Written by: Richard G. Cole Date: 07/02/01 (MM DD YY) Reviewed by: MAC Date: Jul 2 01 (MM DD YY)

Client: WMI Project: Bradley West Landfill Project No.: HL0568 Task No.: 01

LEACHATE PRODUCTION ANALYSIS
BRADLEY WEST LANDFILL

PURPOSE AND BACKGROUND

This calculation package documents the landfill leachate production anaylsis performed for the proposed vertical waste-on-waste expansion at the Bradley West Landfill in Sun Valley, California. It is proposed to increase the final cover elevation by 43 ft. (13 m), from 1010 ft. (308 m) to 1053 ft. (321m). The purpose of this analysis is to demonstrate that the existing leachate management facilities are adequate for the additional leachate, if any, produced by the vertical expansion.

METHOD OF ANALYSIS

The Hydrological Evaluation of Landfill Performance (HELP) Model, Version 3.07, was used to estimate the leachate production rates at the Bradley West Landfill for both the existing conditions and the proposed vertical expansion. The HELP model is a quasi-two-dimensional hydrological model of water movement across, into, through and out of landfills. The model uses design, soil, waste and climatic data to simulate the effect of precipitation, run-on, run-off, infiltration, percolation, evapotranspiration, soil moisture storage and lateral drainage.

To calibrate the model, the existing conditions were modeled and the calculated leachate production rates were compared with the observed leachate production rate for the year 2000, provided by Waste Management, Inc. (WMI). Initially, default soil and waste properties were used. The waste moisture content was then adjusted until the calculated leachate production rate was similar to the observed leachate production rate. The rainfall data for the year 2000 was obtained from the Burbank Valley Pump Plant weather station. Solar radiation and temperature data was synthetically generated for Los Angeles using HELP.

To compare leachate production rates from the current condition and the proposed vertical expansion, the leachate production rates were calculated using rainfall data from the Burbank Valley Pump Plant weather station for the ten-year period 1974 to 1983, the wettest ten-year period on record. Solar radiation and temperature data was synthetically generated for Los Angeles using HELP.

Written by: Richard G. Cole Date: 09/10/01 (MM DD YY) Reviewed by: MC Date: 9/10/01 (MM DD YY)

Client: WMI Project: Bradley West Landfill Project No.: HL0568 Task No.: 01

INPUT PARMATERS

The interim cover soil was modeled as a sandy loam material (HELP Texture Class 6). The waste was modeled as muncipal solid waste (HELP Texture Class 18). Default material properties were used for both the cover soil and waste, except as discussed above. Table 1 and Table 2 summarize the input parameters for the HELP model.

RESULTS

The total annual leachate production for the year 2000 was approximately 25,500 ft^3 (722 m^3) (See attachment 2). The moisture content of the existing waste found by the calibration procedure was 26.9 percent. The calculated peak daily leachate production for the existing conditions for the ten-year simulation period was 48,399 ft^3/day (1371 m^3/day). The calculated peak daily leachate production for the proposed vertical expansion for the ten-year simulation period was 20,607 ft^3/day (584 m^3/day).

Case	Leachate Production	
	Peak Daily (ft^3/day)	Average Annual (ft^3/year)
Actual Data	NA	25,500
Calibration Model	11,950	20,929
Existing Condition	48,399	629,407
Proposed Vertical Expansion	42,426	255,629

CONCLUSIONS AND RECOMMENDATIONS

Both the calculated peak daily leachate production rate and the average annual leachate production are less for the proposed vertical expansion than for the existing conditions. Based on this analysis the proposed vertical expansion will not increase the leachate production rate at the Bradley West Landfill. Therefore, the existing leachate management system will be adequate for the proposed vertical expansion.

Written by: Richard G. Cole Date: 07/02/01 (MM DD YY) Reviewed by: ML Date: 11/2/01 (MM DD YY)

Client: WMI Project: Bradley West Landfill Project No.: HL0568 Task No.: 01

REFERENCES

1. United States Environmental Protection Agency, 1995, The Hydrological Evaluation of Landfill Performance (HELP) Model, Report Number EPA/00/R-94/168b, Washington D.C.
2. Earthinfo, Inc., 1999, NCDC Summary of the Day for Windows, Boulder, CO.
3. Tchobanoglous, Theisen and Eliassen, 1993, Integrated Solid Waste Management, McGraw-Hill, Inc., United States
4. GeoSyntec Consultants, 2001, Alternative Final Cover Water Balance Analysis, Bradley West Landfill, Sun Vally, California.

ATTACHMENTS

1. Typical landfill cross section
2. Observed leachate collection rates
3. ~~Typical municipal solid waste moisture content~~ Not Used MC RC
4. Burbank Valley Pump Plant Weather Station Rainfall Data
5. HELP Output – Calibration
6. HELP Output – Existing Landfill Configuration
7. HELP Output – Proposed Vertical Expansion

TABLES

TABLE 1

MATERIAL PROPERTIES
LEACHATE PRODUCTION ANALYSIS
PROPOSED VERTICAL EXPANSION BRADLEY WEST LANDFILL
SUN VALLEY, CALIFORNIA

MATERIAL	THICKNESS (FEET)	SOIL TEXTURE CLASS	TOTAL POROSITY	FIELD CAPACITY	WILTING POINT	SATURATED HYDRAULIC CONDUCTIVITY	INITIAL MOISTURE CONTENT
Existing Soil Cover	1	6	0.453	0.19	0.085	0.00072	0.19
Existing Waste	260	18	0.671	0.292	0.077	0.001	0.269[(2)]
Proposed Cover Soil	1	6	0.453	0.19	0.085	0.00072	0.19
Proposed Waste	43	18	0.671	0.292	0.077	0.001	0.269[(2)]

Notes: [(1)] All material properties default values from HELP except where indicated.
[(2)] From calibration procedure.

9/10/01 BC
9/10/01 MC

TABLE 2

GENERAL DESIGN PARAMETERS
LEACHATE PRODUCTION ANALYSIS
PROPOSED VERTICAL EXPANSION BRADLEY WEST LANDFILL
SUN VALLEY, CALIFORNIA

PARAMETER	Value	Source
Cover slope	4.5 percent	Attachment 1
Slope length	1200 feet	Attachment 1
Area	84 acres	GeoSyntec 2001
Percent Area Runoff Possible	100 %	Attachment 1
Amount Water or Snow on Surface	0	Assumed
Cover Soil Texture	Sandy Loam (#6)	GeoSynyec 2001
Vegetation	Fair Stand of Grass	Assumed
Evaporative Depth	12 inches	Cover soil thickness
Maximum Leaf Area	1.5	GeoSyntec 2001
Start of Growing Season	0	Default from HELP for Los Angeles
End of Growing Season	367	Default from HELP for Los Angeles
Average Annual Wind Speed	7.40 mph	Default from HELP for Los Angeles
Average 1st Quarter Relative Humidity	67 percent	Default from HELP for Los Angeles
Average 2nd Quarter Relative Humidity	74 percent	Default from HELP for Los Angeles
Average 3rd Quarter Relative Humidity	75 percent	Default from HELP for Los Angeles
Average 4th Quarter Relative Humidity	67 percent	Default from HELP for Los Angeles

BC 7/2/01

MC

ATTACHMENT 1

TYPICAL LANDFILL CROSS-SECTION

ATTACHMENT 2

OBSERVED LEACHATE COLLECTION RATES (2000)

RC 7/2/01

ANNUAL RAINFALL FOR BURBANK VALLEY PUMP PLANT WEATHER STATION
LEACHATE PRODUCTION ANALYSIS
PROPOSED VERTICAL EXPANSION BRADLEY WEST LANDFILL
SUN VALLEY ,CALIFORNIA

MC

Month	Leachate Pumped	
	Gallons	Cubic Feet
January	7650	1023
February	12600	1684
March	16200	2166
April	900	120
May	39600	5294
June	21600	2888
July	32400	4331
August	18000	2406
September	NA(1)	NA(1)
October	0	0
November	10000	1337
December	NA(1)	NA(1)
Monthly Average	15895	2125
12 Month Total	190740	25498

Notes
(1) Leachate Data not available

RC 7/2/01
Sylvia H

10 pgs

TABLE 1
JANUARY 2000 WASTE QUANTITIES

WASTE TYPE	TONS	CUBIC[1] YARDS
Residential	23,929	31,829
Commercial	133,482	177,550
Industrial	5,371	7,144
Special Waste[2]	254	338
WASTE TOTAL	163,036	216,861

Contaminated Soil used as Daily Cover[3]	110 tons

Notes:

[1]Typical in-place waste density achieved at the BLRC is 1500 lb/cy. This is assumed value for conversion from tons to cubic yards.
[2]Special Waste includes Contaminated Soil and Autoshredder material disposed as waste.
[3]Contaminated soil used, as daily cover is not included in the total waste tonnage as this material is re-used as cover.

TABLE 2
JANUARY 2000 LEACHATE GENERATION QUANTITIES

SUMP	GALLONS PUMPED
A	0
B	0
C	0
D	0
E	7,650
F	0
TOTALS	**7,650**

RC 7/2/0

TABLE 1
FEBRUARY 2000 WASTE QUANTITIES

WASTE TYPE	TONS	CUBIC[1] YARDS
Residential	23,876	31,755
Commercial	133,508	177,566
Industrial	5,035	6,696
Special Waste[2]	400	532
WASTE TOTAL	163,036	216,549

Contaminated Soil used as Daily Cover[3]	8,311 tons

Notes:

[1]Typical in-place waste density achieved at the BLRC is 1500 lb/cy. This is assumed value for conversion from tons to cubic yards.

[2]Special Waste includes Contaminated Soil and Autoshredder material disposed as waste.

[3]Contaminated soil used, as daily cover is not included in the total waste tonnage as this material is re-used as cover.

TABLE 2
FEBRUARY 2000 LEACHATE GENERATION QUANTITIES

SUMP	GALLONS PUMPED
A	0
B	0
C	0
D	0
E	12,600
F	0
TOTALS	**12,600**

RE 7/2/10

TABLE 1
MARCH 2000 WASTE QUANTITIES

WASTE TYPE	TONS	CUBIC[1] YARDS
Residential	29,084	38,686
Commercial	162,635	216,328
Industrial	6,133	8,158
Special Waste[2]	5,558	7,392
WASTE TOTAL	203,410	270,564

Contaminated Soil used as Daily Cover[3]	2,210 tons

Notes:

[1]Typical in-place waste density achieved at the BLRC is 1500 lb/cy. This is assumed value for conversion from tons to cubic yards.

[2]Special Waste includes Contaminated Soil and Autoshredder material disposed as waste.

[3]Contaminated soil used, as daily cover is not included in the total waste tonnage as this material is re-used as cover.

TABLE 2
MARCH 2000 LEACHATE GENERATION QUANTITIES

SUMP	GALLONS PUMPED
A	0
B	0
C	0
D	0
E	16,200
F	0
TOTALS	**16,200**

RC 7/2/0

TABLE 1
APRIL 2000 WASTE QUANTITIES

WASTE TYPE	TONS	CUBIC[1] YARDS
Residential	29,939	39,824
Commercial	167,417	222,688
Industrial	6,314	8,398
Special Waste[2]	5,932	7,890
WASTE TOTAL	209,602	278,800

Contaminated Soil used as Daily Cover[3]	8,468 tons

Notes:

[1]Typical in-place waste density achieved at the BLRC is 1500 lb/cy. This is assumed value for conversion from tons to cubic yards.

[2]Special Waste includes Contaminated Soil and Autoshredder material disposed as waste.

[3]Contaminated soil used, as daily cover is not included in the total waste tonnage as this material is re-used as cover.

TABLE 2
APRIL 2000 LEACHATE GENERATION QUANTITIES

SUMP	GALLONS PUMPED
A	0
B	0
C	0
D	0
E	900
F	0
TOTALS	**900**

lc 7/2/0

TABLE 1
MAY 2000 WASTE QUANTITIES

WASTE TYPE	TONS	CUBIC[1] YARDS
Residential	32,256	42,906
Commercial	180,372	239,921
Industrial	6,802	9,048
Special Waste[2] (Autoshredder 9,918)	10,872	14,461
WASTE TOTAL	230,303	306,336

Contaminated Soil used as Daily Cover[3]	5,938 tons

Notes:

[1]Typical in-place waste density achieved at the BLRC is 1500 lb/cy. This is assumed value for conversion from tons to cubic yards.
[2]Special Waste includes Contaminated Soil and Autoshredder material disposed as waste and/or daily cover material.
[3]Contaminated soil used, as daily cover is not included in the total waste tonnage as this material is re-used as cover.

TABLE 2
MAY 2000 LEACHATE GENERATION QUANTITIES

SUMP	GALLONS PUMPED
A	0
B	0
C	0
D	0
E	39,600
F	0
TOTALS	**39,600**

RC 7/2/0

TABLE 1
JUNE 2000 WASTE QUANTITIES

WASTE TYPE	TONS	CUBIC[1] YARDS
Residential	31,710	42,178
Commercial	177,314	235,853
Industrial	6,687	8,895
Special Waste[2] (Autoshredder ADC 6,706)	2,750	3,658
WASTE TOTAL	218,461	290,584

Contaminated Soil used as Daily Cover[3]	71,420 tons

Notes:

[1]Typical in-place waste density achieved at the BLRC is 1500 lb/cy. This is assumed value for conversion from tons to cubic yards.
[2]Special Waste includes Contaminated Soil and Autoshredder material disposed as waste and/or daily cover material.
[3]Contaminated soil used, as daily cover is not included in the total waste tonnage as this material is re-used as cover.

TABLE 2
JUNE 2000 LEACHATE GENERATION QUANTITIES

SUMP	GALLONS PUMPED
A	0
B	0
C	0
D	0
E	21,600
F	0
TOTALS	**21,600**

RC 7/2/01

TABLE 1
JULY 2000 WASTE QUANTITIES

WASTE TYPE	TONS	CUBIC[1] YARDS
Residential	28,583	38,020
Commercial	159,833	212,600
Industrial	6,028	8,018
Special Waste[2] (Autoshredder ADC 9,271)	558	742
WASTE TOTAL	195,002	259,380
Contaminated Soil used as Daily Cover[3]	133,496 tons	

Notes:

[1]Typical in-place waste density achieved at the BLRC is 1500 lb/cy. This is assumed value for conversion from tons to cubic yards.

[2]Special Waste includes Contaminated Soil and Autoshredder material disposed as waste and/or daily cover material.

[3]Contaminated soil used, as daily cover is not included in the total waste tonnage as this material is re-used as cover.

TABLE 2
JULY 2000 LEACHATE GENERATION QUANTITIES

SUMP	GALLONS PUMPED
A	0
B	0
C	0
D	0
E	32,400
F	0
TOTALS	**32,400**

and
lust

RC 7/2/01

TABLE 1
AUGUST 2000 WASTE QUANTITIES

WASTE TYPE	TONS	CUBIC YARDS [1]
Residential	29983.314	39,882.035
Commercial	167,661.798	223,013.831
Industrial	6,323.012	8,410.497
Special Waste [2]	761.906	1,013.442
WASTE TOTAL	204,730.030	272,319.806

Contaminated Soil used as Daily Cover [3]	164,740.733 Tons
Treated Auto Shredder Waste as ADC [4]	12,634.735 Tons

Notes:

(1) Typical in-place waste density achieved at the BLRC is 1500 lb/cy. This is assumed value for conversion from tons to cubic yards.
(2) Special Waste includes Contaminated Soil and AutoShredder material disposed as waste.
(3) Contaminated soil used as daily cover is not included in the total waste tonnage as this material is re-used as cover.
(4) Treated Auto Shredder Waste (TASW) used as Alternative Daily Cover, numbers are not included in the total waste tonnage as this material is re-used as cover.

TABLE 2
AUGUST 2000 LEACHATE GENERATION QUANTITIES

SUMP	GALLONS PUMPED
A	0
B	0
C	0
D	0
E	18,000
F	0
TOTALS	18,000

RC 7/2/0

TABLE 1
OCTOBER 2000 WASTE QUANTITIES

WASTE TYPE	TONS	CUBIC YARDS [1]
Residential	28,645.7	38,102.8
Commercial	160,181.9	213,064.6
Industrial	6,040.9	8,035.3
Special Waste [2]	2,749.0	3,6556.5
WASTE TOTAL	197,617.5	262,859.2

Contaminated Soil used as Daily Cover [3]	50,600.9 Tons
Treated Auto Shredder Waste as ADC [4]	8,450.2 Tons

Notes:

(1) Typical in-place waste density achieved at the BLRC is 1500 lb/cy. This is assumed value for conversion from tons to cubic yards.
(2) Special Waste includes Contaminated Soil and AutoShredder material disposed as waste.
(3) Contaminated soil used as daily cover is not included in the total waste tonnage as this material is re-used as cover.
(4) Treated Auto Shredder Waste (TASW) used as Alternative Daily Cover, numbers are not included in the total waste tonnage as this material is re-used as cover.

TABLE 2
OCTOBER 2000 LEACHATE GENERATION QUANTITIES

SUMP	GALLONS PUMPED
A	0
B	0
C	0
D	0
E	0
F	0
TOTALS	0

AC 7/2/01

TABLE 1
NOVEMBER 2000 WASTE QUANTITIES

WASTE TYPE	TONS	CUBIC YARDS [1]
Residential	28,094.4	37,369.5
Commercial	157,099.1	208,964.0
Industrial	5,924.7	7,880.6
Special Waste [2]	781.8	1,040.0
WASTE TOTAL	191,900.0	255,254.1

Contaminated Soil used as Daily Cover [3]	76,551.5 Tons
Treated Auto Shredder Waste as ADC [4]	8,289.9 Tons

Notes:

(1) Typical in-place waste density achieved at the BLRC is 1500 lb/cy. This is assumed value for conversion from tons to cubic yards.
(2) Special Waste includes Contaminated Soil and AutoShredder material disposed as waste.
(3) Contaminated soil used as daily cover is not included in the total waste tonnage as this material is re-used as cover.
(4) Treated Auto Shredder Waste (TASW) used as Alternative Daily Cover, numbers are not included in the total waste tonnage as this material is re-used as cover.

TABLE 2
NOVEMBER 2000 LEACHATE GENERATION QUANTITIES

SUMP	GALLONS PUMPED
A	0
B	0
C	0
D	0
E	10,000
F	0
TOTALS	10,000

ATTACHMENT 4

BURBANK VALLEY PUMP PLANT
WEATHER STATION RAINFALL (1974 - 1983, 2000)

RC 7/2/01
ML

ANNUAL RAINFALL FOR BURBANK VALLEY PUMP PLANT WEATHER STATION
LEACHATE PRODUCTION ANALYSIS
PROPOSED VERTICAL EXPANSION BRADLEY WEST LANDFILL
SUN VALLEY ,CALIFORNIA

Year	Rainfall (inches)
1974	19.52
1975	9.66
1976	17.00
1977	18.64
1978	35.14
1979	17.06
1980	30.19
1981	14.01
1982	17.85
1983	39.77
2000	15.11

RC 7/2/01

GeoSyntec Consultants

DAILY RAINFALL FOR BURBANK VALLEY PUMP PLANT WEATHER STATION
LEACHATE PRODUCTION ANALYSIS
PROPOSED VERTICAL EXPANSION BRADLEY WEST LANDFILL
SUN VALLEY ,CALIFORNIA

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	2000
1-Jan	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.33
2-Jan	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.09	0.00	0.00
3-Jan	0.00	0.00	0.00	1.75	0.24	0.00	0.00	0.00	0.00	0.00	0.00
4-Jan	1.66	0.00	0.00	0.00	0.76	0.00	0.00	0.00	0.01	0.00	0.00
5-Jan	0.67	0.00	0.00	0.04	0.01	1.20	0.00	0.00	0.29	0.00	0.00
6-Jan	1.58	0.00	0.00	1.42	0.56	0.87	0.00	0.00	0.00	0.00	0.00
7-Jan	3.07	0.00	0.00	0.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8-Jan	1.52	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00
9-Jan	0.04	0.00	0.00	0.00	0.32	0.00	1.80	0.00	0.00	0.00	0.00
10-Jan	0.00	0.00	0.00	0.00	0.81	0.00	0.30	0.00	0.00	0.00	0.00
11-Jan	0.00	0.00	0.00	0.00	0.00	0.00	1.03	0.11	0.01	0.00	0.00
12-Jan	0.01	0.00	0.00	0.00	0.00	0.00	0.27	0.01	0.00	0.00	0.00
13-Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00
14-Jan	0.00	0.00	0.00	0.00	0.43	0.30	0.26	0.00	0.00	0.00	0.00
15-Jan	0.00	0.00	0.00	0.00	1.30	1.11	0.02	0.00	0.00	0.00	0.00
16-Jan	0.12	0.00	0.00	0.00	1.00	1.61	0.02	0.00	0.00	0.00	0.00
17-Jan	0.24	0.00	0.00	0.00	0.57	0.04	0.01	0.00	0.00	0.00	0.03
18-Jan	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.06
19-Jan	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.82	0.00
20-Jan	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.76	0.00	0.00
21-Jan	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.25	0.00	0.00
22-Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00
23-Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.00	1.34	0.00
24-Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00
25-Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42
26-Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
27-Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00
28-Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.58	1.25	0.04	0.00	0.00
29-Jan	0.00	0.00	0.00	0.00	0.00	0.00	2.93	1.24	0.00	0.92	0.00
30-Jan	0.00	0.01	0.00	0.00	0.00	0.26	0.08	0.01	0.00	0.00	0.00
31-Jan	0.00	0.00	0.00	0.00	0.02	1.30	0.00	0.00	0.00	0.00	0.72
1-Feb	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.00
2-Feb	0.00	0.02	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.85	0.00
3-Feb	0.00	1.76	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.63	0.00
4-Feb	0.00	0.12	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5-Feb	0.00	0.03	0.35	0.00	0.63	0.00	0.00	0.00	0.00	0.27	0.00
6-Feb	0.00	0.00	1.22	0.00	0.20	0.00	0.00	0.00	0.00	0.02	0.00
7-Feb	0.00	0.00	0.50	0.00	0.64	0.00	0.00	0.00	0.00	0.12	0.00
8-Feb	0.00	0.00	0.53	0.00	0.09	0.00	0.00	0.29	0.02	0.66	0.00
9-Feb	0.00	0.44	1.78	0.00	2.21	0.00	0.00	0.88	0.00	0.00	0.00
10-Feb	0.00	0.25	0.12	0.00	3.26	0.00	0.00	0.00	0.29	0.00	0.00
11-Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.78
12-Feb	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.07	0.80
13-Feb	0.00	0.00	0.00	0.00	0.85	0.00	0.71	0.00	0.00	0.00	0.12
14-Feb	0.00	0.00	0.00	0.00	0.00	0.33	2.14	0.00	0.00	0.00	0.22
15-Feb	0.00	0.00	0.00	0.00	0.00	0.00	2.77	0.00	0.00	0.00	0.00
16-Feb	0.00	0.00	0.00	0.00	0.00	0.00	4.15	0.00	0.07	0.00	0.28
17-Feb	0.00	0.00	0.00	0.00	0.00	0.00	1.72	0.00	0.00	0.00	0.56
18-Feb	0.00	0.00	0.00	0.00	0.00	0.00	1.48	0.00	0.00	0.04	0.00
19-Feb	0.00	0.00	0.00	0.00	0.00	0.03	1.54	0.00	0.00	0.00	0.00
20-Feb	0.00	0.00	0.00	0.00	0.00	0.04	0.18	0.00	0.00	0.00	0.09
21-Feb	0.00	0.00	0.00	0.00	0.00	1.02	0.50	0.00	0.00	0.00	1.50
22-Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.03
23-Feb	0.00	0.00	0.00	0.13	0.00	0.44	0.00	0.00	0.00	0.00	0.07
24-Feb	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.13	1.55
25-Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26-Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.00	0.38	0.00
27-Feb	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	1.35	0.00
28-Feb	0.12	0.00	0.00	0.00	1.20	0.00	0.00	0.17	0.00	0.58	0.35
29-Feb			0.00				0.00				0.00

AC 7/2/01

GeoSyntec Consultants

DAILY RAINFALL FOR BURBANK VALLEY PUMP PLANT WEATHER STATION
LEACHATE PRODUCTION ANALYSIS
PROPOSED VERTICAL EXPANSION BRADLEY WEST LANDFILL
SUN VALLEY ,CALIFORNIA

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	2000
1-Mar	0.00	0.00	0.00	0.00	3.74	0.76	0.00	0.78	0.12	5.45	0.02
2-Mar	0.46	0.00	0.00	0.00	0.81	0.00	1.09	1.69	0.05	3.44	0.00
3-Mar	1.30	0.00	0.00	0.00	0.18	0.00	2.54	0.00	0.00	0.49	0.00
4-Mar	0.00	0.00	0.00	0.00	4.40	0.00	0.00	0.02	0.00	0.02	0.42
5-Mar	0.00	0.21	0.00	0.00	1.11	0.00	0.47	1.39	0.00	0.00	0.27
6-Mar	0.00	1.80	0.00	0.00	0.01	0.00	0.78	0.06	0.00	0.08	1.66
7-Mar	0.35	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
8-Mar	2.45	1.37	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29
9-Mar	0.02	0.01	1.22	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
10-Mar	0.00	0.25	0.50	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00
11-Mar	0.00	0.02	0.53	0.00	0.00	0.00	0.00	0.00	0.36	0.00	0.00
12-Mar	0.00	0.00	1.78	0.00	0.02	0.00	0.00	0.00	0.59	0.00	0.00
13-Mar	0.00	0.08	0.12	0.00	0.00	0.24	0.00	0.00	0.00	0.09	0.00
14-Mar	0.00	0.32	0.00	0.00	0.00	0.00	0.00	0.00	1.22	0.14	0.00
15-Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
16-Mar	0.00	0.06	0.00	0.60	0.00	0.02	0.00	0.00	0.61	0.00	0.00
17-Mar	0.00	0.00	0.00	0.24	0.00	0.83	0.00	0.00	1.73	0.50	0.00
18-Mar	0.00	0.00	0.00	0.00	0.00	0.05	0.69	0.00	0.30	0.30	0.00
19-Mar	0.00	0.00	0.00	0.00	0.00	0.55	0.00	0.43	0.00	0.05	0.00
20-Mar	0.00	0.00	0.00	0.00	0.00	0.19	0.00	1.13	0.00	0.00	0.00
21-Mar	0.00	0.00	0.00	0.00	0.36	0.00	0.01	0.00	0.00	0.90	0.00
22-Mar	0.00	0.42	0.00	0.00	1.32	0.00	0.00	0.00	0.00	0.28	0.00
23-Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
24-Mar	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.57	0.00
25-Mar	0.00	0.04	0.00	0.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26-Mar	0.03	0.00	0.00	0.00	0.00	0.00	0.39	0.12	0.26	0.00	0.00
27-Mar	0.37	0.00	0.00	0.00	0.00	1.91	0.00	0.00	0.00	0.00	0.00
28-Mar	0.00	0.00	0.00	0.00	0.00	0.90	0.00	0.00	0.07	0.08	0.00
29-Mar	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.10	0.00	0.00
30-Mar	0.05	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.58	0.00	0.00
31-Mar	0.00	0.00	0.00	0.01	0.78	0.00	0.00	0.00	0.00	0.00	0.00
1-Apr	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	1.80	0.00	0.00
2-Apr	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00
3-Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4-Apr	0.00	0.00	0.36	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00
5-Apr	0.00	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00
6-Apr	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00
7-Apr	0.00	0.21	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00
8-Apr	0.00	0.04	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9-Apr	0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10-Apr	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00
11-Apr	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.82	0.00	0.00
12-Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00
13-Apr	0.00	0.00	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14-Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15-Apr	0.00	0.40	0.00	0.00	0.90	0.00	0.00	0.00	0.00	0.00	0.20
16-Apr	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.00	0.00
17-Apr	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00
18-Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	1.17	2.30
19-Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.27	0.25
20-Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00
21-Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.34	0.00
22-Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00
23-Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
24-Apr	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00
25-Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26-Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27-Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28-Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00
29-Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.79	0.00
30-Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.86	0.00

RC 7/2/01

GeoSyntec Consultants

DAILY RAINFALL FOR BURBANK VALLEY PUMP PLANT WEATHER STATION
LEACHATE PRODUCTION ANALYSIS
PROPOSED VERTICAL EXPANSION BRADLEY WEST LANDFILL
SUN VALLEY ,CALIFORNIA

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	2000
1-May	0.00	0.00	0.00	0.04	0.07	0.00	0.00	0.00	0.00	0.25	0.00
2-May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00
3-May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4-May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
5-May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6-May	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7-May	0.00	0.00	0.14	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8-May	0.00	0.00	0.00	2.29	0.00	0.00	0.00	0.00	0.02	0.00	0.00
9-May	0.00	0.00	0.00	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10-May	0.00	0.00	0.00	0.05	0.00	0.00	0.16	0.00	0.00	0.00	0.00
11-May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
12-May	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13-May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14-May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15-May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16-May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17-May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18-May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19-May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20-May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21-May	0.00	0.02	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00
22-May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23-May	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24-May	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25-May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26-May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27-May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
28-May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29-May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31-May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7-Jun	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
8-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10-Jun	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
18-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
19-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

RC 7/2/01

GeoSyntec Consultants

DAILY RAINFALL FOR BURBANK VALLEY PUMP PLANT WEATHER STATION
LEACHATE PRODUCTION ANALYSIS
PROPOSED VERTICAL EXPANSION BRADLEY WEST LANDFILL
SUN VALLEY ,CALIFORNIA

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	2000
1-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00
3-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22-Jul	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31-Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15-Aug	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00
16-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17-Aug	0.00	0.00	0.00	2.86	0.00	0.00	0.00	0.00	0.00	0.09	0.00
18-Aug	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.19	0.00
19-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.00
20-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
21-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
30-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
31-Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

DAILY RAINFALL FOR BURBANK VALLEY PUMP PLANT WEATHER STATION
LEACHATE PRODUCTION ANALYSIS
PROPOSED VERTICAL EXPANSION BRADLEY WEST LANDFILL
SUN VALLEY ,CALIFORNIA

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	2000
1-Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3-Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4-Sep	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5-Sep	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00
6-Sep	0.00	0.00	0.82	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00
7-Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8-Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00
9-Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
10-Sep	0.00	0.00	1.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11-Sep	0.00	0.00	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12-Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13-Sep	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
14-Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15-Sep	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
16-Sep	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
17-Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18-Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00
19-Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20-Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00
21-Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00
22-Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23-Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22
24-Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25-Sep	0.00	0.00	0.08	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
26-Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.62	0.02	0.00
27-Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28-Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29-Sep	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.00
30-Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	1.10	0.00
1-Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00	1.63	0.00
2-Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3-Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00
4-Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5-Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.00
6-Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7-Oct	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00
8-Oct	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9-Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10-Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11-Oct	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12-Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13-Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14-Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15-Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16-Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17-Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18-Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19-Oct	0.00	0.00	0.00	0.02	0.00	0.04	0.00	0.00	0.00	0.00	0.00
20-Oct	0.00	0.00	0.00	0.00	0.07	0.45	0.00	0.00	0.00	0.00	0.00
21-Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22-Oct	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23-Oct	0.00	0.00	1.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22
24-Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25-Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26-Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00
27-Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28-Oct	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00
29-Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-Oct	0.00	0.05	0.00	0.00	0.01	0.00	0.00	0.00	0.11	0.15	0.00
31-Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00

AC 7/2/01

GeoSyntec Consultants

DAILY RAINFALL FOR BURBANK VALLEY PUMP PLANT WEATHER STATION
LEACHATE PRODUCTION ANALYSIS
PROPOSED VERTICAL EXPANSION BRADLEY WEST LANDFILL
SUN VALLEY ,CALIFORNIA

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	2000
1-Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.00
2-Nov	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00
3-Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4-Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5-Nov	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6-Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00
7-Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8-Nov	0.00	0.00	0.00	0.00	0.00	0.66	0.00	0.00	0.00	0.00	0.00
9-Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.91	0.00	0.00
10-Nov	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.13	0.00	0.00
11-Nov	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.25	0.00
12-Nov	0.00	0.00	0.78	0.00	0.03	0.00	0.00	0.00	0.00	0.25	0.00
13-Nov	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.11	0.00
14-Nov	0.00	0.00	0.02	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
15-Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16-Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17-Nov	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00
18-Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19-Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00
20-Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00
21-Nov	0.00	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.00	0.00	0.00
22-Nov	0.03	0.00	0.00	0.00	0.36	0.00	0.00	0.00	0.00	0.00	0.00
23-Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24-Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00
25-Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0.00
26-Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27-Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.00	0.00	0.00
28-Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.11	0.00	0.00	0.00
29-Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00
30-Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
1-Dec	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.07	0.00
2-Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3-Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4-Dec	2.76	0.00	0.00	0.00	0.00	0.00	0.70	0.00	0.00	0.26	0.00
5-Dec	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6-Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7-Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8-Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
9-Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00
10-Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
11-Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00
12-Dec	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13-Dec	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14-Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15-Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16-Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17-Dec	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00
18-Dec	0.00	0.00	0.00	0.40	1.00	0.00	0.00	0.00	0.00	0.00	0.00
19-Dec	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00
20-Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21-Dec	0.00	0.00	0.00	0.40	0.00	0.09	0.00	0.00	0.00	0.00	0.00
22-Dec	0.00	0.00	0.00	0.10	0.00	0.08	0.00	0.00	0.64	0.00	0.00
23-Dec	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.51	0.00	0.00
24-Dec	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.30	0.00
25-Dec	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	2.10	0.00
26-Dec	0.00	0.00	0.00	1.69	0.00	0.00	0.00	0.00	0.00	0.08	0.00
27-Dec	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.19	0.00
28-Dec	0.69	0.00	0.00	2.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29-Dec	0.70	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.03	0.00	0.00
30-Dec	0.00	0.00	0.49	0.02	0.00	0.00	0.00	0.39	0.00	0.00	0.00
31-Dec	0.06	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ATTACHMENT 5

HELP OUTPUT - CABLIBRATION

RC 7/2/01 MC

****
****
**
**
** HYDROLOGIC EVALUATION OF LANDFILL PERFORMANCE
** HELP MODEL VERSION 3.07 (1 NOVEMBER 1997)
** DEVELOPED BY ENVIRONMENTAL LABORATORY
** USAE WATERWAYS EXPERIMENT STATION
** FOR USEPA RISK REDUCTION ENGINEERING LABORATORY
**
**
****
****

PRECIPITATION DATA FILE: P:\PRJ2\CAWP\RC\PROGRAMS\HELP307\BRADLEY.D4
TEMPERATURE DATA FILE: P:\PRJ2\CAWP\RC\PROGRAMS\HELP307\BRADLEY.D7
SOLAR RADIATION DATA FILE: P:\PRJ2\CAWP\RC\PROGRAMS\HELP307\BRADLEY.D13
EVAPOTRANSPIRATION DATA: P:\PRJ2\CAWP\RC\PROGRAMS\HELP307\BRADLEY.D11
SOIL AND DESIGN DATA FILE: P:\PRJ2\CAWP\RC\PROGRAMS\HELP307\BRADLEY.D10
OUTPUT DATA FILE: P:\PRJ2\CAWP\RC\PROGRAMS\HELP307\BRADLEY.OUT

TIME: 14:46 DATE: 7/ 2/2001

****

TITLE: Bradley West Vertical Expansion

****

NOTE: INITIAL MOISTURE CONTENT OF THE LAYERS AND SNOW WATER WERE SPECIFIED BY THE USER.

LAYER 1

TYPE 1 - VERTICAL PERCOLATION LAYER
MATERIAL TEXTURE NUMBER 6

THICKNESS	=	12.00	INCHES
POROSITY	=	0.4530	VOL/VOL
FIELD CAPACITY	=	0.1900	VOL/VOL
WILTING POINT	=	0.0850	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.1900	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.720000011000E-03	CM/SEC

NOTE: SATURATED HYDRAULIC CONDUCTIVITY IS MULTIPLIED BY 2.36 FOR ROOT CHANNELS IN TOP HALF OF EVAPORATIVE ZONE.

RC 7/2/01

LAYER 2

TYPE 1 - VERTICAL PERCOLATION LAYER
MATERIAL TEXTURE NUMBER 18

THICKNESS	=	3120.00	INCHES
POROSITY	=	0.6710	VOL/VOL
FIELD CAPACITY	=	0.2920	VOL/VOL
WILTING POINT	=	0.0770	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.2690	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.100000005000E-02	CM/SEC

GENERAL DESIGN AND EVAPORATIVE ZONE DATA

NOTE: SCS RUNOFF CURVE NUMBER WAS COMPUTED FROM DEFAULT SOIL DATA BASE USING SOIL TEXTURE # 6 WITH A FAIR STAND OF GRASS, A SURFACE SLOPE OF 4.% AND A SLOPE LENGTH OF 1200. FEET.

SCS RUNOFF CURVE NUMBER	=	67.10	
FRACTION OF AREA ALLOWING RUNOFF	=	100.0	PERCENT
AREA PROJECTED ON HORIZONTAL PLANE	=	84.000	ACRES
EVAPORATIVE ZONE DEPTH	=	12.0	INCHES
INITIAL WATER IN EVAPORATIVE ZONE	=	2.280	INCHES
UPPER LIMIT OF EVAPORATIVE STORAGE	=	5.436	INCHES
LOWER LIMIT OF EVAPORATIVE STORAGE	=	1.020	INCHES
INITIAL SNOW WATER	=	0.000	INCHES
INITIAL WATER IN LAYER MATERIALS	=	841.560	INCHES
TOTAL INITIAL WATER	=	841.560	INCHES
TOTAL SUBSURFACE INFLOW	=	0.00	INCHES/YEAR

EVAPOTRANSPIRATION AND WEATHER DATA

NOTE: EVAPOTRANSPIRATION DATA WAS OBTAINED FROM
LOS ANGELES CALIFORNIA

STATION LATITUDE	=	33.80	DEGREES
MAXIMUM LEAF AREA INDEX	=	1.50	
START OF GROWING SEASON (JULIAN DATE)	=	0	
END OF GROWING SEASON (JULIAN DATE)	=	367	
EVAPORATIVE ZONE DEPTH	=	12.0	INCHES
AVERAGE ANNUAL WIND SPEED	=	7.40	MPH
AVERAGE 1ST QUARTER RELATIVE HUMIDITY	=	67.00	%
AVERAGE 2ND QUARTER RELATIVE HUMIDITY	=	74.00	%
AVERAGE 3RD QUARTER RELATIVE HUMIDITY	=	75.00	%
AVERAGE 4TH QUARTER RELATIVE HUMIDITY	=	67.00	%

NOTE: PRECIPITATION DATA FOR LOS ANGELES CALIFORNIA
WAS ENTERED FROM AN ASCII DATA FILE.

RC 7/2/01

NOTE: TEMPERATURE DATA WAS SYNTHETICALLY GENERATED USING
COEFFICIENTS FOR LOS ANGELES . CALIFORNIA

NORMAL MEAN MONTHLY TEMPERATURE (DEGREES FAHRENHEIT)

JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
56.00	57.10	57.40	59.50	62.40	65.60
69.00	70.30	69.50	66.30	61.20	57.00

NOTE: SOLAR RADIATION DATA WAS SYNTHETICALLY GENERATED USING
COEFFICIENTS FOR LOS ANGELES CALIFORNIA
AND STATION LATITUDE = 33.80 DEGREES

****

MONTHLY TOTALS (IN INCHES) FOR YEAR 2000

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	1.70	7.35	2.72	2.75	0.00	0.00
	0.00	0.15	0.22	0.22	0.00	0.00
RUNOFF	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
EVAPOTRANSPIRATION	0.239	2.014	2.366	2.026	0.000	0.000
	0.000	0.103	0.267	0.216	0.004	0.000
PERCOLATION/LEAKAGE THROUGH	0.0113	0.0005	0.0569	0.0000	0.0000	0.0000
LAYER 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

****

****

ANNUAL TOTALS FOR YEAR 2000

	INCHES	CU. FEET	PERCENT
PRECIPITATION	15.11	4607342.000	100.00
RUNOFF	0.000	0.000	0.00
EVAPOTRANSPIRATION	7.235	2206128.500	47.88
PERC./LEAKAGE THROUGH LAYER 2	0.068640	20929.584	0.45

AC 7/2/01

CHANGE IN WATER STORAGE	7.806	2380270.500	51.66
SOIL WATER AT START OF YEAR	841.560	256608448.000	
SOIL WATER AT END OF YEAR	849.366	258988720.000	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	13.281	0.00

****

****

AVERAGE MONTHLY VALUES IN INCHES FOR YEARS 2000 THROUGH 2000

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION						
TOTALS	1.70	7.35	2.72	2.75	0.00	0.00
	0.00	0.15	0.22	0.22	0.00	0.00
STD. DEVIATIONS	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00
RUNOFF						
TOTALS	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATIONS	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
EVAPOTRANSPIRATION						
TOTALS	0.239	2.014	2.366	2.026	0.000	0.000
	0.000	0.103	0.267	0.216	0.004	0.000
STD. DEVIATIONS	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
PERCOLATION/LEAKAGE THROUGH LAYER 2						
TOTALS	0.0113	0.0005	0.0569	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

****

RL 7/2/01

****

AVERAGE ANNUAL TOTALS & (STD. DEVIATIONS) FOR YEARS 2000 THROUGH 2000

	INCHES		CU. FEET	PERCENT
PRECIPITATION	15.11	(0.000)	4607342.0	100.00
RUNOFF	0.000	(0.0000)	0.00	0.000
EVAPOTRANSPIRATION	7.235	(0.0000)	2206128.50	47.883
PERCOLATION/LEAKAGE THROUGH LAYER 2	0.06864	(0.00000)	20929.584	0.45427
CHANGE IN WATER STORAGE	7.806	(0.0000)	2380270.50	51.663

****

RC 7/2/01

****

PEAK DAILY VALUES FOR YEARS 2000 THROUGH 2000

	(INCHES)	(CU. FT.)	
PRECIPITATION	2.30	701316.000	
RUNOFF	0.000	0.0000	
PERCOLATION/LEAKAGE THROUGH LAYER 2	0.039191	11950.10550	*
SNOW WATER	0.00	0.0000	

MAXIMUM VEG. SOIL WATER (VOL/VOL)	0.3008
MINIMUM VEG. SOIL WATER (VOL/VOL)	0.0850

****

LC 7/2/01

****

FINAL WATER STORAGE AT END OF YEAR 2000

LAYER	(INCHES)	(VOL/VOL)
1	1.0200	0.0850
2	848.3462	0.2719
SNOW WATER	0.000	

****
****

ATTACHMENT 6

HELP OUTPUT - EXISTING LANDFILL CONFIGURATION

RC 7/2/01 MC

```
**********************************************************************************
**********************************************************************************
**                                                                              **
**                                                                              **
**              HYDROLOGIC EVALUATION OF LANDFILL PERFORMANCE                   **
**                   HELP MODEL VERSION 3.07  (1 NOVEMBER 1997)                 **
**                   DEVELOPED BY ENVIRONMENTAL LABORATORY                      **
**                   USAE WATERWAYS EXPERIMENT STATION                          **
**              FOR USEPA RISK REDUCTION ENGINEERING LABORATORY                 **
**                                                                              **
**                                                                              **
**********************************************************************************
**********************************************************************************


PRECIPITATION DATA FILE:     P:\PRJ2\CAWP\RC\PROGRAMS\HELP307\BRAD01.D4
TEMPERATURE DATA FILE:       P:\PRJ2\CAWP\RC\PROGRAMS\HELP307\BRAD01.D7
SOLAR RADIATION DATA FILE:   P:\PRJ2\CAWP\RC\PROGRAMS\HELP307\BRAD01.D13
EVAPOTRANSPIRATION DATA:     P:\PRJ2\CAWP\RC\PROGRAMS\HELP307\BEVA01.D11
SOIL AND DESIGN DATA FILE:   P:\PRJ2\CAWP\RC\PROGRAMS\HELP307\BRADLEY.D10
OUTPUT DATA FILE:            P:\PRJ2\CAWP\RC\PROGRAMS\HELP307\BRAD01.OUT


TIME:  14:49     DATE:   7/ 2/2001


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

     TITLE:  Bradley West Vertical Expansion

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


     NOTE:  INITIAL MOISTURE CONTENT OF THE LAYERS AND SNOW WATER
            WERE SPECIFIED BY THE USER.


                                  LAYER  1
                                  --------

                  TYPE 1 - VERTICAL PERCOLATION LAYER
                      MATERIAL TEXTURE NUMBER   6
          THICKNESS                     =     12.00   INCHES
          POROSITY                      =      0.4530 VOL/VOL
          FIELD CAPACITY                =      0.1900 VOL/VOL
          WILTING POINT                 =      0.0850 VOL/VOL
          INITIAL SOIL WATER CONTENT    =      0.1900 VOL/VOL
          EFFECTIVE SAT. HYD. COND.     = 0.720000011000E-03 CM/SEC
        NOTE:  SATURATED HYDRAULIC CONDUCTIVITY IS MULTIPLIED BY  1.80
               FOR ROOT CHANNELS IN TOP HALF OF EVAPORATIVE ZONE.
```

RL 7/2/01

LAYER 2

TYPE 1 - VERTICAL PERCOLATION LAYER
MATERIAL TEXTURE NUMBER 18

THICKNESS	=	3120.00	INCHES
POROSITY	=	0.6710	VOL/VOL
FIELD CAPACITY	=	0.2920	VOL/VOL
WILTING POINT	=	0.0770	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.2690	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.100000005000E-02	CM/SEC

GENERAL DESIGN AND EVAPORATIVE ZONE DATA

NOTE: SCS RUNOFF CURVE NUMBER WAS COMPUTED FROM DEFAULT SOIL DATA BASE USING SOIL TEXTURE # 6 WITH A FAIR STAND OF GRASS, A SURFACE SLOPE OF 4.% AND A SLOPE LENGTH OF 1200. FEET.

SCS RUNOFF CURVE NUMBER	=	67.10	
FRACTION OF AREA ALLOWING RUNOFF	=	100.0	PERCENT
AREA PROJECTED ON HORIZONTAL PLANE	=	84.000	ACRES
EVAPORATIVE ZONE DEPTH	=	16.0	INCHES
INITIAL WATER IN EVAPORATIVE ZONE	=	3.356	INCHES
UPPER LIMIT OF EVAPORATIVE STORAGE	=	8.120	INCHES
LOWER LIMIT OF EVAPORATIVE STORAGE	=	1.328	INCHES
INITIAL SNOW WATER	=	0.000	INCHES
INITIAL WATER IN LAYER MATERIALS	=	841.560	INCHES
TOTAL INITIAL WATER	=	841.560	INCHES
TOTAL SUBSURFACE INFLOW	=	0.00	INCHES/YEAR

EVAPOTRANSPIRATION AND WEATHER DATA

NOTE: EVAPOTRANSPIRATION DATA WAS OBTAINED FROM
BAKERSFIELD CALIFORNIA

STATION LATITUDE	=	35.42	DEGREES
MAXIMUM LEAF AREA INDEX	=	1.00	
START OF GROWING SEASON (JULIAN DATE)	=	44	
END OF GROWING SEASON (JULIAN DATE)	=	331	
EVAPORATIVE ZONE DEPTH	=	16.0	INCHES
AVERAGE ANNUAL WIND SPEED	=	6.40	MPH
AVERAGE 1ST QUARTER RELATIVE HUMIDITY	=	67.00	%
AVERAGE 2ND QUARTER RELATIVE HUMIDITY	=	42.00	%
AVERAGE 3RD QUARTER RELATIVE HUMIDITY	=	38.00	%
AVERAGE 4TH QUARTER RELATIVE HUMIDITY	=	63.00	%

NOTE: PRECIPITATION DATA FOR LOS ANGELES CALIFORNIA
WAS ENTERED FROM AN ASCII DATA FILE.

RL 7/2/01

NOTE: TEMPERATURE DATA WAS SYNTHETICALLY GENERATED USING
COEFFICIENTS FOR LOS ANGELES CALIFORNIA

NORMAL MEAN MONTHLY TEMPERATURE (DEGREES FAHRENHEIT)

JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
56.00	57.10	57.40	59.50	62.40	65.60
69.00	70.30	69.50	66.30	61.20	57.00

NOTE: SOLAR RADIATION DATA WAS SYNTHETICALLY GENERATED USING
COEFFICIENTS FOR LOS ANGELES CALIFORNIA
AND STATION LATITUDE = 33.80 DEGREES

****

MONTHLY TOTALS (IN INCHES) FOR YEAR 1974

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	9.24	0.12	5.03	0.24	0.06	0.00
	0.00	0.00	0.00	0.54	0.05	4.24
RUNOFF	0.376	0.000	0.029	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.001
EVAPOTRANSPIRATION	2.300	0.959	2.415	0.783	0.479	0.000
	0.000	0.000	0.000	0.182	0.149	1.761
PERCOLATION/LEAKAGE THROUGH LAYER 2	0.1375	0.0000	0.0133	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

****

****

ANNUAL TOTALS FOR YEAR 1974

	INCHES	CU. FEET	PERCENT
PRECIPITATION	19.52	5952039.000	100.00
RUNOFF	0.406	123850.422	2.08
EVAPOTRANSPIRATION	9.027	2752654.250	46.25
PERC./LEAKAGE THROUGH LAYER 2	0.150795	45980.387	0.77

RC 7/2/01

CHANGE IN WATER STORAGE	9.936	3029565.500	50.90
SOIL WATER AT START OF YEAR	841.560	256608448.000	
SOIL WATER AT END OF YEAR	851.496	259638016.000	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-11.550	0.00

****

****

MONTHLY TOTALS (IN INCHES) FOR YEAR 1975

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.01	2.62	4.59	1.86	0.02	0.00
	0.00	0.00	0.10	0.19	0.00	0.27
RUNOFF	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
EVAPOTRANSPIRATION	1.466	2.222	3.032	2.184	0.434	0.000
	0.000	0.000	0.100	0.138	0.050	0.086
PERCOLATION/LEAKAGE THROUGH LAYER 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

****

****

ANNUAL TOTALS FOR YEAR 1975

	INCHES	CU. FEET	PERCENT
PRECIPITATION	9.66	2945527.750	100.00
RUNOFF	0.000	0.000	0.00
EVAPOTRANSPIRATION	9.712	2961460.000	100.54
PERC./LEAKAGE THROUGH LAYER 2	0.000000	0.000	0.00
CHANGE IN WATER STORAGE	-0.052	-15949.490	-0.54
SOIL WATER AT START OF YEAR	851.496	259638016.000	

RC 7/2/01

SOIL WATER AT END OF YEAR	851.443	259622064.000	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0001	17.157	0.00

****

****

MONTHLY TOTALS (IN INCHES) FOR YEAR 1976

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.00	4.65	4.65	0.82	0.14	0.08
	0.02	0.15	3.39	1.76	0.80	0.54
RUNOFF	0.000	0.002	0.005	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
EVAPOTRANSPIRATION	0.117	1.845	2.368	0.976	0.536	0.080
	0.020	0.150	3.230	0.943	1.646	0.113
PERCOLATION/LEAKAGE THROUGH LAYER 2	0.0000	0.0074	0.0081	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

****

****

ANNUAL TOTALS FOR YEAR 1976

	INCHES	CU. FEET	PERCENT
PRECIPITATION	17.00	5183640.000	100.00
RUNOFF	0.007	2134.084	0.04
EVAPOTRANSPIRATION	12.025	3666624.250	70.73
PERC./LEAKAGE THROUGH LAYER 2	0.015441	4708.234	0.09
CHANGE IN WATER STORAGE	4.953	1510176.620	29.13
SOIL WATER AT START OF YEAR	851.443	259622064.000	
SOIL WATER AT END OF YEAR	856.396	261132256.000	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00

RC 7/2/01

SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-3.126	0.00

****

****

MONTHLY TOTALS (IN INCHES) FOR YEAR 1977

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	4.37	0.20	1.85	0.00	3.79	0.00
	0.00	2.97	0.00	0.02	0.05	5.39
RUNOFF	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.003	0.000	0.000	0.000	0.058
EVAPOTRANSPIRATION	1.841	0.781	1.022	1.026	3.114	0.000
	0.000	2.640	0.067	0.020	0.050	0.416
PERCOLATION/LEAKAGE THROUGH	0.0172	0.0000	0.0000	0.0000	0.0000	0.0000
LAYER 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

****

****

ANNUAL TOTALS FOR YEAR 1977

	INCHES	CU. FEET	PERCENT
PRECIPITATION	18.64	5683708.500	100.00
RUNOFF	0.062	18759.258	0.33
EVAPOTRANSPIRATION	10.976	3346858.000	58.89
PERC./LEAKAGE THROUGH LAYER 2	0.017161	5232.874	0.09
CHANGE IN WATER STORAGE	7.585	2312843.500	40.69
SOIL WATER AT START OF YEAR	856.396	261132256.000	
SOIL WATER AT END OF YEAR	863.981	263445088.000	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	14.979	0.00

RC 7/2/01

****

****

MONTHLY TOTALS (IN INCHES) FOR YEAR 1978

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	6.29	9.52	12.87	2.21	0.07	0.00
	0.00	0.00	0.62	0.08	1.77	1.71
RUNOFF	0.000	0.539	1.086	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
EVAPOTRANSPIRATION	2.017	2.425	3.178	3.725	0.677	0.000
	0.000	0.000	0.620	0.056	0.214	0.993
PERCOLATION/LEAKAGE THROUGH	0.0406	0.2151	0.0184	0.0000	0.0000	0.0000
LAYER 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

****

****

ANNUAL TOTALS FOR YEAR 1978

	INCHES	CU. FEET	PERCENT
PRECIPITATION	35.14	10714890.000	100.00
RUNOFF	1.624	495235.344	4.62
EVAPOTRANSPIRATION	13.904	4239572.000	39.57
PERC./LEAKAGE THROUGH LAYER 2	0.274178	83602.273	0.78
CHANGE IN WATER STORAGE	19.338	5896491.000	55.03
SOIL WATER AT START OF YEAR	863.981	263445088.000	
SOIL WATER AT END OF YEAR	883.319	269341568.000	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-10.850	0.00

****

RC 7/2/01

MONTHLY TOTALS (IN INCHES) FOR YEAR 1979

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	6.79	2.84	5.56	0.00	0.00	0.04
	0.00	0.00	0.01	0.49	0.68	0.65
RUNOFF	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
EVAPOTRANSPIRATION	2.023	2.693	3.605	2.094	0.065	0.040
	0.000	0.000	0.010	0.076	0.177	0.193
PERCOLATION/LEAKAGE THROUGH LAYER 2	0.1955	0.0006	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

ANNUAL TOTALS FOR YEAR 1979

	INCHES	CU. FEET	PERCENT
PRECIPITATION	17.06	5201935.000	100.00
RUNOFF	0.000	121.391	0.00
EVAPOTRANSPIRATION	10.976	3346905.750	64.34
PERC./LEAKAGE THROUGH LAYER 2	0.196082	59789.457	1.15
CHANGE IN WATER STORAGE	5.887	1795108.500	34.51
SOIL WATER AT START OF YEAR	883.319	269341568.000	
SOIL WATER AT END OF YEAR	889.206	271136704.000	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	9.946	0.00

AC 7/2/01

MONTHLY TOTALS (IN INCHES) FOR YEAR 1980

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	7.43	15.19	6.00	0.59	0.25	0.00
	0.03	0.00	0.00	0.00	0.00	0.70
RUNOFF	0.059	1.574	0.045	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
EVAPOTRANSPIRATION	1.620	2.578	3.160	0.853	1.025	0.000
	0.030	0.000	0.000	0.000	0.000	0.135
PERCOLATION/LEAKAGE THROUGH LAYER 2	0.1981	0.0155	0.2550	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

****

****

ANNUAL TOTALS FOR YEAR 1980

	INCHES	CU. FEET	PERCENT
PRECIPITATION	30.19	9205535.000	100.00
RUNOFF	1.679	511840.437	5.56
EVAPOTRANSPIRATION	9.401	2866530.750	31.14
PERC./LEAKAGE THROUGH LAYER 2	0.468534	142865.437	1.55
CHANGE IN WATER STORAGE	18.642	5684309.000	61.75
SOIL WATER AT START OF YEAR	889.206	271136704.000	
SOIL WATER AT END OF YEAR	907.848	276820992.000	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-10.559	0.00

****

****

MONTHLY TOTALS (IN INCHES) FOR YEAR 1981

AL 7/2/01

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	2.99	1.99	5.62	0.57	0.01	0.00
	0.00	0.00	0.09	0.36	1.99	0.39
RUNOFF	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
EVAPOTRANSPIRATION	0.390	2.561	3.621	1.178	0.261	0.000
	0.000	0.000	0.010	0.255	0.174	0.259
PERCOLATION/LEAKAGE THROUGH LAYER 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

****

****

ANNUAL TOTALS FOR YEAR 1981

	INCHES	CU. FEET	PERCENT
PRECIPITATION	14.01	4271930.000	100.00
RUNOFF	0.000	0.000	0.00
EVAPOTRANSPIRATION	8.709	2655589.250	62.16
PERC./LEAKAGE THROUGH LAYER 2	0.000000	0.000	0.00
CHANGE IN WATER STORAGE	5.301	1616351.500	37.84
SOIL WATER AT START OF YEAR	907.848	276820992.000	
SOIL WATER AT END OF YEAR	913.149	278437344.000	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-10.759	0.00

****

****

MONTHLY TOTALS (IN INCHES) FOR YEAR 1982

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	2.67	0.38	6.00	2.69	0.10	0.04

RC 7/2/01

	0.00	0.00	1.06	0.17	3.54	1.20
RUNOFF	0.000	0.000	0.002	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
EVAPOTRANSPIRATION	2.041	1.247	2.727	3.423	0.186	0.040
	0.000	0.000	0.433	0.362	0.236	1.961
PERCOLATION/LEAKAGE THROUGH	0.2127	0.8647	0.1870	2.1502	0.7726	0.0000
LAYER 2	0.0000	0.0000	0.0000	0.0000	0.0000	1.5171

****

****

ANNUAL TOTALS FOR YEAR 1982

	INCHES	CU. FEET	PERCENT
PRECIPITATION	17.85	5442822.500	100.00
RUNOFF	0.002	752.843	0.01
EVAPOTRANSPIRATION	12.656	3859050.000	70.90
PERC./LEAKAGE THROUGH LAYER 2	5.704288	1739351.370	31.96
CHANGE IN WATER STORAGE	-0.513	-156331.062	-2.87
SOIL WATER AT START OF YEAR	913.149	278437344.000	
SOIL WATER AT END OF YEAR	912.636	278281024.000	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.582	0.00

****

****

MONTHLY TOTALS (IN INCHES) FOR YEAR 1983

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	5.76	5.10	12.40	5.47	0.32	0.00
	0.00	1.10	1.79	2.45	1.93	3.45
RUNOFF	0.000	0.000	2.997	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000

RL 7/2/01

EVAPOTRANSPIRATION	1.947	2.468	3.746	3.697	2.653	0.000
	0.000	0.851	0.437	2.962	1.393	1.715
PERCOLATION/LEAKAGE THROUGH	0.0748	0.8238	1.9162	2.2365	2.8873	2.9746
LAYER 2	2.0650	0.0240	0.0000	0.6213	0.0240	0.1678

****

****

ANNUAL TOTALS FOR YEAR 1983

	INCHES	CU. FEET	PERCENT
PRECIPITATION	39.77	12126667.000	100.00
RUNOFF	2.997	913878.312	7.54
EVAPOTRANSPIRATION	21.870	6668543.000	54.99
PERC./LEAKAGE THROUGH LAYER 2	13.815228	4212539.000	34.74
CHANGE IN WATER STORAGE	1.088	331701.000	2.74
SOIL WATER AT START OF YEAR	912.636	278281024.000	
SOIL WATER AT END OF YEAR	913.724	278612736.000	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	5.816	0.00

****

****

AVERAGE MONTHLY VALUES IN INCHES FOR YEARS 1974 THROUGH 1983

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION						
TOTALS	4.56	4.26	6.46	1.44	0.48	0.02
	0.00	0.42	0.71	0.61	1.08	1.85
STD. DEVIATIONS	3.11	4.79	3.47	1.70	1.17	0.03
	0.01	0.96	1.12	0.83	1.19	1.84
RUNOFF						

RC 7/2/01

TOTALS	0.044	0.211	0.416	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.006
STD. DEVIATIONS	0.118	0.508	0.968	0.000	0.000	0.000
	0.000	0.001	0.000	0.000	0.000	0.018
EVAPOTRANSPIRATION						
TOTALS	1.576	1.978	2.887	1.994	0.943	0.016
	0.005	0.364	0.491	0.499	0.409	0.763
STD. DEVIATIONS	0.737	0.725	0.814	1.220	1.063	0.028
	0.011	0.843	0.989	0.908	0.593	0.772
PERCOLATION/LEAKAGE THROUGH LAYER 2						
TOTALS	0.0876	0.1927	0.2398	0.4387	0.3660	0.2975
	0.2065	0.0024	0.0000	0.0621	0.0024	0.1685
STD. DEVIATIONS	0.0896	0.3498	0.5960	0.9250	0.9186	0.9407
	0.6530	0.0076	0.0000	0.1965	0.0076	0.4768

****

****

AVERAGE ANNUAL TOTALS & (STD. DEVIATIONS) FOR YEARS 1974 THROUGH 1983

	INCHES		CU. FEET	PERCENT
PRECIPITATION	21.88	(9.750)	6672869.0	100.00
RUNOFF	0.678	(1.0548)	206657.20	3.097
EVAPOTRANSPIRATION	11.926	(3.8753)	3636378.75	54.495
PERCOLATION/LEAKAGE THROUGH LAYER 2	2.06417	(4.48637)	629406.875	9.43233 *
CHANGE IN WATER STORAGE	7.216	(7.0372)	2200426.50	32.976

****

RC 7/2/01

****

PEAK DAILY VALUES FOR YEARS 1974 THROUGH 1983

	(INCHES)	(CU. FT.)
PRECIPITATION	5.45	1661814.000
RUNOFF	1.791	546051.6250
PERCOLATION/LEAKAGE THROUGH LAYER 2	0.158727	48398.94920 *
SNOW WATER	0.00	0.0000

MAXIMUM VEG. SOIL WATER (VOL/VOL)	0.4465
MINIMUM VEG. SOIL WATER (VOL/VOL)	0.0830

****

RC 7/2/01

****

FINAL WATER STORAGE AT END OF YEAR 1983

LAYER	(INCHES)	(VOL/VOL)
1	2.5794	0.2150
2	911.1446	0.2920
SNOW WATER	0.000	

****
****

ATTACHMENT 7

HELP OUTPUT - PROPOSED VERTICAL EXPANSION

ll me

```
*******************************************************************************
*******************************************************************************
**                                                                           **
**                                                                           **
**              HYDROLOGIC EVALUATION OF LANDFILL PERFORMANCE                **
**                 HELP MODEL VERSION 3.07  (1 NOVEMBER 1997)                **
**                 DEVELOPED BY ENVIRONMENTAL LABORATORY                     **
**                   USAE WATERWAYS EXPERIMENT STATION                       **
**              FOR USEPA RISK REDUCTION ENGINEERING LABORATORY               **
**                                                                           **
**                                                                           **
*******************************************************************************
*******************************************************************************
```

PRECIPITATION DATA FILE: P:\PRJ2\CAWP\RC\PROGRAMS\HELP307\BRAD01.D4
TEMPERATURE DATA FILE: P:\PRJ2\CAWP\RC\PROGRAMS\HELP307\BRAD01.D7
SOLAR RADIATION DATA FILE: P:\PRJ2\CAWP\RC\PROGRAMS\HELP307\BRAD01.D13
EVAPOTRANSPIRATION DATA: P:\PRJ2\CAWP\RC\PROGRAMS\HELP307\BEVA01.D11
SOIL AND DESIGN DATA FILE: P:\PRJ2\CAWP\RC\PROGRAMS\HELP307\BRAD03.D10
OUTPUT DATA FILE: P:\PRJ2\CAWP\RC\PROGRAMS\HELP307\brad03.OUT

TIME: 15:24 DATE: 7/19/2001

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

TITLE: Bradley West Vertical Expansion

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

NOTE: INITIAL MOISTURE CONTENT OF THE LAYERS AND SNOW WATER WERE SPECIFIED BY THE USER.

LAYER 1

TYPE 1 - VERTICAL PERCOLATION LAYER
MATERIAL TEXTURE NUMBER 6

THICKNESS	=	12.00	INCHES
POROSITY	=	0.4530	VOL/VOL
FIELD CAPACITY	=	0.1900	VOL/VOL
WILTING POINT	=	0.0850	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.1900	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.720000011000E-03	CM/SEC

NOTE: SATURATED HYDRAULIC CONDUCTIVITY IS MULTIPLIED BY 1.80 FOR ROOT CHANNELS IN TOP HALF OF EVAPORATIVE ZONE.

AC MC

LAYER 2

TYPE 1 - VERTICAL PERCOLATION LAYER
MATERIAL TEXTURE NUMBER 18

THICKNESS	=	516.00	INCHES
POROSITY	=	0.6710	VOL/VOL
FIELD CAPACITY	=	0.2920	VOL/VOL
WILTING POINT	=	0.0770	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.2690	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.100000005000E-02	CM/SEC

LAYER 3

TYPE 1 - VERTICAL PERCOLATION LAYER
MATERIAL TEXTURE NUMBER 6

THICKNESS	=	12.00	INCHES
POROSITY	=	0.4530	VOL/VOL
FIELD CAPACITY	=	0.1900	VOL/VOL
WILTING POINT	=	0.0850	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.1900	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.720000011000E-03	CM/SEC

LAYER 4

TYPE 1 - VERTICAL PERCOLATION LAYER
MATERIAL TEXTURE NUMBER 18

THICKNESS	=	3120.00	INCHES
POROSITY	=	0.6710	VOL/VOL
FIELD CAPACITY	=	0.2920	VOL/VOL
WILTING POINT	=	0.0770	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.2690	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.100000005000E-02	CM/SEC

GENERAL DESIGN AND EVAPORATIVE ZONE DATA

NOTE: SCS RUNOFF CURVE NUMBER WAS COMPUTED FROM DEFAULT SOIL DATA BASE USING SOIL TEXTURE # 6 WITH A FAIR STAND OF GRASS, A SURFACE SLOPE OF 4.% AND A SLOPE LENGTH OF 800. FEET.

SCS RUNOFF CURVE NUMBER	=	67.90	
FRACTION OF AREA ALLOWING RUNOFF	=	100.0	PERCENT
AREA PROJECTED ON HORIZONTAL PLANE	=	84.000	ACRES
EVAPORATIVE ZONE DEPTH	=	16.0	INCHES
INITIAL WATER IN EVAPORATIVE ZONE	=	3.356	INCHES
UPPER LIMIT OF EVAPORATIVE STORAGE	=	8.120	INCHES
LOWER LIMIT OF EVAPORATIVE STORAGE	=	1.328	INCHES

LC MC

INITIAL SNOW WATER	=	0.000	INCHES
INITIAL WATER IN LAYER MATERIALS	=	982.644	INCHES
TOTAL INITIAL WATER	=	982.644	INCHES
TOTAL SUBSURFACE INFLOW	=	0.00	INCHES/YEAR

EVAPOTRANSPIRATION AND WEATHER DATA

NOTE: EVAPOTRANSPIRATION DATA WAS OBTAINED FROM
BAKERSFIELD CALIFORNIA

STATION LATITUDE	=	35.42	DEGREES
MAXIMUM LEAF AREA INDEX	=	1.00	
START OF GROWING SEASON (JULIAN DATE)	=	44	
END OF GROWING SEASON (JULIAN DATE)	=	331	
EVAPORATIVE ZONE DEPTH	=	16.0	INCHES
AVERAGE ANNUAL WIND SPEED	=	6.40	MPH
AVERAGE 1ST QUARTER RELATIVE HUMIDITY	=	67.00	%
AVERAGE 2ND QUARTER RELATIVE HUMIDITY	=	42.00	%
AVERAGE 3RD QUARTER RELATIVE HUMIDITY	=	38.00	%
AVERAGE 4TH QUARTER RELATIVE HUMIDITY	=	63.00	%

NOTE: PRECIPITATION DATA FOR LOS ANGELES CALIFORNIA
WAS ENTERED FROM AN ASCII DATA FILE.

NOTE: TEMPERATURE DATA WAS SYNTHETICALLY GENERATED USING
COEFFICIENTS FOR LOS ANGELES CALIFORNIA

NORMAL MEAN MONTHLY TEMPERATURE (DEGREES FAHRENHEIT)

JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
56.00	57.10	57.40	59.50	62.40	65.60
69.00	70.30	69.50	66.30	61.20	57.00

NOTE: SOLAR RADIATION DATA WAS SYNTHETICALLY GENERATED USING
COEFFICIENTS FOR LOS ANGELES CALIFORNIA
AND STATION LATITUDE = 33.80 DEGREES

****

MONTHLY TOTALS (IN INCHES) FOR YEAR 1974

JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC

LC MC

PRECIPITATION	9.24	0.12	5.03	0.24	0.06	0.00
	0.00	0.00	0.00	0.54	0.05	4.24
RUNOFF	0.411	0.000	0.039	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.004
EVAPOTRANSPIRATION	2.296	0.959	2.414	0.786	0.468	0.000
	0.000	0.000	0.000	0.181	0.148	1.761
PERCOLATION/LEAKAGE THROUGH LAYER 4	0.0241	0.0134	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

****

****

ANNUAL TOTALS FOR YEAR 1974

	INCHES	CU. FEET	PERCENT
PRECIPITATION	19.52	5952039.000	100.00
RUNOFF	0.453	138161.406	2.32
EVAPOTRANSPIRATION	9.014	2748417.750	46.18
PERC./LEAKAGE THROUGH LAYER 4	0.037461	11422.662	0.19
CHANGE IN WATER STORAGE	10.016	3054038.750	51.31
SOIL WATER AT START OF YEAR	982.644	299627776.000	
SOIL WATER AT END OF YEAR	992.660	302681824.000	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-1.477	0.00

****

****

MONTHLY TOTALS (IN INCHES) FOR YEAR 1975

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.01	2.62	4.59	1.86	0.02	0.00
	0.00	0.00	0.10	0.19	0.00	0.27
RUNOFF	0.000	0.000	0.000	0.000	0.000	0.000

	0.000	0.000	0.000	0.000	0.000	0.000
EVAPOTRANSPIRATION	1.466	2.222	3.032	2.184	0.434	0.000
	0.000	0.000	0.100	0.138	0.050	0.086
PERCOLATION/LEAKAGE THROUGH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAYER 4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

****

****

ANNUAL TOTALS FOR YEAR 1975

	INCHES	CU. FEET	PERCENT
PRECIPITATION	9.66	2945527.750	100.00
RUNOFF	0.000	0.000	0.00
EVAPOTRANSPIRATION	9.712	2961475.750	100.54
PERC./LEAKAGE THROUGH LAYER 4	0.000000	0.000	0.00
CHANGE IN WATER STORAGE	-0.052	-15949.490	-0.54
SOIL WATER AT START OF YEAR	992.660	302681824.000	
SOIL WATER AT END OF YEAR	992.607	302665888.000	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	1.454	0.00

****

****

MONTHLY TOTALS (IN INCHES) FOR YEAR 1976

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.00	4.65	4.65	0.82	0.14	0.08
	0.02	0.15	3.39	1.76	0.80	0.54
RUNOFF	0.000	0.004	0.009	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
EVAPOTRANSPIRATION	0.117	1.845	2.388	0.976	0.529	0.080
	0.020	0.150	3.229	0.944	1.646	0.113

ll MC

PERCOLATION/LEAKAGE THROUGH LAYER 4	0.0000	0.0000	0.0000	0.1023	0.0866	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

****

****

ANNUAL TOTALS FOR YEAR 1976

	INCHES	CU. FEET	PERCENT
PRECIPITATION	17.00	5183640.000	100.00
RUNOFF	0.013	3956.831	0.08
EVAPOTRANSPIRATION	12.038	3670519.750	70.81
PERC./LEAKAGE THROUGH LAYER 4	0.188907	57601.637	1.11
CHANGE IN WATER STORAGE	4.760	1451552.500	28.00
SOIL WATER AT START OF YEAR	992.607	302665888.000	
SOIL WATER AT END OF YEAR	997.368	304117440.000	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	9.392	0.00

****

****

MONTHLY TOTALS (IN INCHES) FOR YEAR 1977

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	4.37	0.20	1.85	0.00	3.79	0.00
	0.00	2.97	0.00	0.02	0.05	5.39
RUNOFF	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.007	0.000	0.000	0.000	0.070
EVAPOTRANSPIRATION	1.841	0.781	1.022	1.026	3.088	0.000
	0.000	2.614	0.091	0.020	0.050	0.416
PERCOLATION/LEAKAGE THROUGH LAYER 4	0.0000	0.1770	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

ANNUAL TOTALS FOR YEAR 1977

	INCHES	CU. FEET	PERCENT
PRECIPITATION	18.64	5683708.500	100.00
RUNOFF	0.078	23689.105	0.42
EVAPOTRANSPIRATION	10.948	3338310.750	58.73
PERC./LEAKAGE THROUGH LAYER 4	0.176974	53962.840	0.95
CHANGE IN WATER STORAGE	7.437	2267749.500	39.90
SOIL WATER AT START OF YEAR	997.368	304117440.000	
SOIL WATER AT END OF YEAR	1004.805	306385184.000	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-3.449	0.00

MONTHLY TOTALS (IN INCHES) FOR YEAR 1978

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	6.29	9.52	12.87	2.21	0.07	0.00
	0.00	0.00	0.62	0.08	1.77	1.71
RUNOFF	0.000	0.578	1.167	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
EVAPOTRANSPIRATION	2.018	2.426	3.179	3.728	0.663	0.000
	0.000	0.000	0.620	0.056	0.213	0.993
PERCOLATION/LEAKAGE THROUGH LAYER 4	0.0176	0.1299	0.0001	0.0000	0.0000	0.0000
	0.1756	0.0000	0.0000	0.0000	0.0000	0.0000

MC

ANNUAL TOTALS FOR YEAR 1978

	INCHES	CU. FEET	PERCENT
PRECIPITATION	35.14	10714890.000	100.00
RUNOFF	1.744	531927.437	4.96
EVAPOTRANSPIRATION	13.897	4237429.000	39.55
PERC./LEAKAGE THROUGH LAYER 4	0.323211	98553.500	0.92
CHANGE IN WATER STORAGE	19.175	5846967.500	54.57
SOIL WATER AT START OF YEAR	1004.805	306385184.000	
SOIL WATER AT END OF YEAR	1023.981	312232128.000	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	12.122	0.00

MONTHLY TOTALS (IN INCHES) FOR YEAR 1979

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	6.79	2.84	5.56	0.00	0.00	0.04
	0.00	0.00	0.01	0.49	0.68	0.65
RUNOFF	0.002	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
EVAPOTRANSPIRATION	2.024	2.694	3.605	2.094	0.064	0.040
	0.000	0.000	0.010	0.076	0.177	0.193
PERCOLATION/LEAKAGE THROUGH LAYER 4	0.0000	0.0000	0.0744	0.1707	0.0208	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

ANNUAL TOTALS FOR YEAR 1979

AC

MC

	INCHES	CU. FEET	PERCENT
PRECIPITATION	17.06	5201935.000	100.00
RUNOFF	0.002	513.894	0.01
EVAPOTRANSPIRATION	10.979	3347616.000	64.35
PERC./LEAKAGE THROUGH LAYER 4	0.265916	81082.977	1.56
CHANGE IN WATER STORAGE	5.814	1772738.370	34.08
SOIL WATER AT START OF YEAR	1023.981	312232128.000	
SOIL WATER AT END OF YEAR	1029.794	314004896.000	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	-0.0001	-16.257	0.00

****

****

MONTHLY TOTALS (IN INCHES) FOR YEAR 1980

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	7.43	15.19	6.00	0.59	0.25	0.00
	0.03	0.00	0.00	0.00	0.00	0.70
RUNOFF	0.073	1.652	0.056	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
EVAPOTRANSPIRATION	1.621	2.579	3.160	0.852	1.031	0.000
	0.030	0.000	0.000	0.000	0.000	0.135
PERCOLATION/LEAKAGE THROUGH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAYER 4	0.2371	0.0000	0.0000	0.0000	0.0000	0.0000

****

****

ANNUAL TOTALS FOR YEAR 1980

	INCHES	CU. FEET	PERCENT
PRECIPITATION	30.19	9205535.000	100.00

RUNOFF	1.781	542998.437	5.90
EVAPOTRANSPIRATION	9.407	2868446.000	31.16
PERC./LEAKAGE THROUGH LAYER 4	0.237061	72284.516	0.79
CHANGE IN WATER STORAGE	18.765	5721828.500	62.16
SOIL WATER AT START OF YEAR	1029.794	314004896.000	
SOIL WATER AT END OF YEAR	1048.559	319726720.000	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	-0.0001	-22.259	0.00

****

****

MONTHLY TOTALS (IN INCHES) FOR YEAR 1981

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	2.99	1.99	5.62	0.57	0.01	0.00
	0.00	0.00	0.09	0.36	1.99	0.39
RUNOFF	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
EVAPOTRANSPIRATION	0.390	2.561	3.620	1.178	0.230	0.000
	0.000	0.000	0.009	0.251	0.174	0.259
PERCOLATION/LEAKAGE THROUGH LAYER 4	0.0000	0.0000	0.0932	0.2754	0.0000	0.0000
	0.0000	0.0210	0.0229	0.0000	0.0000	0.0000

****

****

ANNUAL TOTALS FOR YEAR 1981

	INCHES	CU. FEET	PERCENT
PRECIPITATION	14.01	4271930.000	100.00
RUNOFF	0.000	0.000	0.00
EVAPOTRANSPIRATION	8.672	2644282.250	61.90

MC

PERC./LEAKAGE THROUGH LAYER 4	0.412586	125805.625	2.94
CHANGE IN WATER STORAGE	4.925	1501820.370	35.16
SOIL WATER AT START OF YEAR	1048.559	319726720.000	
SOIL WATER AT END OF YEAR	1053.485	321228544.000	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0001	21.682	0.00

****

****

MONTHLY TOTALS (IN INCHES) FOR YEAR 1982

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	2.67	0.38	6.00	2.69	0.10	0.04
	0.00	0.00	1.06	0.17	3.54	1.20
RUNOFF	0.000	0.000	0.005	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
EVAPOTRANSPIRATION	2.042	1.248	2.709	3.433	0.176	0.040
	0.000	0.000	0.432	0.361	0.236	1.963
PERCOLATION/LEAKAGE THROUGH LAYER 4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.1097

****

****

ANNUAL TOTALS FOR YEAR 1982

	INCHES	CU. FEET	PERCENT
PRECIPITATION	17.85	5442822.500	100.00
RUNOFF	0.005	1538.808	0.03
EVAPOTRANSPIRATION	12.639	3853831.750	70.81
PERC./LEAKAGE THROUGH LAYER 4	0.109724	33457.059	0.61
CHANGE IN WATER STORAGE	5.096	1554005.120	28.55

SOIL WATER AT START OF YEAR	1053.485	321228544.000	
SOIL WATER AT END OF YEAR	1058.581	322782528.000	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-10.107	0.00

****

****

MONTHLY TOTALS (IN INCHES) FOR YEAR 1983

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	5.76	5.10	12.40	5.47	0.32	0.00
	0.00	1.10	1.79	2.45	1.93	3.45
RUNOFF	0.001	0.000	3.040	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
EVAPOTRANSPIRATION	1.947	2.468	3.747	3.697	2.615	0.000
	0.000	0.836	0.452	2.951	1.396	1.724
PERCOLATION/LEAKAGE THROUGH LAYER 4	0.1339	0.0000	0.0316	0.2468	0.1157	0.2699
	2.3094	2.8567	0.0240	0.3501	0.2473	0.0463

****

****

ANNUAL TOTALS FOR YEAR 1983

	INCHES	CU. FEET	PERCENT
PRECIPITATION	39.77	12126667.000	100.00
RUNOFF	3.041	927243.312	7.65
EVAPOTRANSPIRATION	21.833	6657316.000	54.90
PERC./LEAKAGE THROUGH LAYER 4	6.631633	2022117.500	16.67
CHANGE IN WATER STORAGE	8.264	2519982.250	20.78
SOIL WATER AT START OF YEAR	1058.581	322782528.000	
SOIL WATER AT END OF YEAR	1066.845	325302528.000	

SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	8.433	0.00

****

****

AVERAGE MONTHLY VALUES IN INCHES FOR YEARS 1974 THROUGH 1983

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION						
TOTALS	4.56	4.26	6.46	1.44	0.48	0.02
	0.00	0.42	0.71	0.61	1.08	1.85
STD. DEVIATIONS	3.11	4.79	3.47	1.70	1.17	0.03
	0.01	0.96	1.12	0.83	1.19	1.84
RUNOFF						
TOTALS	0.049	0.223	0.432	0.000	0.000	0.000
	0.000	0.001	0.000	0.000	0.000	0.007
STD. DEVIATIONS	0.129	0.534	0.986	0.000	0.000	0.000
	0.000	0.002	0.000	0.000	0.000	0.022
EVAPOTRANSPIRATION						
TOTALS	1.576	1.978	2.888	1.996	0.930	0.016
	0.005	0.360	0.494	0.498	0.409	0.764
STD. DEVIATIONS	0.737	0.725	0.814	1.221	1.054	0.028
	0.011	0.834	0.987	0.905	0.594	0.774
PERCOLATION/LEAKAGE THROUGH LAYER 4						
TOTALS	0.0176	0.0320	0.0199	0.0795	0.0223	0.0270
	0.2722	0.2878	0.0047	0.0350	0.0247	0.0156
STD. DEVIATIONS	0.0418	0.0651	0.0354	0.1121	0.0426	0.0853
	0.7211	0.9027	0.0099	0.1107	0.0782	0.0361

****

****

AVERAGE ANNUAL TOTALS & (STD. DEVIATIONS) FOR YEARS 1974 THROUGH 1983

	INCHES	CU. FEET	PERCENT

PRECIPITATION	21.88 (9.750)	6672869.0	100.00
RUNOFF	0.712 (1.0857)	217002.92	3.252
EVAPOTRANSPIRATION	11.914 (3.8690)	3632764.75	54.441
PERCOLATION/LEAKAGE THROUGH LAYER 4	0.83835 (2.03940)	255628.844	3.83087
CHANGE IN WATER STORAGE	8.420 (6.1595)	2567473.25	38.476

****

LC

MC

****

PEAK DAILY VALUES FOR YEARS 1974 THROUGH 1983

	(INCHES)	(CU. FT.)
PRECIPITATION	5.45	1661814.000
RUNOFF	1.769	539293.5620
PERCOLATION/LEAKAGE THROUGH LAYER 4	0.139138	42426.10940
SNOW WATER	0.00	0.0000

MAXIMUM VEG. SOIL WATER (VOL/VOL)	0.4433
MINIMUM VEG. SOIL WATER (VOL/VOL)	0.0830

****

KC
ML

****

FINAL WATER STORAGE AT END OF YEAR 1983

LAYER	(INCHES)	(VOL/VOL)
1	2.5768	0.2147
2	150.8686	0.2924
3	2.3657	0.1971
4	911.0344	0.2920
SNOW WATER	0.000	

****
****