



Mr. Allan Palmer
GSP Merrimack LLC
431 River Road
Bow, New Hampshire

August 28, 2026
File No. 2025.018

Re: Runon and Runoff Control System Plan – Periodic Revision
Merrimack Station Coal Ash Landfill
Bow, New Hampshire

Dear Mr. Palmer:

Sanborn, Head & Associates, Inc. (Sanborn Head) prepared this periodic, revised Runon and Runoff Control System Plan (Plan) for the Merrimack Station Ash Landfill (landfill) in Bow, New Hampshire. The Plan was prepared to document that the runon and runoff system was designed and constructed to meet the requirements of the United States Environmental Protection Agency (USEPA) Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, 40 CFR Part 257.81. A periodic, revised runon and runoff plan is required every 5 years pursuant to 40 CFR Part 257.81(c)(4).

SITE CHARACTERISTICS

The approximately 5.4-acre lined landfill is comprised of 1.6 acres of final closed area, 0.6 acres of inactive area (i.e., no CCR in place), and 3.2 acres of active area (i.e., CCR is being placed). The site features, topography, and drainage patterns at and surrounding the landfill are depicted on Figure 1. The landfill is in an area consisting primarily of sandy soils.¹

Stormwater within the active area of the landfill is managed as leachate. The active area of the landfill is graded such that stormwater does not runoff and is collected in the landfill leachate collection system (LCS). The water collected by the LCS gravity-drains to underground leachate storage tanks where it accumulates prior to removal for off-site treatment. The inactive area of the landfill is separated from the active area by a geomembrane-lined division berm. Stormwater runoff from the inactive area is collected with a 6-inch perforated pipe and discharged through a 6-inch diameter pipe to a swale and surrounding low areas south of the landfill and does not discharge to a water of the United States.

The final closed area of the landfill has a cover system that consists of 12 inches of sand bedding overlain by 36-mil thick Hypalon geomembrane, which is in turn overlain by an 18-inch thick layer of sand cover and a 4-inch thick layer of topsoil. Stormwater from the final closed area of the landfill is overland low and discharges to the surrounding low areas north of the landfill and does not discharge to a water of the United States. There are no stormwater collection or conveyance structures associated with the currently closed portion of the landfill.

¹ U.S. Department of Agriculture Natural Resources Conservation Service Web Soil Survey.



Runon to the landfill from the west is obstructed by a gravel access road with drainage channels that direct stormwater around the perimeter of the landfill. A riprap lined swale along the eastern side of the landfill intercepts runon to the landfill and discharges the stormwater to the surrounding low areas south of the landfill (see Figure 1). A detail of the swale is provided on the attached Closure Plan, dated July 6, 1990, and prepared by others. The perimeter drainage features appeared to be in good condition during a January 16, 2026, site inspection.

STORMWATER CALCULATION

The stormwater features at the landfill were previously designed and installed by others. Sanborn Head observed the features during the annual inspection of the landfill on January 16, 2026. The effectiveness of the runon and runoff control system to collect and control the water volume resulting from a 24-hour, 25-year storm event was evaluated using HydroCAD™ version 10.0, a stormwater modeling software developed by HydroCAD Software Solutions, LLC, of Chocorua, New Hampshire.

The supporting HydroCAD™ report was generated in August 2016, and the landfill conditions and storm event used for the report were confirmed to be applicable to current conditions. Due to limited operations at the landfill since 2016, the facility operations, site features, topography, or drainage patterns at and surrounding the landfill used for generating the report are representative of current conditions. Also, the 5.27-inch storm event used for the report is consistent with the current storm event estimate obtained from the Northeast Regional Climate Center extreme precipitation data used.² The runoff curve numbers selected were based on surface and soil conditions and are provided in the enclosed HydroCAD calculation output.

Figure 1 depicts the landfill drainage features, subcatchment areas, and anticipated stormwater flow paths considered in the HydroCAD model and evaluation. Landfill drainage features and riprap lined swale dimensions are based on a drawing prepared by Public Service of New Hampshire titled, "Closure Plan, Ash Disposal Landfill, Merrimack Station, Bow, New Hampshire," dated July 6, 1990. The locations of existing stormwater and LCS pipes were based on a drawing prepared by Public Service of New Hampshire titled, "Plan of Ash Disposal Landfill, Merrimack Station, Public Service Co. of New Hampshire, Bow, New Hampshire," dated July 13, 1990. Actual pipe locations and elevations may be different than modeled.

CONCLUSIONS

As described above, runon from the surrounding areas is controlled by a gravel road access road with drainage channels to the west, a riprap lined perimeter swale to the east, and site grading to the north and south. As shown in the enclosed HydroCAD™ report, runoff resulting from the 24-hour, 25-year storm event discharges to a swale south of the landfill at a rate of approximately 0.76 cubic feet per second (cfs). Stormwater runoff from the closed portion of the landfill sheet flows into a wooded area at a rate of about 6.00 cfs. These flows are not expected to adversely impact existing stormwater management features and receiving areas.

² <http://precip.eas.cornell.edu/>; verified May 27, 2026.

This Plan documents that the runon and runoff system was designed and constructed to meet the requirements of 40 CFR Part 257.81. Should landfill conditions change such that the Plan is no longer applicable, the Plan should be revised. Also, the Plan is required to be revised every 5 years as required by 40 CFR Part 257.81(c)(4).

Very truly yours,
SANBORN, HEAD & ASSOCIATES, INC.



Harrison R. Roakes, PE
Lead Engineer



Julie S. Scott
Senior Vice President



HRR/JSS:sln

Encl. Figure 1 – Runon & Runoff Control System Plan
Closure Plan
Plan of Ash Disposal Landfill
HydroCAD Report

N:\2000s\2025.018\Source Files\202608 Runon Runoff\20260828 Runon Runoff Letter.docx



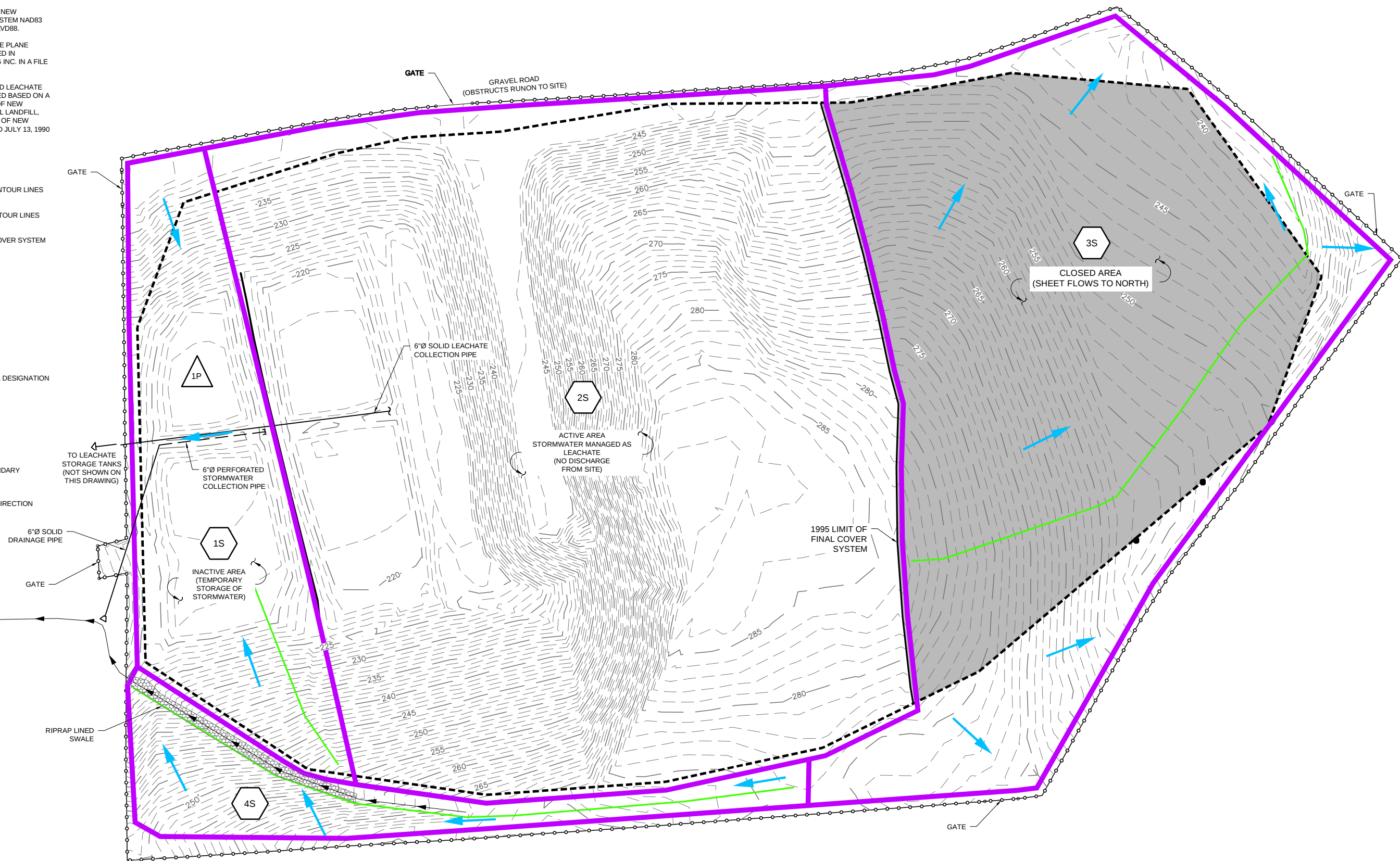
Figure 1

Runon & Runoff Control System Plan

2. LOCATIONS OF EXISTING STORMWATER AND LEACHATE COLLECTION SYSTEM PIPES WERE DIGITIZED BASED ON A DRAWING PREPARED BY PUBLIC SERVICE OF NEW HAMPSHIRE TITLED "PLAN OF ASH DISPOSAL LANDFILL, MERRIMACK STATION, PUBLIC SERVICE CO. OF NEW HAMPSHIRE, BOW, NEW HAMPSHIRE" DATED JULY 13, 1990 AND ARE CONSIDERED APPROXIMATE.



- | | |
|---|----------------------------------|
|  | EXISTING 10-FOOT CONTOUR LINES |
|  | EXISTING 2-FOOT CONTOUR LINES |
|  | 1995 LIMIT OF FINAL COVER SYSTEM |
|  | CLOSED AREA |
|  | LIMIT OF LINER |
|  | FENCE LINE |
|  | EXISTING RIPRAP |
|  | SUBCATCHMENT AREA DESIGNATION |
|  | POND DESIGNATION |
|  | SUBCATCHMENT BOUNDARY |
|  | FLOW PATH |
|  | STORMWATER FLOW DIRECTION |



SANBORN || HEAD



NO.	DATE	DESCRIPTION	BY

DRAWN BY: R. CLAY
DESIGNED BY: R. CLAY
REVIEWED BY: H. ROAKES
PROJECT MGR: H. ROAKES
PIC: J. SCOTT
DATE: AUGUST 2026

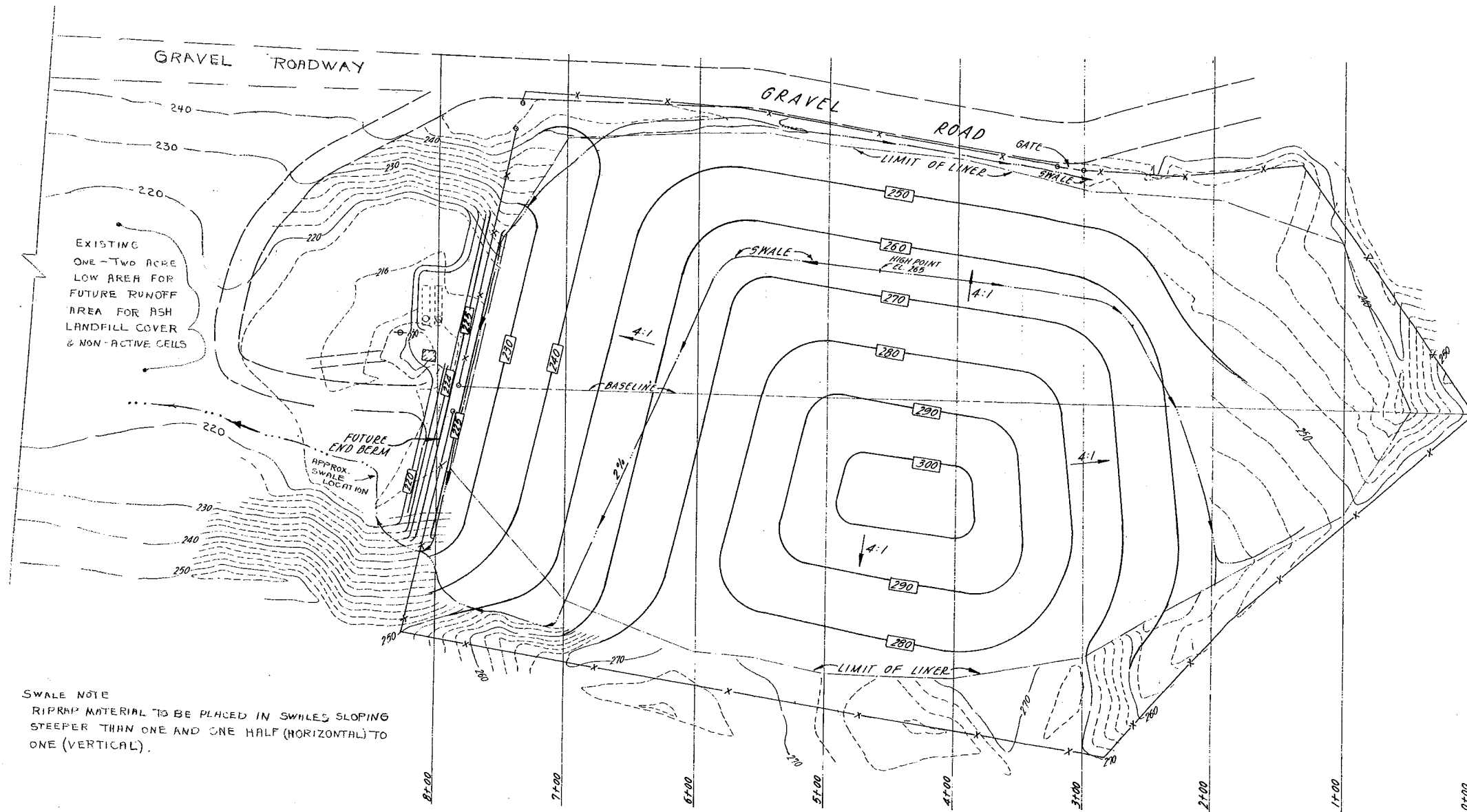
MERRIMACK STATION COAL ASH LANDFILL
PUBLIC SERVICE OF NEW HAMPSHIRE
BOW, NEW HAMPSHIRE

RUNON AND RUNOFF CONTROL SYSTEM PLAN

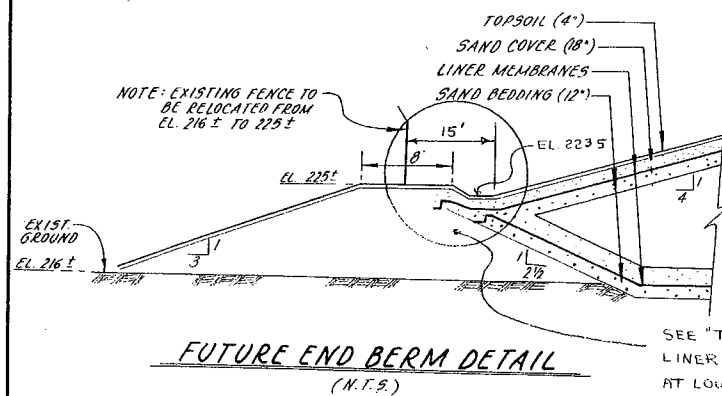
2025.018

1

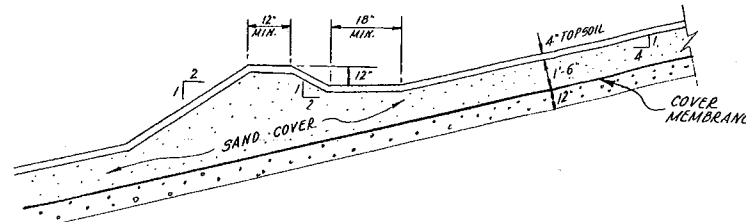
Closure Plan



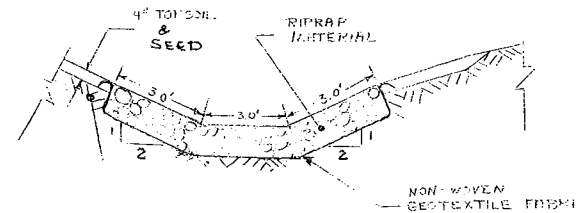
SWALE NOTE
RIPRAP MATERIAL TO BE PLACED IN SWALES SLOPING
STEEPER THAN ONE AND ONE HALF (HORIZONTAL) TO
ONE (VERTICAL).



SEE "TYPICAL MEMBRANE
LINER SYSTEM & ANCHORAGE
AT LOW SIDE" FOR DETAILS
(MK-S-10)



TYPICAL COVER MEMBRANE/SWALE
DETAIL
(N.T.S.)



LINED RIPRAP SWALE
NTS

NOTES:

- 1) BOTTOM MEMBRANE NOTE: FROM STATION 5+68 +/- TO THE END BERM, 60 MIL HYDRA-LON MEMBRANE WILL BE INSTALLED IN PLACE OF THE 36 MIL HYDRA-LON MEMBRANE NOTED ON PLANS.
- 2) CAP (COVER) MEMBRANE NOTE: FROM STATION 2+82 +/- TO THE END BERM, 45 MIL HYDRA-LON MEMBRANE WILL BE INSTALLED IN PLACE OF THE 36 MIL HYDRA-LON MEMBRANE NOTED ON PLANS.

NO.	REVISION	DATE	DRWN	CHKD	APPR
1	ADDED "LINED RIPRAP SWALE DETAIL"	5/24/01	PSL		
2	REVISED RUNOFF BASIN NOTE & ADDED GROUND CONTOURS THIS AREA	11/19/00	PSL		
3	REV. TYP. MEMBRANE DETAIL	10/02	MT		
4	ADDED NOTE TO FUTURE END BERM	5/01	PSL	JFM	JFM
5	ADDED 60 MIL AND 45 MIL NOTE	9/01	PSL	JFM	JFM

DRAWN	W. N. T.
DESIGNED	P. S. L.
CHECKED	
APPROVED	

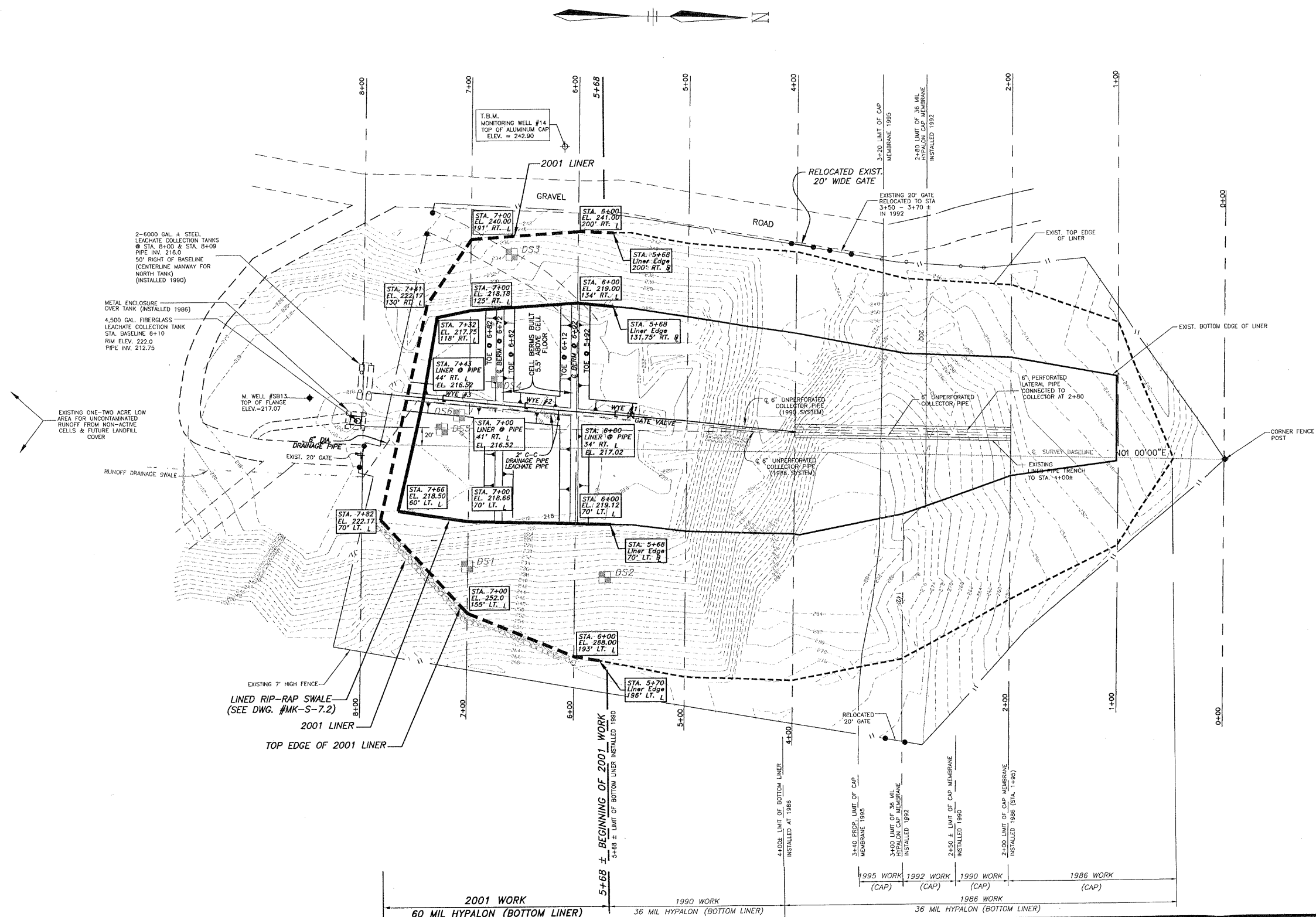
PSNH PUBLIC SERVICE ENGINEERING Company of New Hampshire DIVISION	CLOSURE PLAN ASH DISPOSAL LANDFILL MERRIMACK STATION BOW, N. H.	
	SCALE 1" = 50'	DATE 7/6/90
	SHEET OF	DRAWING NO. MK-S-7.2



2001 REVISIONS
8/7/01
JFM/PSL

Bob Brecknock

Plan of Ash Disposal Landfill



REFERENCE PLAN :
DUBOIS AND KING INC. DWG. # C-164 PROJ. # 38001
1"=50' 10-31-83

- SURVEY NOTES:**
- SITE SURVEYED IN 1985
 - SITE SURVEYED JULY 1988
 - PARTIAL SURVEY JULY 1990
 - SITE SURVEY OCTOBER 1991
 - PARTIAL SURVEY OCTOBER 1993
 - PARTIAL SURVEY MARCH 1995
 - PARTIAL SURVEY 1997 (VOLUME)
 - PARTIAL SURVEY APRIL 2001
 - PARTIAL SURVEY NOVEMBER 2001

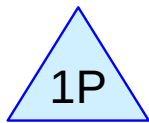
- LEGEND:**
- DENOTES EXISTING CONTOURS
 - DENOTES EXISTING FENCE
 - DENOTES DESTRUCTIVE SAMPLING SEAM SAMPLE
 - [WYE #1] DENOTES APPROXIMATE WYE LOCATION

- NOTES:**
1. SEE SECTION DRAWINGS FOR PROPOSED FINAL GRADES.
 2. SEE DRAWINGS MK-S-11, 12, 13 FOR CELL SEPARATION BERM DETAILS.
 3. RUNOFF FROM NON-ACTIVE CELLS TO FLOW THROUGH PIPES AND RUNOFF DRAINAGE SWALE THAT DIRECT UNCONTAMINATED RUNOFF TO EXISTING ONE-TWO ACRE LOW AREA SOUTH OF LANDFILL.
 4. TOTAL AREA WITHIN FENCE IS 6.7 ± ACRES.
 5. TOTAL AREA WITHIN LINER IS 5.4 ± ACRES.
 6. BOTTOM MEMBRANE NOTE: FROM STATION 5+68 +/- TO THE END BERM, 60 MIL HYPALON MEMBRANE WILL BE INSTALLED IN PLACE OF THE 36 MIL HYPALON MEMBRANE NOTED ON PLANS.
 7. CAP (COVER) MEMBRANE NOTE: FROM STATION 2+82 +/- TO THE END BE 45 MIL HYPALON MEMBRANE WILL BE INSTALLED IN PLACE OF THE 36 MIL HYPALON MEMBRANE NOTED ON PLANS.

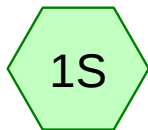
AS-BUILT NOTE:
NOVEMBER 11, 2001 AS-BUILT SURVEY OF THE HORIZONTAL AND VERTICAL LOCATION OF THE LINER IS CONCURRENT WITH THE PROPOSED DESIGN.

1		ADDED LINER LIMITS / BERMS		7/90	PSL					PSNH DRAWN DJT DESIGNED PSL CHECKED PSL APPROVED PSL	PUBLIC SERVICE OF NEW HAMPSHIRE		GENERAL ENGINEERING DIVISION	
2		ADDED UNCONTAMINATED STORMWATER PIPE		9/90	PSL						PLAN OF ASH DISPOSAL LANDFILL MERRIMACK STATION PUBLIC SERVICE CO. OF NEW HAMPSHIRE BOW, NEW HAMPSHIRE SCALE 1"=50' DATE 7/13/90 SHEET OF DRAWING NO. MK-S-7			
3		1990 "AS-BUILTS"		1/91	WNT									
4		UPDATED CONTOURS FROM OCT. 1991 SURVEY INFO.		11/91	GBS									
5		EXTENDED CAP MEMBRANE BETWEEN STA 2+50 & 3+00 AS SHOWN		6/92	INV									
6		REVISED LIMIT OF CAP MEMBRANE BETWEEN STA. 2+80 & 3+00		10/92	WNT									
7		UPDATED CONTOURS FROM OCT. 1993 SURVEY		2/94	WNT									
8		UPDATED CONTOURS FROM MARCH 1995 SURVEY		4/95	WNT	PSL	PSL							
9		UPDATED CONTOURS FROM APRIL 2001 SURVEY		6/01	WNT	PSL	PSL							
10		ADDED 2001 LINER WORK ITEMS		6/01	WNT	PSL	PSL							
11		ADDED 60 MIL & 45 MIL NOTES		3/01	JRM	PSL	PSL							
12		2001 AS-BUILT		05/02	WNT	AGP	AGP							
NO.	REVISION			DATE	WNT	CHKD	APPR							

HydroCAD™ Report



Inactive Cells



Inactive Area (Lined)



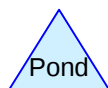
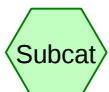
Active Area (Flow not modeled: Stormwater managed as Leachate)



Final Capped Area



East Area



Routing Diagram for Current Drainage

Prepared by Sanborn Head & Associates, Inc., Printed 8/18/2016
HydroCAD® 10.00 s/n 00705 © 2012 HydroCAD Software Solutions LLC

Current Drainage

Prepared by Sanborn Head & Associates, Inc.

Printed 8/18/2016

HydroCAD® 10.00 s/n 00705 © 2012 HydroCAD Software Solutions LLC

Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
2.110	74	Final Cap (Assumed same as HSG C/grassed/good condition) (3S)
0.690	98	Modeled as Impervious Area (1S)
0.320	32	Woods/grass comb., Good, HSG A (4S)
3.120	75	TOTAL AREA

Current Drainage

Prepared by Sanborn Head & Associates, Inc.

Printed 8/18/2016

HydroCAD® 10.00 s/n 00705 © 2012 HydroCAD Software Solutions LLC

Page 3

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.320	HSG A	4S
0.000	HSG B	
2.110	HSG C	3S
0.000	HSG D	
0.690	Other	1S
3.120		TOTAL AREA

Current Drainage

Prepared by Sanborn Head & Associates, Inc.

Printed 8/18/2016

HydroCAD® 10.00 s/n 00705 © 2012 HydroCAD Software Solutions LLC

Page 4

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	2.110	0.000	0.000	2.110	Final Cap (Assumed same as	3S
0.000	0.000	0.000	0.000	0.690	0.690	Modeled as Impervious Area	1S
0.320	0.000	0.000	0.000	0.000	0.320	Woods/grass comb., Good	4S
0.320	0.000	2.110	0.000	0.690	3.120	TOTAL AREA	

Current Drainage

Prepared by Sanborn Head & Associates, Inc.

Printed 8/18/2016

HydroCAD® 10.00 s/n 00705 © 2012 HydroCAD Software Solutions LLC

Page 5

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	1P	219.00	216.80	110.0	0.0200	0.012	6.0	0.0	0.0

Current Drainage

BOW NH 24-hr S1 25-yr 25-yr Rainfall=5.27"

Prepared by Sanborn Head & Associates, Inc.

Printed 8/18/2016

HydroCAD® 10.00 s/n 00705 © 2012 HydroCAD Software Solutions LLC

Page 6

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Inactive Area (Lined) Runoff Area=0.690 ac 100.00% Impervious Runoff Depth>5.03"
Flow Length=100' Slope=0.2800 '/' Tc=0.4 min CN=98 Runoff=3.95 cfs 0.289 af

Subcatchment 2S: Active Area (Flow not modeled: Stormwater managed as Leachate)
Runoff=0.00 cfs 0.000 af

Subcatchment 3S: Final Capped Area Runoff Area=2.110 ac 0.00% Impervious Runoff Depth>2.58"
Flow Length=379' Tc=6.3 min CN=74 Runoff=6.00 cfs 0.453 af

Subcatchment 4S: East Area Runoff Area=0.320 ac 0.00% Impervious Runoff Depth>0.05"
Flow Length=415' Tc=9.5 min CN=32 Runoff=0.00 cfs 0.001 af

Pond 1P: Inactive Cells Peak Elev=220.28' Storage=0.052 af Inflow=3.95 cfs 0.289 af
6.0" Round Culvert n=0.012 L=110.0' S=0.0200 '/' Outflow=0.76 cfs 0.289 af

Total Runoff Area = 3.120 ac Runoff Volume = 0.744 af Average Runoff Depth = 2.86"
77.88% Pervious = 2.430 ac 22.12% Impervious = 0.690 ac

Current Drainage

Prepared by Sanborn Head & Associates, Inc.

HydroCAD® 10.00 s/n 00705 © 2012 HydroCAD Software Solutions LLC

BOW NH 24-hr S1 25-yr 25-yr Rainfall=5.27"

Printed 8/18/2016

Page 7

Summary for Subcatchment 1S: Inactive Area (Lined)

[49] Hint: $T_c < 2dt$ may require smaller dt

Runoff = 3.95 cfs @ 11.99 hrs, Volume= 0.289 af, Depth> 5.03"

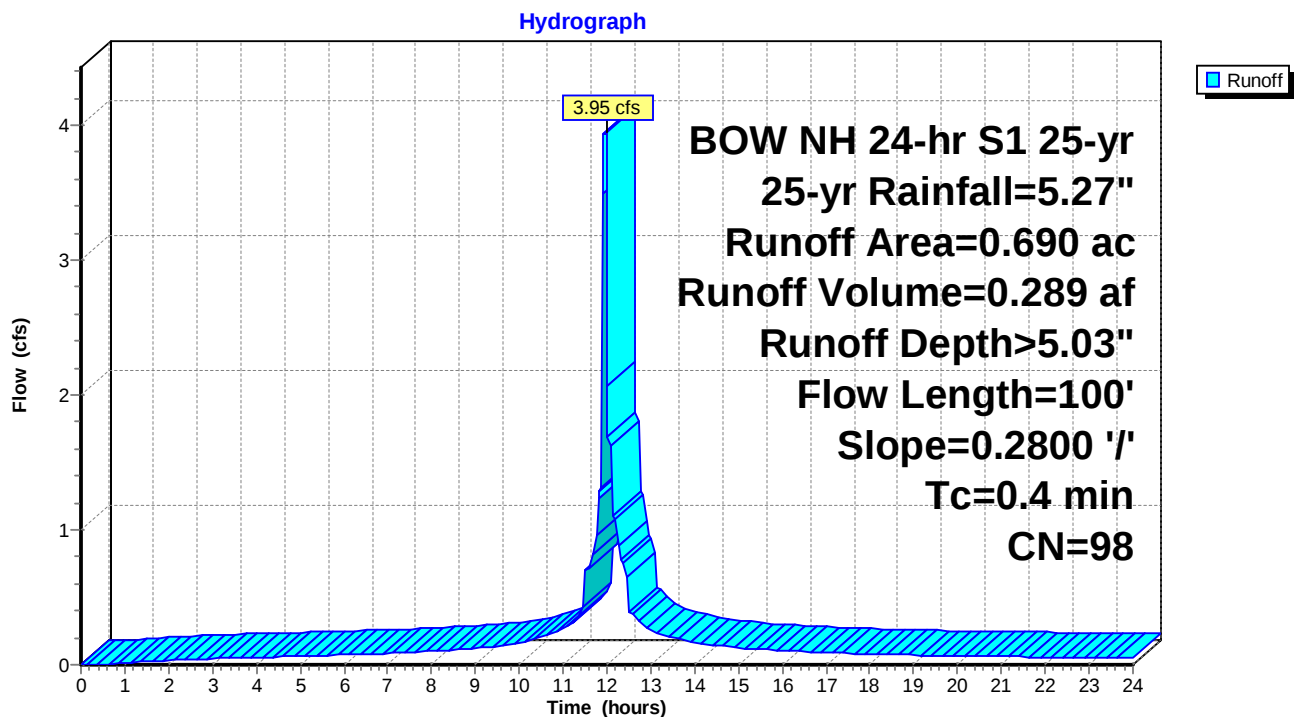
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-24.00 hrs, $dt=0.01$ hrs

BOW NH 24-hr S1 25-yr 25-yr Rainfall=5.27"

Area (ac)	CN	Description
* 0.690	98	Modeled as Impervious Area
0.690		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	100	0.2800	3.72		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.84"

Subcatchment 1S: Inactive Area (Lined)



Current Drainage

Prepared by Sanborn Head & Associates, Inc.

HydroCAD® 10.00 s/n 00705 © 2012 HydroCAD Software Solutions LLC

BOW NH 24-hr S1 25-yr 25-yr Rainfall=5.27"

Printed 8/18/2016

Page 8

Summary for Subcatchment 2S: Active Area (Flow not modeled: Stormwater managed as Leachate)

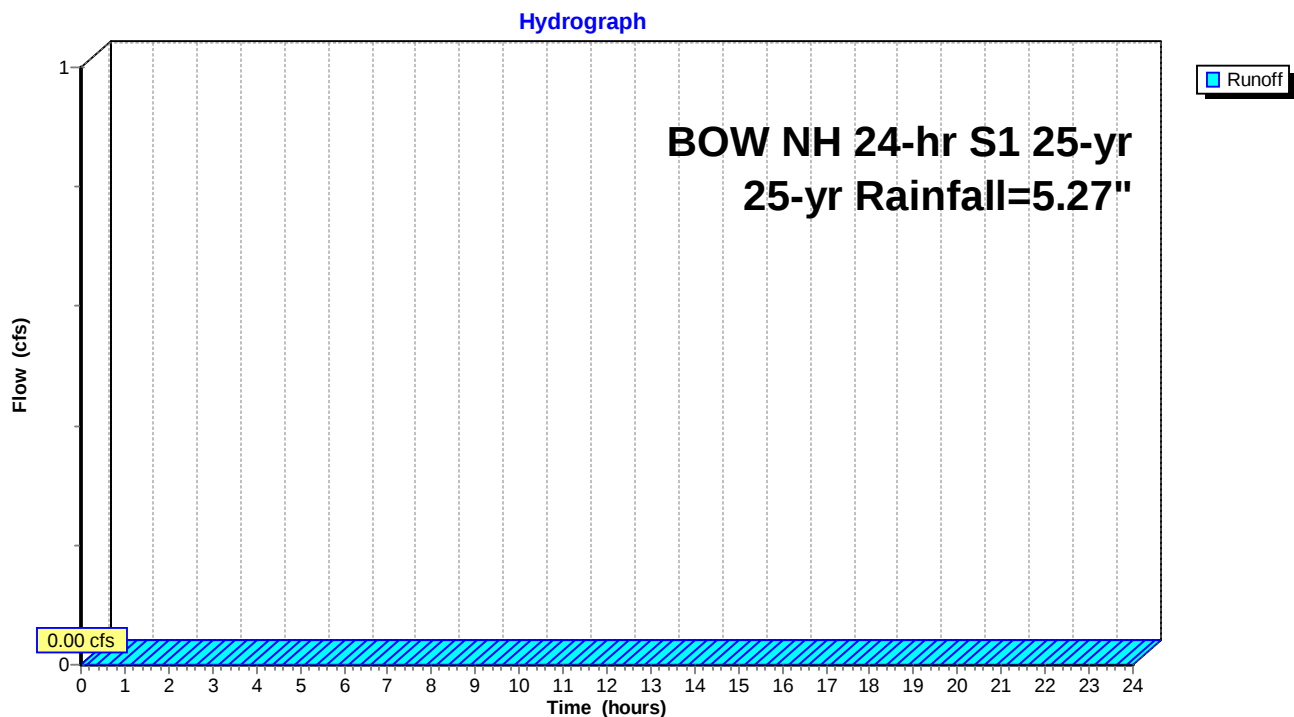
[40] Hint: Not Described (Area=0)

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

BOW NH 24-hr S1 25-yr 25-yr Rainfall=5.27"

Subcatchment 2S: Active Area (Flow not modeled: Stormwater managed as Leachate)



Current Drainage

Prepared by Sanborn Head & Associates, Inc.

HydroCAD® 10.00 s/n 00705 © 2012 HydroCAD Software Solutions LLC

BOW NH 24-hr S1 25-yr 25-yr Rainfall=5.27"

Printed 8/18/2016

Page 9

Summary for Subcatchment 3S: Final Capped Area

Runoff = 6.00 cfs @ 12.04 hrs, Volume= 0.453 af, Depth> 2.58"

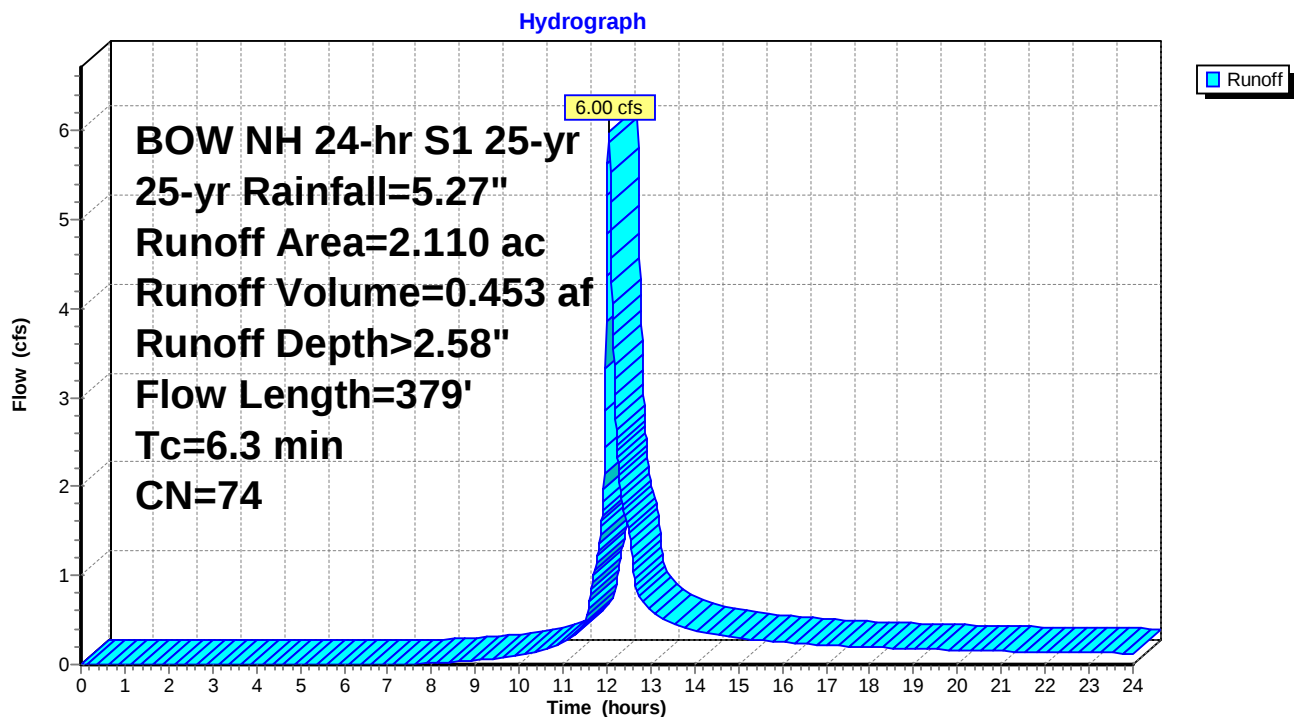
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

BOW NH 24-hr S1 25-yr 25-yr Rainfall=5.27"

Area (ac)	CN	Description
* 2.110	74	Final Cap (Assumed same as HSG C/grassed/good condition)
2.110		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	100	0.1950	0.40		Sheet Flow, Grass: Short n= 0.150 P2= 2.84"
2.1	279	0.1050	2.27		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
6.3	379	Total			

Subcatchment 3S: Final Capped Area



Current Drainage

Prepared by Sanborn Head & Associates, Inc.

HydroCAD® 10.00 s/n 00705 © 2012 HydroCAD Software Solutions LLC

BOW NH 24-hr S1 25-yr 25-yr Rainfall=5.27"

Printed 8/18/2016

Page 10

Summary for Subcatchment 4S: East Area

[73] Warning: Peak may fall outside time span

Runoff = 0.00 cfs @ 23.99 hrs, Volume= 0.001 af, Depth> 0.05"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

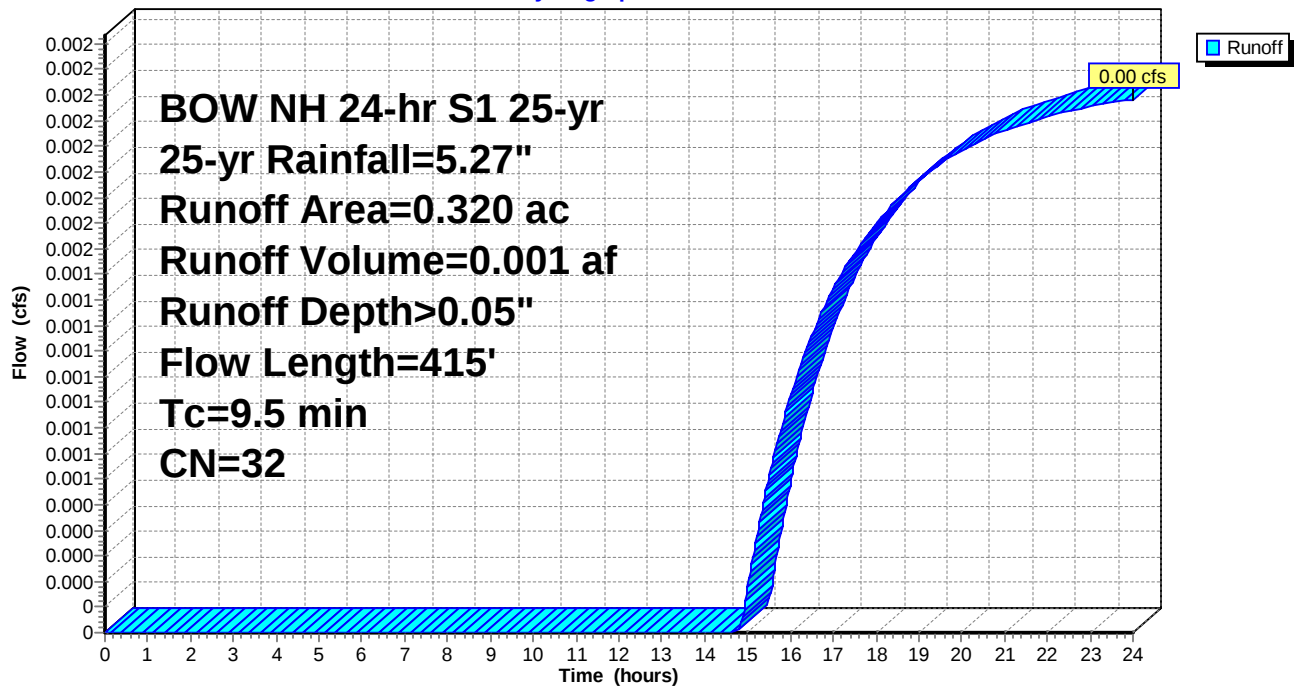
BOW NH 24-hr S1 25-yr 25-yr Rainfall=5.27"

Area (ac)	CN	Description
0.320	32	Woods/grass comb., Good, HSG A
0.320		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	100	0.0400	0.21		Sheet Flow, Grass: Short n= 0.150 P2= 2.84"
1.5	165	0.0650	1.78		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.1	150	0.2800	20.10	153.00	Trap/Vee/Rect Channel Flow, Riprap-lined Channel Bot.W=3.00' D=1.34' Z= 2.0'/' Top.W=8.36' n= 0.035
9.5	415	Total			

Subcatchment 4S: East Area

Hydrograph



Current Drainage

BOW NH 24-hr S1 25-yr 25-yr Rainfall=5.27"

Prepared by Sanborn Head & Associates, Inc.

Printed 8/18/2016

HydroCAD® 10.00 s/n 00705 © 2012 HydroCAD Software Solutions LLC

Page 11

Summary for Pond 1P: Inactive Cells

Inflow Area = 0.690 ac, 100.00% Impervious, Inflow Depth > 5.03" for 25-yr event
 Inflow = 3.95 cfs @ 11.99 hrs, Volume= 0.289 af
 Outflow = 0.76 cfs @ 12.32 hrs, Volume= 0.289 af, Atten= 81%, Lag= 20.0 min
 Primary = 0.76 cfs @ 12.32 hrs, Volume= 0.289 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 220.28' @ 12.32 hrs Surf.Area= 0.195 ac Storage= 0.052 af
 Flood Elev= 223.00' Surf.Area= 0.303 ac Storage= 0.478 af

Plug-Flow detention time= 17.1 min calculated for 0.289 af (100% of inflow)
 Center-of-Mass det. time= 16.1 min (759.1 - 743.0)

Volume	Invert	Avail.Storage	Storage Description
#1	220.00'	0.478 af	Custom Stage Data (Irregular) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Perim. (feet)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
220.00	0.180	480.0	0.000	0.000	0.180
222.00	0.303	636.0	0.478	0.478	0.499

Device	Routing	Invert	Outlet Devices
#1	Primary	219.00'	6.0" Round Culvert (Elevations Assumed) L= 110.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 219.00' / 216.80' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.20 sf

Primary OutFlow Max=0.76 cfs @ 12.32 hrs HW=220.28' (Free Discharge)

↑ **1=Culvert (Elevations Assumed)** (Inlet Controls 0.76 cfs @ 3.85 fps)

Current Drainage

Prepared by Sanborn Head & Associates, Inc.

HydroCAD® 10.00 s/n 00705 © 2012 HydroCAD Software Solutions LLC

BOW NH 24-hr S1 25-yr 25-yr Rainfall=5.27"

Printed 8/18/2016

Page 12

Pond 1P: Inactive Cells

