



GARY E. JOHNSON
GOVERNOR

State of New Mexico
ENVIRONMENT DEPARTMENT
Hazardous & Radioactive Materials Bureau
2044 Galisteo Street
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ENTERED



PETER MAGGIORE
SECRETARY

FAX COVER SHEET

Date: 1/12/99
To: BARBARA HODITSCHER
SWRB

Phone: X0596

Fax: 827-0160

From: Carl Will
505-827-1561, ex. 1031
505-827-1544 (fax)

Pages (including cover sheet): 2

Comments:

THIS GRID MAY GIVE YOU A BETTER IDEA OF THE
PNM SWMU SITUATION. OVERALL LEVELS ARE LOW,
KIRBY, OUR RISK ASSESSOR, APPROVED A 210 PPM
CLEANUP LEVEL FOR CHROMIUM. THE HIGHEST
LEVELS THAT REMAIN ARE A COUPLE OF SPOTS
WITH 160 PPM.
I WILL APPROVE THESE LEVELS IF PROTECTIVE
OF GROUNDWATER AND SURFACE WATER WHEN
USED FOR STORMWATER RETENTION.



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SECRETARY

FAX COVER SHEET

Date: 1/12
To: JENNIFER PARKER
GWQB

Phone: X 0523
Fax: 2965

From: Carl Will
505-827-1561, ex. 1031
505-827-1544 (fax)

Pages (including cover sheet): 2

Comments:
THIS GRID GIVES YOU A BETTER IDEA OF THE PNM SWMU SITUATION, KIRBY, OUR RISK ASSESSOR, OK'D A 210 PPM CLEANUP LEVEL. AS YOU CAN SEE, THE HIGHEST LEVELS THAT REMAIN ARE A COUPLE OF SPOTS WITH 160 PPM, I'D LIKE TO APPROVE THIS IF IT IS PROTECTIVE OF GROUNDWATER AND SURFACE WATER (IF USED FOR STORM WATER RETENTION). BARBARA HODITSCHER IS LOOKING AT SURFACE WATER, APP. 110' TO GW.

Figure 5. PERSON NPA Grid Sampling: TOTAL CHROMIUM (mg/Kg)

	A	B	C	D	E	F	G	H	I	J	K
1	18	8.5	3.5	18	37	160	37	78	25	16	28
2	41	29	55	55	220	150	78	160	120	280	4.6
3	29	6.9	18	15	21	39	26	19	16	23	4.2
4	4.7	7.3	13	15	11	20	22	45	10	23	47
5	4.2	5.9	5.4	6.2	11	34	12	8.6	10	28	4
6	25	4.8	7.4	22	14	15	18	30	28	41	29
7	23	6.5	9	6.7	7.7	9.7	19	15	8.3	16	4
8	15	12	8.8	9.3	7.9	8.2	11	8.2	12	33	3.9
9	12	16	14	7.4	12	8.4	15	9.4	4.2	12	3.7
10	44	13	5.5	6.7	5.7	8.1	6.8	9.1	4.7	5	5.6
11	14	3.7	8.4	8.4	7.2	7.2	6.5	7.4	6.8	9.1	4.2
12	10	7.5	11/9.5	5.9	6.6	7.4	7.3	7.8	18	10	7
13	5.5	12	14	9.7	13	8.7	8.7/5.5	7.3	10	16	3
14	3.2	11	6.7	16/13	11	13	4.4	9.2	8.1	16	3.5
15	3.9	5.2	4.6	4.7	8	5.8	4.9	9.1	7.8	19/16	8.4
16					6.5/4.3	4.9	5.2	8.4	13	5.8	11
17					3.8	5.0/5.4	8.6	12	8.5	56	11

TOTAL
EXCAVATED
AREA

A SHELF
4' BELOW
GROUND SURF

6' BELOW
GROUND
SURFACE

NOTES: Black shading indicates area outside sampling grid for NPA
Gray shading indicates area 2 feet higher than base excavation elevation for NPA

Inset A

	D	E
1	2	5
2	41	17

Inset B

	I	J
1	3.48	4
2	76	65

Inset Areas were excavated an additional 2 feet (-6 feet from original NPA) to remove identified hot spots.

Fax to Carl Will, HRMB, 827-1544 (fax)

From Jennifer Parker, GWQB, 827-0523, 827-2965 (fax)

4 pages total

Carl - I talked to Dennis about the PNM question. The 1st attached sheet ~~was~~^{is} our latest copy of the EPA Region 6 Human Health Levels. Total Cr in soil at residential levels = 210, the same as the # you gave me. Therefore, Dennis said yes, GWQB would be concerned about leaving that level in soil.

He agreed you should talk to SWQB 1st & see if they have Cr standards. I ran into Nina Wells in the hallway & got their Cr #'s for you. ^(No soil # just H₂O) They're on the last 2 pages of this fax. Her answer was YES, 210 is way too high. If the site is to be used for storm water runoff, they have to get a NPDES permit which should specify levels that are allowable.

Baird is still assigned to the case, but if I can be of further assistance, let me know.

Jennifer

P.S. No simple formula for calculating GW contam from soil contam. (Too bad!)
 - it can be done from a modeling standpoint, but is time consuming & lots of assumptions

**EPA Region 6
Human Health
Media-Specific Screening Levels**

Contaminant	Chemical Group Name	Cancer Class Risk Level: A/B = 10 ⁻⁴ C = 10 ⁻⁵ Blank = 10 ⁻⁶	Soil Regional Background Conc./Range (mg/kg)	Risk-Based Screening Levels					Soil Screening Level Transfers from Soil to:	
				Drinking Water (MCL's)	Tap Water (Residential Scenario: Ingestion, & Inhalation)	Ambient Air (Residential Scenario)	Fish (Recreational Fishing Scenario)	Soil (Ingestion, Inhalation, and Dermal Exposure Routes)		
				µg/L	µg/L	µg/m ³	mg/kg	Residential mg/kg	Industrial mg/kg	Air mg/kg

p-Chloronitrobenzene 2-Chlorophenol 2-Chloropropane	SVOC				0.59 C I 180 N 170 N	0.35 C 18 N 100 N	0.18 C 6.8 N	25 C 330 N 350 N	110 C 3400 N 1300 N	53000 E 22 N	2 E 0.64 N
Chlorothalonil o-Chlorotoluene Chlorpropham	PEST PEST				61 C 120 N 7300 N	0.57 C 73 N 730 N	0.29 C 27 N 270 N	41 C 340 N 13000 N	171 C 1600 B 8AT	1200 N	5.6 N
Chlorpyrifos Chlorpyrifos-methyl Chlorzulfuron	PEST PEST PEST				110 N 370 N 1800 N	11 N 37 N 180 N	4.1 N 14 N 68 N	200 N 650 N 3300 N	2000 N 6800 N 14000 N		
Chlorthoxyfos Total Chromium (1/6 ratio Cr VI/Cr III) Chromium VI and compounds		A	3I	100	29 N 37000 NI 180 N	2.9 N 0.0021 N 0.00015 C	1.1 N 1400 N 6.8 C	52 N 210 N 31 C	590 N 1600 N 230 C	140 E	19 E
Coal tar Cobalt Coke Oven Emissions	PEST	A	I		2200 NI	0.0028 C 220 N 0.0029 C	81 N	4700 NI	8AT		
Copper and compounds Crotonaldehyde Cumene		C	20		1400 N 0.005 C 19 N	150 N 0.039 C 9.4 N	54 N 0.017 C 54 N	2800 N 0.1 C 49 N	63000 N 0.3 C 160 N	81 N	65 N

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NMED GROUND WATER BUREAU

FAX NO. 505 8272965

P. 02

JAN 23 AM 9:47

3101. STANDARDS¹ APPLICABLE TO ATTAINABLE OR DESIGNATED USES UNLESS OTHERWISE SPECIFIED IN SUBPART II OF THESE STANDARDS (SECTIONS 2100 through 2805).

A. Coldwater Fishery: Dissolved oxygen shall not be less than 6.0 mg/l, temperature shall not exceed 20 C (68 F), and pH shall be within the range of 6.6 to 8.8. The acute and chronic standards set out in Section 3101.J are applicable to this use. The total ammonia standards set out in Section 3101.N are applicable to this use.

B. Domestic Water Supply: Waters designated for use as domestic water supplies shall not contain substances in concentrations that create a lifetime cancer risk of more than one cancer per 100,000 exposed persons. The following numeric standards shall not be exceeded:

Dissolved arsenic	0.05	mg/l
Dissolved barium	1.	mg/l
Dissolved cadmium	0.010	mg/l
Dissolved chromium	0.05	mg/l
Dissolved lead	0.05	mg/l
Total mercury	0.002	mg/l
Dissolved nitrate (as N)	10.	mg/l
Dissolved selenium	0.05	mg/l
Dissolved silver	0.05	mg/l
Dissolved cyanide	0.2	mg/l
Dissolved uranium	5.0	mg/l
Radium-226 + radium-228	30.0	pCi/l
Tritium	20,000	pCi/l
Gross alpha	15	pCi/l

C. High Quality Coldwater Fishery: Dissolved oxygen shall not be less than 6.0 mg/l, temperature shall not exceed 20 C (68 F), pH shall be within the range of 6.6 to 8.8, total phosphorus (as P) shall not exceed 0.1 mg/l, total organic carbon shall not exceed 7 mg/l, turbidity shall not exceed 10 NTU (25 NTU in certain reaches where natural background prevents attainment of lower turbidity), and conductivity (at 25 C) shall not exceed a limit varying between 300 μ mhos/cm and 1,500 μ mhos/cm depending on the natural background in particular stream reaches (the intent of this standard is to prevent excessive increases in dissolved solids which would result in changes in stream community structure). The acute and chronic standards set out in Section 3101.J are applicable to this use. The total ammonia standards set out in Section 3101.N are applicable to this use.

D. Irrigation: The monthly geometric mean of fecal coliform bacteria shall not exceed 1,000/100 ml; no single sample shall exceed 2,000/100 ml. The following numeric standards shall not be exceeded:

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JAN DEC 23 AM 8:47

Dissolved aluminum	5.0	mg/l
Dissolved arsenic	0.10	mg/l
Dissolved boron	0.75	mg/l
Dissolved cadmium	0.01	mg/l
Dissolved chromium	0.10	mg/l
Dissolved cobalt	0.05	mg/l
Dissolved copper	0.20	mg/l
Dissolved lead	5.0	mg/l
Dissolved molybdenum	1.0	mg/l
Dissolved selenium	0.13	mg/l
Dissolved selenium in presence of >500 mg/l SO ₄	0.25	mg/l
Dissolved vanadium	0.1	mg/l
Dissolved zinc	2.0	mg/l

E. Limited Warmwater Fishery: Dissolved oxygen shall not be less than 5 mg/l, pH shall be within the range of 6.5 to 9.0, and on a case by case basis maximum temperatures may exceed 32.2 C. The acute and chronic standards set out in Section 3101.J are applicable to this use. The total ammonia standards set out in Section 3101.M are applicable to this use.

F. Marginal Coldwater Fishery: Dissolved oxygen shall not be less than 6 mg/l, on a case by case basis maximum temperatures may exceed 25 C and the pH may range from 6.6 to 9.0. The acute and chronic standards set out in Section 3101.J are applicable to this use. The total ammonia standards set out in Section 3101.N are applicable to this use.

G. Primary Contact: The monthly geometric mean of fecal coliform bacteria shall not exceed 200/100 ml, no single sample shall exceed 400/100 ml, pH shall be within the range of 6.6 to 8.8 and turbidity shall not exceed 25 NTU.

H. Warmwater Fishery: Dissolved oxygen shall not be less than 5 mg/l, temperature shall not exceed 32.2 C (90 F), and pH shall be within the range of 6.5 to 9.0. The acute and chronic standards set out in Section 3101.J are applicable to this use. The total ammonia standards set out in Section 3101.M are applicable to this use.

I. Fish culture, secondary contact, and municipal and industrial water supply and storage are also designated in particular stream reaches where these uses are actually being realized. However, no numeric standards apply uniquely to these uses. Water quality adequate for these uses is ensured by the general standards and numeric standards for bacterial quality, pH, and temperature which are established for all stream reaches listed in Subpart II of these standards (Sections 2100 through 2805).