

## MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

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## SEASIDE BASIN WATERMASTER MEMORANDUM 2010-02

Date:	October 25, 2010
To:	Seaside Basin Watermaster
From:	Jonathan Lear, PG, CHg, Senior Hydrogeologist
	Joe Oliver, PG, CHg, Water Resources Division Manager
	Tom Lindberg, Associate Hydrologist

### Subject: Water Year 2010, Groundwater-Quality and Groundwater-Level Data Collected for the Seaside Groundwater Basin Watermaster

## **SUMMARY**

This memorandum transmits and summarizes groundwater-quality and groundwater-level data collected for the Seaside Groundwater Basin Watermaster Board (Watermaster) during Water Year (WY)<sup>1</sup> 2010. This report incorporates the data that were collected and reported for each quarter during the period from October 1, 2009 through September 30, 2010. This information is being provided to the Watermaster for information purposes, and is in compliance with the monitoring protocols described in the Watermaster's *Seaside Basin Monitoring and Management Program* (SBMMP, revision date September 5, 2006), which was prepared in response to the court decision filed March 27, 2006 (as amended by February 9, 2007 filing) in the Seaside Basin adjudication case. This document has been prepared by the Monterey Peninsula Water Management District (MPWMD) on behalf of the Watermaster.

This document is organized into the following four categories of data:

- Precipitation,
- Stream flow in Arroyo Del Rey,
- Water-quality data collected from MPWMD Quarterly wells, and
- Static water levels collected from MPWMD and other Watermaster basin wells.

<sup>&</sup>lt;sup>1</sup> The WY begins on October 1, and ends September 30 of the indicated year.

## **PRECIPITATION**

A continuous-recording precipitation gage is located at the south eastern corner of the Southern Coastal Sub-Area of the Seaside Groundwater Basin. Data from the precipitation gage are posted to the <u>www.weatherunderground.com</u> website and are available real time as well as archival data sets. **Figure 1** shows the location of the weather station and the average annual rainfall totals for the Seaside Groundwater Basin. **Figure 2** shows daily and cumulative rainfall recorded by the weather station for all four quarter of WY 2010. Average annual rainfall for the location of the weather station is 16 inches. As **Figure 2** illustrates, at the close of WY 2010, the weather station had already logged over 22 inches, which is approximately 130% of normal rainfall.

#### **STREAMFLOW**

There is a distinct lack of surface drainages in the Seaside Groundwater Basin due to the high infiltration capacities of the dune sands which overlie the aquifers. The overlying soils have the capacity to infiltrate large storm events; therefore, water is not concentrated into channels. The Arroyo Del Rey drainage is the one distinct drainage in the Seaside Groundwater Basin. The headwaters of the drainage are in the Laguna Seca Sub Area, which flow into the Southern Coastal Sub Area of the Groundwater Basin and collect in Roberts Lake.

A continuous stream flow gage was operated by the USGS in Del Rey Park from 1966 to 1978. MPWMD re-occupied the site in 2002 and data collection is ongoing. The catchment area above the gage is 13.8 square miles. **Figure 3** contains the average daily flow record for the Arroyo Del Rey at Del Rey Oaks gaging station for WY 2010.

## WATER-QUALITY DATA: MPWMD AND OTHER BASIN WELLS

#### MPWMD Coastal Monitor-Well Network

Under the current monitoring program conducted for the Watermaster, the MPWMD collects *quarterly* samples from six monitor wells at three locations that are closest to the coastline, and *annually* from six additional wells at three locations that are farther from the coastline. The well numbers, names and sampling schedule for the MPWMD coastal monitor wells currently being sampled for the Watermaster are listed below.

Well Number	Well Name	Sample Interval
15S01E15N3	MSC-Shallow	quarterly
15S01E15N2	MSC-Deep	quarterly
15S01E15F1	PCA-W-Shallow	quarterly
15S01E15F2	PCA-W-Deep	quarterly
15S01E11Pa	FO-09-Shallow	quarterly
15S01E11Pb	FO-09-Deep	quarterly
15S01E15K5	PCA-E-Shallow	annually
15S01E15K4	PCA-E-Deep	annually
15S01E23Ca	Ord Terrace-Shallow	annually
15S01E23Cb	Ord Terrace-Deep	annually
15S01E12Fa	FO-10-Shallow	annually
15S01E12Fc	FO-10-Deep	annually

**MPWMD Coastal Monitor Wells** 

These sites are shown on **Figure 4** and completion data for these wells are shown in **Table 1**. At each site, a "shallow" and "deep" monitor well have been installed (either in separate boreholes or as multiple completions in a single borehole), generally corresponding to well completions within the two principal aquifer units that have been historically recognized in the Seaside Basin, the Paso Robles Formation (QTp and QTc for undifferentiated Continental Deposits) and Santa Margarita Sandstone (Tsm), respectively. More recently, it has been recognized that the Tsm deposits transition to the Purisima Formation (Tp) in the northern coastal subarea of the Basin. The monitor wells are constructed of 2-inch PVC casing, with screens adjacent to the more permeable (i.e., based on lithologic and geophysical logging analyses) sand "packages" within each aquifer unit. The aquifer units are separated from each other in the wells by cement strata-isolation seals.

## MPWMD Coastal Monitor Wells Water-Sample Collection

Water-sample collection from the MPWMD coastal monitor wells for WY 2010 was accomplished by the Low-Flow Method. As a means to investigate alternative water-quality sampling technologies, MPWMD staff completed a test of different "low-flow" sampling methodologies at Watermaster database Well No. 258 (MW-B-23-180) on June, 4, 2009. Results from the methodology comparison along with cost estimates for implementation of each methodology were presented to the Watermaster Technical Advisory Committee (TAC) at the June 10, 2009 meeting. Following the recommendation of the TAC, MPWMD staff purchased a Micro Purge well sampling pump and pump controller from QED Environmental Systems, Inc. Motivation behind changing the sampling method included a desire to: (a) switch to a less invasive sampling method to prolong the life of the monitoring wells and (b) implement a less labor-intensive method that will be more cost effective to the Watermaster in the long run. Details of this sampling methodology are discussed below.

## • Low-Flow Sampling Method

Low-flow/low-volume purging method is sample collection using a pumping mechanism that produces low-flow rates [less than 1 liter per minute (lpm) or less than 0.26 gallon per minute (gpm)] that cause minimal drawdown of the static water table and usually employs a flow cell in which geochemical parameters are continuously monitored. These parameters may include dissolved oxygen content, oxidation-reduction potential (redox), conductivity, turbidity, and/or pH. The intent of this sampling protocol is to collect a representative sample from the monitored groundwater zone. A representative sample may be obtained when all the monitored chemical parameters have stabilized, thus quantitatively demonstrating that the sample being collected is in equilibrium with the groundwater system. The low-flow/low volume purging method (purging to parameter stability) tends to isolate the interval being sampled, which provides more accurate water-quality measurements and reduces the volume of purge water generated. This method has an advantage in that it can limit vertical mixing and volatilization of any volatile organic compounds (VOCs) in solution within the well casing or borehole, as compared to high-flow purging and sampling (e.g., air-lift sampling method).

**Figure 5** illustrates the QED Environmental Systems, Inc. low-flow sampling equipment. The bladder pump is placed in the monitor well and powered by a fuel source of compressed gas. The peristaltic action of the pump lifts water from the well and initiates flow through the well screen at the location where the drop tube and intake assembly have been placed. An electric wire sounder is used to measure drawdown to insure minimal drawdown is caused by pumping the well. Water-quality parameters are monitored at the flow cell as the well is purged.

The low-flow/low-volume purging method of sample collection has been described in groundwater monitoring literature since the mid-1980s with a defined methodology being accepted by the U.S. EPA in 1995. These protocols are summarized below as adopted by MPWMD staff:

#### 1. Flow rate

The flow rate used during purging must be low enough to avoid increasing the water turbidity. The following measures should be taken to determine the appropriate flow rate: (a) The flow rate shall be determined for each well, based on the hydraulic performance of the well; (b) The flow must be adjusted to obtain stabilization of the water level in the well as quickly as possible; (c) The maximum flow rate used should not exceed 1 liter per minute (0.26 gpm); (d) Once established, this rate should be reproduced with each subsequent sampling event; (e) If a significant change in initial water level occurs between events, it may be necessary to re-establish the optimum flow rate at each sampling event.

#### 2. Measurement of water level and drawdown

Measurement of the water level in the well during purging is important when establishing the optimum flow rate for purging. The goal is to achieve a stabilized pumping water level as quickly as possible with minimal drawdown, to avoid stressing

the formation and mobilizing solids, and to obtain stabilized indicator parameters in the shortest time possible.

#### 3. Measurement of indicator parameters

Continuous monitoring of water-quality indicator parameters is used to determine when purging is completed and sampling should begin. Measurement of indicator parameters (dissolved oxygen content, redox potential, specific conductance, temperature and pH) is required. This is most easily performed using an in-line flow cell (closed) system attached directly to the pump discharge tubing. For turbidity measurement, a separate field nephalometer should be used.

If portable systems are used, they must be placed carefully into the well and lowered into the screen zone as slowly as possible. Placement of the portable pump can disturb the groundwater flow conditions resulting in non-equilibrium conditions. As a result, longer purge times and greater purge volumes may be necessary to achieve indicator parameter stabilization. In general, this may require that after installation, the portable pump should remain in place for a minimum of 1-2 hours to allow settling of solids and reestablishment of horizontal flow through the screen zone. If initial turbidity readings are excessive (>50 NTU), pumping should cease and the well should rest for another 1-2 hours before initiating pumping again. In wells set in very fine-grained formations, longer waiting periods may be required. Continuous water-level measurement devices are preferred, such as down-hole pressure transducers, but electronic water-level tapes can be used. The devices used must be capable of measuring to 0.01-foot precision.

## 4. Sample Collection

Water samples for laboratory analyses must be collected before water has passed through the flow-through cell (use a by-pass assembly or disconnect cell to obtain sample). VOC samples should be collected first and directly into pre-preserved sample containers. All sample containers are filled by allowing the pump discharge to flow gently down the inside of the container with minimal turbulence. During purging and sampling, the tubing should remain filled with water so as to minimize possible changes in water chemistry upon contact with the atmosphere.

## MPWMD Coastal Monitor Wells Water-Quality Results

Water chemistry analytical results for the samples collected during WY 2010 are provided in the table in **Appendix 1**. This table and other water-level data tables was prepared utilizing the "report" feature of the groundwater resources database that was created for the Watermaster in 2007.

In general, the WY 2010 chemical data from these monitor wells do not show significant changes relative to the results provided in WY 2009, and are not indicative of seawater intrusion into the basin at the locations and depths of the monitor well completions. This is consistent with the

conclusions drawn in the Water Year 2010 Seawater Intrusion Analysis Report (SIAR WY2010) prepared by Hydrometrics, LLC.

#### **Other Basin Monitor and Producer Wells Water-Quality Results**

Water chemistry analytical results for the samples collected from other basin monitor wells and producer wells during WY 2010 are also provided in the table in **Appendix 1**. These include: (a) annual sample results from coastal and inland monitor wells that were added as part of the monitoring well network enhancement study that was conducted by MPWMD for the Watermaster in 2007; (b) annual sample results for the active Watermaster producer wells in the coastal subareas of the basin that are required to collect these samples under the Watermaster's MMP; and (c) annual sample results for the four dedicated coastal Watermaster Sentinel wells that were installed in 2007.

## WATER-LEVEL DATA: BASIN MONITOR AND PRODUCER WELLS

Basin monitor wells and basin producer active and inactive wells with water-level data collected during WY 2010 are provided in **Appendix 2**. The general locations of these wells are shown on **Figure 6**. The Watermaster has requested that producers collect and report "static", i.e., non-pumping, water-level measurements. The purpose for this is so these measurements will more closely approximate ambient groundwater-level conditions, and facilitate the plotting and analysis of well water-level hydrographs. Occasionally, water-level measurements have been collected and reported while the well was in operation. In some cases, this may be due to the fact that the well can not be taken offline to collect a static water-level measurement because of pumping demand requirements. These occurrences have been recorded in the comments section of **Appendix 2**. These water-level data were collected primarily with manual water-level sounding devices by producers or by the MPWMD on behalf of the Watermaster.

These water-level data have been entered into the Watermaster database. The table in **Appendix 2** was generated by obtaining a data dump from the Watermaster database and using the report feature in MS Access. The new table format for this WY 2010 report includes additional information relative to each well and its monitoring schedule. This format will be used as a template to improve the web-based reporting feature of the database. Because this feature is still under development, future water-level tables may differ slightly from the one included in this report.

It should be noted that the table in **Appendix 2** includes the "reference-point elevations" that were surveyed in 2008 for each well, as part of work conducted for the Watermaster. The reference point elevations were established at the water-level data collection point at each wellhead. The reference point elevations are tied to the North American Vertical Datum of 1988 (NAVD88). The measurements in NAVD88 datum have been adjusted for the Watermaster's use by subtracting 2.97 feet to conform to local Mean Sea Level (MSL) reference, based on data provided by the surveyor. The "depth to water" measurement at each well is subtracted from the reference-point

elevation to obtain the "water elevation" relative to MSL, as shown in the column to the right of the "depth to water" column of the table.

Water-level hydrographs for the MPWMD monitor wells located in the Northern Coastal Subarea and the Watermaster Sentinel wells are included in **Appendix 3**. The long-term hydrograph figures for the MPWMD monitor wells were generated to provide historical static water-level data for the wells with longer data records in the Seaside Groundwater Basin. The Sentinel well hydrographs were included to comply with monthly water-level reporting requirements.

**Appendix 4** contains graphs of the continuous water level records collected from the Sentinel Wells for the first and second quarters of WY 2010. It should be noted the instrument in Sentinel Well #4 malfunctioned during the second quarter which resulted in data corruption for the device. Therefore, data from this well is not included in this appendix. The device has been sent back to the manufacturer for repair.

## CONCLUSIONS

- Due to actions by the Watermaster in WY 2009 to notify and remind basin producers of their obligations to collect required groundwater level and groundwater quality data from their wells, the availability of these data to assist in analysis of the basin's groundwater resources has greatly improved compared to prior years.
- The chemical data from WY 2010 for the MPWMD dedicated coastal monitor wells do not show significant changes relative to previous samplings, and are not indicative of seawater intrusion into the basin at the locations and depths of these monitor wells. This conclusion continues to be supported by work completed this year for the Watermaster as documented in the WY 2010 Seawater Intrusion Analysis Report prepared by HydroMetrics, LLC.
- Based on the water-level data collected during WY 2010, water-level elevations varied from -51.06 feet mean sea level (MSLI) (Well No. 107) to +55.48 feet MSL (Well No. 177) in the coastal subareas of the basin, and from -18.49 feet MSL (Well No. 119) to +252.78 feet MSL (Well No. 139) in the inland subareas of the basin.
- Based on the long-term water-level hydrographs for coastal monitor wells presented in **Appendix 3**, the trend of declining groundwater levels is continuing in the deeper Santa Margarita aquifer monitor wells, whereas groundwater levels have generally stabilized, and in a few cases displayed an overall increase in the shallower Paso Robles aquifer. The high water levels in the Santa Margarita monitoring wells for WY 2010 seen in these plates are higher than water levels from WY 2009. This increase is likely due to a wetter winter and the injection of a record volume of 1,111 AF of water into the Santa Margarita aquifer by the MPWMD and Cal-Am at the Phase 1 Aquifer Storage and Recovery site in Seaside..

### **RECOMMENDATIONS**

- Groundwater quality samples should be obtained from the Camp Huffman well during the fourth quarter of WY 2011 to continue to establish a water quality baseline for these monitor wells.
- MPWMD staff should investigate the feasibility of deploying a continuous water quality monitoring data logger in a coastal monitoring well as a trial method of monitoring for seawater intrusion using this technology.
- Reporting of water levels and quality should be reduced to semi-annual. Quarterly water quality reporting is problematic due to the time required to process and analyze water quality samples.
- Consideration should be given to revising the boundary of the Seaside Groundwater Basin based on the more recent understanding of the basin boundaries than the depiction that is currently used by the Watermaster.

## Table 1. Summary of Well Completions, MPWMD Coastal Seaside Basin Watermaster Well.

SUMMAR	Y OF MPWMD COASTAL S	EASIDE	BASIN	GRO	UNDV	VATE	r quali	ΤΥ ΜΟΝ	ITOR	WELLS		
Well Name	Location Description	Well Number	Date Drilled	DWR Drillers Log	Hole Depth (feet)	Well Depth (feet)	Screened Interval (feet)	Strata Seal (feet)	Casing Type	Geologic Unit	E-Log	Elevation (feet AMSL)
	former MSC mine north of Playa	Ave. and we	estofHw	y. 1								
M SC-Shallo w	approx. 10' S of north property line	15S/1E-15N3	5/25/1990	338413	720	695	490 680	95 - 275	2" pvc	QTp		80.1
M SC-Deep	approx. 7' E of MSC-Shallow	15S/1E-15N2	5/25/1990	338425	920	865	810 - 850	725 - 775	2" pvc	Tsm	yes	80.29
ST	former PCA mine W of Hwy. 1											
PCA-W Shallow	approx. 200' SE of ocean bluff	15S/1E-15F1	3/28/1990	338400	600	585	525 - 575	120 - 150	2"pvc	QTp		64.22
PCA-W Deep	approx. 50' E of PCA-W Shallow	15S/1E-15F2	3/90	338401	900	885	825 - 875	760 - 790	2" pvc	Tsm	yes	65.18
ST	vacant lot NE of Seaside High bas	seball field										
PCA-E Shallow	approx. 300' E Monterey Rd, 50" N fence	15S/1E-15K5	4/16/1990	338402	863	410	350 - 400	110 - 150	2" pvc	QTp		68.51
PCA-E Deep	(same borehole as shallow well)	15S/1E-15K4	4/16/1990	338402	863	710	650 - 700	580 - 620	2" pvc	Tsm	yes	68.54
RRACE	Ord Terrace School property sout	ch of Ord G	rove Ave									
OT-Shallow	1700 block Ord Grove Ave.	15S/1E-23Ca	8/5/1999		530	340	280 - 330	0 - 260	2" pvc	upper Tsm		228.65
OT-Deep	(same borehole as shallow well)	15S/1E-23Cb	8/5/1999		530	450	390 - 440	350 - 377	2" pvc	lower Tsm	yes	228.63
D #FO-09	E of Hwy.1, SE of Okinawa Rd.											
#9-Shallow	50' east of utility service rd.	15S/1E-11Pa	8/16/1994		1,110	660	610 - 650	500 - 540	2" pvc	QTp (?)		118.89
#9-Deep	(same borehole as shallow well)	15S/1E-11Pb	8/16/1994		1,110	840	790 - 830	700 - 765	2" pvc	Tsm (?)	yes	118.85
D # FO-10	south of Light Fighter Drive, behi	nd Barker	Fheater B	uilding								
#10-Shallow	20' north of access road curb	15S/1E-12Fa	9/3/1996		1,500	650	620 - 640	480 - 500	2" pvc	QTp		200.85
# 10-Deep	(same borehole as shallow well)	15S/1E-12Fc	9/3/1996		1,500	1,420	1380 - 1410	1280 - 1300	2" pvc	Tsm (?)	yes	20103
	SUMMAR Well Name MSC-Shallow MSC-Deep ST PCA-WShallow PCA-WDeep ST PCA-E Shallow PCA-E Deep RRACE OT-Shallow OT-Deep D # FO-09 # 9-Shallow # 9-Deep D # FO-10 # 10-Shallow	SUMMARY OF MPWMD COASTAL SWell NameLocation Descriptionformer MSC mine north of PlayaMSC-Shallowapprox. 10' S of north property lineMSC-Deepapprox. 7' E of MSC-ShallowSTformer PCA mine W of Hwy. 1PCA-W Shallowapprox. 200' SE of ocean bluffPCA-W Deepapprox. 50' E of PCA-W ShallowSTvacant lot NE of Seaside High basPCA-E Shallowapprox. 300' E Monterey Rd, 50" N fencePCA-E Deep(same borehole as shallow well)RRACEOrd Terrace School property soutOT-Shallow1700 block Ord Grove Ave.OT-Deep(same borehole as shallow well)D # FO-09E of Hwy.1, SE of Okinawa Rd.# 9-Deep(same borehole as shallow well)D # FO-10south of Light Fighter Drive, behi# 10-Deep(same borehole as shallow well)	SUMMARY OF MPWMD COASTAL SEASIDEWell NameLocation DescriptionWell Numberformer MSC mine north of Playa Ave. and we approx. 10' S of north property 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Ave. and west of HwMSC-Shallowapprox. 10' S of north property line155/1E-15N35/25/1990MSC-Deepapprox. 7' E of MSC-Shallow155/1E-15N25/25/19905/25/1990STformer PCA mine W of Hwy. 15/25/1990PCA-W Shallowapprox. 200' SE of ocean bluff155/1E-15F13/28/1990PCA-W Deepapprox. 50' E of PCA-W Shallow155/1E-15F23/90STvacant lot NE of Seaside High baseball field7/203/90PCA-E Deep(same borehole as shallow well)155/1E-15K54/16/1990PCA-E Deep(same borehole as shallow well)155/1E-23Ca8/5/1999OT-Deep(same borehole as shallow well)155/1E-23Cb8/5/1999OT-Deep(same borehole as shallow well)155/1E-11Pa8/16/1994#9-Shallow50' east of utility service rd.155/1E-12Fa9/3/1996#10-Shallow20' north of access road curb155/1E-12Fa9/3/1996#10-Shallow20' north of access road curb155/1E-12Fa9/3/1996#10-Deep(same borehole as shallow well)155/1E-12Fa9/3/1996#10-Deep(same borehole as shallow well)155/1E-12Fa9/3/1996	SUMMARY OF MPWMD COASTAL SEASIDE BASIN GROUND Well NameLocation DescriptionWell NumberDate Drilled 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338425         920         865           ST         former PCA mine W of Hwy. 1         55/1E-15N2         5/25/1990         338400         600         585           PCA-WShallow         approx. 50° E of PCA-WShallow         155/1E-15F2         3/90         338401         900         885           ST         vacant lot NE of Seaside High bas-ball field         55/1E-15K5         4/16/1990         338402         863         410           PCA-E Deep         (same borehole as shallow well)         155/1E-15K5         4/16/1990         338402         863         710           RRACE         Ord Terrace School property south of Ord Grove Ave.         55/1E-23Ca         8/5/1999          530         340           O'Hoolock Ord Grove Ave.         155/1E-13EK         4/16/1990         338402         660         710</td> <td>SUMMARY OF MPWMD COASTAL SEASIDE         BASIN         GROUNDWATER         QUALI           Well Name         Location Description         Well Number         Date Drilled         DWR Drilles         Hole Drilles         Well Depth (feet)         Screened Interval (feet)         Screened Interval (feet)           MSC-Shallow         approx. 10' S of north property line approx. 10' S of north property line sprox. 10' S of north property line approx. 20' S of ocean bluff         ISS/IE-ISN3         5/25/1990         338413         720         695         490 680           MSC-Deep         approx. 20' S of ocean bluff         ISS/IE-ISN3         5/28/1990         338400         600         585         525 - 575           PCA-W Shallow         approx. 20' S of ocean bluff         ISS/IE-ISF1         3/28/1990         338400         600         585         525 - 575           PCA-W Deep         approx. 300' E M Onterey Rd, 50'' N fence         ISS/IE-ISF4         4/16/1990         338402         863         410         350 - 400           PCA-E Baelow         approx. 300' E M Onterey Rd, 50'' N fence         ISS/IE-ISF4         4/16/1990         338402         863         410         350 - 400           PCA-E Baelow         ipotok Ord Grove Ave.         Ipotok Ord Grove Ave.         Ipotok Ord Grove Ave.         Ipotok Ord Grove Ave.         Ipotok Ord Grove Ave</td> <td>SUMMARY OF MPWMD COASTAL SEASIDE BASIN GROUNDWATER QUALITY MON Well Name           Well Name         Location Description         Well Number         Date Drilled         DWR Drilles         Hole Depth Loa         Well Opeth (feet)         Screened Interval         Strata Seal           MSC-Shallow         approx. D' S of north property line         f55/fE-15N3         5/25/1990         338413         720         695         490 680         95 - 275           MSC-Shallow         approx. D' S of north property line         f55/fE-15N2         5/25/1990         338413         720         695         490 680         95 - 275           ST         former PCA mine W of Hwy. 1         FS/fE-15N2         5/25/1990         338400         600         585         525 - 575         120 - 150           PCA-WShallow         approx. 200' SE of ocean bluff         fSs/fE-15F2         3/90         338400         600         585         525 - 575         120 - 150           PCA-WShallow         approx. 300' E Monterey Rd, 50''N fnere         fSs/fE-15F2         3/90         338402         863         410         350 - 400         100 - 150           PCA-E Shallow         approx. 300' E Monterey Rd, 50''N fnere         fSs/fE-15K5         4/15/1990         338402         863         410         350 - 400         100</td> <td>SUMMARY OF MPWMD COASTAL SEASIDE BASIN GROUNDWATER QUALITY MONITOR           Well Name         Location Description         Well Number         Date Drilled         DWR Drilles         Hole Depth Drilles         Well Depth (feet)         Screened Interval (feet)         Strata Seal (feet)         Casing Type           former MSC mine north of Playa Ave. and west of Hwy. 1         Image: Comparison of the the the the the the the the the the</td> <td>SUMMARY OF MPWMD COASTAL SEASIDE BASIN GROUNDER QUALITY MONTOR WELLS           Well Name         Location Description         Well Number         Date Drilled         DWR Drillers         Hole Depth         Well Interval (feet)         Strats (feet)         Strats (feet)         Strats (feet)         Casing Type         Geologic Unit           MSC-Shallow         approx. 10° Sof north property line         155/1E-15N3         5/25/1990         338413         720         695         490 680         95 - 275         2" pvc         QTp           MSC-Shallow         approx. 10° Sof north property line         155/1E-15N2         5/25/1990         338425         920         865         810 - 850         725 - 775         2" pvc         Tsm           ST         former PCA mine W of Hwy. 1         IS         IS         15/1E-15F1         3/28/1990         338401         900         885         825 - 875         760 - 790         2" pvc         Tsm           ST         vacant lot NE of Seaside High baseball field         IS         15/1E-15F2         3/90         338401         900         885         825 - 875         760 - 790         2" pvc         Tsm           PCA-WDeep         approx. 300° E Monterey Rd, 50" N fence         ISS/1E-15K3         4/15/1990         338402         863         410&lt;</td> <td>SUMMARY OF MPWMD COASTAL SEASIDE BASIN GROUNDER UNDER U</td>	SUMMARY OF MPWMD COASTAL SEASIDE BASIN GROUNDWWell NameLocation DescriptionWell NumberDate DilledDWR DilledHole Depth Logformer MSC mine north of Playa Ave. and vet of Hwy. 1former MSC mine north of Playa Ave. and vet of Hwy. 138413720MSC-Shallowapprox. 10' S of north property line155/1E-15N35/25/1990338425920MSC-Deepapprox. 7' E of MSC-Shallow155/1E-15N25/25/1990338402920STformer PCA mine W of Hwy. 1Image: Signature of the colspan="2">Image: Signature of the colspan="2">Image: Signature of the colspan="2">Signature of the colspan="2"PCA-E Shallowapprox. 300' E Mo	SUMMARY OF MPWMD COASTAL SEASIDE BASIN GROUNDWATE           Well Name         Location Description         Well Number         Date Drilled         DWR Drilles         Hole Depth (feet)         Well Depth (feet)           MSC-Shallow         approx. 10° S of north property line         55/1E-15N3         5/25/1990         338413         720         695           MSC-Shallow         approx. 7° E of MSC-Shallow         155/1E-15N2         5/25/1990         338425         920         865           ST         former PCA mine W of Hwy. 1         55/1E-15N2         5/25/1990         338400         600         585           PCA-WShallow         approx. 50° E of PCA-WShallow         155/1E-15F2         3/90         338401         900         885           ST         vacant lot NE of Seaside High bas-ball field         55/1E-15K5         4/16/1990         338402         863         410           PCA-E Deep         (same borehole as shallow well)         155/1E-15K5         4/16/1990         338402         863         710           RRACE         Ord Terrace School property south of Ord Grove Ave.         55/1E-23Ca         8/5/1999          530         340           O'Hoolock Ord Grove Ave.         155/1E-13EK         4/16/1990         338402         660         710	SUMMARY OF MPWMD COASTAL SEASIDE         BASIN         GROUNDWATER         QUALI           Well Name         Location Description         Well Number         Date Drilled         DWR Drilles         Hole Drilles         Well Depth (feet)         Screened Interval (feet)         Screened Interval (feet)           MSC-Shallow         approx. 10' S of north property line approx. 10' S of north property line sprox. 10' S of north property line approx. 20' S of ocean bluff         ISS/IE-ISN3         5/25/1990         338413         720         695         490 680           MSC-Deep         approx. 20' S of ocean bluff         ISS/IE-ISN3         5/28/1990         338400         600         585         525 - 575           PCA-W Shallow         approx. 20' S of ocean bluff         ISS/IE-ISF1         3/28/1990         338400         600         585         525 - 575           PCA-W Deep         approx. 300' E M Onterey Rd, 50'' N fence         ISS/IE-ISF4         4/16/1990         338402         863         410         350 - 400           PCA-E Baelow         approx. 300' E M Onterey Rd, 50'' N fence         ISS/IE-ISF4         4/16/1990         338402         863         410         350 - 400           PCA-E Baelow         ipotok Ord Grove Ave.         Ipotok Ord Grove Ave.         Ipotok Ord Grove Ave.         Ipotok Ord Grove Ave.         Ipotok Ord Grove Ave	SUMMARY OF MPWMD COASTAL SEASIDE BASIN GROUNDWATER QUALITY MON Well Name           Well Name         Location Description         Well Number         Date Drilled         DWR Drilles         Hole Depth Loa         Well Opeth (feet)         Screened Interval         Strata Seal           MSC-Shallow         approx. D' S of north property line         f55/fE-15N3         5/25/1990         338413         720         695         490 680         95 - 275           MSC-Shallow         approx. 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NOTES:

1. Official State well numbers end with a numeral; unofficial MPWMD well numbers end with a small case letter.

2. Geologic Unit refers to the unit adjacent to the screened interval: QTp = Paso Robles Formation; Tsm = Santa Margarita Sandstone.

3. Elevation refers to the water level reference point elevation surveyed by Central Coast Surveyors. For additional information, see "Documentation of 2008 Well Elevation Surveys", M P WM D Seaside Basin Watermaster M emorandum 2008-05.

4. Well completion data at site MSC are documented in "Installation of Monitoring Well Cluster, Monterey Sand Company", Staal, Gardner & Dunne, Inc. (SGD), July 1990.

5. Well completion data at sites PCA West and PCA East are documented in "Hydrogeologic Investigation, PCA Well Aquifer Test", SGD, July 1990.

6. Well completion data at site M PWM D FO-09 are documented in "Summary of 1994 Fort Ord Monitor Well Installations", M PWM D Technical Memorandum 94-07.

7. Well completion data at site M PWM D FO-10 are documented in "Summary of 1996 Seaside Basin Monitor Well Installations", M PWM D Technical M emorandum 97-04.

8. Two dashes (i.e., "- -") indicate multiple screened intervals.

9. Three dashes (i.e., "- - -") indicate not applicable or not available.

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## Figure 1. Location of Weather Station KMRY and Average Annual Rainfall for the Seaside Groundwater Basin, Seaside, CA



Datasources: Rainfall Totals - Monterey County Photobase - AMBAG 2005





Figure 2. Daily and Cumulative Rainfall for Water Year 2010 recorded at Weather Underground Weather Station KMRY, Seaside, California





Monterey Peninsula Water Management District Figure 3. Daily Rainfall at Weather Station KMRY and Average Daily Flow at Arroyo Del Rey at Del Rey Oaks Stream Gage for Water Year 2010, Seaside, California

U:\jlear\Watermaster\Weather Station2

## **Monterey Peninsula Water Management District**

## Legend

## **Monitor Well**

## **Data Type and Frequency**

- Water Level Monthly  $\oplus$ 
  - Water Level Monthly, Water Quality Annual
  - Water Level Monthly, Water Quality Quarterly
  - Water Level Quarterly



## Figure 4. Seaside Groundwater Basin Watermaster **Monitoring Well Network, Seaside, CA**



Datasources: Rainfall Totals - Monterey County Photobase - AMBAG 2005







Figure & Low Flow Groundwater Sampling System Presented in Cartoon and Photograph

Monterey Peninsula Water Management District



Figure 6. Seaside Groundwater Basin Watermaster Wells by Category, Seaside, CA



# Appendix 1

Seaside Basin Groundwater Quality Monitoring Results

for Water Year 2010

Date Of Sample	Specific Conductance (micro mhos/cm)	Total Alkalinity (as CACO3)	pH (units)	Chloride	Sulfate	Ammonia Nitrogen (as NH3)	Nitrate Nitrogen (as NO3)	Total Organic Carbon	Calcium	Sodium	Magnesium	Potassium	ı Iron	Manganese	Orthophosphate	Total Dissolved Solids	Hardness (as CaCO3	3) Boron	Bromide	Fluoride
								All units	in ma/l	unless	otherwise	noted								
Well Number	r· 101 Name· M	SC-Shallow						All units	in nig/ L	unicoo		noted								
7/27/2010	322	65	7.2	49	15	<0.05	<1	0.51	19	33	7	2.8	0.08	0.013	< 0.05	215	76	0	<0.05	0.11
2/23/2010	305	74	7.8	34	16	< 0.05	<1	0.45	18	33	5	2.9	<0.0	0.030	<0.1	205	66	0.04	<0.2	0.15
11/18/2009	313	74	7.4	44	18	0.19	2	1.2	18	40	5	3.3	0.07	<0.020	<0.1	198	66	0.06	<0.2	0.11
Well Number	r: 102 Name: M	SC-Deep																		
7/27/2010	1048	267	7.0	135	30	0.11	1	0.75	80	119	12	4.9	0.16	0.089	<0.05	610	249	0.1	0.06	0.16
2/23/2010	1030	272	7.1	110	34	0.11	<1	0.65	78	107	15	4.8	0.07	0.108	<0.1	605	257	0.11	<0.2	0.24
11/18/2009	676	181	6.8	80	19	0.26	1	1.6	52	70	10	4.4	0.19	0.040	<0.1	443	171	0.06	0.2	0.14
Well Number	r: 103 Name: P0	CA-W Shallo	w																	
7/30/2010	310	76	7.4	49	11	<0.05	2	0.35	20	35	5	2.5	0.06	<0.020	<0.05	223	71	0	<0.05	0.12
3/1/2010	311	70	7.5	40	11	<0.05	4	0.47	18	34	5	2.3	<0.0	<0.020	<0.1	210	66	0.03	<0.2	0.16
11/20/2009	313	70	7.5	46	11	0.18	4	0.27	19	37	5	2.6	0.06	<0.020	<0.1	214	68	0.00	<0.2	0.11
Well Number	r: 104 Name: P0	CA-W Deep																		
7/30/2010	1057	268	7.1	173	40	<0.05	<1	0.67	86	114	18	5.3	0.20	0.198	<0.05	645	289	0.11	<0.05	0.32
3/1/2010	1042	260	7.3	148	40	<0.05	<1	0.65	81	110	18	5.0	<0.0	0.155	<0.1	590	276	0.12	<0.2	0.32
11/20/2009	1028	261	7.2	154	42	0.13	1	0.54	79	116	17	5.3	0.36	0.108	<0.1	625	267	0.13	0.5	0.23
Well Number	r: 105 Name: P0	CA-E (Multip	ole) Shallo	w																
7/28/2010	409	110	7.1	57	19	0.07	<1	1.9	34	52	5	3.4	0.46	0.084	0.11	258	105	0.1	0.13	0.09
Well Number	r: 106 Name: P(	CA-F (Multin	le) Deen																	
7/28/2010	610	156	6.8	74	22	<0.05	<1	0.48	41	77	7	3.5	0.24	0.027	<0.05	375	131	0.1	0.07	0.38
Wall Number	r: 100 Nome: O	d Torrooo S	hallow																	
8/25/2010	795	204	7.5	99	37	<0.05	6	0.50	67	79	15	39	0.05	0.064	<0.05	495	229	0.05	0.24	0.16
0,20,2010	100	20T	7.0	00	57	~0.00	0	0.00	01	75	10	0.0	0.00	0.004	~0.00			0.00	0.27	0.10
Well Number	r: 111 Name: M	PWMD #FO-	09-Shallo	w																
7/28/2010	358	73	7.8	56	15	<0.05	1	0.64	31	33	4	3.6	0.17	0.014	0.13	248	94	0	0.13	0.06
2/22/2010	340	75	7.9	42	20	<0.05	<1	0.44	22	40	4	3.3	<0.0	<0.020	<0.1	225	71	0.06	<0.2	0.21
11/17/2009	354	78	7.8	46	25	0.27	<1	0.74	26	45	3	3.8	0.05	<0.02	<0.1	203	77	0.1	<0.2	<0.10

All units in mg/L unless otherwise noted				
Well Number: 112 Name: MPWMD #FO-09-Deep				
7/28/2010 445 97 6.5 73 14 <0.05 <1 0.51 27 57 4 3.7 2.40 0.022 <0.05 2	3 84	0.1	<0.05	0.12
2/22/2010 438 104 7.3 56 16 <0.05 <1 0.45 26 54 4 3.4 <0.6 <0.020 <0.1 26	3 81	0.07	<0.2	0.16
11/18/2009 420 96 6.5 58 16 0.05 <1 0.25 26 52 4 3.5 <0.0 0.020 <0.1 28	5 81	0.09	0.2	<0.10
Well Number: 113 Name: MPWMD #FO-10-Shallow				
8/5/2010 357 64 7.4 63 11 <0.05 2 0.26 22 41 6 2.1 0.10 0.077 0.25 24	3 80	0	0.15	<0.10
Well Number: 114 Name: MPWMD #FO-10-Deep			0.40	
8/3/2010 376 66 7.5 66 9 0.36 4 2.0 27 43 4 3.3 9.03 0.164 <0.05 25	b 84	0	0.16	0.07
Well Number: 141 Name: LS Driving Range (SCS Deep)				
8/2/2010 1111 108 6.4 254 54 <0.05 1 0.44 39 145 26 5.1 0.15 <0.010 0.21		0.07		
Well Number: 151 Name: CAW - Military	0.014	0.054	0.00	.0.1
176/2010 750 94 7.46 106.9 117.3 <0.10 1.4 0.4 63 63.7 13 0 0.56 0.095 <1.2 44	) 211	0.054	0.33	<0.1
Well Number: 153 Name: CAW - Ord Grove #2				
7/6/2010 890 185 6.92 130 63.9 <0.10 1.5 0.55 67 88 17 0 <0.0 0.018 <1.2 5	) 237	0.144	0.46	0.2
Well Number 155 Nemes DDTIW				
8/2/2010 646 109 7.3 99 48 <0.05 15 1.2 41 67 12 3.2 0.71 <0.010 <0.05		0		
		<u> </u>		
Well Number: 159 Name: CAW - New Luzern				
7/6/2010 900 155 7.02 130.7 81.3 <0.1 4.9 0.53 64 90.3 17 0 <0.0 0.015 <1.2 52	) 230	0.118	0.43	0.2
Wall Number: 162 Name: CAW-Playa #3				
7/6/2010 870 123 7.1 127.1 99 <0.1 6.2 0.73 60 90.2 18 0 <0.0 <0.010 <1.2 5 <sup>-1</sup>	) 224	0.133	0.47	0.1
		000	0	
Well Number: 165 Name: Public Works Corp. Yard				
7/30/2010 1207 108 7.2 232 125 0.58 29 0.92 42 196 9 5.5 0.01 <0.020 <0.05 73	5 142	0.67	0.39	2.17
Well Number: 169 Name: CAW - Paralta				
7/6/2010 770 196 7.22 88.5 70.1 <0.10 0.2 0.59 62 74.1 14 0 <0.0 0.023 <1.2 43	) 212	0.09	0.28	0.3

Date Of Sample	Specific Conductance (micro mhos/cm)	Total Alkalinity (as CACO3)	pH (units)	Chloride	Sulfate	Ammonia Nitrogen (as NH3)	Nitrate Nitrogen (as NO3)	Total Organic Carbon	Calcium	Sodium	Magnesium	Potassium	Iron	Manganese	Orthophosphate	Total Dissolved Solids	Hardness (as CaCO	s 3) Boron	Bromide	Fluoride
								All units	in ma/l	unless	otherwise	noted								
Well Number	r: 173 Name: Ci	tv #4																		
7/19/2010	472	77	7.0	85	22	<0.10	7	0.39	25	52	7.2	2.2	<0.0	<0.0005	< 0.03	292	92.1	0.329	0.23	0.12
10/1/2009	366	58	7.0	61	13	0.19	13		16	44	6	1.5	<0.0	<0.02	0.06	252	64.7	0.19	0.11	0.08
Well Numbe	r: 177 Name: C/	AW - Plumas	s #4																	
7/6/2010	1100	129	6.89	205.5	83.9	<0.10	2.5	0.59	52	124.8	24	0	<0.0	<0.010	<1.2	580	229	0.112	0.68	0.2
Well Number	r: 186 Name: C/	۵W - Darwin																		
7/6/2010	440	51	6.96	66	33.5	<0.10	7.6	0.42	20	48.5	9	0	0.65	0.042	<0.60	260	87	0.059	0.2	<0.1
Well Number	r· 187 Name· Re	eservoir Wel	1																	
7/21/2010	394	51	7.2	87	9	<0.10	5	0.57	17	51	5.5	1.8	0.36	<0.0005	0.07	252	65.1	0.399	<0.10	0.10
10/1/2009	359	48	7.4	73	8	0.30	5		60	69	16	2.6	0.28	<0.02	<0.2	240	216	0.27	0.14	0.07
Well Numbe	r: 189 Name: Co	oe Avenue																		
7/28/2010	488	89	7.4	83	24	<0.10	7	0.60	32	53	8.0	2.2	<0.0	<0.0005	0.04	312	113	0.377	0.19	0.09
10/1/2009	748	147	7.2	107	41	0.08	16		14	44	6	1.5	0.28	<0.02	<0.2	488	56.5	0.21	0.24	0.08
Well Numbe	r: 196 Name: M	CPD #2																		
7/29/2010	506	104	6.6	84	12	<0.05	<1	1.0	12	84	8	2.2	3.80	0.112	0.10	315	63	0.09	0.10	0.16
Well Number	r: 203 Name: Ne	ew #12																		
7/29/2010	1522	239	6.9	252	208	0.27	1	1.8	148	140	34	5.7	0.45	0.053	<0.05	1010	510	0.11	0.58	0.64
Well Number	r: 204 Name: Ne	ew Paddock																		
7/30/2010	1345	237	7.3	201	198	0.06	6	1.6	128	122	31	4.8	0.30	0.028	<0.05	895	447	0.09	0.44	0.69
Well Number	r: 212 Name: Yo	ork School 0	1-349																	
7/29/2010	1190	68	6.5	296	38	<0.05	5	0.44	36	156	27	4.1	0.45	<0.020	0.26	773	201	0.07	0.90	0.23
Well Number	r: 213 Name: R	/an Ranch #	7																	
7/7/2010	1300	210	6.58	197.6	153.2	0.95		1.94	90	133	26	6	0.4	0.164	<1.8	750	332	0.135	0.72	0.6
Well Number	r: 215 Name: R	/an Ranch #	11																	
7/7/0040	4500	404	6.47	202.4	160.7	0.12	0.2	1.05	00	172 /	20	Б	0.76	0 1 2 7	-1 0	000	262	0 1 2 2	1.07	0.5

Date Of Sample	Specific Conductance (micro mhos/cm)	Total Alkalinity (as CACO3)	pH (units)	Chloride	Sulfate	Ammonia Nitrogen (as NH3)	Nitrate Nitrogen (as NO3)	Total Organic Carbon	Calcium	Sodium	Magnesium	Potassium	n Iron	Manganese	Orthophosphate	Total Dissolved Solids	Hardness (as CaCO3)	Boron	Bromide	Fluoride
								All units	in mg/l	L unless	otherwise	noted								
Well Numbe	er: 216 Name: Ry	an Ranch #	8																	
7/7/2010	1400	140	6.37	269.5	110.8	16	0.7	1.37	67	164.9	30	0	0.13	0.044	2.3	840	291	0.12	1.01	0.5
Well Numbe	er: 231 Name: De	el Monte Tes	st																	
7/6/2010	380	85	7.55	57.4	12.5	<0.10	0.3	<0.25	20	41.7	7	0	1.39	0.059	<0.60	220	79	0.06	0.19	0.1
Wall Numba	vi 245 Nomo, Sa	ntinal MM/ t	41 Samal	ad at 11	40															
9/8/2010	395	91	8.5	66	23		<1		10	79	1	33	1 67	0.018	<0.05	235	29			0.19
0,0,2010	000	01	0.0	00	20				10	10	•	0.0	1.07	0.010	<0.00	200	20			0.10
Well Numbe	er: 245 Name: Se	entinel MW #	#1 Sampl	ed at 13	90															
9/8/2010	395	96	8.7	63	23		<1		11	75	1	3.0	0.04	<0.010	<0.05	235	32			0.22
Woll Numbe	vr: 246 Namo: So	ntinol MW #	42 Samal	od at 10	00															
9/8/2010	418	95	8.4	68	16		<1		15	69	2	3.4	0.89	0.011	< 0.05	238	46			0.19
											_									
Well Numbe	er: 246 Name: Se	entinel MW #	#2 Sampl	ed at 14	70															
9/8/2010	421	111	8.4	62	17		<1		15	73	2	3.3	0.04	<0.010	<0.05	250	46			0.22
Well Numbe	er: 247 Name: Se	entinel MW #	#3 Sampl	ed at 87	0															
9/8/2010	401	81	8.0	68	16		<1		15	67	2	3.8	<0.0	<0.010	<0.05	248	46			<0.10
Well Numbe	er: 247 Name: Se	entinel MW #	#3 Sampl	ed at 12	75		4					1.0	0.01	0.040	0.05	050	10			0.40
9/8/2010	401	81	8.0	68	16		<1		16	66	2	4.0	0.21	0.010	<0.05	253	48			<0.10
Well Numbe	er: 248 Name: Se	entinel MW #	#4 Sampl	ed at 71	5															
7/9/2010	1440	294	7.3	215	44		2		74	190	19	8.6	0.06	0.119	<0.05	820	263			0.23
1/21/2010	1382	271	7.7	256	38		<1		77	180	19	8.6	0.2	0.089	<0.1	813	271			<0.10
Well Numbe	er: 248 Name: Se	entinel MW #	#4 Sampl	ed at 90	n															
7/9/2010	848	214	7.5	98	- 38		<1		62	100	8	5.6	0.04	0.044	<0.05	512	188			0.21
1/20/2010	852	195	7.9	122	37		<1		56	100	10	7.6	0.1	0.038	<0.1	518	181			<0.10
Well Number																				
8/26/2010	713	103	9(S) 8.2	1/5	18	0.05	3	1 10	46	70	1/	3 /	0.04	~0.010	~0.05	478	173	0	0.48	0.16
0/20/2010	715	105	0.2	143	10	0.05	5	1.10	40	13	14	5.4	0.04	~0.010	<b>NO.00</b>	470	175	U	0.40	0.10

Date Of Sample	Specific Conductance (micro mhos/cm)	Total Alkalinity (as CACO3)	pH (units)	Chloride	Sulfate	Ammonia Nitrogen (as NH3)	Nitrate Nitrogen (as NO3)	Total Organic Carbon	Calcium	Sodium	Magnesium	Potassium	Iron	Manganese	Orthophosphate	Total Dissolved Solids	Hardness (as CaCO3)	Boron	Bromide	Fluoride
								All units	s in mg/l	L unless	otherwise	noted								
Well Numbe	er: 250 Name: SE	3WM MW #5	i(d)																	
8/26/2010	965	268	8.4	121	45	0.13	<1	0.95	77	104	21	5.5	0.56	0.187	<0.05	580	279	0.07	0.42	0.43
Well Numbe	er: 258 Name: MV	N-B-23-180																		
7/27/2010	990	169	7.3	132	65	<0.05	44	0.94	50	109	29	4.0	<0.0	<0.020	0.07	595	244	0	0.13	<0.10

# Appendix 2

Seaside Basin Groundwater Level Monitoring Results

for Water Year 2010

# Groundwater Level Monitoring Data

for the Seaside Groundwater Basin

Water Year 2010 All Quarters

Assembled by MPWMD for the Seaside Watermaster

<u>Well Categ</u>	ory: Produce	r	<u>Subarea:</u> N	Northern Coastal
Atermaster W State Well No. 15S	ell 151 Military 01E14N50Owner:	California America	n Water	Monitored: Monthly Monitored by: CAW Aquifer: OTc
Date Measured	Reference Point	Sc Depth to Water	reen: Static Water Leve	Comments
9/24/2009	135.8	166	-30.20	
10/29/2009	135.8	172	-36.20	
11/25/2009	135.8	171	-35.20	
12/31/2009	135.8	173	-37.20	
1/28/2010	135.8	171	-35.20	
2/25/2010	135.8	170	-34.20	
3/25/2010	135.8	167	-31.20	
4/29/2010	135.8	128	7.80	
5/28/2010	135.8	150	-14.20	
6/24/2010	135.8	150	-14.20	
7/29/2010	135.8	170	-34.20	
8/26/2010	135.8	163	-27.20	
atermaster W State Well No. 15S	ell 152 Target V 01E22C50 Owner:	<b>Vell</b> DBO Development		Monitored: Monthly Monitored by: MPWM
Northern Coastal	Producer	Sc Donth to Water	reen: 360 - 390	Aquiler: Qrc/Isin
	Kelerence Point	Depin to water	Static water Leve	
9/29/2009	44.42	57.5	-13.08	
10/29/2009	44.42	59.96	-15.54	

12/1/2009	44.42	59.69	-15.27
1/7/2010	44.42	59.72	-15.30
1/28/2010	44.42	59.67	-15.25
2/23/2010	44.42	59.59	-15.17
4/9/2010	44.42	59.50	-15.08
5/5/2010	44.42	59.60	-15.18
6/4/2010	44.42	59.49	-15.07
7/2/2010	44.42	59.54	-15.12
8/12/2010	44.42	59.66	-15.24
9/1/2010	44.42	59.61	-15.19

V	Vatermaster We State Well No. 15S	ell 153 Ord Gro 01E23B02 Owner:	<b>)ve #2</b> California America	n Water	Monitored: Monthly Monitored by: CAW
	Northern Coastal	Producer	Sc	reen:	Aquifer: QTc/Tsm
	Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
	9/24/2009	292.39			Well Running
	10/29/2009	292.39	324	-31.61	
	11/25/2009	292.39			Well Running
	12/31/2009	292.39			Well Running
	1/28/2010	292.39	319	-26.61	
	2/25/2010	292.39	312	-19.61	
	3/25/2010	292.39	310	-17.61	
	4/29/2010	292.39			
	5/28/2010	292.39			Well Running
	6/24/2010	292.39	363	-70.61	Well Running
	7/29/2010	292.39	373	-80.61	Well Running
	8/26/2010	292.39	375	-82.61	Well Running

tate Well No. 158	S01E23De Owner:	California America	n Water	Monitored by: CAW
Northern Coastal	Producer	roducer Screen:		Aquifer: Q1c/1sm
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
9/24/2009	156.99			Well Running
10/29/2009	156.99	182.0	-25.01	
11/25/2009	156.99	183.0	-26.01	
12/31/2009	156.99	183.0	-26.01	
1/28/2010	156.99	179.0	-22.01	
2/25/2010	156.99	175	-18.01	
3/25/2010	156.99	172.5	-15.51	
4/29/2010	156.99	172.6	-15.61	
5/28/2010	156.99			Well Running
6/24/2010	159.99	196.6	-36.61	Well Running
7/29/2010	159.99	204	-44.01	Well Running
8/26/2010	159.99	203	-43.01	Well Running

Vatermaster W State Well No. 158	ell 162 Playa #3 501E22B50 Owner:	) California America	n Water	Monitored: Monthly Monitored by: CAW
Northern Coastal	Producer	Sc	reen:	Aquifer: QTc
Date Measured	<b>Reference</b> Point	Depth to Water	Static Water Level	Comments
9/24/2009	53.02			Well Running
10/29/2009	53.02			Well Running
11/25/2009	53.02	56	-2.98	
12/31/2009	53.02	54	-0.98	
1/28/2010	53.02	52	1.02	
2/25/2010	53.02	52	1.02	
3/25/2010	53.02	51	2.02	
4/29/2010	53.02			Well Running
5/28/2010	53.02			Well Running

6/24/2010	53.02	154	-100.98	Well Running
7/29/2010	56.02	55	1.02	
8/26/2010	56.02	163	-106.98	Well Running
Watermaster W State Well No. 15S	ell 169 Paralta S01E14R50 Owner:	California America	n Water	Monitored: Monthly Monitored by: CAW
Northern Coastal	Producer	Sc	reen:	Aquiter: Qic/isin
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
9/24/2009	324.49			Well Running
10/29/2009	324.49	346	-21.51	
11/25/2009	324.49			Well Running
12/31/2009	324.49			Well Running
1/28/2010	324.49	324	0.49	
2/25/2010	324.49	326	-1.51	
3/25/2010	324.49	325	-0.51	
4/29/2010	324.49			Well Running
5/28/2010	324.49			Well Running
6/24/2010	324.49	368	-43.51	Well Running
7/29/2010	324.49	372	-47.51	Well Running
8/26/2010	324.49	371	-46.51	Well Running
Watermaster W	ell 186 Darwin	Colifornia Ameri	n Watan	Monitored: Monthly
Northern Coastal	Producer	Camornia America	reen:	Aquifer: QTc
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
9/24/2009	134.05	116	18.05	
10/29/2009	134.05	123.0	11.05	
11/25/2009	134.05	120.0	14.05	
12/31/2009	134.05	118.6	15.45	
1/28/2010	134.05	115	19.05	
2/25/2010	134.05	113	21.05	

3/25/2010	134.05	111	23.05
4/29/2010	134.05	113	21.05
5/28/2010	134.05	114	20.05
6/24/2010	134.05	114	20.05
7/26/2010	134.05	123	11.05
8/26/2010	134.05	119	15.05

**Well Category:** Producer

**Subarea:** Southern Coastal

atermaster W State Well No. 155	ell 150 Cypress	Pacific King Venture		Monitored: Monthly Monitored by: MPWMD
Southern Coastal	Producer	Sc	reen:	Aquifer: QTc
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
9/29/2009	50.23	47.04	3.19	
10/29/2009	50.23	46.82	3.41	
12/1/2009	50.23	46.51	3.72	
1/7/2010	50.23	46.55	3.68	
1/28/2010	50.23	46.51	3.72	
2/23/2010	50.23	45.97	4.26	
4/9/2010	50.23	45.87	4.36	
5/5/2010	50.23	45.95	4.28	
6/4/2010	50.23	46.46	3.77	
7/2/2010	50.23	46.51	3.72	
8/12/2010	50.23	46.55	3.68	
9/1/2010	50.23	46.50	3.73	
atermaster W State Well No. 155	<b>Tell 165 Public V</b> 501E22T59 Owner:	<b>Vorks Corp. Ya</b> City of Sand City	ord	Monitored: Monthly Monitored by: MPWMI
Southern Coastal	Producer	Sc	ereen:	Aquifer: Qod/Qar/Q
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments

9/29/2009	47.25	42.13	5.12
10/29/2009	47.25	41.78	5.47
12/1/2009	47.25	41.44	5.81
1/7/2010	47.25	41.73	5.52
1/26/2010	47.25	41.42	5.83
2/25/2010	47.25	41.40	5.85
4/9/2010	47.25	41.52	5.73
5/5/2010	47.25	41.59	5.66
6/4/2010	47.25	42.02	5.23
7/2/2010	47.25	41.95	5.30
8/12/2010	47.25	42.05	5.20
9/1/2010	47.25	42.09	5.16

#### Watermaster Well 167 Robinette -Design Ctr. Monthly Monitored: Monitored by: MPWMD State Well No. 15S01E22Mc Owner: City of Sand City Aquifer: Qod/Qar/QTc Southern Coastal Producer Screen: -**Date Measured Reference Point Depth to Water** Static Water Level Comments 10/29/2009 21.31 13.42 7.89 12/1/2009 21.31 13.61 7.70 1/7/2010 21.31 13.62 7.69 1/26/2010 21.31 13.30 8.01 2/25/2010 21.31 13.37 7.94 4/9/2010 13.42 7.89 21.31 5/5/2010 21.31 13.46 7.85

13.35

12.99

13.07

13.01

7.96

8.32

8.24

8.30

6/4/2010

7/2/2010

8/12/2010

9/1/2010

21.31

21.31

21.31

21.31

atermaster W State Well No. 15S	ell 177 Plumas i 01E27Jg Owner:	# <b>4</b> California America	n Water	Monitored: Monthly Monitored by: CAW
Southern Coastal	Producer	Aquifer: Tsm		
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
9/24/2009	161.48			Well Running
10/29/2009	161.48			Well Running
11/25/2009	161.48	171	-9.52	
12/31/2009	161.48	113	48.48	
1/28/2010	161.48	109	52.48	
2/25/2010	161.48	107	54.48	
3/25/2010	161.48	106	55.48	
4/29/2010	161.48			Well Running
5/28/2010	161.48			Well Running
6/24/2010	161.48	155	6.48	Well Running
7/29/2010	161.48	193.60	-32.12	Well Running
8/26/2010	161.48	172	-10.52	Well Running

## **Well Category:** Producer

Subarea: Southern Inland

atermaster W State Well No. 16S	602E05Gf Owner:	#2 Monterey County H	Parks Department	Monitored: Monthl Monitored by: MCPD
Southern Inland	Producer	Sc	reen:	Aquifer: QTc
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
9/4/2009	391.04	193	198.04	
11/9/2009	391.04	186	205.04	
12/9/2009	391.04	175	216.04	
2/5/2010	391.04	173	218.04	
3/10/2010	391.04	173	218.04	

atermaster W State Well No. 16S	ell 197 MCPD # 602E05Ge Owner:	<b>‡1</b> Monterey County F	Parks Department	Monitored: Monthl Monitored by: MCPD
Southern Inland	Producer	Sc	reen: -	Aquifer: QTc
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
9/4/2009	392.86	208	184.86	
11/9/2009	392.86	193	199.86	
12/9/2009	392.86	190	202.86	
2/5/2010	392.86	188	204.86	
3/10/2010	392.86	186	206.86	
<b>atermaster W</b> State Well No. 16S Southern Inland	ell 204 New Pac 02E05Mf Owner: Producer	ldock Pasadera Country C Sc	Club, LLC <b>reen:</b> 306 - 498	Monitored: Month Monitored by: Pasader Aquifer: QTc/Tsm
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
9/30/2009	352.69	229.59	123.10	
11/30/2009	352.69	221.98	130.71	
12/31/2009	352.69	217.89	134.80	
2/1/2010	352.69	214.08	138.61	
3/1/2010	359.69	214.68	145.01	
3/31/2010	359.69	212.94	146.75	
atermaster W State Well No. 16S	ell 208 Main Ga	<b>ate</b> Pasadera Country C	Club, LLC	Monitored: Monthl Monitored by: Pasader
Southern Inland	Producer	Sc	reen: -	Aquifer: Tsm
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
9/30/2009	345.42	229.49	115.93	
11/30/2009	345.42	222.13	123.29	
12/31/2009	345.42	222.79	122.63	

222.74

222.86

220.94

220.41

122.68

122.56

124.48

125.01

2/1/2010

3/1/2010

3/31/2010

4/30/2010

345.42

345.42

345.42

345.42

State Well No. 16S	02E05Ea Owner:	California America	n Water	Monitored b	y: CAW
Southern Inland	Producer	Sc	reen: -	Aquifer:	QTc/Tsm
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Com	ments
9/24/2009	398.81			Well Ru	nning
10/29/2009	398.81			Well Ru	nning
11/25/2009	398.81	264	134.81		
12/31/2009	398.81			Well Ru	nning
1/28/2010	398.81	250	148.81		
2/25/2010	398.81			Well Ru	nning
3/25/2010	398.81	248	150.81		

V	Vatermaster Wo State Well No. 16S	ell 210 Bishop # 02E05Eb Owner: (	2 (east) California America	n Water	Monitored: Monthly Monitored by: CAW
	Southern Inland	Producer	Sc	reen:	Aquifer: QTc/Tsm
	Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
	9/24/2009	418.34			Not Visited
	10/28/2009				Not Visited
	11/25/2009				Not Visited
	12/31/2009				Not Visited
	1/18/2010				Not Visited
	2/25/2010	418.34	248	170.34	
	3/25/2010	418.34	248	170.34	

Vatermaster W State Well No. 15S	ell 212 York Sc 01E36Qa Owner:	<b>hool 01-349</b> York School		Monitored: Monitored b	Monthly y: MPWMD
Southern Inland	Producer	Sc	reen: -	Aquifer:	QTc/Tsm
Date Measured	<b>Reference</b> Point	Depth to Water	Static Water Level	Com	ments
9/25/2009	384.3	223.7	160.60		
10/28/2009	384.3	231.03	153.27		
12/2/2009	384.3	224.05	160.25		
1/7/2010	384.3	278.22	106.08	Well Ru	nning

1/26/2010	384.3	220.08	164.22	
2/25/2010	384.3	221.12	163.18	
3/22/2010	384.3	231.36	152.94	
4/9/2010	384.3	219.90	164.40	
5/5/2010	384.3	224.95	159.35	
6/4/2010	384.3	239.35	144.95	
7/2/2010	384.3	288.99	95.31	
8/12/2010	384.3	226.09	158.21	
9/2/2010	384.3	233.03	151.27	

atermaster W State Well No. 165	Monitored: Monthly Monitored by: CAW			
Southern Inland	Producer	Sc	reen: -	Aquifer: Tsm
Date Measured	<b>Reference</b> Point	Depth to Water	Static Water Level	Comments
9/24/2009	294			Well Running
10/29/2009	294	248	46.00	
11/25/2009	294	225.6	68.40	
12/31/2009	294	210	84.00	
1/28/2010	294	198	96.00	
2/25/2010	294	206.6	87.40	
3/25/2010	294	203	91.00	

Vatermaster Well 215 Ryan Ranch #11           State Well No. 16S01E01Cd Owner: California American Water				Monitored: Monthly Monitored by: CAW
Southern Inland	Producer	Sc	reen:	Aquifer: Tsm
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
9/24/2009	307.59			Well Running
10/29/2009	307.59	204	103.59	
11/25/2009	307.59	196.9	110.69	
12/31/2009	307.59	210	97.59	
1/28/2010	307.59	199	108,59	

2/25/2010	307.59	209	98.59
3/25/2010	307.59	202	105.59

atermaster W State Well No. 16S	ell 216 Ryan Ra 601E01T54 Owner:	<b>anch #8</b> California America	n Water	Monitored: Monthly Monitored by: CAW
Southern Inland	Producer	Sc	reen: -	Aquifer: Tsm
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
9/24/2009	306.86	234	72.86	
10/29/2009	306.86	200.9	105.96	
11/25/2009	306.86	203.7	103.16	
12/31/2009	306.86	210	96.86	
1/28/2010	306.86	198.6	108.26	
2/25/2010	306.86	208	98.86	
3/25/2010	306.86	203	103.86	
4/29/2010	306.86	213	93.86	
5/28/2010	306.86	245	61.86	
6/24/2010	306.86	250	56.86	
7/29/2010	306.86	260	46.86	
8/26/2010	306.86	254	52.86	

V	Vatermaster W State Well No. 16S	Monitored: Monthly Monitored by: CAW			
	Southern Inland	Producer	Sc	creen:	Aquifer: QTc/Tsm
	Date Measured	<b>Reference</b> Point	Depth to Water	Static Water Level	Comments
	9/24/2009	545.92			Well Running
	10/29/2009	545.92	375	170.92	
	11/25/2009	545.92	376	169.92	
	12/31/2009				Well Running
	2/25/2010	545.92	365	180.92	
	3/25/2010	545.92	368.6	177.32	

<u>Well Categ</u>	<u>ory:</u> Monitor		<u>Subarea:</u>	N	orthern Coastal
Watermaster W State Well No. 15S	ell 101 MSC-Sh 01E15N3 Owner:	allow MPWMD			Monitored: Monthly Monitored by: MPWMD
Northern Coastal	Monitor	Sc	reen: 490 -	680	Aquifer: QTc
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water L	Level	Comments
9/29/2009	80.1	77.28	2.82		
10/29/2009	80.1	77.29	2.81		
11/18/2009	80.1	76.67	3.43		
12/2/2009	80.1	76.15	3.95		
1/7/2010	80.1	77.20	2.90		
1/26/2010	80.1	77.47	2.63		
2/22/2010	80.1	76.72	3.38		
4/9/2010	80.1	75.19	4.91		
5/4/2010	80.1	75.39	4.71		
5/10/2010	80.1	75.89	4.21		
6/4/2010	80.1	75.22	4.88		
7/27/2010	80.1	76.00	4.10		
9/1/2010	80.1	75.54	4.56		
9/28/2010	80.1	75.66	4.44		
Watermaster W State Well No. 15S	ell 102 MSC-De 01E15N2 Owner:	eep MPWMD			Monitored: Monthly Monitored by: MPWMD
Northern Coastal	Monitor	Sc	reen: 810 -	850	Aquifer: Tsm
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water L	Level	Comments
9/29/2009	80.29	96.98	-16.69		
10/29/2009	80.29	96.33	-16.04		
11/18/2009	80.29	96.88	-16.59		
12/2/2009	80.29	97.30	-17.01		

1/7/2010	80.29	97.23	-16.94
1/26/2010	80.29	95.21	-14.92
2/22/2010	80.29	91.42	-11.13
4/9/2010	80.29	87.79	-7.50
5/4/2010	80.29	88.02	-7.73
5/10/2010	80.29	89.26	-8.97
6/4/2010	80.29	90.13	-9.84
7/2/2010	80.29	94.28	-13.99
7/27/2010	80.29	95.69	-15.40
9/1/2010	80.29	95.92	-15.63
9/28/2010	80.29	97.51	-17.22

# Watermaster Well 103 PCA-W Shallow State Well No. 15S01E15F1 Owner: MPWMD Northern Coastal Monitor Screen: 525 575 Date Measured Reference Point Depth to Water Static Water Level

Date Measured	<b>Reference</b> Point	Depth to Water	Static Water Level	Comments
11/20/2009	64.22	60.42	3.80	
3/1/2010	64.22	59.48	4.74	
9/28/2010	64.22	59.59	4.63	

Monitored:

Aquifer:

Monitored by: MPWMD

QTc

Quarterly

V	Vatermaster We State Well No. 15S	Monitored:QuarterlyMonitored by:MPWMD			
	Northern Coastal	Monitor	Sc	<b>reen:</b> 825 - 875	Aquifer: Tsm
	Date Measured	<b>Reference</b> Point	Depth to Water	Static Water Level	Comments
	11/20/2009	65.18	84.68	-19.50	
	3/1/2010	65.18	74.47	-9.29	
	9/28/2010	65.18	85.79	-20.61	

Water State	master W Well No. 158	ell 105 PCA-E ( 01E15K5 Owner: ]	<b>Multiple) Shall</b> MPWMD	ow		Monitored: Monitored	Monthly by: MPWMD
North	ern Coastal	Monitor	Sc	reen: 350 -	400	Aquifer:	QTc
Date	Measured	<b>Reference Point</b>	Depth to Water	Static Water	Level	Con	nments
Ģ	9/29/2009	68.51	66.41	2.10			

10/28/2009	68.51	65.98	2.53
12/1/2009	68.51	65.42	3.09
1/7/2010	68.51	64.91	3.60
1/28/2010	68.51	64.69	3.82
2/1/2010	68.51	64.48	4.03
2/25/2010	68.51	64.13	4.38
4/2/2010	68.51	63.45	5.06
5/10/2010	68.51	63.51	5.00
6/9/2010	68.51	63.5	5.01
7/1/2010	68.51	63.88	4.63
7/28/2010	68.51	60.60	7.91
9/1/2010	68.51	60.56	7.95

atermaster Well 106 PCA-E (Multiple) Deep State Well No. 15S01E15K4 Owner: MPWMD				Monitored: Monthly Monitored by: MPWMD
Northern Coastal	Monitor	<b>Screen:</b> 650 - 700		Aquifer: Tsm
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
9/29/2009	68.54	89.78	-21.24	
10/28/2009	68.54	87.31	-18.77	
12/1/2009	68.54	89.86	-21.32	
1/7/2010	68.54	87.23	-18.69	
1/28/2010	68.54	82.80	-14.26	
2/1/2010	68.54	81.42	-12.88	
2/25/2010	68.54	78.78	-10.24	
4/2/2010	68.54	77.34	-8.80	
5/10/2010	68.54	79.88	-11.34	
6/9/2010	68.54	83.82	-15.28	
7/1/2010	68.54	86.33	-17.79	
7/28/2010	68.54	87.72	-19.18	
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9/1/2010	68.54	88.98	-20.44	

State Well No. 15S	01E23B1 Owner:	California America	in Water	Monitored by: MPWMI
Northern Coastal	Monitor	Sc	<b>creen:</b> 355 - 480	Aquifer: Q1c/1sm
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
9/24/2009	294.14	345	-50.86	
9/29/2009	294.14	344.28	-50.14	
10/22/2009	294.14	325.83	-31.69	
12/1/2009	294.14	343.30	-49.16	
1/7/2010	294.14	324.64	-30.50	
1/28/2010	294.14			innaccessible
2/25/2010	294.14	315.09	-20.95	
4/9/2010	294.14	310.78	-16.64	
5/10/2010	294.14	331.90	-37.76	production well on
6/4/2010	294.14	337.15	-43.01	production well on
7/1/2010	294.14	331.91	-37.77	
8/6/2010	294.14	343.83	-49.69	production well on
9/1/2010	294.14	345.2	-51.06	production well on
atermaster W State Well No. 15S	ell 108 Paralta ' 01E14Ra Owner:	<b>Test</b> MPWMD		Monitored: Monthly Monitored by: MPWM
Northern Coastal	Monitor	Sc	ereen: 430 - 800	Aquifer: QTc/Tsm
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
9/24/2009	330.72	345	-14.28	
9/29/2009	330.72	352.1	-21.38	

339.89

348.20

339.34

323.0

-9.17

-17.48

-8.62

7.72

10/21/2009

12/1/2009

1/7/2010

1/28/2010

330.72

330.72

330.72

330.72

	2/25/2010	330.72	327.62	3.10	
	3/29/2010	330.72	331.78	-1.06	
	5/11/2010	330.72	340.32	-9.60	production well on
	6/3/2010	330.72	340.98	-10.26	production well on
	7/2/2010	330.72	345.60	-14.88	production well on
	8/6/2010	330.72	347.63	-16.91	
	9/2/2010	330.72	345.95	-15.23	production well on
V	Watermaster W State Well No. 15S	Monitored: Annually Monitored by: MPWMD			
	Northern Coastal	Monitor	Sc	<b>reen:</b> 280 - 330	Aquifer: 1 sm (upper)
	Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
	10/21/2009	228.65	260.02	-31.37	
	12/1/2009	228.65	264.14	-35.49	
	1/7/2010	228.65	257.85	-29.20	
	1/28/2010	228.65	253.36	-24.71	
	2/1/2010	228.65	252.39	-23.74	
	2/25/2010	228.65	248.95	-20.30	
	4/9/2010	228.65	244.91	-16.26	
	5/10/2010	228.65	249.81	-21.16	
	6/4/2010	228.65	254.14	-25.49	
	7/1/2010	228.65	258.98	-30.33	
	8/3/2010	228.65	262.02	-33.37	
	9/1/2010	228.65	263.8	-35.15	

V	Vatermaster W	Monitored: Monthly			
	State Well No. 15S	01E23Cb Owner:	MPWMD		Monitored by: MPWMD
	Northern Coastal	Monitor	Sc	reen: 390 - 440	Aquifer: Tsm (lower)
	Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
	9/29/2009	228.63	264.25	-35.62	

Watermaster Well No. 15S	ell 111 FO-09-S 01E11Pa Owner:	<b>Shallow</b> MPWMD		Monitored: Monthly Monitored by: MPWMD
Northern Coastal	Monitor	Sc	<b>reen:</b> 610 - 650	Aquifer: QTc/Tp
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
9/29/2009	118.89	116.16	2.73	
10/28/2009	118.89	115.81	3.08	
11/17/2009	118.89	115.38	3.51	
12/2/2009	118.89	115.22	3.67	
1/7/2010	118.89	115.03	3.86	
1/28/2010	118.89	114.39	4.50	
2/22/2010	118.89	114.43	4.46	
4/9/2010	118.89	113.48	5.41	
5/10/2010	118.89	113.43	5.46	
6/3/2010	118.89	113.40	5.49	
7/1/2010	118.89	113.41	5.48	
7/28/2010	118.89	113.60	5.29	
9/2/2010	118.89	113.48	5.41	
9/28/2010	188.89	133.32	55.57	

V	Vatermaster W State Well No. 15S	Monitored:MonthlyMonitored by:MPWMD			
	Northern Coastal	Monitor	Sc	<b>reen:</b> 790 - 830	Aquifer: Tsm
	Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
	9/29/2009	118.85	139.95	-21.10	
	10/28/2009	118.85	137.37	-18.52	
	11/17/2009	118.85	139.77	-20.92	
	12/2/2009	118.85	140.19	-21.34	
	1/7/2010	118.85	137.43	-18.58	
	1/28/2010	118.85	132.59	-13.74	
	2/1/2010	118.85	131.42	-12.57	

2/22/2010	118.85	129.44	-10.59	
4/9/2010	118.85	127.47	-8.62	
5/10/2010	118.85	130.27	-11.42	
6/3/2010	118.85	132.12	-13.27	
7/1/2010	118.85	136.46	-17.61	
7/28/2010	118.85	137.83	-18.98	
9/2/2010	118.85	138.89	-20.04	
9/28/2010	118.85	140.94	-22.09	
Watermaster W State Well No. 155	<b>ell 113 FO-10-S</b> 01E12Fa <b>Owner</b> :	<b>hallow</b> MPWMD		Monitored: Monthly Monitored by: MPWMD
Northern Coastal	Monitor	So	ereen: 620 - 640	Aquifer: QTc
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
9/29/2009	200.85	204.81	-3.96	
10/29/2009	200.85	204.42	-3.57	
12/2/2009	200.85	204.46	-3.61	
1/7/2010	200.85	203.91	-3.06	
1/26/2010	200.85	202.54	-1.69	
2/25/2010	200.85	202.63	-1.78	
4/9/2010	200.85	202.59	-1.74	
5/4/2010	200.85	202.59	-1.74	
6/3/2010	200.85	203.55	-2.70	
7/2/2010	200.85	204.30	-3.45	
7/29/2010	200.85	204.45	-3.60	
9/2/2010	200.85	204.52	-3.67	
Watermaster W State Well No. 155	ell 114 FO-10-D S01E12Fc Owner:	Deep MPWMD	1200 - 1410	Monitored: Monthly Monitored by: MPWMD
Northern Coastal	Monitor	S	creen: 1380 - 1410	Aquiter. 1p
Date Measured	<b>Reference</b> Point	Depth to Water	Static Water Level	Comments
9/29/2009	201.03	205.92	-4.89	

10/29/2009	201.03	205.39	-4.36
12/2/2009	201.03	205.61	-4.58
1/7/2010	201.03	204.51	-3.48
1/26/2010	201.03	204.40	-3.37
2/25/2010	201.03	202.97	-1.94
4/9/2010	201.03	203.41	-2.38
5/4/2010	201.03	203.3	-2.27
6/3/2010	201.03	203.29	-2.26
7/2/2010	201.03	204.52	-3.49
7/29/2010	201.03	204.70	-3.67
9/2/2010	201.03	204.78	-3.75

atermaster W State Well No. 158	Monitored: Monthly Monitored by: MPWMD			
Northern Coastal	Monitor	Sc	reen: -	Aquifer: QTc
Date Measured	<b>Reference</b> Point	Depth to Water	Static Water Level	Comments
9/29/2009	315.42	343.91	-28.49	
10/28/2009	315.42	339.93	-24.51	
12/1/2009	315.42	344.38	-28.96	
1/7/2010	315.42	339.90	-24.48	
1/28/2010	315.42	329.39	-13.97	
2/25/2010	315.42	320.68	-5.26	
4/9/2010	315.42	318.93	-3.51	
5/10/2010	315.42	334.18	-18.76	
6/4/2010	315.42	331.65	-16.23	
7/1/2010	315.42	339.93	-24.51	
8/6/2010	315.42	343.15	-27.73	
9/1/2010	315.42	342.4	-26.98	

atermaster Well 163 Playa #4 State Well No. 15S01E22B51 Owner: California American Water				Monitored: Monthly Monitored by: CAW
Northern Coastal	Monitor	Sc	reen: -	Aquifer: QTc/Tsm
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
9/24/2009	52.53	62	-9.47	
10/29/2009	52.53	62	-9.47	
11/25/2009	52.53	60	-7.47	
12/31/2009	52.53	60	-7.47	
1/28/2010	52.53	61	-8.47	
2/25/2010	52.53	60	-7.47	
3/25/2010	52.53	58.5	-5.97	
4/29/2010	52.53	58.6	-6.07	
5/28/2010	52.53	51.6	0.93	
6/24/2010	52.53	59	-6.47	
7/29/2010	52.53	55.4	-2.87	
8/26/2010	52.53	NA	#Error	Not Visited

Watermaster We State Well No. 15S	Monitored: Monthly Monitored by: CAW			
Northern Coastal	Monitor	Sc	reen:	Aquifer: QTc
Date Measured	<b>Reference</b> Point	Depth to Water	Static Water Level	Comments
9/24/2009	32.62	30	2.62	
10/29/2009	32.62	30	2.62	
11/25/2009	32.62	30	2.62	
12/31/2009	32.62	30	2.62	
1/28/2010	32.62	30	2.62	
2/25/2010	32.62	30	2.62	
3/25/2010	32.62	30	2.62	
4/29/2010	32.62	29	3.62	
5/28/2010	32.62	28.6	4.02	

6/24/2	010	32.62	29	3.62
7/29/2	010	32.62	29	3.62
8/26/2	010	32.62	29	3.62

Watermaster We State Well No. 15S	ell 243 Luxton 01E22Ha Owner:	California America	n Water	Monitored: Monthly Monitored by: CAW
Northern Coastal	Monitor	Sc	reen:	Aquifer: QTc
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
9/24/2009	89.12	93.1	-3.98	
10/29/2009	89.12	94.0	-4.88	
11/25/2009	89.12	97.0	-7.88	
12/31/2009	89.12			
1/28/2010	89.12	94.0	-4.88	
2/25/2010	89.12	92.0	-2.88	
3/25/2010	89.12	92.0	-2.88	
4/29/2010	89.12	90.0	-0.88	
5/28/2010	89.12	90.0	-0.88	
6/24/2010	89.12	90.6	-1.48	
7/29/2010	89.12	91	-1.88	
8/26/2010	89.12	93	-3.88	

W	atermaster Well No. 15S	ell 245 Sentinel 01E02Pb Owner:	<b>MW #1</b> Seaside Groundwat	er Basin Watermaster	Monitored: Monitored by	Monthly WPWMD
-	Northern Coastal	Monitor	Sc	reen: -	Aquifer:	Tsm/Tp
	Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Com	ments
	1/20/2010	96.00	109.0	-13.00		

4/2/2010	96.00	104.19	-8.19
6/3/2010	96.00	106.22	-10.22
7/6/2010	96.00	109.21	-13.21
8/6/2010	96.00	110.53	-14.53
9/2/2010	96.00	111.17	-15.17

atermaster W State Well No. 15S	Monitored: Monthly Monitored by: MPWMD			
Northern Coastal	Monitor	Sc	reen:	Aquifer: Tp
Date Measured	<b>Reference</b> Point	Depth to Water	Static Water Level	Comments
4/2/2010	73.7	80.73	-7.03	
6/3/2010	73.7	84.01	-10.31	
7/6/2010	73.7	87.71	-14.01	
8/6/2010	73.7	89.23	-15.53	
9/2/2010	73.7	89.73	-16.03	

Watermaster We State Well No. 15S	ell 247 Sentinel	MW #3 Seaside Groundwat	er Basin Watermaster	Monitored:MonthlyMonitored by:MPWMD
Northern Coastal	Monitor	Sc	reen: -	Aquifer: Tp
Date Measured	<b>Reference</b> Point	Depth to Water	Static Water Level	Comments
4/2/2010	59.5	65.76	-6.26	
6/3/2010	59.5	68.93	-9.43	
7/6/2010	59.5	72.44	-12.94	
8/6/2010	59.5	73.89	-14.39	
9/2/2010	59.5	74.32	-14.82	

Northern Coastal	Monitor	Sc	reen:	Aquifer: Tsm/Tp
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
4/2/2010	62.4	68.71	-6.31	
6/16/2010	62.4	74.85	-12.45	
7/6/2010	62.4	76.6	-14.20	
8/6/2010	62.4	78.38	-15.98	
9/2/2010	62.4	78.88	-16.48	

Northern Coastal	Monitor	Sc	creen:	Aquiter. Qua Qua
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
10/28/2009	93.53	89.62	3.91	

12/1/2009	93.53	89.32	4.21
1/7/2010	93.53	89.35	4.18
1/20/2010	93.53	89.1	4.43
2/26/2010	93.53	88.65	4.88
3/29/2010	93.53	89.18	4.35
6/3/2010	93.53	89.79	3.74
7/6/2010	93.53	87.71	5.82
8/6/2010	93.53	89.23	4.30
9/2/2010	93.53	89.73	3.80

atermaster Well 252 CDM MW-2 State Well No. 15S01E15Ga Owner: MPWMD			Monitored: Monthly Monitored by: MPWMD	
Northern Coastal	Monitor	Screen: - Aquifer: Qe		Aquifer: Qod/Qar
Date Measured	<b>Reference</b> Point	Depth to Water	Static Water Level	Comments
10/28/2009	63.83	59.37	4.46	
12/1/2009	63.83	58.49	5.34	
1/7/2010	63.83	59.43	4.40	
1/20/2010	63.83	58.5	5.33	
2/26/2010	63.83	58.32	5.51	
3/29/2010	63.83	59.59	4.24	
6/3/2010	63.83	60.01	3.82	
7/6/2010	63.83	60.02	3.81	
8/6/2010	63.83	60.79	3.04	
9/2/2010	63.83	60.62	3.21	

Watermaster W State Well No. 15S	ell 254 MW-B-2 01E12Da Owner:	<b>22-180</b> U.S.A. Fort Ord		Monitored: Monthly Monitored by: MPWMD
Northern Coastal	Monitor	Sc	reen: -	Aquifer: Qod/Qar
Date Measured	<b>Reference</b> Point	Depth to Water	Static Water Level	Comments
9/25/2009	168.1	157.23	10.87	
10/28/2009	168.1	157.25	10.85	

12/1/2009	168.1	157.28	10.82
1/7/2010	168.1	157.26	10.84
1/26/2010	168.1	157.27	10.83
2/26/2010	168.1	157.31	10.79
3/29/2010	168.1	157.23	10.87
5/5/2010	168.1	157.29	10.81
6/3/2010	168.1	157.29	10.81
7/6/2010	168.1	157.38	10.72
8/6/2010	168.1	157.41	10.69
9/1/2010	168.1	157.46	10.64

atermaster We State Well No. 15S	ell 258 MW-B-2 01E11Ba Owner:	23-180 U.S.A. Fort Ord	_	Monitored: Monthly Monitored by: MPWM Aquifer: Ood/Oar
Date Measured	Reference Point	Sc Depth to Water	reen: Static Water Lev	el Comments
10/28/2009	113.81	110.05	3.76	
12/1/2009	113.81	109.81	4.00	
1/7/2010	113.81	109.47	4.34	
1/20/2010	113.81	109.6	4.21	
2/26/2010	113.81	109.00	4.81	
3/29/2010	113.81	109.15	4.66	
6/3/2010	113.81	109.73	4.08	
7/6/2010	113.81	109.89	3.92	
7/27/2010	113.81	110.01	3.80	
9/2/2010	113.81	110.29	3.52	
Well Categ	orv: Monitor		Subarea:	Northern Inland

	01E26Ba Owner:	MPWMD	<u></u>	226	Monitored by: MPWMD
Northern Inland	Monitor	Sc	<b>reen:</b> 310 -	320	Aquiter: Qie
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water L	level	Comments
9/15/2009	362.61	200.9	161.71		
3/22/2010	362.61	201.88	160.73		
8/16/2010	362.61	202.02	160.59		
atermaster W	ell 116 FO-01-D	)eep MPWMD			Monitored: Quarterly Monitored by: MPWMD
Northern Inland	Monitor	Sc	reen: 450 -	460	Aquifer: Tm
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water L	.evel	Comments
9/15/2009	362.57	338.58	23.99		
3/22/2010	362.57	338.12	24.45		
8/16/2010	362.57	338.89	23.68		
atermaster We State Well No. 15S	<b>ell 118 FO-07-S</b> 01E13La <b>Owner</b> :	<b>hallow</b> MPWMD			Monitored: Monthly Monitored by: MPWMD
Northern Inland	Monitor	Sc	reen: 600 -	640	Aquifer: QTc
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water L	level	Comments
9/29/2009	473.44	460.16	13.28		
10/21/2009	473.44	456.67	16.77		
12/1/2009	473.44	456.69	16.75		
12/1/2009 1/6/2010	473.44 473.44	456.69 456.17	16.75 17.27		
12/1/2009 1/6/2010 1/28/2010	473.44 473.44 473.44	456.69 456.17 455.73	16.75 17.27 17.71		
12/1/2009 1/6/2010 1/28/2010 2/1/2010	473.44 473.44 473.44 473.44	456.69 456.17 455.73 455.63	16.75 17.27 17.71 17.81		
12/1/2009 1/6/2010 1/28/2010 2/1/2010 3/5/2010	473.44 473.44 473.44 473.44 473.44	456.69 456.17 455.73 455.63 455.28	16.75 17.27 17.71 17.81 18.16		
12/1/2009 1/6/2010 1/28/2010 2/1/2010 3/5/2010 4/9/2010	473.44 473.44 473.44 473.44 473.44 473.44	456.69 456.17 455.73 455.63 455.28 455.47	16.75 17.27 17.71 17.81 18.16 17.97		
12/1/2009 1/6/2010 1/28/2010 2/1/2010 3/5/2010 4/9/2010 5/7/2010	473.44 473.44 473.44 473.44 473.44 473.44 473.44	456.69 456.17 455.73 455.63 455.28 455.47 455.28	16.75 17.27 17.71 17.81 18.16 17.97 18.16		
12/1/2009 1/6/2010 1/28/2010 2/1/2010 3/5/2010 4/9/2010 5/7/2010 6/3/2010	473.44 473.44 473.44 473.44 473.44 473.44 473.44 473.44	456.69 456.17 455.73 455.63 455.28 455.47 455.28 455.28 454.96	16.75 17.27 17.71 17.81 18.16 17.97 18.16 18.48		
12/1/2009 1/6/2010 1/28/2010 2/1/2010 3/5/2010 4/9/2010 5/7/2010 6/3/2010 7/1/2010	473.44 473.44 473.44 473.44 473.44 473.44 473.44 473.44 473.44	456.69 456.17 455.73 455.63 455.28 455.47 455.28 455.28 454.96 464.91	16.75 17.27 17.71 17.81 18.16 17.97 18.16 18.48 8.53		

9/1/2010	473.44	464.63	8.81	
Vatermaster W State Well No. 155	<b>cell 119 FO-07-D</b> 01E13Lb <b>Owner:</b>	)eep MPWMD		Monitored: Monthly Monitored by: MPWMD
Northern Inland	Monitor	So	ereen: 800 - 840	Aquifer: Tsm
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
9/29/2009	473.44	494.78	-21.34	
10/21/2009	473.44	489.93	-16.49	
12/1/2009	473.44	491.93	-18.49	
1/6/2010	473.44	489.06	-15.62	
1/28/2010	473.44	483.88	-10.44	
2/1/2010	473.44	482.80	-9.36	
3/5/2010	473.44	479.08	-5.64	
4/9/2010	473.44	479.33	-5.89	
5/7/2010	473.44	481.58	-8.14	
6/3/2010	473.44	484.19	-10.75	
7/1/2010	473.44	487.80	-14.36	
8/6/2010	473.44	489.62	-16.18	
9/1/2010	473.44	490.03	-16.59	

V	Vatermaster Well No. 15S	ell 120 FO-08-S 01E12Qa Owner: ]	<b>hallow</b> MPWMD		Monitored:MonthlyMonitored by:MPWMD
	Northern Inland	Monitor	Sc	reen: 740 - 780	Aquifer: QTc
	Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
	9/29/2009	378.04	376.73	1.31	
	10/21/2009	378.04	376.50	1.54	
	12/2/2009	378.04	376.53	1.51	
	1/6/2010	378.04	376.30	1.74	
	1/28/2010	378.04	373.83	4.21	
	2/26/2010	378.04	374.10	3.94	
	4/9/2010	378.04	373.78	4.26	

5/7/2010	378.04	374.4	3.64
6/4/2010	378.04	373.19	4.85
9/2/2010	378.04	374.11	3.93

Watermaster W State Well No. 15S		Monitored: Monthly Monitored by: MPWMD		
Northern Inland	Monitor	So	<b>preen:</b> 900 - 940	Aquifer: Tsm
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Leve	l Comments
9/29/2009	378.1	398.23	-20.13	
10/21/2009	378.1	389.18	-11.08	
12/2/2009	378.1	398.82	-20.72	
1/6/2010	378.1	396.43	-18.33	
1/28/2010	378.1	392.02	-13.92	
2/1/2010	378.1	390.91	-12.81	
2/25/2010	378.1	388.54	-10.44	
4/9/2010	378.1	387.22	-9.12	
5/7/2010	378.1	389.19	-11.09	
6/4/2010	378.1			innaccessible
9/2/2010	378.1	397.01	-18.91	

atermaster W State Well No. 155	ell 122 FO-11-S S02E7Ba Owner:	<b>hallow</b> MPWMD		Monitored: Monthly Monitored by: MPWMD
Northern Inland	Monitor	Sc	<b>reen:</b> 700 - 730	Aquifer: QTc
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
9/29/2009	332.93	343.75	-10.82	
10/29/2009	332.93	343.51	-10.58	
12/2/2009	332.93	343.54	-10.61	
1/7/2010	332.93	343.33	-10.40	
1/26/2010	332.93	342.13	-9.20	
2/25/2010	332.93	342.40	-9.47	
4/9/2010	332.93	341.65	-8.72	

5/4/2010	332.93	341.73	-8.80
6/3/2010	332.93	341.95	-9.02
7/2/2010	332.93	342.08	-9.15
8/6/2010	332.93	342.26	-9.33
9/2/2010	332.93	343.36	-10.43

Vatermaster W State Well No. 155	<b>ell 123 FO-11-D</b> 502E7Bb <b>Owner:</b>	<b>)eep</b> MPWMD		Monitored: Monthly Monitored by: MPWMD
Northern Inland	Monitor	Sc	<b>creen:</b> 1090 - 1120	Aquifer: Tp
Date Measured	<b>Reference</b> Point	Depth to Water	Static Water Level	Comments
9/29/2009	332.96	331.83	1.13	
10/29/2009	332.96	331.73	1.23	
12/2/2009	332.96	332.02	0.94	
1/7/2010	332.96	331.55	1.41	
1/26/2010	332.96	330.75	2.21	
2/25/2010	332.96	330.60	2.36	
4/9/2010	332.96	329.98	2.98	
5/4/2010	332.96	330.07	2.89	
6/3/2010	332.96	331.45	1.51	
7/2/2010	332.96	332.21	0.75	
8/6/2010	332.96	333.01	-0.05	
9/2/2010	332.96	332.27	0.69	
Vatermaster W State Well No. 155	<b>cell 188 ASR - 1</b> 501E23Ad <b>Owner</b> :	MPWMD		Monitored: Quarterly Monitored by: MPWMD
Northern Inland	Monitor	Sc	creen:	Aquifer: Tsm
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
9/24/2009	337.23	367.78	-30.55	
12/30/2009	337.23	NA	#Error	Active Injection
4/18/2010	337.23	NA	#Error	Active Injection

Watermaster We State Well No. 15S	ell 256 ASR - 2 01E23Af Owner:	MPWMD		Monitored: Quarterly Monitored by: MPWMD
Northern Inland	Monitor	Sc	reen: -	Aquifer: Tsm
Date Measured	<b>Reference</b> Point	Depth to Water	Static Water Level	Comments
9/24/2009	356	385.36	-29.36	
12/30/2009	356	NA	#Error	Active Injection
4/10/2010	356	NA	#Error	Active Injection

#### **Well Category:** Monitor

<u>Subarea:</u> Southern Coasal

Watermaster We	ell 125 K-Mart	MPWMD		Monitored: Monthly Monitored by: MPWMD
Southern Coasal	Monitor	Sc	<b>reen:</b> 40 - 60	Aquifer: Qod/Qar
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
1/7/2010	30.65	23.13	7.52	
1/26/2010	30.65	23.10	7.55	
2/25/2010	30.65	23.04	7.61	
4/9/2010	30.65	22.38	8.27	
5/5/2010	30.65	22.45	8.20	
6/4/2010	30.65			Well Head Obstructed
7/2/2010	30.65	22.70	7.95	
8/12/2010	30.65	22.85	7.80	
9/1/2010	30.65	22.88	7.77	

### Well Category: Monitor

Subarea: Southern Coastal

V	Vatermaster Wo State Well No. 15S	ell 124 Plumas ' 01E27J6 Owner: ]	<b>90 Test</b> MPWMD		Monitored: Monthly Monitored by: MPWMD
	Southern Coastal	Monitor	Sc	<b>reen:</b> 430 - 470	Aquifer: Tsm
	Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
	9/29/2009	157.83	106.22	51.61	
	10/28/2009	157.83	106.53	51.30	production well on

1/7/2010157.83105.5352.301/26/2010157.83105.1252.71		
1/26/2010 157.83 105.12 52.71		
2/25/2010 157.83 104.57 53.26		
6/4/2010 157.83 105.26 52.57	productio	n well on
7/2/2010 157.83 105.82 52.01	porductio	n well on
8/6/2010 157.83 106.46 51.37	productio	n well on
9/1/2010 157.83 107.10 50.73	productio	n well on
Vatermaster Well 238 CDM MW-4MonState Well No. 15S01E21KaOwner: MPWMDMon	nitored: nitored by	Monthly MPWMI
Southern Coastal Monitor Screen: - Aqu	uifer:	Qod
Date Measured Reference Point Depth to Water Static Water Level	Comn	nents
9/29/2009 18.69 15.14 3.55		
10/29/2009 18.69 14.73 3.96		
11/30/2009 18.69 14.02 4.67		
1/7/2010 18.69 14.59 4.10		
1/28/2010 18.69 14.62 4.07		
2/25/2010 18.69 14.58 4.11		
4/9/2010 18.69	innaccess	ible
5/5/2010 18.69 14.93 3.76		
6/4/2010 18.69 14.72 3.97		
7/2/2010 18.69 15.08 3.61		
8/12/2010 18.69 15.16 3.53		
9/1/2010 18.69 15.10 3.59		
9/1/2010       18.69       15.10       3.59         Watermaster Well 239 CDM MW-3         Mon         State Well No. 15S01E22De Owner: MPWMD	nitored: nitored by	Monthly MPWMI
9/1/2010       18.69       15.10       3.59         Vatermaster Well 239 CDM MW-3         Mon         State Well No. 15S01E22De       Owner: MPWMD         Southern Coastal       Monitor       Screen:       -       Aque	nitored: nitored by ıifer:	Monthly MPWMI Qod
9/1/2010       18.69       15.10       3.59         Watermaster Well 239 CDM MW-3         Mon         State Well No. 15S01E22De       Owner: MPWMD       Mon         Southern Coastal       Monitor       Screen:       -       Aque         Date Measured       Reference Point       Depth to Water       Static Water Level	nitored: nitored by nifer: Comn	Monthly MPWMI Qod

10/29/2009	33.81	31.66	2.15
12/1/2009	33.81	29.60	4.21
1/7/2010	33.81	31.53	2.28
1/28/2010	33.81	31.49	2.32
2/23/2010	33.81	30.39	3.42
4/9/2010	33.81	31.28	2.53
5/5/2010	33.81	31.42	2.39
6/4/2010	33.81	32.23	1.58
7/2/2010	33.81	32.36	1.45
8/12/2010	33.81	32.44	1.37
9/1/2010	33.81	32.25	1.56

#### Watermaster Well 240 MW-BW-08-A Monitored: Monitored by: MPWMD State Well No. 15S01E26Fb Owner: U.S.A. Fort Ord Aquifer: Southern Coastal Monitor -Screen: **Reference Point Depth to Water Static Water Level** Comments **Date Measured** 9/30/2009 205.18 59.17 146.01 205.18 145.42 10/28/2009 59.76 12/1/2009 205.18 59.05 146.13

Monthly

Qod/Qar

1/7/2010	205.18	59.10	146.08	
1/26/2010	205.18	59.8	145.38	
2/25/2010	205.18	59.12	146.06	
4/9/2010	205.18	58.57	146.61	
5/5/2010	205.18	59.39	145.79	
6/4/2010	205.18	58.59	146.59	
7/2/2010	205.18	58.63	146.55	
7/2/2010	205.18	58.78	146.40	
8/6/2010	205.18	58.78	146.40	

9/1/2010	205.18	58.76	146.42	
Watermaster W State Well No. 155	Monitored: Monthly Monitored by: MPWMD			
Southern Coastal	Monitor	Sc	reen:	Aquifer: QTc
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
9/30/2009	206.22	205.57	0.65	
10/28/2009	206.22	205.52	0.70	
12/1/2009	206.22	205.90	0.32	
1/7/2010	206.22	205.49	0.73	
1/26/2010	206.22	205.59	0.63	
2/25/2010	206.22	205.95	0.27	
4/9/2010	206.22	205.72	0.50	
5/5/2010	206.22	206.40	-0.18	
6/4/2010	206.22	205.85	0.37	
7/2/2010	206.22	206.01	0.21	
8/6/2010	206.22	206.20	0.02	
9/1/2010	206.22	206.61	-0.39	

Vatermaster W State Well No. 15S	Monitored: Monthly Monitored by: CAW			
Southern Coastal	Monitor	Sc	reen: -	Aquifer: QTc
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
9/24/2009	248.04	244	4.04	
10/29/2009	248.04	245	3.04	
11/25/2009	248.04	245	3.04	
12/31/2009	248.04	245	3.04	
1/28/2010	248.04	244	4.04	
2/25/2010	248.04	245	3.04	
3/25/2010	248.04	245	3.04	
4/29/2010	248.04	245	3.04	

### <u>Well Category:</u> Monitor

8/16/2010

### Subarea: Southern Inland

3.04

Vatermaster W State Well No. 15S	<b>ell 127 FO-03-E</b> 02E33Ca <b>Owner</b> :	<b>)eep</b> MPWMD		Monitored: Quarterly Monitored by: MPWM
Southern Inland	Monitor	Sc	<b>creen:</b> 630 - 640	Aquifer: Tsm
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Leve	el Comments
9/15/2009	774.74	636.25	138.49	
3/22/2010	774.74	636.02	138.72	
8/31/2010	774.74	637.31	137.43	
Vatermaster W State Well No. 158	<b>ell 129 FO-04-S</b> 01E26Na <b>Owner:</b>	hallow (E) MPWMD		Monitored: Quarter Monitored by: MPWM
Southern Inland	Monitor	Sc	ereen: 260 - 300	Aquifer: QTc
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Leve	el Comments
9/15/2009	168.23	111.91	56.32	
3/22/2010	168.23	109.38	58.85	
8/16/2010	168.23	112.51	55.72	
Vatermaster W State Well No. 15S	ell 130 FO-04-E 01E26Nb Owner:	Deep (W) MPWMD		Monitored: Quarter Monitored by: MPWM
Southern Inland	Monitor	Sc	<b>creen:</b> 500 - 560	Aquifer: Tsm
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Leve	el Comments
9/15/2009	167.44	111.7	55.74	
3/22/2010	167.44	110 57	56.87	

atermaster W State Well No. 16S	Monitored: Quarterl Monitored by: MPWM			
Southern Inland	Monitor	Sc	reen: 690 - 730	Aquifer: Qic
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Leve	el Comments
9/16/2009	478.97	245.64	233.33	
3/22/2010	478.97	242.00	236.97	
8/16/2010	478.97	245.81	233.16	

112.51

167.44

54.93

vatermaster W State Well No. 16S	ell 132 FO-05-D 602E04Hb Owner:	<b>Jeep</b> MPWMD			Monitored: Quarterl Monitored by: MPWM
Southern Inland	Monitor	Sc	reen: 1147 -	1187	Aquifer: Tsm
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water	Level	Comments
9/16/2009	479.29	311	168.29		
3/22/2010	479.29	306.18	173.11		
Vatermaster W State Well No. 16S	ell 133 FO-06-S	hallow MPWMD			Monitored: Quarterl Monitored by: MPWM
Southern Inland	Monitor	Sc	reen: 650 -	690	Aquifer: QTc
Date Measured	<b>Reference</b> Point	Depth to Water	Static Water	Level	Comments
9/16/2009	470.13	232.77	237.36		
3/22/2010	470.13	230.82	239.31		
8/16/2010	470.13	234.44	235.69		
Vatermaster W State Well No. 16S	ell 134 FO-06-D 02E04Fb Owner:	<b>)eep</b> MPWMD			Monitored: Quarterl Monitored by: MPWM
Southern Inland	Monitor	Sc	reen: 1050 -	1090	Aquifer: Tsm
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water	Level	Comments
9/16/2009	470.63	231.93	238.70		
3/22/2010	470.63	226.62	244.01		
8/16/2010	470.63	233.51	237.12		
Vatermaster W	ell 135 Justin C	ourt (RR M2S)	)		Monitored: Quarterl
State Well No. 158	SOIE35Jb Owner:	California America	n Water	1.5.5	Monitored by: MPWM
Southern Inland			reen: 135 -	155	Aquiter: Qre
Date Measured	keierence Point	Deptn to Water	static Water	Level	Comments
9/15/2009	240.28	142.66	97.62		
3/23/2010	240.28	142.57	97.71		
8/16/2010	240.28	124.66	115.62		
Vatermaster W State Well No. 158	ell 136 LS Pisto	l Range (Mo County of Montere	<b>o TH-1)</b> v		Monitored: Quarterl Monitored by: MPWM
Southern Inland	Monitor	Sc		470	Aquifer: Tsm
Southern manu			itten.		-
Date Measured	Reference Point	Depth to Water	Static Water	Level	Comments

284.32

230.07

514.39

3/22/2010

8/16/2010	514.39				inaccessable
Watermaster W State Well No. 155	ell 137 York Rd 501E36Rb Owner:	I-West (Mo Co County of Montere	<b>MW-1 D)</b>		Monitored: Quarterly Monitored by: MPWMD
Southern Inland	Monitor	So	creen: 560 -	600	Aquifer: Tsm
Date Measured	<b>Reference</b> Point	Depth to Water	Static Water	Level	Comments
9/15/2009	490.28	313.27	177.01		
3/22/2010	490.28	311.27	179.01		
8/2/2010	490.28	313.03	177.25		
Watermaster W	ell 138 Seca Pla	ce (Mo Co MW	V-2)		Monitored: Quarterly
State Well No. 168	S02E04Lc Owner:	County of Montere	су 020 -	000	Monitored by: MPWMD
Southern Inland	Monitor	Sc Denth to Weter	<b>Statis</b> Weter	980	Comments
Date Measured	Reference Point	Depth to water	Static water	Level	Comments
9/16/2009	427.58	260.41	167.17		
3/22/2010	427.58	251.74	175.84		
8/16/2010	427.58	260.12	167.46		
Watermaster W State Well No. 16S	ell 139 Robley S 02E09Bb Owner:	Shallow (North County of Montere	) ( <b>Mo Co M</b> V	W-3S	Monitored: Quarterly Monitored by: MPWMD
Southern Inland	Monitor	So	creen: 380 -	420	Aquifer: QTc
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water	Level	Comments
9/15/2009	566.54	316.84	249.70		
3/22/2010	566.54	318.55	247.99		
8/16/2010	566.54	313.76	252.78		
Watermaster W State Well No. 16S	ell 140 Robley I S02E09Bc Owner:	Deep (South) (N County of Montere	<b>Ao Co MW-</b> <sup>2y</sup>	3D)	Monitored: Quarterly Monitored by: MPWMD
Southern Inland	Monitor	So	creen: 750 -	800	Aquifer: Tsm
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water	Level	Comments
9/15/2009	566.44	386.13	180.31		
3/22/2010	566.44	378.94	187.50		
8/16/2010	566.44	386.9	179.54		
Watermaster W	ell 141 LS Drivi	ing Range (SCS	S Deep)		Monitored: Quarterly Monitored by: MPWMD
Southern Inland	Monitor	Sounty of Montele	creen: -		Aquifer: QTc
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water	Level	Comments

9/15/2009	491	333.39	157.61	
10/28/2009	491	329.49	161.51	
3/22/2010	491	332.72	158.28	
8/2/2010	491	333.10	157.90	

V	Vatermaster We State Well No. 16S	Monitored:QuarterlyMonitored by:MPWMD			
	Southern Inland Monitor Screen:			Aquifer: Tsm	
	Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
	9/15/2009	277.13	123.83	153.30	
	3/23/2010	277.13	125.27	151.86	
	8/16/2010	277.13	126.19	150.94	

V	Vatermaster Wo State Well No. 16S	Monitored:QuarterlyMonitored by:MPWMD			
	Southern Inland	Monitor	Sc	Aquifer:	
	Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
	9/15/2009	253.29	101.9	151.39	
	3/23/2010	253.29	102.05	151.24	
	8/16/2010	253.29	102.77	150.52	

W	Vatermaster We State Well No. 15S	Monitored:QuarterlyMonitored by:MPWMD			
	Southern Inland	Monitor	Sc	reen: -	Aquifer: Tsm
	Date Measured	<b>Reference</b> Point	Depth to Water	Static Water Level	Comments
	9/15/2009	226.43	134.28	92.15	
	3/23/2010	226.43	134.28	92.15	
	8/16/2010	226.43	134.28	92.15	

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Well Category:
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<u>Subarea:</u>

Watermaster Well 173 City #4 Monitored:							
State Well No. 15S01E23Gc Owner: City of Seaside Monitored by:							
			Sa		Aquifer:		
			50	reen:			

11/3/2009	not measured
1/4/2010	not measured
2/1/2010	not measured
3/1/2010	not measured
4/5/2010	not measured
5/4/2010	not measured
6/3/2010	not measured
7/6/2010	not measured
8/3/2010	not measured
9/2/2010	not measured

atermaster W State Well No. 15S	Monitored: Monitored by:			
		Sc	reen: -	Aquifer:
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments
11/3/2009	307.19	276	31.19	
12/1/2009	307.19	277	30.19	
1/4/2010	307.19	277	30.19	
2/1/2010	307.19	275	32.19	
3/1/2010	307.19	277	30.19	
4/5/2010	307.19	275	32.19	
5/4/2010	307.19	276	31.19	
6/3/2010	307.19	275	32.19	
7/6/2010	307.19	275	32.19	
8/3/2010	307.19	276	31.19	
9/2/2010	307.19	276	31.19	
atermaster W State Well No. 15S	ell 189 Coe Ave	nue City of Seaside Sc	reen: -	Monitored: Monitored by: Aquifer: QTc
Date Measured	<b>Reference Point</b>	Depth to Water	Static Water Level	Comments

11/2/2009	110.15	107	3.15
12/1/2009	115.15	107	8.15
1/4/2010	115.15	106	9.15
2/1/2010	115.15	101	14.15
3/1/2010	115.15	105	10.15
4/5/2010	115.15	105	10.15
5/4/2010	115.15	105	10.15
6/3/2010	115.15	104	11.15
7/6/2010	115.15	104	11.15
8/3/2010	115.15	104	11.15
9/2/2010	115.15	104	11.15

# Appendix 3

Selected Hydrographs



Monterey Peninsula Water Management District Watermaster Well Number 101 - MSC-Shallow (15S/1E-15N3) Screened from 490-680 in the Paso Robles Formation (QTp)

Wellhead Elevation 80.1 MSL DWR Driller Log No. 338413



Watermaster Well Number 102 - MSC-Deep (15S/1E-15N2)



Monterey Peninsula Water Management District

Screened from 810-850 in the Santa Margarita Formation (Tsm) Wellhead Elevation 80.29 MSL DWR Driller Log No. 338425 Datasource: MPWMD



Watermaster Well No. 105 - PCA East (Shallow) (15S/1E-15K5)



Monterey Peninsula Water Management District

Screened from 350-400 in the Paso Robles Formation (QTp) Wellhead Elevation 68.51 MSL DWR Driller Log No. 338402 Datasource: MPWMD



Watermaster Well No. 106 - PCA East (Deep) (15S/1E-15K4)



Monterey Peninsula Water Management District

Screened from 650-700 in the Santa Margarita Formation (Tsm) Wellhead Elevation 68.54 MSL DWR Driller Log No. 338402 Datasource: MPWMD



Watermaster Well No. 111 - MPWMD FO-09 (shallow) (15S/1E-11Pa)



Monterey Peninsula Water Management District

Screened from 610-650 in the Paso Robles (QTp) Wellhead Elevation 118.89 MSL DWR Driller Log No. N/A Datasource: MPWMD



Watermaster Well No. 112 - MPWMD FO-09 (Deep) (15S/1E-15Pb)



Monterey Peninsula Water Management District

Screened from 790-830 in the Santa Margarita Formation (Tsm) Wellhead Elevation 188.85 MSL DWR Driller Log No. N/A Datasource: MPWMD



Watermaster Well No. 113 - MPWMD FO-10 (Shallow) (15S/1E-11Fa)



Monterey Peninsula Water Management District

Screened from 480-500 in the Paso Robles (QTp) Wellhead Elevation 200.85 MSL DWR Driller Log No. N/A Datasource: MPWMD



Watermaster Well No. 114 - MPWMD FO-10 (Deep) (15S/1E-15Fc)



Monterey Peninsula Water Management District

Screened from 790-830 in the Santa Margarita Formation (Tsm) Wellhead Elevation 201.03 MSL DWR Driller Log No. N/A Datasource: MPWMD

## Appendix 4

Watermaster Sentinel Well Hydrographs

Water Year 2010





Monterey Peninsula Water Management District Water Level Elevation for Seaside Groundwater Basin Watermaster Sentinel Well 1, Seaside, CA





Monterey Peninsula Water Management District Water Level Elevation for Seaside Groundwater Basin Watermaster Sentinel Well 2, Seaside, CA




Monterey Peninsula Water Management District Water Level Elevation for Seaside Groundwater Basin Watermaster Sentinel Well 3, Seaside, CA





Monterey Peninsula Water Management District Water Level Elevation for Seaside Groundwater Basin Watermaster Sentinel Well 4, Seaside, CA