

**Sociedad Minera Cerro Verde S.A.A.
Estudio de Impacto Ambiental
Proyecto Sulfuros Primarios**

**Modelo de Infiltración a Través del
Botadero de Desmonte**

20 de noviembre del 2003

Preparado para
Sociedad Minera Cerro Verde S.A.A.
Asiento Minero Cerro Verde - Uchumayo
Arequipa
Perú

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**Sociedad Minera Cerro Verde S.A.A.
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Botadero de Desmante**

Tabla de Contenido

1.0	Introducción	1
2.0	Datos climatológicos	2
3.0	Propiedades del material de desmante/suelo.....	3
4.0	Resultados del balance de aguas	4
5.0	Comentarios/Sugerencias	5
6.0	Referencias	6

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**Modelo de Infiltración a Través del
Botadero de Desmante**

1.0 Introducción

Un Modelo de Balance de aguas para la nueva área de botaderos de desmante de Cerro Verde se realizó con el objetivo de estimar los flujos potenciales de precolación. El modelaje se realizó utilizando el U.S. Environmental Protection Agency's Hydrologic Evaluation of Landfill Performance (HELP) model (Schroeder and others, 1994a; Schroeder and others, 1994b).

El modelo HELP es un modelo hidrológico cuasi-bidimensional de movimiento de agua a través dentro y fuera de las instalaciones para disposición de residuos. El modelo permite la rápida estimación de las cantidades de escorrentía, evapotranspiración y drenaje. El modelo opera usando información climatológica diaria como entrada y proporcionado información de salida en una base diaria, mensual y anual.

2.0 Datos climatológicos

La información climatológica disponible en el área de Cerro Verde es desde 1978 hasta 2002 en forma diaria. Se simuló un escenario sin ninguna cubierta vegetal, de 50 años utilizando la información histórica disponible. Las siguientes variables climatológicas fueron utilizadas en el modelaje:

- Precipitación diaria de la estación La Pampilla obtenida electrónicamente de SENAMHI. El periodo de registro usado datos desde el 1 de Enero de 1981 hasta el 31 de Diciembre de 2002. Los datos faltantes durante fueron completados con el promedio de los valores para el mismo día de los años restantes. La serie fue extendida para un periodo de 50 años.
- Temperatura del aire diaria de Cerro Verde obtenida electrónicamente de SMCV. El periodo de registro usado data desde el 1 de Enero de 1995 hasta el 31 de Diciembre de 2002. Los datos faltantes durante fueron completados con el promedio de los valores para el mismo día de los años restantes. La serie fue extendida para un periodo de 50 años.
- Radiación Solar Diaria para el periodo del modelaje fue generada estocásticamente por el modelo HELP (Richardson and Wright, 1984) usando la información de precipitación histórica y extendida de Cerro Verde y la Latitud de la Mina (Aprox. 16.5 Grados Sur)
- Humedad Relativa Trimestral y Velocidad del Viento Promedio Anual obtenida de los datos históricos existentes en Cerro Verde. La información fue obtenida electrónicamente de SMCV. El periodo de registro usado data desde el 1 de Enero de 1995 hasta el 31 de Diciembre de 2002.

3.0 Propiedades del material de desmonte/suelo

Para el modelamiento preliminar del botadero se usó el modelo HELP con parámetros estimados basados en datos granulométricos en el botadero de desmonte para este proyecto. Se estima que en promedio la altura del botadero será de 160 m y que el nueva área de desmontes será 408 has.

Debido a que la pila de material de desmonte de mina aun no ha sido construida, no es posible obtener los parámetros de campo para ser usadas en el modelo HELP. Los parámetros usados fueron estimados usando las características granulométricas de 5 muestras representativas del material con el que se construirá el botadero de desmonte. Las características hidráulicas del material de desmonte saturado y sin saturar fueron estimadas usando el promedio de las 5 granulometrías y el programa SoilProp.

La información que se ingreso al programa incluyo la gradación, los valores de la densidad seca de la pila de desmonte (asumida en 1.85 g/cm³) y la densidad de la partícula (asumida en 2.65 g/cm³). Los resultados del programa SoilProp incluyeron parámetros van Genuchten (parámetros hidráulicos sin saturación) para el material de desmonte de mina así como para la porosidad. Los parámetros van Genuchten y la porosidad fueron usados para calcular el contenido de agua en el campo, el contenido de agua residual y la conductividad hidráulica saturada. Estos valores fueron usados en el modelo HELP para llevar a cabo los calculaos de infiltración, precolación e infiltración.

4.0 Resultados del balance de aguas

A continuación se resume los resultados del análisis de infiltración. El Anexo S-1 contiene los datos de entrada y salida del modelo HELP para este análisis. Analizamos ambos 50 años y la ocurrencia de un año húmedo e incluso la precipitación de máxima 500 años (106,6 mm).

La Tabla 1 muestra los resultados obtenidos para el escenario modelado y para condiciones promedio y máximas de infiltración. Esto se debe a que el porcentaje de precipitación que se evapotranspira sin una cobertura vegetal en este caso es de 25,5%.

Los resultados del modelaje para el botadero sin considerar cobertura vegetal muestran una infiltración promedio anual de 6,3 L/s sobre la base de la precipitación que cae sobre la nueva área del botadero. Un flujo máximo diario de 877 L/s se obtuvo en la simulación de 50 años sin un evento extremo y 1 240 L/s con la precipitación de máxima 500 años. Estos flujos toman en cuenta la infiltración a través del botadero que potencialmente se infiltrarán/percolarán al suelo.

Tabla 1
Resultados del Análisis de Infiltración usando el Modelo HELP

Botadero de Desmontes	Infiltración Promedio Anual en 30 años (L/seg)	Infiltración Máxima Diaria en 30 años (L/seg)
Sin cobertura vegetal 50 años	6,3	877
Sin cobertura vegetal 50 años con evento máxima de 500 años	6,3	1 240

5.0 Comentarios/Sugerencias

Basados en los resultados obtenidos del modelamiento podemos decir que la cantidad de agua de precipitación que potencialmente percolaría el suelo es en promedio un 67% de la precipitación total sin la consideración de una cobertura vegetal. Debido a la extensión del nueva área de botaderos (404 Has) este porcentaje de precipitación que potencialmente se percolaría debe ser tomado en cuenta en el diseño final de los botaderos a fin de tomar las medidas necesarias en el diseño que permitan minimizar algún probable impacto en las aguas subterráneas. Se sugiere que un balance de aguas de los botaderos sea desarrollado cuando la caracterización del material del desmonte este disponible para poder obtener estimaciones más cercanas a la realidad de estos potenciales flujos de precolación. Hasta entonces la información para la calibración del modelo HELP es estimada. Adicionalmente se sugiere que se planifiquen medidas de cierre progresivas durante la etapa de operación a fin de reducir estos flujos.

El modelo HELP es un modelo conservador para el cálculo de infiltraciones, por lo que se espera que la lamina de infiltración y el flujo potencial a través del botadero este sobreestimado.

Investigaciones realizadas para balances utilizando el modelo HELP han demostrado que este modelo sobre-estima la percolación significativamente (Khrine, Benson and Bosscher, 1997) por lo que pruebas in situ de los resultados serán necesarias para la calibración del modelo.

El modelaje realizado será calibrado cuando los nuevos desmontes sean colocados en el botadero y el plan de monitoreo permita validar los resultados obtenidos. Sobre la base de los monitoreos se podrá refinar en caso de ser necesario el plan de manejo ambiental en lo que respecta al área del botadero. Adicionalmente a la potencial escorrentía o “seepage” que potencialmente pudiera ocurrir y ser medido en campo también se estimarán las propiedades hidráulicas de los nuevos desmontes a fin de refinar el modelaje realizado. Las siguientes pruebas o similares pueden ser utilizadas:

- Pruebas de permeabilidad en perforaciones
- Prueba de “Rigid wall permeability”
- Pruebas de Infiltración (double ring infiltrometers)

Referencias

Khire, Benson and Bosscher, 1997. Journal of Geotechnical and Geoenvironmental Engineering. “ Water Balance Modeling of Earthen Final Covers”.

Richardson, C.W. and D.A. Wright, 1984, WGEN: A Model for generating Daily Weather Variables. ARS-8. Agricultural research Service, U.S. Department of Agriculture, 83 p.

Schroeder, P.P. C.M. Lloyd, P.A. Zappi and N.M. Asís, 1994^a, The Hydrologic Evaluation of Landfill Performance (HELP) Model, User’s Guide Versión 3, U.S. Environmental Protection Agency, Cincinnati, OH, EPA\600R-94\168a, September, 84p.,Appendix A.

Schroeder, P.P. C.M. Lloyd, P.A. Zappi, B.M. McEnroe, J.W. Sjostrom and R.L. Payton, 1994b, The Hydrologic Evaluation of Landfill Performance (HELP) Engineering Documentation for Versión 3, U.S. Environmental Protection Agency, Cincinnati, OH, EPA\600R-94\168b, September, 116p.

Anexo S-1

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PRECIPITATION DATA FILE: D:\HELP3\CVNEW.D4
TEMPERATURE DATA FILE: D:\HELP3\CVNEW.D7
SOLAR RADIATION DATA FILE: D:\HELP3\CVNEW.D13
EVAPOTRANSPIRATION DATA: D:\HELP3\CVNEW.D11
SOIL AND DESIGN DATA FILE: D:\HELP3\CVNEWA.D10
OUTPUT DATA FILE: D:\HELP3\CVNEWA.OUT

TIME: 10:57 DATE: 6/13/2004

TITLE: Cerro Verde Waste Dump Infiltration Analysis

NOTE: INITIAL MOISTURE CONTENT OF THE LAYERS AND SNOW WATER WERE
COMPUTED AS NEARLY STEADY-STATE VALUES BY THE PROGRAM.

LAYER 1

TYPE 1 - VERTICAL PERCOLATION LAYER
MATERIAL TEXTURE NUMBER 0
THICKNESS = 100.00 CM
POROSITY = 0.3020 VOL/VOL
FIELD CAPACITY = 0.0456 VOL/VOL
WILTING POINT = 0.0377 VOL/VOL
INITIAL SOIL WATER CONTENT = 0.0377 VOL/VOL
EFFECTIVE SAT. HYD. COND. = 0.130000000000E-02 CM/SEC

GENERAL DESIGN AND EVAPORATIVE ZONE DATA

NOTE: SCS RUNOFF CURVE NUMBER WAS USER-SPECIFIED.

SCS RUNOFF CURVE NUMBER	=	95.00	
FRACTION OF AREA ALLOWING RUNOFF	=	100.0	PERCENT
AREA PROJECTED ON HORIZONTAL PLANE	=	404.0000	HECTARES
EVAPORATIVE ZONE DEPTH	=	90.0	CM
INITIAL WATER IN EVAPORATIVE ZONE	=	3.393	CM
UPPER LIMIT OF EVAPORATIVE STORAGE	=	27.180	CM
LOWER LIMIT OF EVAPORATIVE STORAGE	=	3.393	CM
INITIAL SNOW WATER	=	0.000	CM
INITIAL WATER IN LAYER MATERIALS	=	3.770	CM
TOTAL INITIAL WATER	=	3.770	CM
TOTAL SUBSURFACE INFLOW	=	0.00	MM/YR

EVAPOTRANSPIRATION AND WEATHER DATA

NOTE: EVAPOTRANSPIRATION DATA WAS OBTAINED FROM
Cerro Verde Peru

STATION LATITUDE	=	-16.50	DEGREES
MAXIMUM LEAF AREA INDEX	=	0.00	
START OF GROWING SEASON (JULIAN DATE)	=	0	
END OF GROWING SEASON (JULIAN DATE)	=	365	
EVAPORATIVE ZONE DEPTH	=	90.0	CM
AVERAGE ANNUAL WIND SPEED	=	10.00	KPH
AVERAGE 1ST QUARTER RELATIVE HUMIDITY	=	86.00	%
AVERAGE 2ND QUARTER RELATIVE HUMIDITY	=	53.00	%
AVERAGE 3RD QUARTER RELATIVE HUMIDITY	=	36.00	%
AVERAGE 4TH QUARTER RELATIVE HUMIDITY	=	46.00	%

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

NOTE: TEMPERATURE DATA FOR
WAS ENTERED FROM AN ASCII DATA FILE.

NOTE: SOLAR RADIATION DATA WAS SYNTHETICALLY GENERATED USING
COEFFICIENTS FOR RENO NEVADA
AND STATION LATITUDE = -16.50 DEGREES

ANNUAL TOTALS FOR YEAR 1981

	MM	CU. METERS	PERCENT
PRECIPITATION	30.80	124432.000	100.00

RUNOFF	0.690	2787.736	2.24
EVAPOTRANSPIRATION	8.117	32793.027	26.35
PERC./LEAKAGE THROUGH LAYER 1	21.992880	88851.234	71.41
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.006	0.00

ANNUAL TOTALS FOR YEAR 1982

	MM	CU. METERS	PERCENT
PRECIPITATION	35.60	143823.984	100.00
RUNOFF	0.000	0.000	0.00
EVAPOTRANSPIRATION	8.865	35813.625	24.90
PERC./LEAKAGE THROUGH LAYER 1	26.735241	108010.375	75.10
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.012	0.00

ANNUAL TOTALS FOR YEAR 1983

	MM	CU. METERS	PERCENT
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PRECIPITATION	1.90	7676.000	100.00
RUNOFF	0.000	0.000	0.00
EVAPOTRANSPIRATION	1.199	4842.250	63.08
PERC./LEAKAGE THROUGH LAYER 1	0.701423	2833.750	36.92
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 1984

	MM	CU. METERS	PERCENT
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PRECIPITATION	92.40	373295.937	100.00
RUNOFF	1.566	6327.228	1.69
EVAPOTRANSPIRATION	17.914	72370.789	19.39
PERC./LEAKAGE THROUGH LAYER 1	72.920296	294598.000	78.92
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.049	0.00

ANNUAL TOTALS FOR YEAR 1985

	MM	CU. METERS	PERCENT
PRECIPITATION	75.40	304615.969	100.00
RUNOFF	1.972	7967.851	2.62
EVAPOTRANSPIRATION	22.184	89623.711	29.42
PERC./LEAKAGE THROUGH LAYER 1	51.243679	207024.469	67.96
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.049	0.00

ANNUAL TOTALS FOR YEAR 1986

	MM	CU. METERS	PERCENT
PRECIPITATION	123.10	497324.031	100.00
RUNOFF	9.045	36539.941	7.35
EVAPOTRANSPIRATION	32.347	130683.156	26.28
PERC./LEAKAGE THROUGH LAYER 1	81.708138	330100.906	66.38
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.024	0.00

ANNUAL TOTALS FOR YEAR 1987

	MM	CU. METERS	PERCENT
PRECIPITATION	40.30	162812.000	100.00
RUNOFF	4.703	19002.090	11.67
EVAPOTRANSPIRATION	11.441	46222.574	28.39
PERC./LEAKAGE THROUGH LAYER 1	24.155279	97587.328	59.94
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 1988

	MM	CU. METERS	PERCENT
PRECIPITATION	41.80	168871.969	100.00
RUNOFF	0.324	1308.956	0.78
EVAPOTRANSPIRATION	14.347	57962.789	34.32
PERC./LEAKAGE THROUGH LAYER 1	27.128777	109600.258	64.90
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.037	0.00

ANNUAL TOTALS FOR YEAR 1989

	MM	CU. METERS	PERCENT
PRECIPITATION	140.50	567620.187	100.00
RUNOFF	13.142	53093.320	9.35
EVAPOTRANSPIRATION	32.610	131745.266	23.21
PERC./LEAKAGE THROUGH LAYER 1	94.747864	382781.375	67.44
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.220	0.00

ANNUAL TOTALS FOR YEAR 1990

	MM	CU. METERS	PERCENT
PRECIPITATION	26.20	105847.969	100.00
RUNOFF	1.211	4891.014	4.62
EVAPOTRANSPIRATION	12.157	49115.465	46.40
PERC./LEAKAGE THROUGH LAYER 1	12.832059	51841.520	48.98
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.024	0.00

ANNUAL TOTALS FOR YEAR 1991

	MM	CU. METERS	PERCENT
PRECIPITATION	32.70	132107.984	100.00
RUNOFF	0.029	116.935	0.09
EVAPOTRANSPIRATION	11.353	45867.820	34.72
PERC./LEAKAGE THROUGH LAYER 1	21.317631	86123.234	65.19
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 1992

	MM	CU. METERS	PERCENT
PRECIPITATION	5.00	20200.000	100.00
RUNOFF	0.000	0.000	0.00
EVAPOTRANSPIRATION	2.156	8708.504	43.11
PERC./LEAKAGE THROUGH LAYER 1	2.844430	11491.497	56.89
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 1993

	MM	CU. METERS	PERCENT
PRECIPITATION	51.30	207252.000	100.00
RUNOFF	2.156	8711.376	4.20
EVAPOTRANSPIRATION	18.996	76744.172	37.03
PERC./LEAKAGE THROUGH LAYER 1	30.147636	121796.445	58.77
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 1994

	MM	CU. METERS	PERCENT
PRECIPITATION	88.80	358751.969	100.00
RUNOFF	3.271	13213.726	3.68
EVAPOTRANSPIRATION	28.225	114027.031	31.78
PERC./LEAKAGE THROUGH LAYER 1	57.304768	231511.266	64.53
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.049	0.00

ANNUAL TOTALS FOR YEAR 1995

	MM	CU. METERS	PERCENT
PRECIPITATION	96.50	389860.031	100.00
RUNOFF	17.618	71176.555	18.26
EVAPOTRANSPIRATION	12.801	51718.035	13.27
PERC./LEAKAGE THROUGH LAYER 1	66.080551	266965.437	68.48
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 1996

	MM	CU. METERS	PERCENT
PRECIPITATION	43.70	176547.984	100.00
RUNOFF	1.402	5663.395	3.21
EVAPOTRANSPIRATION	13.624	55042.477	31.18
PERC./LEAKAGE THROUGH LAYER 1	28.673792	115842.117	65.62
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 1997

	MM	CU. METERS	PERCENT
PRECIPITATION	184.30	744572.000	100.00
RUNOFF	25.325	102314.055	13.74
EVAPOTRANSPIRATION	37.972	153405.641	20.60
PERC./LEAKAGE THROUGH LAYER 1	121.003044	488852.281	65.66
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 1998

	MM	CU. METERS	PERCENT
PRECIPITATION	41.80	168871.969	100.00
RUNOFF	0.324	1310.089	0.78
EVAPOTRANSPIRATION	15.784	63765.703	37.76
PERC./LEAKAGE THROUGH LAYER 1	25.692129	103796.203	61.46
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.037	0.00

ANNUAL TOTALS FOR YEAR 1999

	MM	CU. METERS	PERCENT
PRECIPITATION	95.60	386223.937	100.00
RUNOFF	2.685	10848.609	2.81
EVAPOTRANSPIRATION	35.588	143774.281	37.23
PERC./LEAKAGE THROUGH LAYER 1	57.326992	231601.047	59.97
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.024	0.00

ANNUAL TOTALS FOR YEAR 2000

	MM	CU. METERS	PERCENT
PRECIPITATION	157.00	634280.125	100.00
RUNOFF	11.206	45271.062	7.14
EVAPOTRANSPIRATION	34.259	138405.234	21.82
PERC./LEAKAGE THROUGH LAYER 1	111.535568	450603.719	71.04
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.147	0.00

ANNUAL TOTALS FOR YEAR 2001

	MM	CU. METERS	PERCENT
PRECIPITATION	182.90	738915.937	100.00
RUNOFF	17.013	68732.172	9.30
EVAPOTRANSPIRATION	32.366	130757.398	17.70
PERC./LEAKAGE THROUGH LAYER 1	133.521408	539426.437	73.00
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.098	0.00

ANNUAL TOTALS FOR YEAR 2002

	MM	CU. METERS	PERCENT
PRECIPITATION	98.60	398343.969	100.00
RUNOFF	4.740	19151.166	4.81
EVAPOTRANSPIRATION	27.544	111278.922	27.94
PERC./LEAKAGE THROUGH LAYER 1	66.315315	267913.875	67.26
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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 0.024 0.00

ANNUAL TOTALS FOR YEAR 2003

	MM	CU. METERS	PERCENT
PRECIPITATION	30.80	124432.000	100.00
RUNOFF	0.751	3033.602	2.44
EVAPOTRANSPIRATION	9.727	39298.191	31.58
PERC./LEAKAGE THROUGH LAYER 1	20.321833	82100.203	65.98
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 2004

	MM	CU. METERS	PERCENT
PRECIPITATION	35.60	143823.984	100.00
RUNOFF	0.000	0.000	0.00
EVAPOTRANSPIRATION	10.283	41544.000	28.89
PERC./LEAKAGE THROUGH LAYER 1	25.316832	102280.000	71.11
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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 -0.012 0.00

ANNUAL TOTALS FOR YEAR 2005

	MM	CU. METERS	PERCENT
PRECIPITATION	1.90	7676.000	100.00
RUNOFF	0.000	0.000	0.00
EVAPOTRANSPIRATION	1.330	5374.432	70.02
PERC./LEAKAGE THROUGH LAYER 1	0.569695	2301.568	29.98
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 2006

	MM	CU. METERS	PERCENT
PRECIPITATION	92.40	373295.937	100.00
RUNOFF	1.563	6315.214	1.69
EVAPOTRANSPIRATION	17.447	70484.758	18.88
PERC./LEAKAGE THROUGH LAYER 1	73.390114	296496.062	79.43
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.073	0.00

ANNUAL TOTALS FOR YEAR 2007

	MM	CU. METERS	PERCENT
	-----	-----	-----
PRECIPITATION	75.40	304615.969	100.00
RUNOFF	1.972	7967.851	2.62
EVAPOTRANSPIRATION	23.363	94385.078	30.98
PERC./LEAKAGE THROUGH LAYER 1	50.065117	202263.078	66.40
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.037	0.00

ANNUAL TOTALS FOR YEAR 2008

	MM	CU. METERS	PERCENT
	-----	-----	-----
PRECIPITATION	123.10	497324.031	100.00
RUNOFF	9.129	36882.363	7.42
EVAPOTRANSPIRATION	30.750	124230.547	24.98
PERC./LEAKAGE THROUGH LAYER 1	83.220558	336211.062	67.60
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.049	0.00

ANNUAL TOTALS FOR YEAR 2009

	MM	CU. METERS	PERCENT
PRECIPITATION	40.30	162812.000	100.00
RUNOFF	4.752	19197.715	11.79
EVAPOTRANSPIRATION	12.323	49785.645	30.58
PERC./LEAKAGE THROUGH LAYER 1	23.224909	93828.633	57.63
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.006	0.00

ANNUAL TOTALS FOR YEAR 2010

	MM	CU. METERS	PERCENT
PRECIPITATION	41.80	168871.969	100.00
RUNOFF	0.251	1013.166	0.60
EVAPOTRANSPIRATION	16.455	66479.898	39.37
PERC./LEAKAGE THROUGH LAYER 1	25.093796	101378.937	60.03
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	

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	-0.037	0.00

ANNUAL TOTALS FOR YEAR 2011

	MM	CU. METERS	PERCENT
	-----	-----	-----
PRECIPITATION	140.50	567620.187	100.00
RUNOFF	13.145	53104.801	9.36
EVAPOTRANSPIRATION	28.569	115420.625	20.33
PERC./LEAKAGE THROUGH LAYER 1	98.785782	399094.562	70.31
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.196	0.00

ANNUAL TOTALS FOR YEAR 2012

	MM	CU. METERS	PERCENT
	-----	-----	-----
PRECIPITATION	26.20	105847.969	100.00
RUNOFF	0.635	2565.207	2.42
EVAPOTRANSPIRATION	11.816	47735.711	45.10
PERC./LEAKAGE THROUGH LAYER 1	13.749275	55547.074	52.48
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	

SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.018	0.00

ANNUAL TOTALS FOR YEAR 2013

	MM	CU. METERS	PERCENT
PRECIPITATION	32.70	132107.984	100.00
RUNOFF	0.029	116.935	0.09
EVAPOTRANSPIRATION	12.572	50792.074	38.45
PERC./LEAKAGE THROUGH LAYER 1	20.098757	81198.977	61.46
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 2014

	MM	CU. METERS	PERCENT
PRECIPITATION	5.00	20200.000	100.00
RUNOFF	0.000	0.000	0.00
EVAPOTRANSPIRATION	1.650	6665.168	33.00
PERC./LEAKAGE THROUGH LAYER 1	3.350207	13534.834	67.00
CHANGE IN WATER STORAGE	0.000	0.000	0.00

SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.002	0.00

ANNUAL TOTALS FOR YEAR 2015

	MM	CU. METERS	PERCENT
PRECIPITATION	51.30	207252.000	100.00
RUNOFF	2.108	8515.924	4.11
EVAPOTRANSPIRATION	16.944	68454.586	33.03
PERC./LEAKAGE THROUGH LAYER 1	32.247894	130281.492	62.86
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.012	0.00

ANNUAL TOTALS FOR YEAR 2016

	MM	CU. METERS	PERCENT
PRECIPITATION	88.80	358751.969	100.00
RUNOFF	3.137	12674.511	3.53
EVAPOTRANSPIRATION	24.550	99182.430	27.65
PERC./LEAKAGE THROUGH LAYER 1	61.112644	246895.078	68.82
CHANGE IN WATER STORAGE	0.000	0.000	0.00

SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.049	0.00

ANNUAL TOTALS FOR YEAR 2017

	MM	CU. METERS	PERCENT
PRECIPITATION	96.50	389860.031	100.00
RUNOFF	17.618	71176.555	18.26
EVAPOTRANSPIRATION	15.120	61086.645	15.67
PERC./LEAKAGE THROUGH LAYER 1	63.761585	257596.812	66.07
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.024	0.00

ANNUAL TOTALS FOR YEAR 2018

	MM	CU. METERS	PERCENT
PRECIPITATION	43.70	176547.984	100.00
RUNOFF	1.400	5655.533	3.20
EVAPOTRANSPIRATION	13.688	55298.039	31.32
PERC./LEAKAGE THROUGH LAYER 1	28.612486	115594.437	65.47

CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.024	0.00

ANNUAL TOTALS FOR YEAR 2019

	MM	CU. METERS	PERCENT
PRECIPITATION	184.30	744572.000	100.00
RUNOFF	25.209	101842.977	13.68
EVAPOTRANSPIRATION	35.352	142822.437	19.18
PERC./LEAKAGE THROUGH LAYER 1	108.124382	436822.500	58.67
CHANGE IN WATER STORAGE	15.615	63084.238	8.47
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	53.315	215391.469	
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	-0.147	0.00

ANNUAL TOTALS FOR YEAR 2020

	MM	CU. METERS	PERCENT
PRECIPITATION	41.80	168871.969	100.00
RUNOFF	0.251	1013.166	0.60
EVAPOTRANSPIRATION	15.834	63971.023	37.88

PERC./LEAKAGE THROUGH LAYER 1	27.560848	111345.828	65.94
CHANGE IN WATER STORAGE	-1.846	-7457.935	-4.42
SOIL WATER AT START OF YEAR	53.315	215391.469	
SOIL WATER AT END OF YEAR	51.469	207933.531	
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	-0.110	0.00

ANNUAL TOTALS FOR YEAR 2021

	MM	CU. METERS	PERCENT
PRECIPITATION	95.60	386223.937	100.00
RUNOFF	2.530	10221.794	2.65
EVAPOTRANSPIRATION	37.006	149505.219	38.71
PERC./LEAKAGE THROUGH LAYER 1	55.921818	225924.141	58.50
CHANGE IN WATER STORAGE	0.142	572.910	0.15
SOIL WATER AT START OF YEAR	51.469	207933.531	
SOIL WATER AT END OF YEAR	51.611	208506.437	
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	-0.122	0.00

ANNUAL TOTALS FOR YEAR 2022

	MM	CU. METERS	PERCENT
PRECIPITATION	157.00	634280.125	100.00
RUNOFF	11.675	47166.668	7.44
EVAPOTRANSPIRATION	40.474	163514.266	25.78

PERC./LEAKAGE THROUGH LAYER 1	105.574623	426521.469	67.24
CHANGE IN WATER STORAGE	-0.723	-2922.069	-0.46
SOIL WATER AT START OF YEAR	51.611	208506.437	
SOIL WATER AT END OF YEAR	50.887	205584.375	
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	-0.196	0.00

ANNUAL TOTALS FOR YEAR 2023

	MM	CU. METERS	PERCENT
PRECIPITATION	182.90	738915.937	100.00
RUNOFF	16.936	68421.437	9.26
EVAPOTRANSPIRATION	34.620	139863.453	18.93
PERC./LEAKAGE THROUGH LAYER 1	131.415512	530918.687	71.85
CHANGE IN WATER STORAGE	-0.071	-287.617	-0.04
SOIL WATER AT START OF YEAR	50.887	205584.375	
SOIL WATER AT END OF YEAR	50.816	205296.750	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 2024

	MM	CU. METERS	PERCENT
PRECIPITATION	98.60	398343.969	100.00
RUNOFF	4.731	19111.668	4.80

EVAPOTRANSPIRATION	31.365	126714.187	31.81
PERC./LEAKAGE THROUGH LAYER 1	60.990910	246403.281	61.86
CHANGE IN WATER STORAGE	1.514	6115.069	1.54
SOIL WATER AT START OF YEAR	50.816	205296.750	
SOIL WATER AT END OF YEAR	52.330	211411.828	
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	-0.220	0.00

ANNUAL TOTALS FOR YEAR 2025

	MM	CU. METERS	PERCENT
	-----	-----	-----
PRECIPITATION	30.80	124432.000	100.00
RUNOFF	0.828	3346.322	2.69
EVAPOTRANSPIRATION	9.034	36495.445	29.33
PERC./LEAKAGE THROUGH LAYER 1	21.236469	85795.336	68.95
CHANGE IN WATER STORAGE	-0.298	-1205.100	-0.97
SOIL WATER AT START OF YEAR	52.330	211411.828	
SOIL WATER AT END OF YEAR	52.031	210206.719	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 2026

	MM	CU. METERS	PERCENT
	-----	-----	-----
PRECIPITATION	35.60	143823.984	100.00
RUNOFF	0.000	0.000	0.00

EVAPOTRANSPIRATION	10.347	41799.898	29.06
PERC./LEAKAGE THROUGH LAYER 1	24.044722	97140.672	67.54
CHANGE IN WATER STORAGE	1.209	4883.424	3.40
SOIL WATER AT START OF YEAR	52.031	210206.719	
SOIL WATER AT END OF YEAR	53.240	215090.156	
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	-0.006	0.00

ANNUAL TOTALS FOR YEAR 2027

	MM	CU. METERS	PERCENT
	-----	-----	-----
PRECIPITATION	1.90	7676.000	100.00
RUNOFF	0.000	0.000	0.00
EVAPOTRANSPIRATION	1.020	4119.222	53.66
PERC./LEAKAGE THROUGH LAYER 1	2.693243	10880.702	141.75
CHANGE IN WATER STORAGE	-1.813	-7323.937	-95.41
SOIL WATER AT START OF YEAR	53.240	215090.156	
SOIL WATER AT END OF YEAR	51.427	207766.219	
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	0.014	0.00

ANNUAL TOTALS FOR YEAR 2028

	MM	CU. METERS	PERCENT
	-----	-----	-----
PRECIPITATION	92.40	373295.937	100.00

RUNOFF	1.563	6315.214	1.69
EVAPOTRANSPIRATION	20.572	83109.516	22.26
PERC./LEAKAGE THROUGH LAYER 1	69.288033	279923.656	74.99
CHANGE IN WATER STORAGE	0.977	3947.494	1.06
SOIL WATER AT START OF YEAR	51.427	207766.219	
SOIL WATER AT END OF YEAR	52.404	211713.703	
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	0.049	0.00

ANNUAL TOTALS FOR YEAR 2029

	MM	CU. METERS	PERCENT
	-----	-----	-----
PRECIPITATION	75.40	304615.969	100.00
RUNOFF	1.972	7967.851	2.62
EVAPOTRANSPIRATION	22.719	91783.312	30.13
PERC./LEAKAGE THROUGH LAYER 1	48.411469	195582.328	64.21
CHANGE IN WATER STORAGE	2.298	9282.405	3.05
SOIL WATER AT START OF YEAR	52.404	211713.703	
SOIL WATER AT END OF YEAR	54.702	220996.109	
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	0.086	0.00

ANNUAL TOTALS FOR YEAR 2030

	MM	CU. METERS	PERCENT
	-----	-----	-----
PRECIPITATION	75.40	304615.969	100.00

RUNOFF	1.972	7967.851	2.62
EVAPOTRANSPIRATION	23.509	94975.453	31.18
PERC./LEAKAGE THROUGH LAYER 1	49.922695	201687.687	66.21
CHANGE IN WATER STORAGE	-0.004	-14.997	0.00
SOIL WATER AT START OF YEAR	54.702	220996.109	
SOIL WATER AT END OF YEAR	54.698	220981.109	
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	-0.012	0.00

AVERAGE MONTHLY VALUES (MM) FOR YEARS 1981 THROUGH 2030

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION						
TOTALS	18.53 0.26	29.13 1.03	17.48 0.19	0.44 0.14	0.12 1.25	0.40 4.71
STD. DEVIATIONS	20.73 1.19	33.45 2.67	20.12 0.89	1.15 0.38	0.37 1.96	1.08 6.96
RUNOFF						
TOTALS	0.974 0.000	2.213 0.060	1.551 0.000	0.000 0.000	0.000 0.000	0.000 0.055
STD. DEVIATIONS	2.042 0.000	4.231 0.295	3.178 0.000	0.000 0.000	0.000 0.000	0.000 0.192
EVAPOTRANSPIRATION						
TOTALS	5.226 0.063	6.627 0.275	3.795 0.101	0.195 0.096	0.047 0.416	0.150 2.216
STD. DEVIATIONS	5.609 0.219	7.049 0.689	3.716 0.459	0.462 0.221	0.142 0.544	0.294 3.252
PERCOLATION/LEAKAGE THROUGH LAYER 1						
TOTALS	11.8662	19.9312	12.4316	0.4779	0.1742	0.3029

	0.2220	0.6918	0.1228	0.0910	0.7335	2.2355
STD. DEVIATIONS	13.4489	23.0748	14.0513	0.8739	0.2853	0.8714
	0.8596	1.6195	0.4088	0.2368	1.3944	3.4626

AVERAGE ANNUAL TOTALS & (STD. DEVIATIONS) FOR YEARS 1981 THROUGH 2030

	MM		CU. METERS	PERCENT
PRECIPITATION	73.68	(52.003)	297659.2	100.00
RUNOFF	4.852	(6.7508)	19600.44	6.585
EVAPOTRANSPIRATION	19.206	(10.9760)	77591.18	26.067
PERCOLATION/LEAKAGE THROUGH LAYER 1	49.28070	(35.97014)	199094.031	66.88658
CHANGE IN WATER STORAGE	0.340	(0.0899)	1373.48	0.461

PEAK DAILY VALUES FOR YEARS 1981 THROUGH 2030

	(MM)	(CU. METERS)
PRECIPITATION	33.40	134936.000
RUNOFF	12.837	51862.5781
PERCOLATION/LEAKAGE THROUGH LAYER 1	18.756397	75775.84370
SNOW WATER	0.00	0.0000
MAXIMUM VEG. SOIL WATER (VOL/VOL)		0.0494
MINIMUM VEG. SOIL WATER (VOL/VOL)		0.0377

FINAL WATER STORAGE AT END OF YEAR 2030

LAYER	(CM)	(VOL/VOL)
1	5.4698	0.0547
SNOW WATER	0.000	

D:\HELP3\CVNEWA.OUT

13/06/2004

**
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**
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: D:\HELP3\CVNEW500.D4
TEMPERATURE DATA FILE: D:\HELP3\CVNEW.D7
SOLAR RADIATION DATA FILE: D:\HELP3\CVNEW.D13
EVAPOTRANSPIRATION DATA: D:\HELP3\CVNEW.D11
SOIL AND DESIGN DATA FILE: D:\HELP3\CVNEWA.D10
OUTPUT DATA FILE: D:\HELP3\CVNEWB.OUT

TIME: 10:58 DATE: 6/13/2004

TITLE: Cerro Verde Waste Dump Infiltration Analysis

NOTE: INITIAL MOISTURE CONTENT OF THE LAYERS AND SNOW WATER WERE
COMPUTED AS NEARLY STEADY-STATE VALUES BY THE PROGRAM.

LAYER 1

TYPE 1 - VERTICAL PERCOLATION LAYER
MATERIAL TEXTURE NUMBER 0
THICKNESS = 100.00 CM
POROSITY = 0.3020 VOL/VOL
FIELD CAPACITY = 0.0456 VOL/VOL
WILTING POINT = 0.0377 VOL/VOL
INITIAL SOIL WATER CONTENT = 0.0377 VOL/VOL
EFFECTIVE SAT. HYD. COND. = 0.130000000000E-02 CM/SEC

GENERAL DESIGN AND EVAPORATIVE ZONE DATA

NOTE: SCS RUNOFF CURVE NUMBER WAS USER-SPECIFIED.

SCS RUNOFF CURVE NUMBER	=	95.00	
FRACTION OF AREA ALLOWING RUNOFF	=	100.0	PERCENT
AREA PROJECTED ON HORIZONTAL PLANE	=	404.0000	HECTARES
EVAPORATIVE ZONE DEPTH	=	90.0	CM
INITIAL WATER IN EVAPORATIVE ZONE	=	3.393	CM
UPPER LIMIT OF EVAPORATIVE STORAGE	=	27.180	CM
LOWER LIMIT OF EVAPORATIVE STORAGE	=	3.393	CM
INITIAL SNOW WATER	=	0.000	CM
INITIAL WATER IN LAYER MATERIALS	=	3.770	CM
TOTAL INITIAL WATER	=	3.770	CM
TOTAL SUBSURFACE INFLOW	=	0.00	MM/YR

EVAPOTRANSPIRATION AND WEATHER DATA

NOTE: EVAPOTRANSPIRATION DATA WAS OBTAINED FROM
Cerro Verde Peru

STATION LATITUDE	=	-16.50	DEGREES
MAXIMUM LEAF AREA INDEX	=	0.00	
START OF GROWING SEASON (JULIAN DATE)	=	0	
END OF GROWING SEASON (JULIAN DATE)	=	365	
EVAPORATIVE ZONE DEPTH	=	90.0	CM
AVERAGE ANNUAL WIND SPEED	=	10.00	KPH
AVERAGE 1ST QUARTER RELATIVE HUMIDITY	=	86.00	%
AVERAGE 2ND QUARTER RELATIVE HUMIDITY	=	53.00	%
AVERAGE 3RD QUARTER RELATIVE HUMIDITY	=	36.00	%
AVERAGE 4TH QUARTER RELATIVE HUMIDITY	=	46.00	%

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

NOTE: TEMPERATURE DATA FOR
WAS ENTERED FROM AN ASCII DATA FILE.

NOTE: SOLAR RADIATION DATA WAS SYNTHETICALLY GENERATED USING
COEFFICIENTS FOR RENO NEVADA
AND STATION LATITUDE = -16.50 DEGREES

ANNUAL TOTALS FOR YEAR 1981

	MM	CU. METERS	PERCENT
	-----	-----	-----
PRECIPITATION	30.80	124432.000	100.00

RUNOFF	0.690	2787.736	2.24
EVAPOTRANSPIRATION	8.117	32793.027	26.35
PERC./LEAKAGE THROUGH LAYER 1	21.992880	88851.234	71.41
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.006	0.00

ANNUAL TOTALS FOR YEAR 1982

	MM	CU. METERS	PERCENT
PRECIPITATION	35.60	143823.984	100.00
RUNOFF	0.000	0.000	0.00
EVAPOTRANSPIRATION	8.865	35813.625	24.90
PERC./LEAKAGE THROUGH LAYER 1	26.735241	108010.375	75.10
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.012	0.00

ANNUAL TOTALS FOR YEAR 1983

	MM	CU. METERS	PERCENT
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PRECIPITATION	1.90	7676.000	100.00
RUNOFF	0.000	0.000	0.00
EVAPOTRANSPIRATION	1.199	4842.250	63.08
PERC./LEAKAGE THROUGH LAYER 1	0.701423	2833.750	36.92
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 1984

	MM	CU. METERS	PERCENT
PRECIPITATION	92.40	373295.937	100.00
RUNOFF	1.566	6327.228	1.69
EVAPOTRANSPIRATION	17.914	72370.789	19.39
PERC./LEAKAGE THROUGH LAYER 1	72.920296	294598.000	78.92
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.049	0.00

ANNUAL TOTALS FOR YEAR 1985

	MM	CU. METERS	PERCENT
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PRECIPITATION	75.40	304615.969	100.00
RUNOFF	1.972	7967.851	2.62
EVAPOTRANSPIRATION	22.184	89623.711	29.42
PERC./LEAKAGE THROUGH LAYER 1	51.243679	207024.469	67.96
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.049	0.00

ANNUAL TOTALS FOR YEAR 1986

	MM	CU. METERS	PERCENT
PRECIPITATION	123.10	497324.031	100.00
RUNOFF	9.045	36539.941	7.35
EVAPOTRANSPIRATION	32.347	130683.156	26.28
PERC./LEAKAGE THROUGH LAYER 1	81.708138	330100.906	66.38
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.024	0.00

ANNUAL TOTALS FOR YEAR 1987

	MM	CU. METERS	PERCENT
	-----	-----	-----
PRECIPITATION	40.30	162812.000	100.00
RUNOFF	4.703	19002.090	11.67
EVAPOTRANSPIRATION	11.441	46222.574	28.39
PERC./LEAKAGE THROUGH LAYER 1	24.155279	97587.328	59.94
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 1988

	MM	CU. METERS	PERCENT
	-----	-----	-----
PRECIPITATION	41.80	168871.969	100.00
RUNOFF	0.324	1308.956	0.78
EVAPOTRANSPIRATION	14.347	57962.789	34.32
PERC./LEAKAGE THROUGH LAYER 1	27.128777	109600.258	64.90
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.037	0.00

ANNUAL TOTALS FOR YEAR 1989

	MM	CU. METERS	PERCENT
PRECIPITATION	140.50	567620.187	100.00
RUNOFF	13.142	53093.320	9.35
EVAPOTRANSPIRATION	32.610	131745.266	23.21
PERC./LEAKAGE THROUGH LAYER 1	94.747864	382781.375	67.44
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.220	0.00

ANNUAL TOTALS FOR YEAR 1990

	MM	CU. METERS	PERCENT
PRECIPITATION	26.20	105847.969	100.00
RUNOFF	1.211	4891.014	4.62
EVAPOTRANSPIRATION	12.157	49115.465	46.40
PERC./LEAKAGE THROUGH LAYER 1	12.832059	51841.520	48.98
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.024	0.00

ANNUAL TOTALS FOR YEAR 1991

	MM	CU. METERS	PERCENT
PRECIPITATION	32.70	132107.984	100.00
RUNOFF	0.029	116.935	0.09
EVAPOTRANSPIRATION	11.353	45867.820	34.72
PERC./LEAKAGE THROUGH LAYER 1	21.317631	86123.234	65.19
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 1992

	MM	CU. METERS	PERCENT
PRECIPITATION	5.00	20200.000	100.00
RUNOFF	0.000	0.000	0.00
EVAPOTRANSPIRATION	2.156	8708.504	43.11
PERC./LEAKAGE THROUGH LAYER 1	2.844430	11491.497	56.89
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 1993

	MM	CU. METERS	PERCENT
PRECIPITATION	51.30	207252.000	100.00
RUNOFF	2.156	8711.376	4.20
EVAPOTRANSPIRATION	18.996	76744.172	37.03
PERC./LEAKAGE THROUGH LAYER 1	30.147636	121796.445	58.77
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 1994

	MM	CU. METERS	PERCENT
PRECIPITATION	88.80	358751.969	100.00
RUNOFF	3.271	13213.726	3.68
EVAPOTRANSPIRATION	28.225	114027.031	31.78
PERC./LEAKAGE THROUGH LAYER 1	57.304768	231511.266	64.53
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.049	0.00

ANNUAL TOTALS FOR YEAR 1995

	MM	CU. METERS	PERCENT
PRECIPITATION	96.50	389860.031	100.00
RUNOFF	17.618	71176.555	18.26
EVAPOTRANSPIRATION	12.801	51718.035	13.27
PERC./LEAKAGE THROUGH LAYER 1	66.080551	266965.437	68.48
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 1996

	MM	CU. METERS	PERCENT
PRECIPITATION	43.70	176547.984	100.00
RUNOFF	1.402	5663.395	3.21
EVAPOTRANSPIRATION	13.624	55042.477	31.18
PERC./LEAKAGE THROUGH LAYER 1	28.673792	115842.117	65.62
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 1997

	MM	CU. METERS	PERCENT
PRECIPITATION	257.50	1040300.000	100.00
RUNOFF	89.468	361451.781	34.74
EVAPOTRANSPIRATION	37.972	153405.641	14.75
PERC./LEAKAGE THROUGH LAYER 1	130.060043	525442.562	50.51
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 1998

	MM	CU. METERS	PERCENT
PRECIPITATION	41.80	168871.969	100.00
RUNOFF	0.324	1310.089	0.78
EVAPOTRANSPIRATION	15.784	63765.703	37.76
PERC./LEAKAGE THROUGH LAYER 1	25.692129	103796.203	61.46
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.037	0.00

ANNUAL TOTALS FOR YEAR 1999

	MM	CU. METERS	PERCENT
PRECIPITATION	95.60	386223.937	100.00
RUNOFF	2.685	10848.609	2.81
EVAPOTRANSPIRATION	35.588	143774.281	37.23
PERC./LEAKAGE THROUGH LAYER 1	57.326992	231601.047	59.97
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.024	0.00

ANNUAL TOTALS FOR YEAR 2000

	MM	CU. METERS	PERCENT
PRECIPITATION	157.00	634280.125	100.00
RUNOFF	11.206	45271.062	7.14
EVAPOTRANSPIRATION	34.259	138405.234	21.82
PERC./LEAKAGE THROUGH LAYER 1	111.535568	450603.719	71.04
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.147	0.00

ANNUAL TOTALS FOR YEAR 2001

	MM	CU. METERS	PERCENT
PRECIPITATION	182.90	738915.937	100.00
RUNOFF	17.013	68732.172	9.30
EVAPOTRANSPIRATION	32.366	130757.398	17.70
PERC./LEAKAGE THROUGH LAYER 1	133.521408	539426.437	73.00
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.098	0.00

ANNUAL TOTALS FOR YEAR 2002

	MM	CU. METERS	PERCENT
PRECIPITATION	98.60	398343.969	100.00
RUNOFF	4.740	19151.166	4.81
EVAPOTRANSPIRATION	27.544	111278.922	27.94
PERC./LEAKAGE THROUGH LAYER 1	66.315315	267913.875	67.26
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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 0.024 0.00

ANNUAL TOTALS FOR YEAR 2003

	MM	CU. METERS	PERCENT
PRECIPITATION	30.80	124432.000	100.00
RUNOFF	0.751	3033.602	2.44
EVAPOTRANSPIRATION	9.727	39298.191	31.58
PERC./LEAKAGE THROUGH LAYER 1	20.321833	82100.203	65.98
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 2004

	MM	CU. METERS	PERCENT
PRECIPITATION	35.60	143823.984	100.00
RUNOFF	0.000	0.000	0.00
EVAPOTRANSPIRATION	10.283	41544.000	28.89
PERC./LEAKAGE THROUGH LAYER 1	25.316832	102280.000	71.11
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.012	0.00

ANNUAL TOTALS FOR YEAR 2005

	MM	CU. METERS	PERCENT
PRECIPITATION	1.90	7676.000	100.00
RUNOFF	0.000	0.000	0.00
EVAPOTRANSPIRATION	1.330	5374.432	70.02
PERC./LEAKAGE THROUGH LAYER 1	0.569695	2301.568	29.98
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 2006

	MM	CU. METERS	PERCENT
PRECIPITATION	92.40	373295.937	100.00
RUNOFF	1.563	6315.214	1.69
EVAPOTRANSPIRATION	17.447	70484.758	18.88
PERC./LEAKAGE THROUGH LAYER 1	73.390114	296496.062	79.43
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.073	0.00

ANNUAL TOTALS FOR YEAR 2007

	MM	CU. METERS	PERCENT
PRECIPITATION	75.40	304615.969	100.00
RUNOFF	1.972	7967.851	2.62
EVAPOTRANSPIRATION	23.363	94385.078	30.98
PERC./LEAKAGE THROUGH LAYER 1	50.065117	202263.078	66.40
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.037	0.00

ANNUAL TOTALS FOR YEAR 2008

	MM	CU. METERS	PERCENT
PRECIPITATION	123.10	497324.031	100.00
RUNOFF	9.129	36882.363	7.42
EVAPOTRANSPIRATION	30.750	124230.547	24.98
PERC./LEAKAGE THROUGH LAYER 1	83.220558	336211.062	67.60
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	

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	0.049	0.00

ANNUAL TOTALS FOR YEAR 2009

	MM	CU. METERS	PERCENT
PRECIPITATION	40.30	162812.000	100.00
RUNOFF	4.752	19197.715	11.79
EVAPOTRANSPIRATION	12.323	49785.645	30.58
PERC./LEAKAGE THROUGH LAYER 1	23.224909	93828.633	57.63
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.006	0.00

ANNUAL TOTALS FOR YEAR 2010

	MM	CU. METERS	PERCENT
PRECIPITATION	41.80	168871.969	100.00
RUNOFF	0.251	1013.166	0.60
EVAPOTRANSPIRATION	16.455	66479.898	39.37
PERC./LEAKAGE THROUGH LAYER 1	25.093796	101378.937	60.03
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	

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	-0.037	0.00

ANNUAL TOTALS FOR YEAR 2011

	MM	CU. METERS	PERCENT
PRECIPITATION	140.50	567620.187	100.00
RUNOFF	13.145	53104.801	9.36
EVAPOTRANSPIRATION	28.569	115420.625	20.33
PERC./LEAKAGE THROUGH LAYER 1	98.785782	399094.562	70.31
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.196	0.00

ANNUAL TOTALS FOR YEAR 2012

	MM	CU. METERS	PERCENT
PRECIPITATION	26.20	105847.969	100.00
RUNOFF	0.635	2565.207	2.42
EVAPOTRANSPIRATION	11.816	47735.711	45.10
PERC./LEAKAGE THROUGH LAYER 1	13.749275	55547.074	52.48
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	

SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.018	0.00

ANNUAL TOTALS FOR YEAR 2013

	MM	CU. METERS	PERCENT
	-----	-----	-----
PRECIPITATION	32.70	132107.984	100.00
RUNOFF	0.029	116.935	0.09
EVAPOTRANSPIRATION	12.572	50792.074	38.45
PERC./LEAKAGE THROUGH LAYER 1	20.098757	81198.977	61.46
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 2014

	MM	CU. METERS	PERCENT
	-----	-----	-----
PRECIPITATION	5.00	20200.000	100.00
RUNOFF	0.000	0.000	0.00
EVAPOTRANSPIRATION	1.650	6665.168	33.00
PERC./LEAKAGE THROUGH LAYER 1	3.350207	13534.834	67.00
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	

SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.002	0.00

ANNUAL TOTALS FOR YEAR 2015

	MM	CU. METERS	PERCENT
PRECIPITATION	51.30	207252.000	100.00
RUNOFF	2.108	8515.924	4.11
EVAPOTRANSPIRATION	16.944	68454.586	33.03
PERC./LEAKAGE THROUGH LAYER 1	32.247894	130281.492	62.86
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.012	0.00

ANNUAL TOTALS FOR YEAR 2016

	MM	CU. METERS	PERCENT
PRECIPITATION	88.80	358751.969	100.00
RUNOFF	3.137	12674.511	3.53
EVAPOTRANSPIRATION	24.550	99182.430	27.65
PERC./LEAKAGE THROUGH LAYER 1	61.112644	246895.078	68.82
CHANGE IN WATER STORAGE	0.000	0.000	0.00

SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.049	0.00

ANNUAL TOTALS FOR YEAR 2017

	MM	CU. METERS	PERCENT
PRECIPITATION	96.50	389860.031	100.00
RUNOFF	17.618	71176.555	18.26
EVAPOTRANSPIRATION	15.120	61086.645	15.67
PERC./LEAKAGE THROUGH LAYER 1	63.761585	257596.812	66.07
CHANGE IN WATER STORAGE	0.000	0.000	0.00
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	0.024	0.00

ANNUAL TOTALS FOR YEAR 2018

	MM	CU. METERS	PERCENT
PRECIPITATION	43.70	176547.984	100.00
RUNOFF	1.400	5655.533	3.20
EVAPOTRANSPIRATION	13.688	55298.039	31.32
PERC./LEAKAGE THROUGH LAYER 1	28.612486	115594.437	65.47
CHANGE IN WATER STORAGE	0.000	0.000	0.00

SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	37.700	152307.234	
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	-0.024	0.00

ANNUAL TOTALS FOR YEAR 2019

	MM	CU. METERS	PERCENT
PRECIPITATION	184.30	744572.000	100.00
RUNOFF	25.209	101842.977	13.68
EVAPOTRANSPIRATION	35.352	142822.437	19.18
PERC./LEAKAGE THROUGH LAYER 1	108.124382	436822.500	58.67
CHANGE IN WATER STORAGE	15.615	63084.238	8.47
SOIL WATER AT START OF YEAR	37.700	152307.234	
SOIL WATER AT END OF YEAR	53.315	215391.469	
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	-0.147	0.00

ANNUAL TOTALS FOR YEAR 2020

	MM	CU. METERS	PERCENT
PRECIPITATION	41.80	168871.969	100.00
RUNOFF	0.251	1013.166	0.60
EVAPOTRANSPIRATION	15.834	63971.023	37.88
PERC./LEAKAGE THROUGH LAYER 1	27.560848	111345.828	65.94

CHANGE IN WATER STORAGE	-1.846	-7457.935	-4.42
SOIL WATER AT START OF YEAR	53.315	215391.469	
SOIL WATER AT END OF YEAR	51.469	207933.531	
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	-0.110	0.00

ANNUAL TOTALS FOR YEAR 2021

	MM	CU. METERS	PERCENT
PRECIPITATION	95.60	386223.937	100.00
RUNOFF	2.530	10221.794	2.65
EVAPOTRANSPIRATION	37.006	149505.219	38.71
PERC./LEAKAGE THROUGH LAYER 1	55.921818	225924.141	58.50
CHANGE IN WATER STORAGE	0.142	572.910	0.15
SOIL WATER AT START OF YEAR	51.469	207933.531	
SOIL WATER AT END OF YEAR	51.611	208506.437	
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	-0.122	0.00

ANNUAL TOTALS FOR YEAR 2022

	MM	CU. METERS	PERCENT
PRECIPITATION	157.00	634280.125	100.00
RUNOFF	11.675	47166.668	7.44
EVAPOTRANSPIRATION	40.474	163514.266	25.78
PERC./LEAKAGE THROUGH LAYER 1	105.574623	426521.469	67.24

CHANGE IN WATER STORAGE	-0.723	-2922.069	-0.46
SOIL WATER AT START OF YEAR	51.611	208506.437	
SOIL WATER AT END OF YEAR	50.887	205584.375	
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	-0.196	0.00

ANNUAL TOTALS FOR YEAR 2023

	MM	CU. METERS	PERCENT
PRECIPITATION	182.90	738915.937	100.00
RUNOFF	16.936	68421.437	9.26
EVAPOTRANSPIRATION	34.620	139863.453	18.93
PERC./LEAKAGE THROUGH LAYER 1	131.415512	530918.687	71.85
CHANGE IN WATER STORAGE	-0.071	-287.617	-0.04
SOIL WATER AT START OF YEAR	50.887	205584.375	
SOIL WATER AT END OF YEAR	50.816	205296.750	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 2024

	MM	CU. METERS	PERCENT
PRECIPITATION	98.60	398343.969	100.00
RUNOFF	4.731	19111.668	4.80
EVAPOTRANSPIRATION	31.365	126714.187	31.81

PERC./LEAKAGE THROUGH LAYER 1	60.990910	246403.281	61.86
CHANGE IN WATER STORAGE	1.514	6115.069	1.54
SOIL WATER AT START OF YEAR	50.816	205296.750	
SOIL WATER AT END OF YEAR	52.330	211411.828	
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	-0.220	0.00

ANNUAL TOTALS FOR YEAR 2025

	MM	CU. METERS	PERCENT
	-----	-----	-----
PRECIPITATION	30.80	124432.000	100.00
RUNOFF	0.828	3346.322	2.69
EVAPOTRANSPIRATION	9.034	36495.445	29.33
PERC./LEAKAGE THROUGH LAYER 1	21.236469	85795.336	68.95
CHANGE IN WATER STORAGE	-0.298	-1205.100	-0.97
SOIL WATER AT START OF YEAR	52.330	211411.828	
SOIL WATER AT END OF YEAR	52.031	210206.719	
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	0.000	0.00

ANNUAL TOTALS FOR YEAR 2026

	MM	CU. METERS	PERCENT
	-----	-----	-----
PRECIPITATION	35.60	143823.984	100.00
RUNOFF	0.000	0.000	0.00

EVAPOTRANSPIRATION	10.347	41799.898	29.06
PERC./LEAKAGE THROUGH LAYER 1	24.044722	97140.672	67.54
CHANGE IN WATER STORAGE	1.209	4883.424	3.40
SOIL WATER AT START OF YEAR	52.031	210206.719	
SOIL WATER AT END OF YEAR	53.240	215090.156	
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	-0.006	0.00

ANNUAL TOTALS FOR YEAR 2027

	MM	CU. METERS	PERCENT
	-----	-----	-----
PRECIPITATION	1.90	7676.000	100.00
RUNOFF	0.000	0.000	0.00
EVAPOTRANSPIRATION	1.020	4119.222	53.66
PERC./LEAKAGE THROUGH LAYER 1	2.693243	10880.702	141.75
CHANGE IN WATER STORAGE	-1.813	-7323.937	-95.41
SOIL WATER AT START OF YEAR	53.240	215090.156	
SOIL WATER AT END OF YEAR	51.427	207766.219	
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	0.014	0.00

ANNUAL TOTALS FOR YEAR 2028

	MM	CU. METERS	PERCENT
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PRECIPITATION	92.40	373295.937	100.00
RUNOFF	1.563	6315.214	1.69

EVAPOTRANSPIRATION	20.572	83109.516	22.26
PERC./LEAKAGE THROUGH LAYER 1	69.288033	279923.656	74.99
CHANGE IN WATER STORAGE	0.977	3947.494	1.06
SOIL WATER AT START OF YEAR	51.427	207766.219	
SOIL WATER AT END OF YEAR	52.404	211713.703	
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	0.049	0.00

ANNUAL TOTALS FOR YEAR 2029

	MM	CU. METERS	PERCENT
	-----	-----	-----
PRECIPITATION	75.40	304615.969	100.00
RUNOFF	1.972	7967.851	2.62
EVAPOTRANSPIRATION	22.719	91783.312	30.13
PERC./LEAKAGE THROUGH LAYER 1	48.411469	195582.328	64.21
CHANGE IN WATER STORAGE	2.298	9282.405	3.05
SOIL WATER AT START OF YEAR	52.404	211713.703	
SOIL WATER AT END OF YEAR	54.702	220996.109	
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	0.086	0.00

ANNUAL TOTALS FOR YEAR 2030

	MM	CU. METERS	PERCENT
	-----	-----	-----
PRECIPITATION	75.40	304615.969	100.00

RUNOFF	1.972	7967.851	2.62
EVAPOTRANSPIRATION	23.509	94975.453	31.18
PERC./LEAKAGE THROUGH LAYER 1	49.922695	201687.687	66.21
CHANGE IN WATER STORAGE	-0.004	-14.997	0.00
SOIL WATER AT START OF YEAR	54.702	220996.109	
SOIL WATER AT END OF YEAR	54.698	220981.109	
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	-0.012	0.00

AVERAGE MONTHLY VALUES (MM) FOR YEARS 1981 THROUGH 2030

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION						
TOTALS	18.53 0.26	30.60 1.03	17.48 0.19	0.44 0.14	0.12 1.25	0.40 4.71
STD. DEVIATIONS	20.73 1.19	37.00 2.67	20.12 0.89	1.15 0.38	0.37 1.96	1.08 6.96
RUNOFF						
TOTALS	0.974 0.000	3.496 0.060	1.551 0.000	0.000 0.000	0.000 0.000	0.000 0.055
STD. DEVIATIONS	2.042 0.000	11.728 0.295	3.178 0.000	0.000 0.000	0.000 0.000	0.000 0.192
EVAPOTRANSPIRATION						
TOTALS	5.226 0.063	6.627 0.275	3.795 0.101	0.195 0.096	0.047 0.416	0.150 2.216
STD. DEVIATIONS	5.609 0.219	7.049 0.689	3.716 0.459	0.462 0.221	0.142 0.544	0.294 3.252
PERCOLATION/LEAKAGE THROUGH LAYER 1						
TOTALS	11.8662 0.2220	20.1123 0.6918	12.4316 0.1228	0.4779 0.0910	0.1742 0.7335	0.3029 2.2355

STD. DEVIATIONS	13.4489	23.3199	14.0513	0.8739	0.2853	0.8714
	0.8596	1.6195	0.4088	0.2368	1.3944	3.4626

AVERAGE ANNUAL TOTALS & (STD. DEVIATIONS) FOR YEARS 1981 THROUGH 2030

	MM		CU. METERS	PERCENT
	-----		-----	-----
PRECIPITATION	75.14	(56.054)	303573.7	100.00
RUNOFF	6.134	(13.4707)	24783.19	8.164
EVAPOTRANSPIRATION	19.206	(10.9760)	77591.18	25.559
PERCOLATION/LEAKAGE THROUGH LAYER 1	49.46184	(36.35939)	199825.828	65.82449
CHANGE IN WATER STORAGE	0.340	(0.0899)	1373.48	0.452

PEAK DAILY VALUES FOR YEARS 1981 THROUGH 2030

	(MM)	(CU. METERS)
PRECIPITATION	106.60	430664.000
RUNOFF	76.980	311000.2810
PERCOLATION/LEAKAGE THROUGH LAYER 1	26.522270	107149.96900
SNOW WATER	0.00	0.0000
MAXIMUM VEG. SOIL WATER (VOL/VOL)		0.0494
MINIMUM VEG. SOIL WATER (VOL/VOL)		0.0377

FINAL WATER STORAGE AT END OF YEAR 2030

LAYER	(CM)	(VOL/VOL)
1	5.4698	0.0547
SNOW WATER	0.000	

