WATER YEAR MEAN DAILY FLOW PLOT OPERATION

Identifier: WY-PLOT

Application: Calibration programs only

Description: This Operation plots mean daily discharge time series on a water year basis.

Three types of plot scales are available:

1. arithmetic - units are CMSD
2. semi-log - units are MM over the drainage area
3. modified arithmetic - units are (CMSD/KM2)*100.0

If hydrographs are plotted in English units, the units are CFSD, IN and CFSD/MI2, respectively. The output units are set on the MCP3 input card A2 (see Section IV.4.1-MCP3).

The user selects the plotting symbol to be used for each time series.

Besides plotting mean daily discharge time series, the Operation tabulates the following other daily time series next to the plotted values:

1. the first two daily discharge time series
2. rain+melt or precipitation (optional)
3. soil-moisture contents from Sacramento soil-moisture accounting Operation - 5 values/day (optional)
4. total runoff from Sacramento soil-moisture accounting Operation and the breakdown of the runoff into components - 7 values/day (optional)
5. Antecedent Precipitation Index (API) contents from Continuous API Operation - 5 values/day (optional)

At the beginning of each plot, the monthly runoff volume for each of the discharge time series is computed and tabulated for the water year.

Allowable Time Intervals: 24 hours

Time Series Used:

General Type	Dimn	Units	Use	Required	Form of Output T.S.	Data Time Interval	Missing Values Allowed
Mean daily discharge	L3	CMSD	I	yes 1/	n/a	24	yes
Precipitation (rain+melt)	L	MM	I	no	n/a	any	yes
Sacramento model soil moisture storages (SMZC)	L	MM	I	no	n/a	24	no
Sacramento model runoff components (SMZC)	L	MM	I	no	n/a	24	no
Continuous API model storages and indices (APIC)	L	MM	I	no	n/a	24	no

1/ At least one mean daily discharge time series must be input. There is no limit to the total number that can be plotted.

Input Summary: The card input for this Operation is as follows:

Card	Format	Columns	Contents
1	5A4	1-20	Name of flow-point being plotted
	I5	21-25	Number of mean daily discharge time series to be plotted
	1X,A4	27-30	Plotting scale to be used: 'SLOG' = semi-log 'MODS' = modified arithmetic (default)
	F10.0	31-40	Drainage area in KM2
	F5.0	41-45	Maximum plot ordinate: o arithmetic scale - units are CMSD o modified arithmetic scale - units (CMSD/KM2)*100 o semi-log scale - maximum plot ordinate is automatically selected for the semi-log scale Default is 0.3 CMSD/KM2
	2X,A3	48-50	Indicator if either rain+melt, soil-moisture storage, API contents or runoff

Card	Format	Columns	Contents
			component time series are to be tabulated: 'YES' = any are to be tabulated 'NO ' = none are to be tabulated (default)

Repeat card 2 for each mean daily discharge time series to be plotted.

2	2X,2A4	3-10	Internal identifier for the mean daily discharge time series
	1X,A4	12-15	Data type code for the daily discharge time series
	8X,3A4	24-35	General information about the time series (e.g., OBSERVED, SIMULATED, ROUTED, etc.)
	4X,A1	40	Plotting symbol to use for the time series

Card 3 only needed if rain+melt, soil-moisture storage, API contents or runoff component time series are to be tabulated.

3	2X,2A4	3-10	Internal identifier for the rain+melt time series (leave blank if no rain+melt time series used)
	1X,A4	12-15	Data type code for the rain+melt time series
	3X,I2	19-20	Time interval in hours for the rain+melt time series
	12X,2A4	33-40	Internal identifier for the runoff component time series (leave blank if no runoff component time series used)
	12X,2A4	53-60	Internal identifier for the soil-moisture storage or API contents time series (leave blank if none used)
	1X,A4	62-65	Data type code for the soil-moisture storage (SMZC) or API contents (APIC) time series - default is SMZC

Sample Input and Output: Sample input is shown in Figure 1. Sample output from the parameter print routine is shown in Figure 2. Sample output from the execution routine is shown in Figure 3.

Error and Warning Messages: The error and warning messages generated

Card	Format	Columns	Contents

by this Operation and the corrective action to take when they occur are as follows:

A. Messages that can occur during setup:

1. **ERROR** THE NUMBER OF TIME SERIES TO BE PLOTTED (nnnnn) IS INCORRECT. THIS OPERATION CANNOT BE EXECUTED.

   Action: The number of time series to be plotted must be greater than zero.

2. **ERROR** THE AREA IS NOT DEFINED.

   Action: Define the drainage area on card 1.

3. **ERROR** THE MAXIMUM PLOT ORDINATE IS NOT DEFINED AND CANNOT BE COMPUTED.

   Action: Specify the maximum plot ordinate or the drainage area on card 1.

B. Messages that occur during execution: None

Carryover Transfer Rules: No carryover transfer takes place.

Punched Card Limitations: This Operation currently has no punch parameter subroutine.

Figure 1. Sample Card Input For Operation WY-PLOT

```
        10        20        30        40        50        60        70        80
----+----+----+----+----+----+----+----+----+----+----+----+----+----+----+----+
WY-PLOT     BLANTYRE
FRENCH BROAD-BLANTYE    2          767.0 200.  YES
  BLANTYRE QME         OBSERVED        +
  BLANTYRE SQME        SIMULATED       *
  BLANTYRE RAIM    6            BLANTYRE            BLANTYRE
```

Figure 2. Sample Output From Operation WY-PLOT Print Parameter Routine

```
PLOT MEAN DAILY FLOWS FOR FRENCH BROAD-BLANTYE

     AREA ABOVE FLOW-POINT=    767.0 KM2

     PLOT SCALE IS ARITHMETIC     MAX. ORDINATE=  200. CMSD

 2 DAILY FLOW TIME SERIES ARE PLOTTED

     T.S. I.D.   DATE TYPE       NAME     PLOT SYMBOL
     BLANTYRE      QME       OBSERVED          +
     BLANTYRE      SQME      SIMULATED         *

DAILY TOTALS OF THE FOLLOWING TIME SERIES ARE TABULATED ON THE PLOT.

     T.S. I.D.     DATA TYPE     TIME INTERVAL
     BLANTYRE        RAIM           6 HOURS
     BLANTYRE        ROCL          24 HOURS
     BLANTYRE        SMZC          24 HOURS

OPERATION USES RECORDS    1 THRU   24 ON SCRATCH FILE 10.
```

WATER YEAR 1954 MEAN DAILY FLOW PLOT FOR FRENCH BROAD-BLANTYE AREA= 767.0 SQ.KM

UNITS ARE CMSD
PCN=PRECIP. OR RAIN+MELT (MM)
INFW=RUNOFF OR CHANNEL INFLOW (MM)

NUM.	T.S. I.D.	TYPE	NAME	SYM
1	BLANTYRE	QME	OBSERVED	+
2	BLANTYRE	SQME	SIMULATED	*

STREAMFLOW VOLUME SUMMARY

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
Q(1)	277.	317.	880.	1248.	0.	0.	0.	0.	0.	0.	0.	0.	2722. CMSD
	31.2	35.7	99.1	140.5	.0	.0	.0	.0	.0	.0	.0	.0	306.6 MM
Q(2)	248.	283.	834.	1188.	0.	0.	0.	0.	0.	0.	0.	0.	2554. CMSD
	27.9	31.9	94.0	133.9	.0	.0	.0	.0	.0	.0	.0	.0	287.7 MM
Q(2)-Q(1)	-3.3	-3.8	-5.1	-6.7	.0	.0	.0	.0	.0	.0	.0	.0	-18.9 MM

RUNOFF COMPONENTS

OCT, 1953 - NOV, 1953

DAY	PCN	Q(1)	Q(2)	20.0	40.0	60.0	80.0	100.0	120.0	140.0	160.	INFW	PRM SUP	IMP DIR	SUR INT
1	.000	11.7	2.1	.* +	.	.	.	.	17.7 .000	50.3 .000	248.	1.05	100 0	0 0	0 0
2	.000	11.1	8.3	. * +	.	.	.	.	19.7 .000	50.6 .000	247.	1.05	100 0	0 0	0 0
3	.000	10.6	8.9	. *+	.	.	.	.	23.2 .000	51.1 .000	246.	1.01	100 0	0 0	0 0
4	.000	8.67	8.82	. *	.	.	.	.	26.4 .000	51.8 .000	245.	.999	100 0	0 0	0 0
5	.000	9.85	8.64	. *+	.	.	.	.	29.3 .000	52.4 .000	243.	.989	100 0	0 0	0 0
6	.000	10.3	8.5	. *+	.	.	.	.	32.0 .000	53.1 .000	242.	.977	100 0	0 0	0 0
7	.000	8.92	8.37	. *	.	.	.	.	34.2 .000	53.8 .000	241.	.975	100 0	0 0	0 0
8	.000	9.09	8.30	. *+	.	.	.	.	36.1 .000	54.4 .000	240.	.976	100 0	0 0	0 0
9	.000	8.58	8.28	. *	.	.	.	.	38.1 .000	55.2 .000	238.	.956	100 0	0 0	0 0
10	.000	8.83	8.20	. *	.	.	.	.	40.1 .000	55.9 .000	237.	.947	100 0	0 0	0 0
11	.000	8.64	8.10	. *	.	.	.	.	41.9 .000	56.7 .000	236.	.938	100 0	0 0	0 0
12	.000	8.33	7.98	. *	.	.	.	.	43.8 .000	57.6 .000	235.	.922	100 0	0 0	0 0
13	.000	8.18	7.86	. *	.	.	.	.	45.6 .000	58.5 .000	234.	.913	100 0	0 0	0 0
14	9.40	8.38	8.48	. *	.	.	.	.	36.4 .000	58.6 .000	233.	1.33	75 0	25 0	0 0
15	1.02	9.43	9.58	. *	.	.	.	.	35.8 .000	58.7 .000	231.	1.03	97 0	3 0	0 0
16	.000	8.83	8.86	. *	.	.	.	.	37.6 .000	59.4 .000	230.	.928	100 0	0 0	0 0
17	.000	8.24	8.13	. *	.	.	.	.	39.2 .000	60.0 .000	229.	.925	100 0	0 0	0 0
18	.000	8.44	7.87	. *	.	.	.	.	40.8 .000	60.6 .000	228.	.917	100 0	0 0	0 0
19	.000	9.40	7.76	. *+	.	.	.	.	42.3 .000	61.2 .000	227.	.910	100 0	0 0	0 0
20	.000	10.5	7.7	. *+	.	.	.	.	43.9 .000	62.0 .000	226.	.896	100 0	0 0	0 0
21	.000	10.2	7.5	. *+	.	.	.	.	45.8 .000	62.9 .000	225.	.861	100 0	0 0	0 0
22	.000	7.02	7.44	. *	.	.	.	.	46.8 .000	63.4 .000	223.	.906	100 0	0 0	0 0
23	.000	6.91	7.57	. +*	.	.	.	.	48.0 .000	64.1 .000	222.	.879	100 0	0 0	0 0
24	.000	8.38	7.46	. *	.	.	.	.	49.4 .000	64.9 .000	221.	.865	100 0	0 0	0 0
25	.000	8.13	7.33	. *	.	.	.	% OF TOTAL.	50.3 .000	65.5 .000	220.	.879	100 0	0 0	0 0
26	.508	7.99	7.32	. *	.	.	.	.	50.8 .000	66.1 .000	219.	.891	98 0	2 0	0 0
27	13.7	7.90	8.13	. *	.	.	.	.	37.4 .000	66.2 .000	218.	1.41	66 0	34 0	0 0
28	1.02	10.2	10.4	. *	.	.	.	.	37.0 .000	66.4 .000	217.	.953	96 0	4 0	0 0

```
29  .000   8.89   8.77  .   *     .         .         .         .         .      38.0 .000 66.8 .000 216.  .892 100  0  0  0  0  0
30  .000   8.04   7.76  .   *     .         .         .         .         .      39.2 .000 67.2 .000 215.  .880 100  0  0  0  0  0
31  .000   7.50   7.42  .   *     .         .         .         .         .      40.4 .000 67.7 .000 214.  .868 100  0  0  0  0  0
 1  .000   6.63   7.29  .  +*     .         .         .         .         .      41.5 .000 68.1 .000 212.  .868 100  0  0  0  0  0
 2  .000   7.02   7.24  .   *     .         .         .         .         .      42.7 .000 68.6 .000 211.  .856 100  0  0  0  0  0
 3  .000   8.13   7.15  .   *     .         .         .         .         .      43.9 .000 69.1 .000 210.  .843 100  0  0  0  0  0
 4  .000   7.65   7.07  .   *     .         .         .         .         .      44.7 .000 69.5 .000 209.  .862 100  0  0  0  0  0
 5  .000   7.28   7.13  .   *     .         .         .         .         .      45.5 .000 69.8 .000 208.  .857 100  0  0  0  0  0
 6  .000   7.22   7.11  .   *     .         .         .         .         .      46.3 .000 70.2 .000 207.  .845 100  0  0  0  0  0
 7  .000   7.16   7.07  .   *     .         .         .         .         .      46.9 .000 70.5 .000 206.  .853 100  0  0  0  0  0
 8  .000   6.46   7.10  .  +*     .         .         .         .         .      47.5 .000 70.8 .000 205.  .855 100  0  0  0  0  0
 9  .000   6.77   7.06  .  +*     .         .         .         .         .      48.3 .000 71.3 .000 204.  .823 100  0  0  0  0  0
10  .000   6.94   6.91  .  *      .         .         .         .         .      49.3 .000 71.8 .000 203.  .811 100  0  0  0  0  0
11  .000   7.08   6.82  .  *+     .         .         .         .         .      50.0 .000 72.2 .000 202.  .819 100  0  0  0  0  0
12  .000   7.08   6.84  .  *+     .         .         .         .         .      50.8 .000 72.7 .000 201.  .807 100  0  0  0  0  0
13  .000   7.08   6.78  .  *+     .         .         .         .         .      51.5 .000 73.1 .000 200.  .809 100  0  0  0  0  0
14  .000   6.80   6.76  .  *      .         .         .         .         .      52.1 .000 73.5 .000 199.  .811 100  0  0  0  0  0
15  .000   6.23   6.76  .  *      .         .         .         .         .      52.8 .000 74.0 .000 198.  .792 100  0  0  0  0  0
16  .000   6.23   6.66  .  *      .         .         .         .         .      53.6 .000 74.5 .000 197.  .780 100  0  0  0  0  0
17  .000   6.80   6.59  .  *      .         .         .         .         .      54.3 .000 75.0 .000 196.  .782 100  0  0  0  0  0
18  .000   6.80   6.57  .  *      .         .         .         .         .      54.8 .000 75.3 .000 195.  .798 100  0  0  0  0  0
19  .000   6.94   6.57  .  *      .         .         .         .         .      55.5 .000 75.8 .000 194.  .771 100  0  0  0  0  0
20  46.7   9.34   6.59  .  * +    .         .         .         .         .       8.96 .000 75.9 .000 193.  2.46  34  0 66  0  0  0
21  2.03   17.6   16.7  .       *+.         .         .         .         .       7.45 .000 75.9 .000 192.  .905  92  0  8  0  0  0
22  45.2   35.7   15.7  .       * .       + .         .         .         .       .048 .753 47.2 2.14 196.  4.85  17  1 33 32  0 17
23  .000   34.8   37.0  .         .      + *.         .         .         .       1.37 .000 46.6 1.97 195.  1.04  82 18  0  0  0  0
24  4.32   18.1   17.1  .        *.         .         .         .         .       .000 2.01 46.6 1.77 194.  1.27  67 13 12  8  0  0
25  .330   14.4   12.5  .     *+  .         .         .         .         .       .809 .000 45.0 1.71 194.  1.02  83 16  1  0  0  0
26  .000   12.9   10.4  .    *+   .         .         .         .         .       1.94 .000 45.0 1.54 193.  .986  85 15  0  0  0  0
27  .000   11.9    9.5  .    *+   .         .         .         .         .       3.23 .000 45.1 1.38 192.  .966  86 14  0  0  0  0
28  .000   10.6    9.0  .    *    .         .         .         .         .       4.51 .000 45.1 1.24 191.  .948  87 13  0  0  0  0
29  .000   9.77   8.69  .   *+    .         .         .         .         .       5.58 .000 45.1 1.12 190.  .931  88 12  0  0  0  0
30  .000   9.49   8.50  .   *+    .         .         .         .         .       6.65 .000 45.2 1.01 189.  .916  89 11  0  0  0  0
                                UZTD AND LZTD=TENSION WATER DEFICITS                UZTD UZFW LZTD LZFS LZFP
                                                                                         UNITS ARE MM
  DEC, 1953 - JAN, 1954                                                                          PRM   IMP   SUR
DAY  PCN    Q(1)   Q(2)          20.0      40.0      60.0      80.0     100.0      120.0     140.0     160.  INFW    SUP   DIR   INT
 1  .000   9.34   8.37  .   *+    .         .         .         .         .       7.69 .000 45.2 .906 188.  .901  90 10  0  0  0  0
 2  .000   9.68   8.25  .   *+    .         .         .         .         .       8.73 .000 45.3 .816 187.  .888  91  9  0  0  0  0
 3  22.4   9.54   8.01  .   *+    .         .         .         .         .       .000 6.68 40.2 1.12 187.  2.44  33  3 32 28  0  4
 4  41.7   32.8   35.6  .         .     + * .         .         .         .       .000 .000 2.76 3.65 192.  6.40  13  4 23 40  0 20
 5  .254   34.0   32.8  .         .    *+   .         .         .         .       .316 .000 2.76 3.28 191.  1.16  72 27  1  0  0  0
 6  39.9   33.7   28.3  .         .   *  +  .         .         .         .       .048 .142 .000 13.1 215.  6.84  13 10 20 42  0 14
 7  .000   52.4   43.1  .         .         . *   +   .         .         .       1.18 .000 .004 11.9 214.  2.07  45 55  0  0  0  0
 8  .254   29.7   24.6  .         . *  +    .         .         .         .       2.05 .000 .018 10.7 213.  1.96  47 52  0  0  0  0
 9  44.4   34.5   28.7  .         .   *  +  .         .         .         .       .000 5.37 .000 19.9 237.  8.28  12 15 19 42  0 12
10  .000   61.2   57.4  .         .         .        *.+        .         .       1.33 .000 .004 19.4 239.  2.93  35 63  0  0  0  2
11  .508   38.2   33.4  .         .      * +.         .         .         .       1.38 .000 .011 17.5 238.  2.73  38 61  1  0  0  0
12  31.5   45.9   41.8  .         .         .* +      .         .         .       .048 .000 .000 24.1 257.  7.57  14 26 15 35  0 10
13  19.6   48.1   44.0  .         .         . * +     .         .         .       .000 6.54 .000 25.4 264.  5.99  19 36 11 29  0  5
```

Figure 3. Sample Output From Operation WY-PLOT Execution Routine (continued)

14	5.84	58.3	54.0	.	.	.	* +.	.	.	.286	.000	.000	26.3	271.	4.51	26	54	5	11	0	4
15	.254	44.5	39.9	.	.	* +	.	.	.	1.35	.000	.008	23.7	270.	3.46	34	66	0	0	0	0
16	.000	34.0	32.3	.	.	*+	.	.	.	2.66	.000	.027	21.3	268.	3.22	36	64	0	0	0	0
17	.000	28.0	28.1	.	. *	.	.	.	.	3.76	.000	.055	19.2	267.	3.00	39	61	0	0	0	0
18	.000	23.7	25.5	.	. +*	.	.	.	.	4.48	.000	.080	17.3	266.	2.81	41	59	0	0	0	0
19	.000	22.0	23.7	.	.+*	.	.	.	.	5.37	.000	.116	15.5	264.	2.64	44	56	0	0	0	0
20	.508	21.1	22.3	.	.*	.	.	.	.	5.39	.000	.142	14.0	263.	2.51	46	54	1	0	0	0
21	10.2	21.5	23.1	.	.+*	.	.	.	.	.047	.000	.000	14.0	265.	3.17	36	39	11	13	0	0
22	4.06	22.6	24.6	.	.+*	.	.	.	.	.000	.000	.000	13.9	266.	2.90	40	43	5	13	0	0
23	.000	21.5	23.3	.	.+*	.	.	.	.	.748	.000	.002	12.5	265.	2.35	49	51	0	0	0	0
24	.000	20.0	20.5	.	*	.	.	.	.	1.86	.000	.012	11.2	264.	2.23	52	48	0	0	0	0
25	.000	19.0	19.0	.	*.	.	.	.	.	2.40	.000	.021	10.1	262.	2.11	54	46	0	0	0	0
26	.000	18.2	18.0	.	*.	.	.	.	.	3.66	.000	.051	9.10	261.	2.01	57	43	0	0	0	0
27	.000	17.5	17.1	.	*.	.	.	.	.	4.73	.000	.088	8.19	260.	1.92	59	41	0	0	0	0
28	4.83	17.3	16.4	.	*+.	.	.	.	.	.429	.000	.107	7.37	258.	2.00	56	35	8	0	0	0
29	4.57	18.0	18.1	.	*.	.	.	.	.	.000	.000	.000	7.91	260.	2.35	48	29	7	16	0	0
30	.000	17.8	18.0	.	*.	.	.	.	.	.369	.000	.000	7.12	258.	1.81	62	38	0	0	0	0
31	.000	15.7	16.2	.	* .	.	.	.	.	1.46	.000	.007	6.41	257.	1.74	65	35	0	0	0	0
1	.000	14.9	15.2	.	+* .	.	.	.	.	3.08	.000	.035	5.77	256.	1.67	67	33	0	0	0	0
2	.508	14.5	14.6	.	* .	.	.	.	.	3.80	.000	.071	5.19	255.	1.62	68	31	1	0	0	0
3	2.82	14.4	14.4	.	* .	.	.	.	.	2.40	.000	.105	4.67	253.	1.65	67	27	6	0	0	0
4	.000	14.4	14.3	.	* .	.	.	.	.	3.46	.000	.130	4.21	252.	1.50	73	27	0	0	0	0
5	.000	14.0	13.5	.	* .	.	.	.	.	4.68	.000	.169	3.79	251.	1.45	75	25	0	0	0	0
6	.000	13.8	13.1	.	* .	.	.	.	.	6.04	.000	.230	3.41	249.	1.41	77	23	0	0	0	0
7	.000	13.4	12.7	.	*+ .	.	.	.	.	7.22	.000	.296	3.07	248.	1.37	79	21	0	0	0	0
8	.000	13.2	12.4	.	*+ .	.	.	.	.	8.37	.000	.373	2.76	247.	1.34	80	20	0	0	0	0
9	.000	13.1	12.2	.	*+ .	.	.	.	.	9.50	.000	.462	2.48	246.	1.30	82	18	0	0	0	0
10	4.83	13.1	12.0	.	*+ .	.	.	.	.	5.16	.000	.502	2.24	244.	1.45	74	15	12	0	0	0
11	3.81	14.4	12.9	.	*+ .	.	.	.	.	1.52	.000	.507	2.01	243.	1.39	76	14	10	0	0	0
12	.000	14.4	13.0	.	*+ .	.	.	.	.	2.57	.000	.523	1.81	242.	1.23	86	14	0	0	0	0
13	.000	12.4	11.6	.	* .	.	.	.	.	3.27	.000	.540	1.63	241.	1.20	87	13	0	0	0	0
14	5.06	12.5	11.4	.	* .	.	.	.	.	.000	1.65	.543	1.47	240.	1.51	69	9	12	10	0	0
15	41.7	14.6	14.8	.	* .	.	.	.	.	.000	14.5	.000	10.1	257.	7.50	14	4	19	52	0	10
16	32.0	68.0	71.1	.	.	.	. + *	.	.	.621	.000	.000	22.4	285.	8.58	14	20	13	35	0	17
17	.000	56.4	61.7	.	.	. + .*	.	.	.	1.84	.000	.011	20.1	284.	3.17	39	61	0	0	0	0
18	.254	32.6	33.4	.	. +*	.	.	.	.	1.93	.000	.016	18.1	282.	2.98	41	58	0	0	0	0
19	.508	26.9	26.9	.	. *	.	.	.	.	1.59	.000	.018	16.3	281.	2.81	44	56	1	0	0	0
20	29.5	24.4	25.2	.	. +*	.	.	.	.	.000	13.3	.000	19.3	289.	6.93	18	21	15	39	0	8
21	46.0	80.4	70.7	.	.	.	. * +	.	.	.000	5.98	.000	33.0	322.	11.9	11	22	14	38	0	15
22	91.9	124.	103.	.	.	.	.	.	.*	.	+	.	.		29.2	5	14	11	31	26	13
23	.000	185.	147.	.	.	.	.	.	.	.	.	. *	+		6.54	25	74	0	0	0	1
24	.000	136.	126.	.	.	.	.	.	.	.	*	+ .	.		5.99	27	73	0	0	0	0
25	.000	73.3	82.9	.	.	.	. + .*	.	.	2.28	.000	.019	40.8	371.	5.54	29	71	0	0	0	0
26	.000	51.3	49.8	.	.	. *+	.	.	.	3.06	.000	.035	36.8	369.	5.14	31	69	0	0	0	0
27	.762	44.5	44.8	.	.	. *	.	.	.	3.84	.000	.077	33.1	368.	4.80	33	66	1	0	0	0
28	.508	39.4	41.3	.	.	+*	.	.	.	4.68	.000	.123	29.8	366.	4.47	36	64	0	0	0	0
29	.000	35.4	38.1	.	.	+*.	.	.	.	5.42	.000	.154	26.8	364.	4.16	38	62	0	0	0	0
30	.000	32.6	35.4	.	.	+ * .	.	.	.	6.57	.000	.212	24.1	362.	3.89	40	60	0	0	0	0
31	.000	30.3	33.0	.	.	+ * .	.	.	.	7.84	.000	.290	21.7	360.	3.65	43	57	0	0	0	0
						UZTD AND LZTD=TENSION WATER DEFICITS				UZTD	UZFW	LZTD	LZFS	LZFP							
											UNITS ARE MM										