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* FLOOD HYDROGRAPH PACKAGE (HEC-1)
* JUN 1998
* VERSION 4.1
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* RUN DATE 02OCT14 TIME 15:12:14
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*
* U.S. ARMY CORPS OF ENGINEERS
* HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET
* DAVIS, CALIFORNIA 95616
* (916) 756-1104
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THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

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

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LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
*** FREE ***
1 ID MILLTOWN DAM D15-146 July 18, 2014
2 ID
3 ID CHECK SPILLWAY ADEQUACY
4 ID TOP OF DAM ELEVATION REVISED TO 420.3 BASED ON 1995 POST CONSTRUCTION PL
5 ID
6 ID
7 IT 5 0 0 300
8 IO 5
9 JR FLOW 0.5 0.14
10 KK AREA1
11 BA 2.67
12 PM 27 1 0 0 100 115.5 127.8
13 LS 0 74
14 UD 0.77

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15	KK	TLDAM								
16	KM	TOP OF DAM ELEVATION REVISED TO 420.3 BASED ON 1995 POST CONSTRUCTION PLANS								
17	RS	1	ELEV	414						
18	SV	0	12	61	174	361	597	1150	2000	
19	SE	390	395	400	405	410	414	420	425	
20	SS	414	50	3.8	1.5					
21	ST	420.3	480	2.8	1.5					
22	KK	AREA2								
23	KM	ADDITIONAL DRAINAGE AREA TO MILLTOWN DAM								
24	BA	3.67								
25	LS	0	80							
26	UD	1.62								
27	KK	COMB								
28	HC	2								
29	KK	MTDAM								
30	RS	1	ELEV	344						
31	SA	0	12.3	19.7	31.1	43.1	52.5	60.3	68.0	
32	SE	332	344	346	348	350	352	354	356	
33	SS	344	69	3.8	1.5					
34	ST	349.1	225	2.7	1.5					
35	ZZ									

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MILLTOWN DAM D15-146 July 18, 2014

CHECK SPILLWAY ADEQUACY  
TOP OF DAM ELEVATION REVISED TO 420.3 BASED ON 1995 POST CONSTRUCTION PL

8 IO OUTPUT CONTROL VARIABLES

IPRNT	5	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE

IT            HYDROGRAPH TIME DATA

NMIN	5	MINUTES IN COMPUTATION INTERVAL
IDATE	1 0	STARTING DATE
ITIME	0000	STARTING TIME
NQ	300	NUMBER OF HYDROGRAPH ORDINATES
NDDATE	2 0	ENDING DATE
NDTIME	0055	ENDING TIME
ICENT	19	CENTURY MARK

  

COMPUTATION INTERVAL	.08 HOURS
TOTAL TIME BASE	24.92 HOURS

ENGLISH UNITS

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

JP            MULTI-PLAN OPTION

NPLAN	1	NUMBER OF PLANS
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JR            MULTI-RATIO OPTION

RATIOS OF RUNOFF	
.50	.14

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PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS  
 FLOWS IN CUBIC FEET PER SECOND, AREA IN SQUARE MILES  
 TIME TO PEAK IN HOURS

OPERATION	STATION	AREA	PLAN		RATIOS APPLIED TO FLOWS	
					RATIO 1	RATIO 2
					.50	.14
HYDROGRAPH AT						
+	AREA1	2.67	1	FLOW	7971.	2232.
				TIME	16.33	16.33
ROUTED TO						
+	TLDAM	2.67	1	FLOW	5077.	1037.
				TIME	17.00	17.58
				** PEAK STAGES IN FEET **		
			1	STAGE	421.29	417.10
				TIME	17.00	17.58

HYDROGRAPH AT

+	AREA2	3.67	1	FLOW	7667.	2147.
				TIME	17.17	17.17

2 COMBINED AT

+	COMB	6.34	1	FLOW	12706.	3169.
				TIME	17.08	17.25

ROUTED TO

+	MTDAM	6.34	1	FLOW	12442.	2991.
				TIME	17.33	17.75

\*\* PEAK STAGES IN FEET \*\*

1	STAGE	353.23	349.07
	TIME	17.33	17.75

1 SUMMARY OF DAM OVERTOPPING/BREACH ANALYSIS FOR STATION TLDAM  
(PEAKS SHOWN ARE FOR INTERNAL TIME STEP USED DURING BREACH FORMATION)

PLAN 1 .....

	INITIAL VALUE	SPILLWAY CREST	TOP OF DAM
ELEVATION	414.00	414.00	420.30
STORAGE	597.	597.	1201.
OUTFLOW	0.	0.	3004.

RATIO OF PMF	MAXIMUM RESERVOIR W.S.ELEV	MAXIMUM DEPTH OVER DAM	MAXIMUM STORAGE AC-FT	MAXIMUM OUTFLOW CFS	DURATION OVER TOP HOURS	TIME OF MAX OUTFLOW HOURS	TIME OF FAILURE HOURS
.50	421.29	.99	1370.	5077.	2.83	17.00	.00
.14	417.10	.00	883.	1037.	.00	17.58	.00

1 SUMMARY OF DAM OVERTOPPING/BREACH ANALYSIS FOR STATION MTDAM  
(PEAKS SHOWN ARE FOR INTERNAL TIME STEP USED DURING BREACH FORMATION)

PLAN 1 .....

	INITIAL VALUE	SPILLWAY CREST	TOP OF DAM
ELEVATION	344.00	344.00	349.10
STORAGE	49.	49.	169.
OUTFLOW	0.	0.	3020.

RATIO OF PMF	MAXIMUM RESERVOIR W.S.ELEV	MAXIMUM DEPTH OVER DAM	MAXIMUM STORAGE AC-FT	MAXIMUM OUTFLOW CFS	DURATION OVER TOP HOURS	TIME OF MAX OUTFLOW HOURS	TIME OF FAILURE HOURS
.50	353.23	4.13	368.	12442.	6.42	17.33	.00
.14	349.07	.00	168.	2991.	.00	17.75	.00

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