

Lawrence, Kansas 2-13-2008

Monica K. Williams, Geologist
Camp Dresser & McKee, Inc.

Dear Ms. Williams,

RE: Construction and Demolition (C&D) Landfill Expansion, Reno
County Landfill, Hutchinson, Kansas

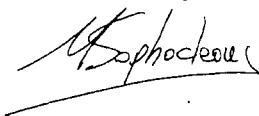
I reviewed the materials you sent regarding the expansion of the C&D Landfill in the south half of Section 17, Twp 23S, Range 6W in Reno County. Below I am summarizing relevant information about that landfill from a USGS Water-Resources Investigations Report 92-4169 titled "Hydrogeology and ground-water quality conditions at the Reno County landfill, South-Central Kansas" by B. Heck, N. Myers, and D. Hargadine, published in 1992.

The Reno Co. landfill is located in Quaternary terrace deposits, adjacent to the Arkansas River alluvium. The landfill is excavated into a clay or silty clay layer that overlies the sand-and-gravel aquifer. Salt Creek is in the immediate vicinity of the landfill, and the Arkansas River is within approximately one mile from the landfill. Thus, in my opinion, the location of the landfill is not ideal to say the least. Groundwater movement beneath the landfill is toward the east approximately parallel to Sand Creek and the Arkansas River.

Water from the terrace deposits is considered suitable for most uses but generally is hard. However, the presence of organic compounds in the groundwater samples collected from wells within the landfill property indicate that the landfill's leachate is affecting the groundwater quality. Analysis of water samples collected in the 1990s indicate that 23 volatile organic compounds were present in the water from monitoring wells in and around the landfill. Of these 23, 1,1-dichloroethane, tetrachloroethylene, trichloroethylene, and vinyl chloride were detected at concentrations larger than Kansas and Federal drinking-water regulations allow according to the above-cited report. The organic compounds that exceed these regulations were detected in water beneath the landfill. The leachate plume is estimated to proceed directly east from the landfill about 1.5 miles along the groundwater flow paths in the direction of Salt Creek and Arkansas River as of the August 7-8, 1990 sampling date specified in the above-referenced report. Thus in my opinion, based on the above-cited information, it is not prudent to expand this landfill.

Please let us know if you have questions. Thank you.

Sincerely,



Marios Sophocleous
Senior Scientist

PS. The above comments are based on regional geologic conditions and limited information available to the KGS at the time of writing and cannot be used in substitute for a detailed site characterization. Other geologic conditions, not discussed here, or for which the KGS has no knowledge, may affect the viability or safe operation of this facility or property. Geotechnical engineering and design are outside the purview of the KGS. It is the responsibility of the applicant to produce any detailed site characterizations, geotechnical or environmental testing, or design by a licensed professional geologist or engineer to complete the project.



345 Riverview, Suite 520
Wichita, Kansas 67203
tel: 316-660-6700
fax: 316-264-3025

January 29, 2008

Kansas Geological Survey
1930 Constant Ave.
Lawrence, KS 66047-3726

Subject: Construction and Demolition Landfill Expansion
Reno County Landfill, Hutchinson, Kansas

Dear Kansas Geological Survey staff:

We have been retained by the Reno County Solid Waste Department to prepare an application for a landfill permit. One of the requirements for the permit application is to confer with other agencies to determine if they have any information about the proposed site.

The proposed construction and demolition (C&D) landfill would be located on approximately 25 acres in the South half of Section 17, Township 23S, Range 6W in Reno County. A location map and preliminary site layout plan are attached.

As part of the permit, pursuant to K.A.R. 28-29-302(h), we must provide an assessment of the stability of the area with consideration to the following factors: (A) onsite or local conditions that could result in significant differential settling; (B) onsite or local geologic or geomorphologic features; and (C) onsite or local human-made features or events, both surface and subsurface. According to a geotechnical investigation conducted within the proposed waste disposal area in July 2007, no adverse onsite or local soil conditions exist that would result in significant differential settling. In addition, there do not appear to be any notable onsite or local geologic or geomorphologic features or local human-made features or events, either surface or subsurface, which could be detrimental to development of the C&D landfill.

Activities at the site will consist of C&D waste disposal and activities associated with C&D waste disposal including transportation of C&D waste and excavation. We request a response from your agency indicating any issues you may be aware of regarding this proposed land use.

Thank you for your consideration in this matter. If you have any questions about this request, please contact either me at 316-660-6700 or Jim Kriss at (303) 383-2407.



Kansas Geological Survey staff
January 29, 2008
Page 2

Sincerely,

A handwritten signature in black ink, appearing to be 'Monica K. Williams', written over a horizontal line.

Monica K. Williams
Geologist
Camp Dresser & McKee, Inc.

Attachments:

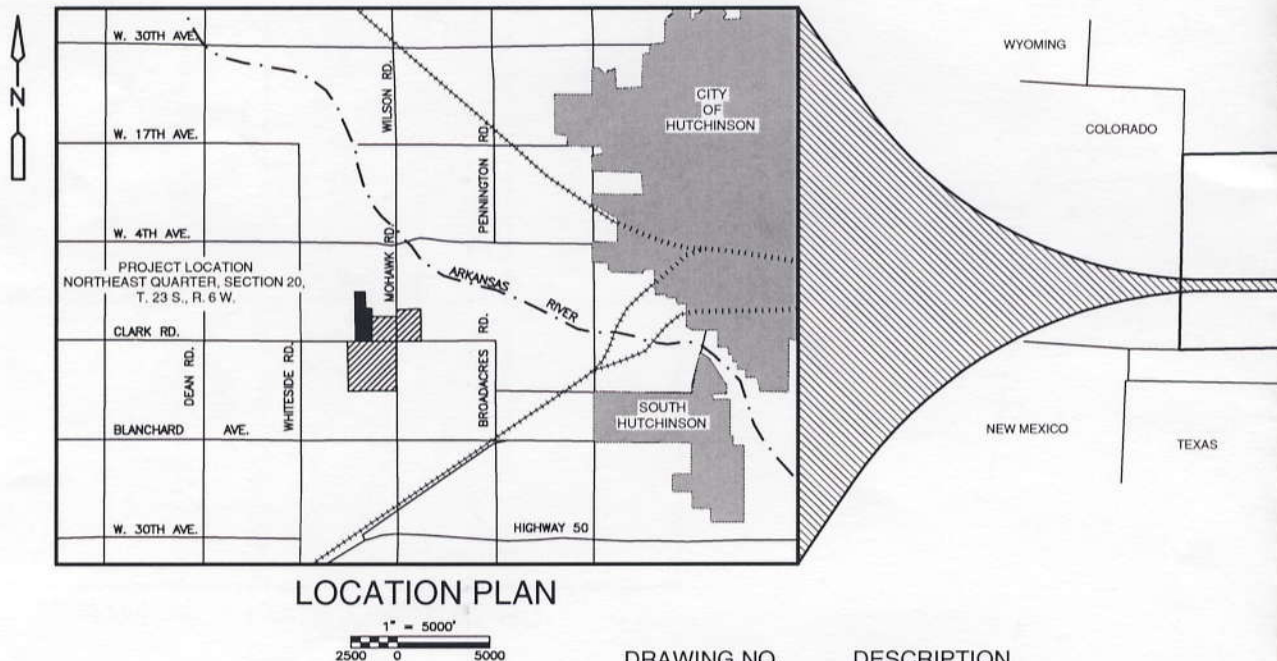
Sheet G-0	Cover Sheet
Sheet C-1	Existing Site Plan
Sheet C-3	Site "E" Development Plan

Reno

SOLID WASTE HUTCHINSON

"SITE E" SOLID WASTE C&D LANDFILL EXPANSION

JANUARY 2008
KDHE PROJECT



LOCATION PLAN

DRAWING NO.

DESCRIPTION

G-0	COVER SHEET
C-1	EXISTING SITE PLAN
C-2	FACILITIES PLAN & PROPERTY INFORMATION
C-3	SITE "E" DEVELOPMENT PLAN
C-4	BASE GRADING PLAN
C-5	FINAL COVER GRADING PLAN
C-6	CROSS SECTIONS
C-7	STORMWATER CONTROL PLAN
C-8	STORMWATER DETENTION BASIN
C-9	DETAILS I
C-10	DETAILS II
P-1	C&D WASTE PLACEMENT PHASE 1-1
P-2	C&D WASTE PLACEMENT PHASE 2-1
P-3	C&D WASTE PLACEMENT PHASE 3-1
P-4	C&D WASTE PLACEMENT PHASE 4-1
P-5	C&D WASTE PLACEMENT PHASE 5-1
P-6	C&D WASTE PLACEMENT PHASE 1-2
P-7	C&D WASTE PLACEMENT PHASE 2-2
P-8	C&D WASTE PLACEMENT PHASE 3-2
P-9	C&D WASTE PLACEMENT PHASE 4-2
P-10	C&D WASTE PLACEMENT PHASE 5-2



DIG SAFE
CALL 1-800-ONE-CALL

CALL 2 (TWO) BUSINESS DAYS IN ADVANCE BEFORE
YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING
OF UNDERGROUND MEMBER UTILITIES

County

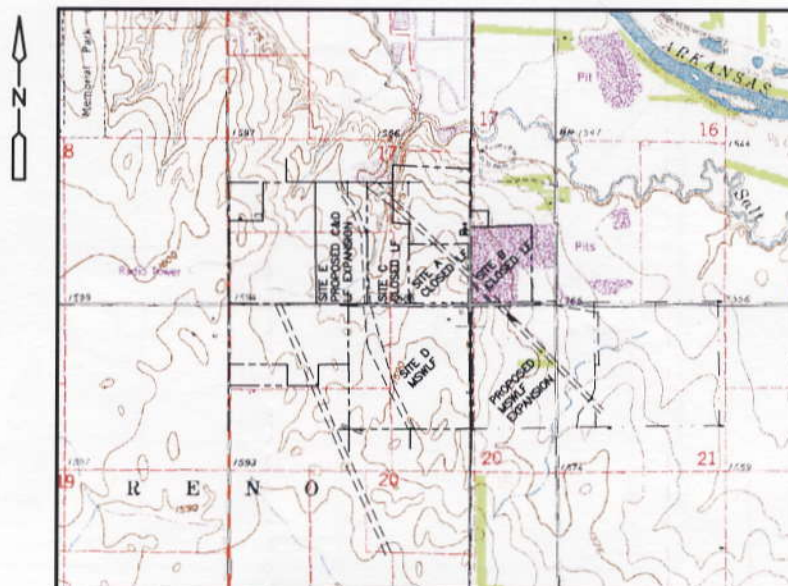
E DEPARTMENT
SON, KANSAS

TE LANDFILL FACILITY

NSION IMPROVEMENTS

ARY 2008

ERMIT #287



USGS TOPOGRAPHICAL MAP

1" = 2000'
1000 0 2000

CDM

Company Dresser & McKee Inc.
Riverview, Suite 520
Hutchinson, Kansas 67206
(316) 660-6700

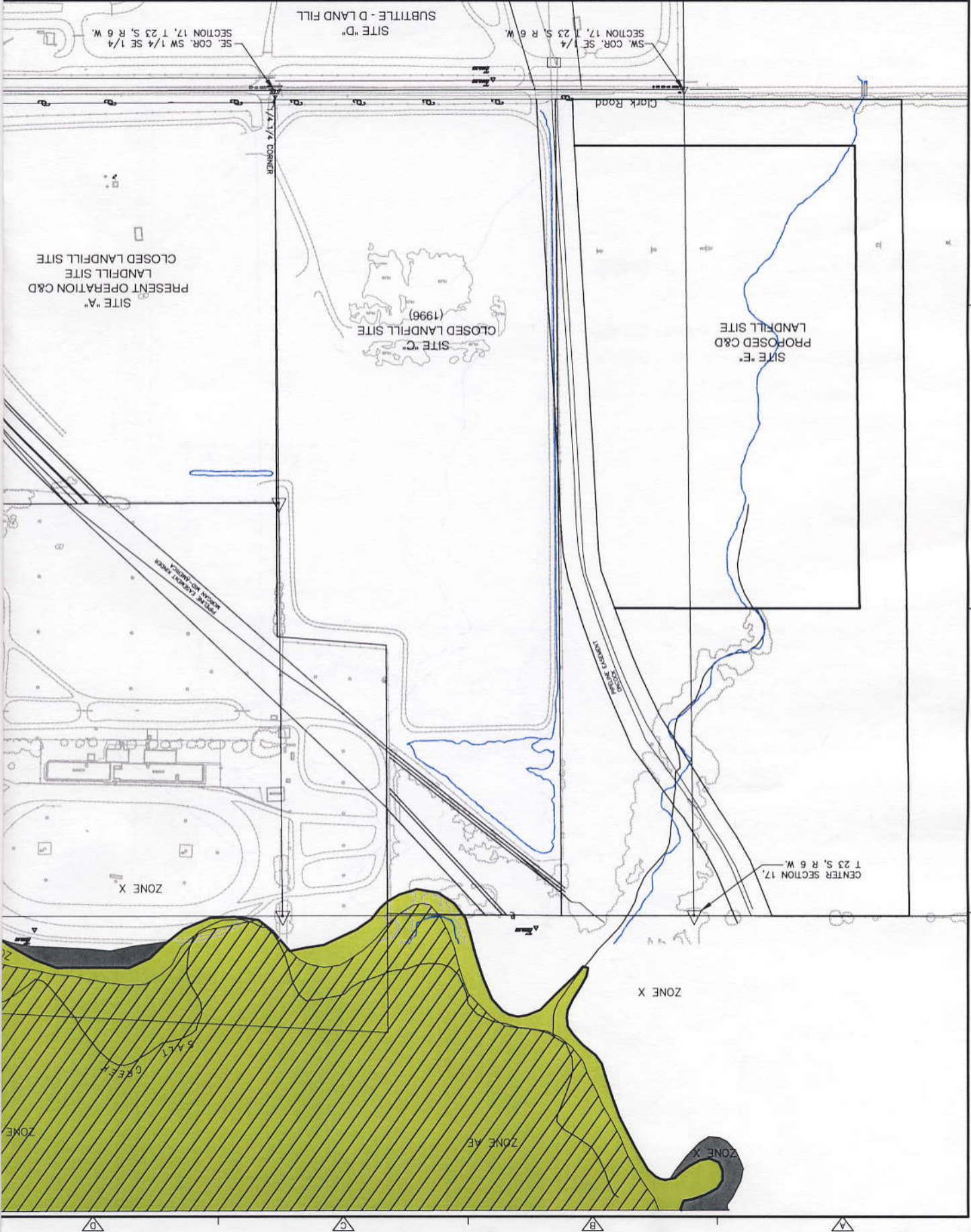
consulting • engineering • construction • operations

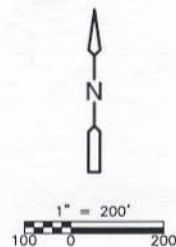
90% SUBMITTAL NOT FOR CONSTRUCTION

REV. NO.	DATE	DRWN	CHKD	REMARKS
1/08	BSZ	JK		90% SUBMITTAL - NOT FOR CONSTRUCTION
11/07	BSZ	JK		30% SUBMITTAL - NOT FOR CONSTRUCTION

DESIGNED BY: M. WILLIAMS
 DRAWN BY: S. ZEILERS
 SHEET CHK'D BY: M. WILLIAMS
 CROSS CHK'D BY: J. KRIS
 APPROVED BY: _____
 DATE: JANUARY 2008

CDM
 Camp Dresser & McKee Inc.
 945 Riverway, Suite 500
 Wichita, Kansas 67208
 Tel: (316) 640-6700
 consulting • engineering • construction • operations





NOTES:

1. CONTOURS TAKEN FROM USGS 1:24000 MAPS DATED 1960. (YAGGY & HUTCHINSON QUADRANGLES.)
2. FLOOD PLAIN DIGITIZED FROM FLOOD INSURANCE RATE MAP - NUMBERS 20155C0267 D & 20155C0290 D EFFECTIVE DATE SEPTEMBER 28, 1990.
3. NEAREST AIRPORT - HUTCHINSON MUNICIPAL AIRPORT IS 8 (EIGHT) MILES EAST AND 1 (ONE) MILE NORTH.
4. NEAREST DRINKING WATER SUPPLY IS A WELL APPROXIMATELY 2800 FEET WEST OF SITE "D".
5. THIS AREA IS IN SEISMIC ZONE "1". "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES", A.N.S.I. A58.1-1982, AMERICAN NATIONAL STANDARDS INSTITUTE, NEW YORK, 1982.
6. GEOLOGY FROM MONITORING WELLS AND TEST WELLS INDICATE NO UNSTABLE SUBSTRATA.
7. NO KNOWN WETLAND AREAS LIE WITHIN THE LANDFILL BOUNDARIES.

FLOOD INFORMATION LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

 ZONE AE - Base flood elevations determined

 FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

 ZONE X - Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

OTHER AREAS

 ZONE X - Areas determined to be outside 500-year flood plain.

Flood Plain Information from Flood Insurance Rate Maps (FIRM) numbers 20155C0267 D and 20155C0290 D, effective date September 28, 1990, by Federal Emergency Management Agency.

RENO COUNTY SOLID WASTE DEPARTMENT
HUTCHINSON, KANSAS
C&D LANDFILL EXPANSION IMPROVEMENTS

EXISTING SITE PLAN

PROJECT NO. 8111-57998
FILE NAME:

SHEET NO.

C-1

					DESIGNED BY: J. KRISS	 Camp Dresser & McKee Inc. 345 Riverview, Suite 500 St. Louis, MO 63103 Tel: (314) 664-0700
					DRAWN BY: S. ZEILER	
					SHEET CHK'D BY: M. WILLIAMS	
					CROSS CHK'D BY: J. KRISS	
					APPROVED BY:	
REV	NO.	DATE	DRWN	CHD	REMARKS	DATE: JANUARY 2008
1/08	BSZ			JK	90% SUBMITTAL - NOT FOR CONSTRUCTION	
11/07	BSZ			JK	30% SUBMITTAL - NOT FOR CONSTRUCTION	

