2208	243	.01	.00	.01	2.
1 OCT 1212	94	.08	.01	.07	55.	*	1 OCT 2212	244	.01	.00	.01	2.
1 OCT 1216	95	.08	.01	.07	59.	*	1 OCT 2216	245	.01	.00	.01	2.
1 OCT 1220	96	.08	.01	.07	60.	*	1 OCT 2220	246	.01	.00	.01	2.
1 OCT 1224	97	.08	.01	.07	59.	*	1 OCT 2224	247	.01	.00	.01	2.
1 OCT 1228	98	.08	.01	.07	56.	*	1 OCT 2228	248	.01	.00	.01	2.
1 OCT 1232	99	.06	.01	.05	52.	*	1 OCT 2232	249	.01	.00	.01	2.
1 OCT 1236	100	.04	.00	.04	48.	*	1 OCT 2236	250	.01	.00	.01	2.
1 OCT 1240	101	.04	.00	.04	43.	*	1 OCT 2240	251	.01	.00	.01	2.
1 OCT 1244	102	.04	.00	.04	39.	*	1 OCT 2244	252	.01	.00	.01	2.
1 OCT 1248	103	.04	.00	.04	34.	*	1 OCT 2248	253	.01	.00	.01	2.
1 OCT 1252	104	.04	.00	.04	31.	*	1 OCT 2252	254	.01	.00	.01	2.
1 OCT 1256	105	.04	.00	.04	28.	*	1 OCT 2256	255	.01	.00	.01	2.
1 OCT 1300	106	.04	.00	.04	25.	*	1 OCT 2300	256	.01	.00	.01	2.
1 OCT 1304	107	.03	.00	.03	23.	*	1 OCT 2304	257	.01	.00	.01	2.
1 OCT 1308	108	.03	.00	.03	21.	*	1 OCT 2308	258	.01	.00	.01	2.
1 OCT 1312	109	.03	.00	.03	19.	*	1 OCT 2312	259	.01	.00	.01	2.
1 OCT 1316	110	.03	.00	.03	17.	*	1 OCT 2316	260	.01	.00	.01	2.
1 OCT 1320	111	.03	.00	.03	16.	*	1 OCT 2320	261	.01	.00	.01	2.
1 OCT 1324	112	.03	.00	.03	14.	*	1 OCT 2324	262	.01	.00	.01	2.

							*						
1 OCT 1328	113	.03	.00	.03	13.		*	1 OCT 2328	263	.01	.00	.01	2.
1 OCT 1332	114	.03	.00	.02	12.		*	1 OCT 2332	264	.00	.00	.00	2.
1 OCT 1336	115	.02	.00	.02	12.		*	1 OCT 2336	265	.00	.00	.00	2.
1 OCT 1340	116	.02	.00	.02	11.		*	1 OCT 2340	266	.00	.00	.00	2.
1 OCT 1344	117	.02	.00	.02	10.		*	1 OCT 2344	267	.00	.00	.00	2.
1 OCT 1348	118	.02	.00	.02	10.		*	1 OCT 2348	268	.00	.00	.00	2.
1 OCT 1352	119	.02	.00	.02	9.		*	1 OCT 2352	269	.00	.00	.00	1.
1 OCT 1356	120	.02	.00	.02	9.		*	1 OCT 2356	270	.00	.00	.00	1.
1 OCT 1400	121	.02	.00	.02	8.		*	2 OCT 0000	271	.00	.00	.00	1.
1 OCT 1404	122	.02	.00	.02	8.		*	2 OCT 0004	272	.00	.00	.00	1.
1 OCT 1408	123	.02	.00	.02	8.		*	2 OCT 0008	273	.00	.00	.00	1.
1 OCT 1412	124	.02	.00	.02	7.		*	2 OCT 0012	274	.00	.00	.00	1.
1 OCT 1416	125	.02	.00	.02	7.		*	2 OCT 0016	275	.00	.00	.00	1.
1 OCT 1420	126	.02	.00	.02	7.		*	2 OCT 0020	276	.00	.00	.00	0.
1 OCT 1424	127	.02	.00	.02	6.		*	2 OCT 0024	277	.00	.00	.00	0.
1 OCT 1428	128	.02	.00	.02	6.		*	2 OCT 0028	278	.00	.00	.00	0.
1 OCT 1432	129	.02	.00	.02	6.		*	2 OCT 0032	279	.00	.00	.00	0.
1 OCT 1436	130	.02	.00	.02	5.		*	2 OCT 0036	280	.00	.00	.00	0.
1 OCT 1440	131	.02	.00	.02	5.		*	2 OCT 0040	281	.00	.00	.00	0.
1 OCT 1444	132	.02	.00	.02	5.		*	2 OCT 0044	282	.00	.00	.00	0.
1 OCT 1448	133	.02	.00	.02	5.		*	2 OCT 0048	283	.00	.00	.00	0.
1 OCT 1452	134	.02	.00	.02	5.		*	2 OCT 0052	284	.00	.00	.00	0.
1 OCT 1456	135	.02	.00	.02	5.		*	2 OCT 0056	285	.00	.00	.00	0.
1 OCT 1500	136	.02	.00	.02	5.		*	2 OCT 0100	286	.00	.00	.00	0.
1 OCT 1504	137	.02	.00	.02	5.		*	2 OCT 0104	287	.00	.00	.00	0.
1 OCT 1508	138	.02	.00	.02	5.		*	2 OCT 0108	288	.00	.00	.00	0.
1 OCT 1512	139	.02	.00	.02	5.		*	2 OCT 0112	289	.00	.00	.00	0.
1 OCT 1516	140	.02	.00	.02	4.		*	2 OCT 0116	290	.00	.00	.00	0.
1 OCT 1520	141	.02	.00	.02	4.		*	2 OCT 0120	291	.00	.00	.00	0.
1 OCT 1524	142	.02	.00	.02	4.		*	2 OCT 0124	292	.00	.00	.00	0.
1 OCT 1528	143	.02	.00	.02	4.		*	2 OCT 0128	293	.00	.00	.00	0.
1 OCT 1532	144	.02	.00	.02	4.		*	2 OCT 0132	294	.00	.00	.00	0.
1 OCT 1536	145	.02	.00	.02	4.		*	2 OCT 0136	295	.00	.00	.00	0.
1 OCT 1540	146	.02	.00	.02	4.		*	2 OCT 0140	296	.00	.00	.00	0.
1 OCT 1544	147	.02	.00	.02	4.		*	2 OCT 0144	297	.00	.00	.00	0.
1 OCT 1548	148	.02	.00	.02	4.		*	2 OCT 0148	298	.00	.00	.00	0.
1 OCT 1552	149	.02	.00	.02	4.		*	2 OCT 0152	299	.00	.00	.00	0.
1 OCT 1556	150	.02	.00	.02	4.		*	2 OCT 0156	300	.00	.00	.00	0.

```
                                                                              *
*******************************************************************************************************************

  TOTAL RAINFALL =    7.80, TOTAL LOSS =    2.36, TOTAL EXCESS =    5.44

PEAK FLOW      TIME                             MAXIMUM AVERAGE FLOW
  (CFS)        (HR)                     6-HR        24-HR       72-HR      19.93-HR
    60.        6.33        (CFS)         14.           5.          5.           5.
                          (INCHES)      4.492       5.438       5.438        5.438
                           (AC-FT)         7.          8.          8.           8.

                          CUMULATIVE AREA =     .03 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


             **************
             *            *
 29 KK       *    POND1   *         PROPOSED HELPING HANDS ADDITION DET. POND W/6' WIDE WEIR OUTLET
             *            *
             **************

 34 IO           OUTPUT CONTROL VARIABLES
                       IPRNT            0  PRINT CONTROL
                       IPLOT            2  PLOT CONTROL
                       QSCAL           0.  HYDROGRAPH PLOT SCALE

               HYDROGRAPH ROUTING DATA

 30 RS           STORAGE ROUTING
                       NSTPS            1  NUMBER OF SUBREACHES
                        ITYP         ELEV  TYPE OF INITIAL CONDITION
                      RSVRIC         1.00  INITIAL CONDITION
                           X          .00 WORKING R AND D COEFFICIENT

 31 SV             STORAGE          .0         .8        1.6        2.6

 32 SQ           DISCHARGE          0.         7.        19.        34.
```

33 SE ELEVATION 130.00 131.00 132.00 133.00

***

HYDROGRAPH AT STATION POND1

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
1	OCT	0600	1	0.	.0	130.0	1	OCT	1240	101	32.	2.5	132.9	1	OCT	1920	201	3.	.4	130.5
1	OCT	0604	2	0.	.0	130.0	1	OCT	1244	102	33.	2.5	132.9	1	OCT	1924	202	3.	.4	130.5
1	OCT	0608	3	0.	.0	130.0	1	OCT	1248	103	33.	2.5	132.9	1	OCT	1928	203	3.	.4	130.5
1	OCT	0612	4	0.	.0	130.0	1	OCT	1252	104	33.	2.5	132.9	1	OCT	1932	204	3.	.4	130.5
1	OCT	0616	5	0.	.0	130.0	1	OCT	1256	105	33.	2.5	132.9	1	OCT	1936	205	3.	.4	130.5
1	OCT	0620	6	0.	.0	130.0	1	OCT	1300	106	32.	2.5	132.9	1	OCT	1940	206	3.	.4	130.5
1	OCT	0624	7	0.	.0	130.0	1	OCT	1304	107	31.	2.4	132.8	1	OCT	1944	207	3.	.4	130.5
1	OCT	0628	8	0.	.0	130.0	1	OCT	1308	108	31.	2.4	132.8	1	OCT	1948	208	3.	.4	130.5
1	OCT	0632	9	0.	.0	130.0	1	OCT	1312	109	30.	2.3	132.7	1	OCT	1952	209	3.	.4	130.5
1	OCT	0636	10	0.	.0	130.0	1	OCT	1316	110	29.	2.3	132.6	1	OCT	1956	210	3.	.4	130.5
1	OCT	0640	11	0.	.0	130.0	1	OCT	1320	111	28.	2.2	132.6	1	OCT	2000	211	3.	.4	130.5
1	OCT	0644	12	0.	.0	130.0	1	OCT	1324	112	26.	2.1	132.5	1	OCT	2004	212	3.	.4	130.5
1	OCT	0648	13	0.	.0	130.0	1	OCT	1328	113	25.	2.1	132.4	1	OCT	2008	213	3.	.4	130.5
1	OCT	0652	14	0.	.0	130.0	1	OCT	1332	114	24.	2.0	132.4	1	OCT	2012	214	3.	.3	130.4
1	OCT	0656	15	0.	.0	130.0	1	OCT	1336	115	23.	1.9	132.3	1	OCT	2016	215	3.	.3	130.4
1	OCT	0700	16	0.	.0	130.0	1	OCT	1340	116	22.	1.9	132.2	1	OCT	2020	216	3.	.3	130.4
1	OCT	0704	17	0.	.0	130.0	1	OCT	1344	117	21.	1.8	132.2	1	OCT	2024	217	3.	.3	130.4
1	OCT	0708	18	0.	.0	130.0	1	OCT	1348	118	20.	1.7	132.1	1	OCT	2028	218	3.	.3	130.4
1	OCT	0712	19	0.	.0	130.0	1	OCT	1352	119	19.	1.7	132.1	1	OCT	2032	219	3.	.3	130.4
1	OCT	0716	20	0.	.0	130.0	1	OCT	1356	120	18.	1.6	132.0	1	OCT	2036	220	3.	.3	130.4
1	OCT	0720	21	0.	.0	130.0	1	OCT	1400	121	18.	1.6	131.9	1	OCT	2040	221	3.	.3	130.4
1	OCT	0724	22	0.	.0	130.0	1	OCT	1404	122	17.	1.5	131.9	1	OCT	2044	222	3.	.3	130.4
1	OCT	0728	23	0.	.0	130.0	1	OCT	1408	123	16.	1.5	131.8	1	OCT	2048	223	3.	.3	130.4
1	OCT	0732	24	0.	.0	130.0	1	OCT	1412	124	16.	1.4	131.8	1	OCT	2052	224	3.	.3	130.4
1	OCT	0736	25	0.	.0	130.0	1	OCT	1416	125	15.	1.4	131.7	1	OCT	2056	225	3.	.3	130.4
1	OCT	0740	26	0.	.0	130.0	1	OCT	1420	126	14.	1.3	131.7	1	OCT	2100	226	2.	.3	130.4
1	OCT	0744	27	0.	.0	130.0	1	OCT	1424	127	14.	1.3	131.6	1	OCT	2104	227	2.	.3	130.4
1	OCT	0748	28	0.	.0	130.0	1	OCT	1428	128	13.	1.3	131.6	1	OCT	2108	228	2.	.3	130.4
1	OCT	0752	29	0.	.0	130.0	1	OCT	1432	129	13.	1.2	131.5	1	OCT	2112	229	2.	.3	130.4
1	OCT	0756	30	0.	.0	130.0	1	OCT	1436	130	12.	1.2	131.5	1	OCT	2116	230	2.	.3	130.4
1	OCT	0800	31	0.	.0	130.0	1	OCT	1440	131	12.	1.1	131.4	1	OCT	2120	231	2.	.3	130.4
1	OCT	0804	32	0.	.0	130.0	1	OCT	1444	132	11.	1.1	131.4	1	OCT	2124	232	2.	.3	130.4
1	OCT	0808	33	0.	.0	130.0	1	OCT	1448	133	11.	1.1	131.4	1	OCT	2128	233	2.	.3	130.3
1	OCT	0812	34	0.	.0	130.0	1	OCT	1452	134	10.	1.1	131.3	1	OCT	2132	234	2.	.3	130.3
1	OCT	0816	35	0.	.0	130.0	1	OCT	1456	135	10.	1.0	131.3	1	OCT	2136	235	2.	.3	130.3
1	OCT	0820	36	0.	.0	130.0	1	OCT	1500	136	10.	1.0	131.2	1	OCT	2140	236	2.	.3	130.3
1	OCT	0824	37	0.	.0	130.0	1	OCT	1504	137	9.	1.0	131.2	1	OCT	2144	237	2.	.3	130.3
1	OCT	0828	38	0.	.0	130.0	1	OCT	1508	138	9.	.9	131.2	1	OCT	2148	238	2.	.3	130.3
1	OCT	0832	39	0.	.0	130.0	1	OCT	1512	139	9.	.9	131.2	1	OCT	2152	239	2.	.3	130.3
1	OCT	0836	40	0.	.0	130.0	1	OCT	1516	140	8.	.9	131.1	1	OCT	2156	240	2.	.3	130.3
1	OCT	0840	41	0.	.0	130.0	1	OCT	1520	141	8.	.9	131.1	1	OCT	2200	241	2.	.3	130.3
1	OCT	0844	42	0.	.0	130.0	1	OCT	1524	142	8.	.9	131.1	1	OCT	2204	242	2.	.3	130.3
1	OCT	0848	43	0.	.0	130.0	1	OCT	1528	143	7.	.8	131.1	1	OCT	2208	243	2.	.2	130.3
1	OCT	0852	44	0.	.0	130.0	1	OCT	1532	144	7.	.8	131.1	1	OCT	2212	244	2.	.2	130.3
1	OCT	0856	45	0.	.0	130.0	1	OCT	1536	145	7.	.8	131.0	1	OCT	2216	245	2.	.2	130.3
1	OCT	0900	46	0.	.0	130.0	1	OCT	1540	146	7.	.8	131.0	1	OCT	2220	246	2.	.2	130.3
1	OCT	0904	47	0.	.0	130.0	1	OCT	1544	147	7.	.8	131.0	1	OCT	2224	247	2.	.2	130.3
1	OCT	0908	48	0.	.0	130.0	1	OCT	1548	148	6.	.8	131.0	1	OCT	2228	248	2.	.2	130.3
1	OCT	0912	49	0.	.0	130.0	1	OCT	1552	149	6.	.8	131.0	1	OCT	2232	249	2.	.2	130.3
1	OCT	0916	50	0.	.0	130.0	1	OCT	1556	150	6.	.8	131.0	1	OCT	2236	250	2.	.2	130.3
1	OCT	0920	51	0.	.0	130.0	1	OCT	1600	151	6.	.7	130.9	1	OCT	2240	251	2.	.2	130.3
1	OCT	0924	52	0.	.0	130.0	1	OCT	1604	152	6.	.7	130.9	1	OCT	2244	252	2.	.2	130.3
1	OCT	0928	53	0.	.0	130.0	1	OCT	1608	153	6.	.7	130.9	1	OCT	2248	253	2.	.2	130.3
1	OCT	0932	54	0.	.0	130.0	1	OCT	1612	154	6.	.7	130.9	1	OCT	2252	254	2.	.2	130.3
1	OCT	0936	55	0.	.0	130.0	1	OCT	1616	155	6.	.7	130.9	1	OCT	2256	255	2.	.2	130.3
1	OCT	0940	56	0.	.0	130.0	1	OCT	1620	156	6.	.7	130.9	1	OCT	2300	256	2.	.2	130.3
1	OCT	0944	57	0.	.0	130.0	1	OCT	1624	157	6.	.7	130.9	1	OCT	2304	257	2.	.2	130.3
1	OCT	0948	58	0.	.0	130.0	1	OCT	1628	158	6.	.7	130.9	1	OCT	2308	258	2.	.2	130.3
1	OCT	0952	59	0.	.0	130.0	1	OCT	1632	159	6.	.7	130.9	1	OCT	2312	259	2.	.2	130.3
1	OCT	0956	60	0.	.0	130.0	1	OCT	1636	160	5.	.7	130.8	1	OCT	2316	260	2.	.2	130.3
1	OCT	1000	61	0.	.0	130.0	1	OCT	1640	161	5.	.6	130.8	1	OCT	2320	261	2.	.2	130.3
1	OCT	1004	62	0.	.0	130.0	1	OCT	1644	162	5.	.6	130.8	1	OCT	2324	262	2.	.2	130.3
1	OCT	1008	63	0.	.0	130.0	1	OCT	1648	163	5.	.6	130.8	1	OCT	2328	263	2.	.2	130.3
1	OCT	1012	64	0.	.0	130.0	1	OCT	1652	164	5.	.6	130.8	1	OCT	2332	264	2.	.2	130.3
1	OCT	1016	65	0.	.0	130.0	1	OCT	1656	165	5.	.6	130.8	1	OCT	2336	265	2.	.2	130.3
1	OCT	1020	66	0.	.0	130.0	1	OCT	1700	166	5.	.6	130.8	1	OCT	2340	266	2.	.2	130.3
1	OCT	1024	67	0.	.0	130.0	1	OCT	1704	167	5.	.6	130.8	1	OCT	2344	267	2.	.2	130.3
1	OCT	1028	68	0.	.0	130.1	1	OCT	1708	168	5.	.6	130.8	1	OCT	2348	268	2.	.2	130.3

1	OCT	1032	69	0.	.0	130.1	*	1	OCT	1712	169	5.	.6	130.8	*	1	OCT	2352	269	2.	.2	130.3
1	OCT	1036	70	0.	.1	130.1	*	1	OCT	1716	170	5.	.6	130.8	*	1	OCT	2356	270	2.	.2	130.3
1	OCT	1040	71	0.	.1	130.1	*	1	OCT	1720	171	5.	.6	130.8	*	2	OCT	0000	271	2.	.2	130.3
1	OCT	1044	72	1.	.1	130.1	*	1	OCT	1724	172	5.	.6	130.8	*	2	OCT	0004	272	2.	.2	130.3
1	OCT	1048	73	1.	.1	130.1	*	1	OCT	1728	173	5.	.6	130.7	*	2	OCT	0008	273	2.	.2	130.3
1	OCT	1052	74	1.	.1	130.1	*	1	OCT	1732	174	5.	.6	130.7	*	2	OCT	0012	274	2.	.2	130.3
1	OCT	1056	75	1.	.1	130.1	*	1	OCT	1736	175	5.	.6	130.7	*	2	OCT	0016	275	2.	.2	130.2
1	OCT	1100	76	1.	.1	130.1	*	1	OCT	1740	176	5.	.6	130.7	*	2	OCT	0020	276	2.	.2	130.2
1	OCT	1104	77	1.	.1	130.1	*	1	OCT	1744	177	5.	.6	130.7	*	2	OCT	0024	277	2.	.2	130.2
1	OCT	1108	78	1.	.1	130.1	*	1	OCT	1748	178	5.	.5	130.7	*	2	OCT	0028	278	1.	.2	130.2
1	OCT	1112	79	1.	.1	130.2	*	1	OCT	1752	179	5.	.5	130.7	*	2	OCT	0032	279	1.	.2	130.2
1	OCT	1116	80	1.	.1	130.2	*	1	OCT	1756	180	4.	.5	130.7	*	2	OCT	0036	280	1.	.2	130.2
1	OCT	1120	81	1.	.2	130.2	*	1	OCT	1800	181	4.	.5	130.7	*	2	OCT	0040	281	1.	.2	130.2
1	OCT	1124	82	1.	.2	130.2	*	1	OCT	1804	182	4.	.5	130.7	*	2	OCT	0044	282	1.	.1	130.2
1	OCT	1128	83	2.	.2	130.2	*	1	OCT	1808	183	4.	.5	130.6	*	2	OCT	0048	283	1.	.1	130.2
1	OCT	1132	84	2.	.2	130.3	*	1	OCT	1812	184	4.	.5	130.6	*	2	OCT	0052	284	1.	.1	130.2
1	OCT	1136	85	2.	.2	130.3	*	1	OCT	1816	185	4.	.5	130.6	*	2	OCT	0056	285	1.	.1	130.2
1	OCT	1140	86	2.	.2	130.3	*	1	OCT	1820	186	4.	.5	130.6	*	2	OCT	0100	286	1.	.1	130.2
1	OCT	1144	87	2.	.3	130.4	*	1	OCT	1824	187	4.	.5	130.6	*	2	OCT	0104	287	1.	.1	130.2
1	OCT	1148	88	3.	.3	130.4	*	1	OCT	1828	188	4.	.5	130.6	*	2	OCT	0108	288	1.	.1	130.1
1	OCT	1152	89	4.	.4	130.5	*	1	OCT	1832	189	4.	.5	130.6	*	2	OCT	0112	289	1.	.1	130.1
1	OCT	1156	90	4.	.5	130.7	*	1	OCT	1836	190	4.	.4	130.6	*	2	OCT	0116	290	1.	.1	130.1
1	OCT	1200	91	6.	.7	130.9	*	1	OCT	1840	191	4.	.4	130.6	*	2	OCT	0120	291	1.	.1	130.1
1	OCT	1204	92	7.	.8	131.1	*	1	OCT	1844	192	4.	.4	130.6	*	2	OCT	0124	292	1.	.1	130.1
1	OCT	1208	93	10.	1.0	131.3	*	1	OCT	1848	193	4.	.4	130.6	*	2	OCT	0128	293	1.	.1	130.1
1	OCT	1212	94	13.	1.3	131.6	*	1	OCT	1852	194	4.	.4	130.5	*	2	OCT	0132	294	1.	.1	130.1
1	OCT	1216	95	17.	1.5	131.8	*	1	OCT	1856	195	4.	.4	130.5	*	2	OCT	0136	295	1.	.1	130.1
1	OCT	1220	96	20.	1.7	132.1	*	1	OCT	1900	196	3.	.4	130.5	*	2	OCT	0140	296	1.	.1	130.1
1	OCT	1224	97	23.	1.9	132.3	*	1	OCT	1904	197	3.	.4	130.5	*	2	OCT	0144	297	1.	.1	130.1
1	OCT	1228	98	26.	2.1	132.5	*	1	OCT	1908	198	3.	.4	130.5	*	2	OCT	0148	298	1.	.1	130.1
1	OCT	1232	99	29.	2.3	132.7	*	1	OCT	1912	199	3.	.4	130.5	*	2	OCT	0152	299	1.	.1	130.1
1	OCT	1236	100	31.	2.4	132.8	*	1	OCT	1916	200	3.	.4	130.5	*	2	OCT	0156	300	1.	.1	130.1
							*								*							

****

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
(CFS)	(HR)		6-HR	24-HR	72-HR	19.93-HR
33.	6.80	(CFS)	13.	5.	5.	5.
		(INCHES)	4.287	5.394	5.394	5.394
		(AC-FT)	7.	8.	8.	8.

PEAK STORAGE	TIME		MAXIMUM AVERAGE STORAGE			
(AC-FT)	(HR)		6-HR	24-HR	72-HR	19.93-HR
3.	6.80		1.	0.	0.	0.

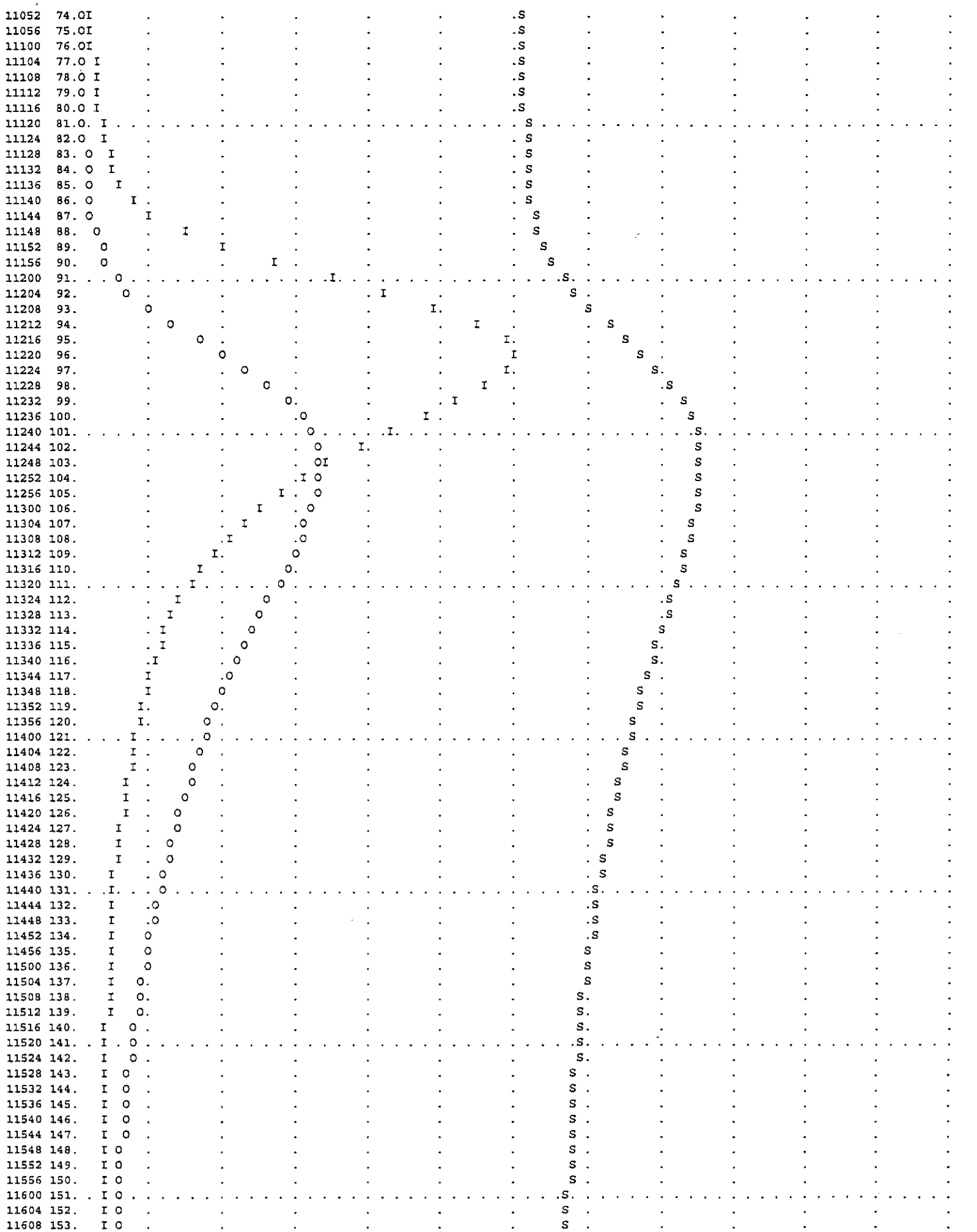
PEAK STAGE	TIME		MAXIMUM AVERAGE STAGE			
(FEET)	(HR)		6-HR	24-HR	72-HR	19.93-HR
132.93	6.80		131.49	130.61	130.61	130.61

CUMULATIVE AREA = .03 SQ MI

STATION POND1

(I) INFLOW, (O) OUTFLOW

	0.	10.	20.	30.	40.	50.	60.	0.	0.	0.	0.	0.	0.
									(S) STORAGE				
	0.	0.	0.	0.	0.	0.	0.	1.	2.	3.	0.	0.	0.
DAHRMN	PER												
10600	1I						S						
10604	2I						S						
10608	3I						S						
10612	4I						S						
10616	5I						S						
10620	6I						S						
10624	7I						S						
10628	8I						S						
10632	9I						S						
10636	10I						S						
10640	11I						S						
10644	12I						S						
10648	13I						S						
10652	14I						S						
10656	15I						S						
10700	16I						S						
10704	17I						S						
10708	18I						S						
10712	19I						S						
10716	20I						S						
10720	21I						S						
10724	22I						S						
10728	23I						S						
10732	24I						S						
10736	25I						S						
10740	26I						S						
10744	27I						S						
10748	28I						S						
10752	29I						S						
10756	30I						S						
10800	31I						S						
10804	32I						S						
10808	33I						S						
10812	34I						S						
10816	35I						S						
10820	36I						S						
10824	37I						S						
10828	38I						S						
10832	39I						S						
10836	40I						S						
10840	41I						S						
10844	42I						S						
10848	43I						S						
10852	44I						S						
10856	45I						S						
10900	46I						S						
10904	47I						S						
10908	48I						S						
10912	49I						S						
10916	50I						S						
10920	51I						S						
10924	52I						S						
10928	53I						S						
10932	54I						S						
10936	55I						S						
10940	56I						S						
10944	57I						S						
10948	58I						S						
10952	59OI						S						
10956	60OI						S						
11000	61OI						S						
11004	62OI						S						
11008	63OI						S						
11012	64OI						S						
11016	65OI						S						
11020	66OI						S						
11024	67OI						S						
11028	68OI						S						
11032	69OI						S						
11036	70OI						.S						
11040	71O I						.S.						
11044	72.OI						.S						
11048	73.OI						.S						



```
11612 154.   I O  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11616 155.   I O  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11620 156.   I O  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11624 157.   I O  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11628 158.   I O  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11632 159.   I O  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11636 160.   IO  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11640 161.  .IO. . . . . .  S . . . . . .
11644 162.   IO  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11648 163.   IO  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11652 164.   IO  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11656 165.   IO  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11700 166.   IO  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11704 167.   IO  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11708 168.    I  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11712 169.    I  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11716 170.    I  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11720 171.  .I. . . . . .  S . . . . . .
11724 172.   IO  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11728 173.   IO  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11732 174.   IO  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11736 175.   IO  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11740 176.  I O  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11744 177.  I O  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11748 178.  I O  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11752 179.  I O  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11756 180.  IO  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11800 181.  IO . . . . . .  S . . . . . .
11804 182.  IO  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11808 183.  IO  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11812 184.  IO  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11816 185.  IO  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11820 186.  IO  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11824 187.  IO  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11828 188.  IO  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11832 189.  IO  .  .  .  .  .  .  .  S  .  .  .  .  .  .  .
11836 190.  IO  .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
11840 191.  IO . . . . . .  S . . . . . .
11844 192.  IO  .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
11848 193.  IO  .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
11852 194.  IO  .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
11856 195.  IO  .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
11900 196.  I   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
11904 197.  I   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
11908 198.  I   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
11912 199.  I   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
11916 200.  I   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
11920 201.  I . . . . . .  S . . . . . .
11924 202.  I   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
11928 203.  I   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
11932 204.  I   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
11936 205.  I   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
11940 206.  I   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
11944 207.  I   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
11948 208.  I   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
11952 209. IO   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
11956 210. IO   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
12000 211. IO . . . . . .  S . . . . . .
12004 212. IO   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
12008 213. IO   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
12012 214. IO   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
12016 215. IO   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
12020 216. IO   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
12024 217. IO   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
12028 218. IO   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
12032 219. IO   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
12036 220. IO   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
12040 221. IO . . . . . .  S . . . . . .
12044 222. IO   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
12048 223. IO   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
12052 224. IO   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
12056 225. IO   .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
12100 226. I    .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
12104 227. I    .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
12108 228. I    .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
12112 229. I    .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
12116 230. I    .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
12120 231. I . . . . . .  S . . . . . .
12124 232. I    .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
12128 233. I    .  .  .  .  .  .  S  .  .  .  .  .  .  .  .
```

```
12132 234. I . . . . . S . . . . . .
12136 235. I . . . . . S . . . . . .
12140 236. I . . . . . S . . . . . .
12144 237. I . . . . . S . . . . . .
12148 238. I . . . . . S . . . . . .
12152 239. I . . . . . S . . . . . .
12156 240. I . . . . . S . . . . . .
12200 241. I . . . . . S. . . . . .
12204 242. I . . . . . S . . . . . .
12208 243. I . . . . . S . . . . . .
12212 244. I . . . . . S . . . . . .
12216 245. I . . . . . S . . . . . .
12220 246. I . . . . . S . . . . . .
12224 247. I . . . . . S . . . . . .
12228 248. I . . . . . S . . . . . .
12232 249. I . . . . . S . . . . . .
12236 250. I . . . . . S . . . . . .
12240 251. I . . . . . S . . . . . .
12244 252. I . . . . . S . . . . . .
12248 253. I . . . . . S . . . . . .
12252 254. I . . . . . S . . . . . .
12256 255. I . . . . . S . . . . . .
12300 256. I . . . . . S . . . . . .
12304 257. I . . . . . S . . . . . .
12308 258. I . . . . . S . . . . . .
12312 259. I . . . . . S . . . . . .
12316 260. I . . . . . S . . . . . .
12320 261. I . . . . . S . . . . . .
12324 262. I . . . . . S . . . . . .
12328 263. I . . . . . S . . . . . .
12332 264. I . . . . . S . . . . . .
12336 265. I . . . . . S . . . . . .
12340 266. I . . . . . S . . . . . .
12344 267. I . . . . . S . . . . . .
12348 268. I . . . . . S . . . . . .
12352 269.IO . . . . . S . . . . . .
12356 270.IO . . . . . S . . . . . .
20000 271.IO . . . . . S . . . . . .
20004 272.IO . . . . . S . . . . . .
20008 273.IO . . . . . S . . . . . .
20012 274.IO . . . . . S . . . . . .
20016 275.IO . . . . . S . . . . . .
20020 276I O . . . . . S . . . . . .
20024 277I O . . . . . S . . . . . .
20028 278IO . . . . . S . . . . . .
20032 279IO . . . . . S . . . . . .
20036 280IO . . . . . S . . . . . .
20040 281IO. . . . . S . . . . . .
20044 282IO . . . . . .S . . . . . .
20048 283IO . . . . . .S . . . . . .
20052 284IO . . . . . .S . . . . . .
20056 285IO . . . . . .S . . . . . .
20100 286IO . . . . . .S . . . . . .
20104 287IO . . . . . .S . . . . . .
20108 288IO . . . . . .S . . . . . .
20112 289IO . . . . . .S . . . . . .
20116 290IO . . . . . .S . . . . . .
20120 291IO. . . . . .S. . . . . .
20124 292IO . . . . . .S . . . . . .
20128 293IO . . . . . .S . . . . . .
20132 294IO . . . . . .S . . . . . .
20136 295IO . . . . . .S . . . . . .
20140 296IO . . . . . .S . . . . . .
20144 297IO . . . . . .S . . . . . .
20148 298IO . . . . . .S . . . . . .
20152 299IO . . . . . .S . . . . . .
20156 300IO---------.---------.---------.---------.---------.---------.S---------.---------.---------.---------.---------.---------.
```

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
HYDROGRAPH AT	UNDHYD	34.	6.67	11.	4.	4.	.03		
HYDROGRAPH AT	DEVHYD	60.	6.33	14.	5.	5.	.03		
ROUTED TO	POND1	33.	6.80	13.	5.	5.	.03	132.93	6.80

*** NORMAL END OF HEC-1 ***