



EXHIBIT 2-B

**MONTEREY PENINSULA
WATER MANAGEMENT DISTRICT**

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June 24, 2002

Pete Garneau, Facilities Director
Monterra Ranch Water Company
24235 Via Malpaso
Monterey, CA 93940

**Subject: Monterra Ranch Water Company – Annual Water Monitoring Program
Report for Reporting Year 2001**

Dear Mr. Garneau:

This letter is to inform you that the Monterra Ranch Water Company (MRWC) *Annual Water Monitoring Program Report (Report)* dated February 20, 2002, and supplemental information dated March 27 and April 9, 2002, that you provided were reviewed by the Monterey Peninsula Water Management District (District) Board on May 17, 2002, pursuant to Condition 15 of the Conditions of Approval for the MRWC Water Distribution System Permit. A copy of the staff note that was provided to the Board is enclosed for your review and records (**Enclosure 1**). At that time, the District Board voted not to approve the *Report* as submitted and directed staff to notify you that the information provided did not meet the reporting requirements specified in the Conditions of Approval for the MRWC Water Distribution System Permit as originally approved on February 26, 1990, and last revised on March 20, 2000. In this regard, you are requested to provide a revised *Report* for Reporting Year (RY) 2001 that meets all of the requirements by August 23, 2002. In general, the *Report* provided the necessary monitoring data for RY 2001, but did not provide sufficient analysis and interpretation of the monitoring data as specified in Condition 15. Suggestions for complying with all of the requirements specified in the Conditions of Approval for the MRWC Water Distribution System Permit are provided below. These suggestions are ordered by condition number and refer to the Conditions of Approval revised on March 20, 2000.

Condition 1. In this condition, it is indicated that “all future reference and correspondence regarding this system shall be in the name of the Monterra Ranch Mutual Water Company (MRMWC)”. Recent correspondence from the operator, however, is on letterhead that reads “Monterra Ranch Water Company”. Please confirm the name of the system for future reference and correspondence.

Mr. Pete Garneau
June 24, 2002
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In addition, the latest application to amend MRWC's Water Distribution System Permit dated January 20, 2000, indicates that the applicant is Monterra Ranch Properties and the agent is Carmel Development Company. Earlier applications and the current Conditions of Approval refer to the Hanover-Monterra Investors II as the owner and Russell R. MacQuiddy as the agent of the system. Please confirm the names, addresses, and phone numbers of the current system (1) owner, (2) operator, and (3) any agents, for future reference and correspondence. District rules require that at least one responsible party be identified who, at all times, is available and legally responsible for the proper performance of the system.

Condition 2. This condition sets the system capacity limit (203.1 acre-feet per year (afy)) and expansion capacity limit (286 connections) for the MRWC system to serve the "combined Monterra Ranch and Cañada Woods North properties (as per the demand projection provided in Exhibit C of the January 20, 2000 permit amendment application)". District rules do not allow unnecessary duplication of the same type of services with other existing systems. Please confirm whether the Cañada Woods North properties are part of the MRWC system or part of the Cañada Woods system.

In addition, please note that Exhibit C of the January 20, 2000 permit amendment application (**Enclosure 2**) which shows the "Buildout Potable Water Demand" for the Monterra Ranch and Cañada Woods North properties undercounts the number of connections that will be needed to serve all the units identified. Specifically, 180 connections for the Monterra Ranch properties, (162 Caretaker Units associated with Single Family Units, 9 Caretaker Units associated with Ranch Lots, and 9 Senior Units associated with Ranch Lots) and 21 connections for the Cañada Woods North properties (17 Caretaker units associated with Single Family Units and 4 Member Suites associated with the Club House and Recreation Center) are not included in the total number of connections requested or approved for the MRWC system. Please clarify the Ranch's plan regarding development of these unpermitted connections.

Condition 3. This condition refers to a January 10, 1992 agreement between Hanover-Monterra Investors II and the California-American Water Company (Cal-Am) to "operate and manage" the MRWC system. As requested above, please confirm the name, address, and phone number of the current system operator.

Conditions 4. This condition refers to a 1991 agreement between Hanover-Monterra Investors II and Cal-Am to provide for an emergency intertie between the two systems. Conditions 5 and 6 also place operating restrictions on the use of this intertie. Please confirm the status of this agreement with Cal-Am.

Condition 8. This condition refers to an annual system-wide leak detection inspection program of the MRWC system with the goal of maintaining production system losses (unaccounted water

use) at 7% or less of annual production. The *Report* indicates that the unmetered consumption was 1.17 million gallons (MG) which equates to a 11% loss that is attributed to the final flushing of new water mains with potable water. Please provide the dates of this flushing and confirm that no additional flushing of the new mains will be required. In addition, please provide the amount of water that was produced from the HW-1 well and conveyed to the R.O. plant between July 1, 2000, and June 30, 2001.

Condition 9. This condition requires MRWC to measure water levels a minimum of once a month in each active production and monitoring well and a minimum of twice annually for each inactive production and monitoring well. As indicated in your March 27, 2002 letter, the required monthly measurements for wells M-1, M-15, and HW-1 were not made during Reporting Year 2001. Please ensure that, in the future, water levels are measured on a monthly basis for all active production and monitoring wells.

In addition, the water level measurements shown on Attachment 3 of your February 20, 2002 *Report* and in the *Recorded Water Levels* table attached to your March 27, 2002 letter should be more clearly labeled to indicate that these measurements are the depths to water in the well from the top of the casings and not elevations of the water in the well relative to a datum such as mean sea level. Also, consistent with standard hydrogeologic field practice, all static water level measurements should be taken and recorded to the nearest hundredth of a foot, i.e., 205.63 feet. The measurements should not be taken and recorded in feet and inches. For example, as shown on Attachment 3, the depth to water for well M-5 on May 22, 2001, is 202'10". This measurement should be in feet, to the nearest hundredth of a foot, i.e., 202.83'. Please note that this same measurement is shown as 202.8' in the March 27, 2002 table.

Condition 15. This condition requires MRWC to implement a comprehensive water production, delivery, and hydrogeologic monitoring program, including submittal of an *Annual Water Monitoring Program Report* that is subject to review and approval by the District Board. The report, at a minimum, must include:

- (1) reporting of, and the analysis and interpretation of, monitoring data described in condition Numbers 8, 9, 10, and 11,
- (2) status of development at the Monterra Ranch,
- (3) an analysis of water consumption by individual lots for each type of water use,
- (4) and updated projections of future water usage at the Monterra Ranch,
- (5) an analysis of ground water quality trends, and
- (6) an updated determination of the production capacity of the MRMWC system.

Water Level Data. As discussed above, the *Report* provided the necessary monitoring data for RY 2001 but did not provide sufficient analysis and interpretation of the monitoring data. For example, the water level data provided pursuant to Condition 9 should be expressed in consistent units and plotted over time against a uniform datum, i.e., mean sea level (M.S.L.). By plotting the water level data over time, seasonal and annual trends will become apparent. In this regard, all previous depth-to-water measurements should be converted to water-level elevations. This conversion is made by subtracting the depth-to-water measurement from the top-of-casing elevation. This conversion is shown below for Well M-5:

Date	Depth-to-Water (Feet)	Top-of-Casing Elevation (Feet above M.S.L.)	Water-Level Elevation (Feet above M.S.L.)
May 22, 2001	202.83	325.16	122.33
Oct 10, 2000	182.33	325.16	142.83

Given this information, it can be concluded that the water-level elevation in Well M-5 fell 20.5 feet from October 20, 2000, to May 22, 2001. In the *Report*, an interpretation why water levels declined occurred during this normal recharge period.

Another example is given below for Well M-12:

Date	Depth-to-Water (Feet)	Top-of-Casing Elevation (Feet above M.S.L.)	Water-Level Elevation (Feet above M.S.L.)
May 22, 2001	2.75	126.60	123.85
Oct 10, 2000	8.92	126.60	117.68

From this information, it can be concluded that the water-level elevation in Well M-12 rose 6.17 feet from October 20, 2000, to May 22, 2001. Similarly, the *Report* should provide an interpretation why water levels in Well M-12 rose during this period and discuss why the water levels in Well M-12 are closer to the ground surface than in Well M-5.

Most importantly, the water-level elevations for each well from each *Annual Report* and from previous reports should be plotted to discern long-term trends in water levels. Historical water-level elevations for a number of the wells on the Monterra Ranch property have been previously provided to the system operator (**Enclosure 3**). An example of this type of plot is included as **Enclosure 4**.

Metered Sales Data. In addition, the *Report* should provide an analysis of the metered sales or consumption data. While the *Report* provided monthly meter readings and associated usage in cubic feet and gallons for each of the 58 permanent and 9 temporary construction connections, the *Report* did not provide any analysis of these data as required by Condition 15. Specifically, the *Report* should include a breakdown of water consumption by user type and quantity used. For example, the consumption could be grouped by water used by inclusionary homes, market-rate homes, irrigation, maintenance, and construction needs. Within the groups, the consumption could be broken down by the quantity used. For comparison with other users in nearby systems, it is recommended that the annual and monthly residential consumption data be expressed as gallons per connection per day (gpcpd). For example, in July 2000 (Attachment 5 of *Report*), 7,143 gallons of metered sales are shown for the inclusionary home at 7172 Oak Tree Place. This usage is equivalent to 230.4 gallons per day for this connection. Similarly, the usage shown for 7117 Oak Tree Place in July 2000 is 21,931 gallons or 707.5 gpcpd. These data should be converted to gpcpd for each month and plotted to analyze the monthly distribution of use. The data should also be converted to gpcpd for each year to track usage over time. Large usage by market rate homes, e.g., 42,688 gallons or 1,377 gpcpd for 24319 Monterra Woods Road, Lot 39, in July 2000, should be noted and investigated to ensure that the metered usage is accurate and that water is being used efficiently.

Projected Water Usage. As discussed under Condition 2, the Ranch's development plans should be clarified. Specifically, the relationship between development in the Monterra Ranch and Cañada Woods subdivisions should be confirmed, as well as the relationship between water production and use by the MRWC and Cañada Woods water distribution systems.

Ground Water Quality Trends. Similar to the time series plots recommended for water production and levels above, current and historical water quality data should be plotted to detect any significant trends. A sample of this type of plot is included as **Enclosure 5**.

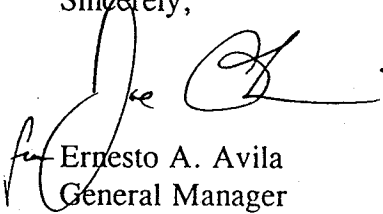
Production Capacity. Consistent with the methodology used in Condition 19, the current well production capacity for the MRWC system during the month of maximum demand with the largest producing well out of service should be determined and provided in the revised *2001 Report*.

As indicated above, you are requested to provide a revised *Annual Water Monitoring Report* for Reporting Year (RY) 2001 that meets all of the reporting requirements specified in the Conditions of Approval for MRWC by August 23, 2002. As suggested in our March 15, 2002 letter, District staff strongly recommends that MRWC retain a qualified ground water specialist to assist in preparation of the revised *2001 Report*. Similarly, District staff are willing to meet with you and your consultant prior to discuss the reporting requirements. If you have any questions regarding the reporting requirements, please call Joe Oliver of my staff (568-5640).

Mr. Pete Garneau
June 24, 2002
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Lastly, please note that the reporting period for future *Reports* will coincide with the hydrologic water year, i.e., October 1 through September 30 of the following calendar year. In this regard, the *2002 Report* should be submitted no later than November 2002 and cover the period October 1, 2001, through September 30, 2002.

Sincerely,



Ernesto A. Avila
General Manager

enclosures

cc: MPWMD Board of Directors
Joe Oliver, MPWMD Water Resources Manager
Andy Bell, MPWMD Planning and Engineering Manager
Michael Waxer, Carmel Development Company

ITEM: IV CONSENT CALENDAR

E. REVIEW MONTERRA RANCH ANNUAL REPORT

Meeting Date: May 20, 2002 Budgeted: N/A
Staff Contact: Joe Oliver Program/Line Item No.: N/A
Cost Estimate: N/A

General Counsel Approval: N/A
Committee Recommendation: N/A
CEQA Compliance: N/A

SUMMARY: As a condition of approval for creation of the Monterra Ranch Water Company (MRWC) water distribution system, a comprehensive water monitoring program report is required to be submitted each year, subject to review and approval by the District Board. The report submitted for Reporting Year (RY) 2001 has been distributed under separate cover to the Board, and is available for review at the District office. District staff's review of the data provided in the RY 2001 report is briefly summarized below. This item was included in the April 15, 2002 Board packet, but was deferred to provide additional time for review of the report materials. If there are any questions or concerns regarding the report or review materials, District staff should be contacted to provide any requested information or further analysis, if needed.

RECOMMENDATION: The RY 2001 water monitoring program report was for the period that included the fourth full year of operation of the MRWC water distribution system. As such, District staff believes that the level of presentation and interpretation of the monitoring data presented is acceptable. As future data become available from operation of the onsite production wells and potable water treatment plant, this will allow for expansion of the observations and analyses regarding any emerging trends in the data (e.g., well water quality, ground water levels, water consumption by use type, etc.). District staff has informed MRWC that this expanded analysis is expected with next year's report, which will include the fifth year of operation of the MRWC system. By that time, there will have been enough historical data collected to allow assessment of any emerging trends. Accordingly, staff recommends that the RY 2001 water monitoring program report be accepted as fulfilling the requirements of the MRWC permit conditions. The report will be considered accepted if this item is adopted by the Board along with the Consent Calendar.

BACKGROUND: Creation of the MRWC was originally approved by the District Board on February 26, 1990, and conditions have been amended on several occasions since that time at the request of the system owners. The current MRWC system approval is for a system capacity (production limit) of 203.1 acre-feet per year (AF/yr), and an expansion capacity limit (number of authorized connections) of 286. The water supply for the subdivision is from individual wells on the Monterra Ranch property, that are drilled into the local fractured bedrock. Because the water produced directly from the active supply wells does not meet all State Title 22 drinking water standards, the water is first treated for removal of excess dissolved solids at the onsite reverse-osmosis (RO) potable water treatment plant.

The MRWC report for RY 2001 covers the 15-month period from July 2000 through September 2001; however, the production and consumption data provided below are for the 12-month period from July 2000 through June 2001, to facilitate comparison with the previous year. At the end of RY 2001, there was a total of 58 permitted water connections to the MRWC system, consisting of 42 inclusionary housing units, 11 single-family residential lots, 2 irrigation connections, 1 sales office, 1 Tehama maintenance and 1 Tehama clubhouse connection (2 fire connections and 9 temporarily-metered construction/irrigation connections are not included in total). This is an increase of 8 connections over that reported for RY 2000.

For RY 2001, well production for the MRWC system totaled 89.3 AF (29.1 million gallons [MG]). For the comparable period in RY 2000, the MRWC wells produced 17.9 AF (5.8 MG). The majority of the increased production was by water produced from the largest producing well (High Well #1; 69.74 AF), which was used predominantly for non-potable construction and irrigation purposes, and was not delivered to the RO plant for treatment.

RO plant production in RY 2001 totaled 22.9 AF (7.5 MG). Brine production for the same period was 3.8 AF (1.2 MG), which is 16.7% of RO production. This is slightly higher than the 1995 estimated RO plant performance (i.e., 85 percent product water recovery and 15 percent brine reject), and was attributed to operating the RO plant on two passes rather than three for a seven-week period for membrane maintenance. The RO plant produced 15.2 AF (5.0 MG) during the equivalent 12-month period in RY 2000.

Metered consumption for the MRWC system in RY 2001 totaled 20.4 AF (6.6 MG). The difference between RO plant production and metered consumption is the unmetered consumption or "unaccounted water use". For RY 2001, the unaccounted water use was 2.5 AF (0.8 MG), or 11.0 percent of RO plant production. This is higher than the 7 percent unaccounted water use goal as prescribed in Condition No. 8 of the MRWC water distribution system permit. This was attributed to the final flushing of new water mains in the MRWC system with potable water.

Additional information regarding operation of the MRWC system and monitoring data are provided in the RY 2001 annual report.

IMPACTS TO STAFF/RESOURCES: District staff time for review of the MRWC annual report is partially defrayed by the annual \$1,000 environmental review fee as included in Condition No. 17 of the MRWC permit. This payment has been received for RY 2001.

BUILDOUT POTABLE WATER DEMAND

1/10/00
Revised 1/12/00

Previous Projections for Monterra Ranch
(Prior to Cañada Woods North)

Customer Demand (MRP)

42 Incl Housing Units	@ 0.24 AFY	AFY 10.08
274 Single Family Units	@ 0.50 AFY	137.00
9 Ranch Lots	@ 0.70 AFY	6.30
36 Caretaker Units	@ 0.12 AFY	4.32
Misc. Non Residential Uses		5.30

Total Customer Demand: 163.00 AFY
Or: 145500.00 GPD

Well Demand (MRP)

Yearly	163.00 / (0.93 x 0.85)	206.20 AFY
	(7% system losses/15% treatment plant losses)	
Average Day	145,500 / (0.93 x 0.85)	184,060 GPD
Max Month	1.34 x 184,060	246,640 GPD

Current Projections for Monterra Ranch Properties and Cañada Woods North

Customer Demand Monterra Ranch Properties

Connections:

42	Inclusionary Housing Units	@ 0.24 AFY	AFY 10.08
162	Single Family Units	@ 0.50 AFY	81.00
	W/ 162 Caretaker Units	@ 0.12 AFY	19.44
9	Ranch Lots	@ 0.70 AFY	6.30
	W/ 9 Caretaker Units	@ 0.12 AFY	1.08
	W/ 9 Senior Units	@ 0.12 AFY	1.08
1	Gatehouse	@ 0.15 AFY	0.15
10	Misc. Non-Residential Connections	@ 0.30 AFY	3.00

Total Customer Demand: 122.13 AFY
Or: 109,023 GPD

224 Connections

Customer Demand Cañada Woods North

Connections:

34	Single Family Units	@ 0.50 AFY	AFY 17.00
	W/ 17 Caretaker Units	@ 0.12 AFY	2.04
5	Employee Units	@ 0.24 AFY	1.20
8	Member Suites	@ 0.24 AFY	1.92
3	Club House and Recreation Center		9.80
	W/ 4 Member Suites	@ 0.24 AFY	0.96
1	Maintenance Center	@ 1.00 AFY	1.00
1	Equestrian Center	@ 1.50 AFY	1.50
10	Misc. Non-Residential Connections	@ 0.30 AFY	3.00

Total Customer Demand: 38.42 AFY
Or: 34,297 GPD

62 Connections

Well Demand Monterra Ranch Properties & Cañada Woods North

Yearly: (122.13 + 38.42) / (0.93 x 0.85) 203.10 AFY

(7% System losses & 15% Treatment Plant Losses)

Average Day: 143,320 / (0.93 x 0.85) 181,303 GPD

Max/Month: 1.34 x 181,303 242,946 GPD



**MONTEREY PENINSULA
WATER MANAGEMENT DISTRICT**

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August 19, 1999

Leif Utegaard
Monterra Ranch Water Company
c/o Carmel Development Company
P.O. Box 450
Carmel, CA 93921

Subject: Monterra Ranch Static Well Levels

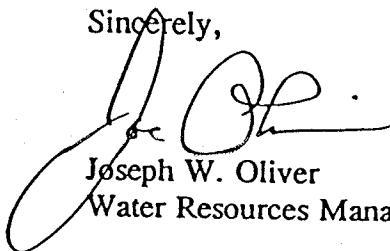
Dear Leif:

We are providing the enclosed packet in response to your request faxed to Tom Lindberg on July 26, 1999, for static water levels at the Monterra Ranch wells from Water Year 1986 to 1993. In summary, there is a poor historical record of water level measurements at Monterra Ranch in our files. The paucity of static water level measurements that are available are contained in the records of various pumping tests that were conducted over the years. I have reviewed our Monterra Ranch files in an attempt to locate any potentially useful data, which are enclosed for your use.

In addition to the water level measurements contained within the records mentioned above, the District also periodically collected static water level measurements at two Monterra wells (referred to as wells "M5" and "M7"). These measurements were coordinated with the former property owners and are also enclosed. Please note that reference point elevations are not included in our database for these wells, therefore the water level elevations shown in these records are not correct.

If you have any questions about these data, please do not hesitate to call, we would be happy to discuss it with you as some of the descriptions may not be immediately decipherable without a little background information. I apologize for the delay in providing this information to you.

Sincerely,



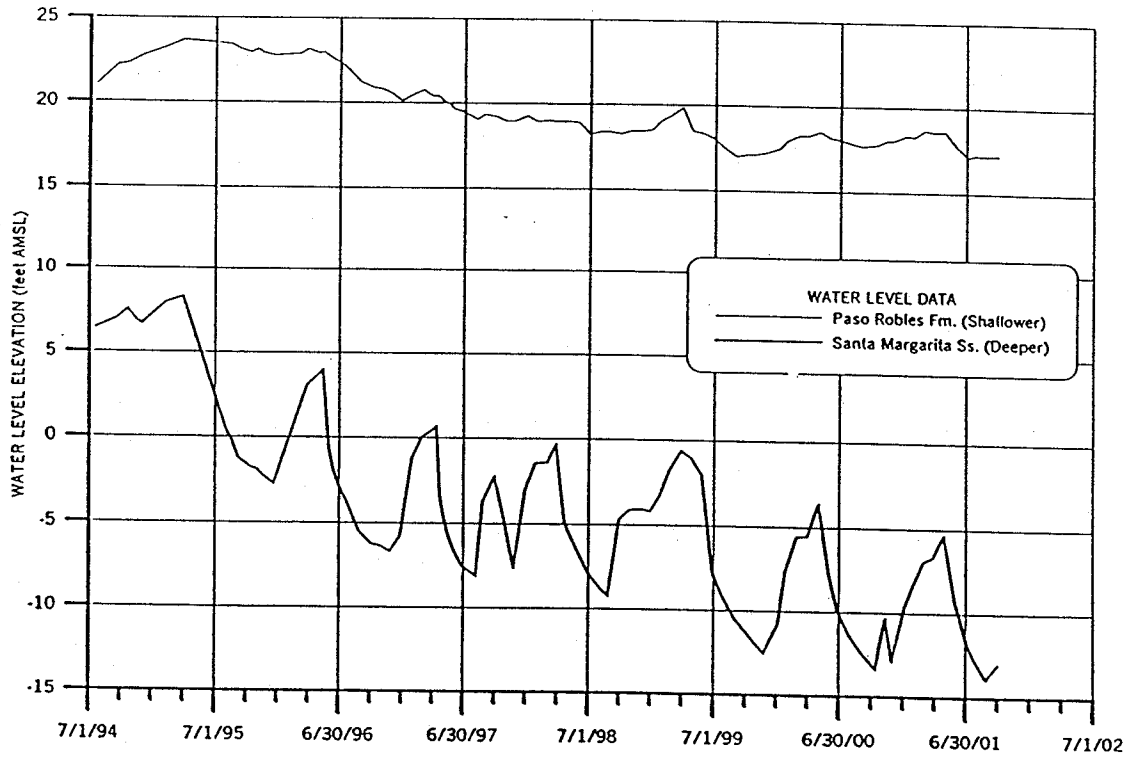
Joseph W. Oliver
Water Resources Manager

enclosures

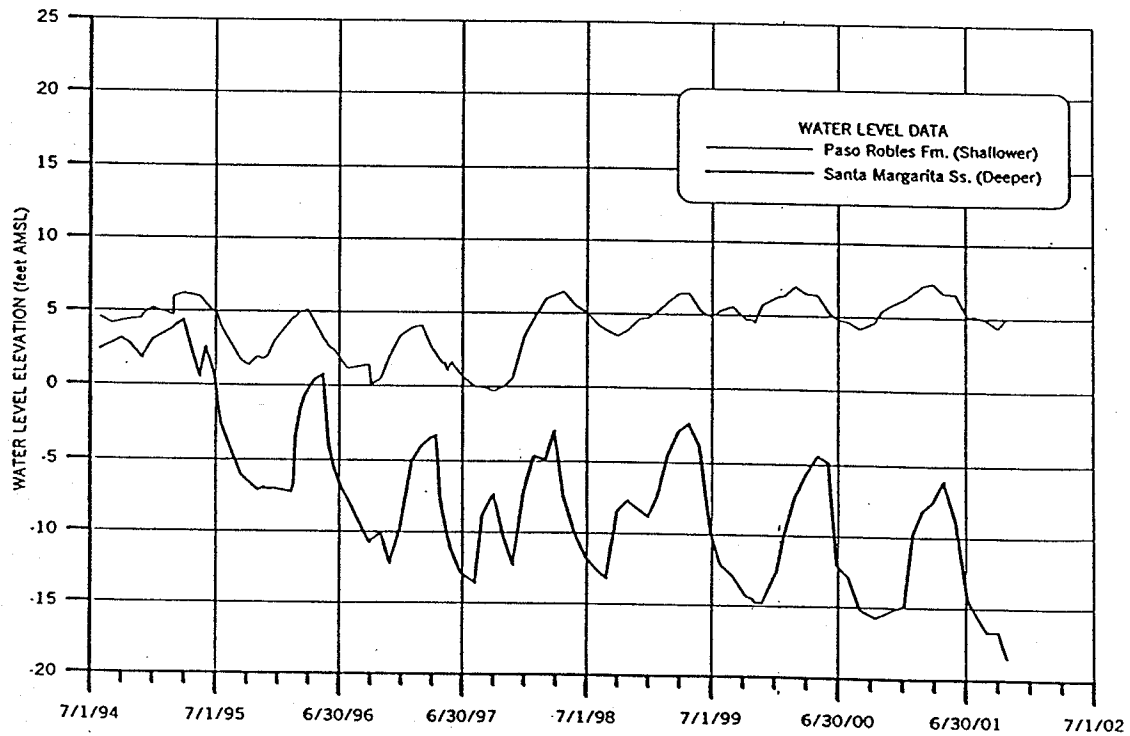
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Figure II-8

WATER LEVEL ELEVATION
FO-07 MONITOR WELL

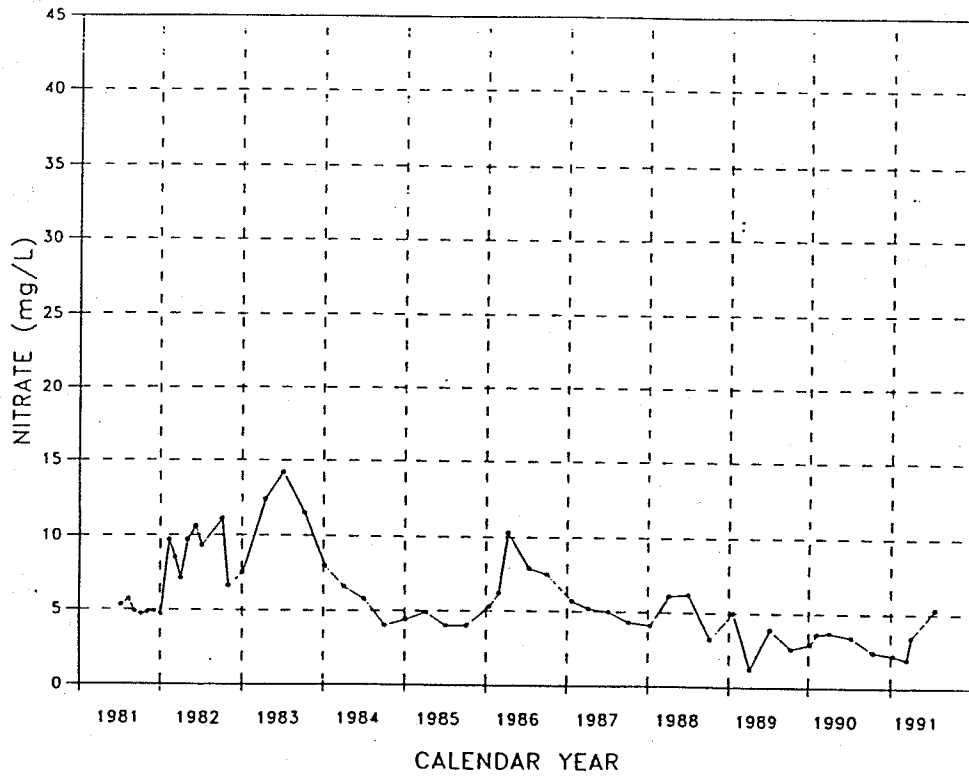


WATER LEVEL ELEVATION
PCA-EAST MONITOR WELL



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Boronda Road Well
T16S/R2E-33Q1



Water West 1 Well
T17S/R2E-03Dd

