APPENDIX B

HELP MODEL RESULTS

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NEPERA, FORMER LAGOON SITE
JUNE 19, 1992
RCRA CAP

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GOOD GRASS

LAYER 1

VERTICAL PERCOLATION LAYER

THICKNESS	=	6.00 INCHES
POROSITY	=	0.4630 VOL/VOL
FIELD CAPACITY	=	0.2320 VOL/VOL
WILTING POINT	=	0.1157 VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.2320 VOL/VOL
SATURATED HYDRAULIC CONDUCTIVITY	=	0.001553999959 CM/SEC

LAYER 2

VERTICAL PERCOLATION LAYER

THICKNESS	=	24.00 INCHES
POROSITY	=	0.3949 VOL/VOL
FIELD CAPACITY	=	0.2797 VOL/VOL
WILTING POINT	=	0.1875 VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.2797 VOL/VOL
SATURATED HYDRAULIC CONDUCTIVITY	=	0.000003200000 CM/SEC

LAYER 3

LATERAL DRAINAGE LAYER

THICKNESS	=	12.00 INCHES
POROSITY	=	0.4370 VOL/VOL
FIELD CAPACITY	=	0.0624 VOL/VOL

WILTING POINT	=	0.0245 VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.0624 VOL/VOL
SATURATED HYDRAULIC CONDUCTIVITY	=	0.005799999926 CM/SEC
SLOPE	=	2.00 PERCENT
DRAINAGE LENGTH	=	150.0 FEET

LAYER 4

BARRIER SOIL LINER WITH FLEXIBLE MEMBRANE LINER

THICKNESS	=	24.00 INCHES
POROSITY	=	0.4300 VOL/VOL
FIELD CAPACITY	=	0.3663 VOL/VOL
WILTING POINT	=	0.2802 VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.4300 VOL/VOL
SATURATED HYDRAULIC CONDUCTIVITY	=	0.000000100000 CM/SEC
LINER LEAKAGE FRACTION	=	0.00500000

GENERAL SIMULATION DATA

SCS RUNOFF CURVE NUMBER	=	72.00
TOTAL AREA OF COVER	=	101200. SQ FT
EVAPORATIVE ZONE DEPTH	=	28.00 INCHES
UPPER LIMIT VEG. STORAGE	=	11.4658 INCHES
INITIAL VEG. STORAGE	=	9.6581 INCHES
INITIAL SNOW WATER CONTENT	=	1.0058 INCHES
INITIAL TOTAL WATER STORAGE IN SOIL AND WASTE LAYERS	=	19.1736 INCHES

SOIL WATER CONTENT INITIALIZED BY PROGRAM.

CLIMATOLOGICAL DATA

SYNTHETIC RAINFALL WITH SYNTHETIC DAILY TEMPERATURES AND SOLAR RADIATION FOR ALBANY NEW YORK

MAXIMUM LEAF AREA INDEX	= 3.30
START OF GROWING SEASON (JULIAN DATE)	= 137
END OF GROWING SEASON (JULIAN DATE)	= 278

NORMAL MEAN MONTHLY TEMPERATURES, DEGREES FAHRENHEIT

JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
25.50	28.00	36.80	49.30	59.40	68.00
72.30	70.50	62.70	51.70	41.10	29.70

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AVERAGE MONTHLY VALUES IN INCHES FOR YEARS 1 THROUGH 5

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION						
TOTALS	3.06	2.88	3.95	3.09	4.53	4.22
	4.06	3.59	3.39	2.54	4.02	3.59
STD. DEVIATIONS	1.54	1.07	1.27	0.30	2.97	1.89
	1.68	0.69	1.66	1.01	2.39	1.81
RUNOFF						
TOTALS	0.011	0.204	0.431	0.163	0.187	0.003
	0.000	0.000	0.000	0.000	0.385	0.471
STD. DEVIATIONS	0.015	0.452	0.348	0.363	0.419	0.004
	0.000	0.000	0.000	0.000	0.543	0.770
EVAPOTRANSPIRATION						
TOTALS	0.611	0.938	2.335	3.539	3.176	5.523
	5.214	3.909	2.623	1.873	1.200	0.656
STD. DEVIATIONS	0.094	0.243	0.112	0.333	1.521	0.808
	1.283	1.100	1.439	0.398	0.152	0.189
LATERAL DRAINAGE FROM LAYER 3						
TOTALS	0.8274	1.2479	1.4733	1.2128	0.9345	0.7702
	0.7008	0.5682	0.4497	0.3849	0.3141	0.4052
STD. DEVIATIONS	0.4809	0.5501	0.4497	0.2804	0.0776	0.0622
	0.0821	0.0622	0.0456	0.0364	0.0303	0.1036
PERCOLATION FROM LAYER 4						
TOTALS	0.0009	0.0011	0.0012	0.0010	0.0008	0.0007
	0.0007	0.0007	0.0007	0.0007	0.0006	0.0007
STD. DEVIATIONS	0.0002	0.0003	0.0003	0.0002	0.0001	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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AVERAGE ANNUAL TOTALS & (STD. DEVIATIONS) FOR YEARS 1 THROUGH 5

	(INCHES)	(CU. FT.)	PERCENT

PRECIPITATION	42.92	(5.774)	361992.	100.00
RUNOFF	1.855	(0.672)	15644.	4.32
EVAPOTRANSPIRATION	31.597	(3.790)	266469.	73.61
LATERAL DRAINAGE FROM LAYER 3	9.2890	(1.6877)	78337.	21.64
PERCOLATION FROM LAYER 4	0.0098	(0.0009)	83.	0.02
CHANGE IN WATER STORAGE	0.173	(3.279)	1459.	0.40

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PEAK DAILY VALUES FOR YEARS 1 THROUGH 5

	(INCHES)	(CU. FT.)
PRECIPITATION	2.04	17204.0
RUNOFF	0.956	8060.3
LATERAL DRAINAGE FROM LAYER 3	0.0622	524.9
PERCOLATION FROM LAYER 4	0.0000	0.4
HEAD ON LAYER 4	42.3	
SNOW WATER	2.18	18376.9

MAXIMUM VEG. SOIL WATER (VOL/VOL) 0.4095

MINIMUM VEG. SOIL WATER (VOL/VOL) 0.1721

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FINAL WATER STORAGE AT END OF YEAR 5

LAYER	(INCHES)	(VOL/VOL)
1	2.54	0.4231
2	9.54	0.3976
3	4.68	0.3898
4	10.32	0.4300

SNOW WATER 0.19

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NEPERA, FORMER LAGOON SITE
JUNE 19, 1992
SANITARY LANDFILL CAP [6 NYCRR 360-2.13]

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GOOD GRASS

LAYER 1

VERTICAL PERCOLATION LAYER

THICKNESS	=	6.00 INCHES
POROSITY	=	0.4630 VOL/VOL
FIELD CAPACITY	=	0.2320 VOL/VOL
WILTING POINT	=	0.1157 VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.2320 VOL/VOL
SATURATED HYDRAULIC CONDUCTIVITY	=	0.001553999959 CM/SEC

LAYER 2

VERTICAL PERCOLATION LAYER

THICKNESS	=	24.00 INCHES
POROSITY	=	0.3949 VOL/VOL
FIELD CAPACITY	=	0.2797 VOL/VOL
WILTING POINT	=	0.1875 VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.2797 VOL/VOL
SATURATED HYDRAULIC CONDUCTIVITY	=	0.000003200000 CM/SEC

LAYER 3

BARRIER SOIL LINER

THICKNESS	=	18.00 INCHES
POROSITY	=	0.4300 VOL/VOL
FIELD CAPACITY	=	0.3663 VOL/VOL

WILTING POINT	=	0.2802 VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.4300 VOL/VOL
SATURATED HYDRAULIC CONDUCTIVITY	=	0.000000100000 CM/SEC

GENERAL SIMULATION DATA

SCS RUNOFF CURVE NUMBER	=	72.00
TOTAL AREA OF COVER	=	101200. SQ FT
EVAPORATIVE ZONE DEPTH	=	28.00 INCHES
UPPER LIMIT VEG. STORAGE	=	11.4658 INCHES
INITIAL VEG. STORAGE	=	11.0353 INCHES
INITIAL SNOW WATER CONTENT	=	1.0058 INCHES
INITIAL TOTAL WATER STORAGE IN SOIL AND WASTE LAYERS	=	15.8448 INCHES

SOIL WATER CONTENT INITIALIZED BY PROGRAM.

CLIMATOLOGICAL DATA

SYNTHETIC RAINFALL WITH SYNTHETIC DAILY TEMPERATURES AND SOLAR RADIATION FOR ALBANY NEW YORK

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END OF GROWING SEASON (JULIAN DATE)	= 278

NORMAL MEAN MONTHLY TEMPERATURES, DEGREES FAHRENHEIT

JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
25.50	28.00	36.80	49.30	59.40	68.00
72.30	70.50	62.70	51.70	41.10	29.70

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AVERAGE MONTHLY VALUES IN INCHES FOR YEARS 1 THROUGH 5

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION						
TOTALS	3.06	2.88	3.95	3.09	4.53	4.22
	4.06	3.59	3.39	2.54	4.02	3.59
STD. DEVIATIONS	1.54	1.07	1.27	0.30	2.97	1.89
	1.68	0.69	1.66	1.01	2.39	1.81

RUNOFF						
TOTALS	1.656	1.252	2.169	0.304	0.503	0.219
	0.000	0.000	0.000	0.000	0.393	1.239
STD. DEVIATIONS	1.212	1.381	0.370	0.494	0.878	0.425
	0.000	0.000	0.000	0.000	0.554	1.829
EVAPOTRANSPIRATION						
TOTALS	0.609	0.934	2.325	3.550	3.152	5.487
	6.781	4.107	2.611	1.855	1.179	0.648
STD. DEVIATIONS	0.092	0.240	0.111	0.333	1.534	0.760
	0.705	1.303	1.407	0.384	0.147	0.186
PERCOLATION FROM LAYER 3						
TOTALS	0.2395	0.2470	0.2746	0.2539	0.2485	0.2308
	0.1427	0.1132	0.0723	0.0085	0.0206	0.1777
STD. DEVIATIONS	0.0844	0.0160	0.0031	0.0077	0.0068	0.0208
	0.0149	0.0036	0.0260	0.0183	0.0393	0.1071

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AVERAGE ANNUAL TOTALS & (STD. DEVIATIONS) FOR YEARS 1 THROUGH 5

	(INCHES)		(CU. FT.)	PERCENT
PRECIPITATION	42.92	(5.774)	361992.	100.00
RUNOFF	7.735	(1.091)	65231.	18.02
EVAPOTRANSPIRATION	33.240	(3.580)	280320.	77.44
PERCOLATION FROM LAYER 3	2.0292	(0.1420)	17113.	4.73
CHANGE IN WATER STORAGE	-0.080	(1.913)	-672.	-0.19

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PEAK DAILY VALUES FOR YEARS 1 THROUGH 5

	(INCHES)	(CU. FT.)
PRECIPITATION	2.04	17204.0
RUNOFF	1.757	14816.7

PERCOLATION FROM LAYER 3	0.0091	76.9
HEAD ON LAYER 3	30.5	
SNOW WATER	2.18	18376.9

MAXIMUM VEG. SOIL WATER (VOL/VOL) 0.4095

MINIMUM VEG. SOIL WATER (VOL/VOL) 0.1721

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FINAL WATER STORAGE AT END OF YEAR 5

LAYER	(INCHES)	(VOL/VOL)
1	2.69	0.4492
2	9.54	0.3976
3	7.74	0.4300
SNOW WATER	0.19	

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