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2011 OCT 25 PM 4:29

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October 24, 2011

John McKenzie, Environmental Division
County Planning and Building Dept.
County Government Center, Rm. 310
San Luis Obispo, CA 93408-2040

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Dear John McKenzie:

The Woodlands project EIR had a Mitigation for water levels that was at one point (I'm not sure if this was the final EIR version but it should be close enough) stated as:

Mitigation Measure 4.1-6d. Prior to approval of discretionary development (e.g. prior to recordation of the final map, Development Plan approval), the applicant shall conduct a complete survey of wells that could be affected by cumulative water level interference. The applicant shall then implement means to allow for continued production of these wells under drought conditions to the satisfaction of the County Engineer. Actual impacts to these surrounding wells shall be verified and monitored at the end of each phase with the results Submitted to the County Engineer. If additional well level impacts are found that were not previously identified, the applicant and successors in interest, shall implement any additional measures necessary to avoid significant impacts to the well operation.

I am request a copy of the current reports for spring of 2007 to spring or summer of 2011 that the Woodlands and/or the applicant and/or successors in interest have provide the county in response to this Mitigation.

I know that the county charges a fee for copies.

Please let me know I can come by.

Thank You

John Snyder
Vice President

PUBLIC INFORMATION ACT REQUEST

APPENDIX E
WOODLANDS SPECIFIC PLAN - LIST OF MITIGATION MEASURES

The following is a list of mitigation measures being proposed in the Draft EIR. Some of the proposed measures have been modified to work better as implementable conditions of approval or to provide better consistency in terminology. While the EIR consultant and staff has tried to make their best efforts in identifying the mitigation measures and the associated completion time frames, these measures or peripherally-related items could be modified in the future as a part of the Final EIR, as revisions are made to the project, or through the decision making process.

4.1 WATER RESOURCES/WASTEWATER

Mitigation Measure 4.1-6a. To reduce consumptive use, prior to approval of discretionary development (e.g. recordation of the final map, Development Plan approval), or at such time that a comprehensive program is developed by the water supplier (whichever occurs first, the applicant shall participate in a toilet retrofit program that would replace existing non-low-flow residential and commercial toilets at a 1: 1 basis with new development. This retrofit program shall be limited to existing development over the Santa Maria Groundwater Basin. Should it be shown to the county that there are insufficient fixtures available for this replacement program, a comparable water savings program may be substituted. Prior to occupancy or final inspection of new development, it must be shown to the satisfaction of the county that the comparable retrofit (or other off site water saving method) has been completed.

Mitigation Measure 4.1-6b. Prior to approval of the first discretionary development (e.g. recordation of the final map, Development Plan approval), the applicant shall develop a "master" water conservation education program for all future Specific Plan residents and commercial operators/employees, which must receive county approval before implementation. Such a program shall be developed by appropriate experts (e.g. for landscape watering, use a landscape architect or contractor familiar with the area's vegetation, who would prepare: (1) guidelines for residents covering water conservation techniques; and (2) lists of ornamental drought-tolerant plants that would do well in sandy soils). The program shall address all consumer-controlled water uses (e.g. landscaping, washing, showers, etc.). Prior to approval of subsequent development, the applicant shall incorporate, or modify as needed, this program into the specific development. Any modifications must receive County approval prior to approving subsequent development.

Mitigation Measure 4.1-6c. Prior to approval of discretionary development (e.g. prior to recordation of the final map, Development Plan approval), the applicant shall show how the initial landscaping will have low water requirements. As applicable, at a minimum the following shall be used: (1) all residential irrigation shall employ low water use techniques (e.g., drip irrigation); (2) residential landscaping shall not exceed 50 percent lawn surface with remaining landscaping being drought-tolerant and low water requirements; (3) golf course turf shall be of varieties that have reduced water requirements; (4) all other golf course landscaping shall be drought-tolerant, have low water requirements, utilize drip-irrigation where possible, and be composed of at least 50 percent natives.

Mitigation Measure 4.1-6d. Prior to approval of discretionary development (e.g. prior to recordation of the final map, Development Plan approval), the applicant shall conduct a complete survey of wells that could be affected by cumulative water level interference. The applicant shall then implement means to allow for continued production of these wells under drought conditions to the satisfaction of the County Engineer. Actual impacts to these surrounding wells shall be verified and monitored at the end of each phase with the results Submitted to the County Engineer. If additional well level impacts are found that were not previously identified, the applicant and successors in interest, shall implement any additional measures necessary to avoid significant impacts to the well operation.

Page E1 OCR on 7/8/98



San Luis Obispo County Department of Planning and Building

County Government Center

San Luis Obispo, California 93408

Telephone: (805) 781-5600

Receipt #: 2920110000000001649

Date: 12/06/2011

Line Items:

Case No	Last Name	Tran Code	Description	Revenue Account No	Amount Paid
		COPIES	Copies - 185.0000 @ \$0.1000	1420000-1000000000-142S83 PPG -4351055	18.50
Line Item Total:					\$18.50

Payments:

Method	Payer	Bank No	Account No	Confirm No	How Received	Amount Paid
Cash	JOHN SYNDER				In Person	18.50
Payment Total:						\$18.50

Balance

Cleath-Harris Geologists, Inc.
11545 Los Osos Valley Road, Suite C-3
San Luis Obispo, California 93405
(805) 543-1413



August 8, 2011

John Scardino
Woodlands Ventures, LLC
31200 Via Colinas, Suite 200
Westlake Village, California 91362

SUBJECT: July 2011 Groundwater Elevation Monitoring Report for The Woodlands Development, Nipomo Mesa, San Luis Obispo County, California

Dear Mr. Scardino:

This report documents the monitoring of water levels at 13 wells in the vicinity of The Woodlands project and at the six wells on The Woodlands property. The monitoring program is being performed to enable compliance with Mitigation Measure 4.1-6d of the Woodlands Specific Plan Environmental Impact Report (1998):

“Prior to approval of discretionary development (e.g. prior to recordation of the final map, Development Plan approval), the applicant shall conduct a complete survey of wells that could be affected by cumulative water level interference. The applicant shall then implement means to allow for continued production of these wells under drought conditions to the satisfaction of the County Engineer.”

Monitoring Report Summary

Cleath-Harris Geologists (CHG) conducted a private domestic well survey between March and May 2000 and has been monitoring water levels in selected offsite wells and in The Woodlands wells on a monthly basis since March 1999. Well locations are shown on Figure 1. There are 19 wells currently being monitored.

Water level monitoring results show no evidence of significant water level impacts to offsite wells from groundwater production in the four producing onsite wells. Observed water level fluctuations and declines are related to seasonal changes in precipitation and regional well pumping. Regional pumping appears to be heavy north of Camino Caballo.

Long term water level trends have been identified in the shallow aquifer wells. Water levels in wells along Via Concha north of The Woodlands have steadily risen since the end of 2005. Water levels in the Baneker Place and Eucalyptus Road wells southeast of The Woodlands have been dropping since Spring 2006.



CHG recommends the following:

- In order to reduce cumulative impacts of pumping north of Camino Caballo and east of Viva Way, the Homestead well should continue to be utilized as the primary production well, and the Dawn and Mesa wells should be pumped minimally.
- Destroy the Highway 1 monitoring well.
- Installation of a casing liner and filter pack in the Flintcote well to ensure the continued monitoring of the well in the event of failure of the old steel casing.

Onsite Well Monitoring

Four of the onsite wells were constructed as production wells for the project, with the Highway 1 monitoring well and the Flintcote well utilized as monitoring wells only. The Highway 1 monitoring well was installed prior to the production wells to identify the aquifer zones beneath the site, evaluate water quality in these zones, and to determine general design parameters for the production wells. The Flintcote well was drilled in 1944, and the five Woodlands project wells were drilled in 1993 and 1994.

Currently, groundwater production is occurring at all four of the production wells. The Homestead well has become the primary supply well after being out of production from August 2007 to April 2009. The Mesa well is now the backup well after being the primary supply well through most of 2008 and until April 2009. During June 2011, the Homestead well was temporarily offline for maintenance while the Mesa well became the primary supply well. The Highway 1 well is configured for golf course irrigation. The Dawn well is not pumped significantly.

After test discharges of treated wastewater in the spring of 2007, consistent wastewater discharges began in September 2007. The effluent is pumped into Pond D where it is blended with water produced from the Highway 1 well and occasionally the Mesa well. The water is then available for spray irrigation onto golf course turf. According to Fluid Resource Management of Grover Beach, eight million gallons (24 acre-feet) of treated wastewater were discharged to the ponds during 2008, nine million gallons (28 acre-feet) were discharged during 2009, 13 million gallons (39 acre-feet) were discharged during 2010, and nearly seven million gallons (20 acre-feet) were discharged to the ponds from January through June of 2011. According to golf course staff, the ratio of potable water pumped to Pond D to effluent pumped to Pond D is approximately 10:1.

Total potable water production from the four onsite wells was 802 acre-feet in 2008, 808 acre-feet during 2009, 852 acre-feet during 2010, and 419 acre-feet from January through June 2011. Well production volumes from the four wells are included in the table below, and are shown graphically on Figure 2.



Table 1
Woodlands Water Production Summary
 Volumes in acre-feet

Month	Well				Total
	Dawn	Homestead	Mesa	Highway 1	
Jan-08	6.1	0.1	4.9	0.9	12.0
Feb-08	0.6	0	12.5	7.7	20.8
Mar-08	9.5	0	18.9	30.5	58.9
Apr-08	9	0.7	26.9	62.9	99.5
May-08	4.7	0	35.1	75.4	115.2
Jun-08	17.6	0.1	22.7	64.7	105.1
Jul-08	14.1	0.5	12.6	50.2	77.4
Aug-08	25.1	0.1	7.2	52.8	85.2
Sep-08	5.5	0	29.5	58.4	93.4
Oct-08	4.2	0	28.7	52.4	85.3
Nov-08	3.3	0	20.8	12	36.1
Dec-08	1.5	0.2	10.4	0.8	12.9
Total 2008	101	2	230	469	802
Jan-09	1.4	0.2	11.6	7.8	21
Feb-09	1.1	0	9.8	0.3	11.2
Mar-09	1	0	15.9	21	37.9
Apr-09	5.2	13.3	21	73.4	112.8
May-09	3.8	45.6	0.5	55.8	105.7
Jun-09	0.9	41.5	1.3	63.2	106.9
Jul-09	6.2	29.2	2.6	57.2	95.2
Aug-09	0.7	44.7	1.1	18.7	65.2
Sep-09	1.9	41	1	61.1	105
Oct-09	0.7	19.5	0.8	18.2	39.2
Nov-09	0	30.4	0.7	16.7	47.8
Dec-09	0	18.4	0.4	40.8	59.6
Total 2009	23	284	67	434	808
Jan-10	1.0	32.9	1.4	4.5	39.8
Feb-10	0.1	10.4	0.0	0.0	10.5
Mar-10	0.7	21.5	2.5	19.8	44.5
Apr-10	0.1	32.4	0.3	31.6	64.4
May-10	1.2	40.8	1.7	57.7	101.4
Jun-10	0.4	48.4	1.8	80.5	131.1
Jul-10	0.1	53.7	0.2	75.5	129.5
Aug-10	0.1	50.8	0.2	73.2	124.3
Sep-10	0.0	42.8	0.2	65.4	108.4
Oct-10	0.0	35.1	0.1	19.3	54.5
Nov-10	0.3	22.4	0.4	2.5	25.6
Dec-10	0.1	16.6	0.2	1	17.9
Total 2010	4	408	9	431	852
Jan-11	0.1	24.8	0.1	9.0	34.0
Feb-11	0.0	23.1	0.2	11.5	34.8
Mar-11	0.0	24.1	0.0	6.1	30.2
Apr-11	0.0	13.0	0.0	22.0	35.0
May-11	0.2	55.8	7.9	70.9	134.8
Jun-11	1.8	0.0	35.2	51.5	88.5
Subtotal 2011	3	171	44	201	419



Groundwater elevations for the onsite wells and monthly precipitation are shown on Figure 3. The water level data tables are available upon request. Seasonal water level fluctuations have ranged between approximately 20 feet and 45 feet in the six onsite wells during the 12 years of monitoring. Since 2002, the range of seasonal fluctuation increased in each of the wells because of higher pumping rates during the dry seasons as compared to the wet seasons. The slightly declining average water levels indicated in the hydrograph from the year 1999 through 2005 is a result of changing climatic conditions in the area during that period. Pumping at the Homestead well beginning in Spring 2003, and Mesa, Dawn and Highway 1 wells beginning in Spring 2004 resulted in additional water level declines. From Winter 2004 to the fall of 2006 average water levels were stable because of higher than normal precipitation amounts during the winter of 2004 - 2005 and the late winter and spring precipitation in 2006. Average water levels decreased slightly between 2006 and 2009 because of below-normal precipitation. Water levels have changed very little from 2009 to 2011.

Water levels in the onsite wells were 30 feet to 33 feet lower in July 2011 than in January 2011, representing a typical seasonal water level fluctuation for the wells. Water levels were slightly higher in July 2011 than in July 2010 in the Dawn, Homestead, and Mesa wells, and decreased slightly in the Flintcote well during the same period.

The slightly higher average water levels measured during 1999 and 2000 of the monitoring program reflect the higher than normal precipitation of the mid and late 1990s. Average to below average annual precipitation occurred from the year 2000 through the winter of 2003 - 2004, and precipitation was below average from the wet winter of 2004 – 2005 until 2010. Historically, water levels in wells generally drop from February through September of each year, after which they recover and rise.

Offsite Well Monitoring

Wells 23E, 15G1, 22H, 9K4 and 10N are currently used as domestic supply wells to single-family homes and are pumped on a regular basis. Wells 10K, 14N and 10Q have been inactive since monitoring began. Well 22G had been inactive until Spring 2011 and is now used as a small irrigation well. Well 10R2 is used for irrigation supply and has a history of frequent pumping. Well 10F is unequipped. Wells 15B4 and 23D are equipped, but inactive, and are located on properties planned for development. The 13 offsite wells are listed in Table 2.

Groundwater elevations for the offsite wells are shown on Figures 4, 5 and 6. The water level data tables are available upon request. Water levels in wells 15B4, 23E, 10F, 15G1, 9K4, 10N and 10R2 have shown the greatest amount of seasonal fluctuation of all the monitored offsite wells, fluctuating 25 feet to 28 feet between the current dry season and the recent wet season. The fluctuation in well 14N, penetrating mixed aquifers, was 11 feet. Water levels in wells 23E, 10F, 15G1, 9K4, 14N and 15B4, all penetrating the deeper aquifer or mixed aquifers, were less than one foot to ten feet higher in the summer of 2011 compared to the summer of 2010. Wells 22G, 10K, 22H, 10Q and 23D were from less than one foot to one and one half feet higher in the summer of 2011 compared to the summer of 2010.



Hydrographs of wells 22G, 22H, 10K and 10Q are relatively flat, compared to hydrographs of all the other wells which fluctuate in response to regional pumping. This data, and the relatively high water levels suggest that these wells have been completed within the unconfined dune sand aquifer, whereas other offsite and onsite wells were either completed within a deeper, confined aquifer, or completed within portions of both aquifers. Table 3 shows the aquifers penetrated by the offsite and onsite wells.

Long term water level trends in these shallow aquifer wells indicate that water levels in the Via Concha area north of The Woodlands, as represented by wells 10K and 10Q, have risen about two feet since the end of 2005. Water levels in Banneker Place and Eucalyptus Road, as represented by wells 22G and 22H, have dropped slightly more than two feet since Spring 2006.

Groundwater Movement

Estimated confined aquifer groundwater flow directions and hydraulic gradients on The Woodlands property are shown in Figure 1. Groundwater during July 2011 is inferred to flow generally to the northwest beneath the site at an estimated average hydraulic gradient of 0.0009 vertical feet of head loss per horizontal foot of distance. A pumping depression in the static water level is evident in the southern portion of the property as the result of pumping at the Homestead well. Wells used for the confined aquifer hydraulic gradient calculations represent the same or similar hydraulic pressure zones. Four onsite wells were used to calculate the hydraulic gradient for the July 2011 monitoring event. The Highway 1 production well was pumping at the time of the monitoring and could not be used in gradient calculations. The Highway 1 monitoring well is completed within multiple pressure zones and therefore it is not used in the calculations.

Conclusions and Recommendations

Mitigation Measure 4.1-6d of the project EIR requires that the applicant shall implement means to allow for continued production of offsite wells that have been significantly affected by well interference from The Woodlands project. Monthly water level monitoring allows early detection of wells most vulnerable to well interference during drought, and will allow for the mitigation of potentially significant water level impacts before they occur.

There are 19 wells currently being monitored. There are six onsite wells and a total of 13 offsite wells in the program. Based on observed water levels, there are two principal groups of aquifer zones being tapped by the various wells: shallow aquifers (unconfined) and deep aquifers (confined). Table 3 shows the aquifers penetrated by each well in The Woodlands monitoring program.

Water level monitoring results show no evidence of significant water level impacts to offsite wells from groundwater production in the four producing onsite wells. Observed water level fluctuations and declines are related to seasonal changes in precipitation and regional well pumping. Regional



pumping appears to be heavy north of Camino Caballo. In order to reduce cumulative impacts of pumping in this area and on wells such as 10N, 10R2, 15B4 and 15G1 during low rainfall periods, the Homestead well should continue to be utilized as the primary production well, and the Dawn well should be pumped minimally.

CHG recommends the following:

- Destruction of the Highway 1 monitoring well. The well was installed prior to the production wells to identify the aquifer zones beneath the site, evaluate water quality in these zones, and to determine general design parameters for the production wells. Because the well is completed across multiple aquifer zones, water levels do not compare well with other wells on the site that are completed within the deep zones only. The well should be destroyed in accordance with Department of Water Resources Water Well Standards, Section 23, Requirements for Destroying Wells.
- Installation of a casing liner and filter pack in the Flintcote well to ensure the continued monitoring of the well in the event of failure of the old steel casing.

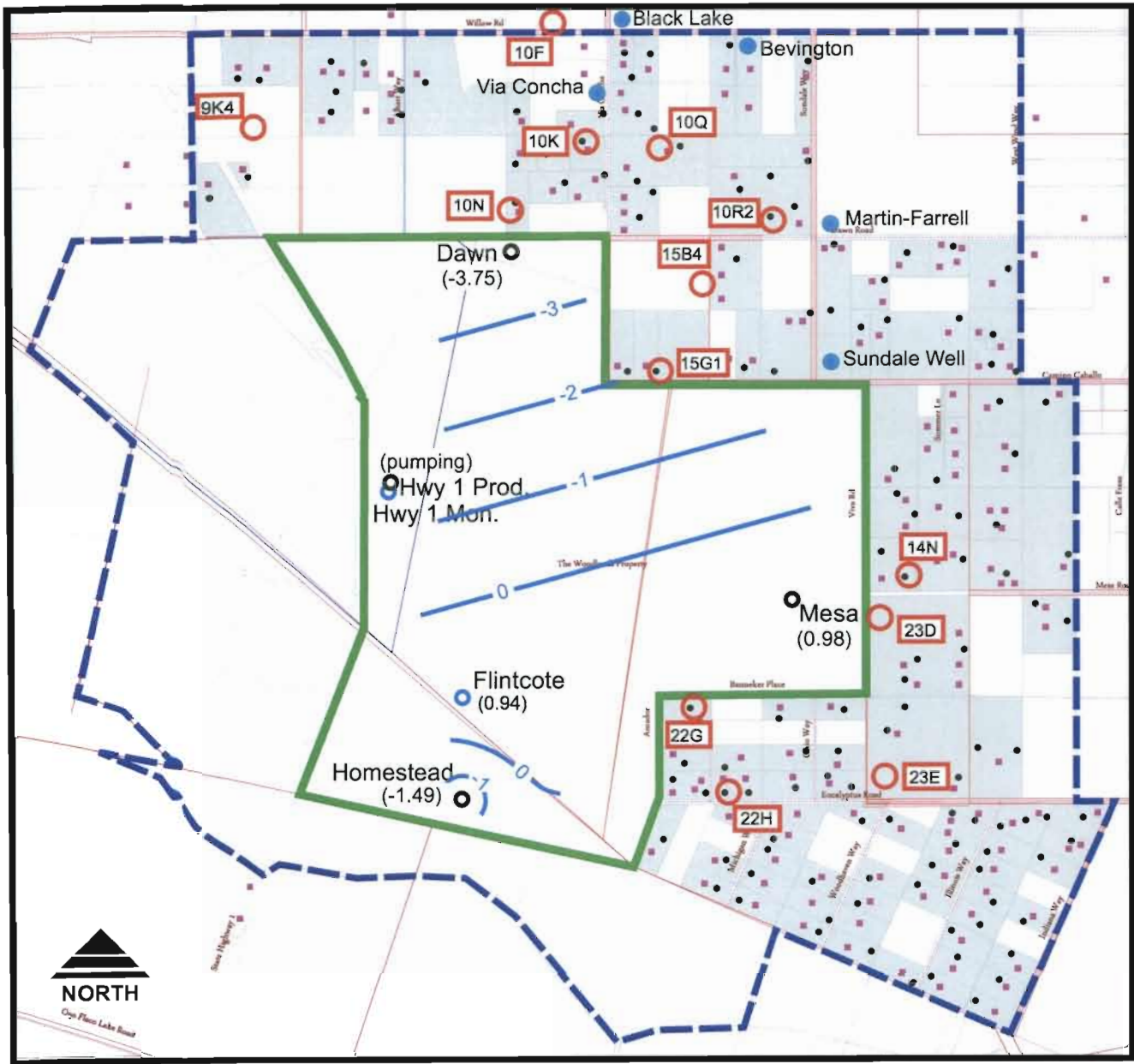
Water level data sheets including depths to groundwater, groundwater elevations, and changes in water levels for each well are available upon request. If you have any questions regarding this letter report, please call our office.

Sincerely,
CLEATH-HARRIS GEOLOGISTS, INC.

A handwritten signature in black ink that reads "David R. Williams".

David R. Williams, PG
Associate Geologist

Cc. Dan Garson



EXPLANATION:

- - - Impact area boundary
- Site boundary
- Parcels with one or more domestic wells
- Houses
- Domestic wells (inferred)
- Offsite monitoring well location
- Mesa (0.98) Onsite production well location, groundwater elevation in feet above sea level
- Onsite, unequipped well location, groundwater elevation in feet above sea level
- Nipomo Community Services District well
- Onsite groundwater elevation contour on July 18, 2011, for confined aquifer zones, elevation in feet above sea level

Figure 1
Onsite Groundwater Elevation Contours on July 18, 2011 for Confined Aquifer Zones

The Woodlands

Cleath-Harris Geologists

Base map: San Luis Obispo County
 Department of Building & Planning
 Assessor's Parcel Maps



Figure 2
Well Production: January 2007 through June 2011
The Woodlands Onsite Wells

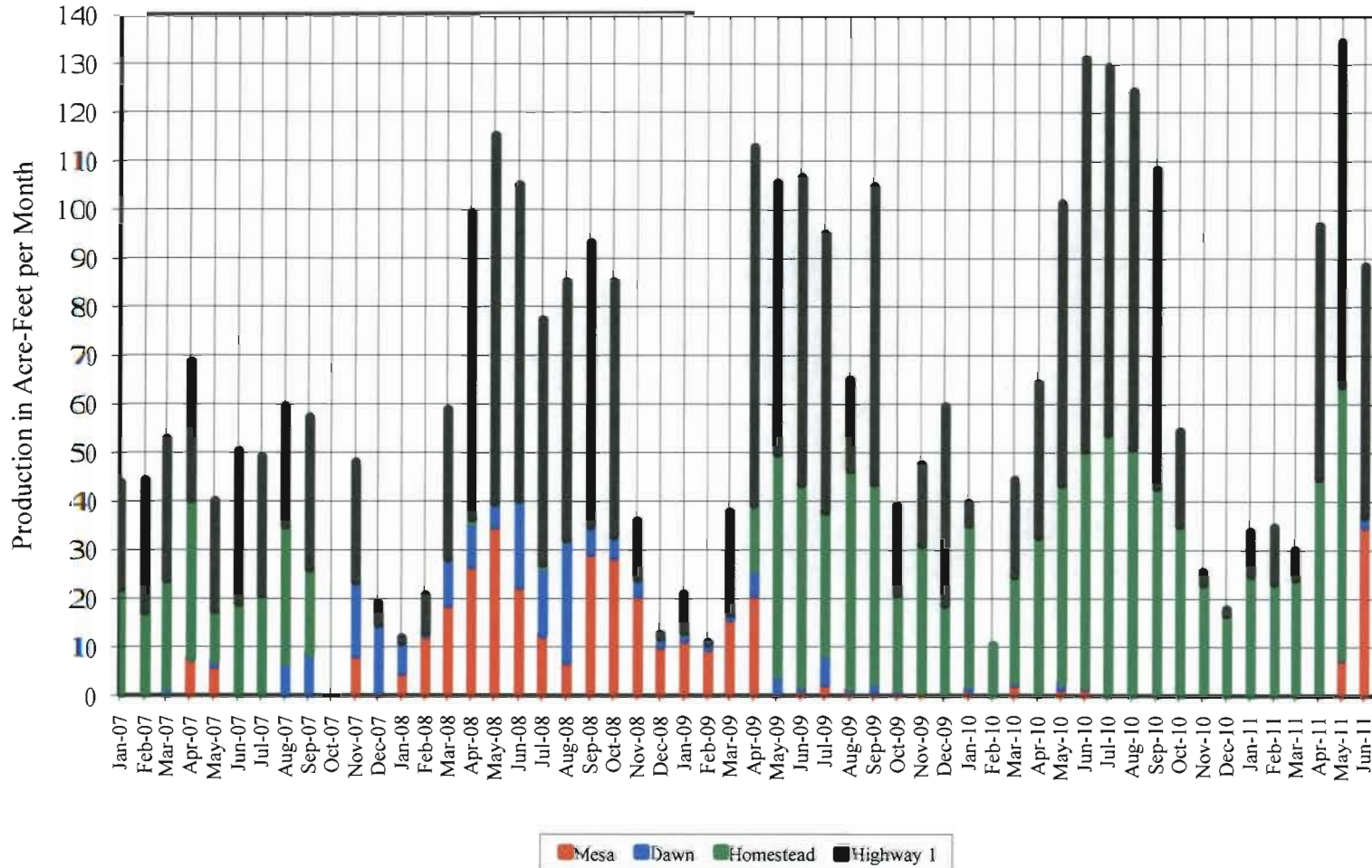
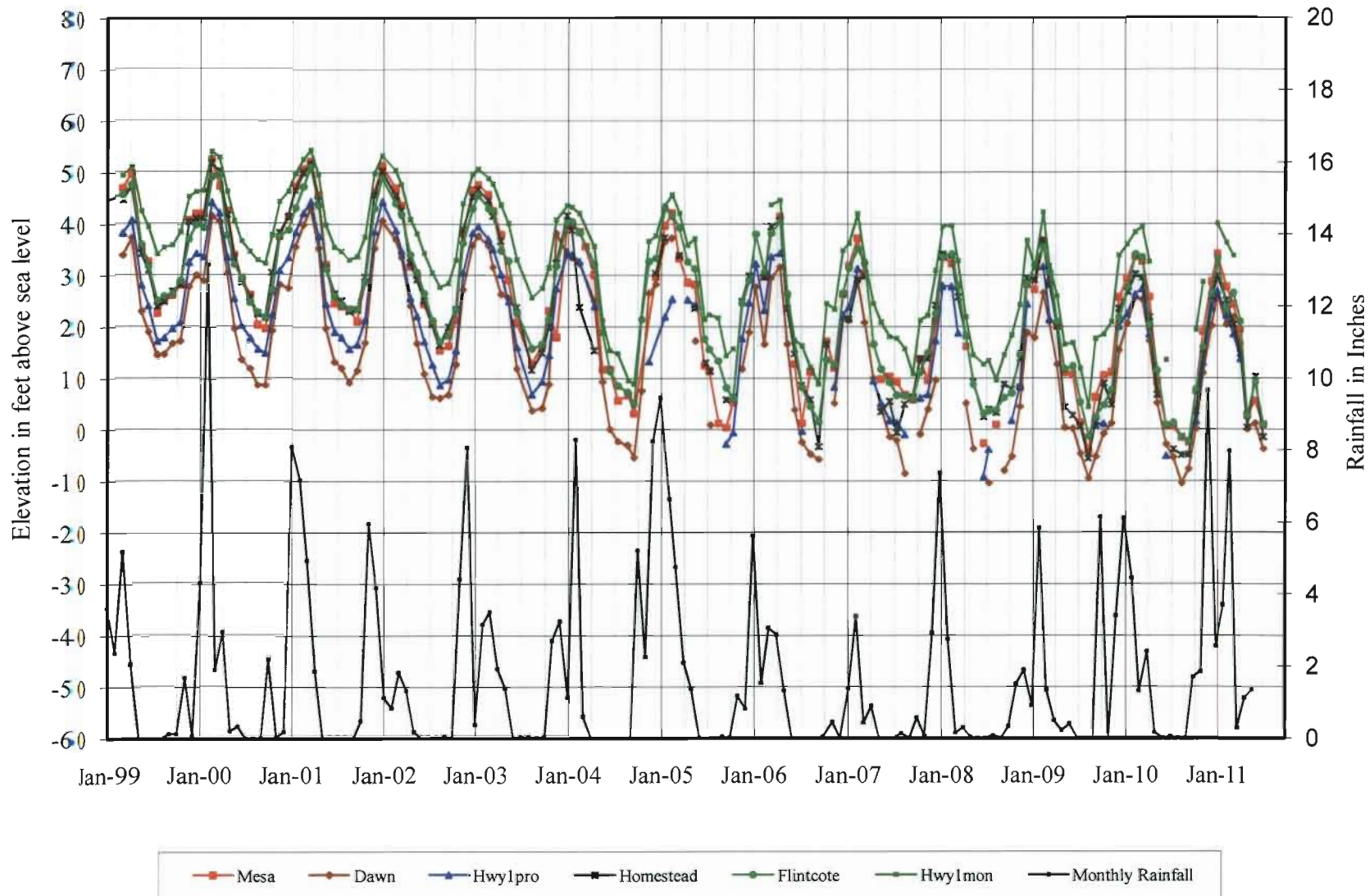


Figure 3
Water Levels: March 1999 to July 2011
The Woodlands Onsite Wells



**Table 2
Woodlands Offsite Wells**

Well Number	Reference Point	Total depth (in feet)	Well Type	Well Status	Date Monitoring Began	Drillers	Year Drilled	Comments
11N/35W-14N	Top of sounding tube (271.2)	--	Irrigation	Equipped, inactive	Nov-00	Floyd V. Wells	1975	--
11N/35W-10F	Steel plate on top of casing (277.9)	600	School supply & Irrigation	Unequipped	Dec-02	Enloe Well Drilling	2002	Cascading water enters well at approximately 206 feet depth
11N/35W-10N	Top of casing (246.0)	360	Domestic	Active	Oct-00	Floyd V. Wells	1981	Discontinued Feb-01, Resumed monitoring in Nov-04
11N/35W-22G	Top of casing (279.8)	--	Domestic	Equipped, inactive	Feb-03	--	--	--
11N/35W-15G1	Top of sounding tube (234.8)	380	Domestic	Active	Oct-00	Water Well Supply	1985	--
11N/35W-10R2	Top of casing (269.1)	365	Domestic / Irrigation	Active	Nov-03	Longwell	1956	Pumping often
11N/35W-9K4	Top of sounding port (168.9)	--	Domestic	Active	Jan-2004 by Cleath & Associates	Floyd V. Wells	1960's	Monitored by County Public Works Dept. in October and April since 1973
11N/35W-10K	Top of casing (249.3)	210	Domestic	Unequipped	Feb-05	--	--	--
11N/35W-22H	Top of casing (270.1)	--	Domestic	Active	Dec-04	--	--	--
11N/35W-10Q	Top of casing (284.5)	257	Domestic	Inactive	May-05	--	--	--
11N/35W-15B4	Concrete slab (244.8)	500	Domestic	Inactive	Sep-05	Central Coast	2005	Developing lots
11N/35W-23E	Top of casing (302 - est.)	560	Domestic	Active	Mar-09	Central Coast	--	--
11N/35W-23D	Top of casing (276-est)	--	Domestic	Inactive	Jun-09	Central Coast	--	Unimproved lots

Figure 4
Water Levels Through July 2011
The Woodlands Offsite - Southeast Wells

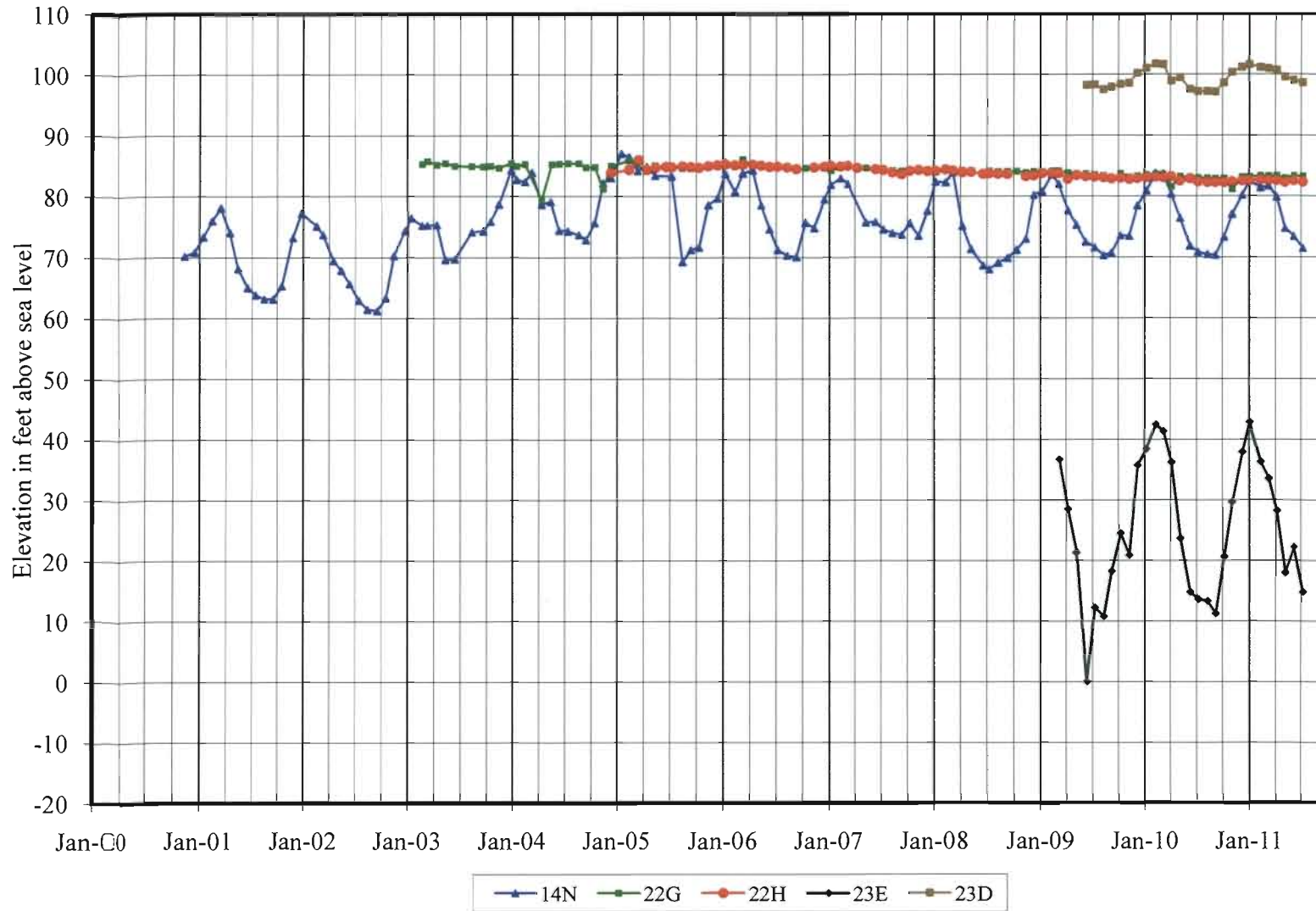


Figure 5
Water Levels Through July 2011
The Woodlands Offsite - Northern Wells

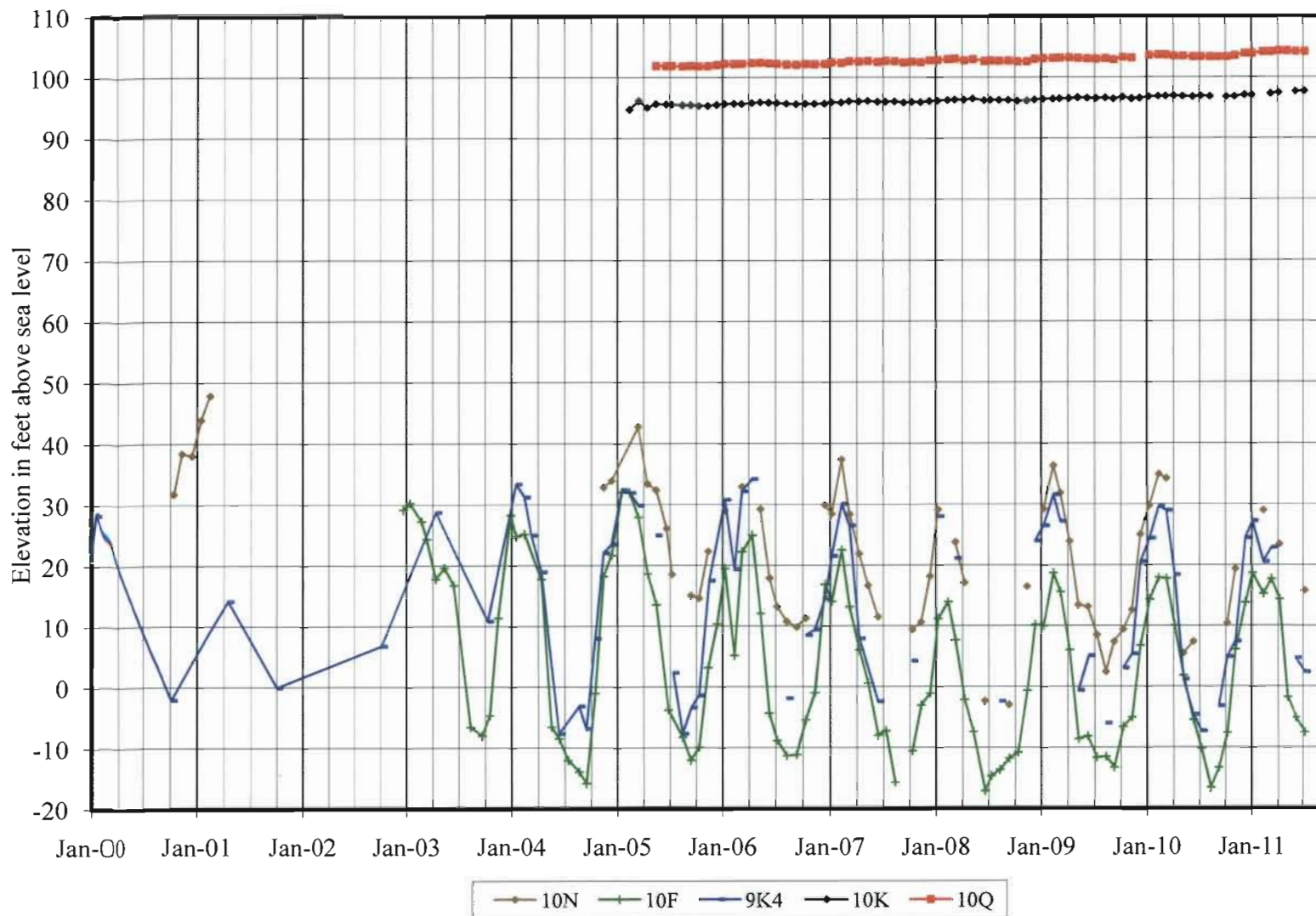


Figure 6
Water Levels Through July 2011
The Woodlands Offsite - Northeast Wells

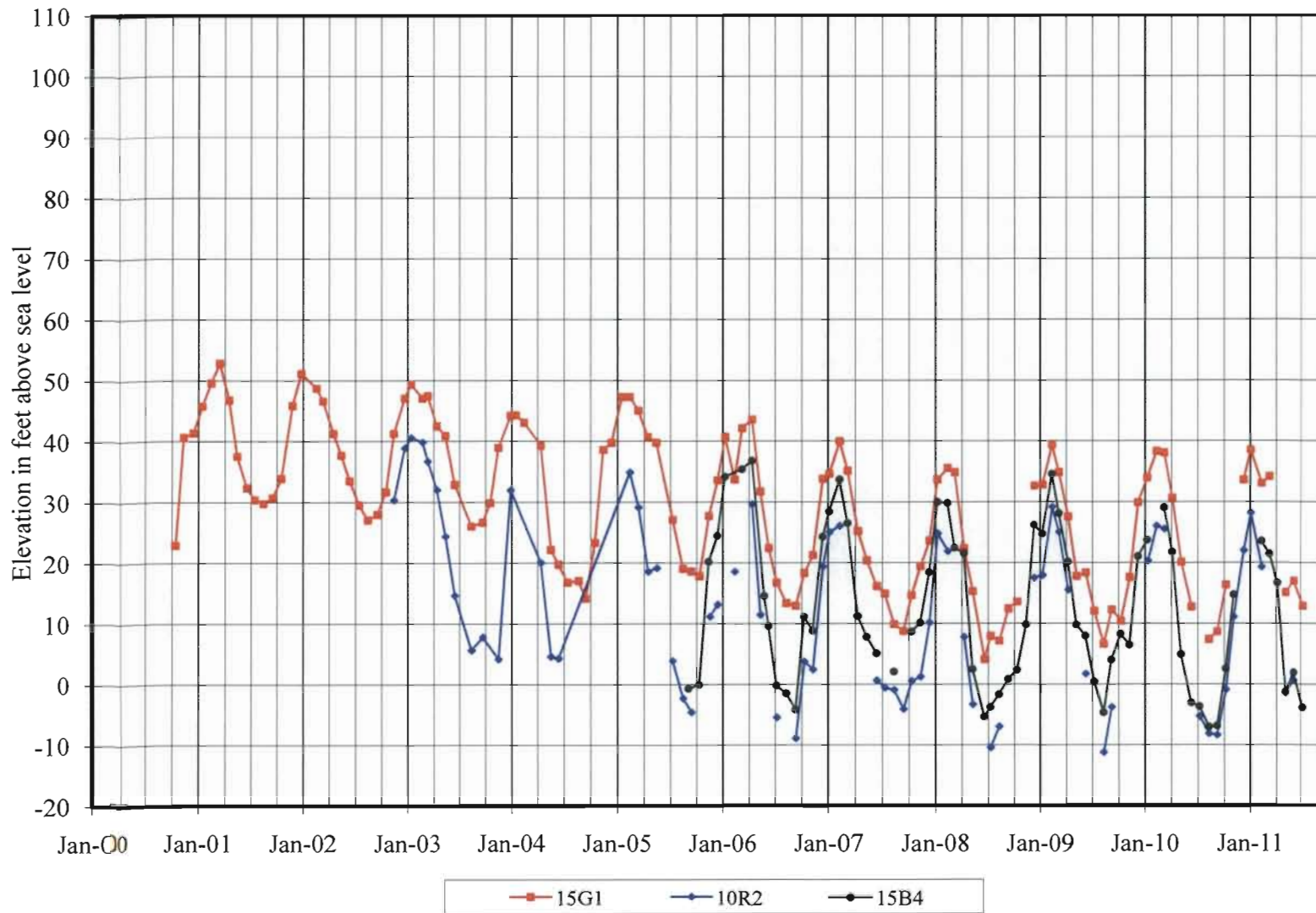


Table 3

Aquifers Penetrated by Woodlands Onsite and Offsite Wells

Common Well Name	Aquifer		
	Deep Aquifer (confined)	Shallow Aquifer (water table)	Mixed Aquifers
Mesa	X		
Dawn	X		
Hwy. 1 Production	X		
Hwy. 1 Monitoring			X
Homestead	X		
Flintcote	X		
11N/35W-14N			X
11N/35W-10F	X		
11N/35W-10N			X
11N/35W-22G		X	
11N/35W-15G1			X
11N/35W-10R2			X
11N/35W-9K4			X
11N/35W-10K		X	
11N/35W-22H		X	
11N/35W-10Q		X	
11N/35W-15B4	X		
11N/35W-23E	X		
11N/35W-23D			X