PR Y.OUT

R	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
S	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AVERAGE	.52	1.04	1.56	3.01	5.17	7.87	10.21	15.05	19.33	21.98	23.88	25.35	26.55	27.57	28.46	29.23	29.93	30.56	31.14

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PROBABLE MAXIMUM STORM FOR BASIN2

DAY 1

TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL
0100	.10	.10	0700	.12	.69	1300	.15	1.42	1900	.20	2.36
0200	.10	.19	0800	.12	.81	1400	.15	1.57	2000	.20	2.56
0300	.10	.29	0900	.12	.92	1500	.15	1.71	2100	.20	2.76
0400	.10	.38	1000	.12	1.04	1600	.15	1.86	2200	.20	2.96
0500	.10	.48	1100	.12	1.16	1700	.15	2.01	2300	.20	3.16
0600	.10	.58	1200	.12	1.27	1800	.15	2.16	2400	.20	3.36
6-HR TOTAL	.58			.70			.88			1.20	

DAY 2

TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL
0100	.28	3.64	0700	.56	5.82	1300	1.27	10.81	1900	.52	25.11
0200	.29	3.93	0800	.60	6.41	1400	1.88	12.69	2000	.48	25.59
0300	.31	4.24	0900	.65	7.07	1500	2.70	15.39	2100	.45	26.04
0400	.32	4.56	1000	.73	7.79	1600	5.17	20.56	2200	.42	26.46
0500	.34	4.90	1100	.82	8.61	1700	2.34	22.90	2300	.40	26.86
0600	.36	5.26	1200	.93	9.54	1800	1.68	24.58	2400	.38	27.24
6-HR TOTAL	1.90			4.28			15.05			2.65	

DAY 3

TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL
0100	.25	27.48	0700	.17	28.88	1300	.13	29.86	1900	.11	30.61
0200	.25	27.73	0800	.17	29.05	1400	.13	29.99	2000	.11	30.72
0300	.25	27.97	0900	.17	29.22	1500	.13	30.12	2100	.11	30.82
0400	.25	28.22	1000	.17	29.39	1600	.13	30.25	2200	.11	30.93
0500	.25	28.46	1100	.17	29.56	1700	.13	30.38	2300	.11	31.03
0600	.25	28.71	1200	.17	29.73	1800	.13	30.51	2400	.11	31.14
6-HR TOTAL	1.47			1.02			.78			.63	

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SUBBASIN1

BOUNDARY COORDINATES FOR BASIN1

X	352.8	330.1	309.2	294.8	305.6	288.8	298.1	296.6	308.6	318.8
Y	439.5	425.4	374.5	331.2	266.6	244.3	211.3	200.4	181.5	185.0
X	322.0	356.2	365.0	366.5	386.2	392.3	377.5	398.6	380.8	385.9
Y	180.9	177.0	179.7	181.0	198.6	228.2	249.8	273.8	307.0	320.9
X	375.5	379.9	370.4	371.4	365.4	356.5	349.5	354.0	353.1	356.4
Y	358.8	370.7	385.5	393.1	396.8	395.5	405.4	411.9	420.9	429.5
X	352.8									
Y	441.2									

SCALE = .0583 MILES PER COORDINATE UNIT

BASIN AREA = 64.1 SQ. MI.

BASIN CENTROID COORDINATES, X = 342.0, Y = 290.5

PROBABLE MAXIMUM STORM FOR BASIN1
STORM AREA = 450. SQ. MI., ORIENTATION = 172., PREFERRED ORIENTATION = 215.
STORM CENTER COORDINATES, X = 205.0, Y = 371.0

ISOHYET AREA (SQ.MI.)	AREA WITHIN BASIN (SQ.MI.)	DEPTHS (INCHES) FOR 6-HOUR INCREMENTS OF PMS 1	2	3	4	5	6	7	8	9	10	11	12
A 10.	0.	25.01	5.40	2.92	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61
B 25.	0.	23.49	5.21	2.88	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61
C 50.	0.	21.98	5.02	2.85	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61
D 100.	0.	20.46	4.88	2.82	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61
E 175.	0.	19.14	4.76	2.81	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61
F 300.	9.	17.62	4.64	2.80	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61
G 450.	28.	16.29	4.54	2.79	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61
H 700.	56.	11.94	3.70	2.36	1.68	1.31	1.07	.90	.78	.69	.62	.56	.51
I 1000.	64.	9.47	3.15	2.00	1.42	1.10	.90	.76	.66	.58	.52	.47	.43
J 1500.	64.	7.20	2.61	1.69	1.20	.93	.76	.65	.56	.49	.44	.40	.36
K 2150.	64.	5.68	2.13	1.41	1.00	.78	.64	.54	.47	.41	.37	.33	.30
L 3000.	64.	4.36	1.74	1.11	.79	.61	.50	.42	.37	.32	.29	.26	.24
M 4500.	64.	2.84	1.22	.84	.60	.47	.38	.32	.28	.25	.22	.20	.18
N 6500.	64.	1.52	.67	.53	.38	.30	.24	.20	.18	.16	.14	.13	.12
O 10000.	64.	.57	.22	.20	.14	.11	.09	.08	.07	.06	.05	.05	.04
P 15000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Q 25000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
R 40000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
S 60000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AVERAGE DEPTH		15.07	4.25	2.62	1.87	1.45	1.19	1.01	.87	.77	.69	.62	.57

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PR Y.OUT

TIME INTERVAL = 60. MINUTES
1-HR TO 6-HR RATIO FOR ISOHYET A AT 20000 SQ. MI. = .308

DEPTH VS. DURATION

ISOHYET	5MIN	10MIN	15MIN	30MIN	1-HR	2-HR	3-HR	6-HR	12-HR	18-HR	24-HR	30-HR	36-HR	42-HR	48-HR	54-HR	60-HR	66-HR	72-HR
A	1.05	2.10	3.13	6.03	10.04	14.33	17.97	25.01	30.41	33.33	35.33	36.89	38.16	39.23	40.16	40.99	41.72	42.39	43.00
B	.98	1.96	2.93	5.63	9.39	13.42	16.84	23.49	28.70	31.59	33.59	35.14	36.41	37.49	38.42	39.24	39.98	40.64	41.25
C	.92	1.83	2.72	5.24	8.75	12.52	15.72	21.98	27.00	29.85	31.85	33.40	34.67	35.75	36.68	37.50	38.24	38.90	39.51
D	.85	1.69	2.52	4.85	8.10	11.62	14.59	20.46	25.34	28.16	30.16	31.72	32.99	34.06	34.99	35.82	36.55	37.22	37.82
E	.79	1.57	2.34	4.51	7.54	10.83	13.61	19.14	23.89	26.70	28.70	30.26	31.53	32.60	33.53	34.36	35.09	35.76	36.36
F	.72	1.44	2.15	4.13	6.91	9.93	12.49	17.62	22.26	25.06	27.06	28.61	29.88	30.96	31.89	32.71	33.45	34.11	34.72
G	.67	1.33	1.98	3.80	6.36	9.16	11.51	16.29	20.84	23.63	25.63	27.18	28.45	29.53	30.46	31.28	32.02	32.68	33.29
H	.21	.42	.62	1.25	2.49	4.90	7.14	11.94	15.64	18.00	19.69	20.99	22.06	22.96	23.74	24.43	25.05	25.61	26.12
I	.16	.33	.49	.99	1.96	3.86	5.63	9.47	12.63	14.63	16.05	17.15	18.05	18.82	19.48	20.06	20.58	21.06	21.49
J	.12	.25	.37	.74	1.48	2.91	4.24	7.20	9.81	11.49	12.69	13.63	14.39	15.03	15.59	16.09	16.53	16.93	17.29
K	.10	.20	.29	.59	1.16	2.29	3.33	5.68	7.81	9.22	10.22	11.00	11.63	12.17	12.63	13.05	13.41	13.75	14.05
L	.07	.15	.22	.45	.89	1.74	2.54	4.36	6.10	7.21	8.00	8.62	9.12	9.54	9.91	10.24	10.53	10.79	11.03
M	.05	.10	.14	.29	.57	1.13	1.64	2.84	4.06	4.91	5.51	5.97	6.35	6.68	6.95	7.20	7.42	7.62	7.80
N	.03	.05	.08	.15	.30	.60	.87	1.52	2.18	2.72	3.10	3.40	3.64	3.84	4.02	4.17	4.31	4.44	4.56
O	.01	.02	.03	.06	.12	.23	.33	.57	.78	.98	1.12	1.23	1.32	1.39	1.46	1.52	1.57	1.61	1.66
P	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Q	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
R	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
S	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AVERAGE	.52	1.04	1.55	3.00	5.16	7.87	10.22	15.07	19.32	21.94	23.81	25.27	26.45	27.46	28.33	29.10	29.79	30.41	30.98

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PROBABLE MAXIMUM STORM FOR BASIN1

DAY 1

TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL
0100	.09	.09	0700	.11	.68	1300	.15	1.40	1900	.20	2.33
0200	.09	.19	0800	.11	.80	1400	.15	1.55	2000	.20	2.53
0300	.09	.28	0900	.11	.91	1500	.15	1.69	2100	.20	2.72
0400	.09	.38	1000	.11	1.03	1600	.15	1.84	2200	.20	2.92
0500	.09	.47	1100	.11	1.14	1700	.15	1.98	2300	.20	3.12
0600	.09	.57	1200	.11	1.26	1800	.15	2.13	2400	.20	3.32
6-HR TOTAL	.57			.69			.87			1.19	

DAY 2

TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL
0100	.28	3.60	0700	.55	5.75	1300	1.27	10.71	1900	.52	25.03
0200	.29	3.89	0800	.59	6.34	1400	1.89	12.60	2000	.48	25.51
0300	.30	4.19	0900	.65	6.98	1500	2.71	15.31	2100	.44	25.95
0400	.32	4.50	1000	.72	7.70	1600	5.16	20.46	2200	.42	26.37
0500	.33	4.84	1100	.81	8.52	1700	2.35	22.82	2300	.39	26.76
0600	.35	5.19	1200	.92	9.44	1800	1.69	24.51	2400	.37	27.13
6-HR TOTAL	1.87			4.25			15.07			2.62	

DAY 3

TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL
0100	.24	27.37	0700	.17	28.75	1300	.13	29.72	1900	.10	30.46
0200	.24	27.61	0800	.17	28.92	1400	.13	29.85	2000	.10	30.57
0300	.24	27.86	0900	.17	29.09	1500	.13	29.98	2100	.10	30.67
0400	.24	28.10	1000	.17	29.26	1600	.13	30.10	2200	.10	30.78
0500	.24	28.34	1100	.17	29.42	1700	.13	30.23	2300	.10	30.88
0600	.24	28.58	1200	.17	29.59	1800	.13	30.36	2400	.10	30.98
6-HR TOTAL	1.45			1.01			.77			.62	

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*
 *    PROBABLE MAXIMUM STORM  (HMR52)    *                                       *   U.S. ARMY CORPS OF ENGINEERS
*
 *             NOVEMBER 1982             *                                       *  THE HYDROLOGIC ENGINEERING CENTER
*
 *           REVISED  APRIL 91           *                                       *          609 SECOND STREET
*
 *                                       *                                       *       DAVIS, CALIFORNIA 95616
*
 *  RUN DATE 05/23/2010    TIME 12:50:36 *                                       *  (916) 551-1748 OR (FTS) 460-1748
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 *                                       *                                       *
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                                        H     H  M     M  RRRRRR   5555555   22222
                                        H     H  MM   MM  R     R  5        2     2
                                        H     H  M M M M  R     R  5              2
                                        HHHHHHH  M  M  M  RRRRRR   555555        2
                                        H     H  M     M  R   R          5     2
                                        H     H  M     M  R    R   5     5   2
                                        H     H  M     M  R     R   55555   2222222
1                                  HEC PROBABLE MAXIMUM STORM (HMR52) INPUT DATA                                PAGE   1

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

             1           ID    HMR52 INPUT DATA FOR CPNPP UNITS 3 & 4 PMP CALCULATION
             2           ID    ANALYSIS PERFORMED BY SURAJ BALAN ENERCON SERVICES INC 05-23-2010
             3           ID    STORM CENTER WITHIN SQUAW CREEK BASIN AT SC1

             4           BN   CPNPP
             5           ID    CALCULATE STORM OVER ENTIRE AREA
             6           BS  .05827
             7           BX  352.79  330.08  309.24  294.79  305.63  288.78  298.06  296.58  308.64   318.8
             8           BX  322.02  356.16  364.98  366.54  386.16  392.28  377.46  398.65  380.84  385.89
             9           BX  375.51   379.9  370.35  371.38   365.4  356.46  349.53  353.98  353.13  356.42
            10           BX  352.83
            11           BY  439.49  425.42  374.54   331.2  266.57  244.31  211.25  200.39  181.51  185.02
            12           BY  180.91     177  179.72  181.01  198.56  228.19  249.82  273.83  307.02  320.85
            13           BY  358.76   370.7  385.48  393.09  396.82  395.52  405.43   411.9   420.9  429.53
            14           BY  441.22
            15           HO     215
            16           HP      10    29.7    35.3    40.0    45.0    48.0
            17           HP     200    22.2    26.8    32.0    36.0    39.6
            18           HP    1000    15.9    20.7    25.8    30.0    33.4
            19           HP    5000     9.3    13.0    17.8    22.0    25.0
            20           HP   10000     7.1    10.3    14.4    18.5    21.0
            21           HP   20000     5.1     8.3    11.5    15.0    17.8
            22           SA       0       0       3
            23           SC     328     196
            24           ST      60   0.308       0       1
            25           PU      ON
            26           ZZ
1*****************************************
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 *                                       *                                       *
*
 *    PROBABLE MAXIMUM STORM  (HMR52)    *                                       *   U.S. ARMY CORPS OF ENGINEERS
*
 *             NOVEMBER 1982             *                                       *  THE HYDROLOGIC ENGINEERING CENTER
*
 *           REVISED  APRIL 91           *                                       *          609 SECOND STREET
*
 *                                       *                                       *       DAVIS, CALIFORNIA 95616
*
 *  RUN DATE 05/23/2010    TIME 12:50:36 *                                       *  (916) 551-1748 OR (FTS) 460-1748
*
 *                                       *                                       *
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HMR52 INPUT DATA FOR CPNPP UNITS 3 & 4 PMP CALCULATION
ANALYSIS PERFORMED BY SURAJ BALAN ENERCON SERVICES INC 05-23-2010
STORM CENTER WITHIN SQUAW CREEK BASIN AT SC1
CALCULATE STORM OVER ENTIRE AREA

PMP DEPTHS FROM HMR 51

AREA (SQ. MI.)	DURATION 6-HR	12-HR	24-HR	48-HR	72-HR
10.	29.70	35.30	40.00	45.00	48.00
200.	22.20	26.80	32.00	36.00	39.60
1000.	15.90	20.70	25.80	30.00	33.40
5000.	9.30	13.00	17.80	22.00	25.00
10000.	7.10	10.30	14.40	18.50	21.00
20000.	5.10	8.30	11.50	15.00	17.80

STORM AREA	PMP DEPTHS FOR 6-HOUR INCREMENTS											
10.	29.67	5.40	2.99	2.08	1.59	1.29	1.09	.94	.83	.74	.67	.61
25.	27.92	5.22	2.95	2.06	1.59	1.29	1.09	.94	.83	.74	.67	.61
50.	26.45	5.09	2.91	2.05	1.58	1.29	1.09	.94	.83	.74	.67	.61
100.	24.29	4.91	2.86	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
175.	22.55	4.75	2.81	2.00	1.56	1.28	1.08	.94	.83	.74	.67	.61
300.	20.55	4.76	2.81	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61
450.	18.97	4.79	2.82	2.00	1.56	1.27	1.08	.93	.82	.74	.67	.61
700.	17.24	4.83	2.83	2.00	1.56	1.27	1.07	.93	.82	.73	.66	.61
1000.	15.84	4.88	2.83	2.01	1.55	1.27	1.07	.93	.82	.73	.66	.60
1500.	14.17	4.63	2.76	1.97	1.53	1.26	1.06	.92	.81	.73	.66	.60

2150.	12.69	4.41	2.69	1.94	1.52	1.25	1.06	.92	.81	.73	.66	.60
3000.	11.31	4.23	2.62	1.91	1.50	1.23	1.05	.91	.81	.72	.66	.60
4500.	9.64	4.00	2.54	1.87	1.48	1.22	1.04	.91	.81	.72	.66	.60
6500.	8.38	3.73	2.41	1.78	1.42	1.18	1.00	.88	.78	.70	.63	.58
10000.	7.02	3.38	2.22	1.66	1.33	1.10	.95	.83	.74	.66	.60	.55
15000.	5.93	3.11	2.07	1.55	1.24	1.04	.89	.78	.69	.62	.57	.52
20000.	5.15	2.92	1.96	1.48	1.19	.99	.85	.75	.66	.60	.54	.50

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BOUNDARY COORDINATES FOR CPNPP

X	352.8	330.1	309.2	294.8	305.6	288.8	298.1	296.6	308.6	318.8
Y	439.5	425.4	374.5	331.2	266.6	244.3	211.3	200.4	181.5	185.0
X	322.0	356.2	365.0	366.5	386.2	392.3	377.5	398.6	380.8	385.9
Y	180.9	177.0	179.7	181.0	198.6	228.2	249.8	273.8	307.0	320.9
X	375.5	379.9	370.4	371.4	365.4	356.5	349.5	354.0	353.1	356.4
Y	358.8	370.7	385.5	393.1	396.8	395.5	405.4	411.9	420.9	429.5
X	352.8									
Y	441.2									

SCALE = .0583 MILES PER COORDINATE UNIT

BASIN AREA = 64.1 SQ. MI.

BASIN CENTROID COORDINATES, X = 342.0, Y = 290.5

1

VARYING STORM AREA SIZE AND FIXED ORIENTATION

STORM AREA	ORIEN-TATION	BASIN-AVERAGED INCREMENTAL DEPTHS FOR 6-HR PERIODS												SUM OF DEPTHS FOR 3 PEAK 6-HR PERIODS
10.	186.	15.81	2.89	1.61	1.12	.86	.69	.58	.50	.44	.40	.36	.33	20.30
25.	186.	19.21	3.83	2.19	1.53	1.18	.96	.81	.70	.61	.55	.50	.45	25.23
50.	186.	21.56	4.42	2.54	1.79	1.38	1.12	.95	.82	.72	.65	.58	.53	28.51
100.	186.	22.72	4.72	2.75	1.95	1.51	1.23	1.04	.90	.79	.71	.64	.59	30.18
175.	186.	22.98	4.78	2.80	1.99	1.55	1.27	1.07	.93	.82	.74	.67	.61	30.57
300.	186.	22.47	4.92	2.83	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61	30.22
450.	186.	21.80	5.03	2.85	2.00	1.56	1.27	1.08	.93	.82	.74	.67	.61	29.68
700.	186.	21.07	5.16	2.88	2.00	1.56	1.27	1.07	.93	.82	.73	.66	.61	29.11
1000.	186.	20.52	5.28	2.90	2.01	1.55	1.27	1.07	.93	.82	.73	.66	.60	28.70
1500.	186.	19.90	5.09	2.83	1.97	1.53	1.26	1.06	.92	.81	.73	.66	.60	27.82
2150.	186.	19.27	4.91	2.77	1.94	1.52	1.25	1.06	.92	.81	.73	.66	.60	26.96
3000.	186.	18.61	4.77	2.71	1.91	1.50	1.23	1.05	.91	.81	.72	.66	.60	26.09
4500.	186.	17.55	4.57	2.64	1.87	1.48	1.22	1.04	.91	.81	.72	.66	.60	24.76
6500.	186.	16.80	4.31	2.51	1.78	1.42	1.18	1.00	.88	.78	.70	.63	.58	23.63
10000.	186.	15.74	3.96	2.33	1.66	1.33	1.10	.95	.83	.74	.66	.60	.55	22.03
15000.	186.	14.76	3.71	2.18	1.55	1.24	1.04	.89	.78	.69	.62	.57	.52	20.64
20000.	186.	13.75	3.51	2.07	1.48	1.19	.99	.85	.75	.66	.60	.54	.50	19.33

FIXED STORM AREA SIZE AND VARYING ORIENTATION

STORM AREA	ORIEN-TATION	BASIN-AVERAGED INCREMENTAL DEPTHS FOR 6-HR PERIODS												SUM OF DEPTHS FOR 3 PEAK 6-HR PERIODS
175.	140.	19.09	4.22	2.52	1.79	1.39	1.14	.96	.84	.74	.66	.60	.55	25.83
175.	150.	20.10	4.38	2.61	1.85	1.44	1.18	1.00	.87	.76	.68	.62	.57	27.09
175.	160.	21.25	4.56	2.70	1.92	1.49	1.22	1.03	.90	.79	.71	.64	.59	28.51
175.	170.	22.30	4.70	2.77	1.97	1.53	1.25	1.06	.92	.81	.73	.66	.60	29.77
175.	180.	22.87	4.77	2.80	1.99	1.55	1.27	1.07	.93	.82	.73	.66	.61	30.44
175.	190.	22.94	4.78	2.80	1.99	1.55	1.27	1.07	.93	.82	.73	.66	.61	30.51
175.	200.	22.43	4.71	2.77	1.97	1.53	1.25	1.06	.92	.81	.73	.66	.60	29.91
175.	210.	21.56	4.58	2.70	1.92	1.49	1.22	1.03	.90	.79	.71	.64	.59	28.85
175.	220.	20.54	4.43	2.62	1.86	1.45	1.18	1.00	.87	.77	.69	.62	.57	27.58
175.	230.	19.52	4.27	2.53	1.80	1.40	1.14	.97	.84	.74	.66	.60	.55	26.32
175.	240.	18.68	4.13	2.46	1.74	1.36	1.11	.94	.81	.72	.64	.58	.53	25.27
175.	250.	18.02	4.02	2.40	1.70	1.32	1.08	.92	.79	.70	.63	.57	.52	24.43
175.	260.	17.54	3.94	2.36	1.67	1.30	1.06	.90	.78	.69	.62	.56	.51	23.84
175.	270.	17.25	3.89	2.33	1.65	1.29	1.05	.89	.77	.68	.61	.55	.50	23.48
175.	280.	17.17	3.88	2.33	1.65	1.28	1.05	.89	.77	.68	.61	.55	.50	23.38
175.	290.	17.30	3.91	2.34	1.66	1.29	1.06	.90	.78	.69	.61	.56	.51	23.55
175.	300.	17.65	3.97	2.38	1.69	1.31	1.08	.91	.79	.70	.62	.56	.52	24.01
175.	310.	18.24	4.08	2.44	1.73	1.35	1.10	.93	.81	.71	.64	.58	.53	24.76
175.	181.	22.90	4.77	2.80	1.99	1.55	1.27	1.07	.93	.82	.73	.66	.61	30.47
175.	191.	22.91	4.77	2.80	1.99	1.55	1.27	1.07	.93	.82	.73	.66	.61	30.48

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PROBABLE MAXIMUM STORM FOR CPNPP
STORM AREA = 175. SQ. MI., ORIENTATION = 186., PREFERRED ORIENTATION = 215.
STORM CENTER COORDINATES, X = 328.0, Y = 196.0

	ISOHYET AREA (SQ.MI.)	AREA WITHIN BASIN (SQ.MI.)	DEPTHS (INCHES) FOR 6-HOUR INCREMENTS OF PMS 1	2	3	4	5	6	7	8	9	10	11	12
A	10.	7.	26.84	5.22	2.89	2.00	1.56	1.28	1.08	.94	.83	.74	.67	.61
B	25.	15.	25.04	4.98	2.85	2.00	1.56	1.28	1.08	.94	.83	.74	.67	.61
C	50.	27.	23.23	4.82	2.81	2.00	1.56	1.28	1.08	.94	.83	.74	.67	.61
D	100.	45.	21.65	4.63	2.79	2.00	1.56	1.28	1.08	.94	.83	.74	.67	.61
E	175.	60.	20.07	4.51	2.78	2.00	1.56	1.28	1.08	.94	.83	.74	.67	.61
F	300.	64.	14.89	3.75	2.33	1.66	1.29	1.06	.90	.78	.69	.61	.56	.51
G	450.	64.	11.95	3.16	2.00	1.42	1.11	.91	.77	.66	.59	.52	.47	.43
H	700.	64.	9.47	2.68	1.67	1.17	.91	.75	.63	.55	.48	.43	.39	.36
I	1000.	64.	7.67	2.23	1.43	1.02	.79	.65	.55	.48	.42	.38	.34	.31
J	1500.	64.	5.86	1.83	1.24	.88	.69	.56	.47	.41	.36	.33	.29	.27
K	2150.	64.	4.51	1.42	.98	.70	.55	.45	.38	.33	.29	.26	.23	.21
L	3000.	64.	3.38	1.09	.74	.53	.41	.34	.29	.25	.22	.20	.18	.16
M	4500.	64.	2.03	.69	.51	.36	.28	.23	.19	.17	.15	.13	.12	.11
N	6500.	64.	.68	.24	.20	.14	.11	.09	.08	.07	.06	.05	.05	.04
O	10000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
P	15000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Q	25000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

R 40000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
S 60000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AVERAGE DEPTH		22.98	4.78	2.80	1.99	1.55	1.27	1.07	.93	.82	.74	.67	.61

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TIME INTERVAL = 60. MINUTES
1-HR TO 6-HR RATIO FOR ISOHYET A AT 20000 SQ. MI. = .308

DEPTH VS. DURATION

ISOHYET	5MIN	10MIN	15MIN	30MIN	1-HR	2-HR	3-HR	6-HR	12-HR	18-HR	24-HR	30-HR	36-HR	42-HR	48-HR	54-HR	60-HR	66-HR	72-HR
A	1.31	2.62	3.91	7.52	12.29	16.60	20.16	26.84	32.06	34.95	36.95	38.51	39.79	40.87	41.80	42.63	43.37	44.04	44.65
B	1.22	2.43	3.63	6.99	11.43	15.45	18.77	25.04	30.02	32.87	34.87	36.43	37.70	38.78	39.72	40.55	41.28	41.95	42.56
C	1.13	2.25	3.36	6.46	10.57	14.31	17.38	23.23	28.05	30.86	32.86	34.42	35.70	36.78	37.71	38.54	39.28	39.95	40.56
D	1.04	2.09	3.11	5.99	9.81	13.30	16.17	21.65	26.28	29.07	31.07	32.63	33.91	34.99	35.92	36.75	37.49	38.16	38.77
E	.96	1.93	2.87	5.53	9.06	12.30	14.95	20.07	24.58	27.36	29.36	30.92	32.20	33.28	34.21	35.04	35.78	36.45	37.06
F	.26	.53	.79	1.58	3.16	6.22	9.06	14.89	18.64	20.97	22.63	23.93	24.98	25.88	26.66	27.34	27.96	28.51	29.02
G	.21	.42	.63	1.27	2.53	4.98	7.25	11.95	15.11	17.11	18.53	19.64	20.54	21.31	21.97	22.56	23.08	23.56	23.99
H	.17	.33	.50	1.00	1.99	3.92	5.71	9.47	12.15	13.83	15.00	15.91	16.66	17.29	17.84	18.32	18.75	19.14	19.50
I	.13	.27	.40	.81	1.61	3.17	4.61	7.67	9.90	11.33	12.35	13.15	13.80	14.35	14.83	15.25	15.63	15.97	16.28
J	.10	.20	.31	.61	1.22	2.41	3.50	5.86	7.69	8.93	9.81	10.50	11.06	11.53	11.94	12.31	12.63	12.93	13.20
K	.08	.16	.24	.47	.94	1.85	2.69	4.51	5.93	6.92	7.62	8.17	8.61	8.99	9.32	9.61	9.86	10.10	10.31
L	.06	.12	.18	.35	.70	1.38	2.02	3.38	4.47	5.22	5.75	6.16	6.50	6.79	7.04	7.25	7.45	7.63	7.79
M	.04	.07	.11	.21	.42	.83	1.20	2.03	2.72	3.22	3.58	3.87	4.09	4.29	4.46	4.61	4.74	4.86	4.97
N	.01	.02	.04	.07	.14	.27	.40	.68	.91	1.11	1.25	1.36	1.45	1.52	1.59	1.65	1.70	1.75	1.79
O	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
P	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Q	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
R	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
S	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AVERAGE	1.10	2.20	3.28	6.31	10.34	14.06	17.13	22.98	27.76	30.57	32.56	34.11	35.38	36.45	37.38	38.20	38.94	39.61	40.21

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PROBABLE MAXIMUM STORM FOR CPNPP

DAY 1

TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL
0100	.10	.10	0700	.12	.73	1300	.16	1.50	1900	.21	2.49
0200	.10	.20	0800	.12	.85	1400	.16	1.65	2000	.21	2.70
0300	.10	.30	0900	.12	.98	1500	.16	1.81	2100	.21	2.91
0400	.10	.41	1000	.12	1.10	1600	.16	1.96	2200	.21	3.12
0500	.10	.51	1100	.12	1.22	1700	.16	2.12	2300	.21	3.33
0600	.10	.61	1200	.12	1.34	1800	.16	2.27	2400	.21	3.54
6-HR TOTAL	.61			.74			.93			1.27	

DAY 2

TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL
0100	.30	3.84	0700	.61	6.14	1300	1.49	11.81	1900	.56	33.86
0200	.31	4.14	0800	.65	6.80	1400	2.33	14.13	2000	.52	34.38
0300	.32	4.47	0900	.72	7.52	1500	3.72	17.85	2100	.47	34.85
0400	.34	4.80	1000	.81	8.33	1600	10.34	28.19	2200	.44	35.29
0500	.36	5.16	1100	.93	9.26	1700	3.07	31.26	2300	.41	35.71
0600	.38	5.54	1200	1.06	10.32	1800	2.04	33.30	2400	.40	36.10
6-HR TOTAL	1.99			4.78			22.98			2.80	

DAY 3

TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL
0100	.26	36.36	0700	.18	37.83	1300	.14	38.86	1900	.11	39.66
0200	.26	36.62	0800	.18	38.01	1400	.14	39.00	2000	.11	39.77
0300	.26	36.88	0900	.18	38.19	1500	.14	39.14	2100	.11	39.88
0400	.26	37.14	1000	.18	38.37	1600	.14	39.27	2200	.11	39.99
0500	.26	37.39	1100	.18	38.55	1700	.14	39.41	2300	.11	40.10
0600	.26	37.65	1200	.18	38.73	1800	.14	39.55	2400	.11	40.21
6-HR TOTAL	1.55			1.07			.82			.67	

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 *                                       *                                       *
 *                                       *
 *    PROBABLE MAXIMUM STORM  (HMR52)    *                                       *    U.S. ARMY CORPS OF ENGINEERS
 *                                       *
 *             NOVEMBER 1982             *                                       *  THE HYDROLOGIC ENGINEERING CENTER
 *                                       *
 *           REVISED  APRIL 91           *                                       *          609 SECOND STREET
 *                                       *
 *                                       *                                       *       DAVIS, CALIFORNIA 95616
 *
 *  RUN DATE 05/20/2010    TIME 08:50:53 *                                       *  (916) 551-1748 OR (FTS) 460-1748
 *                                       *                                       *
 *                                       *
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                                     H     H  M     M  RRRRRR   5555555   22222
                                     H     H  MM   MM  R     R  5        2     2
                                     H     H  M M M M  R     R  5              2
                                     HHHHHHH  M  M  M  RRRRRR   555555        2
                                     H     H  M     M  R   R          5     2
                                     H     H  M     M  R    R    5     5   2
                                     H     H  M     M  R     R    55555   2222222
1                                 HEC PROBABLE MAXIMUM STORM (HMR52) INPUT DATA                                PAGE   1

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

             1          ID    HMR52 INPUT DATA FOR CPNPP UNITS 3 & 4 PMP CALCULATION
             2          ID    ANALYSIS PERFORMED BY SURAJ BALAN ENERCON SERVICES INC 05-06-2010
             3          ID    STORM CENTER WITHIN SQUAW CREEK BASIN AT SC2

             4          BN   CPNPP
             5          ID    CALCULATE STORM OVER SCR WATERSHED BASIN1
             6          BS  .05827
             7          BX  352.79  330.08  309.24  294.79  305.63  288.78  298.06  296.58  308.64   318.8
             8          BX  322.02  356.16  364.98  366.54  386.16  392.28  377.46  398.65  380.84  385.89
             9          BX  375.51   379.9  370.35  371.38   365.4  356.46  349.53  353.98  353.13  356.42
            10          BX  352.83
            11          BY  439.49  425.42  374.54   331.2  266.57  244.31  211.25  200.39  181.51  185.02
            12          BY  180.91     177  179.72  181.01  198.56  228.19  249.82  273.83  307.02  320.85
            13          BY  358.76   370.7  385.48  393.09  396.82  395.52  405.43   411.9   420.9  429.53
            14          BY  441.22

            15          HO     215
            16          HP      10    29.7    35.3    40.0    45.0    48.0
            17          HP     200    22.2    26.8    32.0    36.0    39.6
            18          HP    1000    15.9    20.7    25.8    30.0    33.4
            19          HP    5000     9.3    13.0    17.8    22.0    25.0
            20          HP   10000     7.1    10.3    14.4    18.5    21.0
            21          HP   20000     5.1     8.3    11.5    15.0    17.8
            22          SA       0       0       3
            23          SC     309     304
            24          ST      60   0.308       0       1
            25          PU      ON
            26          ZZ
1*****************************************
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 *                                       *                                       *
 *                                       *
 *    PROBABLE MAXIMUM STORM  (HMR52)    *                                       *    U.S. ARMY CORPS OF ENGINEERS
 *                                       *
 *             NOVEMBER 1982             *                                       *  THE HYDROLOGIC ENGINEERING CENTER
 *                                       *
 *           REVISED  APRIL 91           *                                       *          609 SECOND STREET
 *                                       *
 *                                       *                                       *       DAVIS, CALIFORNIA 95616
 *
 *  RUN DATE 05/20/2010    TIME 08:50:53 *                                       *  (916) 551-1748 OR (FTS) 460-1748
 *                                       *                                       *
 *                                       *
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HMR52 INPUT DATA FOR CPNPP UNITS 3 & 4 PMP CALCULATION
ANALYSIS PERFORMED BY SURAJ BALAN ENERCON SERVICES INC 05-06-2010
STORM CENTER WITHIN SQUAW CREEK BASIN AT SC2
CALCULATE STORM OVER SCR WATERSHED BASIN1

PMP DEPTHS FROM HMR 51

AREA (SQ. MI.)	DURATION 6-HR	12-HR	24-HR	48-HR	72-HR
10.	29.70	35.30	40.00	45.00	48.00
200.	22.20	26.80	32.00	36.00	39.60
1000.	15.90	20.70	25.80	30.00	33.40
5000.	9.30	13.00	17.80	22.00	25.00
10000.	7.10	10.30	14.40	18.50	21.00
20000.	5.10	8.30	11.50	15.00	17.80

STORM AREA	PMP DEPTHS FOR 6-HOUR INCREMENTS											
10.	29.67	5.40	2.99	2.08	1.59	1.29	1.09	.94	.83	.74	.67	.61
25.	27.92	5.22	2.95	2.06	1.59	1.29	1.09	.94	.83	.74	.67	.61
50.	26.45	5.09	2.91	2.05	1.58	1.29	1.09	.94	.83	.74	.67	.61
100.	24.29	4.91	2.86	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
175.	22.55	4.75	2.81	2.00	1.56	1.28	1.08	.94	.83	.74	.67	.61
300.	20.55	4.76	2.81	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61
450.	18.97	4.79	2.82	2.00	1.56	1.27	1.08	.93	.82	.74	.67	.61
700.	17.24	4.83	2.83	2.00	1.56	1.27	1.07	.93	.82	.73	.66	.61
1000.	15.84	4.88	2.83	2.01	1.55	1.27	1.07	.93	.82	.73	.66	.60

1500.	14.17	4.63	2.76	1.97	1.53	1.26	1.06	.92	.81	.73	.66	.60
2150.	12.69	4.41	2.69	1.94	1.52	1.25	1.06	.92	.81	.73	.66	.60
3000.	11.31	4.23	2.62	1.91	1.50	1.23	1.05	.91	.81	.72	.66	.60
4500.	9.64	4.00	2.54	1.87	1.48	1.22	1.04	.91	.81	.72	.66	.60
6500.	8.38	3.73	2.41	1.78	1.42	1.18	1.00	.88	.78	.70	.63	.58
10000.	7.02	3.38	2.22	1.66	1.33	1.10	.95	.83	.74	.66	.60	.55
15000.	5.93	3.11	2.07	1.55	1.24	1.04	.89	.78	.69	.62	.57	.52
20000.	5.15	2.92	1.96	1.48	1.19	.99	.85	.75	.66	.60	.54	.50

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BOUNDARY COORDINATES FOR CPNPP

X	352.8	330.1	309.2	294.8	305.6	288.8	298.1	296.6	308.6	318.8
Y	439.5	425.4	374.5	331.2	266.6	244.3	211.3	200.4	181.5	185.0
X	322.0	356.2	365.0	366.5	386.2	392.3	377.5	398.6	380.8	385.9
Y	180.9	177.0	179.7	181.0	198.6	228.2	249.8	273.8	307.0	320.9
X	375.5	379.9	370.4	371.4	365.4	356.5	349.5	354.0	353.1	356.4
Y	358.8	370.7	385.5	393.1	396.8	395.5	405.4	411.9	420.9	429.5
X	352.8									
Y	441.2									

SCALE = .0583 MILES PER COORDINATE UNIT

BASIN AREA = 64.1 SQ. MI.

BASIN CENTROID COORDINATES, X = 342.0, Y = 290.5

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VARYING STORM AREA SIZE AND FIXED ORIENTATION

STORM AREA	ORIEN-TATION	BASIN-AVERAGED INCREMENTAL DEPTHS FOR 6-HR PERIODS												SUM OF DEPTHS FOR 3 PEAK 6-HR PERIODS
10.	171.	16.50	3.02	1.68	1.16	.89	.73	.61	.53	.46	.41	.37	.34	21.19
25.	171.	19.97	3.97	2.27	1.58	1.22	.99	.84	.72	.64	.57	.51	.47	26.20
50.	171.	22.34	4.55	2.61	1.84	1.42	1.16	.98	.85	.74	.67	.60	.55	29.51
100.	171.	23.36	4.81	2.79	1.98	1.53	1.25	1.06	.92	.81	.72	.65	.60	30.97
175.	171.	23.41	4.83	2.82	2.00	1.56	1.27	1.08	.94	.83	.74	.67	.61	31.07
300.	171.	22.77	4.95	2.84	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61	30.56
450.	171.	22.06	5.05	2.85	2.00	1.55	1.27	1.07	.93	.82	.74	.67	.61	29.96
700.	171.	21.28	5.17	2.87	2.00	1.55	1.27	1.07	.93	.82	.73	.66	.60	29.32
1000.	171.	20.67	5.27	2.88	1.99	1.54	1.26	1.06	.92	.81	.73	.66	.60	28.82
1500.	171.	19.95	5.05	2.80	1.95	1.52	1.24	1.05	.91	.81	.72	.65	.60	27.80
2150.	171.	19.21	4.85	2.72	1.90	1.49	1.22	1.04	.90	.80	.71	.65	.59	26.78
3000.	171.	18.38	4.67	2.65	1.86	1.46	1.20	1.02	.89	.79	.71	.64	.58	25.70
4500.	171.	17.34	4.47	2.58	1.82	1.44	1.19	1.01	.88	.78	.70	.64	.58	24.39
6500.	171.	16.60	4.22	2.45	1.74	1.38	1.14	.98	.85	.76	.68	.62	.57	23.27
10000.	171.	15.55	3.88	2.27	1.62	1.29	1.08	.92	.81	.72	.64	.59	.54	21.70
15000.	171.	14.59	3.62	2.13	1.51	1.21	1.01	.87	.76	.68	.61	.55	.51	20.34
20000.	171.	13.60	3.43	2.02	1.44	1.16	.97	.83	.73	.65	.58	.53	.49	19.05

FIXED STORM AREA SIZE AND VARYING ORIENTATION

STORM AREA	ORIEN-TATION	BASIN-AVERAGED INCREMENTAL DEPTHS FOR 6-HR PERIODS												SUM OF DEPTHS FOR 3 PEAK 6-HR PERIODS
175.	140.	22.83	4.76	2.79	1.98	1.54	1.26	1.07	.93	.82	.73	.66	.60	30.38
175.	150.	23.08	4.79	2.80	1.99	1.55	1.27	1.07	.93	.82	.73	.66	.61	30.68
175.	160.	23.30	4.82	2.81	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61	30.93
175.	170.	23.41	4.83	2.82	2.00	1.56	1.27	1.08	.94	.83	.74	.67	.61	31.06
175.	180.	23.35	4.83	2.82	2.00	1.56	1.27	1.08	.93	.82	.74	.67	.61	30.99
175.	190.	23.17	4.80	2.81	1.99	1.55	1.27	1.07	.93	.82	.73	.66	.61	30.78
175.	200.	22.90	4.77	2.79	1.98	1.54	1.26	1.07	.93	.82	.73	.66	.60	30.46
175.	210.	22.56	4.72	2.77	1.97	1.53	1.25	1.06	.92	.81	.73	.66	.60	30.05
175.	220.	22.19	4.67	2.75	1.95	1.52	1.24	1.05	.91	.80	.72	.65	.60	29.61
175.	230.	21.86	4.63	2.73	1.94	1.51	1.23	1.05	.91	.80	.72	.65	.59	29.22
175.	240.	21.59	4.60	2.71	1.93	1.50	1.23	1.04	.90	.80	.71	.64	.59	28.89
175.	250.	21.39	4.57	2.70	1.92	1.49	1.22	1.03	.90	.79	.71	.64	.59	28.66
175.	260.	21.31	4.56	2.70	1.92	1.49	1.22	1.03	.90	.79	.71	.64	.58	28.57
175.	270.	21.35	4.57	2.70	1.92	1.49	1.22	1.04	.90	.79	.71	.64	.59	28.62
175.	280.	21.52	4.59	2.71	1.93	1.50	1.23	1.04	.90	.80	.71	.64	.59	28.83
175.	290.	21.81	4.63	2.73	1.94	1.51	1.24	1.05	.91	.80	.72	.65	.59	29.17
175.	300.	22.14	4.67	2.75	1.96	1.52	1.25	1.05	.91	.81	.72	.65	.60	29.57
175.	310.	22.48	4.72	2.77	1.97	1.53	1.25	1.06	.92	.81	.73	.66	.60	29.97
175.	166.	23.37	4.83	2.82	2.00	1.56	1.27	1.08	.93	.82	.74	.67	.61	31.02
175.	176.	23.40	4.83	2.82	2.00	1.56	1.27	1.08	.94	.83	.74	.67	.61	31.05

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PROBABLE MAXIMUM STORM FOR CPNPP
STORM AREA = 175. SQ. MI., ORIENTATION = 171., PREFERRED ORIENTATION = 215.
STORM CENTER COORDINATES, X = 309.0, Y = 304.0

ISOHYET AREA		AREA WITHIN BASIN (SQ.MI.)	DEPTHS (INCHES) FOR 6-HOUR INCREMENTS OF PMS										
	(SQ.MI.)		1	2	3	4	5	6	7	8	9	10	11	12
A	10.	8.	26.84	5.22	2.89	2.00	1.56	1.28	1.08	.94	.83	.74	.67	.61
B	25.	16.	25.04	4.98	2.85	2.00	1.56	1.28	1.08	.94	.83	.74	.67	.61
C	50.	30.	23.23	4.82	2.81	2.00	1.56	1.28	1.08	.94	.83	.74	.67	.61
D	100.	50.	21.65	4.63	2.79	2.00	1.56	1.28	1.08	.94	.83	.74	.67	.61
E	175.	64.	20.07	4.51	2.78	2.00	1.56	1.28	1.08	.94	.83	.74	.67	.61
F	300.	64.	14.89	3.75	2.33	1.66	1.29	1.06	.90	.78	.69	.61	.56	.51
G	450.	64.	11.95	3.16	2.00	1.42	1.11	.91	.77	.66	.59	.52	.47	.43
H	700.	64.	9.47	2.68	1.67	1.17	.91	.75	.63	.55	.48	.43	.39	.36
I	1000.	64.	7.67	2.23	1.43	1.02	.79	.65	.55	.48	.42	.38	.34	.31
J	1500.	64.	5.86	1.83	1.24	.88	.69	.56	.47	.41	.36	.33	.29	.27
K	2150.	64.	4.51	1.42	.98	.70	.55	.45	.38	.33	.29	.26	.23	.21
L	3000.	64.	3.38	1.09	.74	.53	.41	.34	.29	.25	.22	.20	.18	.16
M	4500.	64.	2.03	.69	.51	.36	.28	.23	.19	.17	.15	.13	.12	.11
N	6500.	64.	.68	.24	.20	.14	.11	.09	.08	.07	.06	.05	.05	.04
O	10000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
P	15000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

Q 25000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
R 40000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
S 60000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AVERAGE DEPTH		23.41	4.83	2.82	2.00	1.56	1.27	1.08	.94	.83	.74	.67	.61

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TIME INTERVAL = 60. MINUTES
1-HR TO 6-HR RATIO FOR ISOHYET A AT 20000 SQ. MI. = .308

DEPTH VS. DURATION

ISOHYET	5MIN	10MIN	15MIN	30MIN	1-HR	2-HR	3-HR	6-HR	12-HR	18-HR	24-HR	30-HR	36-HR	42-HR	48-HR	54-HR	60-HR	66-HR	72-HR
A	1.31	2.62	3.91	7.52	12.29	16.60	20.16	26.84	32.06	34.95	36.95	38.51	39.79	40.87	41.80	42.63	43.37	44.04	44.65
B	1.22	2.43	3.63	6.99	11.43	15.45	18.77	25.04	30.02	32.87	34.87	36.43	37.70	38.78	39.72	40.55	41.28	41.95	42.56
C	1.13	2.25	3.36	6.46	10.57	14.31	17.38	23.23	28.05	30.86	32.86	34.42	35.70	36.78	37.71	38.54	39.28	39.95	40.56
D	1.04	2.09	3.11	5.99	9.81	13.30	16.17	21.65	26.28	29.07	31.07	32.63	33.91	34.99	35.92	36.75	37.49	38.16	38.77
E	.96	1.93	2.87	5.53	9.06	12.30	14.95	20.07	24.58	27.36	29.36	30.92	32.20	33.28	34.21	35.04	35.78	36.45	37.06
F	.26	.53	.79	1.58	3.16	6.22	9.06	14.89	18.64	20.97	22.63	23.93	24.98	25.88	26.66	27.34	27.96	28.51	29.02
G	.21	.42	.63	1.27	2.53	4.98	7.25	11.95	15.11	17.11	18.53	19.64	20.54	21.31	21.97	22.56	23.08	23.56	23.99
H	.17	.33	.50	1.00	1.99	3.92	5.71	9.47	12.15	13.83	15.00	15.91	16.66	17.29	17.84	18.32	18.75	19.14	19.50
I	.13	.27	.40	.81	1.61	3.17	4.61	7.67	9.90	11.33	12.35	13.15	13.80	14.35	14.83	15.25	15.63	15.97	16.28
J	.10	.20	.31	.61	1.22	2.41	3.50	5.86	7.69	8.93	9.81	10.50	11.06	11.53	11.94	12.31	12.63	12.93	13.20
K	.08	.16	.24	.47	.94	1.85	2.69	4.51	5.93	6.92	7.62	8.17	8.61	8.99	9.32	9.61	9.86	10.10	10.31
L	.06	.12	.18	.35	.70	1.38	2.02	3.38	4.47	5.22	5.75	6.16	6.50	6.79	7.04	7.25	7.45	7.63	7.79
M	.04	.07	.11	.21	.42	.83	1.20	2.03	2.72	3.22	3.58	3.87	4.09	4.29	4.46	4.61	4.74	4.86	4.97
N	.01	.02	.04	.07	.14	.27	.40	.68	.91	1.11	1.25	1.36	1.45	1.52	1.59	1.65	1.70	1.75	1.79
O	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
P	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Q	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
R	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
S	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AVERAGE	1.13	2.27	3.38	6.51	10.65	14.42	17.52	23.41	28.25	31.07	33.07	34.63	35.90	36.98	37.92	38.74	39.48	40.15	40.76

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PROBABLE MAXIMUM STORM FOR CPNPP

DAY 1

TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL
0100	.10	.10	0700	.12	.73	1300	.16	1.51	1900	.21	2.50
0200	.10	.20	0800	.12	.86	1400	.16	1.66	2000	.21	2.71
0300	.10	.31	0900	.12	.98	1500	.16	1.82	2100	.21	2.92
0400	.10	.41	1000	.12	1.10	1600	.16	1.97	2200	.21	3.14
0500	.10	.51	1100	.12	1.23	1700	.16	2.13	2300	.21	3.35
0600	.10	.61	1200	.12	1.35	1800	.16	2.29	2400	.21	3.56
6-HR TOTAL	.61			.74			.94			1.27	

DAY 2

TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL
0100	.30	3.86	0700	.61	6.17	1300	1.50	11.90	1900	.57	34.38
0200	.31	4.17	0800	.66	6.84	1400	2.34	14.24	2000	.52	34.90
0300	.32	4.49	0900	.73	7.57	1500	3.77	18.01	2100	.48	35.37
0400	.34	4.83	1000	.82	8.39	1600	10.65	28.66	2200	.44	35.82
0500	.36	5.18	1100	.94	9.33	1700	3.10	31.76	2300	.42	36.23
0600	.38	5.56	1200	1.07	10.40	1800	2.05	33.81	2400	.40	36.63
6-HR TOTAL	2.00			4.83			23.41			2.82	

DAY 3

TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL
0100	.26	36.89	0700	.18	38.37	1300	.14	39.41	1900	.11	40.21
0200	.26	37.15	0800	.18	38.55	1400	.14	39.54	2000	.11	40.32
0300	.26	37.41	0900	.18	38.73	1500	.14	39.68	2100	.11	40.43
0400	.26	37.67	1000	.18	38.91	1600	.14	39.82	2200	.11	40.54
0500	.26	37.93	1100	.18	39.09	1700	.14	39.96	2300	.11	40.65
0600	.26	38.19	1200	.18	39.27	1800	.14	40.09	2400	.11	40.76
6-HR TOTAL	1.56			1.08			.83			.67	

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 *                                       *
 *    PROBABLE MAXIMUM STORM  (HMR52)    *                                       *    U.S. ARMY CORPS OF ENGINEERS
 *                                       *
 *             NOVEMBER 1982             *                                       *  THE HYDROLOGIC ENGINEERING CENTER
 *                                       *
 *           REVISED  APRIL 91           *                                       *          609 SECOND STREET
 *                                       *
 *                                       *                                       *       DAVIS, CALIFORNIA 95616
 *
 *  RUN DATE 05/20/2010    TIME 08:55:35 *                                       *  (916) 551-1748 OR (FTS) 460-1748
 *                                       *                                       *
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                                        H     H  M     M  RRRRRR   5555555   22222
                                        H     H  MM   MM  R     R  5        2     2
                                        H     H  M M M M  R     R  5              2
                                        HHHHHHH  M  M  M  RRRRRR   555555        2
                                        H     H  M     M  R   R          5     2
                                        H     H  M     M  R    R   5     5   2
                                        H     H  M     M  R     R   55555   2222222
1                                  HEC PROBABLE MAXIMUM STORM (HMR52) INPUT DATA                                  PAGE  1

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

             1           ID    HMR52 INPUT DATA FOR CPNPP UNITS 3 & 4 PMP CALCULATION
             2           ID    ANALYSIS PERFORMED BY SURAJ BALAN ENERCON SERVICES INC 05-06-2010
             3           ID    STORM CENTER WITHIN SQUAW CREEK BASIN AT SC3

             4           BN   CPNPP
             5           ID    CALCULATE STORM OVER SCR WATERSHED BASIN1
             6           BS  .05827
             7           BX  352.79  330.08  309.24  294.79  305.63  288.78  298.06  296.58  308.64   318.8
             8           BX  322.02  356.16  364.98  366.54  386.16  392.28  377.46  398.65  380.84  385.89
             9           BX  375.51   379.9  370.35  371.38   365.4  356.46  349.53  353.98  353.13  356.42
            10           BX  352.83
            11           BY  439.49  425.42  374.54   331.2  266.57  244.31  211.25  200.39  181.51  185.02
            12           BY  180.91     177  179.72  181.01  198.56  228.19  249.82  273.83  307.02  320.85
            13           BY  358.76   370.7  385.48  393.09  396.82  395.52  405.43   411.9   420.9  429.53
            14           BY  441.22

            15           HO     215
            16           HP      10    29.7    35.3    40.0    45.0    48.0
            17           HP     200    22.2    26.8    32.0    36.0    39.6
            18           HP    1000    15.9    20.7    25.8    30.0    33.4
            19           HP    5000     9.3    13.0    17.8    22.0    25.0
            20           HP   10000     7.1    10.3    14.4    18.5    21.0
            21           HP   20000     5.1     8.3    11.5    15.0    17.8
            22           SA       0       0       3
            23           SC     313     304
            24           ST      60   0.308       0       1
            25           PU      ON
            26           ZZ
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 *                                       *                                       *
 *                                       *
 *    PROBABLE MAXIMUM STORM  (HMR52)    *                                       *    U.S. ARMY CORPS OF ENGINEERS
 *                                       *
 *             NOVEMBER 1982             *                                       *  THE HYDROLOGIC ENGINEERING CENTER
 *                                       *
 *           REVISED  APRIL 91           *                                       *          609 SECOND STREET
 *                                       *
 *                                       *                                       *       DAVIS, CALIFORNIA 95616
 *
 *  RUN DATE 05/20/2010    TIME 08:55:35 *                                       *  (916) 551-1748 OR (FTS) 460-1748
 *                                       *                                       *
 *                                       *
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HMR52 INPUT DATA FOR CPNPP UNITS 3 & 4 PMP CALCULATION
ANALYSIS PERFORMED BY SURAJ BALAN ENERCON SERVICES INC 05-06-2010
STORM CENTER WITHIN SQUAW CREEK BASIN AT SC3
CALCULATE STORM OVER SCR WATERSHED BASIN1

PMP DEPTHS FROM HMR 51

AREA	DURATION				
(SQ. MI.)	6-HR	12-HR	24-HR	48-HR	72-HR
10.	29.70	35.30	40.00	45.00	48.00
200.	22.20	26.80	32.00	36.00	39.60
1000.	15.90	20.70	25.80	30.00	33.40
5000.	9.30	13.00	17.80	22.00	25.00
10000.	7.10	10.30	14.40	18.50	21.00
20000.	5.10	8.30	11.50	15.00	17.80

STORM AREA	PMP DEPTHS FOR 6-HOUR INCREMENTS											
10.	29.67	5.40	2.99	2.08	1.59	1.29	1.09	.94	.83	.74	.67	.61
25.	27.92	5.22	2.95	2.06	1.59	1.29	1.09	.94	.83	.74	.67	.61
50.	26.45	5.09	2.91	2.05	1.58	1.29	1.09	.94	.83	.74	.67	.61
100.	24.29	4.91	2.86	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
175.	22.55	4.75	2.81	2.00	1.56	1.28	1.08	.94	.83	.74	.67	.61
300.	20.55	4.76	2.81	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61
450.	18.97	4.79	2.82	2.00	1.56	1.27	1.08	.93	.82	.74	.67	.61
700.	17.24	4.83	2.83	2.00	1.56	1.27	1.07	.93	.82	.73	.66	.61
1000.	15.84	4.88	2.83	2.01	1.55	1.27	1.07	.93	.82	.73	.66	.60

1500.	14.17	4.63	2.76	1.97	1.53	1.26	1.06	.92	.81	.73	.66	.60
2150.	12.69	4.41	2.69	1.94	1.52	1.25	1.06	.92	.81	.73	.66	.60
3000.	11.31	4.23	2.62	1.91	1.50	1.23	1.05	.91	.81	.72	.66	.60
4500.	9.64	4.00	2.54	1.87	1.48	1.22	1.04	.91	.81	.72	.66	.60
6500.	8.38	3.73	2.41	1.78	1.42	1.18	1.00	.88	.78	.70	.63	.58
10000.	7.02	3.38	2.22	1.66	1.33	1.10	.95	.83	.74	.66	.60	.55
15000.	5.93	3.11	2.07	1.55	1.24	1.04	.89	.78	.69	.62	.57	.52
20000.	5.15	2.92	1.96	1.48	1.19	.99	.85	.75	.66	.60	.54	.50

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BOUNDARY COORDINATES FOR CPNPP

X	352.8	330.1	309.2	294.8	305.6	288.8	298.1	296.6	308.6	318.8
Y	439.5	425.4	374.5	331.2	266.6	244.3	211.3	200.4	181.5	185.0
X	322.0	356.2	365.0	366.5	386.2	392.3	377.5	398.6	380.8	385.9
Y	180.9	177.0	179.7	181.0	198.6	228.2	249.8	273.8	307.0	320.9
X	375.5	379.9	370.4	371.4	365.4	356.5	349.5	354.0	353.1	356.4
Y	358.8	370.7	385.5	393.1	396.8	395.5	405.4	411.9	420.9	429.5
X	352.8									
Y	441.2									

SCALE = .0583 MILES PER COORDINATE UNIT

BASIN AREA = 64.1 SQ. MI.

BASIN CENTROID COORDINATES, X = 342.0, Y = 290.5

1

VARYING STORM AREA SIZE AND FIXED ORIENTATION

STORM AREA	ORIEN-TATION	BASIN-AVERAGED INCREMENTAL DEPTHS FOR 6-HR PERIODS												SUM OF DEPTHS FOR 3 PEAK 6-HR PERIODS
10.	172.	17.11	3.13	1.74	1.21	.93	.75	.63	.55	.48	.43	.39	.35	21.97
25.	172.	20.54	4.07	2.32	1.62	1.25	1.02	.86	.74	.65	.58	.53	.48	26.93
50.	172.	22.85	4.63	2.66	1.87	1.44	1.18	.99	.86	.76	.68	.61	.56	30.14
100.	172.	23.70	4.86	2.81	1.99	1.54	1.26	1.06	.92	.81	.73	.66	.60	31.37
175.	172.	23.64	4.86	2.82	2.00	1.56	1.28	1.08	.94	.83	.74	.67	.61	31.32
300.	172.	22.98	4.97	2.84	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61	30.78
450.	172.	22.26	5.08	2.86	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61	30.20
700.	172.	21.50	5.20	2.88	2.00	1.55	1.27	1.07	.93	.82	.73	.66	.60	29.58
1000.	172.	20.91	5.31	2.89	2.00	1.55	1.26	1.07	.92	.82	.73	.66	.60	29.11
1500.	172.	20.22	5.09	2.82	1.96	1.52	1.25	1.06	.92	.81	.72	.66	.60	28.14
2150.	172.	19.53	4.90	2.75	1.92	1.50	1.23	1.05	.91	.80	.72	.65	.60	27.17
3000.	172.	18.75	4.73	2.68	1.88	1.47	1.21	1.03	.90	.79	.71	.65	.59	26.16
4500.	172.	17.69	4.53	2.61	1.84	1.45	1.20	1.03	.89	.79	.71	.65	.59	24.83
6500.	172.	16.94	4.27	2.48	1.75	1.39	1.16	.99	.86	.77	.69	.62	.57	23.69
10000.	172.	15.87	3.93	2.30	1.63	1.30	1.09	.93	.81	.72	.65	.59	.54	22.10
15000.	172.	14.89	3.67	2.15	1.53	1.22	1.02	.88	.77	.68	.61	.56	.51	20.71
20000.	172.	13.88	3.47	2.04	1.45	1.17	.98	.84	.73	.65	.59	.54	.49	19.40

FIXED STORM AREA SIZE AND VARYING ORIENTATION

STORM AREA	ORIEN-TATION	BASIN-AVERAGED INCREMENTAL DEPTHS FOR 6-HR PERIODS												SUM OF DEPTHS FOR 3 PEAK 6-HR PERIODS
100.	140.	22.72	4.71	2.74	1.94	1.50	1.22	1.03	.90	.79	.71	.64	.58	30.17
100.	150.	23.20	4.78	2.77	1.96	1.52	1.24	1.05	.91	.80	.72	.65	.59	30.76
100.	160.	23.55	4.84	2.80	1.98	1.54	1.25	1.06	.92	.81	.72	.65	.60	31.19
100.	170.	23.70	4.86	2.81	1.99	1.54	1.26	1.06	.92	.81	.73	.66	.60	31.37
100.	180.	23.65	4.85	2.81	1.98	1.54	1.26	1.06	.92	.81	.72	.65	.60	31.31
100.	190.	23.40	4.81	2.78	1.97	1.52	1.24	1.05	.91	.80	.72	.65	.59	30.99
100.	200.	23.00	4.75	2.75	1.94	1.51	1.23	1.04	.90	.79	.71	.64	.59	30.50
100.	210.	22.52	4.67	2.71	1.92	1.48	1.21	1.02	.89	.78	.70	.63	.58	29.91
100.	220.	21.99	4.59	2.67	1.89	1.46	1.19	1.01	.87	.77	.69	.62	.57	29.25
100.	230.	21.52	4.52	2.63	1.86	1.44	1.18	1.00	.86	.76	.68	.61	.56	28.67
100.	240.	21.13	4.46	2.60	1.84	1.42	1.16	.98	.85	.75	.67	.61	.55	28.19
100.	250.	20.85	4.41	2.58	1.82	1.41	1.15	.97	.84	.74	.67	.60	.55	27.85
100.	260.	20.72	4.39	2.57	1.82	1.41	1.15	.97	.84	.74	.66	.60	.55	27.68
100.	270.	20.73	4.39	2.57	1.82	1.41	1.15	.97	.84	.74	.66	.60	.55	27.69
100.	280.	20.90	4.42	2.58	1.83	1.41	1.15	.98	.84	.75	.67	.60	.55	27.91
100.	290.	21.22	4.48	2.61	1.85	1.43	1.17	.99	.85	.75	.67	.61	.56	28.31
100.	300.	21.67	4.55	2.65	1.87	1.45	1.19	1.00	.87	.76	.68	.62	.56	28.87
100.	310.	22.18	4.63	2.69	1.91	1.48	1.20	1.02	.88	.78	.70	.63	.57	29.50
100.	165.	23.66	4.85	2.81	1.99	1.54	1.26	1.06	.92	.81	.73	.66	.60	31.32
100.	175.	23.70	4.86	2.81	1.99	1.54	1.26	1.06	.92	.81	.73	.66	.60	31.37

1

PROBABLE MAXIMUM STORM FOR CPNPP

STORM AREA = 100. SQ. MI., ORIENTATION = 170., PREFERRED ORIENTATION = 215.

STORM CENTER COORDINATES, X = 313.0, Y = 304.0

ISOHYET AREA (SQ.MI.)	AREA WITHIN BASIN (SQ.MI.)	DEPTHS (INCHES) FOR 6-HOUR INCREMENTS OF PMS 1	2	3	4	5	6	7	8	9	10	11	12
A 10.	9.	27.20	5.31	2.92	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
B 25.	18.	25.50	5.06	2.88	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
C 50.	32.	23.80	4.87	2.84	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
D 100.	53.	21.86	4.67	2.82	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
E 175.	64.	16.52	3.88	2.33	1.65	1.28	1.04	.88	.76	.67	.60	.54	.50
F 300.	64.	13.36	3.19	1.94	1.37	1.07	.87	.73	.64	.56	.50	.45	.41
G 450.	64.	10.69	2.70	1.69	1.19	.92	.75	.64	.55	.49	.44	.39	.36
H 700.	64.	8.50	2.31	1.40	.99	.77	.63	.53	.46	.40	.36	.33	.30
I 1000.	64.	6.80	1.89	1.20	.85	.66	.54	.45	.39	.35	.31	.28	.26
J 1500.	64.	5.10	1.52	1.01	.72	.56	.45	.38	.33	.29	.26	.24	.22
K 2150.	64.	3.89	1.18	.80	.57	.44	.36	.30	.26	.23	.21	.19	.17
L 3000.	64.	2.67	.84	.57	.40	.31	.26	.22	.19	.16	.15	.13	.12
M 4500.	64.	1.46	.44	.33	.23	.18	.15	.12	.11	.09	.08	.08	.07
N 6500.	64.	.24	.05	.03	.02	.02	.01	.01	.01	.01	.01	.01	.01
O 10000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
P 15000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

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 Q 25000.       64.       .00     .00     .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
 R 40000.       64.       .00     .00     .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
 S 60000.       64.       .00     .00     .00     .00     .00     .00     .00     .00     .00     .00     .00     .00

 AVERAGE DEPTH          23.70    4.86    2.81    1.99    1.54    1.26    1.06     .92     .81     .73     .66     .60
1

 TIME INTERVAL =  60. MINUTES
 1-HR TO 6-HR RATIO FOR ISOHYET A AT 20000 SQ. MI. = .308

                                                  DEPTH VS. DURATION

 ISOHYET   5MIN 10MIN 15MIN 30MIN  1-HR  2-HR  3-HR  6-HR 12-HR 18-HR 24-HR 30-HR 36-HR 42-HR 48-HR 54-HR 60-HR 66-HR 72-HR

    A      1.42  2.85  4.25  8.19 13.27 17.46 20.85 27.20 32.51 35.43 37.45 39.02 40.30 41.38 42.32 43.14 43.88 44.55 45.15
    B      1.33  2.66  3.97  7.65 12.41 16.33 19.52 25.50 30.56 33.44 35.46 37.03 38.31 39.39 40.32 41.15 41.89 42.55 43.16
    C      1.24  2.48  3.70  7.12 11.54 15.21 18.19 23.80 28.67 31.50 33.53 35.09 36.37 37.45 38.39 39.21 39.95 40.62 41.23
    D      1.13  2.26  3.38  6.51 10.56 13.93 16.66 21.86 26.53 29.34 31.37 32.93 34.21 35.29 36.23 37.05 37.79 38.46 39.07
    E       .29   .59   .88  1.76  3.52  6.94 10.11 16.52 20.40 22.73 24.37 25.65 26.69 27.57 28.34 29.01 29.61 30.15 30.65
    F       .24   .47   .71  1.42  2.84  5.61  8.16 13.36 16.55 18.50 19.87 20.94 21.80 22.54 23.18 23.74 24.24 24.69 25.11
    G       .19   .38   .57  1.13  2.27  4.46  6.50 10.69 13.39 15.08 16.27 17.19 17.95 18.58 19.14 19.62 20.06 20.45 20.81
    H       .15   .30   .45   .90  1.79  3.53  5.14  8.50 10.81 12.21 13.20 13.97 14.60 15.12 15.58 15.99 16.35 16.68 16.97
    I       .12   .24   .36   .72  1.43  2.82  4.11  6.80  8.69  9.89 10.74 11.40 11.94 12.39 12.78 13.13 13.44 13.72 13.98
    J       .09   .18   .27   .54  1.07  2.10  3.06  5.10  6.62  7.64  8.36  8.91  9.37  9.75 10.08 10.37 10.64 10.87 11.09
    K       .07   .14   .20   .41   .81  1.60  2.33  3.89  5.07  5.87  6.43  6.87  7.23  7.53  7.79  8.02  8.23  8.42  8.59
    L       .05   .09   .14   .28   .56  1.10  1.60  2.67  3.51  4.08  4.48  4.80  5.05  5.27  5.46  5.62  5.77  5.90  6.02
    M       .03   .05   .08   .15   .30   .60   .87  1.46  1.90  2.23  2.46  2.64  2.79  2.91  3.02  3.11  3.20  3.28  3.35
    N       .00   .01   .01   .03   .05   .10   .15   .24   .29   .32   .34   .36   .37   .38   .39   .40   .41   .41   .42
    O       .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
    P       .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
    Q       .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
    R       .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
    S       .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00

 AVERAGE   1.19  2.37  3.54  6.82 11.12 14.85 17.90 23.70 28.56 31.37 33.36 34.90 36.16 37.23 38.15 38.96 39.69 40.34 40.94
1

                                          PROBABLE MAXIMUM STORM FOR    CPNPP

 DAY 1
        TIME  PRECIPITATION          TIME  PRECIPITATION          TIME  PRECIPITATION          TIME  PRECIPITATION
              INCR   TOTAL                INCR   TOTAL                INCR   TOTAL                INCR   TOTAL

        0100   .10    .10           0700   .12    .72           1300   .15   1.48           1900   .21   2.46
        0200   .10    .20           0800   .12    .84           1400   .15   1.63           2000   .21   2.67
        0300   .10    .30           0900   .12    .96           1500   .15   1.79           2100   .21   2.88
        0400   .10    .40           1000   .12   1.08           1600   .15   1.94           2200   .21   3.09
        0500   .10    .50           1100   .12   1.20           1700   .15   2.09           2300   .21   3.30
        0600   .10    .60           1200   .12   1.33           1800   .15   2.25           2400   .21   3.50

   6-HR TOTAL   .60                        .73                        .92                        1.26

 DAY 2
        TIME  PRECIPITATION          TIME  PRECIPITATION          TIME  PRECIPITATION          TIME  PRECIPITATION
              INCR   TOTAL                INCR   TOTAL                INCR   TOTAL                INCR   TOTAL

        0100   .29   3.80           0700   .61   6.11           1300  1.48  11.84           1900   .57  34.62
        0200   .31   4.11           0800   .67   6.78           1400  2.30  14.14           2000   .52  35.14
        0300   .32   4.43           0900   .74   7.51           1500  3.73  17.86           2100   .48  35.61
        0400   .34   4.76           1000   .83   8.34           1600 11.12  28.99           2200   .44  36.06
        0500   .36   5.12           1100   .94   9.28           1700  3.05  32.04           2300   .42  36.47
        0600   .38   5.49           1200  1.07  10.35           1800  2.01  34.05           2400   .40  36.87

   6-HR TOTAL  1.99                        4.86                       23.70                        2.81

 DAY 3
        TIME  PRECIPITATION          TIME  PRECIPITATION          TIME  PRECIPITATION          TIME  PRECIPITATION
              INCR   TOTAL                INCR   TOTAL                INCR   TOTAL                INCR   TOTAL

        0100   .26  37.12           0700   .18  38.59           1300   .14  39.61           1900   .11  40.39
        0200   .26  37.38           0800   .18  38.76           1400   .14  39.74           2000   .11  40.50
        0300   .26  37.64           0900   .18  38.94           1500   .14  39.88           2100   .11  40.61
        0400   .26  37.90           1000   .18  39.12           1600   .14  40.01           2200   .11  40.72
        0500   .26  38.15           1100   .18  39.30           1700   .14  40.15           2300   .11  40.83
        0600   .26  38.41           1200   .18  39.47           1800   .14  40.28           2400   .11  40.94

   6-HR TOTAL  1.54                        1.06                        .81                        .66
1
1                                    HEC PROBABLE MAXIMUM STORM (HMR52) INPUT DATA                          PAGE  1

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

             1
             2
 *** WARNING *** ZZ-CARD MISSING
             3
             4             ZZ
1*****************************************
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 *                                       *                                *
*
 *    PROBABLE MAXIMUM STORM  (HMR52)    *                                *    U.S. ARMY CORPS OF ENGINEERS
*
 *             NOVEMBER 1982             *                                *  THE HYDROLOGIC ENGINEERING CENTER
*
 *           REVISED  APRIL 91           *                                *          609 SECOND STREET
*
 *                                       *                                *       DAVIS, CALIFORNIA 95616
*
 *  RUN DATE 05/20/2010    TIME 08:55:36 *                                *  (916) 551-1748 OR (FTS) 460-1748
*
 *                                       *                                *
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1*****************************************
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 *                                       *                                       *
*
 *    PROBABLE MAXIMUM STORM  (HMR52)    *                                       *    U.S. ARMY CORPS OF ENGINEERS
*
 *             NOVEMBER 1982             *                                       *  THE HYDROLOGIC ENGINEERING CENTER
*
 *           REVISED  APRIL 91           *                                       *          609 SECOND STREET
*
 *                                       *                                       *       DAVIS, CALIFORNIA 95616
*
 *  RUN DATE 05/20/2010    TIME 08:58:49 *                                       *  (916) 551-1748 OR (FTS) 460-1748
*
 *                                       *                                       *
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                                        H     H  M     M  RRRRRR   5555555   22222
                                        H     H  MM   MM  R     R  5        2     2
                                        H     H  M M M M  R     R  5              2
                                        HHHHHHH  M  M  M  RRRRRR   555555        2
                                        H     H  M     M  R   R          5     2
                                        H     H  M     M  R    R   5     5   2
                                        H     H  M     M  R     R   55555   2222222
1                                  HEC PROBABLE MAXIMUM STORM (HMR52) INPUT DATA                                  PAGE  1

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

             1          ID    HMR52 INPUT DATA FOR CPNPP UNITS 3 & 4 PMP CALCULATION
             2          ID    ANALYSIS PERFORMED BY SURAJ BALAN ENERCON SERVICES INC 05-06-2010
             3          ID    STORM CENTER WITHIN SQUAW CREEK BASIN AT SC4

             4          BN   CPNPP
             5          ID    CALCULATE STORM OVER ENTIRE AREA
             6          BS  .05827
             7          BX  352.79  330.08  309.24  294.79  305.63  288.78  298.06  296.58  308.64   318.8
             8          BX  322.02  356.16  364.98  366.54  386.16  392.28  377.46  398.65  380.84  385.89
             9          BX  375.51   379.9  370.35  371.38   365.4  356.46  349.53  353.98  353.13  356.42
            10          BX  352.83
            11          BY  439.49  425.42  374.54   331.2  266.57  244.31  211.25  200.39  181.51  185.02
            12          BY  180.91     177  179.72  181.01  198.56  228.19  249.82  273.83  307.02  320.85
            13          BY  358.76   370.7  385.48  393.09  396.82  395.52  405.43   411.9   420.9  429.53
            14          BY  441.22
            15          HO     215
            16          HP      10    29.7    35.3    40.0    45.0    48.0
            17          HP     200    22.2    26.8    32.0    36.0    39.6
            18          HP    1000    15.9    20.7    25.8    30.0    33.4
            19          HP    5000     9.3    13.0    17.8    22.0    25.0
            20          HP   10000     7.1    10.3    14.4    18.5    21.0
            21          HP   20000     5.1     8.3    11.5    15.0    17.8
            22          SA       0       0       3
            23          SC     337     304
            24          ST      60   0.308       0       1
            25          PU      ON
            26          ZZ
1*****************************************
*****************************************
 *                                       *                                       *
*
 *    PROBABLE MAXIMUM STORM  (HMR52)    *                                       *    U.S. ARMY CORPS OF ENGINEERS
*
 *             NOVEMBER 1982             *                                       *  THE HYDROLOGIC ENGINEERING CENTER
*
 *           REVISED  APRIL 91           *                                       *          609 SECOND STREET
*
 *                                       *                                       *       DAVIS, CALIFORNIA 95616
*
 *  RUN DATE 05/20/2010    TIME 08:58:49 *                                       *  (916) 551-1748 OR (FTS) 460-1748
*
 *                                       *                                       *
*
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HMR52 INPUT DATA FOR CPNPP UNITS 3 & 4 PMP CALCULATION
ANALYSIS PERFORMED BY SURAJ BALAN ENERCON SERVICES INC 05-06-2010
STORM CENTER WITHIN SQUAW CREEK BASIN AT SC4
CALCULATE STORM OVER ENTIRE AREA

PMP DEPTHS FROM HMR 51

AREA	DURATION				
(SQ. MI.)	6-HR	12-HR	24-HR	48-HR	72-HR
10.	29.70	35.30	40.00	45.00	48.00
200.	22.20	26.80	32.00	36.00	39.60
1000.	15.90	20.70	25.80	30.00	33.40
5000.	9.30	13.00	17.80	22.00	25.00
10000.	7.10	10.30	14.40	18.50	21.00
20000.	5.10	8.30	11.50	15.00	17.80

STORM AREA	PMP DEPTHS FOR 6-HOUR INCREMENTS											
10.	29.67	5.40	2.99	2.08	1.59	1.29	1.09	.94	.83	.74	.67	.61
25.	27.92	5.22	2.95	2.06	1.59	1.29	1.09	.94	.83	.74	.67	.61
50.	26.45	5.09	2.91	2.05	1.58	1.29	1.09	.94	.83	.74	.67	.61
100.	24.29	4.91	2.86	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
175.	22.55	4.75	2.81	2.00	1.56	1.28	1.08	.94	.83	.74	.67	.61
300.	20.55	4.76	2.81	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61
450.	18.97	4.79	2.82	2.00	1.56	1.27	1.08	.93	.82	.74	.67	.61
700.	17.24	4.83	2.83	2.00	1.56	1.27	1.07	.93	.82	.73	.66	.61
1000.	15.84	4.88	2.83	2.01	1.55	1.27	1.07	.93	.82	.73	.66	.60
1500.	14.17	4.63	2.76	1.97	1.53	1.26	1.06	.92	.81	.73	.66	.60

2150.	12.69	4.41	2.69	1.94	1.52	1.25	1.06	.92	.81	.73	.66	.60
3000.	11.31	4.23	2.62	1.91	1.50	1.23	1.05	.91	.81	.72	.66	.60
4500.	9.64	4.00	2.54	1.87	1.48	1.22	1.04	.91	.81	.72	.66	.60
6500.	8.38	3.73	2.41	1.78	1.42	1.18	1.00	.88	.78	.70	.63	.58
10000.	7.02	3.38	2.22	1.66	1.33	1.10	.95	.83	.74	.66	.60	.55
15000.	5.93	3.11	2.07	1.55	1.24	1.04	.89	.78	.69	.62	.57	.52
20000.	5.15	2.92	1.96	1.48	1.19	.99	.85	.75	.66	.60	.54	.50

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BOUNDARY COORDINATES FOR CPNPP

X	352.8	330.1	309.2	294.8	305.6	288.8	298.1	296.6	308.6	318.8
Y	439.5	425.4	374.5	331.2	266.6	244.3	211.3	200.4	181.5	185.0
X	322.0	356.2	365.0	366.5	386.2	392.3	377.5	398.6	380.8	385.9
Y	180.9	177.0	179.7	181.0	198.6	228.2	249.8	273.8	307.0	320.9
X	375.5	379.9	370.4	371.4	365.4	356.5	349.5	354.0	353.1	356.4
Y	358.8	370.7	385.5	393.1	396.8	395.5	405.4	411.9	420.9	429.5
X	352.8									
Y	441.2									

SCALE = .0583 MILES PER COORDINATE UNIT

BASIN AREA = 64.1 SQ. MI.

BASIN CENTROID COORDINATES, X = 342.0, Y = 290.5

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VARYING STORM AREA SIZE AND FIXED ORIENTATION

STORM AREA	ORIEN-TATION	BASIN-AVERAGED INCREMENTAL DEPTHS FOR 6-HR PERIODS												SUM OF 3 PEAK 6-HR DEPTHS FOR PERIODS
10.	179.	19.29	3.52	1.96	1.36	1.04	.85	.71	.62	.54	.48	.44	.40	24.76
25.	179.	22.98	4.49	2.55	1.79	1.38	1.12	.94	.82	.72	.64	.58	.53	30.02
50.	179.	24.91	4.95	2.82	1.99	1.53	1.25	1.05	.91	.80	.72	.65	.59	32.68
100.	179.	24.92	5.01	2.87	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61	32.80
175.	179.	24.49	4.95	2.84	2.00	1.56	1.28	1.08	.94	.83	.74	.67	.61	32.28
300.	179.	23.75	5.05	2.86	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61	31.66
450.	179.	23.04	5.16	2.88	2.00	1.56	1.27	1.08	.93	.82	.74	.67	.61	31.07
700.	179.	22.29	5.29	2.90	2.00	1.56	1.27	1.07	.93	.82	.73	.66	.61	30.47
1000.	179.	21.71	5.41	2.92	2.01	1.55	1.27	1.07	.93	.82	.73	.66	.60	30.05
1500.	179.	21.09	5.20	2.85	1.97	1.53	1.26	1.06	.92	.81	.73	.66	.60	29.14
2150.	179.	20.48	5.02	2.79	1.94	1.52	1.25	1.06	.92	.81	.73	.66	.60	28.29
3000.	179.	19.76	4.87	2.74	1.91	1.50	1.23	1.05	.91	.81	.72	.66	.60	27.37
4500.	179.	18.66	4.66	2.66	1.87	1.48	1.22	1.04	.91	.81	.72	.66	.60	25.98
6500.	179.	17.85	4.39	2.53	1.78	1.42	1.18	1.00	.88	.78	.70	.63	.58	24.78
10000.	179.	16.73	4.04	2.35	1.66	1.33	1.10	.95	.83	.74	.66	.60	.55	23.12
15000.	179.	15.71	3.77	2.20	1.55	1.24	1.04	.89	.78	.69	.62	.57	.52	21.68
20000.	179.	14.66	3.57	2.09	1.48	1.19	.99	.85	.75	.66	.60	.54	.50	20.31

FIXED STORM AREA SIZE AND VARYING ORIENTATION

STORM AREA	ORIEN-TATION	BASIN-AVERAGED INCREMENTAL DEPTHS FOR 6-HR PERIODS												SUM OF 3 PEAK 6-HR DEPTHS FOR PERIODS
100.	140.	23.13	4.77	2.75	1.94	1.51	1.23	1.04	.90	.79	.71	.64	.59	30.65
100.	150.	23.84	4.87	2.80	1.98	1.53	1.25	1.06	.92	.81	.72	.65	.60	31.51
100.	160.	24.44	4.95	2.84	2.00	1.55	1.27	1.07	.93	.82	.73	.66	.60	32.23
100.	170.	24.80	5.00	2.86	2.02	1.56	1.28	1.08	.93	.82	.74	.67	.61	32.66
100.	180.	24.91	5.01	2.87	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61	32.79
100.	190.	24.72	4.98	2.86	2.01	1.56	1.27	1.08	.93	.82	.73	.66	.61	32.56
100.	200.	24.32	4.93	2.83	2.00	1.55	1.26	1.07	.92	.82	.73	.66	.60	32.09
100.	210.	23.66	4.84	2.79	1.97	1.53	1.25	1.05	.91	.80	.72	.65	.59	31.29
100.	220.	22.94	4.74	2.74	1.94	1.50	1.22	1.03	.90	.79	.71	.64	.58	30.42
100.	230.	22.25	4.63	2.69	1.90	1.47	1.20	1.01	.88	.77	.69	.63	.57	29.57
100.	240.	21.67	4.54	2.64	1.87	1.45	1.18	1.00	.86	.76	.68	.62	.56	28.85
100.	250.	21.25	4.48	2.61	1.84	1.43	1.16	.98	.85	.75	.67	.61	.55	28.33
100.	260.	20.99	4.43	2.59	1.83	1.41	1.15	.98	.84	.74	.67	.60	.55	28.01
100.	270.	20.92	4.42	2.58	1.82	1.41	1.15	.97	.84	.74	.66	.60	.55	27.92
100.	280.	21.03	4.44	2.59	1.83	1.41	1.16	.98	.85	.75	.67	.60	.55	28.06
100.	290.	21.33	4.49	2.61	1.84	1.43	1.17	.99	.85	.75	.67	.61	.56	28.44
100.	300.	21.81	4.57	2.65	1.87	1.45	1.18	1.00	.87	.76	.68	.62	.56	29.03
100.	310.	22.43	4.66	2.70	1.91	1.48	1.21	1.02	.88	.78	.70	.63	.57	29.79
100.	174.	24.88	5.01	2.87	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61	32.76
100.	184.	24.88	5.00	2.86	2.02	1.56	1.28	1.08	.93	.82	.74	.67	.61	32.75

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PROBABLE MAXIMUM STORM FOR CPNPP

STORM AREA = 100. SQ. MI., ORIENTATION = 179., PREFERRED ORIENTATION = 215.

STORM CENTER COORDINATES, X = 337.0, Y = 304.0

	ISOHYET AREA (SQ.MI.)	AREA WITHIN BASIN (SQ.MI.)	DEPTHS (INCHES) FOR 6-HOUR INCREMENTS OF PMS 1	2	3	4	5	6	7	8	9	10	11	12
A	10.	10.	27.20	5.31	2.92	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
B	25.	25.	25.50	5.06	2.88	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
C	50.	47.	23.80	4.87	2.84	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
D	100.	64.	21.86	4.67	2.82	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
E	175.	64.	16.52	3.88	2.33	1.65	1.28	1.04	.88	.76	.67	.60	.54	.50
F	300.	64.	13.36	3.19	1.94	1.37	1.07	.87	.73	.64	.56	.50	.45	.41
G	450.	64.	10.69	2.70	1.69	1.19	.92	.75	.64	.55	.49	.44	.39	.36
H	700.	64.	8.50	2.31	1.40	.99	.77	.63	.53	.46	.40	.36	.33	.30
I	1000.	64.	6.80	1.89	1.20	.85	.66	.54	.45	.39	.35	.31	.28	.26
J	1500.	64.	5.10	1.52	1.01	.72	.56	.45	.38	.33	.29	.26	.24	.22
K	2150.	64.	3.89	1.18	.80	.57	.44	.36	.30	.26	.23	.21	.19	.17
L	3000.	64.	2.67	.84	.57	.40	.31	.26	.22	.19	.16	.15	.13	.12
M	4500.	64.	1.46	.44	.33	.23	.18	.15	.12	.11	.09	.08	.08	.07
N	6500.	64.	.24	.05	.03	.02	.02	.01	.01	.01	.01	.01	.01	.01
O	10000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
P	15000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Q	25000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

R 40000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
S 60000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AVERAGE DEPTH		24.92	5.01	2.87	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61

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TIME INTERVAL = 60. MINUTES
1-HR TO 6-HR RATIO FOR ISOHYET A AT 20000 SQ. MI. = .308

DEPTH VS. DURATION

ISOHYET	5MIN	10MIN	15MIN	30MIN	1-HR	2-HR	3-HR	6-HR	12-HR	18-HR	24-HR	30-HR	36-HR	42-HR	48-HR	54-HR	60-HR	66-HR	72-HR
A	1.42	2.85	4.25	8.19	13.27	17.46	20.85	27.20	32.51	35.43	37.45	39.02	40.30	41.38	42.32	43.14	43.88	44.55	45.15
B	1.33	2.66	3.97	7.65	12.41	16.33	19.52	25.50	30.56	33.44	35.46	37.03	38.31	39.39	40.32	41.15	41.89	42.55	43.16
C	1.24	2.48	3.70	7.12	11.54	15.21	18.19	23.80	28.67	31.50	33.53	35.09	36.37	37.45	38.39	39.21	39.95	40.62	41.23
D	1.13	2.26	3.38	6.51	10.56	13.93	16.66	21.86	26.53	29.34	31.37	32.93	34.21	35.29	36.23	37.05	37.79	38.46	39.07
E	.29	.59	.88	1.76	3.52	6.94	10.11	16.52	20.40	22.73	24.37	25.65	26.69	27.57	28.34	29.01	29.61	30.15	30.65
F	.24	.47	.71	1.42	2.84	5.61	8.16	13.36	16.55	18.50	19.87	20.94	21.80	22.54	23.18	23.74	24.24	24.69	25.11
G	.19	.38	.57	1.13	2.27	4.46	6.50	10.69	13.39	15.08	16.27	17.19	17.95	18.58	19.14	19.62	20.06	20.45	20.81
H	.15	.30	.45	.90	1.79	3.53	5.14	8.50	10.81	12.21	13.20	13.97	14.60	15.12	15.58	15.99	16.35	16.68	16.97
I	.12	.24	.36	.72	1.43	2.82	4.11	6.80	8.69	9.89	10.74	11.40	11.94	12.39	12.78	13.13	13.44	13.72	13.98
J	.09	.18	.27	.54	1.07	2.10	3.06	5.10	6.62	7.64	8.36	8.91	9.37	9.75	10.08	10.37	10.64	10.87	11.09
K	.07	.14	.20	.41	.81	1.60	2.33	3.89	5.07	5.87	6.43	6.87	7.23	7.53	7.79	8.02	8.23	8.42	8.59
L	.05	.09	.14	.28	.56	1.10	1.60	2.67	3.51	4.08	4.48	4.80	5.05	5.27	5.46	5.62	5.77	5.90	6.02
M	.03	.05	.08	.15	.30	.60	.87	1.46	1.90	2.23	2.46	2.64	2.79	2.91	3.02	3.11	3.20	3.28	3.35
N	.00	.01	.01	.03	.05	.10	.15	.24	.29	.32	.34	.36	.37	.38	.39	.40	.41	.41	.42
O	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
P	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Q	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
R	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
S	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AVERAGE	1.30	2.60	3.88	7.47	12.11	15.95	19.06	24.92	29.93	32.80	34.82	36.39	37.67	38.75	39.68	40.51	41.24	41.91	42.52

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PROBABLE MAXIMUM STORM FOR CPNPP

DAY 1

TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL
0100	.10	.10	0700	.12	.73	1300	.16	1.50	1900	.21	2.49
0200	.10	.20	0800	.12	.85	1400	.16	1.66	2000	.21	2.71
0300	.10	.30	0900	.12	.98	1500	.16	1.81	2100	.21	2.92
0400	.10	.41	1000	.12	1.10	1600	.16	1.97	2200	.21	3.13
0500	.10	.51	1100	.12	1.22	1700	.16	2.13	2300	.21	3.35
0600	.10	.61	1200	.12	1.35	1800	.16	2.28	2400	.21	3.56
6-HR TOTAL	.61			.74			.94			1.28	

DAY 2

TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL
0100	.30	3.86	0700	.63	6.21	1300	1.51	12.10	1900	.58	36.09
0200	.31	4.17	0800	.69	6.90	1400	2.33	14.43	2000	.53	36.62
0300	.33	4.50	0900	.76	7.67	1500	3.84	18.26	2100	.49	37.11
0400	.34	4.84	1000	.86	8.52	1600	12.11	30.37	2200	.45	37.56
0500	.36	5.20	1100	.97	9.49	1700	3.11	33.49	2300	.42	37.98
0600	.38	5.58	1200	1.10	10.59	1800	2.03	35.51	2400	.40	38.38
6-HR TOTAL	2.02			5.01			24.92			2.87	

DAY 3

TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL
0100	.26	38.64	0700	.18	40.13	1300	.14	41.17	1900	.11	41.96
0200	.26	38.90	0800	.18	40.31	1400	.14	41.30	2000	.11	42.07
0300	.26	39.16	0900	.18	40.49	1500	.14	41.44	2100	.11	42.19
0400	.26	39.43	1000	.18	40.67	1600	.14	41.58	2200	.11	42.30
0500	.26	39.69	1100	.18	40.85	1700	.14	41.72	2300	.11	42.41
0600	.26	39.95	1200	.18	41.03	1800	.14	41.85	2400	.11	42.52
6-HR TOTAL	1.57			1.08			.82			.67	

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*
 *    PROBABLE MAXIMUM STORM  (HMR52)    *                                       *    U.S. ARMY CORPS OF ENGINEERS
*
 *             NOVEMBER 1982             *                                       *  THE HYDROLOGIC ENGINEERING CENTER
*
 *           REVISED  APRIL 91           *                                       *          609 SECOND STREET
*
 *                                       *                                       *       DAVIS, CALIFORNIA 95616
*
 *  RUN DATE 05/20/2010    TIME 09:01:31 *                                       *  (916) 551-1748 OR (FTS) 460-1748
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                                        H     H  M     M  RRRRRR   5555555   22222
                                        H     H  MM   MM  R     R  5        2     2
                                        H     H  M M M M  R     R  5              2
                                        HHHHHHH  M  M  M  RRRRRR   555555        2
                                        H     H  M     M  R   R          5     2
                                        H     H  M     M  R    R   5     5   2
                                        H     H  M     M  R     R   55555   2222222
1                                    HEC PROBABLE MAXIMUM STORM (HMR52) INPUT DATA                                    PAGE   1

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

             1           ID    HMR52 INPUT DATA FOR CPNPP UNITS 3 & 4 PMP CALCULATION
             2           ID    ANALYSIS PERFORMED BY SURAJ BALAN ENERCON SERVICES INC 05-06-2010
             3           ID    STORM CENTER WITHIN SQUAW CREEK BASIN AT SC5

             4           BN   CPNPP
             5           ID    CALCULATE STORM OVER SCR WATERSHED BASIN1
             6           BS  .05827
             7           BX  352.79  330.08  309.24  294.79  305.63  288.78  298.06  296.58  308.64   318.8
             8           BX  322.02  356.16  364.98  366.54  386.16  392.28  377.46  398.65  380.84  385.89
             9           BX  375.51   379.9  370.35  371.38   365.4  356.46  349.53  353.98  353.13  356.42
            10           BX  352.83
            11           BY  439.49  425.42  374.54   331.2  266.57  244.31  211.25  200.39  181.51  185.02
            12           BY  180.91     177  179.72  181.01  198.56  228.19  249.82  273.83  307.02  320.85
            13           BY  358.76   370.7  385.48  393.09  396.82  395.52  405.43   411.9   420.9  429.53
            14           BY  441.22

            15           HO     215
            16           HP      10    29.7    35.3    40.0    45.0    48.0
            17           HP     200    22.2    26.8    32.0    36.0    39.6
            18           HP    1000    15.9    20.7    25.8    30.0    33.4
            19           HP    5000     9.3    13.0    17.8    22.0    25.0
            20           HP   10000     7.1    10.3    14.4    18.5    21.0
            21           HP   20000     5.1     8.3    11.5    15.0    17.8
            22           SA       0       0       3
            23           SC     361     304
            24           ST      60   0.308       0       1
            25           PU      ON
            26           ZZ
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 *                                       *                                       *
*
 *    PROBABLE MAXIMUM STORM  (HMR52)    *                                       *    U.S. ARMY CORPS OF ENGINEERS
*
 *             NOVEMBER 1982             *                                       *  THE HYDROLOGIC ENGINEERING CENTER
*
 *           REVISED  APRIL 91           *                                       *          609 SECOND STREET
*
 *                                       *                                       *       DAVIS, CALIFORNIA 95616
*
 *  RUN DATE 05/20/2010    TIME 09:01:31 *                                       *  (916) 551-1748 OR (FTS) 460-1748
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HMR52 INPUT DATA FOR CPNPP UNITS 3 & 4 PMP CALCULATION
ANALYSIS PERFORMED BY SURAJ BALAN ENERCON SERVICES INC 05-06-2010
STORM CENTER WITHIN SQUAW CREEK BASIN AT SC5
CALCULATE STORM OVER SCR WATERSHED BASIN1

PMP DEPTHS FROM HMR 51

AREA (SQ. MI.)	DURATION 6-HR	12-HR	24-HR	48-HR	72-HR
10.	29.70	35.30	40.00	45.00	48.00
200.	22.20	26.80	32.00	36.00	39.60
1000.	15.90	20.70	25.80	30.00	33.40
5000.	9.30	13.00	17.80	22.00	25.00
10000.	7.10	10.30	14.40	18.50	21.00
20000.	5.10	8.30	11.50	15.00	17.80

STORM AREA	PMP DEPTHS FOR 6-HOUR INCREMENTS										
10.	29.67	5.40	2.99	2.08	1.59	1.29	1.09	.94	.83	.74	.67	.61
25.	27.92	5.22	2.95	2.06	1.59	1.29	1.09	.94	.83	.74	.67	.61
50.	26.45	5.09	2.91	2.05	1.58	1.29	1.09	.94	.83	.74	.67	.61
100.	24.29	4.91	2.86	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
175.	22.55	4.75	2.81	2.00	1.56	1.28	1.08	.94	.83	.74	.67	.61
300.	20.55	4.76	2.81	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61
450.	18.97	4.79	2.82	2.00	1.56	1.27	1.08	.93	.82	.74	.67	.61
700.	17.24	4.83	2.83	2.00	1.56	1.27	1.07	.93	.82	.73	.66	.61
1000.	15.84	4.88	2.83	2.01	1.55	1.27	1.07	.93	.82	.73	.66	.60

1500.	14.17	4.63	2.76	1.97	1.53	1.26	1.06	.92	.81	.73	.66	.60
2150.	12.69	4.41	2.69	1.94	1.52	1.25	1.06	.92	.81	.73	.66	.60
3000.	11.31	4.23	2.62	1.91	1.50	1.23	1.05	.91	.81	.72	.66	.60
4500.	9.64	4.00	2.54	1.87	1.48	1.22	1.04	.91	.81	.72	.66	.60
6500.	8.38	3.73	2.41	1.78	1.42	1.18	1.00	.88	.78	.70	.63	.58
10000.	7.02	3.38	2.22	1.66	1.33	1.10	.95	.83	.74	.66	.60	.55
15000.	5.93	3.11	2.07	1.55	1.24	1.04	.89	.78	.69	.62	.57	.52
20000.	5.15	2.92	1.96	1.48	1.19	.99	.85	.75	.66	.60	.54	.50

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BOUNDARY COORDINATES FOR CPNPP

X	352.8	330.1	309.2	294.8	305.6	288.8	298.1	296.6	308.6	318.8
Y	439.5	425.4	374.5	331.2	266.6	244.3	211.3	200.4	181.5	185.0
X	322.0	356.2	365.0	366.5	386.2	392.3	377.5	398.6	380.8	385.9
Y	180.9	177.0	179.7	181.0	198.6	228.2	249.8	273.8	307.0	320.9
X	375.5	379.9	370.4	371.4	365.4	356.5	349.5	354.0	353.1	356.4
Y	358.8	370.7	385.5	393.1	396.8	395.5	405.4	411.9	420.9	429.5
X	352.8									
Y	441.2									

SCALE = .0583 MILES PER COORDINATE UNIT

BASIN AREA = 64.1 SQ. MI.

BASIN CENTROID COORDINATES, X = 342.0, Y = 290.5

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VARYING STORM AREA SIZE AND FIXED ORIENTATION

STORM AREA	ORIEN-TATION	BASIN-AVERAGED INCREMENTAL DEPTHS FOR 6-HR PERIODS												SUM OF DEPTHS FOR 3 PEAK 6-HR PERIODS
10.	184.	18.40	3.36	1.87	1.30	1.00	.81	.68	.59	.52	.46	.42	.38	23.63
25.	184.	21.86	4.30	2.45	1.71	1.32	1.07	.90	.78	.69	.61	.55	.51	28.60
50.	184.	24.00	4.81	2.75	1.94	1.49	1.22	1.03	.89	.78	.70	.63	.58	31.56
100.	184.	24.44	4.95	2.85	2.01	1.56	1.27	1.08	.93	.82	.73	.66	.61	32.24
175.	184.	24.13	4.91	2.83	2.00	1.56	1.28	1.08	.94	.83	.74	.67	.61	31.87
300.	184.	23.42	5.02	2.85	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61	31.28
450.	184.	22.71	5.13	2.87	2.00	1.56	1.27	1.08	.93	.82	.74	.67	.61	30.71
700.	184.	21.97	5.25	2.89	2.00	1.56	1.27	1.07	.93	.82	.73	.66	.61	30.12
1000.	184.	21.41	5.38	2.91	2.01	1.55	1.27	1.07	.93	.82	.73	.66	.60	29.70
1500.	184.	20.78	5.17	2.85	1.97	1.53	1.26	1.06	.92	.81	.73	.66	.60	28.80
2150.	184.	20.16	4.99	2.79	1.94	1.52	1.25	1.06	.92	.81	.73	.66	.60	27.94
3000.	184.	19.46	4.84	2.73	1.91	1.50	1.23	1.05	.91	.81	.72	.66	.60	27.03
4500.	184.	18.37	4.64	2.66	1.87	1.48	1.22	1.04	.91	.81	.72	.66	.60	25.66
6500.	184.	17.57	4.37	2.53	1.78	1.42	1.18	1.00	.88	.78	.70	.63	.58	24.47
10000.	184.	16.47	4.02	2.34	1.66	1.33	1.10	.95	.83	.74	.66	.60	.55	22.84
15000.	184.	15.46	3.75	2.19	1.55	1.24	1.04	.89	.78	.69	.62	.57	.52	21.41
20000.	184.	14.42	3.55	2.08	1.48	1.19	.99	.85	.75	.66	.60	.54	.50	20.05

FIXED STORM AREA SIZE AND VARYING ORIENTATION

STORM AREA	ORIEN-TATION	BASIN-AVERAGED INCREMENTAL DEPTHS FOR 6-HR PERIODS												SUM OF DEPTHS FOR 3 PEAK 6-HR PERIODS
100.	140.	22.56	4.68	2.71	1.91	1.48	1.21	1.02	.88	.78	.70	.63	.58	29.95
100.	150.	23.18	4.77	2.75	1.94	1.51	1.23	1.04	.90	.79	.71	.64	.59	30.70
100.	160.	23.75	4.85	2.79	1.97	1.53	1.25	1.05	.91	.80	.72	.65	.59	31.39
100.	170.	24.20	4.92	2.83	2.00	1.55	1.26	1.07	.92	.81	.73	.66	.60	31.94
100.	180.	24.41	4.95	2.85	2.01	1.56	1.27	1.07	.93	.82	.73	.66	.61	32.21
100.	190.	24.37	4.94	2.85	2.01	1.56	1.27	1.07	.93	.82	.73	.66	.61	32.16
100.	200.	24.06	4.90	2.83	2.00	1.55	1.26	1.07	.92	.82	.73	.66	.60	31.79
100.	210.	23.56	4.83	2.79	1.97	1.53	1.25	1.05	.91	.81	.72	.65	.59	31.19
100.	220.	22.95	4.74	2.75	1.94	1.50	1.23	1.04	.90	.79	.71	.64	.58	30.44
100.	230.	22.31	4.65	2.70	1.91	1.48	1.21	1.02	.88	.78	.70	.63	.57	29.66
100.	240.	21.74	4.56	2.65	1.88	1.45	1.19	1.00	.87	.77	.68	.62	.56	28.96
100.	250.	21.28	4.48	2.61	1.85	1.43	1.17	.99	.85	.75	.67	.61	.56	28.38
100.	260.	20.97	4.43	2.59	1.83	1.42	1.16	.98	.85	.75	.67	.60	.55	27.99
100.	270.	20.84	4.41	2.57	1.82	1.41	1.15	.97	.84	.74	.66	.60	.55	27.82
100.	280.	20.88	4.42	2.58	1.82	1.41	1.15	.97	.84	.74	.66	.60	.55	27.88
100.	290.	21.09	4.45	2.59	1.83	1.42	1.16	.98	.85	.75	.67	.60	.55	28.13
100.	300.	21.47	4.51	2.62	1.85	1.43	1.17	.99	.86	.76	.68	.61	.56	28.60
100.	310.	21.97	4.59	2.66	1.88	1.46	1.19	1.00	.87	.77	.69	.62	.57	29.22
100.	179.	24.40	4.95	2.85	2.01	1.56	1.27	1.07	.93	.82	.73	.66	.60	32.19
100.	189.	24.39	4.95	2.85	2.01	1.56	1.27	1.07	.93	.82	.73	.66	.61	32.18

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PROBABLE MAXIMUM STORM FOR CPNPP

STORM AREA = 100. SQ. MI., ORIENTATION = 184., PREFERRED ORIENTATION = 215.

STORM CENTER COORDINATES, X = 361.0, Y = 304.0

ISOHYET AREA	AREA WITHIN BASIN (SQ.MI.)	DEPTHS (INCHES) FOR 6-HOUR INCREMENTS OF PMS											
(SQ.MI.)		1	2	3	4	5	6	7	8	9	10	11	12
A 10.	10.	27.20	5.31	2.92	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
B 25.	23.	25.50	5.06	2.88	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
C 50.	39.	23.80	4.87	2.84	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
D 100.	61.	21.86	4.67	2.82	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
E 175.	64.	16.52	3.88	2.33	1.65	1.28	1.04	.88	.76	.67	.60	.54	.50
F 300.	64.	13.36	3.19	1.94	1.37	1.07	.87	.73	.64	.56	.50	.45	.41
G 450.	64.	10.69	2.70	1.69	1.19	.92	.75	.64	.55	.49	.44	.39	.36
H 700.	64.	8.50	2.31	1.40	.99	.77	.63	.53	.46	.40	.36	.33	.30
I 1000.	64.	6.80	1.89	1.20	.85	.66	.54	.45	.39	.35	.31	.28	.26
J 1500.	64.	5.10	1.52	1.01	.72	.56	.45	.38	.33	.29	.26	.24	.22
K 2150.	64.	3.89	1.18	.80	.57	.44	.36	.30	.26	.23	.21	.19	.17
L 3000.	64.	2.67	.84	.57	.40	.31	.26	.22	.19	.16	.15	.13	.12
M 4500.	64.	1.46	.44	.33	.23	.18	.15	.12	.11	.09	.08	.08	.07
N 6500.	64.	.24	.05	.03	.02	.02	.01	.01	.01	.01	.01	.01	.01
O 10000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
P 15000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

Q 25000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
R 40000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
S 60000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AVERAGE DEPTH		24.44	4.95	2.85	2.01	1.56	1.27	1.08	.93	.82	.73	.66	.61

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TIME INTERVAL = 60. MINUTES
1-HR TO 6-HR RATIO FOR ISOHYET A AT 20000 SQ. MI. = .308

DEPTH VS. DURATION

ISOHYET	5MIN	10MIN	15MIN	30MIN	1-HR	2-HR	3-HR	6-HR	12-HR	18-HR	24-HR	30-HR	36-HR	42-HR	48-HR	54-HR	60-HR	66-HR	72-HR
A	1.42	2.85	4.25	8.19	13.27	17.46	20.85	27.20	32.51	35.43	37.45	39.02	40.30	41.38	42.32	43.14	43.88	44.55	45.15
B	1.33	2.66	3.97	7.65	12.41	16.33	19.52	25.50	30.56	33.44	35.46	37.03	38.31	39.39	40.32	41.15	41.89	42.55	43.16
C	1.24	2.48	3.70	7.12	11.54	15.21	18.19	23.80	28.67	31.50	33.53	35.09	36.37	37.45	38.39	39.21	39.95	40.62	41.23
D	1.13	2.26	3.38	6.51	10.56	13.93	16.66	21.86	26.53	29.34	31.37	32.93	34.21	35.29	36.23	37.05	37.79	38.46	39.07
E	.29	.59	.88	1.76	3.52	6.94	10.11	16.52	20.40	22.73	24.37	25.65	26.69	27.57	28.34	29.01	29.61	30.15	30.65
F	.24	.47	.71	1.42	2.84	5.61	8.16	13.36	16.55	18.50	19.87	20.94	21.80	22.54	23.18	23.74	24.24	24.69	25.11
G	.19	.38	.57	1.13	2.27	4.46	6.50	10.69	13.39	15.08	16.27	17.19	17.95	18.58	19.14	19.62	20.06	20.45	20.81
H	.15	.30	.45	.90	1.79	3.53	5.14	8.50	10.81	12.21	13.20	13.97	14.60	15.12	15.58	15.99	16.35	16.68	16.97
I	.12	.24	.36	.72	1.43	2.82	4.11	6.80	8.69	9.89	10.74	11.40	11.94	12.39	12.78	13.13	13.44	13.72	13.98
J	.09	.18	.27	.54	1.07	2.10	3.06	5.10	6.62	7.64	8.36	8.91	9.37	9.75	10.08	10.37	10.64	10.87	11.09
K	.07	.14	.20	.41	.81	1.60	2.33	3.89	5.07	5.87	6.43	6.87	7.23	7.53	7.79	8.02	8.23	8.42	8.59
L	.05	.09	.14	.28	.56	1.10	1.60	2.67	3.51	4.08	4.48	4.80	5.05	5.27	5.46	5.62	5.77	5.90	6.02
M	.03	.05	.08	.15	.30	.60	.87	1.46	1.90	2.23	2.46	2.64	2.79	2.91	3.02	3.11	3.20	3.28	3.35
N	.00	.01	.01	.03	.05	.10	.15	.24	.29	.32	.34	.36	.37	.38	.39	.40	.41	.41	.42
O	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
P	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Q	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
R	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
S	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AVERAGE	1.26	2.52	3.76	7.24	11.75	15.54	18.62	24.44	29.39	32.24	34.25	35.81	37.08	38.16	39.09	39.91	40.64	41.31	41.91

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PROBABLE MAXIMUM STORM FOR CPNPP

DAY 1

TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL
0100	.10	.10	0700	.12	.73	1300	.16	1.50	1900	.21	2.48
0200	.10	.20	0800	.12	.85	1400	.16	1.65	2000	.21	2.70
0300	.10	.30	0900	.12	.97	1500	.16	1.81	2100	.21	2.91
0400	.10	.40	1000	.12	1.10	1600	.16	1.96	2200	.21	3.12
0500	.10	.51	1100	.12	1.22	1700	.16	2.12	2300	.21	3.33
0600	.10	.61	1200	.12	1.34	1800	.16	2.27	2400	.21	3.54
6-HR TOTAL	.61			.73			.93			1.27	

DAY 2

TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL
0100	.30	3.84	0700	.62	6.18	1300	1.49	12.00	1900	.58	35.52
0200	.31	4.15	0800	.68	6.86	1400	2.31	14.31	2000	.52	36.04
0300	.32	4.47	0900	.75	7.61	1500	3.79	18.10	2100	.48	36.53
0400	.34	4.81	1000	.85	8.46	1600	11.75	29.85	2200	.45	36.97
0500	.36	5.17	1100	.96	9.42	1700	3.08	32.93	2300	.42	37.39
0600	.38	5.55	1200	1.09	10.51	1800	2.02	34.94	2400	.40	37.79
6-HR TOTAL	2.01			4.95			24.44			2.85	

DAY 3

TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL
0100	.26	38.05	0700	.18	39.53	1300	.14	40.56	1900	.11	41.36
0200	.26	38.31	0800	.18	39.71	1400	.14	40.70	2000	.11	41.47
0300	.26	38.57	0900	.18	39.89	1500	.14	40.84	2100	.11	41.58
0400	.26	38.83	1000	.18	40.07	1600	.14	40.97	2200	.11	41.69
0500	.26	39.09	1100	.18	40.25	1700	.14	41.11	2300	.11	41.80
0600	.26	39.35	1200	.18	40.43	1800	.14	41.25	2400	.11	41.91
6-HR TOTAL	1.56			1.08			.82			.66	

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1 HEC PROBABLE MAXIMUM STORM (HMR52) INPUT DATA PAGE 1

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

*** WARNING *** ZZ-CARD MISSING
1
2 ZZ
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* *
* PROBABLE MAXIMUM STORM (HMR52) * * U.S. ARMY CORPS OF ENGINEERS
* *
* NOVEMBER 1982 * * THE HYDROLOGIC ENGINEERING CENTER
* *
* REVISED APRIL 91 * * 609 SECOND STREET
* *
* * * DAVIS, CALIFORNIA 95616
* *
* RUN DATE 05/20/2010 TIME 09:01:31 * * (916) 551-1748 OR (FTS) 460-1748
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 *    PROBABLE MAXIMUM STORM  (HMR52)    *                                       *    U.S. ARMY CORPS OF ENGINEERS
 *                                       *
 *             NOVEMBER 1982             *                                       *  THE HYDROLOGIC ENGINEERING CENTER
 *                                       *
 *           REVISED  APRIL 91           *                                       *          609 SECOND STREET
 *                                       *
 *                                       *                                       *       DAVIS, CALIFORNIA 95616
 *
 *  RUN DATE 05/20/2010    TIME 09:04:45 *                                       *  (916) 551-1748 OR (FTS) 460-1748
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                                     H     H  MM   MM  R     R  5        2     2
                                     H     H  M M M M  R     R  5              2
                                     HHHHHHH  M  M  M  RRRRRR   555555        2
                                     H     H  M     M  R   R          5     2
                                     H     H  M     M  R    R   5     5   2
                                     H     H  M     M  R     R   55555   2222222
1                                 HEC PROBABLE MAXIMUM STORM (HMR52) INPUT DATA                                PAGE   1

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

            1           ID    HMR52 INPUT DATA FOR CPNPP UNITS 3 & 4 PMP CALCULATION
            2           ID    ANALYSIS PERFORMED BY SURAJ BALAN ENERCON SERVICES INC 05-06-2010
            3           ID    STORM CENTER WITHIN SQUAW CREEK BASIN AT SC6

            4           BN   CPNPP
            5           ID    CALCULATE STORM OVER SCR WATERSHED BASIN1
            6           BS  .05827
            7           BX  352.79  330.08  309.24  294.79  305.63  288.78  298.06  296.58  308.64   318.8
            8           BX  322.02  356.16  364.98  366.54  386.16  392.28  377.46  398.65  380.84  385.89
            9           BX  375.51   379.9  370.35  371.38   365.4  356.46  349.53  353.98  353.13  356.42
           10           BX  352.83
           11           BY  439.49  425.42  374.54   331.2  266.57  244.31  211.25  200.39  181.51  185.02
           12           BY  180.91     177  179.72  181.01  198.56  228.19  249.82  273.83  307.02  320.85
           13           BY  358.76   370.7  385.48  393.09  396.82  395.52  405.43   411.9   420.9  429.53
           14           BY  441.22
           15           HO     215
           16           HP      10    29.7    35.3    40.0    45.0    48.0
           17           HP     200    22.2    26.8    32.0    36.0    39.6
           18           HP    1000    15.9    20.7    25.8    30.0    33.4
           19           HP    5000     9.3    13.0    17.8    22.0    25.0
           20           HP   10000     7.1    10.3    14.4    18.5    21.0
           21           HP   20000     5.1     8.3    11.5    15.0    17.8
           22           SA       0       0       3
           23           SC     337     327
           24           ST      60   0.308       0       1
           25           PU      ON
           26           ZZ
1*****************************************
*****************************************
 *                                       *                                       *
 *                                       *
 *    PROBABLE MAXIMUM STORM  (HMR52)    *                                       *    U.S. ARMY CORPS OF ENGINEERS
 *                                       *
 *             NOVEMBER 1982             *                                       *  THE HYDROLOGIC ENGINEERING CENTER
 *                                       *
 *           REVISED  APRIL 91           *                                       *          609 SECOND STREET
 *                                       *
 *                                       *                                       *       DAVIS, CALIFORNIA 95616
 *
 *  RUN DATE 05/20/2010    TIME 09:04:45 *                                       *  (916) 551-1748 OR (FTS) 460-1748
 *                                       *                                       *
 *                                       *
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HMR52 INPUT DATA FOR CPNPP UNITS 3 & 4 PMP CALCULATION
ANALYSIS PERFORMED BY SURAJ BALAN ENERCON SERVICES INC 05-06-2010
STORM CENTER WITHIN SQUAW CREEK BASIN AT SC6
CALCULATE STORM OVER SCR WATERSHED BASIN1

PMP DEPTHS FROM HMR 51

AREA	DURATION				
(SQ. MI.)	6-HR	12-HR	24-HR	48-HR	72-HR
10.	29.70	35.30	40.00	45.00	48.00
200.	22.20	26.80	32.00	36.00	39.60
1000.	15.90	20.70	25.80	30.00	33.40
5000.	9.30	13.00	17.80	22.00	25.00
10000.	7.10	10.30	14.40	18.50	21.00
20000.	5.10	8.30	11.50	15.00	17.80

STORM AREA	PMP DEPTHS FOR 6-HOUR INCREMENTS											
10.	29.67	5.40	2.99	2.08	1.59	1.29	1.09	.94	.83	.74	.67	.61
25.	27.92	5.22	2.95	2.06	1.59	1.29	1.09	.94	.83	.74	.67	.61
50.	26.45	5.09	2.91	2.05	1.58	1.29	1.09	.94	.83	.74	.67	.61
100.	24.29	4.91	2.86	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
175.	22.55	4.75	2.81	2.00	1.56	1.28	1.08	.94	.83	.74	.67	.61
300.	20.55	4.76	2.81	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61
450.	18.97	4.79	2.82	2.00	1.56	1.27	1.08	.93	.82	.74	.67	.61
700.	17.24	4.83	2.83	2.00	1.56	1.27	1.07	.93	.82	.73	.66	.61
1000.	15.84	4.88	2.83	2.01	1.55	1.27	1.07	.93	.82	.73	.66	.60
1500.	14.17	4.63	2.76	1.97	1.53	1.26	1.06	.92	.81	.73	.66	.60

2150.	12.69	4.41	2.69	1.94	1.52	1.25	1.06	.92	.81	.73	.66	.60
3000.	11.31	4.23	2.62	1.91	1.50	1.23	1.05	.91	.81	.72	.66	.60
4500.	9.64	4.00	2.54	1.87	1.48	1.22	1.04	.91	.81	.72	.66	.60
6500.	8.38	3.73	2.41	1.78	1.42	1.18	1.00	.88	.78	.70	.63	.58
10000.	7.02	3.38	2.22	1.66	1.33	1.10	.95	.83	.74	.66	.60	.55
15000.	5.93	3.11	2.07	1.55	1.24	1.04	.89	.78	.69	.62	.57	.52
20000.	5.15	2.92	1.96	1.48	1.19	.99	.85	.75	.66	.60	.54	.50

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BOUNDARY COORDINATES FOR CPNPP

X	352.8	330.1	309.2	294.8	305.6	288.8	298.1	296.6	308.6	318.8
Y	439.5	425.4	374.5	331.2	266.6	244.3	211.3	200.4	181.5	185.0
X	322.0	356.2	365.0	366.5	386.2	392.3	377.5	398.6	380.8	385.9
Y	180.9	177.0	179.7	181.0	198.6	228.2	249.8	273.8	307.0	320.9
X	375.5	379.9	370.4	371.4	365.4	356.5	349.5	354.0	353.1	356.4
Y	358.8	370.7	385.5	393.1	396.8	395.5	405.4	411.9	420.9	429.5
X	352.8									
Y	441.2									

SCALE = .0583 MILES PER COORDINATE UNIT

BASIN AREA = 64.1 SQ. MI.

BASIN CENTROID COORDINATES, X = 342.0, Y = 290.5

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VARYING STORM AREA SIZE AND FIXED ORIENTATION

STORM AREA	ORIEN-TATION	BASIN-AVERAGED INCREMENTAL DEPTHS FOR 6-HR PERIODS												SUM OF DEPTHS FOR 3 PEAK 6-HR PERIODS
10.	178.	19.01	3.47	1.93	1.34	1.03	.83	.70	.61	.53	.48	.43	.39	24.40
25.	178.	22.57	4.42	2.51	1.76	1.35	1.10	.93	.80	.71	.63	.57	.52	29.50
50.	178.	24.51	4.88	2.79	1.96	1.51	1.23	1.04	.90	.79	.71	.64	.58	32.19
100.	178.	24.71	4.98	2.86	2.01	1.56	1.27	1.08	.93	.82	.74	.66	.61	32.55
175.	178.	24.35	4.93	2.84	2.00	1.56	1.28	1.08	.94	.83	.74	.67	.61	32.12
300.	178.	23.62	5.04	2.85	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61	31.51
450.	178.	22.91	5.15	2.87	2.00	1.56	1.27	1.08	.93	.82	.74	.67	.61	30.93
700.	178.	22.17	5.27	2.90	2.00	1.56	1.27	1.07	.93	.82	.73	.66	.61	30.34
1000.	178.	21.60	5.40	2.92	2.01	1.55	1.27	1.07	.93	.82	.73	.66	.60	29.91
1500.	178.	20.97	5.19	2.85	1.97	1.53	1.26	1.06	.92	.81	.73	.66	.60	29.01
2150.	178.	20.35	5.01	2.79	1.94	1.52	1.25	1.06	.92	.81	.73	.66	.60	28.15
3000.	178.	19.65	4.86	2.73	1.91	1.50	1.23	1.05	.91	.81	.72	.66	.60	27.24
4500.	178.	18.55	4.65	2.66	1.87	1.48	1.22	1.04	.91	.81	.72	.66	.60	25.86
6500.	178.	17.74	4.39	2.53	1.78	1.42	1.18	1.00	.88	.78	.70	.63	.58	24.66
10000.	178.	16.63	4.03	2.35	1.66	1.33	1.10	.95	.83	.74	.66	.60	.55	23.01
15000.	178.	15.62	3.76	2.19	1.55	1.24	1.04	.89	.78	.69	.62	.57	.52	21.57
20000.	178.	14.57	3.56	2.08	1.48	1.19	.99	.85	.75	.66	.60	.54	.50	20.21

FIXED STORM AREA SIZE AND VARYING ORIENTATION

STORM AREA	ORIEN-TATION	BASIN-AVERAGED INCREMENTAL DEPTHS FOR 6-HR PERIODS												SUM OF DEPTHS FOR 3 PEAK 6-HR PERIODS
100.	140.	22.58	4.68	2.71	1.91	1.48	1.21	1.02	.88	.78	.70	.63	.58	29.97
100.	150.	23.39	4.80	2.77	1.95	1.51	1.24	1.04	.90	.80	.71	.64	.59	30.96
100.	160.	24.09	4.90	2.82	1.99	1.54	1.26	1.06	.92	.81	.73	.66	.60	31.80
100.	170.	24.57	4.97	2.85	2.01	1.56	1.27	1.07	.93	.82	.73	.66	.61	32.38
100.	180.	24.69	4.98	2.86	2.01	1.56	1.27	1.08	.93	.82	.73	.66	.61	32.52
100.	190.	24.40	4.94	2.84	2.00	1.55	1.27	1.07	.93	.82	.73	.66	.60	32.18
100.	200.	23.79	4.86	2.79	1.97	1.53	1.25	1.05	.91	.80	.72	.65	.59	31.44
100.	210.	23.06	4.75	2.74	1.94	1.50	1.22	1.03	.90	.79	.71	.64	.58	30.55
100.	220.	22.22	4.62	2.68	1.89	1.46	1.20	1.01	.87	.77	.69	.62	.57	29.53
100.	230.	21.49	4.51	2.62	1.85	1.43	1.17	.99	.86	.75	.67	.61	.56	28.62
100.	240.	20.86	4.40	2.57	1.81	1.40	1.15	.97	.84	.74	.66	.60	.55	27.83
100.	250.	20.42	4.33	2.53	1.78	1.38	1.13	.95	.83	.73	.65	.59	.54	27.28
100.	260.	20.18	4.29	2.51	1.77	1.37	1.12	.94	.82	.72	.65	.58	.53	26.97
100.	270.	20.12	4.28	2.50	1.76	1.37	1.12	.94	.82	.72	.64	.58	.53	26.91
100.	280.	20.26	4.30	2.51	1.77	1.37	1.12	.95	.82	.72	.65	.58	.53	27.08
100.	290.	20.60	4.36	2.54	1.79	1.39	1.13	.96	.83	.73	.65	.59	.54	27.50
100.	300.	21.12	4.45	2.59	1.82	1.41	1.15	.98	.84	.74	.67	.60	.55	28.15
100.	310.	21.80	4.55	2.64	1.86	1.44	1.18	1.00	.86	.76	.68	.62	.56	29.00
100.	173.	24.65	4.98	2.85	2.01	1.56	1.27	1.08	.93	.82	.73	.66	.61	32.48
100.	183.	24.64	4.98	2.85	2.01	1.56	1.27	1.08	.93	.82	.73	.66	.61	32.47

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PROBABLE MAXIMUM STORM FOR CPNPP

STORM AREA = 100. SQ. MI., ORIENTATION = 178., PREFERRED ORIENTATION = 215.

STORM CENTER COORDINATES, X = 337.0, Y = 327.0

	ISOHYET AREA (SQ.MI.)	AREA WITHIN BASIN (SQ.MI.)	DEPTHS (INCHES) FOR 6-HOUR INCREMENTS OF PMS 1	2	3	4	5	6	7	8	9	10	11	12
A	10.	10.	27.20	5.31	2.92	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
B	25.	25.	25.50	5.06	2.88	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
C	50.	44.	23.80	4.87	2.84	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
D	100.	62.	21.86	4.67	2.82	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
E	175.	64.	16.52	3.88	2.33	1.65	1.28	1.04	.88	.76	.67	.60	.54	.50
F	300.	64.	13.36	3.19	1.94	1.37	1.07	.87	.73	.64	.56	.50	.45	.41
G	450.	64.	10.69	2.70	1.69	1.19	.92	.75	.64	.55	.49	.44	.39	.36
H	700.	64.	8.50	2.31	1.40	.99	.77	.63	.53	.46	.40	.36	.33	.30
I	1000.	64.	6.80	1.89	1.20	.85	.66	.54	.45	.39	.35	.31	.28	.26
J	1500.	64.	5.10	1.52	1.01	.72	.56	.45	.38	.33	.29	.26	.24	.22
K	2150.	64.	3.89	1.18	.80	.57	.44	.36	.30	.26	.23	.21	.19	.17
L	3000.	64.	2.67	.84	.57	.40	.31	.26	.22	.19	.16	.15	.13	.12
M	4500.	64.	1.46	.44	.33	.23	.18	.15	.12	.11	.09	.08	.08	.07
N	6500.	64.	.24	.05	.03	.02	.02	.01	.01	.01	.01	.01	.01	.01
O	10000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
P	15000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Q	25000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

R 40000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
S 60000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AVERAGE DEPTH		24.71	4.98	2.86	2.01	1.56	1.27	1.08	.93	.82	.74	.66	.61

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TIME INTERVAL = 60. MINUTES
1-HR TO 6-HR RATIO FOR ISOHYET A AT 20000 SQ. MI. = .308

DEPTH VS. DURATION

ISOHYET	5MIN	10MIN	15MIN	30MIN	1-HR	2-HR	3-HR	6-HR	12-HR	18-HR	24-HR	30-HR	36-HR	42-HR	48-HR	54-HR	60-HR	66-HR	72-HR
A	1.42	2.85	4.25	8.19	13.27	17.46	20.85	27.20	32.51	35.43	37.45	39.02	40.30	41.38	42.32	43.14	43.88	44.55	45.15
B	1.33	2.66	3.97	7.65	12.41	16.33	19.52	25.50	30.56	33.44	35.46	37.03	38.31	39.39	40.32	41.15	41.89	42.55	43.16
C	1.24	2.48	3.70	7.12	11.54	15.21	18.19	23.80	28.67	31.50	33.53	35.09	36.37	37.45	38.39	39.21	39.95	40.62	41.23
D	1.13	2.26	3.38	6.51	10.56	13.93	16.66	21.86	26.53	29.34	31.37	32.93	34.21	35.29	36.23	37.05	37.79	38.46	39.07
E	.29	.59	.88	1.76	3.52	6.94	10.11	16.52	20.40	22.73	24.37	25.65	26.69	27.57	28.34	29.01	29.61	30.15	30.65
F	.24	.47	.71	1.42	2.84	5.61	8.16	13.36	16.55	18.50	19.87	20.94	21.80	22.54	23.18	23.74	24.24	24.69	25.11
G	.19	.38	.57	1.13	2.27	4.46	6.50	10.69	13.39	15.08	16.27	17.19	17.95	18.58	19.14	19.62	20.06	20.45	20.81
H	.15	.30	.45	.90	1.79	3.53	5.14	8.50	10.81	12.21	13.20	13.97	14.60	15.12	15.58	15.99	16.35	16.68	16.97
I	.12	.24	.36	.72	1.43	2.82	4.11	6.80	8.69	9.89	10.74	11.40	11.94	12.39	12.78	13.13	13.44	13.72	13.98
J	.09	.18	.27	.54	1.07	2.10	3.06	5.10	6.62	7.64	8.36	8.91	9.37	9.75	10.08	10.37	10.64	10.87	11.09
K	.07	.14	.20	.41	.81	1.60	2.33	3.89	5.07	5.87	6.43	6.87	7.23	7.53	7.79	8.02	8.23	8.42	8.59
L	.05	.09	.14	.28	.56	1.10	1.60	2.67	3.51	4.08	4.48	4.80	5.05	5.27	5.46	5.62	5.77	5.90	6.02
M	.03	.05	.08	.15	.30	.60	.87	1.46	1.90	2.23	2.46	2.64	2.79	2.91	3.02	3.11	3.20	3.28	3.35
N	.00	.01	.01	.03	.05	.10	.15	.24	.29	.32	.34	.36	.37	.38	.39	.40	.41	.41	.42
O	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
P	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Q	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
R	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
S	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AVERAGE	1.28	2.55	3.81	7.35	11.92	15.74	18.85	24.71	29.69	32.55	34.56	36.12	37.40	38.47	39.41	40.23	40.96	41.63	42.24

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PROBABLE MAXIMUM STORM FOR CPNPP

DAY 1

TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL
0100	.10	.10	0700	.12	.73	1300	.16	1.50	1900	.21	2.49
0200	.10	.20	0800	.12	.85	1400	.16	1.65	2000	.21	2.70
0300	.10	.30	0900	.12	.97	1500	.16	1.81	2100	.21	2.91
0400	.10	.40	1000	.12	1.10	1600	.16	1.96	2200	.21	3.12
0500	.10	.51	1100	.12	1.22	1700	.16	2.12	2300	.21	3.34
0600	.10	.61	1200	.12	1.34	1800	.16	2.27	2400	.21	3.55
6-HR TOTAL	.61			.74			.93			1.27	

DAY 2

TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL
0100	.30	3.85	0700	.63	6.19	1300	1.50	12.05	1900	.58	35.83
0200	.31	4.16	0800	.68	6.88	1400	2.32	14.38	2000	.53	36.36
0300	.32	4.48	0900	.76	7.64	1500	3.82	18.20	2100	.48	36.84
0400	.34	4.82	1000	.85	8.49	1600	11.92	30.12	2200	.45	37.29
0500	.36	5.18	1100	.96	9.45	1700	3.11	33.23	2300	.42	37.71
0600	.38	5.56	1200	1.09	10.55	1800	2.03	35.25	2400	.40	38.11
6-HR TOTAL	2.01			4.98			24.71			2.86	

DAY 3

TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL
0100	.26	38.37	0700	.18	39.85	1300	.14	40.89	1900	.11	41.68
0200	.26	38.63	0800	.18	40.03	1400	.14	41.02	2000	.11	41.79
0300	.26	38.89	0900	.18	40.21	1500	.14	41.16	2100	.11	41.90
0400	.26	39.15	1000	.18	40.39	1600	.14	41.30	2200	.11	42.01
0500	.26	39.41	1100	.18	40.57	1700	.14	41.43	2300	.11	42.12
0600	.26	39.67	1200	.18	40.75	1800	.14	41.57	2400	.11	42.24
6-HR TOTAL	1.56			1.08			.82			.66	

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 *                                       *                                       *
 *                                       *
 *    PROBABLE MAXIMUM STORM  (HMR52)    *                                       *    U.S. ARMY CORPS OF ENGINEERS
 *                                       *
 *             NOVEMBER 1982             *                                       *  THE HYDROLOGIC ENGINEERING CENTER
 *                                       *
 *           REVISED  APRIL 91           *                                       *          609 SECOND STREET
 *                                       *
 *                                       *                                       *       DAVIS, CALIFORNIA 95616
 *
 *  RUN DATE 05/20/2010    TIME 09:07:17 *                                       *  (916) 551-1748 OR (FTS) 460-1748
 *                                       *                                       *
 *                                       *
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                                        H     H  M     M  RRRRRR   5555555   22222
                                        H     H  MM   MM  R     R  5        2     2
                                        H     H  M M M M  R     R  5              2
                                        HHHHHHH  M  M  M  RRRRRR   555555        2
                                        H     H  M     M  R   R          5     2
                                        H     H  M     M  R    R   5     5   2
                                        H     H  M     M  R     R   55555   2222222
1                                  HEC PROBABLE MAXIMUM STORM (HMR52) INPUT DATA                                  PAGE   1

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

             1           ID    HMR52 INPUT DATA FOR CPNPP UNITS 3 & 4 PMP CALCULATION
             2           ID    ANALYSIS PERFORMED BY SURAJ BALAN ENERCON SERVICES INC 05-06-2010
             3           ID    STORM CENTER WITHIN SQUAW CREEK BASINAT SC7

             4           BN   CPNPP
             5           ID    CALCULATE STORM OVER SCR WATERSHED BASIN1
             6           BS  .05827
             7           BX  352.79  330.08  309.24  294.79  305.63  288.78  298.06  296.58  308.64   318.8
             8           BX  322.02  356.16  364.98  366.54  386.16  392.28  377.46  398.65  380.84  385.89
             9           BX  375.51   379.9  370.35  371.38   365.4  356.46  349.53  353.98  353.13  356.42
            10           BX  352.83
            11           BY  439.49  425.42  374.54   331.2  266.57  244.31  211.25  200.39  181.51  185.02
            12           BY  180.91     177  179.72  181.01  198.56  228.19  249.82  273.83  307.02  320.85
            13           BY  358.76   370.7  385.48  393.09  396.82  395.52  405.43   411.9   420.9  429.53
            14           BY  441.22
            15           HO    215
            16           HP     10    29.7    35.3    40.0    45.0    48.0
            17           HP    200    22.2    26.8    32.0    36.0    39.6
            18           HP   1000    15.9    20.7    25.8    30.0    33.4
            19           HP   5000     9.3    13.0    17.8    22.0    25.0
            20           HP  10000     7.1    10.3    14.4    18.5    21.0
            21           HP  20000     5.1     8.3    11.5    15.0    17.8
            22           SA      0       0       3
            23           SC    352     441
            24           ST     60   0.308       0       1
            25           PU     ON
            26           ZZ
1*****************************************
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 *                                       *                                       *
 *                                       *
 *    PROBABLE MAXIMUM STORM  (HMR52)    *                                       *    U.S. ARMY CORPS OF ENGINEERS
 *                                       *
 *             NOVEMBER 1982             *                                       *  THE HYDROLOGIC ENGINEERING CENTER
 *                                       *
 *           REVISED  APRIL 91           *                                       *          609 SECOND STREET
 *                                       *
 *                                       *                                       *       DAVIS, CALIFORNIA 95616
 *
 *  RUN DATE 05/20/2010    TIME 09:07:17 *                                       *  (916) 551-1748 OR (FTS) 460-1748
 *                                       *                                       *
 *                                       *
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                    HMR52 INPUT DATA FOR CPNPP UNITS 3 & 4 PMP CALCULATION
                    ANALYSIS PERFORMED BY SURAJ BALAN ENERCON SERVICES INC 05-06-2010
                    STORM CENTER WITHIN SQUAW CREEK BASINAT SC7
                    CALCULATE STORM OVER SCR WATERSHED BASIN1


                              PMP DEPTHS FROM HMR 51

      AREA                                DURATION
   (SQ. MI.)          6-HR       12-HR       24-HR       48-HR       72-HR
        10.          29.70       35.30       40.00       45.00       48.00
       200.          22.20       26.80       32.00       36.00       39.60
      1000.          15.90       20.70       25.80       30.00       33.40
      5000.           9.30       13.00       17.80       22.00       25.00
     10000.           7.10       10.30       14.40       18.50       21.00
     20000.           5.10        8.30       11.50       15.00       17.80

STORM AREA                                    PMP DEPTHS FOR 6-HOUR INCREMENTS
       10.          29.67    5.40    2.99    2.08    1.59    1.29    1.09     .94     .83     .74     .67     .61
       25.          27.92    5.22    2.95    2.06    1.59    1.29    1.09     .94     .83     .74     .67     .61
       50.          26.45    5.09    2.91    2.05    1.58    1.29    1.09     .94     .83     .74     .67     .61
      100.          24.29    4.91    2.86    2.02    1.57    1.28    1.08     .94     .82     .74     .67     .61
      175.          22.55    4.75    2.81    2.00    1.56    1.28    1.08     .94     .83     .74     .67     .61
      300.          20.55    4.76    2.81    2.00    1.55    1.27    1.08     .93     .82     .74     .67     .61
      450.          18.97    4.79    2.82    2.00    1.56    1.27    1.08     .93     .82     .74     .67     .61
      700.          17.24    4.83    2.83    2.00    1.56    1.27    1.07     .93     .82     .73     .66     .61
     1000.          15.84    4.88    2.83    2.01    1.55    1.27    1.07     .93     .82     .73     .66     .60
     1500.          14.17    4.63    2.76    1.97    1.53    1.26    1.06     .92     .81     .73     .66     .60
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2150.	12.69	4.41	2.69	1.94	1.52	1.25	1.06	.92	.81	.73	.66	.60
3000.	11.31	4.23	2.62	1.91	1.50	1.23	1.05	.91	.81	.72	.66	.60
4500.	9.64	4.00	2.54	1.87	1.48	1.22	1.04	.91	.81	.72	.66	.60
6500.	8.38	3.73	2.41	1.78	1.42	1.18	1.00	.88	.78	.70	.63	.58
10000.	7.02	3.38	2.22	1.66	1.33	1.10	.95	.83	.74	.66	.60	.55
15000.	5.93	3.11	2.07	1.55	1.24	1.04	.89	.78	.69	.62	.57	.52
20000.	5.15	2.92	1.96	1.48	1.19	.99	.85	.75	.66	.60	.54	.50

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BOUNDARY COORDINATES FOR CPNPP

X	352.8	330.1	309.2	294.8	305.6	288.8	298.1	296.6	308.6	318.8
Y	439.5	425.4	374.5	331.2	266.6	244.3	211.3	200.4	181.5	185.0
X	322.0	356.2	365.0	366.5	386.2	392.3	377.5	398.6	380.8	385.9
Y	180.9	177.0	179.7	181.0	198.6	228.2	249.8	273.8	307.0	320.9
X	375.5	379.9	370.4	371.4	365.4	356.5	349.5	354.0	353.1	356.4
Y	358.8	370.7	385.5	393.1	396.8	395.5	405.4	411.9	420.9	429.5
X	352.8									
Y	441.2									

SCALE = .0583 MILES PER COORDINATE UNIT

BASIN AREA = 64.1 SQ. MI.

BASIN CENTROID COORDINATES, X = 342.0, Y = 290.5

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VARYING STORM AREA SIZE AND FIXED ORIENTATION

STORM AREA	ORIEN-TATION	BASIN-AVERAGED INCREMENTAL DEPTHS FOR 6-HR PERIODS												SUM OF DEPTHS FOR 3 PEAK 6-HR PERIODS
10.	183.	12.37	2.26	1.26	.87	.67	.54	.46	.39	.35	.31	.28	.26	15.89
25.	183.	15.70	3.20	1.83	1.28	.99	.80	.68	.59	.52	.46	.42	.38	20.73
50.	183.	18.20	3.84	2.23	1.57	1.21	.99	.83	.72	.63	.57	.51	.47	24.26
100.	183.	19.91	4.31	2.54	1.80	1.40	1.14	.96	.84	.74	.66	.60	.54	26.76
175.	183.	20.97	4.55	2.72	1.94	1.51	1.24	1.05	.91	.80	.72	.65	.59	28.24
300.	183.	21.06	4.78	2.81	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61	28.65
450.	183.	20.46	4.90	2.83	2.00	1.56	1.27	1.08	.93	.82	.74	.67	.61	28.19
700.	183.	19.75	5.03	2.86	2.00	1.56	1.27	1.07	.93	.82	.73	.66	.61	27.63
1000.	183.	19.22	5.15	2.88	2.01	1.55	1.27	1.07	.93	.82	.73	.66	.60	27.25
1500.	183.	18.60	4.98	2.81	1.97	1.53	1.26	1.06	.92	.81	.73	.66	.60	26.39
2150.	183.	18.00	4.81	2.75	1.94	1.52	1.25	1.06	.92	.81	.73	.66	.60	25.56
3000.	183.	17.38	4.67	2.69	1.91	1.50	1.23	1.05	.91	.81	.72	.66	.60	24.74
4500.	183.	16.38	4.48	2.62	1.87	1.48	1.22	1.04	.91	.81	.72	.66	.60	23.49
6500.	183.	15.69	4.22	2.49	1.78	1.42	1.18	1.00	.88	.78	.70	.63	.58	22.41
10000.	183.	14.68	3.89	2.31	1.66	1.33	1.10	.95	.83	.74	.66	.60	.55	20.88
15000.	183.	13.73	3.64	2.16	1.55	1.24	1.04	.89	.78	.69	.62	.57	.52	19.53
20000.	183.	12.79	3.45	2.05	1.48	1.19	.99	.85	.75	.66	.60	.54	.50	18.29

FIXED STORM AREA SIZE AND VARYING ORIENTATION

STORM AREA	ORIEN-TATION	BASIN-AVERAGED INCREMENTAL DEPTHS FOR 6-HR PERIODS												SUM OF DEPTHS FOR 3 PEAK 6-HR PERIODS
300.	140.	15.91	4.04	2.46	1.76	1.36	1.12	.94	.82	.72	.65	.58	.53	22.41
300.	150.	17.38	4.28	2.59	1.85	1.43	1.17	.99	.86	.76	.68	.61	.56	24.25
300.	160.	18.96	4.51	2.70	1.93	1.50	1.22	1.04	.90	.79	.71	.64	.59	26.18
300.	170.	20.29	4.69	2.78	1.98	1.54	1.26	1.06	.92	.81	.73	.66	.60	27.76
300.	180.	21.00	4.77	2.81	2.00	1.55	1.27	1.07	.93	.82	.74	.67	.61	28.58
300.	190.	20.83	4.75	2.80	1.99	1.55	1.27	1.07	.93	.82	.73	.66	.61	28.38
300.	200.	19.93	4.64	2.75	1.96	1.52	1.25	1.05	.91	.81	.72	.65	.60	27.32
300.	210.	18.53	4.44	2.66	1.89	1.47	1.20	1.02	.88	.78	.70	.63	.58	25.64
300.	220.	16.96	4.20	2.54	1.81	1.40	1.15	.97	.84	.74	.67	.60	.55	23.70
300.	230.	15.58	3.96	2.41	1.72	1.34	1.09	.92	.80	.71	.63	.57	.52	21.95
300.	240.	14.51	3.77	2.31	1.65	1.28	1.05	.89	.77	.68	.61	.55	.50	20.59
300.	250.	13.72	3.62	2.24	1.59	1.24	1.01	.86	.74	.66	.59	.53	.48	19.57
300.	260.	13.19	3.52	2.18	1.55	1.21	.99	.84	.73	.64	.57	.52	.47	18.90
300.	270.	12.93	3.47	2.16	1.54	1.19	.98	.83	.72	.63	.57	.51	.47	18.56
300.	280.	12.95	3.48	2.16	1.54	1.20	.98	.83	.72	.63	.57	.51	.47	18.59
300.	290.	13.24	3.54	2.20	1.56	1.22	.99	.84	.73	.64	.58	.52	.48	18.98
300.	300.	13.82	3.66	2.26	1.61	1.25	1.02	.87	.75	.66	.59	.54	.49	19.74
300.	310.	14.70	3.82	2.35	1.67	1.30	1.06	.90	.78	.69	.62	.56	.51	20.87
300.	178.	20.92	4.76	2.81	2.00	1.55	1.27	1.07	.93	.82	.73	.67	.61	28.49
300.	188.	20.91	4.76	2.80	1.99	1.55	1.27	1.07	.93	.82	.73	.66	.61	28.47

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PROBABLE MAXIMUM STORM FOR CPNPP

STORM AREA = 300. SQ. MI., ORIENTATION = 183., PREFERRED ORIENTATION = 215.

STORM CENTER COORDINATES, X = 352.0, Y = 441.0

ISOHYET	AREA (SQ.MI.)	AREA WITHIN BASIN (SQ.MI.)	DEPTHS (INCHES) FOR 6-HOUR INCREMENTS OF PMS 1	2	3	4	5	6	7	8	9	10	11	12
A	10.	2.	25.89	5.31	2.90	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61
B	25.	7.	24.25	5.09	2.86	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61
C	50.	14.	22.60	4.93	2.83	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61
D	100.	27.	21.16	4.76	2.80	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61
E	175.	43.	19.73	4.64	2.79	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61
F	300.	64.	18.08	4.52	2.78	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61
G	450.	64.	13.36	3.81	2.42	1.72	1.34	1.09	.93	.80	.71	.63	.57	.52
H	700.	64.	10.48	3.21	2.02	1.44	1.12	.92	.77	.67	.59	.53	.48	.44
I	1000.	64.	8.63	2.71	1.74	1.24	.96	.79	.67	.58	.51	.46	.41	.38
J	1500.	64.	6.58	2.24	1.49	1.06	.82	.67	.57	.49	.44	.39	.35	.32
K	2150.	64.	5.14	1.78	1.21	.86	.67	.55	.46	.40	.35	.32	.29	.26
L	3000.	64.	3.90	1.43	.94	.67	.52	.43	.36	.31	.28	.25	.22	.20
M	4500.	64.	2.47	.98	.69	.49	.38	.31	.26	.23	.20	.18	.16	.15
N	6500.	64.	1.23	.48	.39	.28	.22	.18	.15	.13	.12	.10	.09	.09
O	10000.	64.	.21	.05	.06	.04	.03	.03	.02	.02	.02	.01	.01	.01
P	15000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Q	25000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

R 40000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
S 60000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AVERAGE DEPTH		21.06	4.78	2.81	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61

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TIME INTERVAL = 60. MINUTES
1-HR TO 6-HR RATIO FOR ISOHYET A AT 20000 SQ. MI. = .308

DEPTH VS. DURATION

ISOHYET	5MIN	10MIN	15MIN	30MIN	1-HR	2-HR	3-HR	6-HR	12-HR	18-HR	24-HR	30-HR	36-HR	42-HR	48-HR	54-HR	60-HR	66-HR	72-HR
A	1.17	2.33	3.47	6.69	11.04	15.36	18.98	25.89	31.20	34.10	36.10	37.66	38.93	40.00	40.94	41.76	42.50	43.16	43.77
B	1.09	2.17	3.24	6.24	10.30	14.36	17.75	24.25	29.34	32.20	34.20	35.76	37.03	38.10	39.04	39.86	40.60	41.26	41.87
C	1.01	2.02	3.01	5.79	9.57	13.35	16.51	22.60	27.53	30.36	32.36	33.91	35.18	36.26	37.19	38.02	38.75	39.42	40.03
D	.94	1.88	2.80	5.39	8.92	12.46	15.42	21.16	25.92	28.73	30.73	32.28	33.55	34.63	35.56	36.39	37.12	37.79	38.40
E	.87	1.74	2.60	5.00	8.28	11.58	14.34	19.73	24.37	27.15	29.16	30.71	31.98	33.06	33.99	34.81	35.55	36.22	36.83
F	.80	1.59	2.37	4.56	7.56	10.58	13.10	18.08	22.60	25.38	27.38	28.94	30.21	31.29	32.22	33.04	33.78	34.45	35.05
G	.23	.47	.70	1.41	2.81	5.52	8.05	13.36	17.16	19.58	21.30	22.64	23.73	24.66	25.46	26.17	26.80	27.37	27.90
H	.18	.37	.55	1.10	2.19	4.30	6.27	10.48	13.69	15.71	17.15	18.27	19.19	19.96	20.64	21.23	21.76	22.24	22.68
I	.15	.30	.45	.90	1.80	3.54	5.15	8.63	11.34	13.08	14.32	15.29	16.08	16.74	17.32	17.83	18.29	18.70	19.08
J	.11	.23	.34	.68	1.36	2.67	3.90	6.58	8.81	10.30	11.36	12.18	12.86	13.43	13.92	14.36	14.75	15.10	15.43
K	.09	.18	.27	.53	1.06	2.08	3.04	5.14	6.92	8.13	8.99	9.66	10.20	10.67	11.07	11.42	11.74	12.03	12.29
L	.07	.13	.20	.40	.80	1.57	2.30	3.90	5.33	6.27	6.94	7.46	7.89	8.25	8.56	8.84	9.09	9.31	9.51
M	.04	.08	.13	.25	.50	.99	1.44	2.47	3.44	4.13	4.62	5.00	5.31	5.58	5.80	6.01	6.19	6.35	6.50
N	.02	.04	.06	.13	.25	.49	.72	1.23	1.71	2.10	2.38	2.60	2.78	2.93	3.06	3.17	3.28	3.37	3.46
O	.00	.01	.01	.02	.04	.09	.13	.21	.25	.31	.35	.38	.41	.43	.45	.46	.48	.49	.50
P	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Q	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
R	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
S	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AVERAGE	.94	1.87	2.79	5.36	8.87	12.39	15.34	21.06	25.84	28.65	30.65	32.20	33.47	34.55	35.48	36.30	37.04	37.70	38.31

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PROBABLE MAXIMUM STORM FOR CPNPP

DAY 1

TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL
0100	.10	.10	0700	.12	.73	1300	.16	1.50	1900	.21	2.49
0200	.10	.20	0800	.12	.85	1400	.16	1.66	2000	.21	2.70
0300	.10	.30	0900	.12	.98	1500	.16	1.81	2100	.21	2.91
0400	.10	.41	1000	.12	1.10	1600	.16	1.97	2200	.21	3.12
0500	.10	.51	1100	.12	1.22	1700	.16	2.12	2300	.21	3.34
0600	.10	.61	1200	.12	1.34	1800	.16	2.28	2400	.21	3.55
6-HR TOTAL	.61			.74			.93			1.27	

DAY 2

TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL
0100	.30	3.84	0700	.61	6.15	1300	1.47	11.79	1900	.56	31.95
0200	.31	4.15	0800	.66	6.81	1400	2.26	14.05	2000	.52	32.46
0300	.32	4.47	0900	.72	7.54	1500	3.52	17.58	2100	.48	32.94
0400	.34	4.81	1000	.81	8.35	1600	8.87	26.45	2200	.44	33.38
0500	.36	5.17	1100	.92	9.27	1700	2.94	29.39	2300	.42	33.80
0600	.38	5.55	1200	1.05	10.32	1800	1.99	31.38	2400	.40	34.19
6-HR TOTAL	2.00			4.78			21.06			2.81	

DAY 3

TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL	TIME	PRECIPITATION INCR	TOTAL
0100	.26	34.45	0700	.18	35.93	1300	.14	36.96	1900	.11	37.76
0200	.26	34.71	0800	.18	36.11	1400	.14	37.10	2000	.11	37.87
0300	.26	34.97	0900	.18	36.29	1500	.14	37.23	2100	.11	37.98
0400	.26	35.23	1000	.18	36.46	1600	.14	37.37	2200	.11	38.09
0500	.26	35.49	1100	.18	36.64	1700	.14	37.51	2300	.11	38.20
0600	.26	35.75	1200	.18	36.82	1800	.14	37.65	2400	.11	38.31
6-HR TOTAL	1.55			1.08			.82			.67	

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 *                                       *                                       *
 *                                       *
 *    PROBABLE MAXIMUM STORM  (HMR52)    *                                       *    U.S. ARMY CORPS OF ENGINEERS
 *                                       *
 *             NOVEMBER 1982             *                                       *  THE HYDROLOGIC ENGINEERING CENTER
 *                                       *
 *           REVISED  APRIL 91           *                                       *          609 SECOND STREET
 *                                       *
 *                                       *                                       *       DAVIS, CALIFORNIA 95616
 *
 *  RUN DATE 05/20/2010    TIME 09:09:41 *                                       *  (916) 551-1748 OR (FTS) 460-1748
 *                                       *                                       *
 *                                       *
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                                     H     H  M     M  RRRRRR   5555555   22222
                                     H     H  MM   MM  R     R  5        2     2
                                     H     H  M M M M  R     R  5              2
                                     HHHHHHH  M  M  M  RRRRRR   555555        2
                                     H     H  M     M  R   R         5     2
                                     H     H  M     M  R    R    5     5  2
                                     H     H  M     M  R     R    55555   2222222
1                                 HEC PROBABLE MAXIMUM STORM (HMR52) INPUT DATA                                PAGE   1

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

            1           ID    HMR52 INPUT DATA FOR CPNPP UNITS 3 & 4 PMP CALCULATION
            2           ID    ANALYSIS PERFORMED BY SURAJ BALAN ENERCON SERVICES INC 05-05-2010
            3           ID    STORM CENTER WITHIN SQUAW CREEK BASIN AT SCX

            4           BN   CPNPP
            5           ID    CALCULATE STORM OVER SCR WATERSHED BASIN1
            6           BS  .05827
            7           BX  352.79  330.08  309.24  294.79  305.63  288.78  298.06  296.58  308.64   318.8
            8           BX  322.02  356.16  364.98  366.54  386.16  392.28  377.46  398.65  380.84  385.89
            9           BX  375.51   379.9  370.35  371.38   365.4  356.46  349.53  353.98  353.13  356.42
           10           BX  352.83
           11           BY  439.49  425.42  374.54   331.2  266.57  244.31  211.25  200.39  181.51  185.02
           12           BY  180.91     177  179.72  181.01  198.56  228.19  249.82  273.83  307.02  320.85
           13           BY  358.76   370.7  385.48  393.09  396.82  395.52  405.43   411.9   420.9  429.53
           14           BY  441.22
           15           HO    215
           16           HP     10    29.7    35.3    40.0    45.0    48.0
           17           HP    200    22.2    26.8    32.0    36.0    39.6
           18           HP   1000    15.9    20.7    25.8    30.0    33.4
           19           HP   5000     9.3    13.0    17.8    22.0    25.0
           20           HP  10000     7.1    10.3    14.4    18.5    21.0
           21           HP  20000     5.1     8.3    11.5    15.0    17.8
           22           SA      0       0       3
           23           SC    337     280
           24           ST     60   0.308       0       1
           25           PU     ON
           26           ZZ
1*****************************************
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 *                                       *                                       *
 *                                       *
 *    PROBABLE MAXIMUM STORM  (HMR52)    *                                       *    U.S. ARMY CORPS OF ENGINEERS
 *                                       *
 *             NOVEMBER 1982             *                                       *  THE HYDROLOGIC ENGINEERING CENTER
 *                                       *
 *           REVISED  APRIL 91           *                                       *          609 SECOND STREET
 *                                       *
 *                                       *                                       *       DAVIS, CALIFORNIA 95616
 *
 *  RUN DATE 05/20/2010    TIME 09:09:41 *                                       *  (916) 551-1748 OR (FTS) 460-1748
 *                                       *                                       *
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                    HMR52 INPUT DATA FOR CPNPP UNITS 3 & 4 PMP CALCULATION
                    ANALYSIS PERFORMED BY SURAJ BALAN ENERCON SERVICES INC 05-05-2010
                    STORM CENTER WITHIN SQUAW CREEK BASIN AT SCX
                    CALCULATE STORM OVER SCR WATERSHED BASIN1


                              PMP DEPTHS FROM HMR 51

      AREA                              DURATION
   (SQ. MI.)          6-HR      12-HR      24-HR      48-HR      72-HR
        10.          29.70      35.30      40.00      45.00      48.00
       200.          22.20      26.80      32.00      36.00      39.60
      1000.          15.90      20.70      25.80      30.00      33.40
      5000.           9.30      13.00      17.80      22.00      25.00
     10000.           7.10      10.30      14.40      18.50      21.00
     20000.           5.10       8.30      11.50      15.00      17.80

 STORM AREA                                    PMP DEPTHS FOR 6-HOUR INCREMENTS
       10.          29.67    5.40    2.99    2.08    1.59    1.29    1.09     .94     .83     .74     .67     .61
       25.          27.92    5.22    2.95    2.06    1.59    1.29    1.09     .94     .83     .74     .67     .61
       50.          26.45    5.09    2.91    2.05    1.58    1.29    1.09     .94     .83     .74     .67     .61
      100.          24.29    4.91    2.86    2.02    1.57    1.28    1.08     .94     .82     .74     .67     .61
      175.          22.55    4.75    2.81    2.00    1.56    1.28    1.08     .94     .83     .74     .67     .61
      300.          20.55    4.76    2.81    2.00    1.55    1.27    1.08     .93     .82     .74     .67     .61
      450.          18.97    4.79    2.82    2.00    1.56    1.27    1.08     .93     .82     .74     .67     .61
      700.          17.24    4.83    2.83    2.00    1.56    1.27    1.07     .93     .82     .73     .66     .61
     1000.          15.84    4.88    2.83    2.01    1.55    1.27    1.07     .93     .82     .73     .66     .60
     1500.          14.17    4.63    2.76    1.97    1.53    1.26    1.06     .92     .81     .73     .66     .60
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2150.	12.69	4.41	2.69	1.94	1.52	1.25	1.06	.92	.81	.73	.66	.60
3000.	11.31	4.23	2.62	1.91	1.50	1.23	1.05	.91	.81	.72	.66	.60
4500.	9.64	4.00	2.54	1.87	1.48	1.22	1.04	.91	.81	.72	.66	.60
6500.	8.38	3.73	2.41	1.78	1.42	1.18	1.00	.88	.78	.70	.63	.58
10000.	7.02	3.38	2.22	1.66	1.33	1.10	.95	.83	.74	.66	.60	.55
15000.	5.93	3.11	2.07	1.55	1.24	1.04	.89	.78	.69	.62	.57	.52
20000.	5.15	2.92	1.96	1.48	1.19	.99	.85	.75	.66	.60	.54	.50

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BOUNDARY COORDINATES FOR CPNPP

X	352.8	330.1	309.2	294.8	305.6	288.8	298.1	296.6	308.6	318.8
Y	439.5	425.4	374.5	331.2	266.6	244.3	211.3	200.4	181.5	185.0
X	322.0	356.2	365.0	366.5	386.2	392.3	377.5	398.6	380.8	385.9
Y	180.9	177.0	179.7	181.0	198.6	228.2	249.8	273.8	307.0	320.9
X	375.5	379.9	370.4	371.4	365.4	356.5	349.5	354.0	353.1	356.4
Y	358.8	370.7	385.5	393.1	396.8	395.5	405.4	411.9	420.9	429.5
X	352.8									
Y	441.2									

SCALE = .0583 MILES PER COORDINATE UNIT

BASIN AREA = 64.1 SQ. MI.

BASIN CENTROID COORDINATES, X = 342.0, Y = 290.5

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VARYING STORM AREA SIZE AND FIXED ORIENTATION

STORM AREA	ORIEN-TATION	BASIN-AVERAGED INCREMENTAL DEPTHS FOR 6-HR PERIODS												SUM OF DEPTHS FOR 3 PEAK 6-HR PERIODS
10.	181.	19.32	3.52	1.96	1.36	1.04	.85	.71	.62	.54	.48	.44	.40	24.80
25.	181.	23.03	4.50	2.56	1.79	1.38	1.12	.95	.82	.72	.64	.58	.53	30.09
50.	181.	24.95	4.95	2.82	1.99	1.53	1.25	1.05	.91	.80	.72	.65	.59	32.72
100.	181.	24.93	5.01	2.87	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61	32.81
175.	181.	24.50	4.95	2.84	2.00	1.56	1.28	1.08	.94	.83	.74	.67	.61	32.29
300.	181.	23.76	5.05	2.86	2.00	1.55	1.27	1.08	.93	.82	.74	.67	.61	31.67
450.	181.	23.05	5.16	2.88	2.00	1.56	1.27	1.08	.93	.82	.74	.67	.61	31.09
700.	181.	22.30	5.29	2.90	2.00	1.56	1.27	1.07	.93	.82	.73	.66	.61	30.49
1000.	181.	21.73	5.41	2.92	2.01	1.55	1.27	1.07	.93	.82	.73	.66	.60	30.06
1500.	181.	21.10	5.20	2.85	1.97	1.53	1.26	1.06	.92	.81	.73	.66	.60	29.15
2150.	181.	20.49	5.02	2.79	1.94	1.52	1.25	1.06	.92	.81	.73	.66	.60	28.30
3000.	181.	19.77	4.87	2.74	1.91	1.50	1.23	1.05	.91	.81	.72	.66	.60	27.38
4500.	181.	18.67	4.66	2.66	1.87	1.48	1.22	1.04	.91	.81	.72	.66	.60	25.99
6500.	181.	17.86	4.40	2.53	1.78	1.42	1.18	1.00	.88	.78	.70	.63	.58	24.79
10000.	181.	16.74	4.04	2.35	1.66	1.33	1.10	.95	.83	.74	.66	.60	.55	23.13
15000.	181.	15.72	3.77	2.20	1.55	1.24	1.04	.89	.78	.69	.62	.57	.52	21.69
20000.	181.	14.67	3.57	2.09	1.48	1.19	.99	.85	.75	.66	.60	.54	.50	20.32

FIXED STORM AREA SIZE AND VARYING ORIENTATION

STORM AREA	ORIEN-TATION	BASIN-AVERAGED INCREMENTAL DEPTHS FOR 6-HR PERIODS												SUM OF DEPTHS FOR 3 PEAK 6-HR PERIODS
100.	140.	23.10	4.76	2.75	1.94	1.50	1.23	1.04	.90	.79	.71	.64	.58	30.61
100.	150.	23.77	4.86	2.80	1.97	1.53	1.25	1.05	.91	.80	.72	.65	.59	31.43
100.	160.	24.38	4.94	2.84	2.00	1.55	1.26	1.07	.93	.82	.73	.66	.60	32.16
100.	170.	24.80	4.99	2.86	2.02	1.56	1.28	1.08	.93	.82	.74	.67	.61	32.65
100.	180.	24.93	5.01	2.87	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61	32.81
100.	190.	24.82	5.00	2.86	2.02	1.56	1.28	1.08	.93	.82	.74	.67	.61	32.68
100.	200.	24.41	4.95	2.84	2.00	1.55	1.27	1.07	.93	.82	.73	.66	.60	32.19
100.	210.	23.84	4.87	2.80	1.98	1.53	1.25	1.06	.91	.81	.72	.65	.60	31.51
100.	220.	23.14	4.77	2.75	1.94	1.51	1.23	1.04	.90	.79	.71	.64	.59	30.66
100.	230.	22.47	4.66	2.70	1.91	1.48	1.21	1.02	.88	.78	.70	.63	.57	29.84
100.	240.	21.90	4.58	2.66	1.88	1.45	1.19	1.00	.87	.77	.69	.62	.57	29.14
100.	250.	21.47	4.51	2.62	1.85	1.44	1.17	.99	.86	.76	.68	.61	.56	28.61
100.	260.	21.21	4.47	2.60	1.84	1.42	1.16	.98	.85	.75	.67	.61	.55	28.28
100.	270.	21.13	4.45	2.60	1.83	1.42	1.16	.98	.85	.75	.67	.61	.55	28.18
100.	280.	21.22	4.47	2.60	1.84	1.42	1.16	.98	.85	.75	.67	.61	.55	28.29
100.	290.	21.48	4.51	2.62	1.85	1.44	1.17	.99	.86	.76	.68	.61	.56	28.61
100.	300.	21.90	4.58	2.66	1.88	1.45	1.19	1.00	.87	.77	.68	.62	.57	29.14
100.	310.	22.47	4.66	2.70	1.91	1.48	1.21	1.02	.88	.78	.70	.63	.57	29.83
100.	176.	24.91	5.01	2.87	2.02	1.56	1.28	1.08	.93	.82	.74	.67	.61	32.79
100.	186.	24.92	5.01	2.87	2.02	1.57	1.28	1.08	.93	.82	.74	.67	.61	32.80

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PROBABLE MAXIMUM STORM FOR CPNPP

STORM AREA = 100. SQ. MI., ORIENTATION = 181., PREFERRED ORIENTATION = 215.

STORM CENTER COORDINATES, X = 337.0, Y = 280.0

ISOHYET	AREA (SQ.MI.)	AREA WITHIN BASIN (SQ.MI.)	DEPTHS (INCHES) FOR 6-HOUR INCREMENTS OF PMS 1	2	3	4	5	6	7	8	9	10	11	12
A	10.	10.	27.20	5.31	2.92	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
B	25.	25.	25.50	5.06	2.88	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
C	50.	48.	23.80	4.87	2.84	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
D	100.	64.	21.86	4.67	2.82	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61
E	175.	64.	16.52	3.88	2.33	1.65	1.28	1.04	.88	.76	.67	.60	.54	.50
F	300.	64.	13.36	3.19	1.94	1.37	1.07	.87	.73	.64	.56	.50	.45	.41
G	450.	64.	10.69	2.70	1.69	1.19	.92	.75	.64	.55	.49	.44	.39	.36
H	700.	64.	8.50	2.31	1.40	.99	.77	.63	.53	.46	.40	.36	.33	.30
I	1000.	64.	6.80	1.89	1.20	.85	.66	.54	.45	.39	.35	.31	.28	.26
J	1500.	64.	5.10	1.52	1.01	.72	.56	.45	.38	.33	.29	.26	.24	.22
K	2150.	64.	3.89	1.18	.80	.57	.44	.36	.30	.26	.23	.21	.19	.17
L	3000.	64.	2.67	.84	.57	.40	.31	.26	.22	.19	.16	.15	.13	.12
M	4500.	64.	1.46	.44	.33	.23	.18	.15	.12	.11	.09	.08	.08	.07
N	6500.	64.	.24	.05	.03	.02	.02	.01	.01	.01	.01	.01	.01	.01
O	10000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
P	15000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Q	25000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

R 40000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
S 60000.	64.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AVERAGE DEPTH		24.93	5.01	2.87	2.02	1.57	1.28	1.08	.94	.82	.74	.67	.61

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TIME INTERVAL = 60. MINUTES
1-HR TO 6-HR RATIO FOR ISOHYET A AT 20000 SQ. MI. = .308

DEPTH VS. DURATION

ISOHYET	5MIN	10MIN	15MIN	30MIN	1-HR	2-HR	3-HR	6-HR	12-HR	18-HR	24-HR	30-HR	36-HR	42-HR	48-HR	54-HR	60-HR	66-HR	72-HR
A	1.42	2.85	4.25	8.19	13.27	17.46	20.85	27.20	32.51	35.43	37.45	39.02	40.30	41.38	42.32	43.14	43.88	44.55	45.15
B	1.33	2.66	3.97	7.65	12.41	16.33	19.52	25.50	30.56	33.44	35.46	37.03	38.31	39.39	40.32	41.15	41.89	42.55	43.16
C	1.24	2.48	3.70	7.12	11.54	15.21	18.19	23.80	28.67	31.50	33.53	35.09	36.37	37.45	38.39	39.21	39.95	40.62	41.23
D	1.13	2.26	3.38	6.51	10.56	13.93	16.66	21.86	26.53	29.34	31.37	32.93	34.21	35.29	36.23	37.05	37.79	38.46	39.07
E	.29	.59	.88	1.76	3.52	6.94	10.11	16.52	20.40	22.73	24.37	25.65	26.69	27.57	28.34	29.01	29.61	30.15	30.65
F	.24	.47	.71	1.42	2.84	5.61	8.16	13.36	16.55	18.50	19.87	20.94	21.80	22.54	23.18	23.74	24.24	24.69	25.11
G	.19	.38	.57	1.13	2.27	4.46	6.50	10.69	13.39	15.08	16.27	17.19	17.95	18.58	19.14	19.62	20.06	20.45	20.81
H	.15	.30	.45	.90	1.79	3.53	5.14	8.50	10.81	12.21	13.20	13.97	14.60	15.12	15.58	15.99	16.35	16.68	16.97
I	.12	.24	.36	.72	1.43	2.82	4.11	6.80	8.69	9.89	10.74	11.40	11.94	12.39	12.78	13.13	13.44	13.72	13.98
J	.09	.18	.27	.54	1.07	2.10	3.06	5.10	6.62	7.64	8.36	8.91	9.37	9.75	10.08	10.37	10.64	10.87	11.09
K	.07	.14	.20	.41	.81	1.60	2.33	3.89	5.07	5.87	6.43	6.87	7.23	7.53	7.79	8.02	8.23	8.42	8.59
L	.05	.09	.14	.28	.56	1.10	1.60	2.67	3.51	4.08	4.48	4.80	5.05	5.27	5.46	5.62	5.77	5.90	6.02
M	.03	.05	.08	.15	.30	.60	.87	1.46	1.90	2.23	2.46	2.64	2.79	2.91	3.02	3.11	3.20	3.28	3.35
N	.00	.01	.01	.03	.05	.10	.15	.24	.29	.32	.34	.36	.37	.38	.39	.40	.41	.41	.42
O	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
P	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Q	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
R	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
S	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AVERAGE	1.30	2.60	3.88	7.47	12.11	15.95	19.07	24.93	29.95	32.81	34.83	36.40	37.68	38.76	39.69	40.52	41.25	41.92	42.53

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PROBABLE MAXIMUM STORM FOR CPNPP

DAY 1

TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL
0100	.10	.10	0700	.12	.73	1300	.16	1.50	1900	.21	2.49
0200	.10	.20	0800	.12	.85	1400	.16	1.66	2000	.21	2.71
0300	.10	.30	0900	.12	.98	1500	.16	1.81	2100	.21	2.92
0400	.10	.41	1000	.12	1.10	1600	.16	1.97	2200	.21	3.13
0500	.10	.51	1100	.12	1.22	1700	.16	2.13	2300	.21	3.35
0600	.10	.61	1200	.12	1.35	1800	.16	2.28	2400	.21	3.56
6-HR TOTAL	.61			.74			.94			1.28	

DAY 2

TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL
0100	.30	3.86	0700	.63	6.21	1300	1.51	12.10	1900	.58	36.11
0200	.31	4.17	0800	.69	6.90	1400	2.33	14.43	2000	.53	36.63
0300	.32	4.49	0900	.76	7.66	1500	3.84	18.27	2100	.49	37.12
0400	.34	4.84	1000	.86	8.52	1600	12.11	30.38	2200	.45	37.57
0500	.36	5.20	1100	.97	9.49	1700	3.12	33.50	2300	.42	37.99
0600	.38	5.58	1200	1.10	10.59	1800	2.03	35.53	2400	.40	38.39
6-HR TOTAL	2.02			5.01			24.93			2.87	

DAY 3

TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL	TIME	PRECIPITATION INCR	PRECIPITATION TOTAL
0100	.26	38.65	0700	.18	40.14	1300	.14	41.18	1900	.11	41.97
0200	.26	38.92	0800	.18	40.32	1400	.14	41.31	2000	.11	42.09
0300	.26	39.18	0900	.18	40.50	1500	.14	41.45	2100	.11	42.20
0400	.26	39.44	1000	.18	40.68	1600	.14	41.59	2200	.11	42.31
0500	.26	39.70	1100	.18	40.86	1700	.14	41.73	2300	.11	42.42
0600	.26	39.96	1200	.18	41.04	1800	.14	41.86	2400	.11	42.53
6-HR TOTAL	1.57			1.08			.82			.67	

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