



BRACEWELL ENGINEERING, INC.

6239 COLLEGE AVE., SUITE 202, OAKLAND, CA 94618
(510) 547-8205 FAX (510) 547-8208

November 14, 2002

Ms. Betsy S. Lichti, P.E.
District Engineer Monterrey District
State Department of Health Services
Drinking Water Field Operations Branch
1 Lower Ragsdale, Building 1, Suite 120
Monterey, CA 93940

Re: Comments to Response to Citation No. 02-05-02C-010, San Juan Bautista Water System

Dear Ms. Lichti:

Bracewell Engineering, Inc. (BEI) is providing, on behalf of the City of San Juan Bautista (City), information requested in your comments to our response to Citation 02-05-02C-010 (Citation) dated October 7, 2002. The provided information will be numbered to match those in your letter.

Source Capacity vs Demand Analysis

1. The Peak Demand in our previous analysis of source capacity versus demand is a maximum day demand. We read the flow meters at the well heads several times each week but do not have any hourly demand data. At the suggestion of Jan Sweigert we read the flow meter a 6 A.M. and at 9 A.M. one day to develop a "peaking factor" which we can use for a peak hour demand analysis. Based on this method we determined a peak hour factor of 1.4. We then developed the attached peak hour demand analysis (see Table 1).
2. The analysis started with the historical demand data and projected demand based on the outstanding building permits and planned development projects in San Juan Bautista. From these we determined a water usage increase of 23,000 gallons per day (gpd) in 2003, 15,000 gpd in 2004, 10,000 gpd in 2005 and 10,000 gpd in 2006. The previous analysis of peak demand projection did not include a maximum day peaking factor applied to the demand caused by the projected population increase. Based on the historical data, a maximum day peaking factor was determined and applied to the projected future increase in maximum day demand. A corrected demand projection is attached.

Well 3 Operations Plan

Well 3 Operations Plan has been modified to incorporate your comments and a copy is attached.

We will monitor Well 3 quarterly for coliform.


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Emergency Notification Plan

The Emergency Notification Plan has been changed to incorporate your comments and a copy is attached.

Please do not hesitate to contact me at (510) 547-8163 if you have any questions.

Respectfully submitted,
BRACEWELL ENGINEERING, INC.



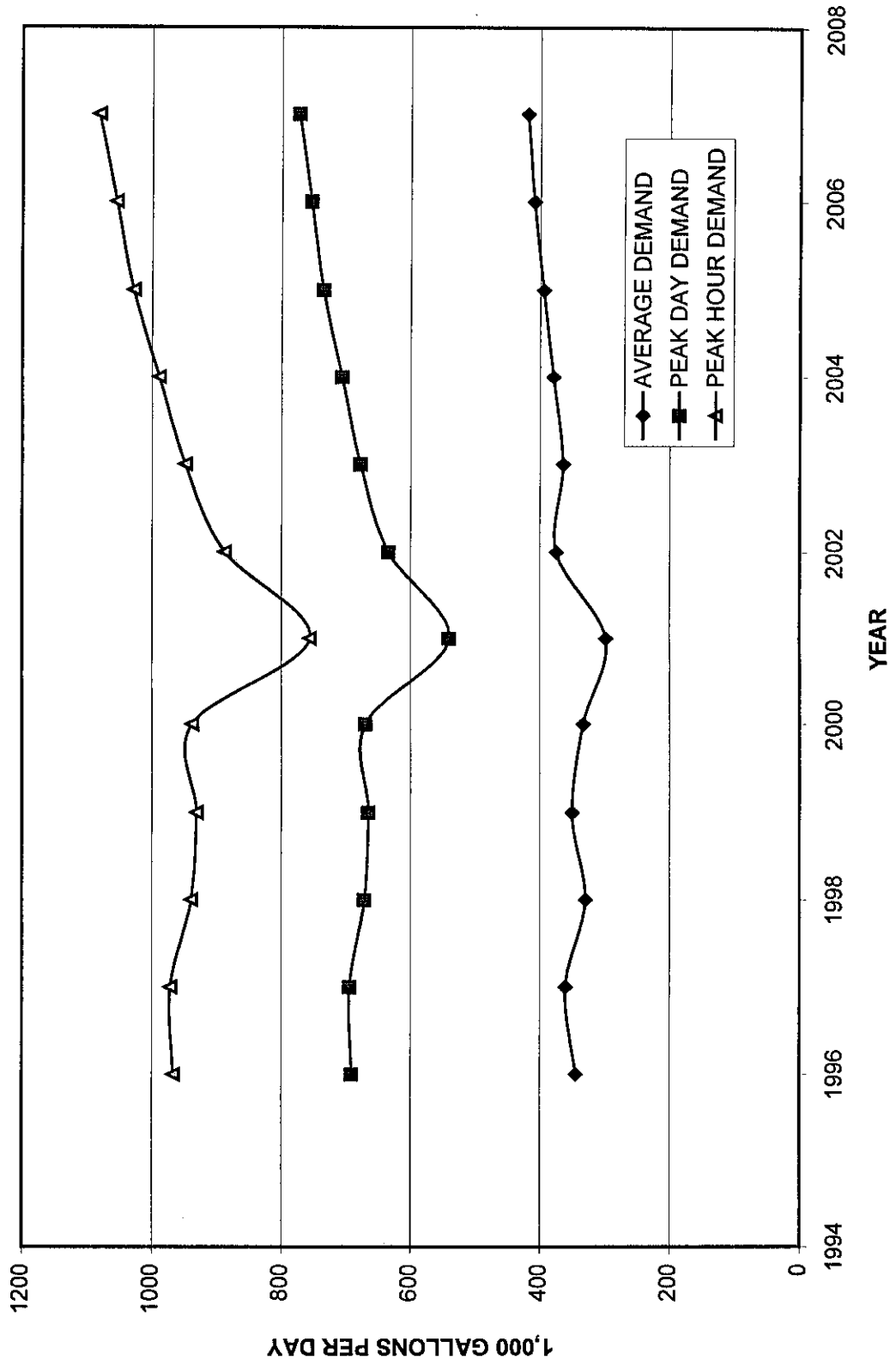
Lloyd W. Bracewell, P.E., Ph.D.
Plant Engineer

cc: City of San Juan Bautista
BEI Office

TABLE 1
PROJECTED WATER DEMAND
 San Juan Bautista Water System

| YEAR | AVERAGE DEMAND 1000 GPD | PEAK DAY DEMAND 1000 GPD | PEAK HOUR DEMAND 1000 GPD | Well 1 1000 GPD | Well 2 1000 GPD | Well 1 + 2 1000 GPD |
|-------------|------------------------------------|-------------------------------------|--------------------------------------|----------------------------|----------------------------|--------------------------------|
| 1996 | 345 | 691 | 967 | | | |
| 1997 | 361 | 694 | 972 | | | |
| 1998 | 329 | 671 | 939 | | | |
| 1999 | 350 | 665 | 931 | | | |
| 2000 | 333 | 670 | 938 | | | |
| 2001 | 298 | 540 | 756 | | | |
| 2002 | 374 | 634 | 888 | 720 | 677 | 1109 |
| 2003 | 364 | 678 | 949 | 720 | 677 | 1109 |
| 2004 | 379 | 706 | 989 | 720 | 677 | 1109 |
| 2005 | 394 | 735 | 1029 | 720 | 677 | 1109 |
| 2006 | 409 | 754 | 1055 | 720 | 677 | 1109 |
| 2007 | 419 | 773 | 1082 | 720 | 677 | 1109 |

FIGURE 1
PROJECTED WATER DEMAND



WATER QUALITY EMERGENCY NOTIFICATION PLAN

Name of System/Utility: San Juan Bautista Water System System No.: 3510002

Service Area: City of San Juan Bautista

The following persons have been designated to implement the plan upon notification by the State Department of Health Services that an imminent danger to the health of the water users exists:

| Name | Title | Day | Night |
|---------------------------|-----------------------|---------------------|--|
| 1. <u>Dan Graw</u> | <u>Water Operator</u> | <u>831-636-4350</u> | <u>831-689-2959 (pager)</u> |
| 2. <u>Lloyd Bracewell</u> | <u>Plant Engineer</u> | <u>510-547-8163</u> | <u>510-435-7521</u> <u>831-623-2033</u> |
| 3. <u>Larry Cain</u> | <u>City Manager</u> | <u>831-632-4661</u> | <u>or 831-905-9885</u> |

The implementation of the plan will be carried out with the following State Health Department personnel:

| Name | Title | Day | Night |
|--------------------------|--------------------------|---------------------|---------------------|
| 1. <u>Betsy Lichti</u> | <u>District Engineer</u> | <u>831-655-6933</u> | <u>831-595-0058</u> |
| 2. <u>Jan Sweigert</u> | <u>Sanitary Engineer</u> | <u>831-655-6934</u> | <u>831-655-3423</u> |
| 3. <u>Robert Shingai</u> | <u>Health Specialist</u> | <u>831-636-4035</u> | <u>831-665-9396</u> |

If the above personnel cannot be reached, contact:

Office of Emergency Services (24 hrs) at (916) 262-1621

NOTIFICATION PLAN

Below, or on an attached sheet, describe methods or combinations of methods to be used (door-to-door, phone, etc.) For each section of your plan, give an estimate of the time required, necessary personnel estimated coverage, etc. Consideration must be given to non-English speaking groups, persons not home during the day, and outlying water users.

Please describe your water system's plan for emergency notification to all water users:

Notification of water users will be by door-to-door delivery of copies of the DHS approved notification. The notification will be in English and Spanish. The City will maintain a list of who receives a notification in Spanish. All other customers will receive the notification in English. The notifications will be delivered by City Staff and volunteers. The City staff include the Public Works Department, the Administrative staff at City Hall, and City Council. The volunteers include the Volunteer Fire Department and appropriate citizens. The City Staff will be notified to assist in an emergency by paging and calling their homes. City Staff will then contact the volunteers for assistance. Depending on the available staff, it will take from 3 to 8 hours to deliver all of the notices. The City also has the ability to broadcast the notification from the speakers on their fire truck while driving down each street in town.

Report prepared by: _____ Water System Engineer 10/30/02
(Signature & Title) (Date)

WELL 3 OPERATIONS PLAN

SAN JUAN BAUTISTA

WATER SYSTEM

SEPTEMBER, 2002

Prepared by
Bracewell Engineering, Inc.
6239 College Avenue, Suite 202
Oakland, California 94618
510-547-8205
Fax-547-8208

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SECTION 1 - PURPOSE OF THIS OPERATIONS PLAN

I. Purpose

The purpose of this Operations Plan is to provide the people who will operate the San Juan Bautista Water System with all the information necessary to operate Well 3 in a manner which will meet Department of Health Services (DHS) requirements for Well 3.

II. General Information

Well 3 is located on San Juan Hollister Road and is not normally connected to the San Juan Bautista water system due to high nitrate levels in Well 3. In the event of an emergency it may be necessary to connect Well 3 to the water system and the procedures in this Operations Plan must be followed.

SECTION 2 - PLAN OF OPERATIONS FOR WELL 3

I. Decision to Turn Well 3 On

The decision to turn Well 3 on must be made by the City Manager and Bracewell Engineering, Inc. (BEI) in conjunction with DHS. DHS will only allow Well 3 to be operated and connected to the water system during an emergency. Once the decision has been made to turn on Well 3, BEI will direct the water system operator to turn on Well 3 using this plan. The water system operator cannot turn Well 3 on without the authorization from Lloyd Bracewell, Water System Engineer, Glen Holdren, Senior Engineer, or Larry Cain, City Manager.

II. High Nitrate Notification

During start up of Well 3, the City will begin distribution of a Notification of High Nitrate to all water users unless the most recent Well 3 nitrate profile shows that the nitrate has been below 35 mg/L for the duration of the profile after pump start-up or after a recommended period of pump to waste based on the most recent quarterly nitrate profile. A Copy of a sample Notice of High Nitrate is attached.

III. Procedures to Turn on Well 3

The procedures for the water system operator to turn Well 3 on are as follows:

- A. Locate the most recent nitrate profile test for Well 3 and discuss how long Well 3 must be pumped to waste prior to connecting Well 3 to the distribution system with Lloyd Bracewell or Glen Holdren.
- B. If necessary, determine that the valves are in the correct position to direct Well 3 flow to waste.

- C. If necessary, turn the pump on and pump to waste.
- D. Determine that the chlorination system is operating.
 - 1. Check that the chlorine pump works and that the chlorine tank has sufficient chlorine in it for a minimum of three days of operation.
 - 2. Clean the injector.
- E. After Well 3 has pumped to waste for the agreed upon number of minutes, monitor for nitrate and change the valves so that Well 3 is connected to the water system.
- F. Take the sample to Bolsa Analytical and request a 24 hours or less turn-around for the results of the analysis.
- G. While Well 3 is in operation, monitor daily for nitrate at Well 3 prior to chlorination, at City Yard, and the reservoir. The water system operator will need to generate special chain-of-custodies for these samples.

IV. Cancellation of High Nitrate Notice

If a High Nitrate Notice has been issued, the City may issue the Cancellation of High Nitrate Notice in the following cases:

- A. If the monitoring results indicate that nitrate in Well 3 and in the distribution system is below the MCL for nitrate and with DHS approval.
- B. If the emergency is over and Well 3 is turned off and nitrate monitoring of the distribution system indicates that the nitrate level is below the MCL.

V. Proof of Notification

The City will provide a Proof of Notification to DHS within 14 days of any notification of water customers, either of high nitrates or a cancellation notice. The Proof of Notification certifies how and when the initial public notification of high nitrates and notification of cancellation were conducted.