



# CITY OF SACRAMENTO

## DEPARTMENT OF PUBLIC WORKS

SOLID WASTE DIVISION

JOHN F. BOSS  
Solid Waste Division Manager

July 15, 1986

Transportation and Community Development Committee  
Sacramento, California

Honorable Members in Session:

SUBJECT: WATER QUALITY ISSUES ASSOCIATED WITH THE EXISTING LANDFILL - QUARTERLY REPORT

### SUMMARY

Based upon the updated water quality monitoring program and a comparison of water quality data between 1985 and 1986, staff is intending to expand the existing ground water monitoring network at the landfill. This proposed expansion will meet three objectives:

1. Replace two currently inadequate monitoring wells.
2. Help determine if there is a horizontal (southerly) spread of contaminated ground water, and
3. Determine the potential for the downward spread of contamination.

### BACKGROUND

On June 10, 1986 the City Council approved the closure plan for the 28th Street Landfill. This closure plan included an updated ground and surface water monitoring program that had been previously agreed to by Regional Water Quality Control Board (Regional Board) staff. This revised monitoring program will be incorporated into a Regional Board Order, probably within the next two to three months. Staff, however, initiated this program in the 1st Quarter of 1986.

A comparison of the water quality data (see attachment 1) between the first two Quarters of 1985 and 1986 for wells north and south of the landfill (see attachment 2) indicate that the variation in concentrations of the contaminants is heavily influenced by the stage levels of the adjacent American River. This year's data shows that the contaminant levels were usually higher in the southerly wells and lower in the northerly wells compared to the data from the same period last year. Vinyl chloride (VC) was the biggest exception to this trend, since it actually decreased by 64 percent in the southern wells. However, a closer evaluation of the vinyl chloride data shows that Well C-7's vinyl chloride concentrations increased from 0.58 ppb to 3.7 ppb following the

Transportation and Community Development  
July 15, 1986  
Page two

February rains. Also, a shallow borehole that was drilled approximately 100 feet south of I-80 contained, on 1 April 1986, 5.4 ppb of vinyl chloride. Based on this data staff is considering the installation of additional monitoring wells to the south of the landfill, either upon the I-80 right-of-way and/or the private property to the south. Also, staff intends to replace existing Wells 5 and 6 (which are both too shallow to be of use during low ground water conditions) with a deeper monitoring well and to install a well cluster, consisting of a deep well and a shallow well in close proximity to each other. This cluster well will allow staff to determine if a vertical gradient exist at the site and if the migration of contaminants to deeper levels has occurred. Staff is in the process of developing this program, in concert with the Regional Board, and intend to contract out the installation of these wells in late summer or early fall.

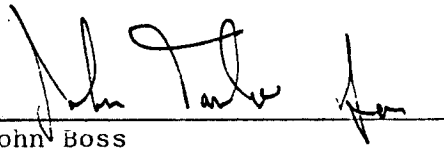
#### FINANCIAL

There is no fiscal impact to the City.

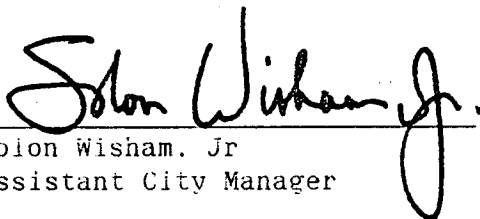
#### RECOMMENDATION

This report is for Committee information only.

Respectfully submitted.


  
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John Boss  
Solid Waste Division Manager

APPROVED FOR COMMITTEE INFORMATION:

  
\_\_\_\_\_  
Soion Wisham, Jr.  
Assistant City Manager

JB/tc

APPROVED:

  
\_\_\_\_\_  
Mevin H. Johnson  
Director, Public Works

Attachments:

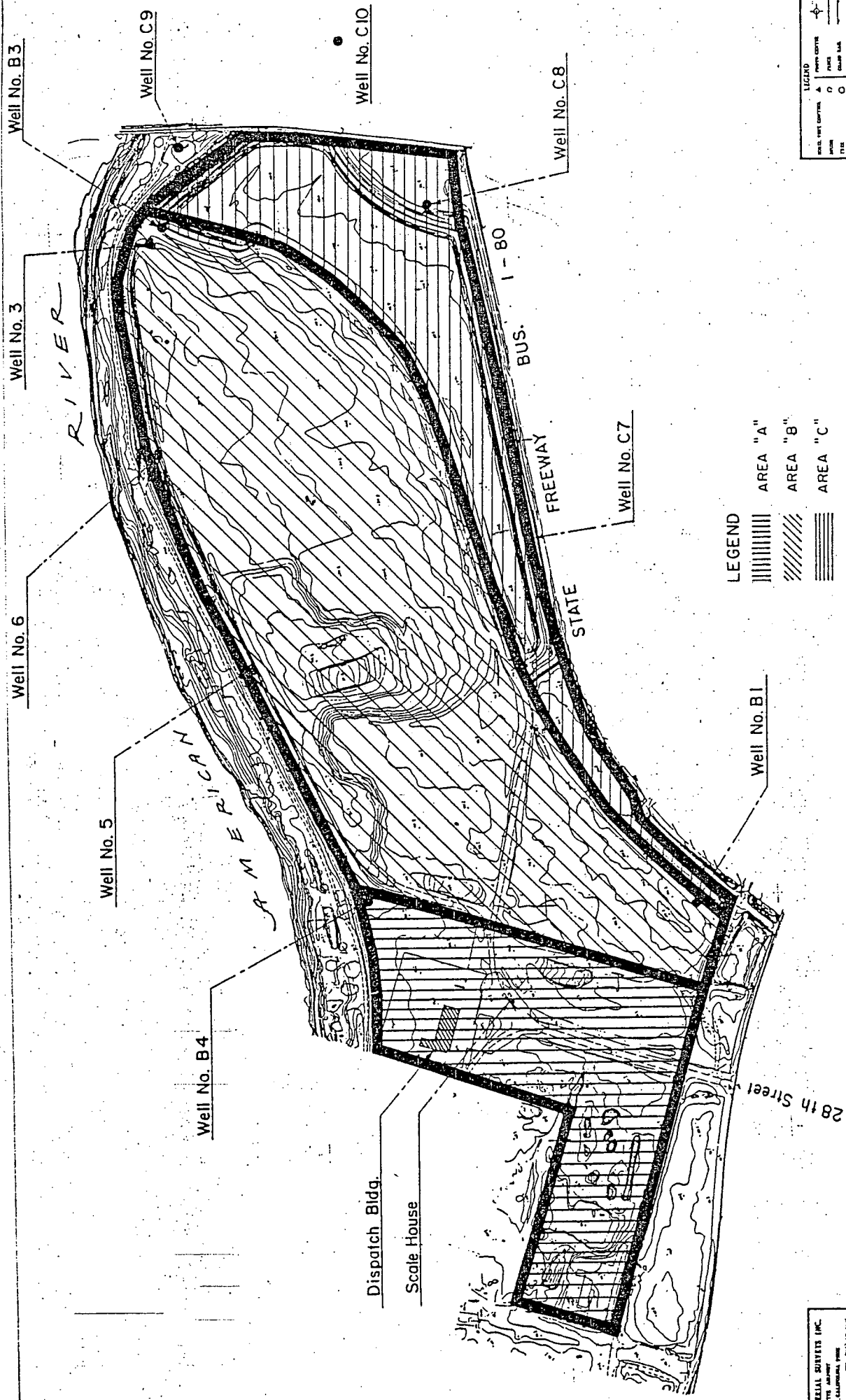
- 1 - North/South Well Comparison
- 2 - Map of Monitoring Wells

Attachment 1

North/South WELL COMPARISON of Constituent Concentrations  
(1st and 2nd Quarters of 1985 and 1986)

Wells	North			South		
Constituent \ Date	'85	'86	Δ%	85	86	Δ%
EC	889	631	-29	735	874	+19
Iron	91	24	-74	42.8	24.8	-42
COD	22.6	22.1	-2	32.1	25.5	-20
Chlorides	27.8	9.2	-67	52.8	70	+32
Hardness	359	244	-32	300	401	+34
Vinyl Chloride	3.24	3.47	+7	5.75	2.01	-65

- Note: 1. North Wells - 3 & 4  
2. South Wells - 1 & 2 (C7)  
3. Concentrations in mg/l except for vinyl chloride in ppb.



LEGEND

WELL CENTER	▲
WELL CAP	○
WELL SHAFT	○
WELL HEAD	○
WELL BENCH MARK	+
WELL CENTER	▲
WELL CAP	○
WELL SHAFT	○
WELL HEAD	○
WELL BENCH MARK	+

LEGEND

AREA "A"	
AREA "B"	////
AREA "C"	====

REVISIONS

NO.	DATE	BY	DESCRIPTION

CITY OF SACRAMENTO  
 DEPARTMENT OF PUBLIC WORKS  
 CITY LANDFILL SITE  
 MAP OF PROPERTY

DWG. NO. 1.5-4

SCALE: HORIZONTAL 1"=100' VERTICAL 1"=50'

DESIGNED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

BENCH MARK

NO.	DATE	BY	DESCRIPTION

ATTACHMENT 2  
 MAP OF MONITORING WELLS

CARTWRIGHT AERIAL SURVEYS INC.  
 1500 11th Street, Sacramento, CA 95811  
 TEL: (916) 441-7400  
 CITY OF SACRAMENTO  
 1800 11th Street, Sacramento, CA 95811  
 TEL: (916) 441-7400