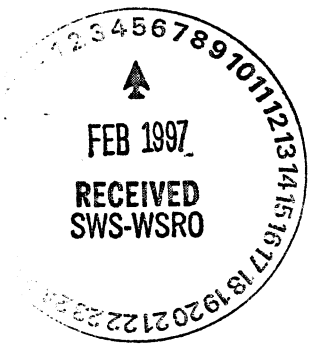
LCID N41-90-20 Permit B-N-B
Landfill



GUILFORD COUNTY

DEPARTMENT OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH DIVISION

February 4, 1997

Mr. Walter Baynes
299 Baynes Road
Reidsville, NC 27320

Mr. Baynes:

This letter follows our meeting on December 18, 1996 at B&B Landfill (Permit #41-90-20). The reason for the meeting was to see if the facility has been following plans submitted by MacConnell and Associates, P.G. to accomplish landfill closure in accordance with NC Admin. Code 13B.0502 Open Dumps.

The site findings were as follows:

1) The facility was in compliance with 15A NC Admin.Code 13B.0566(2) which states that "the facility shall only accept those solid waste which it is permitted to receive. Only solid waste of the appropriate type was being received.

2) It is important that the footprint boundaries called for in the MacConnell and Associates plan be maintained. Fill material to the landfill should be reduced so as not to over-fill the remaining space.

3) It is recommended that cover material should be stored at the site. (Considerable cover will be needed to meet the one (1) foot requirement for closure).

4) There is some area of fill material within 50 feet of the stream running adjacent to the site. It will be necessary to move the stream in order to meet closure requirements. Based on our visit to the site, it appears you are following the plans submitted by MacConnell and Associates and that you are moving toward closure in accordance with 15A NC Admin. Code 13B.0502 Open Dumps.

301 North Eugene Street • Greensboro, North Carolina 27401
373-3771 - 884-3771 • General Sanitation
373-3652 - 884-3652 • Food & Lodging
373-4723 • Director. Environmental Health

If we can be of further help, please call me at 910-373-3188.

Sincerely,

P. Garris Evans, R.S.
Environmental Health Program Specialist

cc: Brent Burch, DEHNR
David Barnes, Guilford County Planning and Development

State of North Carolina
Department of Environment,
Health and Natural Resources
Winston-Salem Regional Office

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary

DEHNR

DIVISION OF WASTE MANAGEMENT

SOLID WASTE SECTION

January 2, 1997

Mr. Walter Baynes
299 Baynes Road
Reidsville, NC 27320

GUILFORD FAC FILE

Dear Mr. Baynes:

This letter is a follow-up to our meeting on December 18, 1996, at B & B Landfill (permit 41-90-20). The purpose of the meeting was to ensure landfill operations were being conducted in such a manner as to accomplish closure in accordance with 15A NC Admin. Code 13B.0502 Open Dumps. The facility has been following plans submitted by MacConnell & Associates, P.C. since 1993 in order to meet these requirements.

The following is a list of findings at the site:

1) The facility was in compliance with 15A NC Admin. Code 13B.0566(2) which states that "the facility shall only accept those solid wastes which it is permitted to receive." At the time of the inspection, only land clearing and inert debris was being accepted at the facility.

2) Only a small amount of material is being accepted into the site at this time. You stated this was being done in order to make sure that no more material than necessary is brought in to meet the elevation and footprint boundaries called for in the MacConnell & Associates plan.

3) Cover material is being stored at the site. (However, much more will be needed to cover the site with the 1 foot that is required.)

4) Some areas of the fill are within 50 feet of the stream running adjacent to the site. You stated that you were still planning to move the stream in spring/ summer 1997 in order to comply with this buffer requirement.

585 Waughtown Street,
Winston-Salem, North Carolina 27107-2241
Voice 910-771-4600

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PROJECT: B & B LANDFILL
PROJECT NO.:

AREA: TOTAL DRAINAGE
10 YEAR STORM

GIVEN:

LOCATION: GREENSBORO

LAND USE BY SOIL GROUP:		
FOREST-GOOD	175	ACRES:
COMMERCIAL (85%)	35	ACRES:
PAVED PARKING	18	ACRES:
RESIDENTIAL	70	ACRES:
NEWLY GRADED	17	ACRES:
GRASS	35	ACRES:
TOTAL AREA	350	ACRES:

AVERAGE WATERSHED SLOPE:	1.3	%
RATIO OF DRAINAGE AREA : PONDED AREA:	N/A	
HYDRAULIC LENGTH:	4500	FEET
% HYDRAULIC LENGTH MODIFIED:	NONE	
% IMPERVIOUS AREA:	13.64	

FIND:

PEAK RATE OF RUNOFF FOR THE 10-YEAR FREQUENCY,
24-HOUR STORM - QP 10, 24

SOLUTION:

1) DRAINAGE AREA: 350 ACRES
HYDRAULIC LENGTH: 4500 FEET
AVERAGE SLOPE: 1.3 %

2) CALCULATE AVERAGE CURVE NUMBER (CN) USING TABLE

	% DRAINAGE AREA	* CN	
FOREST-GOOD	50	55	2750
COMMERCIAL (85%)	10	92	920
PAVED PARKING	5	98	490
RESIDENTIAL	20	70	1400
NEWLY GRADED	5	89	445
GRASS	10	69	690
	100%		6695
CN			66.95 CN

3) DETERMINE RUNOFF DEPTH
RAINFALL FOR 10-YEAR, 24 HOUR STORM (FIGURE 8.03 5.2 INCHES
RUNOFF DEPTH (TABLE 8.03C) 1.99 INCHES

4) DETERMINE PEAK RATE RUNOFF FOR THE DESIGN STORM BY ADJUSTING FOR WATERSHED SHAPE.

EQUIVALENT DRAINAGE AREA (FIGURE 8.03N):	175	ACRES
Q1=(FIGURE 8.03O*RUNOFF DEPTH)	87.56	CFS
Q2=(Q1*(TOTAL AREA/EQUIVALENT DRAINAGE AREA)	175.12	CFS

5) ADJUST PEAK DISCHARGE RATE Q2 FOR % IMPERVIOUS

AREA AND % HYDRAULIC LENGTH MODIFIED.

IMPERVIOUS FACTOR (FIGURE 8.03R)	1.1	
HYDRAULIC LENGTH MODIFICATION FACTOR	1	
Q3=(Q2*FACTORS)	192.632	CFS

6) ADJUST PEAK DISCHARGE FACTOR FOR AVERAGE WATERSHED SLOPE.

FACTOR FOR SLOPE (TABLE 8.03D)	1.16	
Q4=(Q3*FACTOR)	223.4531	CFS

7) ADJUST PEAK DISCARGE FOR PONDING.

FACTOR FOR PONDING (FIGURE 8.03E)	1	
QP,10,24	223.4531	CFS

PROJECT: B & B LANDFILL
PROJECT NO.:

AREA: ENTRANCE SIDE OF CREEK (AREA A)
2 YEAR STORM

GIVEN:

LOCATION: GREENSBORO

LAND USE BY SOIL GROUP:

FOREST-GOOD	3.4	ACRES:
COMMERCIAL (85%)	0	ACRES:
PAVED PARKING	0	ACRES:
RESIDENTIAL	0	ACRES:
NEWLY GRADED	8.5	ACRES:
GRASS	5.1	ACRES:
TOTAL AREA	17	ACRES:

AVERAGE WATERSHED SLOPE:	6.9	%
RATIO OF DRAINAGE AREA : PONDED AREA:	N/A	
HYDRAULIC LENGTH:	1250	FEET
% HYDRAULIC LENGTH MODIFIED:	NONE	
% IMPERVIOUS AREA:	0	

FIND:

PEAK RATE OF RUNOFF FOR THE 2-YEAR FREQUENCY,
24-HOUR STORM - QP 2, 24

SOLUTION:

1) DRAINAGE AREA: 17 ACRES
HYDRAULIC LENGTH: 1250 FEET
AVERAGE SLOPE: 6.9 %

2) CALCULATE AVERAGE CURVE NUMBER (CN) USING TABLE

			% DRAINAGE AREA * CN
FOREST-GOOD	20	55	1100
COMMERCIAL (85%)	0	92	0
PAVED PARKING	0	98	0
RESIDENTIAL	0	70	0
NEWLY GRADED	50	89	4450
GRASS	30	69	2070
	100%		7620
CN			76.2 CN

3) DETERMINE RUNOFF DEPTH
RAINFALL FOR 2-YEAR, 24 HOUR STORM (FIGURE 8.03H 3.5 INCHES
RUNOFF DEPTH (TABLE 8.03C) 1.4 INCHES

4) DETERMINE PEAK RATE RUNOFF FOR THE DESIGN STORM BY ADJUSTING FOR WATERSHED SHAPE.
EQUIVALENT DRAINAGE AREA (FIGURE 8.03N): 20 ACRES
Q1=(FIGURE 8.03P*RUNOFF DEPTH) 26.6 CFS
Q2=(Q1*(TOTAL AREA/EQUIVALENT DRAINAGE AREA) 22.61 CFS

5) ADJUST PEAK DISCHARGE RATE Q2 FOR % IMPERVIOUS

AREA AND % HYDRAULIC LENGTH MODIFIED.

IMPERVIOUS FACTOR (FIGURE 8.03R)	1	
HYDRAULIC LENGTH MODIFICATION FACTOR	1	
Q3=(Q2*FACTORS)	22.61	CFS

6) ADJUST PEAK DISCHARGE FACTOR FOR AVERAGE WATERSHED SLOPE.

FACTOR FOR SLOPE (TABLE 8.03D)	1.13	
Q4=(Q3*FACTOR)	25.5493	CFS

7) ADJUST PEAK DISCARGE FOR PONDING.

FACTOR FOR PONDING (FIGURE 8.03E)	1	
QP,2,24	25.5493	CFS

PROJECT: B & B LANDFILL
PROJECT NO.:

AREA: ENTRANCE SIDE OF CREEK (AREA A)
10 YEAR STORM

GIVEN:

LOCATION: GREENSBORO

LAND USE BY SOIL GROUP:

FOREST-GOOD	3.4	ACRES:
COMMERCIAL (85%)	0	ACRES:
PAVED PARKING	0	ACRES:
RESIDENTIAL	0	ACRES:
NEWLY GRADED	8.5	ACRES:
GRASS	5.1	ACRES:
TOTAL AREA	17	ACRES:

AVERAGE WATERSHED SLOPE:	6.9	%
RATIO OF DRAINAGE AREA : PONDED AREA:	N/A	
HYDRAULIC LENGTH:	1250	FEET
% HYDRAULIC LENGTH MODIFIED:	NONE	
% IMPERVIOUS AREA:	0	

FIND:

PEAK RATE OF RUNOFF FOR THE 10-YEAR FREQUENCY,
24-HOUR STORM - QP 10, 24

SOLUTION:

1) DRAINAGE AREA:

DRAINAGE AREA:	17	ACRES
HYDRAULIC LENGTH:	1250	FEET
AVERAGE SLOPE:	6.9	%

2) CALCULATE AVERAGE CURVE NUMBER (CN) USING TABLE

			% DRAINAGE AREA * CN
FOREST-GOOD	20	55	1100
COMMERCIAL (85%)	0	92	0
PAVED PARKING	0	98	0
RESIDENTIAL	0	70	0
NEWLY GRADED	50	89	4450
GRASS	30	69	2070
	100%		7620
CN			76.2 CN

3) DETERMINE RUNOFF DEPTH

RAINFALL FOR 10-YEAR, 24 HOUR STORM (FIGURE 8.03	5.2	INCHES
RUNOFF DEPTH (TABLE 8.03C)	2.67	INCHES

4) DETERMINE PEAK RATE RUNOFF FOR THE DESIGN STORM BY ADJUSTING FOR WATERSHED SHAPE.

EQUIVALENT DRAINAGE AREA (FIGURE 8.03N):	20	ACRES
Q1=(FIGURE 8.03P*RUNOFF DEPTH)	50.73	CFS
Q2=(Q1*(TOTAL AREA/EQUIVALENT DRAINAGE AREA)	43.1205	CFS

5) ADJUST PEAK DISCHARGE RATE Q2 FOR % IMPERVIOUS

AREA AND % HYDRAULIC LENGTH MODIFIED.

IMPERVIOUS FACTOR (FIGURE 8.03R)	1	
HYDRAULIC LENGTH MODIFICATION FACTOR	1	
Q3=(Q2*FACTORS)	43.1205	CFS

6) ADJUST PEAK DISCHARGE FACTOR FOR AVERAGE WATERSHED SLOPE.

FACTOR FOR SLOPE (TABLE 8.03D)	1.13	
Q4=(Q3*FACTOR)	48.72617	CFS

7) ADJUST PEAK DISCARGE FOR PONDING.

FACTOR FOR PONDING (FIGURE 8.03E)	1	
QP,10,24	48.72617	CFS

PROJECT: B & B LANDFILL
PROJECT NO.:

AREA: FAR SIDE OF CREEK (AREA B)
2 YEAR STORM

GIVEN:

LOCATION: GREENSBORO

LAND USE BY SOIL GROUP:

FOREST-GOOD	2.7	ACRES:
COMMERCIAL (85%)	0	ACRES:
PAVED PARKING	0	ACRES:
RESIDENTIAL	0	ACRES:
NEWLY GRADED	3.3	ACRES:
GRASS	0	ACRES:
TOTAL AREA	6	ACRES:

AVERAGE WATERSHED SLOPE:	14	%
RATIO OF DRAINAGE AREA : PONDED AREA:	N/A	
HYDRAULIC LENGTH:	700	FEET
% HYDRAULIC LENGTH MODIFIED:	NONE	
% IMPERVIOUS AREA:	0	

FIND:

PEAK RATE OF RUNOFF FOR THE 2-YEAR FREQUENCY, 24-HOUR STORM - QP 2, 24

SOLUTION:

1) DRAINAGE AREA: 6 ACRES
HYDRAULIC LENGTH: 700 FEET
AVERAGE SLOPE: 14 %

2) CALCULATE AVERAGE CURVE NUMBER (CN) USING TABLE

			% DRAINAGE AREA * CN
FOREST-GOOD	45	55	2475
COMMERCIAL (85%)	0	92	0
PAVED PARKING	0	98	0
RESIDENTIAL	0	70	0
NEWLY GRADED	55	89	4895
GRASS	0	69	0
	100%		7370
CN			73.7 CN

3) DETERMINE RUNOFF DEPTH

RAINFALL FOR 2-YEAR, 24 HOUR STORM (FIGURE 8.03J	3.5	INCHES
RUNOFF DEPTH (TABLE 8.03C)	1.15	INCHES

4) DETERMINE PEAK RATE RUNOFF FOR THE DESIGN STORM BY ADJUSTING FOR WATERSHED SHAPE.

EQUIVALENT DRAINAGE AREA (FIGURE 8.03N):	8	ACRES
Q1=(FIGURE 8.03Q*RUNOFF DEPTH)	15	CFS
Q2=(Q1*(TOTAL AREA/EQUIVALENT DRAINAGE AREA)	11.25	CFS

5) ADJUST PEAK DISCHARGE RATE Q2 FOR % IMPERVIOUS

AREA AND % HYDRAULIC LENGTH MODIFIED.

IMPERVIOUS FACTOR (FIGURE 8.03R)	1	
HYDRAULIC LENGTH MODIFICATION FACTOR	1	
Q3=(Q2*FACTORS)	11.25	CFS

6) ADJUST PEAK DISCHARGE FACTOR FOR AVERAGE WATERSHED SLOPE.

FACTOR FOR SLOPE (TABLE 8.03D)	0.98	
Q4=(Q3*FACTOR)	11.025	CFS

7) ADJUST PEAK DISCARGE FOR PONDING.

FACTOR FOR PONDING (FIGURE 8.03E)	1	
QP,2,24	11.025	CFS

AREA AND % HYDRAULIC LENGTH MODIFIED.

IMPERVIOUS FACTOR (FIGURE 8.03R)	1.1	
HYDRAULIC LENGTH MODIFICATION FACTOR	1	
Q3=(Q2*FACTORS)	89.056	CFS

6) ADJUST PEAK DISCHARGE FACTOR FOR AVERAGE WATERSHED SLOPE.

FACTOR FOR SLOPE (TABLE 8.03D)	1.16	
Q4=(Q3*FACTOR)	103.305	CFS

7) ADJUST PEAK DISCARGE FOR PONDING.

FACTOR FOR PONDING (FIGURE 8.03E)	1	
QP,2,24	103.305	CFS

PROJECT: B & B LANDFILL
PROJECT NO.:

AREA: FAR SIDE OF CREEK (AREA B)
10 YEAR STORM

GIVEN:

LOCATION: GREENSBORO

LAND USE BY SOIL GROUP:		
FOREST-GOOD	2.7	ACRES:
COMMERCIAL (85%)	0	ACRES:
PAVED PARKING	0	ACRES:
RESIDENTIAL	0	ACRES:
NEWLY GRADED	3.3	ACRES:
GRASS	0	ACRES:
TOTAL AREA	6	ACRES:

AVERAGE WATERSHED SLOPE:	14	%
RATIO OF DRAINAGE AREA : PONDED AREA:	N/A	
HYDRAULIC LENGTH:	700	FEET
% HYDRAULIC LENGTH MODIFIED:	NONE	
% IMPERVIOUS AREA:	0	

FIND:

PEAK RATE OF RUNOFF FOR THE 10-YEAR FREQUENCY,
24-HOUR STORM - QP 10, 24

SOLUTION:

1) DRAINAGE AREA: 6 ACRES
HYDRAULIC LENGTH: 700 FEET
AVERAGE SLOPE: 14 %

2) CALCULATE AVERAGE CURVE NUMBER (CN) USING TABLE

			% DRAINAGE AREA * CN
FOREST-GOOD	45	55	2475
COMMERCIAL (85%)	0	92	0
PAVED PARKING	0	98	0
RESIDENTIAL	0	70	0
NEWLY GRADED	55	89	4895
GRASS	0	69	0
	100%		7370
CN			73.7 CN

3) DETERMINE RUNOFF DEPTH
RAINFALL FOR 10-YEAR, 24 HOUR STORM (FIGURE 8.03 5.2 INCHES
RUNOFF DEPTH (TABLE 8.03C) 2.55 INCHES

4) DETERMINE PEAK RATE RUNOFF FOR THE DESIGN STORM BY ADJUSTING FOR WATERSHED SHAPE.
EQUIVALENT DRAINAGE AREA (FIGURE 8.03N): 8 ACRES
Q1=(FIGURE 8.03Q*RUNOFF DEPTH) 35.7 CFS
Q2=(Q1*(TOTAL AREA/EQUIVALENT DRAINAGE AREA) 26.775 CFS

5) ADJUST PEAK DISCHARGE RATE Q2 FOR % IMPERVIOUS

AREA AND % HYDRAULIC LENGTH MODIFIED.

IMPERVIOUS FACTOR (FIGURE 8.03R)	1	
HYDRAULIC LENGTH MODIFICATION FACTOR	1	
Q3=(Q2*FACTORS)	26.775	CFS

6) ADJUST PEAK DISCHARGE FACTOR FOR AVERAGE WATERSHED SLOPE.

FACTOR FOR SLOPE (TABLE 8.03D)	0.98	
Q4=(Q3*FACTOR)	26.2395	CFS

7) ADJUST PEAK DISCARGE FOR PONDING.

FACTOR FOR PONDING (FIGURE 8.03E)	1	
QP,10,24	26.2395	CFS

PROJECT: B & B LANDFILL
PROJECT NO.:

AREA: TOTAL DRAINAGE
10 YEAR STORM

GIVEN:

LOCATION: GREENSBORO

LAND USE BY SOIL GROUP:

FOREST-GOOD	175	ACRES:
COMMERCIAL (85%)	35	ACRES:
PAVED PARKING	18	ACRES:
RESIDENTIAL	70	ACRES:
NEWLY GRADED	17	ACRES:
GRASS	35	ACRES:
TOTAL AREA	350	ACRES:

AVERAGE WATERSHED SLOPE:	1.3	%
RATIO OF DRAINAGE AREA : PONDED AREA:	N/A	
HYDRAULIC LENGTH:	4500	FEET
% HYDRAULIC LENGTH MODIFIED:	NONE	
% IMPERVIOUS AREA:	13.64	

FIND:

PEAK RATE OF RUNOFF FOR THE 10-YEAR FREQUENCY,
24-HOUR STORM - QP 10, 24

SOLUTION:

1) DRAINAGE AREA:

DRAINAGE AREA:	350	ACRES
HYDRAULIC LENGTH:	4500	FEET
AVERAGE SLOPE:	1.3	%

2) CALCULATE AVERAGE CURVE NUMBER (CN) USING TABLE

	% DRAINAGE AREA	* CN	
FOREST-GOOD	50	55	2750
COMMERCIAL (85%)	10	92	920
PAVED PARKING	5	98	490
RESIDENTIAL	20	70	1400
NEWLY GRADED	5	89	445
GRASS	10	69	690
	100%		6695
CN			66.95 CN

3) DETERMINE RUNOFF DEPTH

RAINFALL FOR 10-YEAR, 24 HOUR STORM (FIGURE 8.03	5.2	INCHES
RUNOFF DEPTH (TABLE 8.03C)	1.99	INCHES

4) DETERMINE PEAK RATE RUNOFF FOR THE DESIGN STORM BY ADJUSTING FOR WATERSHED SHAPE.

EQUIVALENT DRAINAGE AREA (FIGURE 8.03N):	175	ACRES
Q1=(FIGURE 8.03O*RUNOFF DEPTH)	87.56	CFS
Q2=(Q1*(TOTAL AREA/EQUIVALENT DRAINAGE AREA)	175.12	CFS

5) ADJUST PEAK DISCHARGE RATE Q2 FOR % IMPERVIOUS

AREA AND % HYDRAULIC LENGTH MODIFIED.

IMPERVIOUS FACTOR (FIGURE 8.03R)	1.1	
HYDRAULIC LENGTH MODIFICATION FACTOR	1	
Q3=(Q2*FACTORS)	192.632	CFS

6) ADJUST PEAK DISCHARGE FACTOR FOR AVERAGE WATERSHED SLOPE.

FACTOR FOR SLOPE (TABLE 8.03D)	1.16	
Q4=(Q3*FACTOR)	223.4531	CFS

7) ADJUST PEAK DISCARGE FOR PONDING.

FACTOR FOR PONDING (FIGURE 8.03E)	1	
QP,10,24	223.4531	CFS

PROJECT: B & B LANDFILL
PROJECT NO.:

AREA: ENTRANCE SIDE OF CREEK (AREA A)
2 YEAR STORM

GIVEN:

LOCATION: GREENSBORO

LAND USE BY SOIL GROUP:

FOREST-GOOD	3.4	ACRES:
COMMERCIAL (85%)	0	ACRES:
PAVED PARKING	0	ACRES:
RESIDENTIAL	0	ACRES:
NEWLY GRADED	8.5	ACRES:
GRASS	5.1	ACRES:
TOTAL AREA	17	ACRES:

AVERAGE WATERSHED SLOPE:	6.9	%
RATIO OF DRAINAGE AREA : PONDED AREA:	N/A	
HYDRAULIC LENGTH:	1250	FEET
% HYDRAULIC LENGTH MODIFIED:	NONE	
% IMPERVIOUS AREA:	0	

FIND:

PEAK RATE OF RUNOFF FOR THE 2-YEAR FREQUENCY,
24-HOUR STORM - QP 2, 24

SOLUTION:

1) DRAINAGE AREA:

DRAINAGE AREA:	17	ACRES
HYDRAULIC LENGTH:	1250	FEET
AVERAGE SLOPE:	6.9	%

2) CALCULATE AVERAGE CURVE NUMBER (CN) USING TABLE

	% DRAINAGE AREA	* CN	
FOREST-GOOD	20	55	1100
COMMERCIAL (85%)	0	92	0
PAVED PARKING	0	98	0
RESIDENTIAL	0	70	0
NEWLY GRADED	50	89	4450
GRASS	30	69	2070
	100%		7620
CN			76.2 CN

3) DETERMINE RUNOFF DEPTH

RAINFALL FOR 2-YEAR, 24 HOUR STORM (FIGURE 8.03H	3.5	INCHES
RUNOFF DEPTH (TABLE 8.03C)	1.4	INCHES

4) DETERMINE PEAK RATE RUNOFF FOR THE DESIGN STORM BY ADJUSTING FOR WATERSHED SHAPE.

EQUIVALENT DRAINAGE AREA (FIGURE 8.03N):	20	ACRES
Q1=(FIGURE 8.03P*RUNOFF DEPTH)	26.6	CFS
Q2=(Q1*(TOTAL AREA/EQUIVALENT DRAINAGE AREA)	22.61	CFS

5) ADJUST PEAK DISCHARGE RATE Q2 FOR % IMPERVIOUS

AREA AND % HYDRAULIC LENGTH MODIFIED.

IMPERVIOUS FACTOR (FIGURE 8.03R)	1	
HYDRAULIC LENGTH MODIFICATION FACTOR	1	
Q3=(Q2*FACTORS)	22.61	CFS

6) ADJUST PEAK DISCHARGE FACTOR FOR AVERAGE WATERSHED SLOPE.

FACTOR FOR SLOPE (TABLE 8.03D)	1.13	
Q4=(Q3*FACTOR)	25.5493	CFS

7) ADJUST PEAK DISCARGE FOR PONDING.

FACTOR FOR PONDING (FIGURE 8.03E)	1	
QP,2,24	25.5493	CFS

PROJECT: B & B LANDFILL
PROJECT NO.:

AREA: ENTRANCE SIDE OF CREEK (AREA A)
10 YEAR STORM

GIVEN:

LOCATION: GREENSBORO

LAND USE BY SOIL GROUP:		
FOREST-GOOD	3.4	ACRES:
COMMERCIAL (85%)	0	ACRES:
PAVED PARKING	0	ACRES:
RESIDENTIAL	0	ACRES:
NEWLY GRADED	8.5	ACRES:
GRASS	5.1	ACRES:
TOTAL AREA	17	ACRES:

AVERAGE WATERSHED SLOPE:	6.9	%
RATIO OF DRAINAGE AREA : PONDED AREA:	N/A	
HYDRAULIC LENGTH:	1250	FEET
% HYDRAULIC LENGTH MODIFIED:	NONE	
% IMPERVIOUS AREA:	0	

FIND:

PEAK RATE OF RUNOFF FOR THE 10-YEAR FREQUENCY,
24-HOUR STORM - QP 10, 24

SOLUTION:

1) DRAINAGE AREA: 17 ACRES
HYDRAULIC LENGTH: 1250 FEET
AVERAGE SLOPE: 6.9 %

2) CALCULATE AVERAGE CURVE NUMBER (CN) USING TABLE

			% DRAINAGE AREA * CN
FOREST-GOOD	20	55	1100
COMMERCIAL (85%)	0	92	0
PAVED PARKING	0	98	0
RESIDENTIAL	0	70	0
NEWLY GRADED	50	89	4450
GRASS	30	69	2070
	100%		7620
CN			76.2 CN

3) DETERMINE RUNOFF DEPTH
RAINFALL FOR 10-YEAR, 24 HOUR STORM (FIGURE 8.03 5.2 INCHES
RUNOFF DEPTH (TABLE 8.03C) 2.67 INCHES

4) DETERMINE PEAK RATE RUNOFF FOR THE DESIGN STORM BY ADJUSTING FOR WATERSHED SHAPE.

EQUIVALENT DRAINAGE AREA (FIGURE 8.03N):	20	ACRES
Q1=(FIGURE 8.03P*RUNOFF DEPTH)	50.73	CFS
Q2=(Q1*(TOTAL AREA/EQUIVALENT DRAINAGE AREA)	43.1205	CFS

5) ADJUST PEAK DISCHARGE RATE Q2 FOR % IMPERVIOUS

AREA AND % HYDRAULIC LENGTH MODIFIED.

IMPERVIOUS FACTOR (FIGURE 8.03R)	1	
HYDRAULIC LENGTH MODIFICATION FACTOR	1	
Q3=(Q2*FACTORS)	43.1205	CFS

6) ADJUST PEAK DISCHARGE FACTOR FOR AVERAGE WATERSHED SLOPE.

FACTOR FOR SLOPE (TABLE 8.03D)	1.13	
Q4=(Q3*FACTOR)	48.72617	CFS

7) ADJUST PEAK DISCARGE FOR PONDING.

FACTOR FOR PONDING (FIGURE 8.03E)	1	
QP,10,24	48.72617	CFS

PROJECT: B & B LANDFILL
PROJECT NO.:

AREA: FAR SIDE OF CREEK (AREA B)
2 YEAR STORM

GIVEN:

LOCATION: GREENSBORO

LAND USE BY SOIL GROUP:

FOREST-GOOD	2.7	ACRES:
COMMERCIAL (85%)	0	ACRES:
PAVED PARKING	0	ACRES:
RESIDENTIAL	0	ACRES:
NEWLY GRADED	3.3	ACRES:
GRASS	0	ACRES:
TOTAL AREA	6	ACRES:

AVERAGE WATERSHED SLOPE:	14	%
RATIO OF DRAINAGE AREA : PONDED AREA:	N/A	
HYDRAULIC LENGTH:	700	FEET
% HYDRAULIC LENGTH MODIFIED:	NONE	
% IMPERVIOUS AREA:	0	

FIND:

PEAK RATE OF RUNOFF FOR THE 2-YEAR FREQUENCY,
24-HOUR STORM - QP 2, 24

SOLUTION:

1) DRAINAGE AREA: 6 ACRES
HYDRAULIC LENGTH: 700 FEET
AVERAGE SLOPE: 14 %

2) CALCULATE AVERAGE CURVE NUMBER (CN) USING TABLE

			% DRAINAGE AREA * CN
FOREST-GOOD	45	55	2475
COMMERCIAL (85%)	0	92	0
PAVED PARKING	0	98	0
RESIDENTIAL	0	70	0
NEWLY GRADED	55	89	4895
GRASS	0	69	0
	100%		7370
CN			73.7 CN

3) DETERMINE RUNOFF DEPTH
RAINFALL FOR 2-YEAR, 24 HOUR STORM (FIGURE 8.03J 3.5 INCHES
RUNOFF DEPTH (TABLE 8.03C) 1.15 INCHES

4) DETERMINE PEAK RATE RUNOFF FOR THE DESIGN STORM BY ADJUSTING FOR WATERSHED SHAPE.
EQUIVALENT DRAINAGE AREA (FIGURE 8.03N): 8 ACRES
Q1=(FIGURE 8.03Q*RUNOFF DEPTH) 15 CFS
Q2=(Q1*(TOTAL AREA/EQUIVALENT DRAINAGE AREA) 11.25 CFS

5) ADJUST PEAK DISCHARGE RATE Q2 FOR % IMPERVIOUS

AREA AND % HYDRAULIC LENGTH MODIFIED.

IMPERVIOUS FACTOR (FIGURE 8.03R)	1	
HYDRAULIC LENGTH MODIFICATION FACTOR	1	
Q3=(Q2*FACTORS)	11.25	CFS

6) ADJUST PEAK DISCHARGE FACTOR FOR AVERAGE WATERSHED SLOPE.

FACTOR FOR SLOPE (TABLE 8.03D)	0.98	
Q4=(Q3*FACTOR)	11.025	CFS

7) ADJUST PEAK DISCARGE FOR PONDING.

FACTOR FOR PONDING (FIGURE 8.03E)	1	
QP,2,24	11.025	CFS

PROJECT: B & B LANDFILL
PROJECT NO.:

AREA: TOTAL DRAINAGE
2 YEAR STORM

GIVEN:

LOCATION: GREENSBORO

LAND USE BY SOIL GROUP:

FOREST-GOOD	175	ACRES:
COMMERCIAL (85%)	35	ACRES:
PAVED PARKING	18	ACRES:
RESIDENTIAL	70	ACRES:
NEWLY GRADED	17	ACRES:
GRASS	35	ACRES:
TOTAL AREA	350	ACRES:

AVERAGE WATERSHED SLOPE:	1.3	%
RATIO OF DRAINAGE AREA : PONDED AREA:	N/A	
HYDRAULIC LENGTH:	4500	FEET
% HYDRAULIC LENGTH MODIFIED:	NONE	
% IMPERVIOUS AREA:	13.64	

FIND:

PEAK RATE OF RUNOFF FOR THE 2-YEAR FREQUENCY,
24-HOUR STORM - QP 2, 24

SOLUTION:

1) DRAINAGE AREA: 350 ACRES
HYDRAULIC LENGTH: 4500 FEET
AVERAGE SLOPE: 1.3 %

2) CALCULATE AVERAGE CURVE NUMBER (CN) USING TABLE

			% DRAINAGE AREA * CN
FOREST-GOOD	50	55	2750
COMMERCIAL (85%)	10	92	920
PAVED PARKING	5	98	490
RESIDENTIAL	20	70	1400
NEWLY GRADED	5	89	445
GRASS	10	69	690
	100%		6695
CN			66.95 CN

3) DETERMINE RUNOFF DEPTH
RAINFALL FOR 2-YEAR, 24 HOUR STORM (FIGURE 8.03J 3.5 INCHES
RUNOFF DEPTH (TABLE 8.03C) 0.92 INCHES

4) DETERMINE PEAK RATE RUNOFF FOR THE DESIGN STORM BY ADJUSTING FOR WATERSHED SHAPE.
EQUIVALENT DRAINAGE AREA (FIGURE 8.03N): 175 ACRES
Q1=(FIGURE 8.03O*RUNOFF DEPTH) 40.48 CFS
Q2=(Q1*(TOTAL AREA/EQUIVALENT DRAINAGE AREA) 80.96 CFS

5) ADJUST PEAK DISCHARGE RATE Q2 FOR % IMPERVIOUS

AREA AND % HYDRAULIC LENGTH MODIFIED.

IMPERVIOUS FACTOR (FIGURE 8.03R)	1.1	
HYDRAULIC LENGTH MODIFICATION FACTOR	1	
Q3=(Q2*FACTORS)	89.056	CFS

6) ADJUST PEAK DISCHARGE FACTOR FOR AVERAGE WATERSHED SLOPE.

FACTOR FOR SLOPE (TABLE 8.03D)	1.16	
Q4=(Q3*FACTOR)	103.305	CFS

7) ADJUST PEAK DISCARGE FOR PONDING.

FACTOR FOR PONDING (FIGURE 8.03E)	1	
QP,2,24	103.305	CFS

PROJECT: B & B LANDFILL
PROJECT NO.:

AREA: FAR SIDE OF CREEK (AREA B)
10 YEAR STORM

GIVEN:

LOCATION: GREENSBORO

LAND USE BY SOIL GROUP:

FOREST-GOOD	2.7	ACRES:
COMMERCIAL (85%)	0	ACRES:
PAVED PARKING	0	ACRES:
RESIDENTIAL	0	ACRES:
NEWLY GRADED	3.3	ACRES:
GRASS	0	ACRES:
TOTAL AREA	6	ACRES:

AVERAGE WATERSHED SLOPE:	14	%
RATIO OF DRAINAGE AREA : PONDED AREA:	N/A	
HYDRAULIC LENGTH:	700	FEET
% HYDRAULIC LENGTH MODIFIED:	NONE	
% IMPERVIOUS AREA:	0	

FIND:

PEAK RATE OF RUNOFF FOR THE 10-YEAR FREQUENCY,
24-HOUR STORM - QP 10, 24

SOLUTION:

1) DRAINAGE AREA: 6 ACRES
HYDRAULIC LENGTH: 700 FEET
AVERAGE SLOPE: 14 %

2) CALCULATE AVERAGE CURVE NUMBER (CN) USING TABLE

			% DRAINAGE AREA * CN
FOREST-GOOD	45	55	2475
COMMERCIAL (85%)	0	92	0
PAVED PARKING	0	98	0
RESIDENTIAL	0	70	0
NEWLY GRADED	55	89	4895
GRASS	0	69	0
	100%		7370
CN			73.7 CN

3) DETERMINE RUNOFF DEPTH
RAINFALL FOR 10-YEAR, 24 HOUR STORM (FIGURE 8.03 5.2 INCHES
RUNOFF DEPTH (TABLE 8.03C) 2.55 INCHES

4) DETERMINE PEAK RATE RUNOFF FOR THE DESIGN STORM BY ADJUSTING FOR WATERSHED SHAPE.

EQUIVALENT DRAINAGE AREA (FIGURE 8.03N):	8	ACRES
Q1=(FIGURE 8.03Q*RUNOFF DEPTH)	35.7	CFS
Q2=(Q1*(TOTAL AREA/EQUIVALENT DRAINAGE AREA)	26.775	CFS

5) ADJUST PEAK DISCHARGE RATE Q2 FOR % IMPERVIOUS

AREA AND % HYDRAULIC LENGTH MODIFIED.

IMPERVIOUS FACTOR (FIGURE 8.03R)	1	
HYDRAULIC LENGTH MODIFICATION FACTOR	1	
Q3=(Q2*FACTORS)	26.775	CFS

6) ADJUST PEAK DISCHARGE FACTOR FOR AVERAGE WATERSHED SLOPE.

FACTOR FOR SLOPE (TABLE 8.03D)	0.98	
Q4=(Q3*FACTOR)	26.2395	CFS

7) ADJUST PEAK DISCARGE FOR PONDING.

FACTOR FOR PONDING (FIGURE 8.03E)	1	
QP,10,24	26.2395	CFS

PROJECT: B & B LANDFILL
PROJECT NO.:

AREA: TOTAL DRAINAGE
10 YEAR STORM

GIVEN:

LOCATION: GREENSBORO

LAND USE BY SOIL GROUP:

FOREST-GOOD	175	ACRES:
COMMERCIAL (85%)	35	ACRES:
PAVED PARKING	18	ACRES:
RESIDENTIAL	70	ACRES:
NEWLY GRADED	17	ACRES:
GRASS	35	ACRES:
TOTAL AREA	350	ACRES:

AVERAGE WATERSHED SLOPE:	1.3	%
RATIO OF DRAINAGE AREA : PONDED AREA:	N/A	
HYDRAULIC LENGTH:	4500	FEET
% HYDRAULIC LENGTH MODIFIED:	NONE	
% IMPERVIOUS AREA:	13.64	

FIND:

PEAK RATE OF RUNOFF FOR THE 10-YEAR FREQUENCY,
24-HOUR STORM - QP 10, 24

SOLUTION:

1) DRAINAGE AREA: 350 ACRES
HYDRAULIC LENGTH: 4500 FEET
AVERAGE SLOPE: 1.3 %

2) CALCULATE AVERAGE CURVE NUMBER (CN) USING TABLE

			% DRAINAGE AREA * CN
FOREST-GOOD	50	55	2750
COMMERCIAL (85%)	10	92	920
PAVED PARKING	5	98	490
RESIDENTIAL	20	70	1400
NEWLY GRADED	5	89	445
GRASS	10	69	690
	100%		6695
CN			66.95 CN

3) DETERMINE RUNOFF DEPTH
RAINFALL FOR 10-YEAR, 24 HOUR STORM (FIGURE 8.03 5.2 INCHES
RUNOFF DEPTH (TABLE 8.03C) 1.99 INCHES

4) DETERMINE PEAK RATE RUNOFF FOR THE DESIGN STORM BY ADJUSTING FOR WATERSHED SHAPE.
EQUIVALENT DRAINAGE AREA (FIGURE 8.03N): 175 ACRES
Q1=(FIGURE 8.03O*RUNOFF DEPTH) 87.56 CFS
Q2=(Q1*(TOTAL AREA/EQUIVALENT DRAINAGE AREA) 175.12 CFS

5) ADJUST PEAK DISCHARGE RATE Q2 FOR % IMPERVIOUS

AREA AND % HYDRAULIC LENGTH MODIFIED.

IMPERVIOUS FACTOR (FIGURE 8.03R)	1.1	
HYDRAULIC LENGTH MODIFICATION FACTOR	1	
Q3=(Q2*FACTORS)	192.632	CFS

6) ADJUST PEAK DISCHARGE FACTOR FOR AVERAGE WATERSHED SLOPE.

FACTOR FOR SLOPE (TABLE 8.03D)	1.16	
Q4=(Q3*FACTOR)	223.4531	CFS

7) ADJUST PEAK DISCARGE FOR PONDING.

FACTOR FOR PONDING (FIGURE 8.03E)	1	
QP,10,24	223.4531	CFS

PROJECT: B & B LANDFILL
PROJECT NO.:

AREA: ENTRANCE SIDE OF CREEK (AREA A)
2 YEAR STORM

GIVEN:

LOCATION: GREENSBORO

LAND USE BY SOIL GROUP:

FOREST-GOOD	3.4	ACRES:
COMMERCIAL (85%)	0	ACRES:
PAVED PARKING	0	ACRES:
RESIDENTIAL	0	ACRES:
NEWLY GRADED	8.5	ACRES:
GRASS	5.1	ACRES:
TOTAL AREA	17	ACRES:

AVERAGE WATERSHED SLOPE:	6.9	%
RATIO OF DRAINAGE AREA : PONDED AREA:	N/A	
HYDRAULIC LENGTH:	1250	FEET
% HYDRAULIC LENGTH MODIFIED:	NONE	
% IMPERVIOUS AREA:	0	

FIND:

PEAK RATE OF RUNOFF FOR THE 2-YEAR FREQUENCY,
24-HOUR STORM - QP 2, 24

SOLUTION:

1) DRAINAGE AREA:

DRAINAGE AREA:	17	ACRES
HYDRAULIC LENGTH:	1250	FEET
AVERAGE SLOPE:	6.9	%

2) CALCULATE AVERAGE CURVE NUMBER (CN) USING TABLE

	% DRAINAGE AREA	* CN	
FOREST-GOOD	20	55	1100
COMMERCIAL (85%)	0	92	0
PAVED PARKING	0	98	0
RESIDENTIAL	0	70	0
NEWLY GRADED	50	89	4450
GRASS	30	69	2070
	100%		7620
CN			76.2 CN

3) DETERMINE RUNOFF DEPTH

RAINFALL FOR 2-YEAR, 24 HOUR STORM (FIGURE 8.03H	3.5	INCHES
RUNOFF DEPTH (TABLE 8.03C)	1.4	INCHES

4) DETERMINE PEAK RATE RUNOFF FOR THE DESIGN STORM BY ADJUSTING FOR WATERSHED SHAPE.

EQUIVALENT DRAINAGE AREA (FIGURE 8.03N):	20	ACRES
Q1=(FIGURE 8.03P*RUNOFF DEPTH)	26.6	CFS
Q2=(Q1*(TOTAL AREA/EQUIVALENT DRAINAGE AREA)	22.61	CFS

5) ADJUST PEAK DISCHARGE RATE Q2 FOR % IMPERVIOUS

AREA AND % HYDRAULIC LENGTH MODIFIED.

IMPERVIOUS FACTOR (FIGURE 8.03R)	1	
HYDRAULIC LENGTH MODIFICATION FACTOR	1	
Q3=(Q2*FACTORS)	22.61	CFS

6) ADJUST PEAK DISCHARGE FACTOR FOR AVERAGE WATERSHED SLOPE.

FACTOR FOR SLOPE (TABLE 8.03D)	1.13	
Q4=(Q3*FACTOR)	25.5493	CFS

7) ADJUST PEAK DISCARGE FOR PONDING.

FACTOR FOR PONDING (FIGURE 8.03E)	1	
QP,2,24	25.5493	CFS

PROJECT: B & B LANDFILL
PROJECT NO.:

AREA: ENTRANCE SIDE OF CREEK (AREA A)
10 YEAR STORM

GIVEN:

LOCATION: GREENSBORO

LAND USE BY SOIL GROUP:

FOREST-GOOD	3.4	ACRES:
COMMERCIAL (85%)	0	ACRES:
PAVED PARKING	0	ACRES:
RESIDENTIAL	0	ACRES:
NEWLY GRADED	8.5	ACRES:
GRASS	5.1	ACRES:
TOTAL AREA	17	ACRES:

AVERAGE WATERSHED SLOPE:	6.9	%
RATIO OF DRAINAGE AREA : PONDED AREA:	N/A	
HYDRAULIC LENGTH:	1250	FEET
% HYDRAULIC LENGTH MODIFIED:	NONE	
% IMPERVIOUS AREA:	0	

FIND:

PEAK RATE OF RUNOFF FOR THE 10-YEAR FREQUENCY,
24-HOUR STORM - QP 10, 24

SOLUTION:

1) DRAINAGE AREA: 17 ACRES
HYDRAULIC LENGTH: 1250 FEET
AVERAGE SLOPE: 6.9 %

2) CALCULATE AVERAGE CURVE NUMBER (CN) USING TABLE

	% DRAINAGE AREA	* CN	
FOREST-GOOD	20	55	1100
COMMERCIAL (85%)	0	92	0
PAVED PARKING	0	98	0
RESIDENTIAL	0	70	0
NEWLY GRADED	50	89	4450
GRASS	30	69	2070
	100%		7620
CN			76.2 CN

3) DETERMINE RUNOFF DEPTH
RAINFALL FOR 10-YEAR, 24 HOUR STORM (FIGURE 8.03 5.2 INCHES
RUNOFF DEPTH (TABLE 8.03C) 2.67 INCHES

4) DETERMINE PEAK RATE RUNOFF FOR THE DESIGN STORM BY ADJUSTING FOR WATERSHED SHAPE.
EQUIVALENT DRAINAGE AREA (FIGURE 8.03N): 20 ACRES
Q1=(FIGURE 8.03P*RUNOFF DEPTH) 50.73 CFS
Q2=(Q1*(TOTAL AREA/EQUIVALENT DRAINAGE AREA) 43.1205 CFS

5) ADJUST PEAK DISCHARGE RATE Q2 FOR % IMPERVIOUS

AREA AND % HYDRAULIC LENGTH MODIFIED.

IMPERVIOUS FACTOR (FIGURE 8.03R)	1	
HYDRAULIC LENGTH MODIFICATION FACTOR	1	
Q3=(Q2*FACTORS)	43.1205	CFS

6) ADJUST PEAK DISCHARGE FACTOR FOR AVERAGE WATERSHED SLOPE.

FACTOR FOR SLOPE (TABLE 8.03D)	1.13	
Q4=(Q3*FACTOR)	48.72617	CFS

7) ADJUST PEAK DISCARGE FOR PONDING.

FACTOR FOR PONDING (FIGURE 8.03E)	1	
QP,10,24	48.72617	CFS

GUILFORD COUNTY

PLANNING AND DEVELOPMENT DEPARTMENT

August 24, 1995

Mr. Bill Milikan
Loyal Order of the Moose 685
4025 Viewmont Drive
Greensboro, N.C. 27406

Re: Baynes/Mooselodge Landfill/
Grading Permit #90133 (Revised)

Dear Mr. Milikan:

I have just received a copy of the letter dated August 18, 1995 which was sent to you from John Dorney/A. Howard, Jr. with the North Carolina Department of Environment, Health and Natural Resources. The letter l approves the 401 Water Quality Certification and allows for stream relocation as discussed on site Wednesc 19, 1995.

Based on the approval mentioned above, I am also able to approve the revised Erosion Control/Grading Plan revised and resubmitted by MacConnell and Associates earlier this month.

I am reissuing the grading permit at this time and am sending it to you with this letter. The civil penalt stopped as soon as the erosion control devices are installed according to the new plan.

Please follow the new plan as it relates to erosion control, stream relocation/stabilization, slope requi coverage/stabilization requirements.

If you have any questions, feel free to call me at (910)373-3803.

Sincerely,

David F. Barnes

David F. Barnes, CPESC
Soil Erosion Control Chief

/b

Enclosures

cc: Mr. Gary MacConnell, MacConnell and Associates
Mr. John Dorney, N.C. Department of Environment, Health and Natural Resources/Water Quality
Mr. Brent Burch, N.C. Department of Environment, Health and Natural Resources/Solid Waste
Mr. Garris Evans, Guilford County Department of Environmental Health
Mr. Walter Baynes, Baynes Grading Company

Post Office Box 3427 • Greensboro, North Carolina 27402
Telephone: (910) 373-3334

OFFICE OF SOIL SCIENTIST

EROSION CONTROL INSPECTION REPORT

: Baynes Mooslodge Landfill

:

1-24-96

MADE ON SITE: Walter Baynes
Name
Garris Evans
STATUS : Brent Bruch

NOT YET DISTURBED

CLEARING & GRUBBING

ROUGH GRADING

FINE GRADING

GRADED WITHOUT A PERMIT

JAN 1996
RECEIVED
SWS-WSRO

ON CONTROL STATUS :

DEVICES IN PLACE

DITIONAL DEVICES NEEDED

ICES NEED MAINTENANCE

ICES IN PLACE & FUNCTIONING

SEEDED; ✓ PARTIALLY SEEDED

EDING NOTED

ITE SEDIMENTATION NOTED

TAKEN

OW-: CC: Walter Baynes,
Likar, Gary MacConnell,
rich, Garris Evans

NOTES & RECOMMENDATIONS :

Debris is being pulled back from the creek (on the north and south sides of the property), where it is too close to the creek. Demolition debris must be at least 50' from the creek.

Creek re-channeling is to be done by mid February to early March (depending on the weather), so it can be stabilized as soon as the work has been completed. Erosion control is to be installed as the creek is being relocated.

We discussed closing the landfill in phases, so there will be areas where soil can be temporarily stockpiled until used as cover material.

No firm date was given for closure, but no additional areas can

INSPECTED BY: Baines

OFFICE OF SOIL SCIENTIST

EROSION CONTROL INSPECTION REPORT

PROJECT: Baynes Landfill

SECTION:

DATE: 12-11-95

CONTACT MADE ON SITE: Garris Evans
Brent Burch
Name

SITE STATUS :

____ NOT YET DISTURBED

____ CLEARING & GRUBBING

✓ ROUGH GRADING

____ FINE GRADING

____ GRADED WITHOUT A PERMIT

DEC 1995
RECEIVED
SWS-WSRO

EROSION CONTROL STATUS :

____ NO DEVICES IN PLACE

✓ ADDITIONAL DEVICES NEEDED

____ DEVICES NEED MAINTENANCE

____ DEVICES IN PLACE & FUNCTIONING

____ AREA SEEDED; ____ PARTIALLY SEEDED

____ NO SEEDING NOTED

✓ OFF-SITE SEDIMENTATION NOTED

____ PHOTOS TAKEN

FOLLOW-UP MADE: CC: Bill Milliken, Brent Burch, Garris Evans

NOTES & RECOMMENDATIONS :

Some unapproved material in the landfill and some being brought in at time of inspection.

Creek has not been rerouted as proposed for fall 1995.

Debris next to creek not pulled back from creek as proposed for fall 1995.

Debris should be pulled back from creek now, because landfill is filling up and may run out of room if material isn't pulled back from creek before landfill is filled up.

Erosion control not yet in place. Civil penalty continues to run until erosion control devices have been installed.

INSPECTED BY: Barnes

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Environmental Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
A. Preston Howard, Jr., P.E., Director

August 18, 1995
Guilford County
DEM Project # 95095

APPROVAL of 401 Water Quality Certification and ADDITIONAL CONDITIONS

RECEIVED
N.C. Dept. of EHNR
AUG 22 1995
Winston-Salem
Regional Office

Mr. Bill Milikan
Loyal Order of The Moose
P. O. Box 293
Greensboro, N.C. 27402

Dear Mr. Milikan:

You have our approval to relocate a stream and fill about 0.5 acres of wetlands for the purpose of relocating a stream, installing sediment basins and closing out a demolition at SR 1125 near the Moose Lodge debris landfill, as you described in your application dated 31 January 1995. After reviewing your application, we have decided that this fill is covered by General Water Quality Certification Number 2671. This certification allows you to use Nationwide Permit Number 26 when it is issued by the Corps of Engineers.

This approval is only valid for the purpose and design that you described in your application. If you change your project, you must notify us and you may be required to send us a new application. For this approval to be valid, you must follow the conditions listed in the attached certification.

1. Stream shall be relocated as flagged in the field. Mr. Allan Smith of DEM's Winston-Salem Regional Office (910-771-4600) shall be called at least two working days before the new channel is cut in order to inspect the site. Alders and willows shall be planted or moved to locations along the streambank in order to stabilize it.

2. Wetland fill for land clearing and inert debris shall be allowed west of a line connecting the northern and southern limits of the landfill as shown on a modified site plan dated 4 August, 1995 with corresponding cover letter from MacConnell and Associates, P.E.

3. Sediment basins and their surrounding berms shall be restored to original grade after landfill closure.

4. After basins are removed, the wetland area shall be planted at 10 foot centers with wetland trees. Additional written DEM approval is required for this plan.

In addition, you should get any other federal, state or local permits before you go ahead with your project. Specifically approval from the N.C. Division of Solid Waste for the landfill is required.

If you do not accept any of the conditions of this certification, you may ask for an adjudicatory hearing. You must act within 60 days of the date that you receive this letter. To ask for a hearing, send a written petition which conforms to Chapter 150B of the North Carolina General Statutes to the Office of Administrative Hearings, P.O. Box 27447, Raleigh, N.C. 27611-7447. This certification and its conditions are final and binding unless you ask for a hearing.

This letter completes the review of the Division of Environmental Management under Section 401 of the Clean Water Act. If you have any questions, please telephone John Dorney at 919-733-1786.

Sincerely,

A. Preston Howard, Jr. P.E.

Attachment

cc: Wilmington District Corps of Engineers
Corps of Engineers Raleigh Field Office
Winston-Salem DEM Regional Office
Mr. John Dorney
Central Files
Gary MacConnell; MacConnell and Associates
Owen Anderson; WRC
Brent Burch; Solid and Hazardous Waste
David Barnes Guilford County Soil and Erosion Control

95095.ltr

PO Box 3096
Cary, NC 27519

919-467-1239

MacCONNELL
& ASSOCIATES, P.C.

1602 Sunrise Road
Cary, NC 27513

Fax 919-319-6510

August 4, 1995

Mr. John Dorney
NCDEH&NR: Water Quality Planning
P.O. Box 29535
Raleigh, NC 27626-0535

Re: Project # 95095
B & B Landfill

Dear Mr. Dorney:

Please find enclosed with this letter, one copy of revised drawings for the above referenced project. These revised drawings show a greater distance (100 to 150 feet) from the proposed relocated creek and the toe of the finished grade of the landfill, than the previous drawings. The exceptions are at the two ends of the creek, where site conditions make the greater set back difficult. I believe that these revised drawings accurately reflect the conditions agreed upon in the field. If you do not agree, please contact me immediately

Your cooperation and assistance are greatly appreciated. Please call me, if you have any questions.

Sincerely,

Gary S. MacConnell, P.E.
President

cc: David Barnes
Jan McHargue
Bill Millikan
Joe Mickey
Dean Vickory
Julian Foscue
Walter Baynes
Allan Smith
Stacey Peace
Brent Burch
Garris Evans
Owen Anderson
Shari Bryant

PO Box 3096
Cary, NC 27519

919-467-1239

MacCONNELL
& ASSOCIATES, P.C.

1602 Sunrise Road
Cary, NC 27513

Fax 919-319-6510

JUL
RECEIVED
SWS-WSRO

MEMORANDUM

FROM: Gary S. MacConnell GM
TO: Distribution
DATE: 7/19/95
SUBJECT: B & B /Moose Lodge Landfill

A meeting was held at the above referenced facility, on July 18, 1995. The purpose of this meeting was to resolve outstanding permitting issues with respect to the site. Fourteen individuals were present at the meeting as listed below:

John Dorney, DEM (919/733-1786)
Evan Henkin, DEM (919/733-1786)
David Barnes, Guilford County (910/373-3803)
Stacey Peace, Guilford County (910/373-3175)
Brent Burch, NC Solid Waste (910/771-4600)
Garris Evans, Guilford County (910/373-3771)
Allan Smith, DEM (910/771-4600)
Joe Mickey, NCWRC (910/366-2982)
Shari Bryant, NCWRC (910/449-7625)
Alex Cooper, Cooper & Associates (919/469-1760)
Dean Vickory, Moose Lodge (910/855-6877)
Walter Baynes, Baynes Grading (910/951-2894)
Owen Anderson, NCWRC (919/528-9886)
Gary MacConnell, MacConnell & Associates, P.C. (919/467-1239)

Issues discussed at the meeting are presented below in bullet form for clarity. Any of the professionals that either disagree or would like to add to these notes are encouraged to do so by submitting a copy of their comments to all parties involved.

- The meeting was a follow-up to a meeting in Greensboro (approximately two months ago), and a meeting with Mr. Dorney and Mr. MacConnell approximately one month ago in Raleigh.

- MacConnell reviewed the permitting process associated with this project, which has been on going for at least the last one and one half years. The COE has issued conditional approval for stream relocation. The conditions are essentially that State and local agencies concur with the relocation. The purpose of the meeting was to

come to agreement on the relocation issue. This included location of the rerouted creek, methods of relocation, and types of vegetative cover used.

- Dorney said that a decision on the relocation would be made at the meeting. He indicated that the decision would be made based on accepted scientific literature, site conditions, and judgment of the professionals present at the meeting.

- Burch said that Solid Waste was waiting on DEM to issue a permit. He said that most of the fill was unpermitted. There must be a 50 foot buffer from the edge of the fill to the edge of the creek and that some of the fill was within this buffer. If steam is not relocated, fill must be moved back to maintain this buffer. MacConnell indicated that efforts have been made and are continuing to be made to obtain proper permits.

- Barnes indicated that the sedimentation and erosion control permit would be issued following the issuance of the stream relocation permit. Barnes said that sedimentation and erosion control devices as shown on the plans would need to be installed. If modifications to the plans are made, sedimentation and erosion control devices should be similar to those shown on the most recent drawings. He indicated that it is not a wetland issue from his perspective. He also reiterated Burch's discussion of buffer requirements.

- Mickey and Anderson gave a detailed presentation of stream relocation design which is designed to maintain a natural environment. Their discussion was quite enlightening, as they presented techniques which are cost effective, use natural and waste materials (such as root balls), and enhance species diversification. They also discussed desirable species for revegitating the area. They agreed to be involved in the summer/fall when grasses are established and in the spring when it is desirable to plant woody plants. Upon inspecting the site, Mickey indicated that based on the existing cover, existing soils, and quality of the stream; root balls would not be required but that a meandering path for the new creek would be desirable.

- The watershed is approximately 350 acres and has a Q10 of +/-224 cfs. On the basis of the size of the watershed, Dorney indicated that the creek could be permenant-intermittent.

- Vicroy indicated that the Moose Lodge would like to have the landfill closed out. While they envisioned a future ball field in the area of the current landfill, plans are uncertain with the proposed highway relocation.

- There will be no mining of the sandrock across the creek or disposal of demolition debris, due to slope and zoning considerations.

- Based on the information presented and discussions in the field, MacConnell & Associates, P.C. would modify and reissue the drawings. Sedimentation and erosion control devices would remain essentially the same, with minor relocation of slope

drains to accommodate revised final contours. Relocated creek would be similar in location to that as shown on the most recent drawings. However, toe of slope would be moved back to a distance of 100 to 150 feet from the edge of the relocated creek. Due to natural conditions, this dimension would be compromised to a minimum of 50 feet at the upper and lower ends of the creek. The 100 to 150 foot setback would act as a buffer and wetland to treat any leachate. All parties agreed that this was acceptable. Following issuance of the relocation stream permit and revised plans, other regulating agencies would issue appropriate permits. Baynes would install sedimentation and erosion control devices expeditiously and proceed with the creek relocation and closure of the landfill. Expected time to close the landfill is approximately one year.

cc: Attendees

PO Box 3096
Cary, NC 27519

919-467-1239

MACCONNELL
& ASSOCIATES, P.C.

1602 Sunrise Road
Cary, NC 27513

Fax 919-319-6510

July 10, 1995

JUL
RECEIVED
SWS-WSRO

Mr. John Dorney
NCDEH&NR: Water Quality Planning
P.O. Box 29535
Raleigh, NC 27626-0535

Re: Project # 95095
B & B Landfill

Dear Mr. Dorney:

This letter serves to confirm our previously scheduled site visit on July 18, at 10:00 A.M. Owen Anderson and Joe Mickie of the North Carolina Wildfife Resources Commission are planning to attend, as well as Allen Smith of your regional office. I have coordinated this meeting with representatives from the Moose Lodge and B & B Landfill. I look forward to meeting with you and the other individuals mentioned in resolving the creek relocation issue.

Directions to the site are as follows:

> From Route 85, take Holden Road Exit, in Greensboro. Take the next right onto the access road which parallels the highway. Take the first left onto a paved road which is Viewmont Drive. Go approximately 1/4 mile to the B & B Landfill which is on the left. We'll meet by the entrance.

Your cooperation and asssistance are greatly appreciated. Please call me, if you have any questions.

Sincerely,

Gary S. MacConnell, P.E.
President

cc: David Barnes
Jan McHargue
Bill Millikan
Owen Anderson
Julian Foscue
Walter Baynes
Allan Smith
Joe Mickie
Brent Burch
Garris Evans
John Weigel

PO Box 3096
Cary, NC 27519

919-467-1239

MacCONNELL
& ASSOCIATES, P.C.

1602 Sunrise Road
Cary, NC 27513

Fax 919-319-6510

JUN
RECEIVED
SWS-WSRO

June 11, 1995

Mr. David Barnes
Office of Soil Scientist
Planning and Development
New County Court House
P.O. 3427
Greensboro, NC 27402

Re: B&B/Mooselodge Landfill

Dear Mr. Barnes:

The detail referenced in your memorandum dated June 5, 1995 was developed from information provided by Mr. Owen Anderson and Mr. Joe Mickey of the North Carolina Wildlife Resources Commission. Many current engineering practices are designed to stabilize soil and prevent erosion. These practices work quite well in urban settings. However, due to the nature of the designs they provide minimal value to wildlife.

An example is used to illustrate this point. A creek totally lined with rip rap with established fescue grass above the normal water level may provide an excellent means of erosion control. However, it is not considered desirable for wildlife, as this artificial setting does not include wildlife cover, plant diversity, and adequate food for wildlife. It is my understanding that the North Carolina Wildlife Resources Commission is promoting designs that favor wildlife and which will more quickly revert back to a natural habitat. This is especially true for stream relocations.

While the detail in question may not be typical for an urban setting, it is well suited and preferred for a stream relocation. If you have any further questions regarding this detail, I suggest that you contact either Mr. Anderson or Mr. Mickey. The stream relocation at the referenced site will also be coordinated with the North Carolina Wildlife Resources Commission.

I hope that this information and any discussions that you may have with professionals at the North Carolina Wildlife Resources Commission addresses your concerns. Please call if you have any questions. Your assistance is appreciated.

Sincerely,

Gary S. MacConnell, P.E.
President

cc: Owen Anderson
Walter Baynes
Garris Evans
Brent Burch
Bill Millikan

PO Box 3096
Cary, NC 27519

919-467-1239

MACCONNELL
& ASSOCIATES, P.C.

1602 Sunrise Road
Cary, NC 27513

Fax 919-319-6510

May 19, 1995

Mr. Eric Galamb
NCDEH&NR: Water Quality Planning
P.O. Box 29535
Raleigh, NC 27626-0535

Re: Project # 95095
B & B Landfill

Dear Mr. Galamb:

Please find enclosed with this letter, one original copy of requested certification. This certification is signed by the owner and operator of the above referenced facility. Per our conversation, this certification was required prior to your office issuing a 401 certification. I have been in contact with Mr. Owen Anderson of the North Carolina Wildlife Resources Commission (NCWRC), regarding the establishment of the new creek . The enclosed certification complies with Mr. Anderson's memo to you dated June 5, 1995, regarding plant species.

Upon your office's approval of the stream relocation, we will establish a meeting in the field with representatives from NCWRC, B & B Landfill, and MacConnell & Associates, P.C.. The purpose of this meeting will be to determine what species of plants are best suited for the site. It will also provide the opportunity for representatives from the NCWRC to provide technical guidance in the stream relocation. In speaking with Mr. Anderson, it would also be desirable for the NCWRC to be involved and monitor the progress of the revegetation of the new creek banks. According to Mr. Anderson, this will also help the NCWRC to determine which species are best suited for similar sites on future projects. If you would like to be involved in this field meeting please let me know.

It is my understanding that with your receipt of this letter and enclosed certification, all requirements and issues regarding 401 certification have been resolved. Your assistance in this matter is greatly appreciated. Please call if you have any questions or concerns

Sincerely,

Gary S. MacConnell, P.E.
President

cc: Owen Anderson
David Barnes
Walter Baynes
Garris Evans
Julian Foscue
Brent Burch
Jan McHargue
Bill Millikan
Allan Smith
John Weigel

Owner: **Loyal Order of the Moose 685**
Facility: **B & B Landfill**
Project No.: **95095**

In regard to the 401 Certification for the above referenced project, it is agreed that the following conditions will be followed:

- Sedimentation basins will be cleaned out when full and following significant storm events. Debris and silt will be removed in such a manner that it does not impact the quality of water in the adjacent creek.

- The North Carolina Wildlife Resource Commission will be consulted prior to and during the construction of the relocated creek. Their recommendations will be incorporated into the construction of the relocated creek. Mixtures of grasses, shrubs, and trees may vary from that shown on the plans to accomodate their findings, seasonal requirements, and readily available species.

For Loyal Order of the Moose 685 (Owner):

Signed

Administrator
Title

4 June 95
Date

For B & B Landfill (Landfill Operator):

Walter M. Baynes
Signature

President
Title

6/6/95
Date

PO Box 3096
Cary, NC 27519

919-467-1239

MacCONNELL
& ASSOCIATES, P.C.

1602 Sunrise Road
Cary, NC 27513

Fax 919-319-6510

May 19, 1995

Mr. John Dorney
NCDEH&NR: Water Quality Planning
P.O. Box 29535
Raleigh, NC 27626-0535

Re: Project # 95095
B & B Landfill

Dear Mr. Dorney:

A meeting was held on April 24, 1995, regarding the above referenced facility. This meeting was held in Greensboro and included representatives from the North Carolina Department of Environment, Health, and Natural Resources, Guilford County, Loyal Order of the Moose 685, and B&B Landfill. This meeting was productive in that the various agencies that have regulatory authority over the landfill and those responsible for the operation of the landfill were present. More importantly, a course of action was agreed upon to resolve permitting and regulatory issues. This course of action included the following:

- Provide justification for relocating the creek, if this is still desirable.
- Provide plans for the closure of the landfill.
- Provide copies of plans and correspondence to all interested parties (see list of persons copied).

Mr. William Millikan and Mr. Dean Vickory, of the Loyal Order of the Moose 685 indicated that they would like to have the creek relocated. Justification for this request is summarized below:

- It would be very costly to move the existing trash to accommodate a 3:1 slope.
- The proposed relocation increases the sinuosity of the stream which is environmentally desirable.
- The proposed relocation provides for vegetated stream banks of plant species that enhance wildlife habitat.
- The proposed relocation will provide a natural appearance when complete.
- The relocation allows for a ball field to the rear of the property.
- The proposed procedure for relocating the creek minimizes down stream impacts.

- The proposed vegetation provides a source for nutrient uptake from leachate and helps to purify any contaminants.

A copy of the revised plans are enclosed with this letter. Please note that detail 4/C-2 shows requirements for the creek relocation. This detail was developed based on information provided by the North Carolina Wildlife Resources Commission. We waited until we had this information to resubmit the plans.

We are providing one copy of the plan to you and those individuals copied. If you or anyone else requires additional sets, please let me know. I look forward to hearing from you regarding this matter. Your assistance as well as all of the professionals which are involved in this matter is greatly appreciated.

Please call if you have any questions or concerns

Sincerely,

Gary S. MacConnell, P.E.
President

cc: David Barnes
Walter Baynes
Garris Evans
Julian Foscue
Brent Burch
Jan McHargue
Bill Millikan
Allan Smith
John Weigel

OFFICE OF SOIL SCIENTIST

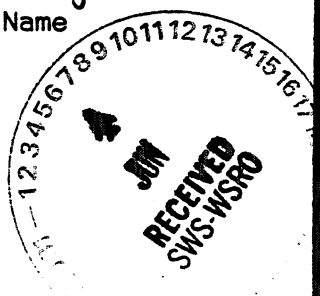
EROSION CONTROL INSPECTION REPORT

PROJECT: Baynes/Mooselodge Landfill

SECTION: _____

DATE: 6-5-95

CONTACT MADE ON SITE: CC: Gary MacConnell
Name



SITE STATUS :

_____ NOT YET DISTURBED

_____ CLEARING & GRUBBING

✓ ROUGH GRADING

_____ FINE GRADING

_____ GRADED WITHOUT A PERMIT

EROSION CONTROL STATUS :

_____ NO DEVICES IN PLACE

✓ ADDITIONAL DEVICES NEEDED

_____ DEVICES NEED MAINTENANCE

_____ DEVICES IN PLACE & FUNCTIONING

_____ AREA SEEDED; _____ PARTIALLY SEEDED

_____ NO SEEDING NOTED

✓ OFF-SITE SEDIMENTATION NOTED

_____ PHOTOS TAKEN

FOLLOW-UP MADE: CC: Walter Baynes, Bill Wilkerson, Garris Evans, Brent Burch

NOTES & RECOMMENDATIONS :

I am in receipt of your letter & plan submittal dated 5-19-95. As I have stated, the main authority giving approval in the wetlands / stream channel area would be the state (DEM & Solid Waste) and federal agency (Corps of Eng.).

But, I do have some concerns about the proposed stabilization of the creek you are proposing to re-route.

The creek needs to be designed to be stable during a 10 yr. storm event. Please see the enclosed comments on the detail portion of your plan submitte

INSPECTED BY: Barnes

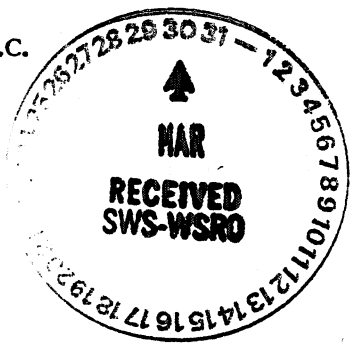
PO Box 3096
Cary, NC 27519

919-467-1239

MACCONNELL
& ASSOCIATES, P.C.

1602 Sunrise Road
Cary, NC 27513

Fax 919-319-6510



March 27, 1995

Mr. John Dorney
NCDEH&NR: Water Quality Planning
P.O. Box 29535
Raleigh, NC 27626-0535

Re: Project # 95095
B & B Landfill

Dear Mr. Dorney:

This letter responds to your letter to Mr. Bill Milikan of the Loyal Order of the Moose 685, dated February 27, 1995. On behalf of Mr. Milikan and Walter Baynes of the B & B Landfill in Guilford County, we request that the Division of Environmental Management approve the request for stream relocation and 401 Certification. Since we received your letter, we have been working with the various governmental agencies related to this request. Based on my conversations with Mr. Milikan and Mr. Baynes, it is their mutual goal to close out the landfill in an environmentally sound manner.

The request for relocating the stream will provide long term environmental benefits. The proposed relocation increases the sinuosity of the creek which helps to reduce erosion, as well as to improve the habitat for flora and fauna. The relocation will be conducted in an acceptable manner. We propose to modify our plans to incorporate NCDOT and WRC stream relocation guidelines. This will provide a more natural habitat than the washed out pond bottom that now exists.

Relocating the stream also allows for the filling in of the existing excavation. The proposed plan provides for a minimum 3:1 slope which will reduce erosion and the current hazard which presently exists with the excavated area. The filled in area will be properly vegetated when complete and it can then be used as a recreation field.

We have met with Guilford County staff and we understand that with minor modifications, the previous grading plans are approvable. I have also discussed the situation with members of the Division of Solid Waste Management (DSWM). A request to expand the landfill to the extent shown in the stream relocation package will be submitted to the DSWM. It is my understanding that the authority for construction debris landfills is with the DSWM and no longer with Guilford County. It is also my understanding that the Army Corps of Engineers does not object to the relocation, provided there are no objections from other agencies.

I am providing copies of this letter to professionals with regulatory agencies of which I have been in contact, so that we may proceed to resolve all issues in a reasonable time.

Mr. Milikan and Mr. Baynes have expressed their desires to close out the landfill, as soon as possible. It is our belief that the relocation of the creek is the best long term environmental solution. As indicated, we will revise the plans to include NCDOT / WRC guidelines. This will include the planting of native trees along the creek.

Please call if you have any questions or concerns

Sincerely,

Gary S. MacConnell, P.E.
President

cc: David Barnes
Walter Baynes
Brent Burch
Jan McHargue
Bill Milikan
Allan Smith
John Thomas
John Weigel

MEMORANDUM

PRINT NAMES:
Reviewer: A. Smith
WQ Supv.: STEVE MAUNEY
DATE: 2-22-95

TO: John Dorney
Planning Branch

SUBJECT: WETLAND STAFF REPORT AND RECOMMENDATIONS

***EACH ITEM MUST BE ANSWERED (USE N/A FOR NOT APPLICABLE) ***

PERMIT YR: 95 PERMIT NO: 0000095 COUNTY: GUILFORD
APPLICANT NAME: B&R LANDFILL-LOYAL ORDER OFTHE MOOSE 685
PROJECT_TYPE: ERSION CONTROL PERMIT_TYPE:
COE_#: DOT_#:
RCD_FROM_CDA: APP DATE_FRM_CDA: 01/31/95
REG_OFFICE: WSRO

RIVER_AND_SUB_BASIN_#: 03-06-08 STR_INDEX_NO: 17-8-3 Hickory Creek

STREAM_CLASS: C

WL_IMPACT?: (Y)/N WL_TYPE: Old Pond - (Dam Broke Years Ago)

WL_REQUESTED: 1.51 WL_ACR_EST?: (Y)/N

WL_SCORE(#): 43 WATER IMPACTED BY FILL?: (Y)/N

MITIGATION?: Y/(N) MITIGATION_TYPE: NA

MITIGATION_SIZE: NA DID YOU REQUEST MORE INFO?: Y/(N)

IS WETLAND RATING SHEET ATTACHED?: (Y)/N

HAVE PROJECT CHANGES/CONDITIONS BEEN DISCUSSED WITH APPLICANT?: (Y)/N

RECOMMENDATION (Circle One): ISSUE ISSUE/COND (DENY)

COMMENTS: Please see attached MEMO. Denial has been discussed with the applicant

cc: Regional Office
Central Files

S & HW - Request from WQ that landowner pull back debris from the creek and slope appropriately.

ATS

NCDEH&NR
DEM-WSRO

To: John Dorney

From: Allan Smith AJS

Subject: B&B Landfill

Date: 950221

The B&B Landfill in Guilford County applied for the 404/401 Permit to relocate Hickory Creek (Class C) in order to have more space to place demolition-vegetation fill. This stream has been heavily impacted because three (3) landfills are located on this headwater system. One of these landfills is leaching materials into the stream. The COE has apparently already been involved because of previous stream relocation.

I have talked with David Barnes of Guilford County Soil and Erosion Control about the proposed fill. He stated that the County has a $200,000+ suit against Mr. Baynes (part owner of the landfill) because he has refused to enact appropriate measures. I then checked with Solid & Hazardous Waste who have refused to let the landfill expand because of all the problems that exist there. The S&HW file on B&B Landfill is filled with NOVs and correspondence concerned with the non-implementation of appropriate actions on the part of the owners.

From what I have seen and heard, this permit definitely should NOT be approved. There would have to be many conditions in the permit concerning protection of the wetlands and streams; such as buffers, berms, etc.; that the owner apparently would not adhere to. He has already encroached into the wetlands and has debris very close to the stream.

The only reason given for the owner to relocate the stream is for expansion of the landfill. The fact that Solid & Hazardous Waste has told the owners NOT to expand; which they are apparently ignoring; should be reason enough to deny the permit (since they are not supposed to expand, they should not need to relocate the stream). Only about an acre of land will be gained by moving the stream. Also, the I-85 by-pass is scheduled to go through the upper part of the property in a couple of years which is another project that will degrade the area.

Solid & Hazardous Waste will write us a letter stating that they refuse to let the landfill expand, if we need it. I've also talked with John Thomas (COE) and he has stated his concerns with the owner, however, he says he does not have enough reason to refuse the landfill a permit from the Corps. perspective.

If you have any questions or concerns, please call me at (910) 771-4600.

WETLAND RATING WORKSHEET Fourth Version

Project name B + B Landfill Nearest road Viewmont Drive
County Guilford Wetland area 1.5 acres Wetland width 125 feet
Name of evaluator A. Smith Date 950214

Wetland location

- ☐ on pond or lake
- ☐ on perennial stream
- ☒ on intermittant stream
- ☐ within interstream divide
- ☐ other _____

Soil series _____

- ☒ predominantly organic - humus, muck, or peat
- ☐ predominantly mineral - non-sandy
- ☒ predominantly sandy from erosion base - development

Hydraulic factors

- ☐ steep topography
- ☐ ditched or channelized
- ☒ total wetland width ≥100 feet

Adjacent land use (within 1/2 mile upstream, upslope, or radius)

- ☐ forested/natural vegetation 45 %
- ☐ agriculture, urban/suburban 45 %
- ☐ impervious surface 10 %

Dominant vegetation

(1) Cattails
(2) Willows
(3) _____

Flooding and wetness

- ☐ semipermanently to permanently flooded or inundated
- ☒ seasonally flooded or inundated
- ☐ intermittantly flooded or temporary surface water
- ☐ no evidence of flooding or surface water

Wetland type (select one)*

- ☐ Bottomland hardwood forest
- ☐ Headwater forest
- ☐ Swamp forest
- ☐ Wet flat
- ☐ Pocosin
- ☐ Bog forest
- ☐ Pine savanna
- ☐ Freshwater marsh
- ☐ Bog/fen
- ☐ Ephemeral wetland
- ☐ Carolina Bay
- ☒ Other Drained Pond

*The rating system cannot be applied to salt or brackish marshes or stream channels

RATING

		weight		
Water storage	3	x 4.00	=	12
Bank/Shoreline stabilization	2	x 4.00	=	8
Pollutant removal	3 *	x 5.00	=	15
Wildlife habitat	1	x 2.00	=	2
Aquatic life value	1	x 4.00	=	4
Recreation/Education	2	x 1.00	=	2

Wetland Score: 43

* Add 1 point if in sensitive watershed and > 10% nonpoint disturbance within 1/2 mile upstream, upslope, or radius

95095 ACTION ID: _____

Nationwide Permit Requested (Provide Nationwide Permit #): _____

JOINT FORM FOR

Nationwide permits that require notification to the Corps of Engineers
Nationwide permits that require application for Section 401 certification

WILMINGTON DISTRICT ENGINEER
CORPS OF ENGINEERS
DEPARTMENT OF THE ARMY
P.O. Box 1890
Wilmington, NC 28402-1890
ATTN: CESAW-CO-E
Telephone (919) 251-4511

WATER QUALITY PLANNING
DIVISION OF ENVIRONMENTAL MANAGEMENT
NC DEPARTMENT OF ENVIRONMENT, HEALTH AND NATURAL RESOURCES
P.O. Box 29535
Raleigh, NC 27626-0535
ATTN: MR. JOHN DORNEY
Telephone (919) 733-5083

RECEIVED
JAN 11 1995

ONE (1) COPY OF THIS COMPLETED APPLICATION SHOULD BE SENT TO THE CORPS OF ENGINEERS. SEVEN (7) COPIES SHOULD BE SENT TO THE N.C. DIVISION OF ENVIRONMENTAL MANAGEMENT. PLEASE PRINT.

1. Owners Name: Loyal Order of the Moose 685
2. Owners Address: P.O. Box 293, Greensboro, NC 27402
3. Owners Phone Number (Home): _____ (Work): 910/299-4200
4. If Applicable: Agent's name or responsible corporate official, address, phone number:
   Mr. Bill Milikan
   Loyal Order of the Moose 685, 4025 Viewmont Drive
   Greensboro, NC 27406
5. Location of work (MUST ATTACH MAP). County: Guilford
   Nearest Town or City: Greensboro
   Specific Location (Include road numbers, landmarks, etc.): 4025 Viewmont Dr., S.R. 1125
   Greensboro, NC 27406
6. Name of Closest Stream/River: Hickory Creek
7. River Basin: Randleman Dam Watershed
8. Is this project located in a watershed classified as Trout, SA, HQW, ORW, WS I, or WS II? YES [X] NO [ ]
9. Have any Section 404 permits been previously requested for use on this property? YES [ ] NO [X]
   If yes, explain. _____
10. Estimated total number of acres of waters of the U.S., including wetlands, located on project site:
    1.51 Acre
11. Number of acres of waters of the U.S., including wetlands, impacted by the proposed project:

    Filled: 0.40 +/- Acre
    Drained: 0.00 +/- Acre
    Flooded: 0.00+/- Acre
    Excavated: 0.55 +/- Acre
    Total Impacted: 1.51 +/- Acres

OCT 15 1993

GUILFORD COUNTY

PLANNING AND DEVELOPMENT DEPARTMENT

CIVIL PENALTY INSTIGATION

October 14, 1993

Mr. Walter Baynes
Baynes Grading Company
Rt.8 Box 246-A
Reidsville, N.C. 27310

CERTIFIED

Re: Baynes/Moose Lodge Landfill
Grading Permit #50648

Dear Mr.Baynes:

A civil penalty of $500.00 per day has been instigated for the referenced project as of October 14, 1993, for failure to comply with the violations noted in the letter to you dated September 16, 1993 (copy enclosed). This penalty is being assessed for violations of Section(s) 6, 13 and 17 of the Guilford County Soil Erosion and Sedimentation Control Ordinance. Grading Permit #50648 has also been revoked. All work with the exception of erosion control must be stopped until all corrections are made and a new grading permit obtained.

The penalty will be in force until all corrections are made. If equitable settlement is not made within thirty (30) days, I shall refer this matter to the Guilford County Attorney's office for legal action in the Superior Court of Guilford County.

Sincerely,

Van S. Jenkins, Ph.D
Soil Scientist

/b

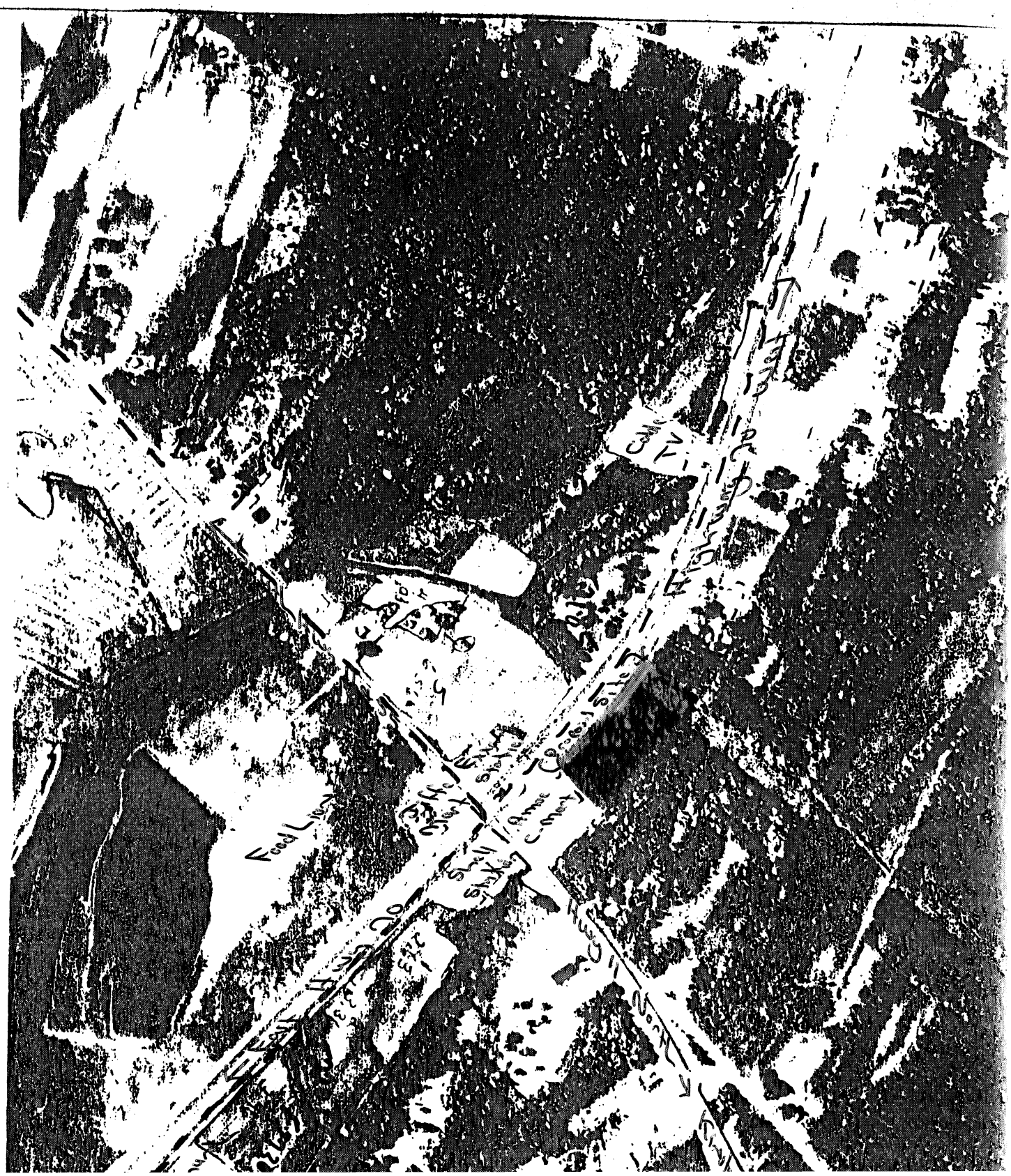
Enclosure

cc: Brent Burch, Solid Waste Section, N.C. Department of Environment, Health and Natural Resources
Loyal Order of the Moose 685

Post Office Box 3427 • Greensboro, North Carolina 27402
Telephone: (919) 373-3334

EXHIBIT A

Aerial Photo of Proposed Site



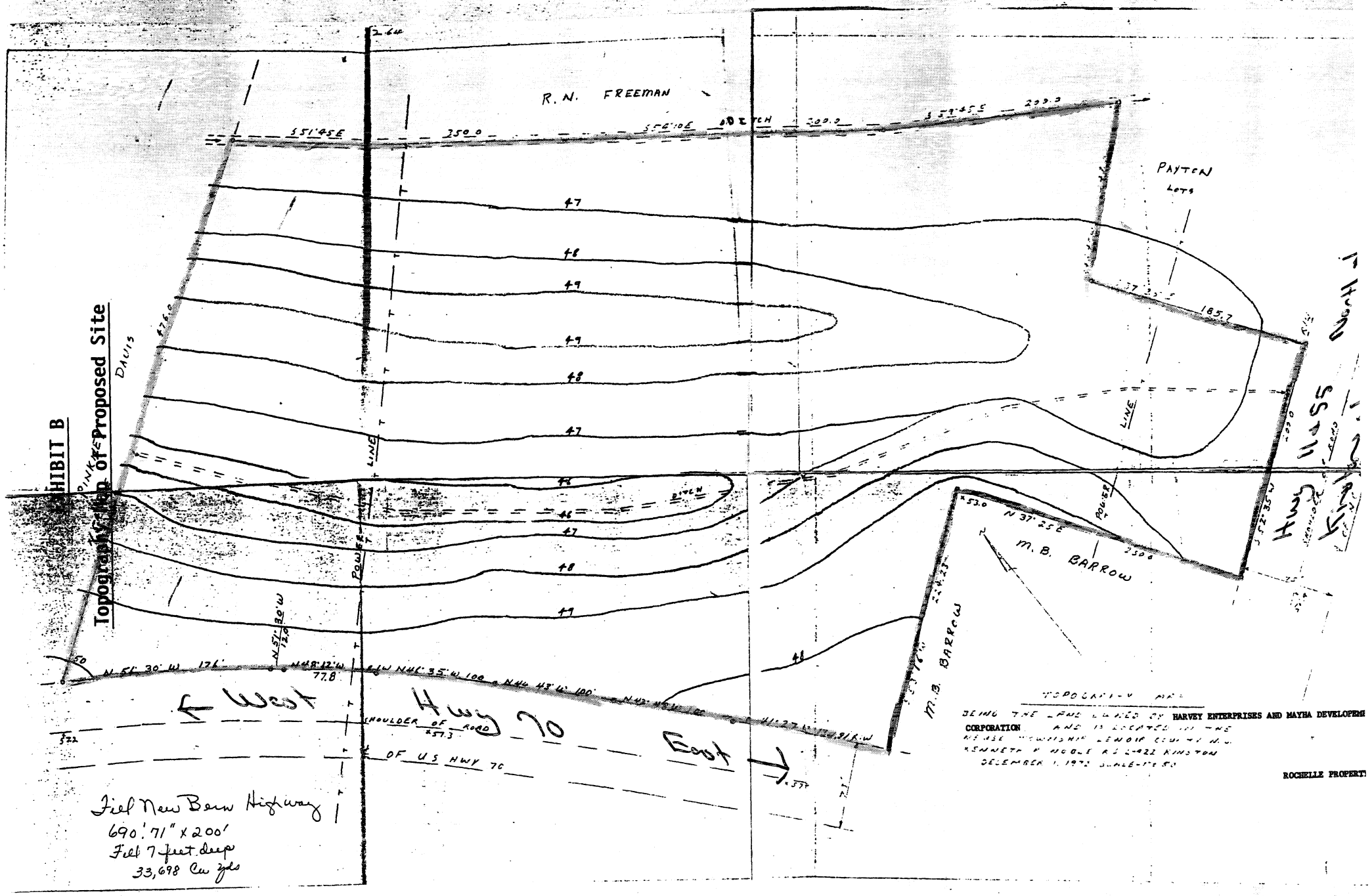


EXHIBIT B
Topography Map of Proposed Site
R. N. FREEMAN
PAYTON
Lots
DAVIS
M. B. BARROW
M. B. BARROW
POWER LINE
POWER LINE
HOUSE
HOUSE
West Hwy 70 East
(SHOULDER OF ROAD)
OF US HWY 70
Fill New Bern Highway
690' 71" x 200'
Fill 7 feet deep
33,698 Cu Yds
TOPOGRAPHY MAP
BEING THE LAND OWNED BY HARVEY ENTERPRISES AND MAYHA DEVELOPERS CORPORATION AND IS LOCATED IN THE NE/4 SE/4 TOWNSHIP LENOIR COUNTY N.C.
KENNETH R NOBLE R.L.S. #922 KINSTON
DECEMBER 1, 1972 SCALE-1"=50'
ROCHELLE PROPERTY

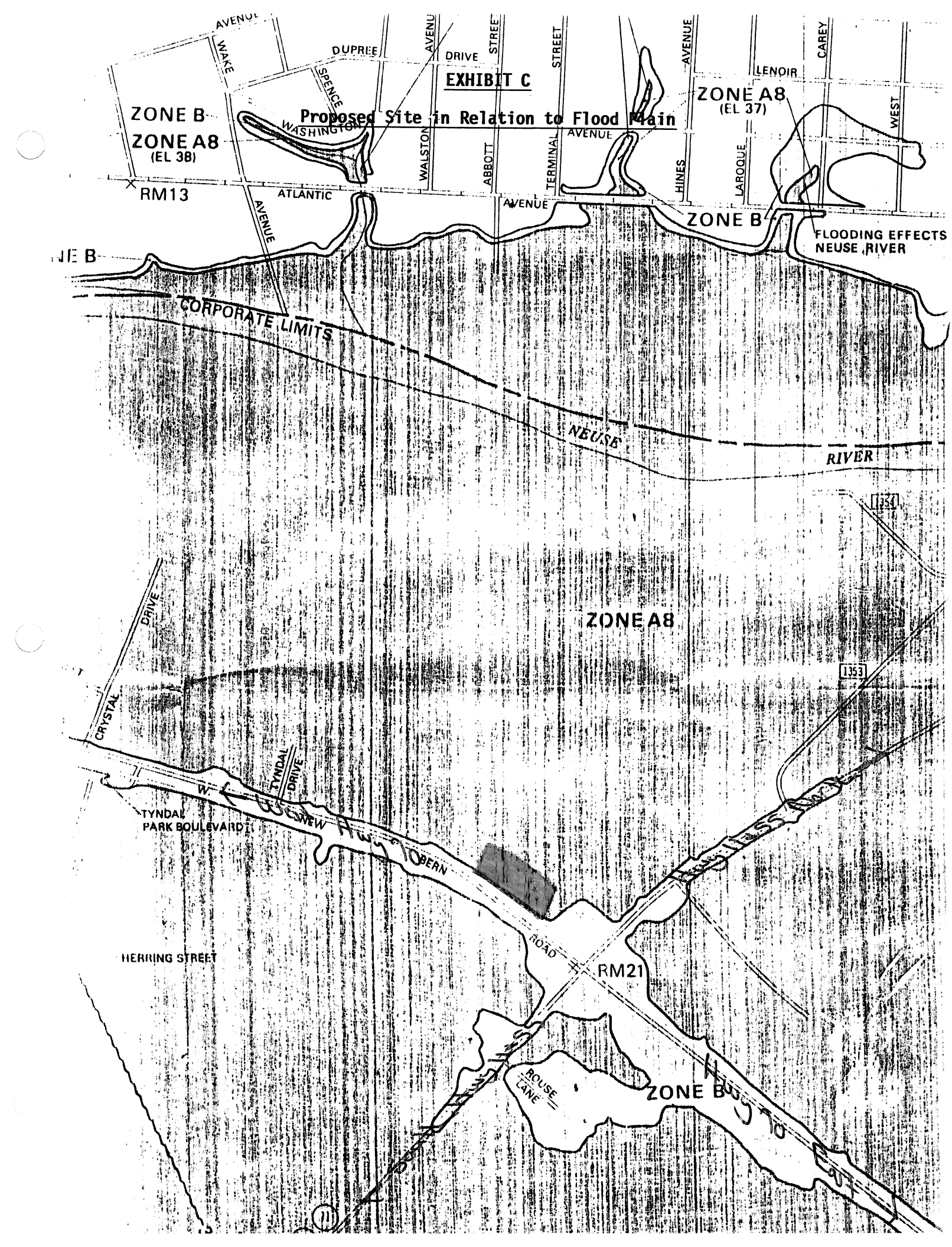


EXHIBIT C
Proposed Site in Relation to Flood Plain
ZONE B
ZONE A8
(EL 38)
RM13
ZONE A8
(EL 37)
ZONE B
FLOODING EFFECTS
NEUSE RIVER
CORPORATE LIMITS
NEUSE
RIVER
ZONE A8
ZONE B
RM21
TYNDAL
PARK BOULEVARD
HERRING STREET
ROUSE
LANE
DUPREE
DRIVE
WASHINGTON
ATLANTIC
AVENUE
WALSTON
ABBOTT
TERMINAL
HINES
LAROQUE
LENOIR
CAREY
WEST
WAKE
SPENCE
CRYSTAL
DRIVE
TYNDAL
DRIVE
NEW
BERN
ROAD
1354
1353

MacConnell & Associates, P.C.

P.O. Box 3096
Cary, NC 27519-3096
(919) 467-1239

1602 Sunrise Road
Cary, NC 27513

February 24, 1994

Mr. Hugh Jernigan, P.E.
NCDEH&NR: DEM Regional Office
8025 North Point Blvd.
Suite 100
Winston Salem, NC 27106

Dear: Mr. Hugh Jernigan,

On behalf of Walter Baynes, owner of B & B Landfill, we are pleased to submit grading and erosion control plans for your review. We are enclosing three sets of drawings, specifications, and calculations.

The State of North Carolina Erosion and Sediment Control Planning and Design Manual was used as a basis for the calculations and design. The calculations are in the form of a spreadsheet using the same format as the example in this manual. The stream crossing was sized based on the existing creek dimensions, which is an acceptable method for sizing a temporary creek crossing.

We addressed the stormwater from both sides of the creek seperately as the total drainage area for this creek is approximately 350 acres. By addressing each side of the creek as seperate drainage areas and subdividing these areas into two subareas, the actual disturbed areas can be addressed specifically. The combined drainage area that must be mitigated is therefore much less. This approach, appeared to be the most efficient and less disruptive to the creek.

If you should have any questions please give me a call.

Sincerely,

Gary S. MacConnell, P.E.
President

cc: Walter Baynes, B & B Landfill
Runa A. Cooper, R.L.S., Cooper & Associates

Note
Baynes Landfill

Being Reviewed by
Guilford Co Erosion Control
David Barnes