15

CITY COUNCIL MEETING
DECEMBER 16, 1987

ALLOCATION OF FUNDS APPROVED TO EVALUATE THE EFFECT OF THE DEPARTMENT OF HEALTH SERVICES ESTABLISHING NEW STANDARDS FOR DIBROMOCHLOROPROPANE (DBCP)

CC-6
CC-24
CC-183(a)

Council approved the allocation of funds ($17,200 from the Water Utility Reserve Funds) to evaluate the effect of the Department of Health Services establishing new standards for dibromochloropropane.

In August 1987, the City of Lodi was made aware of the Department of Health Services (DHS) intention to establish a Maximum Contamination Level (MCL) for Dibromochloropropane (DBCP).

Due to the potential impact of any MCL being established below the current Action Level (AL) of 1 part per billion (ppb) a Request for Proposal (RFP) was developed and sent to several expert engineering firms that have dealt with similar underground contamination problems.

The RFP covered the following areas:

* Review any and all options available in the event any City well violates a DBCP MCL established by DHS.

* Review and summary of existing DBCP data on all City wells.

* Analysis of options and costs to eliminate and/or reduce DBCP levels, based on DHS establishing a MCL of 0.5 ppb.

* Analysis of options and costs to eliminate and/or reduce DBCP levels, based on DHS establishing a MCL for DBCP of 0.1 ppb.

* The options and cost estimates need not be site specific, but should include capacity information to help the City evaluate future courses of study.

The City received the following four proposals:

| | |
|---|---|
| ERM-West, Rancho Cordova | $ 5,700 |
| Brown & Caldwell, Sacramento | $14,200 |
| Black & Veatch, Walnut Creek | $22,000 + |
| McLaren Engineering, Rancho Cordova | $30,000 + |

With the assistance of Mr. Frank Beeler, Laboratory Services supervisor, a comprehensive and in-depth review of the four proposals was undertaken. The primary purpose of the review was to determine the following:

* Experience with similar underground contamination problems;
* Expertise of staff relating to DBCP:
* Relationship with DHS on DBCP issues;
* In-depthness of proposed study; and
* In the best interest of the City of Lodi.

This review has concluded that Brown and Caldwell should be selected for the tasks outlined in their proposal at a cost of $14,200.

A member of DHS's Administrative Staff, recently stated, "All of DHS's research is zeroing in on a DBCP MCL of 0.1 ppb". This would place 10 of our 19 wells in violation of DHS's health standards. This along with the fact that the City can't find a second well site on the eastside without DBCP contamination, it is felt that there is an urgent need to complete this study as soon as possible.

It is recommended that $17,200 ($3,000 for recommended sampling) be allocated from the Water Utility Reserve Funds to commence this study.

# CITY OF LODI

PUBLIC WORKS DEPARTMENT

## COUNCIL COMMUNICATION

TO: City Council

FROM: City Manager

MEETING DATE: December 16, 1987

AGENDA TITLE: Approve Allocation of Funds to Evaluate the Effect of the Department of Health Services Establishing New Standards for Dibromochloropropane (DBCP)

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BACKGROUND INFORMATION: In August 1987, the City of Lodi was made aware of the Department of Health Services (DHS) intention to establish a Maximum Contamination Level (MCL) for Dibromochloropropane (DBCP).

Due to the potential impact of any MCL being established below the current Action Level (AL) of 1 part per billion (ppb) a Request for Proposal (RFP) was developed and sent to several expert engineering firms that have dealt with similar underground contamination problems.

The RFP covered the following areas:

- Review any and all options available in the event any City well violates a DBCP MCL established by DHS.
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APPROVED: Thos. A. Peterson

THOMAS A. PETERSON, City Manager

FILE NO.

The City received the following four proposals:

| | |
|---|---|
| ERM-West, Rancho Cordova | $ 5,700 |
| Brown & Caldwell, Sacramento | 14,200 |
| Black & Veatch, Walnut Creek | 22,000 + |
| Mc Laren Engineering, Rancho Cordova | 30,000 + |

With the assistance of Mr. Frank Beeler Laboratory Services Supervisor, a comprehensive and in-depth review of the four proposals was undertaken. The primary purpose of the review was to determine the following:

- Experience with similar underground contamination problems;
- Expertise of staff relating to DBCP;
- Relationship with DHS on DBCP issues;
- In-depthness of proposed study; and
- In the best interest of the City of Lodi.

This review has concluded that Brown and Caldwell should be selected for the tasks outlined in their proposal (Exhibit A) at a cost of $14,200.

A member of DHS's Administrative Staff, recently stated, "All of DHS's research is zeroing in on a DBCP MCL of 0.1 ppb". This would place 10 of our 19 wells in violation of DHS's health standards. This along with the fact that the City can't find a second well site on the eastside without DBCP contamination, it is felt that there is an urgent need to complete this study as soon as possible.

It is recommended that $17,200 ($3,000 for recommended sampling) be allocated from the Water Utility Reserve Funds to commence this study.

Jack L. Ronsko
Public Works Director

JLR/FEF:sls

Attachment

cc: Water/Wastewater Superintendent
Laboratory Services Supervisor

Exhibit A

BROWN AND CALDWELL
CONSULTING ENGINEERS

40th Anniversary 1947-1987
Service • Excellence • Efficiency

October 15, 1987

Mr. Jack L. Ronsko
Public Works Director
City of Lodi
221 West Pine Street
Call Box 3006
Lodi, California 95241-1910

017-9980-01

Subject: Proposal to Study the City of Lodi's Options in Reducing Dibromochloropropane (DBCP) Levels in the Water Supply

Dear Mr. Ronsko:

The City of Lodi needs to properly assess what action to take in reducing DBCP in Lodi's water supply to levels that will satisfy the California Department of Health Services (DHS). DHS currently intends to propose a maximum contaminant level (MCL) of 0.1 part per billion (ppb) for drinking water drawn from groundwater sources. The proposed MCL is being internally reviewed by DHS prior to holding a public hearing(s). Brown and Caldwell is pleased to submit this proposal to conduct a study that will enable the City of Lodi (City) to develop a sound course of action that will ensure compliance with the new regulation. The direction of our study will be to explore the City's options and costs in meeting the proposed MCL of 0.1 ppb or an MCL of 0.5 ppb in the event the public hearing process is successful in raising the concentration limit.

This letter outlines Brown and Caldwell's projected scope of work, identifies our project team, and summarizes the cost. Brown and Caldwell is experienced in hydrogeologic evaluations and is knowledgeable about treatment alternatives and nontreatment alternatives such as blending, well rehabilitation, and well replacement. A list of references, related experience, and complete project team resumes are included as an enclosure at the end of this letter proposal.

**Work Scope**

We propose to conduct the work as described in the following tasks.

**Task 1--Hydrogeologic Evaluation.** We will review and analyze the City's existing data on DBCP levels in city wells and data on recent strata testing. Historical, seasonal, areal and stratigraphic trends will be identified. We expect that DBCP in groundwater is being flushed south and west towards the San Joaquin River. It may

be possible to determine the rate at which DBCP levels are naturally decreasing, and estimate the time at which problem wells will achieve acceptable levels. Problem wells may then be identified as long- or short-term considerations.

We also expect to identify and quantify seasonal variations in DBCP levels. Leaching of DBCP from the soil and accumulation of groundwater in acquifers during rainy months probably results in increased levels in late winter and spring, versus decreased levels in late summer and fall. These variations, if significant, might impact compliance with the new MCL on a year-round basis and may also impact any blending scheme.

Identifying areal and stratigraphic clean/unclean zones will be important in evaluating well rehabilitation and well replacement options.

**Task 2--Water Supply Distribution System Analysis.** According to DHS, the MCL must be met at the point of distribution to customers. We will examine DBCP levels at the 20 bacteriological examination points DHS already accepts as representative of the City's distribution system. It is likely that water supplied to customers is already under 0.5 ppb DBCP and may be under 0.1 ppb DBCP. If water supplied to customers does meet the new MCL, DHS would require the City to establish the mechanics of the blending process and commit to quarterly monitoring of City wells and monthly monitoring of distribution points. We will negotiate with DHS to accept the 20 bacteriological examination points as sufficient for monitoring DBCP in the distribution system and determine what DHS considers will establish the mechanics of blending.

**Task 3--Blending, Well Rehabilitation, Well Replacement, and/or Treatment Analyses.** In the event the distribution system fails to meet levels of 0.5 or 0.1 ppb, we will explore the effectiveness and costs of the following options. Some of the features of these options are:

1. **Blending Study.** This separate study would evaluate the feasibility of manipulating blending from existing wells in their present condition to enable the distribution system to meet the MCL. This would involve computer modeling of the distribution network using information about pumping capacity, discharge amounts, and the distribution network layout. A blending study would not be done as part of the scope of work proposed her. If blending appears to be the preferred option, the cost of doing the study will be presented to the City.

2. **Well Rehabilitation.** If clean water-bearing zones (identified in Task 1) are present at a well site, it may be possible to rehabilitate the well by (1) packing off unclean water-bearing zones or (2) by drilling deeper so that water with an acceptable DBCP level is produced.

3. **Well Replacement.** Promising replacement well locations will be identified based on (1) clean areal and stratigraphic water-bearing zones identified under Task 1 and (2) existing legal constraints to well locations.

4. **Treatment.** Technologies available to treat DBCP are (1) air stripping, (2) carbon adsorption, (3) ultraviolet/$O_3$ treatment, and (4) ultraviolet/$H_2O_2$ treatment.

Brown and Caldwell's report for the City will include:

1. Our assessment of the hydrogeologic trends identified in Task 1.

2. Specific information that will enable the City to satisfy DHS in the event the water supply currently meets the MCL.

3. Cost comparison of the alternatives discussed in Task 3.

4. Recommendations as to which course(s) of action appears most promising.

5. Cost estimate to perform a blending analysis, if blending appears to be the most promising.

Data needed to accomplish the study will include (1) a well location map, (2) well construction and geologic logs, (3) pumping capacity information, (4) information about the hydraulics of the water distribution system, (5) laboratory analyses of DBCP concentrations in City wells, and (6) laboratory analyses of DBCP concentrations at selected distribution points.

**Project Team**

Our project team to perform the described work will include the experienced personnel identified below from our Sacramento and Pleasant Hill offices:

James A. Yost, Principal-in-Charge
Lawrence E. Phillips, Project Manager/Geologist
Joseph M. Wong, Project Engineer
Jeanne S. Wallberg, Project Geologist

**James A. Yost--Principal-in-Charge.** Mr. Yost is vice president and manager of Brown and Caldwell's Sacramento office. He will represent the firm in contractual matters and will be responsible for overall performance of the work by Brown and Caldwell. He has over 16 years of professional experience and is currently serving as principal-in-charge for a similar study being conducted for the Del Este Water Company in Modesto.

**Lawrence E. Phillips--Project Manager/Geologist.** Mr. Phillips is a principal hydrogeologist in the Sacramento office of Brown and Caldwell. He is a registered geologist with a B.S. in geology from Eastern New Mexico University. He has been project manager on numerous projects involving the identification and remediation of hazardous material spills, leaks, or discharges. His experience includes the identification of various hazardous waste products in soil and groundwater sites in Lodi, Stockton, and Tracy in San Joaquin County, as well as numerous other sites throughout California.

In direct connection with the above projects, Mr. Phillips has established good working relationships with the regulatory agencies. He has worked closely with the San Joaquin County Health District. As a result, he is familiar with many of the local regulations. Additionally, he has worked extensively with the DHS, branches of the California Regional Water Quality Control Board, and various local health districts.

**Joseph M. Wong--Project Engineer.** Mr. Wong is an expert in water treatment, with special emphasis on organics and hazardous materials removal. Recent pertinent project experience has included study and design of air stripping and carbon adsorption systems for contaminated groundwater treatment at several gasoline stations; feasibility and cost studies for contaminated groundwater treatment at a wood treatment site; wastewater treatment study for a pesticides manufacturing plant; and organics removal from wastewater at a solvent recovery plant. Mr. Wong also recently served as an expert reviewer for three technical reports on DBCP removal technology and costs for DHS. These reports will serve as technical feasibility documentation for setting MCLs for DBCP in drinking water and have not been released to the public.

**Jeanne S. Wallberg--Project Geologist.** Ms. Wallberg is experienced in groundwater and hazardous waste investigations. She has worked on projects involving sampling of soil and groundwater for various contaminants, analyses of hydrogeologic data, interpretation of contamination plumes in groundwater, and research and determination of regional and local hydrogeology. She has also worked successfully with California regulatory agencies on behalf of clients.

**Cost Summary**

The estimated cost to do the described work is $14,200, and we offer to complete the work for the estimated amount. The estimated cost is based on the following.

| | |
|---|---|
| Labor | $13,700 |
| Travel | 100 |
| Reproduction | 100 |
| Communication | 75 |
| Computer time | 125 |
| Total | $14,200 |

Brown and Caldwell is currently conducting a hydrogeologic investigation at the ARCO station on Kettleman Lane and Hutchins Street in Lodi. ARCO has indicated to us that they consider there is no conflict of interest in Brown and Caldwell working for the City.

We are prepared to begin the study immediately. We are enclosing a copy of our Standard Terms and Conditions. If you are in agreement with the approach and cost outlined in our proposal, please return a signed copy of this letter as an indication of your authorization to proceed.

We look forward to working with the City of Lodi. Please call Larry Phillips or me at (916) 444-0123 if you have any questions or need additional information.

Very truly yours,

BROWN AND CALDWELL

James Yost

James A. Yost
Vice President

JAY:JSW:mrp
Enclosures (2)

ACCEPTED FOR THE CITY OF LODI:

_____
Name

_____
Title

_____
Date

shall BOBS be entitled to any compensation for the services to be performed by its members on behalf of CITY.

It is acknowledged and agreed that the Director of CITY'S Park & Recreation Department shall be the authorized person to assign and direct the members of BOBS in their participation of the sports and recreation program of CITY.

CITY agrees that while any of the members of BOBS are participating in the sports and recreation program of CITY pursuant to this Agreement, that member shall be indemnified and held harmless from any suit, claim or liability that may or might be filed against that member similar to the coverage provided to any other volunteer or employee of CITY.

CITY agrees to hold BOBS, it officers and directors free from any suit, action or claim for damage, up to a maximum of $250,000.00, that may or might be filed by reason of injury to participants in CITY'S sports and recreation programs, which program may at that particular time be under the direction or supervision of a member of BOBS.

CITY does hereby grant to BOBS the exclusive right to operate the food and beverage concession at Salas Park, Kofu Park and at such other public places as may be permitted by the Director of CITY'S Parks and Recreation Department. BOBS does hereby agree that the net proceeds received from the sale of food, beverage and merchandise as said concession stands shall be used by them in carrying on the CITY'S recreational programs and shall make the funds available for disbursement upon the mutual agreement of BOBS and the Director of CITY'S Parks and Recreation Department.

BOBS agrees to maintain in full force during the time that they are operating said food concession stands, a liability insurance policy in the minimum sum of $500,000.00 which shall name the City of Lodi as an additional insured and under which policy the insurer agrees to indemnify and hold the BOBS and City of Lodi harmless from and against all costs, expenses and liability arising out of or based upon any damages claimed by any person purchasing food from said concession stands. In addition to the additional named insured endorsement on BOBS'

policy of insurance, said insurance policy shall be endorsed to include the following language:

> A duplicate or certificate of said insurance policy containing the above-stated required endorsements shall be delivered to the City Attorney after the issuance of said policy, with satisfactory evidence that the carrier is required to give the City of Lodi at least 30 days prior notice of the cancellation or reduction in coverage of the policy during the effective period of this Agreement. If there has been no such delivery within 48 hours prior to the expiration date of the policy, this Agreement shall be null and void.

CITY agrees that BOBS may conduct their business and have as its principal place of business such office facilities as may be furnished by CITY, free of charge to BOBS.

This Agreement may be terminated by either party upon the giving of a written 30 day notice to the other party.

IN WITNESS WHEREOF, the parties hereto have set their hands as of the day and year first hereinabove written.

ATTEST:

City Clerk

CITY OF LODI

By_____
Mayor

Hereinabove called "CITY"

Approved as to Form

RONALD M. STEIN
City Attorney

BOOSTERS OF BOYS AND GIRLS SPORTS

By_____
Pres.

Hereinabove called "BOBS"