Modret Calculations
Pond 1

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Dufresne-Henry

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SUMMARY OF UNSATURATED & SATURATED INPUT PARAMETERS

PROJECT NAME : C&D Landfill - Pond 1
POLLUTION VOLUME RUNOFF DATA USED
UNSATURATED ANALYSIS EXCLUDED

Pond Bottom Area	210,727.00 ft²
Pond Volume between Bottom & DHWL	115,450.00 ft³
Pond Length to Width Ratio (L/W)	47.48
Elevation of Effective Aquifer Base	15.00 ft
Elevation of Seasonal High Groundwater Table	22.50 ft
Elevation of Starting Water Level	24.50 ft
Elevation of Pond Bottom	24.50 ft
Design High Water Level Elevation	25.03 ft
Avg. Effective Storage Coefficient of Soil for Unsaturated Analysis	0.08
Unsaturated Vertical Hydraulic Conductivity	26.00 ft/d
Factor of Safety	2.00
Saturated Horizontal Hydraulic Conductivity	39.00 ft/d
Avg. Effective Storage Coefficient of Soil for Saturated Analysis	0.15
Avg. Effective Storage Coefficient of Pond/Exfiltration Trench	1.00

Hydraulic Control Features:

	Top	Bottom	Left	Right
Groundwater Control Features - Y/N	N	N	N	N
Distance to Edge of Pond	0.00	0.00	0.00	0.00
Elevation of Water Level	0.00	0.00	0.00	0.00
Impervious Barrier - Y/N	N	N	N	N
Elevation of Barrier Bottom	0.00	0.00	0.00	0.00

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TIME - RUNOFF INPUT DATA

PROJECT NAME: C&D LANDFILL - POND 1

STRESS PERIOD NUMBER	INCREMENT OF TIME (hrs)	VOLUME OF RUNOFF (ft^3)
Unsat	0.00	0.00
1	1.00	114,960.00
2	4.38	0.00
3	4.38	0.00
4	4.38	0.00
5	4.38	0.00
6	4.38	0.00
7	4.38	0.00
8	4.38	0.00
9	4.38	0.00

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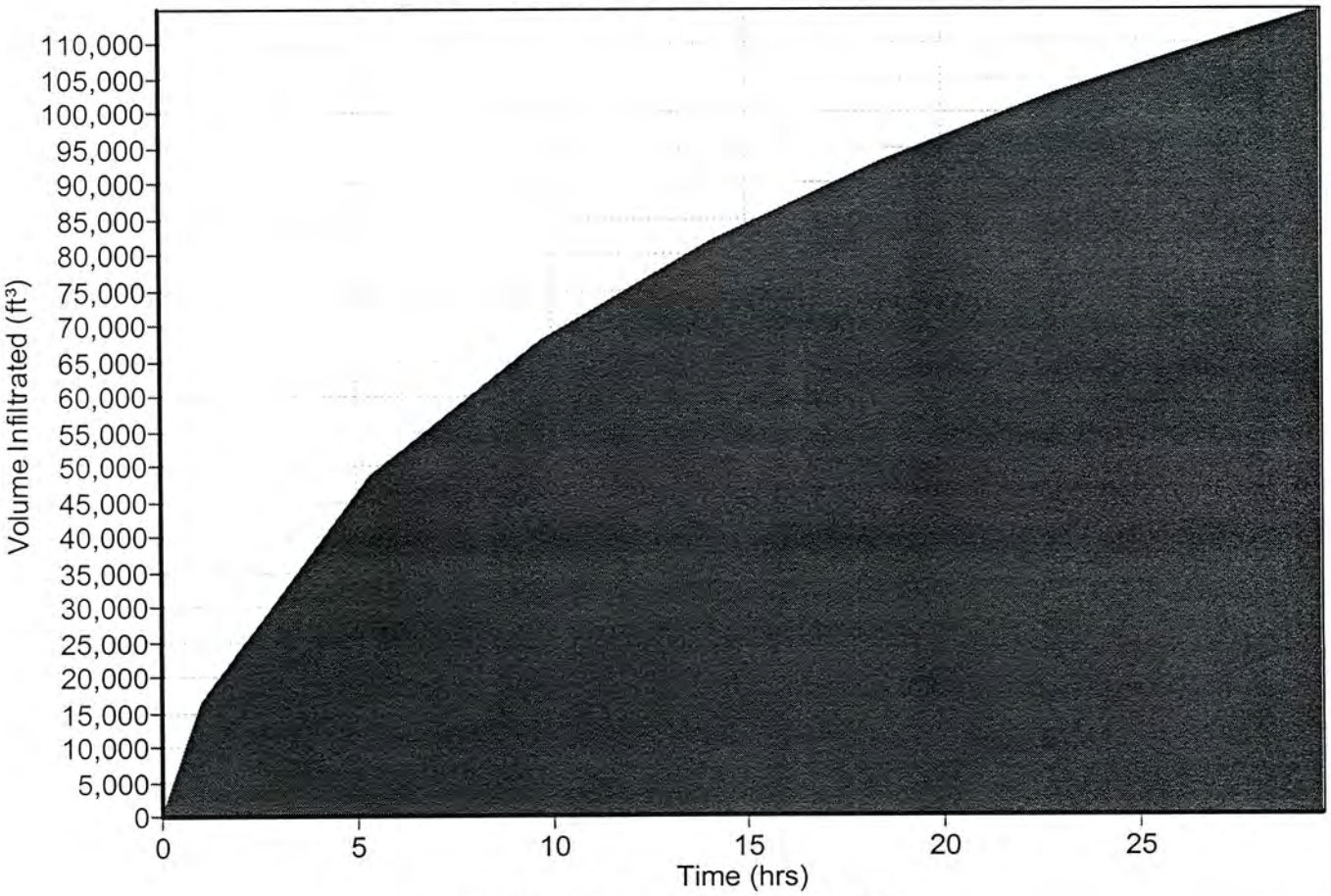
SUMMARY OF RESULTS

PROJECT NAME : C&D Landfill - Pond 1

CUMULATIVE TIME (hrs)	WATER ELEVATION (feet)	INSTANTANEOUS INFILTRATION RATE (cfs)	AVERAGE INFILTRATION RATE (cfs)	CUMULATIVE OVERFLOW (ft^3)
00.00 - 0.00	22.500	0.000 *		
			0.00000	
0.00	22.500	4.94187		
			4.48814	
1.00	24.954	4.03442		0.00
			2.04937	
5.38	24.805	1.64156		0.00
			1.23374	
9.75	24.716	1.06402		0.00
			0.89429	
14.13	24.652	0.80454		0.00
			0.71478	
18.50	24.600	0.65867		0.00
			0.60256	
22.88	24.556	0.56382		0.00
			0.52508	
27.25	24.518	0.49605		0.00
			0.46702	
29.62	24.500	0.44488		0.00
			0.42273	
36.00	24.454			0.00

Maximum Water Elevation: 24.954 feet @ 1.00 hours Recovery @ 29.623 hours
* Time increment when there is no runoff
Maximum Infiltration Rate: 1.780 ft/day

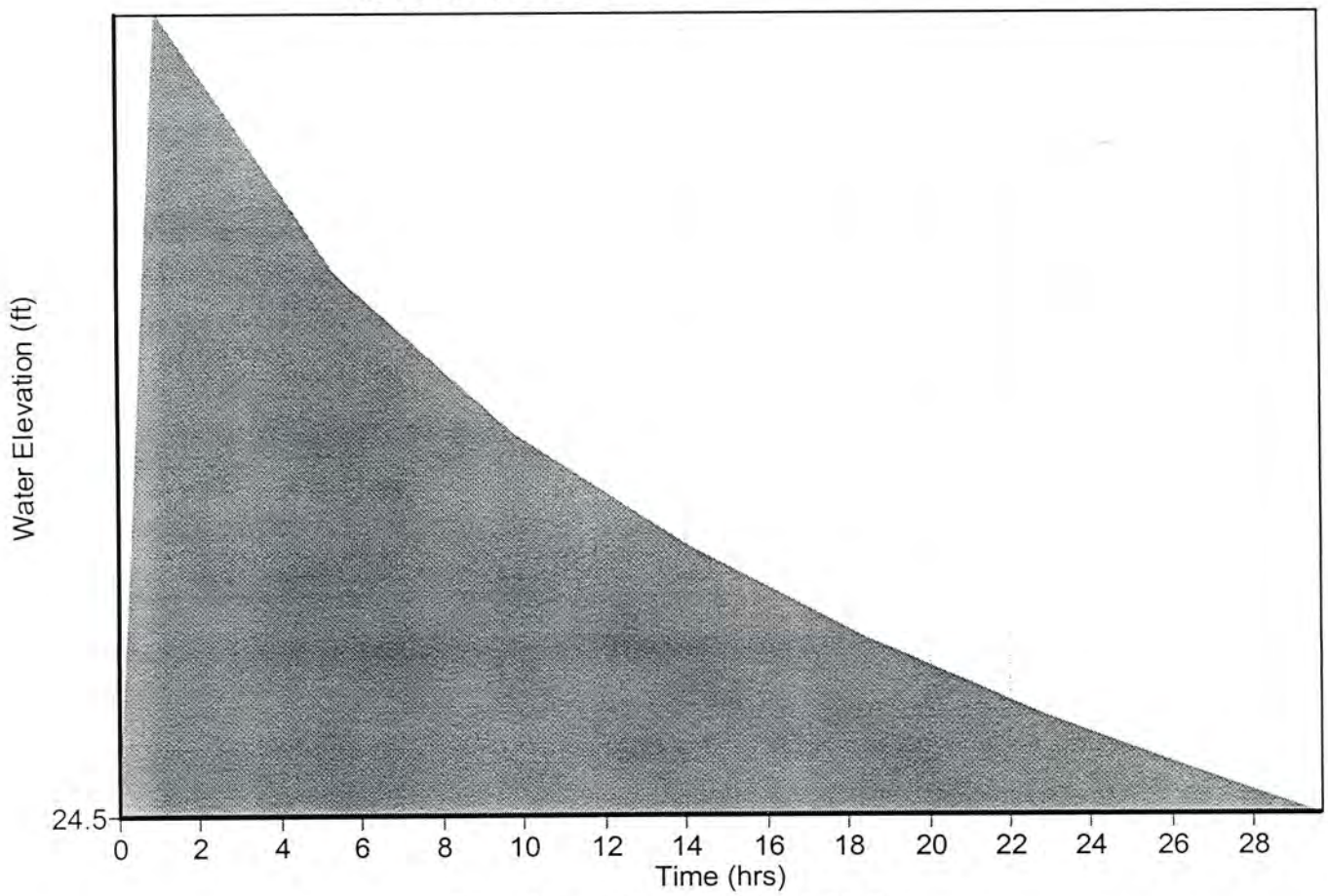
INFILTRATION : C&D LANDFILL - POND 1



Total Volume Infiltrated = 114,960 ft³

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INFILTRATION : C&D LANDFILL - POND 1



Max Water Elevation = 24.95 ft

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Modret - SFWMD Calculations

Project Name: C&D Landfill - Pond 1
Project No: 9528898.01

Project Manager: DPC
Calculated By: GWB
Date: 1/28/2004

Soil Type Malabar
Soil Number 63
County Charlotte

Estimating Preliminary Kv and Kh

Table 1. Calculated Kv

Depth From Surface	Depth (in)	Vertical Permeability Kv (in\hr.)			Average Kv (in\hr)
		From		To	
0-17"	17	6.00		20.00	13
17"-37"	20	6.00		20.00	13
37"-49"	12	6.00		20.00	13

Total Kv = 13.00 in\hr
Kv = 26.00 ft\day

Table 2: Calculated Kh (Multipler 1.5 Kv)

Depth From Surface	Depth (in)	Vertical Permeability Kv (in\hr.)			Average Kv (in\hr)
		From		To	
0-17"	17	9.00		30.00	19.5
17"-37"	20	9.00		30.00	19.5
37"-49"	12	9.00		30.00	19.5

Multipler = 1.5

Total Kh = 19.50 in\hr
Kh = 39.00 ft\day

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Modret - SFWMD Calculations

Project Name:	C&D Landfill - Pond 1	**Project Manager:**	DPC
Project No:	9528898.01	**Calculated By:**	GWB
		Date	1/28/2004

Soil Type	Malabar
Soil Number	63
County	Charlotte

Approximate Effective Storage Coefficient of Find Sands

Seasonal High =	22.5	NGVD	
Bottom Pond Elevation =	24.5	NGVD	(Average)
Weir Elevation =	25.03	NGVD	

Table A-1 (Modret SWFWMD)

Effective Depth to GWT	***f* (fraction)**	
	Compacted Soil	**Uncompacted Soil**
0	0.00	0.00
1	0.04	0.05
2	0.08	0.11
3	0.14	0.18
4	0.17	0.23
5	0.20	0.28
>6	0.22	0.30
Unsaturated =	**0.080**	**Saturated = 0.147**

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Calculation of Length to Width Ratio

Project Name: C&D Landfill
Project Number: 9528898.01

Date 9/5/2003

	pond 1	
V, Pond Voume @ Overflow (C.F.) =	115450	
h, Depth at Overflow (ft) =	0.53	
P, Effective Perimeter (ft)	9192	
Equvalent Length (ft) =	4548.1	
Equvalent Width (ft) =	95.8	
Length to Width Ratio =	47.48	

Weighted = 47.48

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Modret Calculations
Pond 2

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SUMMARY OF UNSATURATED & SATURATED INPUT PARAMETERS

PROJECT NAME : C&D Landfill - Pond 2
POLLUTION VOLUME RUNOFF DATA USED
UNSATURATED ANALYSIS EXCLUDED

Pond Bottom Area	80,459.00 ft²
Pond Volume between Bottom & DHWL	35,397.00 ft³
Pond Length to Width Ratio (L/W)	39.31
Elevation of Effective Aquifer Base	15.00 ft
Elevation of Seasonal High Groundwater Table	22.50 ft
Elevation of Starting Water Level	24.50 ft
Elevation of Pond Bottom	24.50 ft
Design High Water Level Elevation	24.92 ft
Avg. Effective Storage Coefficient of Soil for Unsaturated Analysis	0.08
Unsaturated Vertical Hydraulic Conductivity	26.00 ft/d
Factor of Safety	2.00
Saturated Horizontal Hydraulic Conductivity	39.00 ft/d
Avg. Effective Storage Coefficient of Soil for Saturated Analysis	0.14
Avg. Effective Storage Coefficient of Pond/Exfiltration Trench	1.00

Hydraulic Control Features:

	Top	Bottom	Left	Right
Groundwater Control Features - Y/N	N	N	N	N
Distance to Edge of Pond	0.00	0.00	0.00	0.00
Elevation of Water Level	0.00	0.00	0.00	0.00
Impervious Barrier - Y/N	N	N	N	N
Elevation of Barrier Bottom	0.00	0.00	0.00	0.00

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TIME - RUNOFF INPUT DATA

PROJECT NAME: C&D LANDFILL - POND 2

STRESS PERIOD NUMBER	INCREMENT OF TIME (hrs)	VOLUME OF RUNOFF (ft^3)
Unsat	0.00	0.00
1	1.00	35,252.00
2	4.38	0.00
3	4.38	0.00
4	4.38	0.00
5	4.38	0.00
6	4.38	0.00
7	4.38	0.00
8	4.38	0.00
9	4.38	0.00

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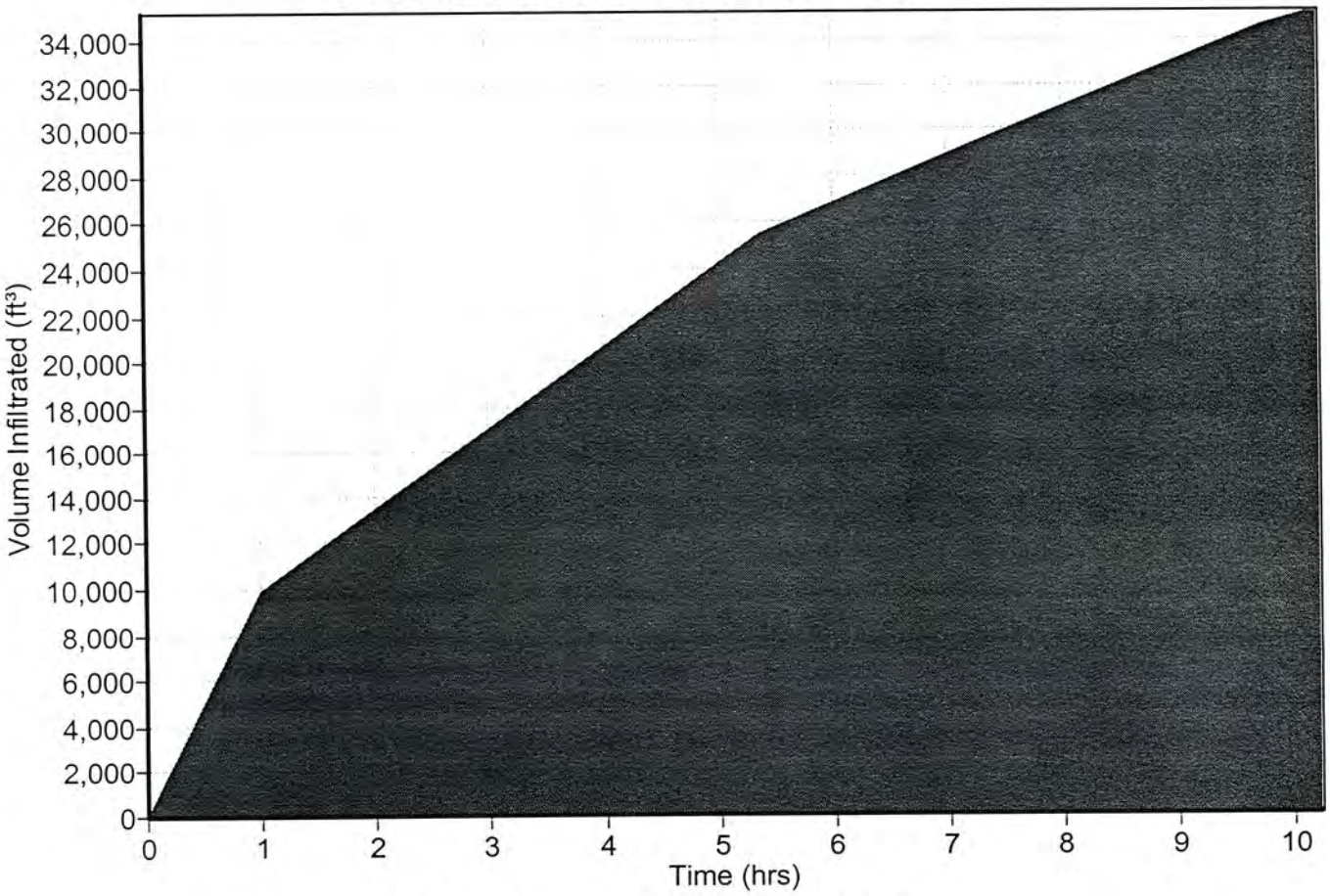
SUMMARY OF RESULTS

PROJECT NAME : C&D Landfill - Pond 2

CUMULATIVE TIME (hrs)	WATER ELEVATION (feet)	INSTANTANEOUS INFILTRATION RATE (cfs)	AVERAGE INFILTRATION RATE (cfs)	CUMULATIVE OVERFLOW (ft^3)
00.00 - 0.00	22.500	0.000 *		
			0.00000	
0.00	22.500	3.05600		
			2.73256	
1.00	24.802	2.40912		0.00
			0.99407	
5.38	24.616	0.78439		0.00
			0.57470	
9.75	24.508	0.49453		0.00
			0.41436	
10.22	24.500	0.37210		0.00
			0.32985	
18.50	24.369	0.30322		0.00
			0.27659	
22.88	24.318	0.25821		0.00
			0.23983	
27.25	24.273	0.22604		0.00
			0.21225	
31.63	24.233	0.20142		0.00
			0.19059	
36.00	24.198			0.00

Maximum Water Elevation: 24.802 feet @ 1.00 hours
Recovery @ 10.224 hours
* Time increment when there is no runoff
Maximum Infiltration Rate: 2.801 ft/day

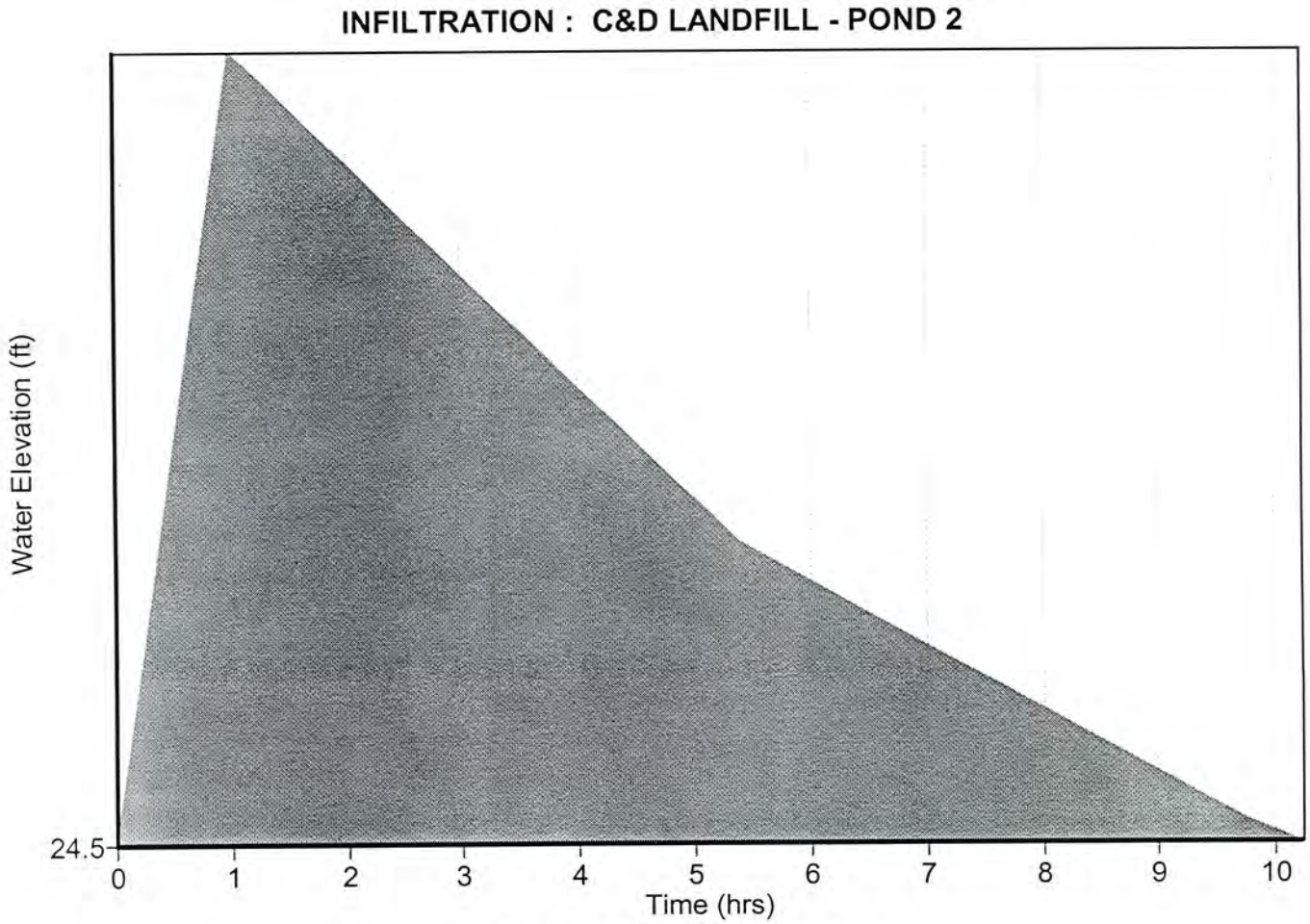
INFILTRATION : C&D LANDFILL - POND 2



Total Volume Infiltrated = 35,252 ft³

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Max Water Elevation = 24.80 ft

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Modret - SFWMD Calculations

Project Name: C&D Landfill - Pond 2
Project No: 9528898.01

Project Manager: DPC
Calculated By: GWB
Date: 1/28/2004

Soil Type Malabar
Soil Number 63
County Charlotte

Estimating Preliminary Kv and Kh

Table 1. Calculated Kv

Depth From Surface	Depth (in)	Vertical Permeability Kv (in\hr.)			Average Kv (in\hr)
		From		To	
0-17"	17	6.00		20.00	13
17"-37"	20	6.00		20.00	13
37"-49"	12	6.00		20.00	13

Total Kv = 13.00 in\hr
Kv = 26.00 ft\day

Table 2: Calculated Kh (Multipler 1.5 Kv)

Depth From Surface	Depth (in)	Vertical Permeability Kv (in\hr.)			Average Kv (in\hr)
		From		To	
0-17"	17	9.00		30.00	19.5
17"-37"	20	9.00		30.00	19.5
37"-49"	12	9.00		30.00	19.5

Multipler = 1.5

Total Kh = 19.50 in\hr
Kh = 39.00 ft\day

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Modret - SFWMD Calculations

Project Name:	C&D Landfill - Pond 2	**Project Manager:**	DPC
Project No:	9528898.01	**Calculated By:**	GWB
		Date	1/28/2004

Soil Type	Malabar
Soil Number	63
County	Charlotte

Approximate Effective Storage Coefficient of Find Sands

Seasonal High =	22.5	NGVD	
Bottom Pond Elevation =	24.5	NGVD	(Average)
Weir Elevation =	24.92	NGVD	

Table A-1 (Modret SWFWMD)

Effective Depth to GWT	***f* (fraction)**	
	Compacted Soil	**Uncompacted Soil**
0	0.00	0.00
1	0.04	0.05
2	0.08	0.11
3	0.14	0.18
4	0.17	0.23
5	0.20	0.28
>6	0.22	0.30
Unsaturated =	**0.080**	**Saturated = 0.139**

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Calculation of Length to Width Ratio

Project Name: C&D Landfill
Project Number: 9528898.01

Date 9/5/2003

	pond 2	
V, Pond Voume @ Overflow (C.F.) =	35397	
h, Depth at Overflow (ft) =	0.42	
P, Effective Perimeter (ft)	5214	
Equvalent Length (ft) =	2574.3	
Equvalent Width (ft) =	65.5	
Length to Width Ratio =	39.31	

Weighted = 39.31

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Modret Calculations
Pond 3

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SUMMARY OF UNSATURATED & SATURATED INPUT PARAMETERS

PROJECT NAME : C&D Landfill - Pond 3
POLLUTION VOLUME RUNOFF DATA USED
UNSATURATED ANALYSIS EXCLUDED

Pond Bottom Area	33,875.00 ft²
Pond Volume between Bottom & DHWL	22,117.00 ft³
Pond Length to Width Ratio (L/W)	39.89
Elevation of Effective Aquifer Base	15.00 ft
Elevation of Seasonal High Groundwater Table	22.50 ft
Elevation of Starting Water Level	24.50 ft
Elevation of Pond Bottom	24.50 ft
Design High Water Level Elevation	25.09 ft
Avg. Effective Storage Coefficient of Soil for Unsaturated Analysis	0.08
Unsaturated Vertical Hydraulic Conductivity	26.00 ft/d
Factor of Safety	2.00
Saturated Horizontal Hydraulic Conductivity	39.00 ft/d
Avg. Effective Storage Coefficient of Soil for Saturated Analysis	0.15
Avg. Effective Storage Coefficient of Pond/Exfiltration Trench	1.00

Hydraulic Control Features:

	Top	Bottom	Left	Right
Groundwater Control Features - Y/N	N	N	N	N
Distance to Edge of Pond	0.00	0.00	0.00	0.00
Elevation of Water Level	0.00	0.00	0.00	0.00
Impervious Barrier - Y/N	N	N	N	N
Elevation of Barrier Bottom	0.00	0.00	0.00	0.00

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TIME - RUNOFF INPUT DATA

PROJECT NAME: C&D LANDFILL - POND 3

STRESS PERIOD NUMBER	INCREMENT OF TIME (hrs)	VOLUME OF RUNOFF (ft^3)
Unsat	0.00	0.00
1	1.00	22,247.00
2	4.38	0.00
3	4.38	0.00
4	4.38	0.00
5	4.38	0.00
6	4.38	0.00
7	4.38	0.00
8	4.38	0.00
9	4.38	0.00

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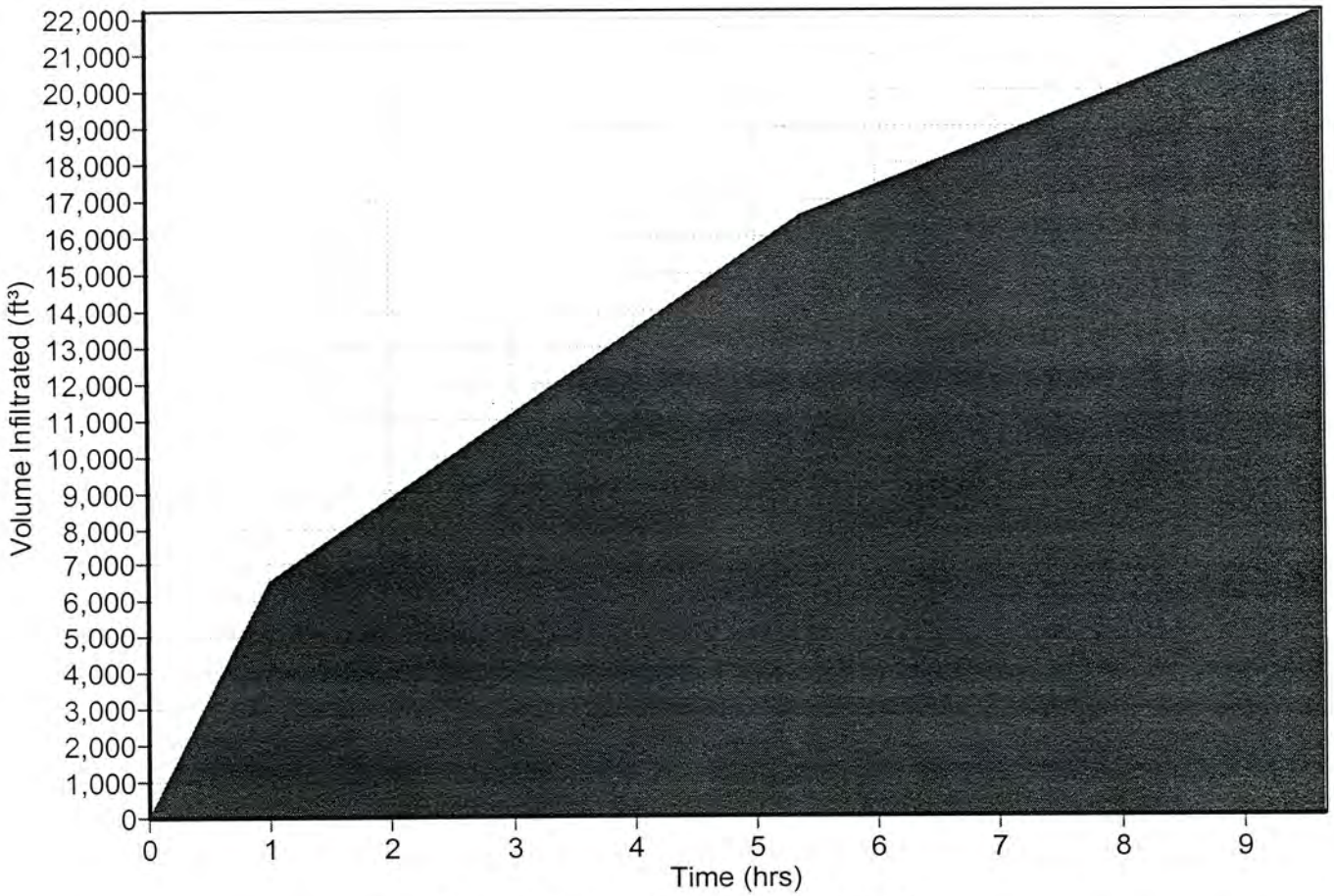
SUMMARY OF RESULTS

PROJECT NAME : C&D Landfill - Pond 3

CUMULATIVE TIME (hrs)	WATER ELEVATION (feet)	INSTANTANEOUS INFILTRATION RATE (cfs)	AVERAGE INFILTRATION RATE (cfs)	CUMULATIVE OVERFLOW (ft^3)
00.00 - 0.00	22.500	0.000 *		
			0.00000	
0.00	22.500	2.03146		
			1.81268	
1.00	24.919	1.59390		0.00
			0.63673	
5.38	24.652	0.50312		0.00
			0.36951	
9.65	24.500	0.31674		0.00
			0.26398	
14.13	24.386	0.23551		0.00
			0.20704	
18.50	24.299	0.18895		0.00
			0.17085	
22.88	24.227	0.15819		0.00
			0.14553	
27.25	24.166	0.13622		0.00
			0.12691	
31.63	24.112	0.11976		0.00
			0.11261	
36.00	24.065			0.00

Maximum Water Elevation: 24.919 feet @ 1.00 hours Recovery @ 9.655 hours
* Time increment when there is no runoff
Maximum Infiltration Rate: 4.178 ft/day

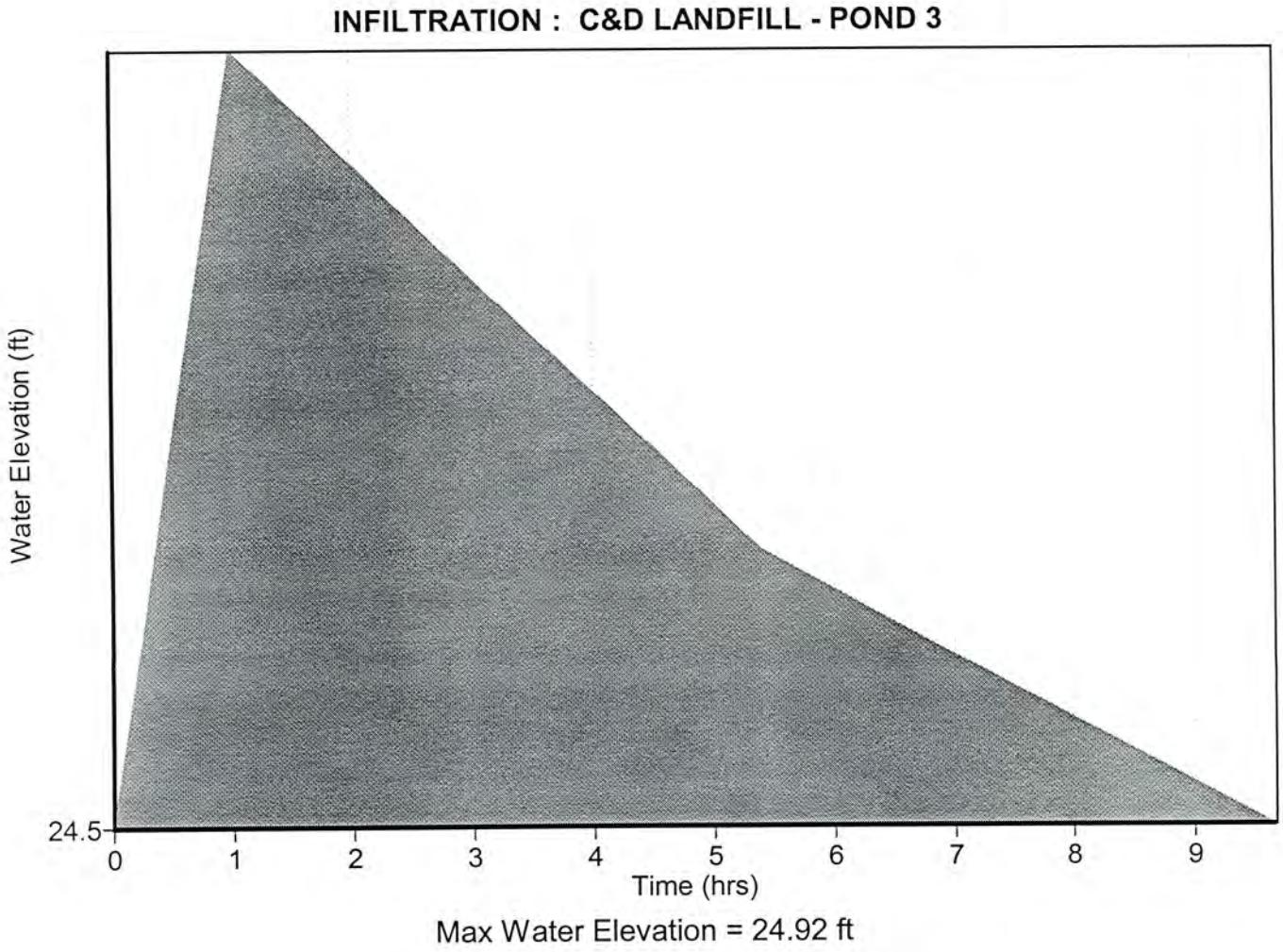
INFILTRATION : C&D LANDFILL - POND 3



Total Volume Infiltrated = 22,247 ft³

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Modret - SFWMD Calculations

Project Name: C&D Landfill - Pond 3
Project No: 9528898.01

Project Manager: DPC
Calculated By: GWB
Date: 1/28/2004

Soil Type Malabar
Soil Number 63
County Charlotte

Estimating Preliminary Kv and Kh

Table 1. Calculated Kv

Depth From Surface	Depth (in)	Vertical Permeability Kv (in\hr.)			Average Kv (in\hr)
		From		To	
0-17"	17	6.00		20.00	13
17"-37"	20	6.00		20.00	13
37"-49"	12	6.00		20.00	13

Total Kv = 13.00 in\hr
Kv = 26.00 ft\day

Table 2: Calculated Kh (Multipler 1.5 Kv)

Depth From Surface	Depth (in)	Vertical Permeability Kv (in\hr.)			Average Kv (in\hr)
		From		To	
0-17"	17	9.00		30.00	19.5
17"-37"	20	9.00		30.00	19.5
37"-49"	12	9.00		30.00	19.5

Multipler = 1.5

Total Kh = 19.50 in\hr
Kh = 39.00 ft\day

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Modret - SFWMD Calculations

Project Name:	C&D Landfill - Pond 3	**Project Manager:**	DPC
Project No:	9528898.01	**Calculated By:**	GWB
		Date	1/28/2004

Soil Type	Malabar
Soil Number	63
County	Charlotte

Approximate Effective Storage Coefficient of Find Sands

Seasonal High =	22.5	NGVD	
Bottom Pond Elevation =	24.5	NGVD	(Average)
Weir Elevation =	25.09	NGVD	

Table A-1 (Modret SWFWMD)

Effective Depth to GWT	***f* (fraction)**	
	Compacted Soil	**Uncompacted Soil**
0	0.00	0.00
1	0.04	0.05
2	0.08	0.11
3	0.14	0.18
4	0.17	0.23
5	0.20	0.28
>6	0.22	0.30
Unsaturated =	**0.080**	**Saturated = 0.151**

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Calculation of Length to Width Ratio

Project Name: C&D Landfill
Project Number: 9528898.01

Date 9/5/2003

	pond 3	
V, Pond Voume @ Overflow (C.F.) =	22117	
h, Depth at Overflow (ft) =	0.59	
P, Effective Perimeter (ft)	3502	
Equvalent Length (ft) =	1729.3	
Equvalent Width (ft) =	43.4	
Length to Width Ratio =	39.89	

Weighted = 39.89

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Modret Calculations
Pond 4

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SUMMARY OF UNSATURATED & SATURATED INPUT PARAMETERS

PROJECT NAME : C&D Landfill - Pond 4
POLLUTION VOLUME RUNOFF DATA USED
UNSATURATED ANALYSIS EXCLUDED

Pond Bottom Area	113,461.00 ft²
Pond Volume between Bottom & DHWL	116,922.00 ft³
Pond Length to Width Ratio (L/W)	69.48
Elevation of Effective Aquifer Base	15.00 ft
Elevation of Seasonal High Groundwater Table	22.50 ft
Elevation of Starting Water Level	24.50 ft
Elevation of Pond Bottom	24.50 ft
Design High Water Level Elevation	25.41 ft
Avg. Effective Storage Coefficient of Soil for Unsaturated Analysis	0.08
Unsaturated Vertical Hydraulic Conductivity	26.00 ft/d
Factor of Safety	2.00
Saturated Horizontal Hydraulic Conductivity	39.00 ft/d
Avg. Effective Storage Coefficient of Soil for Saturated Analysis	0.17
Avg. Effective Storage Coefficient of Pond/Exfiltration Trench	1.00

Hydraulic Control Features:

	Top	Bottom	Left	Right
Groundwater Control Features - Y/N	N	N	N	N
Distance to Edge of Pond	0.00	0.00	0.00	0.00
Elevation of Water Level	0.00	0.00	0.00	0.00
Impervious Barrier - Y/N	N	N	N	N
Elevation of Barrier Bottom	0.00	0.00	0.00	0.00

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TIME - RUNOFF INPUT DATA

PROJECT NAME: C&D LANDFILL - POND 4

STRESS PERIOD NUMBER	INCREMENT OF TIME (hrs)	VOLUME OF RUNOFF (ft^3)
Unsat	0.00	0.00
1	1.00	116,367.00
2	4.38	0.00
3	4.38	0.00
4	4.38	0.00
5	4.38	0.00
6	4.38	0.00
7	4.38	0.00
8	4.38	0.00
9	4.38	0.00

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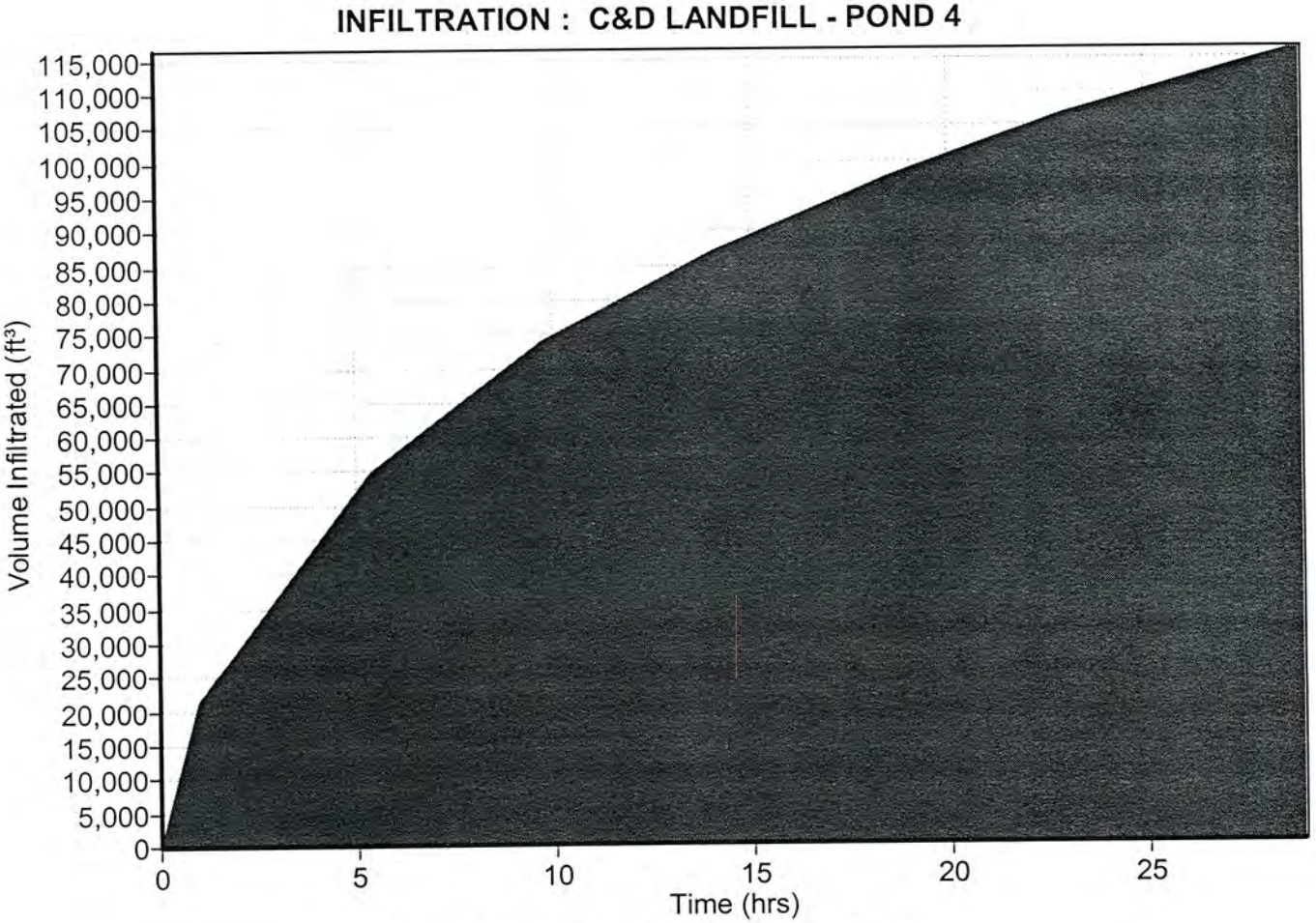
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SUMMARY OF RESULTS

PROJECT NAME : C&D Landfill - Pond 4

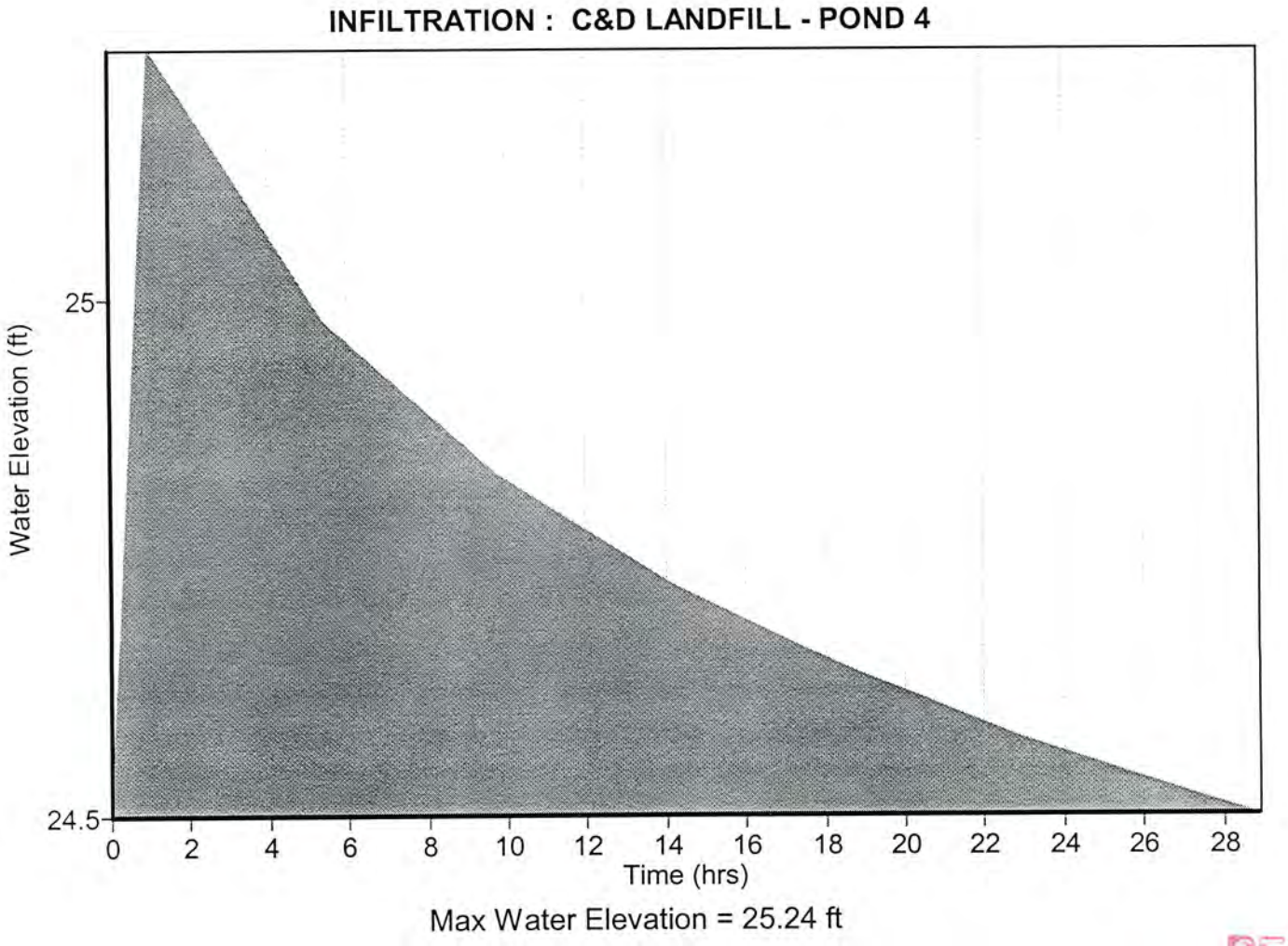
CUMULATIVE TIME (hrs)	WATER ELEVATION (feet)	INSTANTANEOUS INFILTRATION RATE (cfs)	AVERAGE INFILTRATION RATE (cfs)	CUMULATIVE OVERFLOW (ft^3)
00.00 - 0.00	22.500	0.000 *		
			0.00000	
0.00	22.500	6.65271		
			5.94248	
1.00	25.239	5.23225		0.00
			2.12500	
5.38	24.979	1.66269		0.00
			1.20038	
9.75	24.832	1.02561		0.00
			0.85084	
14.13	24.727	0.75949		0.00
			0.66814	
18.50	24.645	0.61130		0.00
			0.55446	
22.88	24.577	0.51512		0.00
			0.47579	
27.25	24.519	0.44677		0.00
			0.41775	
28.88	24.500	0.39542		0.00
			0.37309	
36.00	24.422			0.00

Maximum Water Elevation: 25.239 feet @ 1.00 hours Recovery @ 28.878 hours
* Time increment when there is no runoff
Maximum Infiltration Rate: 3.996 ft/day



Total Volume Infiltrated = 116,367 ft³

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Modret - SFWMD Calculations

Project Name: C&D Landfill - Pond 4
Project No: 9528898.01

Project Manager: DPC
Calculated By: GWB
Date: 1/28/2004

Soil Type Malabar
Soil Number 63
County Charlotte

Estimating Preliminary Kv and Kh

Table 1. Calculated Kv

Depth From Surface	Depth (in)	Vertical Permeability Kv (in\hr.)			Average Kv (in\hr)
		From		To	
0-17"	17	6.00		20.00	13
17"-37"	20	6.00		20.00	13
37"-49"	12	6.00		20.00	13

Total Kv = 13.00 in\hr
Kv = 26.00 ft\day

Table 2: Calculated Kh (Multipler 1.5 Kv)

Depth From Surface	Depth (in)	Vertical Permeability Kv (in\hr.)			Average Kv (in\hr)
		From		To	
0-17"	17	9.00		30.00	19.5
17"-37"	20	9.00		30.00	19.5
37"-49"	12	9.00		30.00	19.5

Multipler = 1.5

Total Kh = 19.50 in\hr
Kh = 39.00 ft\day

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Modret - SFWMD Calculations

Project Name:	C&D Landfill - Pond 4	**Project Manager:**	DPC
Project No:	9528898.01	**Calculated By:**	GWB
		Date	1/28/2004

Soil Type	Malabar
Soil Number	63
County	Charlotte

Approximate Effective Storage Coefficient of Find Sands

Seasonal High =	22.5	NGVD	
Bottom Pond Elevation =	24.5	NGVD	(Average)
Weir Elevation =	25.41	NGVD	

Table A-1 (Modret SWFWMD)

Effective Depth to GWT	***f* (fraction)**	
	Compacted Soil	**Uncompacted Soil**
0	0.00	0.00
1	0.04	0.05
2	0.08	0.11
3	0.14	0.18
4	0.17	0.23
5	0.20	0.28
>6	0.22	0.30
Unsaturated =	**0.080**	**Saturated = 0.174**

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Calculation of Length to Width Ratio

Project Name: C&D Landfill
Project Number: 9528898.01

Date 9/5/2003

	pond 4	
V, Pond Voume @ Overflow (C.F.) =	116922	
h, Depth at Overflow (ft) =	0.91	
P, Effective Perimeter (ft)	8512	
Equvalent Length (ft) =	4225.6	
Equvalent Width (ft) =	60.8	
Length to Width Ratio =	69.48	

Weighted = 69.48

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Modret Calculations
Pond 5

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D.E.P. - South District

Dufresne-Henry

630 Woodbury Drive
Port Charlotte, FL 33952
(941) 627-3366
Fax: (941) 743-2904 E-mail: pc@dufresne-henry.com

MODRET

SUMMARY OF UNSATURATED & SATURATED INPUT PARAMETERS

PROJECT NAME : C&D Landfill - Pond 5
POLLUTION VOLUME RUNOFF DATA USED
UNSATURATED ANALYSIS EXCLUDED

Pond Bottom Area	130,395.00 ft²
Pond Volume between Bottom & DHWL	53,449.00 ft³
Pond Length to Width Ratio (L/W)	28.65
Elevation of Effective Aquifer Base	15.00 ft
Elevation of Seasonal High Groundwater Table	22.65 ft
Elevation of Starting Water Level	24.50 ft
Elevation of Pond Bottom	24.50 ft
Design High Water Level Elevation	24.90 ft
Avg. Effective Storage Coefficient of Soil for Unsaturated Analysis	0.07
Unsaturated Vertical Hydraulic Conductivity	26.00 ft/d
Factor of Safety	2.00
Saturated Horizontal Hydraulic Conductivity	39.00 ft/d
Avg. Effective Storage Coefficient of Soil for Saturated Analysis	0.13
Avg. Effective Storage Coefficient of Pond/Exfiltration Trench	1.00

Hydraulic Control Features:

	Top	Bottom	Left	Right
Groundwater Control Features - Y/N	N	N	N	N
Distance to Edge of Pond	0.00	0.00	0.00	0.00
Elevation of Water Level	0.00	0.00	0.00	0.00
Impervious Barrier - Y/N	N	N	N	N
Elevation of Barrier Bottom	0.00	0.00	0.00	0.00

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TIME - RUNOFF INPUT DATA

PROJECT NAME: C&D LANDFILL - POND 5

STRESS PERIOD NUMBER	INCREMENT OF TIME (hrs)	VOLUME OF RUNOFF (ft^3)
Unsat	0.00	0.00
1	1.00	52,302.00
2	4.38	0.00
3	4.38	0.00
4	4.38	0.00
5	4.38	0.00
6	4.38	0.00
7	4.38	0.00
8	4.38	0.00
9	4.38	0.00

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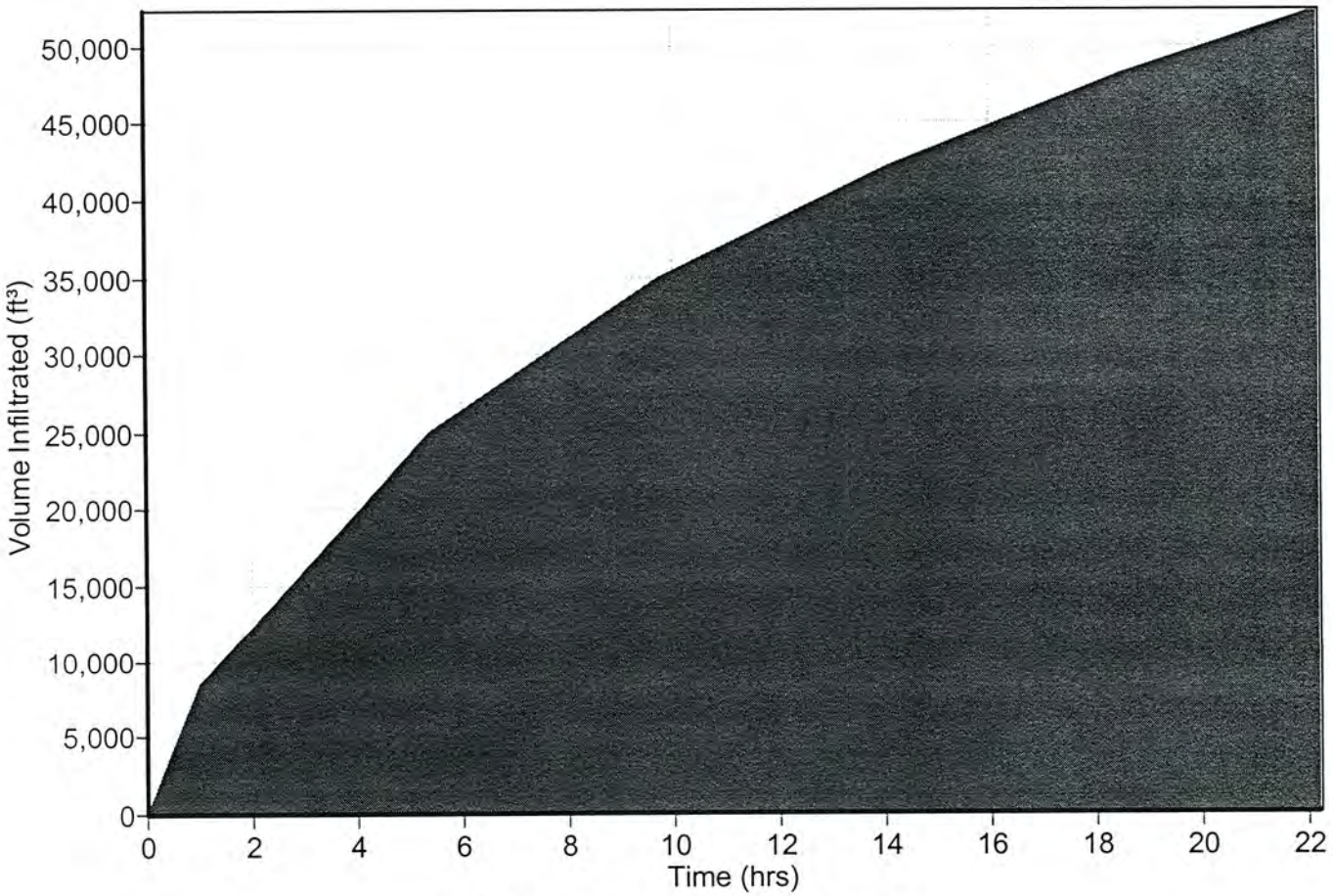
SUMMARY OF RESULTS

PROJECT NAME : C&D Landfill - Pond 5

CUMULATIVE TIME (hrs)	WATER ELEVATION (feet)	INSTANTANEOUS INFILTRATION RATE (cfs)	AVERAGE INFILTRATION RATE (cfs)	CUMULATIVE OVERFLOW (ft^3)
00.00 - 0.00	22.650	0.000 *		
			0.00000	
0.00	22.650	2.60223		
			2.35826	
1.00	24.828	2.11429		0.00
			1.04692	
5.38	24.704	0.83970		0.00
			0.63249	
9.75	24.630	0.54743		0.00
			0.46237	
14.13	24.575	0.41727		0.00
			0.37218	
18.50	24.532	0.34389		0.00
			0.31560	
22.21	24.500	0.29571		0.00
			0.27582	
27.25	24.462	0.26129		0.00
			0.24676	
31.63	24.433	0.23529		0.00
			0.22383	
36.00	24.406			0.00

Maximum Water Elevation: 24.828 feet @ 1.00 hours Recovery @ 22.212 hours
* Time increment when there is no runoff
Maximum Infiltration Rate: 1.525 ft/day

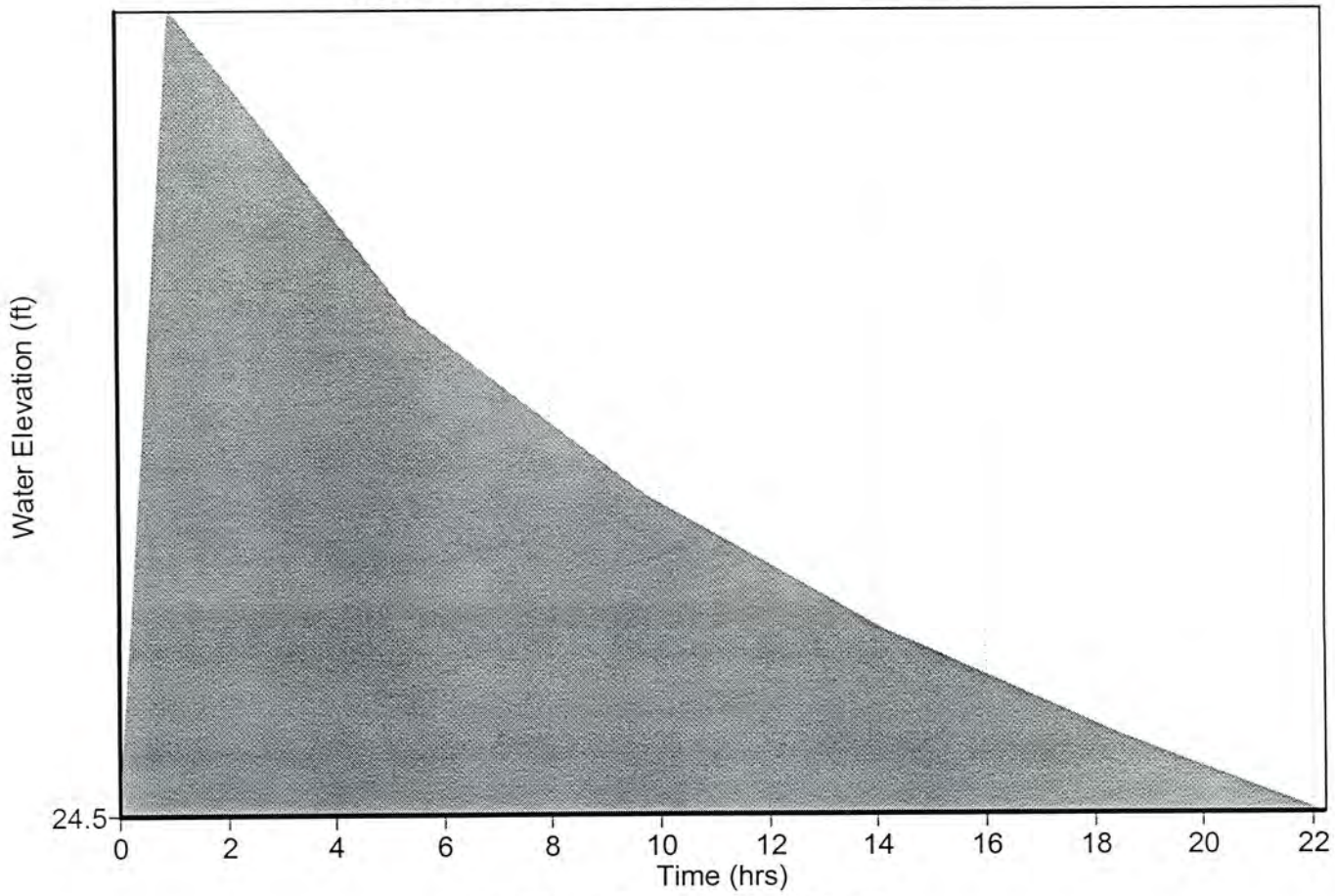
INFILTRATION : C&D LANDFILL - POND 5



Total Volume Infiltrated = 52,302 ft³

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INFILTRATION : C&D LANDFILL - POND 5



Max Water Elevation = 24.83 ft

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Modret - SFWMD Calculations

Project Name: C&D Landfill - Pond 5
Project No: 9528898.01

Project Manager: DPC
Calculated By: GWB
Date: 1/28/2004

Soil Type Malabar
Soil Number 63
County Charlotte

Estimating Preliminary Kv and Kh

Table 1. Calculated Kv

Depth From Surface	Depth (in)	Vertical Permeability Kv (in\hr.)			Average Kv (in\hr)
		From		To	
0-17"	17	6.00		20.00	13
17"-37"	20	6.00		20.00	13
37"-49"	12	6.00		20.00	13

Total Kv = 13.00 in\hr
Kv = 26.00 ft\day

Table 2: Calculated Kh (Multipler 1.5 Kv)

Depth From Surface	Depth (in)	Vertical Permeability Kv (in\hr.)			Average Kv (in\hr)
		From		To	
0-17"	17	9.00		30.00	19.5
17"-37"	20	9.00		30.00	19.5
37"-49"	12	9.00		30.00	19.5

Multipler = 1.5

Total Kh = 19.50 in\hr
Kh = 39.00 ft\day

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Modret - SFWMD Calculations

Project Name:	C&D Landfill - Pond 5	**Project Manager:**	DPC
Project No:	9528898.01	**Calculated By:**	GWB
		Date	1/28/2004

Soil Type	Malabar
Soil Number	63
County	Charlotte

Approximate Effective Storage Coefficient of Find Sands

Seasonal High =	22.65	NGVD	
Bottom Pond Elevation =	24.5	NGVD	(Average)
Weir Elevation =	24.9	NGVD	

Table A-1 (Modret SWFWMD)

Effective Depth to GWT	***f* (fraction)**	
	Compacted Soil	**Uncompacted Soil**
0	0.00	0.00
1	0.04	0.05
2	0.08	0.11
3	0.14	0.18
4	0.17	0.23
5	0.20	0.28
>6	0.22	0.30
Unsaturated =	**0.074**	**Saturated = 0.128**

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Calculation of Length to Width Ratio

Project Name: C&D Landfill
Project Number: 9528898.01

Date 9/5/2003

	pond 5	
V, Pond Voume @ Overflow (C.F.) =	53449	
h, Depth at Overflow (ft) =	0.4	
P, Effective Perimeter (ft)	5631	
Equvalent Length (ft) =	2767.2	
Equvalent Width (ft) =	96.6	
Length to Width Ratio =	28.65	

Weighted = 28.65

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DUFRESNE–HENRY

PROJECT NAME: C & D RECYCLING AND DISPOSAL FACILITY

PROJECT No. 9528898.01

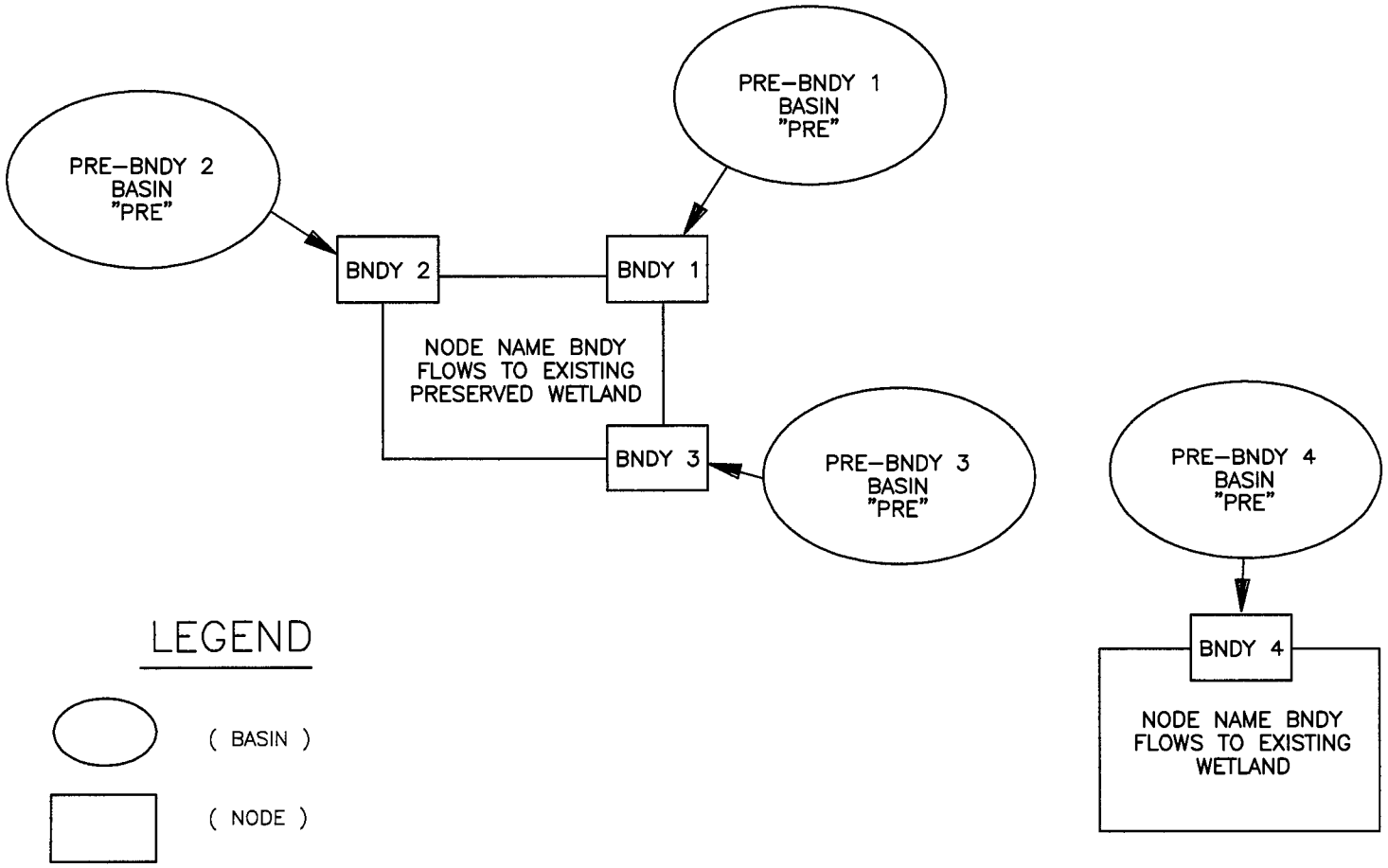
PROJECT MANAGER: D P C

CALCULATED BY: D F W

DATE: JANUARY 29, 2004

STORMWATER MANAGEMENT SYSTEM DESCRIPTION MAP

BASIN NAME: PRE–BNDY 1, PRE–BNDY 2, PRE–BNDY 3, PRE–BNDY 4
BASIN DESCRIPTION: EXISTING
OUTFALL NODE: BNDY1
ICPR PROJECT NAME: C & D RECYCLING AND DISPOSAL FACILITY
ICPR DIRECTORY: N:\PROJECTS\9528898.01 – ZEMEL LANDFILL\CAD FILES\IDWG\DEP\NODE MAP



DUFRESNE-HENRY

PROJECT NAME: C & D RECYCLING AND DISPOSAL FACILITY

PROJECT No. 9528898.01

PROJECT MANAGER: D P C

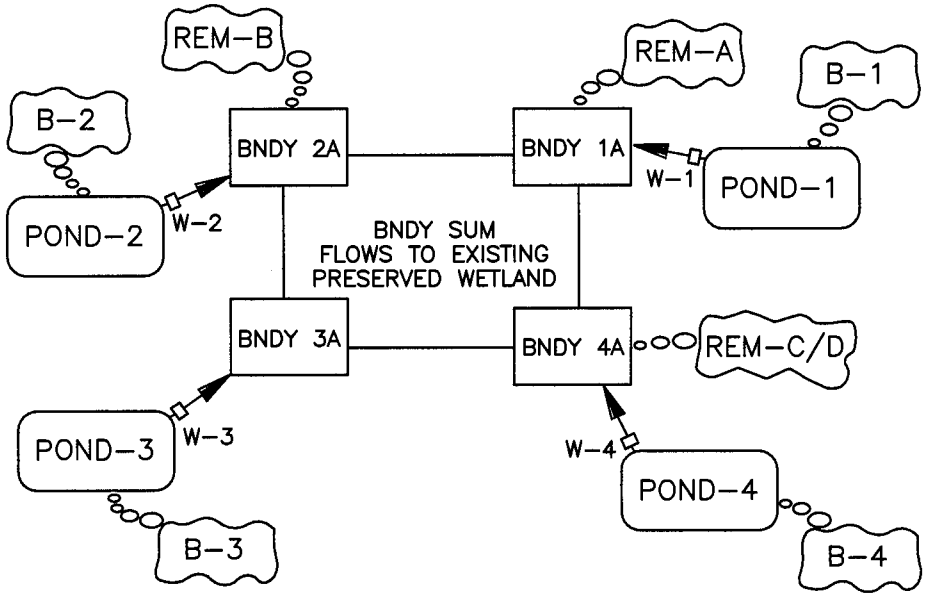
CALCULATED BY: D F W

DATE: JANUARY 29, 2004

STORMWATER MANAGEMENT SYSTEM DESCRIPTION MAP

BASIN NAME: B-1, B-2, B-3, B-4, B-5

TOTAL LAND AREA: 373.5269 ACRES
BASIN DESCRIPTION: 270.96 ACRES
BASIN REQUIREMENTS: TREATMENT AND ATTENUATION - 25 YEAR 24 HOUR STORM FOR S.W.F.W.M.D., 100 YEAR 24 HOUR FOR CHARLOTTE COUNTY.
OUTFALL NODE: BNDY (1A , 2A , 3A , 4A , 5A) - EXISTING PRESERVED WETLAND
ICPR PROJECT NAME: C & D RECYCLING AND DISPOSAL FACILITY
ICPR DIRECTORY: N:\PROJECTS\9528898.01 - ZEMEL LANDFILL\CAD FILES\IDWG\DEP\NODE MAP



LEGEND

CB-3 (NODE)

B-3 (BASIN)

CB-1	CATCH BASIN
J-1	JUNCTION BOX
POND-1	POND

LINKS

P-1 → D-1 DROP STRUCTURE; P-1 PIPE; W-1 WEIR

