Closure Completion Notification for Closure by Removal

January 15, 2025
Closure Completion Notification
Mitchell Plant
Bottom Ash Pond

On December 24, 2024, the Mitchell Plant Bottom Ash Pond was transitioned to closure status in accordance with 40 CFR 257.102. This notice of completion of closure is being placed in the operating record in accordance with 40 CFR 257.102(h).

Effective with the Closure Completion Notification, the former ash storage site is no longer a CCR unit. The following operating record documents are no longer required going forward:

- Hazard Potential Classification
- Emergency Action Plan (EAP)
- Face to Face Meeting Documentation for EAP
- History of Construction and Revisions for Surface Impoundments
- Structural Stability Assessments
- Safety Factor Assessments
- Fugitive Dust Plan
- Inflow Design Flood System Control Plan

CLOSURE CERTIFICATION BY QUALIFIED PROFESSIONAL ENGINEER

I certify that the AEP Mitchell Bottom Ash Pond has been closed in accordance with the most recent written closure plan specified by 40 CFR 257.102(b) and the requirements of 40 CFR 257.102.

David Anthony Miller

Printed Name of Licensed Professional Engineer

Signature

22663	West Virginia	01.15.2025
License Number	Licensing State	Date

March 8, 2023
Document Number: APO087.0003

VERDANTAS CERTIFICATION

Based on the construction observations performed by Verdantas representatives, I hereby certify that the Bottom Ash Pond West Basin at the Mitchell Plant in Moundsville, West Virginia, as shown on the record drawing located in Appendix C, has achieved removal of all CCR material and soil with constituent concentrations above relevant background standards (i.e., closed by removal) in substantial compliance with the Construction Quality Assurance (CQA) Plan for Pond Closure and Repurposing, the Construction Drawings for the CCR/ELG closure by removal project, Bottom Ash Pond Closure and Repurposing Contract as provided by Worley (December 3, 2021) and as per 40 CFR 257.102, and as clarified herein. The groundwater monitoring and compliance aspect of CCR Unit closure by removal criteria, as found at 40 CFR 257.102(c), will be certified under a separate report. The Contractor (R.B. Jergens) obtained the survey data used to develop the record drawing. R.B. Jergens verified that the elevations met the closure requirements, and Verdantas also reviewed the survey data.

Chris Goddard
Quality Assurance Officer/CQA Manager

Allen J. Smith Jr., PE
Certifying Engineer
WV PE# 020463

3/9/2023

April 4, 2024
Document Number: APO087.0006

VERDANTAS CERTIFICATION

Based on the construction observations with associated photographic records, testing performed by Verdantas representatives in the field and documented in this report, I hereby certify to the best of my knowledge and to the extent of available information that the East Wastewater Pond at the Mitchell Plant in Moundsville, West Virginia, as shown on the record drawing located in Appendix B, has achieved removal of all CCR material and one foot (minimum) of underlying native soil in substantial compliance with the Construction Quality Assurance (CQA) Plan for Pond Closure and Repurposing, the Construction Drawings for the CCR/ELG Project, the Bottom Ash Pond Closure and Repurposing Contract as provided by Worley (December 3, 2021), per 40 CFR 257.102 and as clarified herein. The groundwater monitoring and compliance aspect of CCR Unit closure by removal criteria, as found at 40 CFR 257.102(c), will be certified under a separate report. This certification is strictly limited to CQA observations and associated field testing and does not include an engineering analysis of previously approved and permitted engineering designs or subsequent approved design/field changes. The Contractor (R.B. Jergens) obtained the survey data used to develop the attached record drawing. R.B. Jergens verified that the elevations met the construction requirements, and Verdantas also reviewed the survey data.

Chris Goddard
Quality Assurance Officer/CQA Manager

Allen J. Smith Jr., PE
Certifying Engineer
WV PE# 020463

4/4/2024

INFLOW DESIGN FLOOD CONTROL SYSTEM PLAN
PERIODIC 5-YEAR REVIEW

CFR 257.82

Bottom Ash Pond Complex

Mitchell Power Plant
Marshall County, West Virginia

October, 2021

Prepared for: Wheeling Power Company & Kentucky Power Company

Prepared by: American Electric Power Service Corporation

1 Riverside Plaza

Columbus, OH 43215

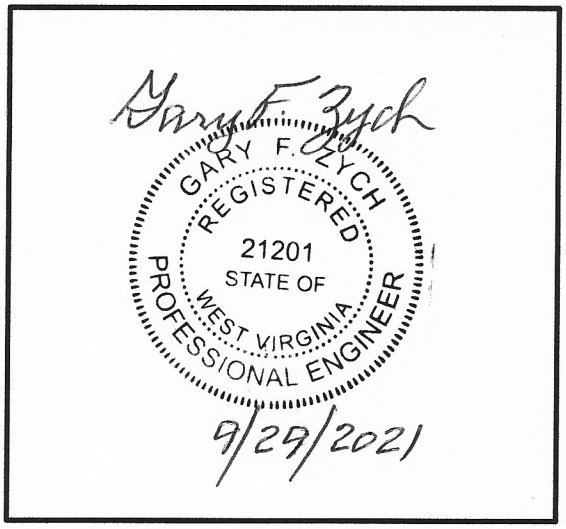
GERS-21-038

INFLOW DESIGN FLOOD CONTROL SYSTEM PLAN
PERIODIC 5-YEAR REVIEW
CFR 257.82
MITCHELL POWER PLANT
BOTTOM ASH POND COMPLEX

PREPARED BY _____ DATE 9/21/2021
Mohammad Ajlouni Ph.D., P.E.

REVIEWED BY Dan Murphy DATE 9/28/2021
Dan Murphy, P.E

APPROVED BY Gary F. Zych DATE 9/29/2021
Gary F. Zych, P.E.
Manager – AEP Geotechnical Engineering



I certify to the best of my knowledge, information, and belief that the information contained in this Inflow Design Flood Control System Plan meets the requirements of 40 CFR § 257.82.

Table of Contents

Attachments

Attachment A – Hydraulic Analysis of Mitchell Power Plant Bottom Ash Pond Complex

1.0 OBJECTIVE

This report was prepared by AEP- Geotechnical Engineering Services (GES) section to fulfill requirements of CFR 257.82(c) for the hydrologic and hydraulic evaluation of CCR surface impoundments. This report is a summary of the periodic 5-year review of the initial evaluation.

2.0 DESCRIPTIONS OF CCR IMPOUNDMENT

The Mitchell Bottom Ash Pond Complex is located at the Mitchell Power Plant in Marshall County, West Virginia. The impoundment was constructed in 1977 and is comprised of a Bottom Ash Pond and a Clear Water Pond. The purpose of the pond is for the disposal of Bottom Ash produced at the Mitchell Power Plant.

The complex is surrounded by the Mitchell Power Plant on its north side, West Virginia State Route 2 on its east side, the adjacent wallboard facility and ancillary structures on its south side, and the metal cleaning tank, railroad tracks, and the Ohio River on its west side. The Bottom Ash Pond Complex is approximately 17 acres in size and consists of two impounding facilities, the Bottom Ash Pond which is approximately 10 acres, and the Clear Water Pond which is approximately 7 acres. The Bottom Ash Pond comprises the north portion of the complex and the Clear Water Pond comprises the southern portion. The Mitchell Bottom Ash Pond Complex is regulated by the West Virginia Division of Water and Waste Management (WVDWWM) as a Hazard Class "2" Structure.

3.0 DESCRIPTION OF DESIGN FLOOD

The Bottom Ash Pond Complex has been determined to be a Significant Hazard potential CCR impoundment. Based on this hazard classification the design flood is determined by section 257.82(a)(3) to be the 1000-year storm which corresponds to 7.10 inches in 24 hours for this site. An analysis was performed which demonstrates the Bottom Ash Pond Complex can safely pass the 1/2 PMP (Probable Maximum Precipitation), which is equivalent to 13.45 inches in 6 hours and therefore exceeds the requirements of section 257.82(a)(3). The PMP values were determined from the National Weather Service HMR 51 for a 6 hour storm over a 10-sq. mile basin. The complete analysis is included in Attachment A.

4.0 DESCRIPTION OF INFLOW DESIGN FLOOD CONTROL SYSTEM

The Bottom Ash Pond Complex is a raised dike structure with no offsite contributing drainage area. As runoff enters the Bottom Ash Pond is conveyed to the Clear Water Pond via a concrete overflow shaft and a 30-inch diameter reinforced concrete pipe to a 30-inch diameter perforated distribution pipe in the Clear Water Pond. Runoff entering the Clear Water Pond is conveyed through an overflow tower into a 36-inch diameter reinforced concrete pipe through the embankment and then a series of 36-inch diameter corrugated metal pipes which discharge into a riprap-lined channel leading to the Ohio River.

5.0 SUMMARY OF INFLOWS, OUTFLOWS AND FLOOD ELEVATIONS

The following table provides the maximum inflows, outflows and flood elevations for the Bottom Ash Pond and Clear Water Pond. See the analysis include in Attachment A for detailed calculations.

	Bottom Ash Pond	**Clear Water Pond**
Storm Event	1/2 PMP	1/2 PMP
Peak Inflow	111.08 cfs	71.44 cfs
Peak Outflow	23.83 cfs	44.76 cfs
Maximum Pool Elevation	683.51 ft	666.50 ft
Crest Elevation	690 ft	675 ft

There has not been any changes to spillway system, flood storage capacity or rainfall estimates that would change the results presented in Attachment A. The calculations show that the facility has the capacity to manage the inflow design flood, as well as larger flood events.

ATTACHMENT A

HYDROLOGY AND HYDRAULICS ANALYSIS

AEP AMERICAN ELECTRIC POWER

We power life's possibilities

CCR RULES ASSESSMENT AND CERTIFICATION
MITCHELL PLANT BOTTOM ASH COMPLEX
KENTUCKY POWER COMPANY
AEP SERVICE CORPORATION

PREPARED BY:
GEO/ENVIRONMENTAL ASSOCIATES, INC.
A SCHNABEL ENGINEERING COMPANY
KNOXVILLE, TENNESSEE

PROJECT NUMBER 15055013.00
DECEMBER 22, 2015

GA

TABLE OF CONTENTS

APPENDICES

CCR RULES ASSESSMENT AND CERTIFICATION
MITCHELL POWER PLANT BOTTOM ASH COMPLEX
KENTUCKY POWER COMPANY
MARSHALL COUNTY, WEST VIRGINIA
DECEMBER 22, 2015

INTRODUCTION

Geo/Environmental Associates, Inc. (GA) has performed a site inspection, conducted an engineering assessment, and prepared a certification statement for the Mitchell Power Plant Bottom Ash Complex. These services were performed to meet specific requirements set forth in the Environmental Protection Agency's CCR Rules.[1] Provided in this report is a discussion of GA's findings and a certification statement pertaining to the facility. Field and laboratory data, engineering analyses, and a drawing are included in the appendices.

SITE DESCRIPTION

General

The Mitchell Bottom Ash Complex is equally owned by American Electric Power Generation Resources, Inc. and Kentucky Power Company (KPC) and it is operated by KPC to provide disposal capacity for bottom ash generated at the Mitchell Power Plant. AEPSC, based in Columbus, Ohio, provides engineering support for the Bottom Ash Complex. The Mitchell Bottom Ash Complex is located near Cresap in Marshall County, West Virginia at approximately latitude 39° 49' 30" and longitude 80° 48' 56".

The complex is surrounded by: (1) the Mitchell Power Plant on its north side, (2) West Virginia State Route 2 on its east side, (3) the adjacent wallboard facility and ancillary structures on its south side, and (4) the metal cleaning tank, railroad tracks, and the Ohio River on its west side. As shown on drawing sheet 1 in Appendix IV, the Mitchell Bottom Ash Complex consists of two impounding facilities: (1) the Bottom Ash Pond and (2) the Clear Water Pond. The Bottom Ash Pond comprises the north portion of the complex and the Clear Water Pond comprises the southern portion. The Mitchell Bottom Ash Complex is regulated by the West Virginia Division of Water and Waste Management (WVDWWM) as a Hazard Class "2" structure.

The Bottom Ash Pond is separated into ponding areas in its western and northeastern portions. In general, bottom ash is sluiced into the northeastern portion of the pond; where after, the sluice water is routed through an interior splitter dike to the western portion of the pond. Flow through the western portion of the pond is routed around three interior flow diversion dikes. The southeastern portion of the Bottom Ash Pond is above the normal operating pool (pond) level

(1) Environmental Protection Agency, 40 CFR Parts 257 and 261, "Hazardous and Solid Waste Management System; Disposal of Coal combustion Residuals from Electric Utilities; Final Rule," April 17, 2015

and is used as an excavation and loadout area for bottom ash. The Bottom Ash Pond was constructed partially as an incised pond and partially using raised dike construction. Specifically, the pool level on the east side of the pond is generally below the bottom elevation of the east dike (i.e., it is incised). The inside slopes of the Bottom Ash Pond are lined with a composite soil and PVC liner. The southern dike separates the Bottom Ash Pond and Clear Water Pond.

Overflow from the western portion of the Bottom Ash Pond is conveyed to the Clear Water Pond via a concrete overflow shaft and a 30-inch diameter reinforced concrete pipe to a 30-inch diameter perforated distribution pipe in the Clear Water Pond. The Clear Water Pond was constructed using both incised pond and diked pond construction methods. In general, the pool levels along the southern and eastern sides of the Clear Water Pond are primarily incised. Similar to the Bottom Ash Pond, the inside slopes of the Clear Water Pond are lined with a composite soil and PVC liner. Overflow from the Clear Water Pond is conveyed through an overflow tower into a 36-inch diameter reinforced concrete pipe through the embankment and then a series of 36-inch diameter corrugated metal pipes which discharge into a riprap-lined channel leading to the Ohio River.

Approximate Existing Conditions

A summary of the approximate existing conditions for the Mitchell Bottom Ash Complex is provided in List 1. A site plan view of the facility is included in Appendix IV.

LIST 1
SUMMARY OF APPROXIMATE EXISTING CONDITIONS
FOR MITCHELL BOTTOM ASH COMPLEX

Bottom Ash Pond Crest Elevation	690 feet, NAVD
Bottom Ash Pond Normal Operating Pool Level	681 feet, NAVD
Bottom Ash Pond Design Storm Level (1)	682.98 feet, NAVD
Bottom Ash Pond Bottom Level	660 feet, NAVD
Clear Water Pond Crest Elevation	675 feet, NAVD
Clear Water Pond Normal Operating Pool Level	664 feet, NAVD
Clear Water Pond Design Storm Level (2)	665.62 feet, NAVD
Clear Water Pond Bottom Level	645 feet, NAVD

Notes:

(1) The Bottom Ash Pond maximum design storm level is based on a normal operating pool elevation of 681 feet, NAVD and a pool increase of 1.98 feet during the 1/2 PMP 6-hour storm event.

(2) The Clear Water Pond maximum design storm level is based on a normal operating pool elevation of 664 feet, NAVD and a pool increase of 1.62 feet during the 1/2 PMP 6-hour storm event.

SITE INSPECTION

At the request of AEPSC, GA personnel performed a site inspection of the Bottom Ash Complex to observe and document the prevalent site conditions. Specifically, Seth W. Frank, P.E. (GA) performed a site inspection of the Bottom Ash Complex on July 14, 2015. It is GA's opinion that the Bottom Ash Complex is in good condition. Moreover, GA believes that the conditions observed, during the July 14, 2015, site inspection, are representative of the conditions modeled in the assessments and analyses provided in this report.

FIELD, LABORATORY, AND INSTRUMENTATION DATA

For reference, pertinent field and laboratory data for the Bottom Ash Complex is provided in Appendix I. The field and laboratory data were gathered during a subsurface investigation coordinated by GA in 2009. The field data includes detailed borehole logs and results of in-situ testing (i.e., standard penetration testing). Laboratory data provided in Appendix I includes: (1) grain size distributions, (2) Atterberg limits test results, (3) unconfined compressive strength test results, and (4) triaxial compressive strength test results.

AEP monitors four standpipe piezometers, at the Bottom Ash Complex facility, monthly. Results of instrumentation monitoring are collected and summarized in annual inspection reports.

Locations of the site boreholes/piezometers are shown on the Site Plan View drawing in Appendix IV.

HYDRAULICS AND HYDROLOGY

Flood routing analyses were developed for the existing conditions at the Bottom Ash Complex using the *HEC-1* computer program, developed by the U.S. Army Corps of Engineers. Flood routing parameters and the *HEC-1* output are provided in Appendix II. In accordance with the 40 CFR Parts 257 and 261 (CCR Rules), the flood routing analyses were performed using the 1/2 PMP 6-hour storm event. A summary of the flood routing results is provided in Table 1.

TABLE 1
SUMMARY OF FLOOD ROUTING ANALYSES
FOR EXISTING CONDITIONS

Pond	Crest Elevation (ft, NAVD)	Design Storm	Principal Spillway/Overflow Structure Invert Elevation/Pool at Start of storm (ft, NAVD)	Peak Inflow (cfs)	Peak Outflow (cfs)	Peak Stage (ft, NAVD)	Minimum Freeboard (ft)
Bottom Ash	690'	1/2 PMP6-hour	681'	111.08	23.83	683.51	6.49
Clearwater	675'	1/2 PMP6-hour	664'	71.44	44.76	666.50	8.50

As shown in Table 1, the as-built Bottom Ash Pond and Clearwater Pond are capable of storing/routing the 1/2 PMP 6-hour storm event, while providing at least 3 feet of freeboard for the minimum embankment crest elevations of 690 feet, NAVD and 675 feet, NAVD respectively. Note that the storm routing analyses assume a constant, peak inflow of 7.5 million gallons per day from plant processes, in addition to the storm runoff.

SLOPE STABILITY ANALYSES

General

The computer program *SLOPE/W*, developed by GEO-SLOPE International, Ltd., was used to perform slope stability analyses on two critical embankment profiles for the as-built Bottom Ash Complex. Specifically, the Morgenstern-Price limit equilibrium method was applied in the slope stability analyses. The slope stability analyses were conducted for the as-built Bottom Ash Complex Profiles SP1-SP1 and SP2-SP2. Locations of the critical profiles are shown on the

CERTIFICATION STATEMENT

Based on the site inspections, review of construction monitoring and periodic inspection data, the results of the field and laboratory testing of the materials used in the embankment construction, and our review of the as-built embankment geometry; it is our opinion that the embankments within the Bottom Ash Complex have slope stability factors of safety that meet or exceed the requirements in the CCR Rules. Furthermore, based on our review of the as-built embankment geometries, current operating pool levels, and the existing spillway and overflow system; we believe that the facility is capable of storing/routing the runoff from the 1/2 PMP 6-hour storm event.

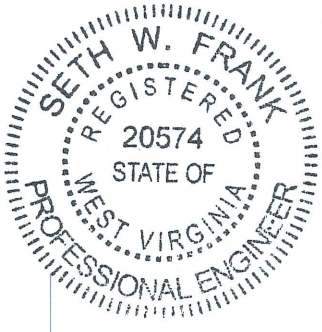
Accordingly, I hereby certify that the Bottom Ash Complex is generally maintained in good condition and the facility generally meets the stability requirements in the CCR Rules. It should be clearly noted that this certification is not a legal guarantee. This certification is merely a statement by a registered professional engineer that, to the best of his knowledge, the facility was generally constructed according to the approved plan and that it meets the applicable stability requirements set forth in the CCR Rules. No warranties, expressed or implied, are provided. If you have any questions regarding the information provided, please contact me at 865-584-0344.

Seth W. Frank

12-22-2015

Seth W. Frank, P.E.
West Virginia R.P.E. No. 20574

Date



GA

Appendix II

Hydraulics and Hydrology

Bottom Ash Pond

SUMMARY OF INFLOW HYDROGRAPH
AND FLOOD ROUTING THROUGH
MITCHELL BOTTOM ASH POND
FOR ½ 6-HOUR PMP STORM EVENT

Starting Pool Elevation	=	681 ft, NAVD
Pipe Spillway Invert Elevation	=	681 ft, NAVD
Crest Elevation	=	690 ft, NAVD
Peak Inflow	=	111.08 cfs
Peak Outflow	=	23.83 cfs
Peak Storage	=	10.75 ac-ft
Maximum Impoundment Level During Storm	=	683.51 ft, NAVD
Minimum Freeboard During Storm	=	6.49 ft

```
1*****************************************
 *                                       *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
 *            SEPTEMBER 1990             *
 *             VERSION 4.0               *
 *                                       *
 *  RUN DATE  12/21/2015  TIME  10:40:34 *
 *                                       *
 *****************************************
```

```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 756-1104              *
*                                       *
*****************************************
```

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

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

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

 *** FREE ***
              1          ID  ********************************************************************************
              2          ID  *      Mitchell Bottom Ash Pond       File: MBAP.inp                          *
              3          ID  *      GA Project No. 15055007.00                                             *
              4          ID  *      Storm Storage for 1/2 6-Hour PMP                                       *
              5          ID  *      Crest Elevation = 690'                                                 *
              6          ID  ********************************************************************************
              7          ID  *      Analyses by: Geo/Environmental Associates, Inc.                        *
              8          ID  *                   Knoxville, TN                                             *
              9          ID  *                   Seth W. Frank P.E.                                        *
             10          ID  *                   August 2014                                               *
             11          ID  ********************************************************************************
             12          IT       5       0       0     300
             13          IO       1
             14          JR  PRECIP     0.5
             15          VS   BASIN    BASE      IN     IMP     IMP     IMP
             16          VV    2.11    2.11    2.11    2.11    6.11    7.11
             17          IN      15

             18          KK   BASIN
             19          KM   COMPUTE INFLOW HYDROGRAPH FOR MITCHELL BOTTOM ASH POND USING SCS METHOD
             20          PB       0
             21          PI   0.258   0.347   0.420   0.478   0.520   0.546   0.624   0.804   0.790   0.939
             22          PI   2.264   4.483   4.834   3.277   1.215   0.797   0.831   0.735   0.553   0.535
             23          PI   0.501   0.451   0.386   0.305
             24          BA   0.016
             25          LU       0    0.05    44.8
             26          UD     0.0

             27          KK    BASE
             28          KM   BASE FLOW
             29          IN     360
             30          QI    11.6    11.6    11.6

             31          KK      IN
             32          KM   COMBINE BASIN INFLOW AND BASEFLOW
             33          KO       1
             34          HC       2

             35          KK     IMP
             36          KM   ROUTE COMPUTED HYDROGRAPH AND BASE FLOW THROUGH CLEAR WATER POND
             37          RS       1    ELEV     681
             38          SA    4.03    4.18    4.45    4.72    6.27    7.81    8.03    8.26    8.48    8.71
             39          SQ       0    6.90   17.82   29.62   40.80   50.31   57.32   61.12   61.12   61.12
             40          SE     681     682     683     684     685     686     687     688     689     690
             41          ZZ
```

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1*****************************************                                  *****************************************
 *                                       *                                  *                                       *
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 *            SEPTEMBER 1990             *                                  *    HYDROLOGIC ENGINEERING CENTER      *
 *             VERSION 4.0               *                                  *          609 SECOND STREET            *
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 *  RUN DATE  12/21/2015  TIME  10:40:34 *                                  *           (916) 756-1104              *
 *                                       *                                  *                                       *
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                        *      Mitchell Bottom Ash Pond       File: MBAP.inp                      *
                        *      GA Project No. 15055007.00                                         *
                        *      Storm Storage for 1/2 6-Hour PMP                                   *
                        *      Crest Elevation = 690'                                             *
                        ***************************************************************************
                        *      Analyses by: Geo/Environmental Associates, Inc.                    *
                        *                   Knoxville, TN                                         *
                        *                   Seth W. Frank P.E.                                    *
                        *                   August 2014                                           *
                        ***************************************************************************

  13 IO          OUTPUT CONTROL VARIABLES
                      IPRNT           1  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

                 USER-DEFINED OUTPUT SPECIFICATIONS

         TABLE 1
     VS       STATION     BASIN      BASE        IN       IMP       IMP       IMP
     VV VARIABLE CODE      2.11      2.11      2.11      2.11      6.11      7.11       .00       .00       .00       .00

     JP          MULTI-PLAN OPTION
                       NPLAN           1  NUMBER OF PLANS

     JR          MULTI-RATIO OPTION
                     RATIOS OF PRECIPITATION
                     .50


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


            **************
            *            *
  18 KK     *     BASIN  *
            *            *
            **************
                         COMPUTE INFLOW HYDROGRAPH FOR MITCHELL BOTTOM ASH POND USING SCS METHOD

  17 IN          TIME DATA FOR INPUT TIME SERIES
                      JXMIN          15  TIME INTERVAL IN MINUTES
                     JXDATE      1    0  STARTING DATE
                     JXTIME           0  STARTING TIME
```

SUBBASIN RUNOFF DATA

24 BA SUBBASIN CHARACTERISTICS
TAREA .02 SUBBASIN AREA

PRECIPITATION DATA

20 PB STORM 26.89 BASIN TOTAL PRECIPITATION

21 PI INCREMENTAL PRECIPITATION PATTERN

.09	.09	.09	.12	.12	.12	.14	.14	.14	.16
.16	.16	.17	.17	.17	.18	.18	.18	.21	.21
.21	.27	.27	.27	.26	.26	.26	.31	.31	.31
.75	.75	.75	1.49	1.49	1.49	1.61	1.61	1.61	1.09
1.09	1.09	.41	.40	.41	.27	.27	.27	.28	.28
.28	.25	.24	.25	.18	.18	.18	.18	.18	.18
.17	.17	.17	.15	.15	.15	.13	.13	.13	.10
.10	.10								

25 LU UNIFORM LOSS RATE
STRTL .00 INITIAL LOSS
CNSTL .05 UNIFORM LOSS RATE
RTIMP 44.80 PERCENT IMPERVIOUS AREA

26 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .00 LAG

***

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 24.	4.58		21.	15.	14.	14.
		(INCHES)	6.212	17.047	17.093	17.093
		(AC-FT)	11.	29.	29.	29.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.92-HR
+ (AC-FT)	(HR)				
11.	4.58	10.	7.	7.	7.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.92-HR
+ (FEET)	(HR)				
683.51	4.58	683.30	682.70	682.64	682.64

CUMULATIVE AREA = .03 SQ MI

1

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 PRECIPITATION RATIO 1
					.50
HYDROGRAPH AT					
+	BASIN	.02	1	FLOW	99.
				TIME	3.25
HYDROGRAPH AT					
+	BASE	.02	1	FLOW	12.
				TIME	.08
2 COMBINED AT					
+	IN	.03	1	FLOW	111.
				TIME	3.25
ROUTED TO					
+	IMP	.03	1	FLOW	24.
				TIME	4.58

** PEAK STAGES IN FEET **

1	STAGE	683.51
	TIME	4.58

1TABLE 1 STATION

		BASIN FLOW	BASE FLOW	IN FLOW	IMP FLOW	IMP STORAGE	IMP STAGE
	PLAN	1	1	1	1	1	1
	RATIO	.50	.50	.50	.50	.50	.50
PER	DAY MON HRMN						
1	1 0000	.00	11.60	11.60	.00	.00	681.00
2	1 0005	3.75	11.60	15.35	.16	.09	681.02
3	1 0010	4.80	11.60	16.40	.34	.20	681.05
4	1 0015	5.00	11.60	16.60	.52	.31	681.08
5	1 0020	6.41	11.60	18.01	.72	.43	681.10
6	1 0025	6.79	11.60	18.39	.92	.55	681.13
7	1 0030	6.87	11.60	18.47	1.12	.67	681.16
8	1 0035	8.00	11.60	19.60	1.32	.79	681.19
9	1 0040	8.31	11.60	19.91	1.54	.91	681.22
10	1 0045	8.38	11.60	19.98	1.75	1.04	681.25
11	1 0050	9.28	11.60	20.88	1.96	1.17	681.28
12	1 0055	9.53	11.60	21.13	2.18	1.30	681.32
13	1 0100	9.58	11.60	21.18	2.40	1.43	681.35
14	1 0105	10.23	11.60	21.83	2.62	1.56	681.38
15	1 0110	10.41	11.60	22.01	2.84	1.69	681.41
16	1 0115	10.45	11.60	22.05	3.06	1.82	681.44
17	1 0120	10.85	11.60	22.45	3.28	1.95	681.48
18	1 0125	10.96	11.60	22.56	3.51	2.09	681.51
19	1 0130	10.99	11.60	22.59	3.73	2.22	681.54
20	1 0135	12.19	11.60	23.79	3.95	2.35	681.57
21	1 0140	12.52	11.60	24.12	4.18	2.49	681.61
22	1 0145	12.59	11.60	24.19	4.41	2.62	681.64
23	1 0150	15.36	11.60	26.96	4.65	2.77	681.67
24	1 0155	16.14	11.60	27.74	4.91	2.92	681.71
25	1 0200	16.29	11.60	27.89	5.18	3.08	681.75
26	1 0205	16.10	11.60	27.70	5.44	3.24	681.79
27	1 0210	16.04	11.60	27.64	5.69	3.39	681.83
28	1 0215	16.03	11.60	27.63	5.95	3.54	681.86
29	1 0220	18.32	11.60	29.92	6.21	3.69	681.90
30	1 0225	18.96	11.60	30.56	6.49	3.86	681.94
31	1 0230	19.08	11.60	30.68	6.76	4.02	681.98
32	1 0235	39.43	11.60	51.03	7.28	4.26	682.04
33	1 0240	45.13	11.60	56.73	8.09	4.57	682.11
34	1 0245	46.24	11.60	57.84	8.94	4.91	682.19
35	1 0250	80.51	11.60	92.11	10.08	5.36	682.29
36	1 0255	90.04	11.60	101.64	11.58	5.95	682.43
37	1 0300	91.92	11.60	103.52	13.15	6.58	682.57
38	1 0305	97.68	11.60	109.28	14.77	7.21	682.72
39	1 0310	99.18	11.60	110.78	16.41	7.86	682.87
40	1 0315	99.48	11.60	111.08	18.05	8.51	683.02
41	1 0320	75.65	11.60	87.25	19.47	9.06	683.14
42	1 0325	68.96	11.60	80.56	20.61	9.50	683.24
43	1 0330	67.65	11.60	79.25	21.65	9.91	683.32
44	1 0335	35.75	11.60	47.35	22.38	10.19	683.39
45	1 0340	26.89	11.60	38.49	22.74	10.33	683.42
46	1 0345	25.15	11.60	36.75	23.00	10.43	683.44
47	1 0350	18.39	11.60	29.99	23.18	10.50	683.45
48	1 0355	16.60	11.60	28.20	23.29	10.54	683.46
49	1 0400	16.24	11.60	27.84	23.37	10.58	683.47
50	1 0405	16.70	11.60	28.30	23.45	10.61	683.48

1TABLE 1 (CONT.) STATION

PLAN 1

RATIO .50

PER	DAY	MON	HRMN	BASIN FLOW	BASE FLOW	IN FLOW	IMP FLOW	IMP STORAGE	IMP STAGE	
				1	1	1	1	1	1	
				.50	.50	.50	.50	.50	.50	
51	1		0410	16.84	11.60	28.44	23.54	10.64	683.48	
52	1		0415	16.87	11.60	28.47	23.63	10.68	683.49	
53	1		0420	15.40	11.60	27.00	23.70	10.70	683.50	
54	1		0425	14.99	11.60	26.59	23.75	10.72	683.50	
55	1		0430	14.91	11.60	26.51	23.80	10.74	683.51	
56	1		0435	12.10	11.60	23.70	23.83	**10.75**	**683.51**	**Maximum impoundment stage/storage**
57	1		0440	11.32	11.60	22.92	23.82	10.75	683.51	
58	1		0445	11.17	11.60	22.77	23.80	10.74	683.51	
59	1		0450	10.86	11.60	22.46	23.78	10.73	683.51	
60	1		0455	10.78	11.60	22.38	23.75	10.72	683.50	
61	1		0500	10.77	11.60	22.37	23.73	10.72	683.50	
62	1		0505	10.24	11.60	21.84	23.70	10.70	683.50	
63	1		0510	10.10	11.60	21.70	23.67	10.69	683.50	
64	1		0515	10.07	11.60	21.67	23.63	10.68	683.49	
65	1		0520	9.29	11.60	20.89	23.59	10.66	683.49	
66	1		0525	9.08	11.60	20.68	23.54	10.64	683.48	
67	1		0530	9.04	11.60	20.64	23.49	10.62	683.48	
68	1		0535	8.03	11.60	19.63	23.43	10.60	683.48	
69	1		0540	7.75	11.60	19.35	23.36	10.57	683.47	
70	1		0545	7.70	11.60	19.30	23.29	10.55	683.46	
71	1		0550	6.44	11.60	18.04	23.21	10.51	683.46	
72	1		0555	6.10	11.60	17.70	23.12	10.48	683.45	
73	1		0600	6.03	11.60	17.63	23.02	10.44	683.44	
74	1		0605	1.55	11.60	13.15	22.89	10.39	683.43	
75	1		0610	.29	11.60	11.89	22.71	10.32	683.41	
76	1		0615	.05	11.60	11.65	22.51	10.24	683.40	
77	1		0620	.00	11.60	11.60	22.32	10.17	683.38	
78	1		0625	.00	11.60	11.60	22.13	10.09	683.37	
79	1		0630	.00	11.60	11.60	21.95	10.02	683.35	
80	1		0635	.00	11.60	11.60	21.77	9.95	683.33	
81	1		0640	.00	11.60	11.60	21.59	9.88	683.32	
82	1		0645	.00	11.60	11.60	21.41	9.81	683.30	
83	1		0650	.00	11.60	11.60	21.24	9.75	683.29	
84	1		0655	.00	11.60	11.60	21.07	9.68	683.28	
85	1		0700	.00	11.60	11.60	20.90	9.62	683.26	
86	1		0705	.00	11.60	11.60	20.74	9.55	683.25	
87	1		0710	.00	11.60	11.60	20.58	9.49	683.23	
88	1		0715	.00	11.60	11.60	20.42	9.43	683.22	
89	1		0720	.00	11.60	11.60	20.27	9.37	683.21	
90	1		0725	.00	11.60	11.60	20.11	9.31	683.19	
91	1		0730	.00	11.60	11.60	19.97	9.25	683.18	
92	1		0735	.00	11.60	11.60	19.82	9.20	683.17	
93	1		0740	.00	11.60	11.60	19.67	9.14	683.16	
94	1		0745	.00	11.60	11.60	19.53	9.08	683.15	
95	1		0750	.00	11.60	11.60	19.39	9.03	683.13	
96	1		0755	.00	11.60	11.60	19.26	8.98	683.12	
97	1		0800	.00	11.60	11.60	19.12	8.92	683.11	
98	1		0805	.00	11.60	11.60	18.99	8.87	683.10	
99	1		0810	.00	11.60	11.60	18.86	8.82	683.09	
100	1		0815	.00	11.60	11.60	18.73	8.77	683.08	

1TABLE 1 (CONT.)

STATION	BASIN FLOW	BASE FLOW	IN FLOW	IMP FLOW	IMP STORAGE	IMP STAGE
PLAN	1	1	1	1	1	1
RATIO	.50	.50	.50	.50	.50	.50

PER	DAY	MON	HRMN					
101	1		0820	.00	11.60	11.60	18.61	8.72	683.07
102	1		0825	.00	11.60	11.60	18.48	8.68	683.06
103	1		0830	.00	11.60	11.60	18.36	8.63	683.05
104	1		0835	.00	11.60	11.60	18.24	8.58	683.04
105	1		0840	.00	11.60	11.60	18.13	8.54	683.03
106	1		0845	.00	11.60	11.60	18.01	8.49	683.02
107	1		0850	.00	11.60	11.60	17.90	8.45	683.01
108	1		0855	.00	11.60	11.60	17.79	8.41	683.00
109	1		0900	.00	11.60	11.60	17.68	8.36	682.99
110	1		0905	.00	11.60	11.60	17.58	8.32	682.98
111	1		0910	.00	11.60	11.60	17.47	8.28	682.97
112	1		0915	.00	11.60	11.60	17.37	8.24	682.96
113	1		0920	.00	11.60	11.60	17.27	8.20	682.95
114	1		0925	.00	11.60	11.60	17.17	8.16	682.94
115	1		0930	.00	11.60	11.60	17.08	8.13	682.93
116	1		0935	.00	11.60	11.60	16.98	8.09	682.92
117	1		0940	.00	11.60	11.60	16.89	8.05	682.91
118	1		0945	.00	11.60	11.60	16.80	8.02	682.91
119	1		0950	.00	11.60	11.60	16.71	7.98	682.90
120	1		0955	.00	11.60	11.60	16.62	7.95	682.89
121	1		1000	.00	11.60	11.60	16.53	7.91	682.88
122	1		1005	.00	11.60	11.60	16.45	7.88	682.87
123	1		1010	.00	11.60	11.60	16.37	7.84	682.87
124	1		1015	.00	11.60	11.60	16.28	7.81	682.86
125	1		1020	.00	11.60	11.60	16.20	7.78	682.85
126	1		1025	.00	11.60	11.60	16.12	7.75	682.84
127	1		1030	.00	11.60	11.60	16.04	7.72	682.84
128	1		1035	.00	11.60	11.60	15.97	7.69	682.83
129	1		1040	.00	11.60	11.60	15.89	7.66	682.82
130	1		1045	.00	11.60	11.60	15.82	7.63	682.82
131	1		1050	.00	11.60	11.60	15.74	7.60	682.81
132	1		1055	.00	11.60	11.60	15.67	7.57	682.80
133	1		1100	.00	11.60	11.60	15.60	7.54	682.80
134	1		1105	.00	11.60	11.60	15.53	7.52	682.79
135	1		1110	.00	11.60	11.60	15.47	7.49	682.78
136	1		1115	.00	11.60	11.60	15.40	7.46	682.78
137	1		1120	.00	11.60	11.60	15.33	7.44	682.77
138	1		1125	.00	11.60	11.60	15.27	7.41	682.77
139	1		1130	.00	11.60	11.60	15.21	7.39	682.76
140	1		1135	.00	11.60	11.60	15.14	7.36	682.75
141	1		1140	.00	11.60	11.60	15.08	7.34	682.75
142	1		1145	.00	11.60	11.60	15.02	7.31	682.74
143	1		1150	.00	11.60	11.60	14.96	7.29	682.74
144	1		1155	.00	11.60	11.60	14.90	7.27	682.73
145	1		1200	.00	11.60	11.60	14.85	7.24	682.73
146	1		1205	.00	11.60	11.60	14.79	7.22	682.72
147	1		1210	.00	11.60	11.60	14.74	7.20	682.72
148	1		1215	.00	11.60	11.60	14.68	7.18	682.71
149	1		1220	.00	11.60	11.60	14.63	7.16	682.71
150	1		1225	.00	11.60	11.60	14.58	7.14	682.70

1TABLE 1 (CONT.)	STATION	BASIN FLOW	BASE FLOW	IN FLOW	IMP FLOW	IMP STORAGE	IMP STAGE
	PLAN	1	1	1	1	1	1
	RATIO	.50	.50	.50	.50	.50	.50
PER	DAY MON HRMN						
151	1 1230	.00	11.60	11.60	14.52	7.12	682.70
152	1 1235	.00	11.60	11.60	14.47	7.10	682.69
153	1 1240	.00	11.60	11.60	14.42	7.08	682.69
154	1 1245	.00	11.60	11.60	14.38	7.06	682.68
155	1 1250	.00	11.60	11.60	14.33	7.04	682.68
156	1 1255	.00	11.60	11.60	14.28	7.02	682.68
157	1 1300	.00	11.60	11.60	14.23	7.00	682.67
158	1 1305	.00	11.60	11.60	14.19	6.98	682.67
159	1 1310	.00	11.60	11.60	14.14	6.97	682.66
160	1 1315	.00	11.60	11.60	14.10	6.95	682.66
161	1 1320	.00	11.60	11.60	14.06	6.93	682.66
162	1 1325	.00	11.60	11.60	14.01	6.92	682.65
163	1 1330	.00	11.60	11.60	13.97	6.90	682.65
164	1 1335	.00	11.60	11.60	13.93	6.88	682.64
165	1 1340	.00	11.60	11.60	13.89	6.87	682.64
166	1 1345	.00	11.60	11.60	13.85	6.85	682.64
167	1 1350	.00	11.60	11.60	13.81	6.84	682.63
168	1 1355	.00	11.60	11.60	13.77	6.82	682.63
169	1 1400	.00	11.60	11.60	13.74	6.81	682.63
170	1 1405	.00	11.60	11.60	13.70	6.79	682.62
171	1 1410	.00	11.60	11.60	13.66	6.78	682.62
172	1 1415	.00	11.60	11.60	13.63	6.76	682.62
173	1 1420	.00	11.60	11.60	13.59	6.75	682.61
174	1 1425	.00	11.60	11.60	13.56	6.74	682.61
175	1 1430	.00	11.60	11.60	13.52	6.72	682.61
176	1 1435	.00	11.60	11.60	13.49	6.71	682.60
177	1 1440	.00	11.60	11.60	13.46	6.70	682.60
178	1 1445	.00	11.60	11.60	13.43	6.68	682.60
179	1 1450	.00	11.60	11.60	13.40	6.67	682.59
180	1 1455	.00	11.60	11.60	13.36	6.66	682.59
181	1 1500	.00	11.60	11.60	13.33	6.65	682.59
182	1 1505	.00	11.60	11.60	13.30	6.63	682.59
183	1 1510	.00	11.60	11.60	13.27	6.62	682.58
184	1 1515	.00	11.60	11.60	13.25	6.61	682.58
185	1 1520	.00	11.60	11.60	13.22	6.60	682.58
186	1 1525	.00	11.60	11.60	13.19	6.59	682.58
187	1 1530	.00	11.60	11.60	13.16	6.58	682.57
188	1 1535	.00	11.60	11.60	13.13	6.57	682.57
189	1 1540	.00	11.60	11.60	13.11	6.56	682.57
190	1 1545	.00	11.60	11.60	13.08	6.55	682.57
191	1 1550	.00	11.60	11.60	13.06	6.54	682.56
192	1 1555	.00	11.60	11.60	13.03	6.53	682.56
193	1 1600	.00	11.60	11.60	13.01	6.52	682.56
194	1 1605	.00	11.60	11.60	12.98	6.51	682.56
195	1 1610	.00	11.60	11.60	12.96	6.50	682.55
196	1 1615	.00	11.60	11.60	12.93	6.49	682.55
197	1 1620	.00	11.60	11.60	12.91	6.48	682.55
198	1 1625	.00	11.60	11.60	12.89	6.47	682.55
199	1 1630	.00	11.60	11.60	12.87	6.46	682.55
200	1 1635	.00	11.60	11.60	12.84	6.45	682.54

1TABLE 1 (CONT.)

STATION	BASIN FLOW	BASE FLOW	IN FLOW	IMP FLOW	IMP STORAGE	IMP STAGE
PLAN	1	1	1	1	1	1
RATIO	.50	.50	.50	.50	.50	.50

PER	DAY	MON	HRMN						
201	1		1640	.00	11.60	11.60	12.82	6.44	682.54
202	1		1645	.00	11.60	11.60	12.80	6.44	682.54
203	1		1650	.00	11.60	11.60	12.78	6.43	682.54
204	1		1655	.00	11.60	11.60	12.76	6.42	682.54
205	1		1700	.00	11.60	11.60	12.74	6.41	682.53
206	1		1705	.00	11.60	11.60	12.72	6.40	682.53
207	1		1710	.00	11.60	11.60	12.70	6.40	682.53
208	1		1715	.00	11.60	11.60	12.68	6.39	682.53
209	1		1720	.00	11.60	11.60	12.66	6.38	682.53
210	1		1725	.00	11.60	11.60	12.65	6.37	682.53
211	1		1730	.00	11.60	11.60	12.63	6.37	682.52
212	1		1735	.00	11.60	11.60	12.61	6.36	682.52
213	1		1740	.00	11.60	11.60	12.59	6.35	682.52
214	1		1745	.00	11.60	11.60	12.58	6.35	682.52
215	1		1750	.00	11.60	11.60	12.56	6.34	682.52
216	1		1755	.00	11.60	11.60	12.54	6.33	682.52
217	1		1800	.00	11.60	11.60	12.53	6.33	682.52
218	1		1805	.00	11.60	11.60	12.51	6.32	682.51
219	1		1810	.00	11.60	11.60	12.49	6.31	682.51
220	1		1815	.00	11.60	11.60	12.48	6.31	682.51
221	1		1820	.00	11.60	11.60	12.46	6.30	682.51
222	1		1825	.00	11.60	11.60	12.45	6.30	682.51
223	1		1830	.00	11.60	11.60	12.43	6.29	682.51
224	1		1835	.00	11.60	11.60	12.42	6.29	682.51
225	1		1840	.00	11.60	11.60	12.41	6.28	682.50
226	1		1845	.00	11.60	11.60	12.39	6.27	682.50
227	1		1850	.00	11.60	11.60	12.38	6.27	682.50
228	1		1855	.00	11.60	11.60	12.36	6.26	682.50
229	1		1900	.00	11.60	11.60	12.35	6.26	682.50
230	1		1905	.00	11.60	11.60	12.34	6.25	682.50
231	1		1910	.00	11.60	11.60	12.33	6.25	682.50
232	1		1915	.00	11.60	11.60	12.31	6.24	682.50
233	1		1920	.00	11.60	11.60	12.30	6.24	682.49
234	1		1925	.00	11.60	11.60	12.29	6.23	682.49
235	1		1930	.00	11.60	11.60	12.28	6.23	682.49
236	1		1935	.00	11.60	11.60	12.26	6.22	682.49
237	1		1940	.00	11.60	11.60	12.25	6.22	682.49
238	1		1945	.00	11.60	11.60	12.24	6.22	682.49
239	1		1950	.00	11.60	11.60	12.23	6.21	682.49
240	1		1955	.00	11.60	11.60	12.22	6.21	682.49
241	1		2000	.00	11.60	11.60	12.21	6.20	682.49
242	1		2005	.00	11.60	11.60	12.20	6.20	682.49
243	1		2010	.00	11.60	11.60	12.19	6.19	682.48
244	1		2015	.00	11.60	11.60	12.18	6.19	682.48
245	1		2020	.00	11.60	11.60	12.17	6.19	682.48
246	1		2025	.00	11.60	11.60	12.16	6.18	682.48
247	1		2030	.00	11.60	11.60	12.15	6.18	682.48
248	1		2035	.00	11.60	11.60	12.14	6.17	682.48
249	1		2040	.00	11.60	11.60	12.13	6.17	682.48
250	1		2045	.00	11.60	11.60	12.12	6.17	682.48

1TABLE 1 (CONT.)	STATION	BASIN FLOW	BASE FLOW	IN FLOW	IMP FLOW	IMP STORAGE	IMP STAGE
	PLAN	1	1	1	1	1	1
	RATIO	.50	.50	.50	.50	.50	.50
PER	DAY MON HRMN						
251	1 2050	.00	11.60	11.60	12.11	6.16	682.48
252	1 2055	.00	11.60	11.60	12.10	6.16	682.48
253	1 2100	.00	11.60	11.60	12.09	6.16	682.48
254	1 2105	.00	11.60	11.60	12.09	6.15	682.47
255	1 2110	.00	11.60	11.60	12.08	6.15	682.47
256	1 2115	.00	11.60	11.60	12.07	6.15	682.47
257	1 2120	.00	11.60	11.60	12.06	6.14	682.47
258	1 2125	.00	11.60	11.60	12.05	6.14	682.47
259	1 2130	.00	11.60	11.60	12.05	6.14	682.47
260	1 2135	.00	11.60	11.60	12.04	6.13	682.47
261	1 2140	.00	11.60	11.60	12.03	6.13	682.47
262	1 2145	.00	11.60	11.60	12.02	6.13	682.47
263	1 2150	.00	11.60	11.60	12.02	6.13	682.47
264	1 2155	.00	11.60	11.60	12.01	6.12	682.47
265	1 2200	.00	11.60	11.60	12.00	6.12	682.47
266	1 2205	.00	11.60	11.60	11.99	6.12	682.47
267	1 2210	.00	11.60	11.60	11.99	6.11	682.47
268	1 2215	.00	11.60	11.60	11.98	6.11	682.47
269	1 2220	.00	11.60	11.60	11.97	6.11	682.46
270	1 2225	.00	11.60	11.60	11.97	6.11	682.46
271	1 2230	.00	11.60	11.60	11.96	6.10	682.46
272	1 2235	.00	11.60	11.60	11.95	6.10	682.46
273	1 2240	.00	11.60	11.60	11.95	6.10	682.46
274	1 2245	.00	11.60	11.60	11.94	6.10	682.46
275	1 2250	.00	11.60	11.60	11.94	6.09	682.46
276	1 2255	.00	11.60	11.60	11.93	6.09	682.46
277	1 2300	.00	11.60	11.60	11.93	6.09	682.46
278	1 2305	.00	11.60	11.60	11.92	6.09	682.46
279	1 2310	.00	11.60	11.60	11.91	6.09	682.46
280	1 2315	.00	11.60	11.60	11.91	6.08	682.46
281	1 2320	.00	11.60	11.60	11.90	6.08	682.46
282	1 2325	.00	11.60	11.60	11.90	6.08	682.46
283	1 2330	.00	11.60	11.60	11.89	6.08	682.46
284	1 2335	.00	11.60	11.60	11.89	6.08	682.46
285	1 2340	.00	11.60	11.60	11.88	6.07	682.46
286	1 2345	.00	11.60	11.60	11.88	6.07	682.46
287	1 2350	.00	11.60	11.60	11.87	6.07	682.46
288	1 2355	.00	11.60	11.60	11.87	6.07	682.46
289	2 0000	.00	11.60	11.60	11.86	6.07	682.45
290	2 0005	.00	11.60	11.60	11.86	6.06	682.45
291	2 0010	.00	11.60	11.60	11.85	6.06	682.45
292	2 0015	.00	11.60	11.60	11.85	6.06	682.45
293	2 0020	.00	11.60	11.60	11.85	6.06	682.45
294	2 0025	.00	11.60	11.60	11.84	6.06	682.45
295	2 0030	.00	11.60	11.60	11.84	6.06	682.45
296	2 0035	.00	11.60	11.60	11.83	6.05	682.45
297	2 0040	.00	11.60	11.60	11.83	6.05	682.45
298	2 0045	.00	11.60	11.60	11.83	6.05	682.45
299	2 0050	.00	11.60	11.60	11.82	6.05	682.45
300	2 0055	.00	11.60	11.60	11.82	6.05	682.45
	MAX	99.48	11.60	111.08	23.83	10.75	683.51
	MIN	.00	11.60	11.60	.00	.00	681.00
	AVE	5.49	11.60	17.09	14.14	6.88	682.64

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

Clear Water Pond

SUMMARY OF INFLOW HYDROGRAPH
AND FLOOD ROUTING THROUGH
MITCHELL CLEAR WATER POND
FOR ½ 6-HOUR PMP STORM EVENT

Starting Pool Elevation	=	664 ft, NAVD
Pipe Spillway Invert Elevation	=	664 ft, NAVD
Crest Elevation	=	675 ft, NAVD
Peak Inflow	=	71.44 cfs
Peak Outflow	=	44.76 cfs
Peak Storage	=	5.65 ac-ft
Maximum Impoundment Level During Storm	=	666.50 ft, NAVD
Minimum Freeboard During Storm	=	8.50 ft

```
1*****************************************
 *                                       *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
 *            SEPTEMBER 1990             *
 *             VERSION 4.0               *
 *                                       *
 *  RUN DATE  12/21/2015  TIME  11:05:16 *
 *                                       *
 *****************************************
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*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 756-1104              *
*                                       *
*****************************************
```

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

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

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

 *** FREE ***
              1     ID  ********************************************************************************
              2     ID  *      Mitchell Clear Water Pond       File: MCWP.inp                          *
              3     ID  *      GA Project No. 01-269BA                                                 *
              4     ID  *      Storm Routing for 1/2 6-Hour PMP                                        *
              5     ID  *      Crest Elevation = 675'                                                  *
              6     ID  ********************************************************************************
              7     ID  *      Analyses by: Geo/Environmental Associates, Inc.                         *
              8     ID  *                   Knoxville, TN                                              *
              9     ID  *                   Seth W. Frank P.E.                                         *
             10     ID  *                   August 2014                                                *
             11     ID  ********************************************************************************
             12     IT     15       0       0     300
             13     IO      1
             14     JR  PRECIP     0.5
             15     VS   BASIN    BASE      IN     IMP     IMP     IMP
             16     VV    2.11    2.11    2.11    2.11    6.11    7.11
             17     IN      15

             18     KK   BASIN
             19     KM   COMPUTE INFLOW HYDROGRAPH FOR MITCHELL CLEAR WATER POND USING SCS METHOD
             20     PB       0
             21     PI   0.258   0.347   0.420   0.478   0.520   0.546   0.624   0.804   0.790   0.939
             22     PI   2.264   4.483   4.834   3.277   1.215   0.797   0.831   0.735   0.553   0.535
             23     PI   0.501   0.451   0.386   0.305
             24     BA   0.008
             25     LU       0    0.05    45.5
             26     UD     0.0

             27     KK    BASE
             28     KM   BASE FLOW
             29     IN     360
             30     QI   23.83   23.83   23.83

             31     KK      IN
             32     KM   COMBINE BASIN INFLOW AND BASEFLOW
             33     KO       1
             34     HC       2

             35     KK     IMP
             36     KM   ROUTE COMPUTED HYDROGRAPH AND BASE FLOW THROUGH CLEAR WATER POND
             37     RS       1    ELEV     664
             38     SA    2.18    2.24    2.30    2.38    2.45    2.56    2.67    2.79    2.91    3.03
             39     SA    3.15    3.30
             40     SQ       0   12.15   32.67    56.9   68.98   71.79   74.50   77.12   79.65   82.10
             41     SQ   84.48   86.79
             42     SE     664     665     666     667     668     669     670     671     672     673
             43     SE     674     675
             44     ZZ
```

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1*****************************************                                  *****************************************
 *                                       *                                  *                                       *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                                  *    U.S. ARMY CORPS OF ENGINEERS       *
 *            SEPTEMBER 1990             *                                  *    HYDROLOGIC ENGINEERING CENTER      *
 *             VERSION 4.0               *                                  *          609 SECOND STREET            *
 *                                       *                                  *       DAVIS, CALIFORNIA 95616         *
 *  RUN DATE  12/21/2015  TIME  11:05:16 *                                  *           (916) 756-1104              *
 *                                       *                                  *                                       *
 *****************************************                                  *****************************************

                        ********************************************************************************
                        *      Mitchell Clear Water Pond       File: MCWP.inp                          *
                        *      GA Project No. 01-269BA                                                 *
                        *      Storm Routing for 1/2 6-Hour PMP                                        *
                        *      Crest Elevation = 675'                                                  *
                        ********************************************************************************
                        *      Analyses by: Geo/Environmental Associates, Inc.                         *
                        *                   Knoxville, TN                                              *
                        *                   Seth W. Frank P.E.                                         *
                        *                   August 2014                                                *
                        ********************************************************************************

  13 IO          OUTPUT CONTROL VARIABLES
                      IPRNT           1  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE

     IT          HYDROGRAPH TIME DATA
                       NMIN          15  MINUTES IN COMPUTATION INTERVAL
                      IDATE      1    0  STARTING DATE
                      ITIME        0000  STARTING TIME
                         NQ         300  NUMBER OF HYDROGRAPH ORDINATES
                     NDDATE      4    0  ENDING DATE
                     NDTIME        0245  ENDING TIME
                      ICENT          19  CENTURY MARK

                    COMPUTATION INTERVAL     .25 HOURS
                         TOTAL TIME BASE   74.75 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

                 USER-DEFINED OUTPUT SPECIFICATIONS

         TABLE 1
     VS       STATION     BASIN      BASE        IN       IMP       IMP       IMP
     VV VARIABLE CODE      2.11      2.11      2.11      2.11      6.11      7.11       .00       .00       .00       .00

     JP          MULTI-PLAN OPTION
                       NPLAN           1  NUMBER OF PLANS

     JR          MULTI-RATIO OPTION
                     RATIOS OF PRECIPITATION
                     .50


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


            **************
            *              *
  18 KK     *     BASIN    *
            *              *
            **************
                         COMPUTE INFLOW HYDROGRAPH FOR MITCHELL CLEAR WATER POND USING SCS METHOD

  17 IN          TIME DATA FOR INPUT TIME SERIES
                       JXMIN          15  TIME INTERVAL IN MINUTES
                      JXDATE      1    0  STARTING DATE
                      JXTIME           0  STARTING TIME
```

SUBBASIN RUNOFF DATA

24 BA SUBBASIN CHARACTERISTICS
TAREA .01 SUBBASIN AREA

PRECIPITATION DATA

20 PB STORM 26.89 BASIN TOTAL PRECIPITATION

21 PI INCREMENTAL PRECIPITATION PATTERN

.26	.35	.42	.48	.52	.55	.62	.80	.79	.94
2.26	4.48	4.83	3.28	1.22	.80	.83	.74	.55	.53
.50	.45	.39	.31						

25 LU UNIFORM LOSS RATE
STRTL .00 INITIAL LOSS
CNSTL .05 UNIFORM LOSS RATE
RTIMP 45.50 PERCENT IMPERVIOUS AREA

26 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .00 LAG

***

W

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	74.75-HR
+ (CFS)	(HR)					
		(CFS)				
+ 45.	3.75		33.	26.	25.	24.
		(INCHES)	19.054	60.757	171.538	175.055
		(AC-FT)	16.	52.	146.	149.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	74.75-HR
+ (AC-FT)	(HR)				
6.	3.75	4.	4.	4.	4.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	74.75-HR
+ (FEET)	(HR)				
666.50	3.75	665.99	665.68	665.60	665.58

CUMULATIVE AREA = .02 SQ MI

1

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 PRECIPITATION RATIO 1
					.50
HYDROGRAPH AT					
+	BASIN	.01	1	FLOW	48.
				TIME	3.25
HYDROGRAPH AT					
+	BASE	.01	1	FLOW	24.
				TIME	.25
2 COMBINED AT					
+	IN	.02	1	FLOW	71.
				TIME	3.25
ROUTED TO					
+	IMP	.02	1	FLOW	45.
				TIME	3.75

** PEAK STAGES IN FEET **

1	STAGE	666.50
	TIME	3.75

1TABLE 1 STATION

PLAN 1

RATIO .50

PER	DAY	MON	HRMN	BASIN FLOW	BASE FLOW	IN FLOW	IMP FLOW	IMP STORAGE	IMP STAGE	
				1	1	1	1	1	1	
				.50	.50	.50	.50	.50	.50	
1	1		0000	.00	23.83	23.83	.00	.00	664.00	
2	1		0015	1.87	23.83	25.70	2.66	.48	664.22	
3	1		0030	3.08	23.83	26.91	5.20	.95	664.43	
4	1		0045	3.94	23.83	27.77	7.58	1.38	664.62	
5	1		0100	4.60	23.83	28.43	9.79	1.78	664.81	
6	1		0115	5.08	23.83	28.91	11.82	2.15	664.97	
7	1		0130	5.40	23.83	29.23	14.57	2.48	665.12	
8	1		0145	6.08	23.83	29.91	17.13	2.76	665.24	
9	1		0200	7.64	23.83	31.47	19.45	3.02	665.36	
10	1		0215	7.96	23.83	31.79	21.53	3.25	665.46	
11	1		0230	9.15	23.83	32.98	23.38	3.45	665.55	
12	1		0245	19.64	23.83	43.47	25.92	3.73	665.67	
13	1		0300	39.57	23.83	63.40	30.62	4.25	665.90	
14	1		0315	47.61	23.83	71.44	37.46	4.94	666.20	
15	1		0330	37.46	23.83	61.29	43.05	5.48	666.43	
16	1		0345	18.64	23.83	42.47	44.76	**5.65**	**666.50**	**Maximum impoundment stage/storage**
17	1		0400	10.37	23.83	34.20	43.51	5.53	666.45	
18	1		0415	8.74	23.83	32.57	41.56	5.34	666.37	
19	1		0430	7.72	23.83	31.55	39.72	5.16	666.29	
20	1		0445	6.10	23.83	29.93	37.99	4.99	666.22	
21	1		0500	5.53	23.83	29.36	36.37	4.84	666.15	
22	1		0515	5.15	23.83	28.98	34.98	4.70	666.10	
23	1		0530	4.67	23.83	28.50	33.77	4.59	666.05	
24	1		0545	4.05	23.83	27.88	32.69	4.48	666.00	
25	1		0600	3.26	23.83	27.09	31.80	4.38	665.96	
26	1		0615	.82	23.83	24.65	30.79	4.27	665.91	
27	1		0630	.15	23.83	23.98	29.68	4.15	665.85	
28	1		0645	.02	23.83	23.85	28.70	4.04	665.81	
29	1		0700	.00	23.83	23.83	27.87	3.95	665.77	
30	1		0715	.00	23.83	23.83	27.18	3.87	665.73	
31	1		0730	.00	23.83	23.83	26.61	3.81	665.70	
32	1		0745	.00	23.83	23.83	26.13	3.76	665.68	
33	1		0800	.00	23.83	23.83	25.74	3.71	665.66	
34	1		0815	.00	23.83	23.83	25.41	3.68	665.65	
35	1		0830	.00	23.83	23.83	25.14	3.65	665.63	
36	1		0845	.00	23.83	23.83	24.92	3.62	665.62	
37	1		0900	.00	23.83	23.83	24.73	3.60	665.61	
38	1		0915	.00	23.83	23.83	24.58	3.58	665.61	
39	1		0930	.00	23.83	23.83	24.45	3.57	665.60	
40	1		0945	.00	23.83	23.83	24.34	3.56	665.59	
41	1		1000	.00	23.83	23.83	24.26	3.55	665.59	
42	1		1015	.00	23.83	23.83	24.18	3.54	665.59	
43	1		1030	.00	23.83	23.83	24.12	3.53	665.58	
44	1		1045	.00	23.83	23.83	24.07	3.53	665.58	
45	1		1100	.00	23.83	23.83	24.03	3.52	665.58	
46	1		1115	.00	23.83	23.83	24.00	3.52	665.58	
47	1		1130	.00	23.83	23.83	23.97	3.52	665.58	
48	1		1145	.00	23.83	23.83	23.94	3.51	665.57	
49	1		1200	.00	23.83	23.83	23.93	3.51	665.57	
50	1		1215	.00	23.83	23.83	23.91	3.51	665.57	

1TABLE 1 (CONT.)		STATION	BASIN FLOW	BASE FLOW	IN FLOW	IMP FLOW	IMP STORAGE	IMP STAGE
		PLAN	1	1	1	1	1	1
		RATIO	.50	.50	.50	.50	.50	.50
PER	DAY	MON HRMN						
51	1	1230	.00	23.83	23.83	23.90	3.51	665.57
52	1	1245	.00	23.83	23.83	23.88	3.51	665.57
53	1	1300	.00	23.83	23.83	23.88	3.51	665.57
54	1	1315	.00	23.83	23.83	23.87	3.51	665.57
55	1	1330	.00	23.83	23.83	23.86	3.51	665.57
56	1	1345	.00	23.83	23.83	23.86	3.50	665.57
57	1	1400	.00	23.83	23.83	23.85	3.50	665.57
58	1	1415	.00	23.83	23.83	23.85	3.50	665.57
59	1	1430	.00	23.83	23.83	23.84	3.50	665.57
60	1	1445	.00	23.83	23.83	23.84	3.50	665.57
61	1	1500	.00	23.83	23.83	23.84	3.50	665.57
62	1	1515	.00	23.83	23.83	23.84	3.50	665.57
63	1	1530	.00	23.83	23.83	23.84	3.50	665.57
64	1	1545	.00	23.83	23.83	23.84	3.50	665.57
65	1	1600	.00	23.83	23.83	23.83	3.50	665.57
66	1	1615	.00	23.83	23.83	23.83	3.50	665.57
67	1	1630	.00	23.83	23.83	23.83	3.50	665.57
68	1	1645	.00	23.83	23.83	23.83	3.50	665.57
69	1	1700	.00	23.83	23.83	23.83	3.50	665.57
70	1	1715	.00	23.83	23.83	23.83	3.50	665.57
71	1	1730	.00	23.83	23.83	23.83	3.50	665.57
72	1	1745	.00	23.83	23.83	23.83	3.50	665.57
73	1	1800	.00	23.83	23.83	23.83	3.50	665.57
74	1	1815	.00	23.83	23.83	23.83	3.50	665.57
75	1	1830	.00	23.83	23.83	23.83	3.50	665.57
76	1	1845	.00	23.83	23.83	23.83	3.50	665.57
77	1	1900	.00	23.83	23.83	23.83	3.50	665.57
78	1	1915	.00	23.83	23.83	23.83	3.50	665.57
79	1	1930	.00	23.83	23.83	23.83	3.50	665.57
80	1	1945	.00	23.83	23.83	23.83	3.50	665.57
81	1	2000	.00	23.83	23.83	23.83	3.50	665.57
82	1	2015	.00	23.83	23.83	23.83	3.50	665.57
83	1	2030	.00	23.83	23.83	23.83	3.50	665.57
84	1	2045	.00	23.83	23.83	23.83	3.50	665.57
85	1	2100	.00	23.83	23.83	23.83	3.50	665.57
86	1	2115	.00	23.83	23.83	23.83	3.50	665.57
87	1	2130	.00	23.83	23.83	23.83	3.50	665.57
88	1	2145	.00	23.83	23.83	23.83	3.50	665.57
89	1	2200	.00	23.83	23.83	23.83	3.50	665.57
90	1	2215	.00	23.83	23.83	23.83	3.50	665.57
91	1	2230	.00	23.83	23.83	23.83	3.50	665.57
92	1	2245	.00	23.83	23.83	23.83	3.50	665.57
93	1	2300	.00	23.83	23.83	23.83	3.50	665.57
94	1	2315	.00	23.83	23.83	23.83	3.50	665.57
95	1	2330	.00	23.83	23.83	23.83	3.50	665.57
96	1	2345	.00	23.83	23.83	23.83	3.50	665.57
97	2	0000	.00	23.83	23.83	23.83	3.50	665.57
98	2	0015	.00	23.83	23.83	23.83	3.50	665.57
99	2	0030	.00	23.83	23.83	23.83	3.50	665.57
100	2	0045	.00	23.83	23.83	23.83	3.50	665.57

1TABLE 1 (CONT.) STATION

			BASIN FLOW	BASE FLOW	IN FLOW	IMP FLOW	IMP STORAGE	IMP STAGE
		PLAN	1	1	1	1	1	1
		RATIO	.50	.50	.50	.50	.50	.50
PER	DAY	MON HRMN						
101	2	0100	.00	23.83	23.83	23.83	3.50	665.57
102	2	0115	.00	23.83	23.83	23.83	3.50	665.57
103	2	0130	.00	23.83	23.83	23.83	3.50	665.57
104	2	0145	.00	23.83	23.83	23.83	3.50	665.57
105	2	0200	.00	23.83	23.83	23.83	3.50	665.57
106	2	0215	.00	23.83	23.83	23.83	3.50	665.57
107	2	0230	.00	23.83	23.83	23.83	3.50	665.57
108	2	0245	.00	23.83	23.83	23.83	3.50	665.57
109	2	0300	.00	23.83	23.83	23.83	3.50	665.57
110	2	0315	.00	23.83	23.83	23.83	3.50	665.57
111	2	0330	.00	23.83	23.83	23.83	3.50	665.57
112	2	0345	.00	23.83	23.83	23.83	3.50	665.57
113	2	0400	.00	23.83	23.83	23.83	3.50	665.57
114	2	0415	.00	23.83	23.83	23.83	3.50	665.57
115	2	0430	.00	23.83	23.83	23.83	3.50	665.57
116	2	0445	.00	23.83	23.83	23.83	3.50	665.57
117	2	0500	.00	23.83	23.83	23.83	3.50	665.57
118	2	0515	.00	23.83	23.83	23.83	3.50	665.57
119	2	0530	.00	23.83	23.83	23.83	3.50	665.57
120	2	0545	.00	23.83	23.83	23.83	3.50	665.57
121	2	0600	.00	23.83	23.83	23.83	3.50	665.57
122	2	0615	.00	23.83	23.83	23.83	3.50	665.57
123	2	0630	.00	23.83	23.83	23.83	3.50	665.57
124	2	0645	.00	23.83	23.83	23.83	3.50	665.57
125	2	0700	.00	23.83	23.83	23.83	3.50	665.57
126	2	0715	.00	23.83	23.83	23.83	3.50	665.57
127	2	0730	.00	23.83	23.83	23.83	3.50	665.57
128	2	0745	.00	23.83	23.83	23.83	3.50	665.57
129	2	0800	.00	23.83	23.83	23.83	3.50	665.57
130	2	0815	.00	23.83	23.83	23.83	3.50	665.57
131	2	0830	.00	23.83	23.83	23.83	3.50	665.57
132	2	0845	.00	23.83	23.83	23.83	3.50	665.57
133	2	0900	.00	23.83	23.83	23.83	3.50	665.57
134	2	0915	.00	23.83	23.83	23.83	3.50	665.57
135	2	0930	.00	23.83	23.83	23.83	3.50	665.57
136	2	0945	.00	23.83	23.83	23.83	3.50	665.57
137	2	1000	.00	23.83	23.83	23.83	3.50	665.57
138	2	1015	.00	23.83	23.83	23.83	3.50	665.57
139	2	1030	.00	23.83	23.83	23.83	3.50	665.57
140	2	1045	.00	23.83	23.83	23.83	3.50	665.57
141	2	1100	.00	23.83	23.83	23.83	3.50	665.57
142	2	1115	.00	23.83	23.83	23.83	3.50	665.57
143	2	1130	.00	23.83	23.83	23.83	3.50	665.57
144	2	1145	.00	23.83	23.83	23.83	3.50	665.57
145	2	1200	.00	23.83	23.83	23.83	3.50	665.57
146	2	1215	.00	23.83	23.83	23.83	3.50	665.57
147	2	1230	.00	23.83	23.83	23.83	3.50	665.57
148	2	1245	.00	23.83	23.83	23.83	3.50	665.57
149	2	1300	.00	23.83	23.83	23.83	3.50	665.57
150	2	1315	.00	23.83	23.83	23.83	3.50	665.57

1TABLE 1 (CONT.) STATION

			BASIN FLOW	BASE FLOW	IN FLOW	IMP FLOW	IMP STORAGE	IMP STAGE
		PLAN	1	1	1	1	1	1
		RATIO	.50	.50	.50	.50	.50	.50
PER	DAY	MON HRMN						
151	2	1330	.00	23.83	23.83	23.83	3.50	665.57
152	2	1345	.00	23.83	23.83	23.83	3.50	665.57
153	2	1400	.00	23.83	23.83	23.83	3.50	665.57
154	2	1415	.00	23.83	23.83	23.83	3.50	665.57
155	2	1430	.00	23.83	23.83	23.83	3.50	665.57
156	2	1445	.00	23.83	23.83	23.83	3.50	665.57
157	2	1500	.00	23.83	23.83	23.83	3.50	665.57
158	2	1515	.00	23.83	23.83	23.83	3.50	665.57
159	2	1530	.00	23.83	23.83	23.83	3.50	665.57
160	2	1545	.00	23.83	23.83	23.83	3.50	665.57
161	2	1600	.00	23.83	23.83	23.83	3.50	665.57
162	2	1615	.00	23.83	23.83	23.83	3.50	665.57
163	2	1630	.00	23.83	23.83	23.83	3.50	665.57
164	2	1645	.00	23.83	23.83	23.83	3.50	665.57
165	2	1700	.00	23.83	23.83	23.83	3.50	665.57
166	2	1715	.00	23.83	23.83	23.83	3.50	665.57
167	2	1730	.00	23.83	23.83	23.83	3.50	665.57
168	2	1745	.00	23.83	23.83	23.83	3.50	665.57
169	2	1800	.00	23.83	23.83	23.83	3.50	665.57
170	2	1815	.00	23.83	23.83	23.83	3.50	665.57
171	2	1830	.00	23.83	23.83	23.83	3.50	665.57
172	2	1845	.00	23.83	23.83	23.83	3.50	665.57
173	2	1900	.00	23.83	23.83	23.83	3.50	665.57
174	2	1915	.00	23.83	23.83	23.83	3.50	665.57
175	2	1930	.00	23.83	23.83	23.83	3.50	665.57
176	2	1945	.00	23.83	23.83	23.83	3.50	665.57
177	2	2000	.00	23.83	23.83	23.83	3.50	665.57
178	2	2015	.00	23.83	23.83	23.83	3.50	665.57
179	2	2030	.00	23.83	23.83	23.83	3.50	665.57
180	2	2045	.00	23.83	23.83	23.83	3.50	665.57
181	2	2100	.00	23.83	23.83	23.83	3.50	665.57
182	2	2115	.00	23.83	23.83	23.83	3.50	665.57
183	2	2130	.00	23.83	23.83	23.83	3.50	665.57
184	2	2145	.00	23.83	23.83	23.83	3.50	665.57
185	2	2200	.00	23.83	23.83	23.83	3.50	665.57
186	2	2215	.00	23.83	23.83	23.83	3.50	665.57
187	2	2230	.00	23.83	23.83	23.83	3.50	665.57
188	2	2245	.00	23.83	23.83	23.83	3.50	665.57
189	2	2300	.00	23.83	23.83	23.83	3.50	665.57
190	2	2315	.00	23.83	23.83	23.83	3.50	665.57
191	2	2330	.00	23.83	23.83	23.83	3.50	665.57
192	2	2345	.00	23.83	23.83	23.83	3.50	665.57
193	3	0000	.00	23.83	23.83	23.83	3.50	665.57
194	3	0015	.00	23.83	23.83	23.83	3.50	665.57
195	3	0030	.00	23.83	23.83	23.83	3.50	665.57
196	3	0045	.00	23.83	23.83	23.83	3.50	665.57
197	3	0100	.00	23.83	23.83	23.83	3.50	665.57
198	3	0115	.00	23.83	23.83	23.83	3.50	665.57
199	3	0130	.00	23.83	23.83	23.83	3.50	665.57
200	3	0145	.00	23.83	23.83	23.83	3.50	665.57

1TABLE 1 (CONT.)

STATION	BASIN FLOW	BASE FLOW	IN FLOW	IMP FLOW	IMP STORAGE	IMP STAGE
PLAN	1	1	1	1	1	1
RATIO	.50	.50	.50	.50	.50	.50

PER	DAY	MON	HRMN						
201	3		0200	.00	23.83	23.83	23.83	3.50	665.57
202	3		0215	.00	23.83	23.83	23.83	3.50	665.57
203	3		0230	.00	23.83	23.83	23.83	3.50	665.57
204	3		0245	.00	23.83	23.83	23.83	3.50	665.57
205	3		0300	.00	23.83	23.83	23.83	3.50	665.57
206	3		0315	.00	23.83	23.83	23.83	3.50	665.57
207	3		0330	.00	23.83	23.83	23.83	3.50	665.57
208	3		0345	.00	23.83	23.83	23.83	3.50	665.57
209	3		0400	.00	23.83	23.83	23.83	3.50	665.57
210	3		0415	.00	23.83	23.83	23.83	3.50	665.57
211	3		0430	.00	23.83	23.83	23.83	3.50	665.57
212	3		0445	.00	23.83	23.83	23.83	3.50	665.57
213	3		0500	.00	23.83	23.83	23.83	3.50	665.57
214	3		0515	.00	23.83	23.83	23.83	3.50	665.57
215	3		0530	.00	23.83	23.83	23.83	3.50	665.57
216	3		0545	.00	23.83	23.83	23.83	3.50	665.57
217	3		0600	.00	23.83	23.83	23.83	3.50	665.57
218	3		0615	.00	23.83	23.83	23.83	3.50	665.57
219	3		0630	.00	23.83	23.83	23.83	3.50	665.57
220	3		0645	.00	23.83	23.83	23.83	3.50	665.57
221	3		0700	.00	23.83	23.83	23.83	3.50	665.57
222	3		0715	.00	23.83	23.83	23.83	3.50	665.57
223	3		0730	.00	23.83	23.83	23.83	3.50	665.57
224	3		0745	.00	23.83	23.83	23.83	3.50	665.57
225	3		0800	.00	23.83	23.83	23.83	3.50	665.57
226	3		0815	.00	23.83	23.83	23.83	3.50	665.57
227	3		0830	.00	23.83	23.83	23.83	3.50	665.57
228	3		0845	.00	23.83	23.83	23.83	3.50	665.57
229	3		0900	.00	23.83	23.83	23.83	3.50	665.57
230	3		0915	.00	23.83	23.83	23.83	3.50	665.57
231	3		0930	.00	23.83	23.83	23.83	3.50	665.57
232	3		0945	.00	23.83	23.83	23.83	3.50	665.57
233	3		1000	.00	23.83	23.83	23.83	3.50	665.57
234	3		1015	.00	23.83	23.83	23.83	3.50	665.57
235	3		1030	.00	23.83	23.83	23.83	3.50	665.57
236	3		1045	.00	23.83	23.83	23.83	3.50	665.57
237	3		1100	.00	23.83	23.83	23.83	3.50	665.57
238	3		1115	.00	23.83	23.83	23.83	3.50	665.57
239	3		1130	.00	23.83	23.83	23.83	3.50	665.57
240	3		1145	.00	23.83	23.83	23.83	3.50	665.57
241	3		1200	.00	23.83	23.83	23.83	3.50	665.57
242	3		1215	.00	23.83	23.83	23.83	3.50	665.57
243	3		1230	.00	23.83	23.83	23.83	3.50	665.57
244	3		1245	.00	23.83	23.83	23.83	3.50	665.57
245	3		1300	.00	23.83	23.83	23.83	3.50	665.57
246	3		1315	.00	23.83	23.83	23.83	3.50	665.57
247	3		1330	.00	23.83	23.83	23.83	3.50	665.57
248	3		1345	.00	23.83	23.83	23.83	3.50	665.57
249	3		1400	.00	23.83	23.83	23.83	3.50	665.57
250	3		1415	.00	23.83	23.83	23.83	3.50	665.57

1TABLE 1 (CONT.) STATION

			BASIN FLOW	BASE FLOW	IN FLOW	IMP FLOW	IMP STORAGE	IMP STAGE
		PLAN	1	1	1	1	1	1
		RATIO	.50	.50	.50	.50	.50	.50
PER	DAY	MON HRMN						
251	3	1430	.00	23.83	23.83	23.83	3.50	665.57
252	3	1445	.00	23.83	23.83	23.83	3.50	665.57
253	3	1500	.00	23.83	23.83	23.83	3.50	665.57
254	3	1515	.00	23.83	23.83	23.83	3.50	665.57
255	3	1530	.00	23.83	23.83	23.83	3.50	665.57
256	3	1545	.00	23.83	23.83	23.83	3.50	665.57
257	3	1600	.00	23.83	23.83	23.83	3.50	665.57
258	3	1615	.00	23.83	23.83	23.83	3.50	665.57
259	3	1630	.00	23.83	23.83	23.83	3.50	665.57
260	3	1645	.00	23.83	23.83	23.83	3.50	665.57
261	3	1700	.00	23.83	23.83	23.83	3.50	665.57
262	3	1715	.00	23.83	23.83	23.83	3.50	665.57
263	3	1730	.00	23.83	23.83	23.83	3.50	665.57
264	3	1745	.00	23.83	23.83	23.83	3.50	665.57
265	3	1800	.00	23.83	23.83	23.83	3.50	665.57
266	3	1815	.00	23.83	23.83	23.83	3.50	665.57
267	3	1830	.00	23.83	23.83	23.83	3.50	665.57
268	3	1845	.00	23.83	23.83	23.83	3.50	665.57
269	3	1900	.00	23.83	23.83	23.83	3.50	665.57
270	3	1915	.00	23.83	23.83	23.83	3.50	665.57
271	3	1930	.00	23.83	23.83	23.83	3.50	665.57
272	3	1945	.00	23.83	23.83	23.83	3.50	665.57
273	3	2000	.00	23.83	23.83	23.83	3.50	665.57
274	3	2015	.00	23.83	23.83	23.83	3.50	665.57
275	3	2030	.00	23.83	23.83	23.83	3.50	665.57
276	3	2045	.00	23.83	23.83	23.83	3.50	665.57
277	3	2100	.00	23.83	23.83	23.83	3.50	665.57
278	3	2115	.00	23.83	23.83	23.83	3.50	665.57
279	3	2130	.00	23.83	23.83	23.83	3.50	665.57
280	3	2145	.00	23.83	23.83	23.83	3.50	665.57
281	3	2200	.00	23.83	23.83	23.83	3.50	665.57
282	3	2215	.00	23.83	23.83	23.83	3.50	665.57
283	3	2230	.00	23.83	23.83	23.83	3.50	665.57
284	3	2245	.00	23.83	23.83	23.83	3.50	665.57
285	3	2300	.00	23.83	23.83	23.83	3.50	665.57
286	3	2315	.00	23.83	23.83	23.83	3.50	665.57
287	3	2330	.00	23.83	23.83	23.83	3.50	665.57
288	3	2345	.00	23.83	23.83	23.83	3.50	665.57
289	4	0000	.00	23.83	23.83	23.83	3.50	665.57
290	4	0015	.00	23.83	23.83	23.83	3.50	665.57
291	4	0030	.00	23.83	23.83	23.83	3.50	665.57
292	4	0045	.00	23.83	23.83	23.83	3.50	665.57
293	4	0100	.00	23.83	23.83	23.83	3.50	665.57
294	4	0115	.00	23.83	23.83	23.83	3.50	665.57
295	4	0130	.00	23.83	23.83	23.83	3.50	665.57
296	4	0145	.00	23.83	23.83	23.83	3.50	665.57
297	4	0200	.00	23.83	23.83	23.83	3.50	665.57
298	4	0215	.00	23.83	23.83	23.83	3.50	665.57
299	4	0230	.00	23.83	23.83	23.83	3.50	665.57
300	4	0245	.00	23.83	23.83	23.83	3.50	665.57
		MAX	47.61	23.83	71.44	44.76	5.65	666.50
		MIN	.00	23.83	23.83	.00	.00	664.00
		AVE	.91	23.83	24.74	24.14	3.52	665.58

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