MARINA COAST WATER DISTRICT

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September 20, 2016

The Honorable Mark E. Hood, Presiding Judge
Monterey County Superior Court
240 Church Street
Salinas, CA 93901

Re: 2015-2016 Monterey County Civil Grand Jury Final Report – "Striving for Sustainability"

Dear Judge Hood:

Pursuant to California Penal Code Section 933(c), enclosed herein is the Marina Coast Water District Board of Directors' responses and comments on the finding and recommendations of the 2015-2016 Monterey County Civil Grand Jury Final Report – "Striving for Sustainability." The District's Board of Directors took this action at its regular meeting held on September 19, 2016.

Very truly yours,

Keith Van Der Maaten
Secretary to the Board of Directors
Marina Coast Water District

Enclosure

MARINA COAST WATER DISTRICT'S RESPONSES AND COMMENTS TO MONTEREY COUNTY CIVIL GRAND JURY'S FINAL REPORT

A. INTRODUCTION

Before Marina Coast Water District (MCWD) provides its responses and comments to the specific Civil Grand Jury findings and recommendations, MCWD will first address certain key SGMA requirements, which are incorrectly characterized or assumed in the Civil Grand Jury's Final Report.

1. **Purpose and Intent of SGMA**. Local public agencies are to develop and implement groundwater sustainability plans (GS Plans) through the formation of groundwater sustainability agencies (GSAs) for each California Department of Water Resources (DWR) designated subbasin. The State through the State Water Resources Control Board (SWRCB) is given a State regulatory backstop if the local public agencies fail to form GSAs or fail to adopt compliant GS Plans within specified deadlines.

2. **The Basic Building Block of SGMA is the Official DWR-Designated Subbasins – "Subbasins are the windows through which DWR views SGMA."**

The SGMA defines "basin" as subbasin or basin. Water Code Section 10721(b). So everywhere the SGMA talks about "basin," you need to first think "subbasin" and not the larger basin. Early on after SGMA's enactment, DWR staff had to explain that in a multi-subbasin groundwater basin, such as the San Joaquin Valley, SGMA GSA and GS Plan requirements apply to each subbasin and not to the San Joaquin Valley Groundwater Basin as a whole. As Paul Gosselin, Butte County's Director of Water & Resource Conservation and the person responsible for implementing SGMA within Butte County, has stated, "subbasins are the windows through which DWR views SGMA."

Under SGMA, each subbasin is required to have a GSA or GSAs and a GS Plan or coordinated GS Plans. There is absolutely no legal requirement in SGMA that mandates that the entire Salinas Valley Groundwater Basin (SVGB) have only one GSA and only one GS Plan.

If you go to DWR's Table of GSA Notifications Received by DWR at http://www.water.ca.gov/groundwater/sgm/gsa_table.cfm, you will see the following examples of counties filing separate GSA notifications for each subbasin within the county:

- Butte County filed 4 separate GSA notification for the 4 different subbasins within the county.
- Colusa County filed 8 separate GSA notifications for the 8 different subbasins within the county.
- Imperial County filed 15 separate GSA notifications for the 15 different subbasins within the county.
- Tehama County Flood Control and Water Conservation District filed 11 separate GSA notifications for the 11 different subbasins within the county.

Consequences of Failing to Form a GSA by June 30, 2017. Failing to form a GSA for within a subbasin by June 30, 2017, would result in the SWRCB requiring an annual groundwater extraction report for each well (which pump for other than solely domestic purposes more than two acre-feet per year) within that subbasin and imposing fees and charges to cover the SWRCB's costs.

Voluntary Inter-Subbasin Agreements versus Mandatory Intra-Subbasin Coordination Agreements. Pursuant to SGMA, DWR adopted emergency regulations on GS Plans, which may be found at http://www.water.ca.gov/groundwater/sgm/pdfs/GSP_Emergency_Regulations.pdf. Remember that "basin" also means subbasin. Sections 357 and 357.2 govern voluntary inter-subbasin agreements. Agreements between adjoining subbasins are encouraged but the regulations make very clear that such inter-subbasin agreements are voluntary. In contrast, where there are multiple GSAs within a single subbasin and at least two of the GSAs intend to prepare their own GS Plan, a written coordination agreement for the multiple GS Plans is mandatory. Section 357.4 specifies the required elements of an intra-subbasin coordination agreement.

2.1. The DWR-designated Subbasins within the Salinas Valley Groundwater Basin (SVGB)

In Bulletin 118 (1980), the California Department of Water Resources officially designated the following subbasins of the SVGB:

Number	Name	Area (acres)	DWR Ranking	GS Plan must be adopted by January 31
3-4	Salinas Valley Groundwater Basin			
3-4-01	180/400 Foot Aquifer (Critically Overdrafted)	84,400	High	**2020**
3-4-02	East Side Aquifer	57,500	High	2022
3-4-04	Forebay Aquifer	94,100	Medium	2022
3-4-05	Upper Valley Aquifer	98,200	Medium	2022
3-4-06	Paso Robles (Critically Overdrafted)	597,000	High	**2020**
3-4-08	Seaside	25,900	Medium	2022
3-4-09	Langley	15,400	Medium	2022
3-4-10	Corral De Tierra	15,400	Medium	2022

The SVGB officially consists of eight subbasins, including the Paso Robles Subbasin, a majority of which subbasin is located within San Luis Obispo County. Figure 2 on page 10 of the Final Report shows the above DWR-designated subbasins.[1]

[1] On page 17 of the Final Report is a discussion of the separate Carmel Valley Basin. MPWMD is the exclusive GSA for this basin so should be consulted on the groundwater conditions within that basin. MCWD would just note that Cal-Am is under a cease and desist order by the SWRCB, which has jurisdiction over Cal-Am's wells because Cal-Am is illegally diverting the underflow of the Carmel River, not groundwater.

2.2. The 180/400 Foot Aquifer and Paso Robles Subbasins are designated by the State of California as Critically Overdrafted Basins; Consequences for Those Subbasins Failing to Adopt a Compliant GS Plan by January 31, 2020

In January 2016, the 180/400 Foot Aquifer and Paso Robles Subbasins were designated by the State of California as Critically Overdrafted Basins. While the Final Report on page 17 identifies these two Critically Overdrafted Basins, it fails to disclose the special SGMA requirements imposed because of that designation. That designation forces the GSA or GSAs formed for the 180/400 Foot Aquifer Subbasin and the Paso Robles Subbasin to adopt a compliant GS Plan for each subbasin by January 31, 2020, instead of by January 31, 2022, which is the deadline for the other six SVGB subbasins. See Water Code Section 10720.7(a)(1) and (2).

On page 13 of the Final Report is the statement that "GSPs must be adopted for high and medium priority basins not currently in overdraft" by January 31, 2022. A high-priority subbasin can be in overdraft, but did not meet the criteria to be designated as a "Critically Overdrafted Basin." For example, as listed in the table in Section 2.1, the East Side Aquifer Subbasin is a high priority subbasin, which MCWD understands is in overdraft as illustrated by the subbasin's significant pumping depression, but was not designated as a "Critically Overdrafted Basin."

Failure to adopt a compliant GS Plan for those two subbasins by January 31, 2020, would trigger adverse action by the SWRCB, which could then adopt its own interim GS Plan for the 180/400 Foot Aquifer and Paso Robles Subbasins, require annual groundwater extraction reporting for each well (which pump for other than solely domestic purposes more than two acre-feet per year), and impose fees and charges to cover the SWRCB's costs.

The CBI proposal to form one GSA and adopt one GS Plan for all eight subbasins, including the two Critically Overdrafted Subbasins, assumes that a single GS Plan must be adopted by January 31, 2020, for the entire SVGB, even though six of those subbasins have an additional two years to develop their respective GS Plans. Given the inordinate length of time already taken for the CBI process and the complexity of developing compliant GS Plans, it is unrealistic to assume that a compliant GS Plan for all eight subbasins could be prepared by January 31, 2020. If the SWRCB agrees with the CBI assumption that the January 31, 2020 deadline would then apply to all eight subbasins, failure to produce a compliant GS Plan by that deadline would subject all eight subbasins to development by the SWRCB of an interim GS Plan, annual groundwater extraction reporting, and payment of SWRCB fees and charges. The CBI process has not explained why that is not a realistic consequence of its one-GS Plan scheme and how development of the GS Plan would be funded and by whom.

2.3. Monterey County is Only Presumed to be a GSA If No Other Local Agency or Agencies Have Filed to be a GSA within Their Respective Service Areas

The following bullet points are taken verbatim, with emphasis added, from the DWR SGMA discussion on the "County's Role in GSA Formation" found at http://www.water.ca.gov/groundwater/sgm/gsa.cfm:

- In the event that there is ***an area within a high- or medium-priority basin that is not within the management area of a GSA***, the county within which that unmanaged area lies will be presumed to be the GSA for that area. *(Water Code § 10724(a))*
- A county shall provide notification to DWR of its intent to manage the unmanaged area pursuant to Water Code §10723.8 unless the county notifies DWR in writing that it will not be the GSA for the area. *(Water Code § 10724(b))*
- ***An "unmanaged area" as used in Water Code §10724(a) is an area of a basin that has not yet had (or will not have) a local agency file a GSA formation notice with DWR.***
- ***Water Code §10724 does not give the county exclusive authority to be the GSA in a basin if other local agencies have also declared their intent to manage groundwater, but have not yet resolved their service area overlap.***

2.4. The "Ultimate Goal" of the Consensus Building Institute Process Does Not Conform Legally with SGMA

On page 24 of the Final Report is the following statement: "The ultimate goal of this [Consensus Building Institute (CBI)] effort is the development and implementation of a [single] Salinas Groundwater Basin Sustainability Agency (SGBSA), which will then have the responsibility of creating and implementing a [single] GWMP for the entire [Salinas Valley] basin."

SGMA requires that at least one GSA be formed for each of the eight subbasins within the SVGB by June 30, 2017, or be subject to being placed on probation by the SWRCB. Groundwater extractions within a subbasin that either has been designated as a probationary subbasin or lies outside of a GSA-managed area must be reported annually to the SWRCB.

An additional impediment to the CBI proposal is that the majority of the Paso Robles Subbasin is within San Luis Obispo County, and not Monterey County, so a mandatory intra-subbasin cooperative agreement is required between at least the two counties if no other local agency files to become the GSA for the Paso Robles Subbasin. In addition, DWR has denied Monterey County's request to split the Paso Robles Subbasin along county lines.

3. MCWD's Water Service Areas Are Located Primarily within the Seaside and Corral de Tierra Subbasins with a portion within the 180/400 Foot Aquifer Subbasin.

Figure 3 on page 21 of the Final Report shows the basin boundary modification filed with DWR by MPWMD. MCWD supported that request. The following describes MCWD's Central Marina and Ord Community service areas in relationship to the Seaside, Corral de Tierra, and 180/400 Foot Aquifer Subbasins:

- Small northern portions of the Central Marina and Ord Community service areas as well as most of MCWD's Armstrong Ranch Sphere of Influence and the entire CEMEX property are located within the designated Critically Overdrafted 180/400 Foot Aquifer Subbasin.

- The rest of the Central Marina service area is located within the Seaside Subbasin.

- The rest of the Ord Community service area is located within (1) a major portion of the Adjudicated Seaside Groundwater Basin, (2) that portion of the Seaside Subbasin north of the Adjudicated Basin, and (3) a major portion of the Corral de Tierra Subbasin.

- MCWD's production wells are located just south of the northern boundary of the Seaside Subbasin and, consequently, draw groundwater from aquifers within both the Seaside and 180/400 Foot Aquifer Subbasins.

4. **MCWD's Groundwater Rights.**

The Final Report on pages 5 to 10 generally discuss groundwater rights. Absent an expensive groundwater adjudication as was done for a portion of the Seaside Subbasin, a pumper can only make a general determination of his or her groundwater rights. Generally, in an overdrafted groundwater basin the overlying agricultural groundwater pumpers are going to have pumping priority over urban pumpers, except to the extent that the urban pumpers have gained groundwater rights against the overlying pumpers by prescription and except to the extent that the urban pumpers have been granted groundwater allocation rights by MCWRA. MCWRA's allocation of groundwater rights pursuant to the MCWRA Agency Act was not discussed in the Final Report.

a. Rights under the MCWRA Annexation Agreements for Marina Area Lands and Ord. Under the 1993 and 1996 Annexation Agreements, MCWRA "allocated groundwater pumping rights" in the amount of 3,020 AFY to MCWD and the amount of 6,600 AFY to the Army for Fort Ord.

b. MCWD's Existing Allocated Groundwater Rights equal 7,891 AFY. In October 2001, the United States quitclaimed the water infrastructure on the former Fort Ord and the Army's groundwater allocation, through FORA, to MCWD, retaining 1,729 AFY for use in the Presidio of Monterey Annex (military housing and facilities within the Ord Community) and the Bureau of Land Management, i.e., a net 4,871 AFY of the Army's allocation was transferred to MCWD. Therefore, MCWD has a total of 7,891 AFY of allocated groundwater rights to serve its Central Marina and Ord Community service areas.

c. Under Section 8.1 of the Marina Area Lands Annexation Agreement and Section 4.g of the 1993 Fort Ord Annexation Agreement, MCWRA has agreed to backstop those groundwater allocations in the event that the actual available groundwater is not physically or legally available (e.g., because of a SVGB adjudication).

d. Page 7 of the Final Report alleges that the dispute over whether Cal-Am has any legal right to pump groundwater from the SVGB as product water for its proposed desalination plant has been resolved by a negotiated agreement among the parties; MCWD was not one of those parties. Cal-Am itself admits that it is pumping SVGB groundwater, which may be used for beneficial purposes. In fact, Cal-Am cannot legally obtain overlying or appropriate groundwater rights for its proposed desalination plant in an overdrafted basin and which has been further classified as Critically Overdrafted Basin. Cal-Am's ongoing test well pumping by discharging groundwater into the Bay is in violation of the MCWRA Agency Act's prohibition of exporting groundwater out of the SVGB. The dispute continues and is now in

part the subject to a lawsuit filed by the Ratepayers Association of the Monterey Peninsula.

5. **MCWD's Has Filed Two Separate GSA Formation Notifications with DWR for Its Service Areas**

After publishing the required public notice, the MCWD Board of Directors held a public hearing on September 6, 2016, to receive public comments on whether MCWD should form one or two GSAs within MCWD's existing service areas as described in Section 3 above. No one from the public made comments at the hearing. Later during the same Board meeting, the Board voted unanimously to adopt Resolution 2016-54, Election to Become the Exclusive Groundwater Sustainability Agency Within Portions of Two Subbasins. A copy of the adopted resolution is attached as Attachment A. As explained in Section 2 above and, because as of September 6, 2016, the Seaside Area Subbasin and the Corral de Tierra Subbasin were two separate subbasins, separate GSAs were required to be formed for those portions of MCWD's service areas within each subbasin. MCWD reserves the right to form a third GSA for its service areas within the 180/400 Foot Aquifer Subbasin.

Pursuant to Resolution No. 2016-54, MCWD staff filed the attached GSA formation notifications with DWR. See Attachments B and C.

6. **MCWD's Reasons for Forming GSAs for Its Service Areas**

MCWD was founded in 1960 and has been effectively managing its groundwater supply for many years. MCWD has demonstrated its environmental stewardship and its water leadership in the region through the development and implementation of its Urban Water Management Plan (UWMP); water conservation programs; water facility master planning; implementing the Regional Urban Water Augmentation Plan (RUWAP); securing 1,427 acre-feet per year of advanced treated water for the Ord Community; entering into an agreement with the MRWPCA to design, finance, construct, own, and operate the Pure Water Monterey Project transmission pipeline; and entering into the MCWD-FORA-MRWPCA study agreement to identify new water source(s) to provide 973 acre-feet of additional potable water required under the Fort Ord Base Reuse Plan. Implementation of SGMA will require that the GS Plan be consistent and complimentary with these efforts and that comprehensively, all of those efforts work to achieve groundwater sustainability, optimize water use efficiency, and maximize water supply reliability while minimizing risk. All the while, MCWD is committed to a track record of keeping costs as low as possible for its customers. In addition, it would imprudent for the MCWD Board of Directors to allow MCWD's service areas to be subject to a January 31, 2020 GS Plan deadline under the CBI scheme when both the Seaside Subbasin and the Corral de Tierra Subbasin have a January 31, 2022 deadline.

B. MCWD'S RESPONSES TO THE FINAL REPORT'S FINDINGS

MCWD commends the Civil Grand Jury for investigating groundwater issues and SGMA implementation within Monterey County. However, key assumptions upon which the Final Report is based do not legally conform with SGMA. What SGMA actually requires is reflected above and in the following MCWD's responses:

F1. Monterey County is critically dependent on groundwater for both its agricultural and urban water demands.

MCWD's Response: The District agrees with the finding.

F2. Groundwater is critically important to Monterey County's economy.

MCWD's Response: The District agrees with the finding.

F3. Several groundwater basin aquifers in Monterey County are now in overdraft.

MCWD's Response: The District agrees with the finding assuming that "groundwater basin aquifers" refers to the DWR-designated subbasins within Monterey County.

F4. Overdrafting has resulted in seawater intrusion into the 180 and 400 foot aquifers in the northern Salinas Valley Basin.

MCWD's Response: The District disagrees partially. MCWRA's "Historic Seawater Intrusion" Maps for the 180 Foot Aquifer and 400 Foot Aquifer on pages 29 and 30 of the Final Report do not accurately reflect the seawater intrusion as it currently exists within at least a portion of the 180/400 Foot Aquifer Subbasin south of the Salinas River.

Curtis J. Hopkins, Principal Hydrogeologist, Hopkins Groundwater Consultants, Inc., is MCWD's hydrogeological consultant. Mr. Hopkins prepared Attachment D, Technical Memorandum dated May 26, 2016, subject: North Marina Area Groundwater Data and Conditions. His report is included in MCWD's Urban Water Management Plan.

Mr. Hopkins analyzed the water quality data developed as part of Cal-Am's test slant well project. The North Marina Area is that portion of the 180/400 Foot Aquifer Subbasin situated south of the Salinas River. The following are some of the important findings from pages 7 and 12 of his analysis:

> **The significance of these data is that they indicate beneficial conditions have developed (or have always existed) in the North Marina Area of the 180-400 Foot Aquifer Subbasin and may be contrary to information published by the Monterey County Water Resources Agency (MCWRA). The recent investigation that is being conducted in and around the North Marina Area as part of the MPWSP has discovered an occurrence of freshwater within the shallow Dune Sand Aquifer and the underlying 180-Foot Aquifer within the area delineated as seawater intruded by the MCWRA. As previously shown, water level data from wells in the shallow dune sand aquifer appear to show protective water levels that are sufficiently above sea level to prevent seawater intrusion in the shallower sediments. This condition, combined with the lack**

of pumping in the 180-Foot Aquifer in the North Marina Area, appears to have slowed seawater intrusion in this portion of the coastline.

*** * ***

These data suggest a change of groundwater conditions in this coastal section of the aquifer or alternatively, they may reveal the groundwater conditions that existed in an area largely lacking historical data. While the freshwater in this area contains salts and nutrients that are derived from overlying land uses that include agriculture, landfill, and wastewater treatment plant and composting facilities, the chemical character is not sodium chloride, which is indicative of seawater intrusion.

*** * ***

These data indicate a unique condition exists in the North Marina Subarea south of the Salinas River that provides a significant degree of protection against seawater intrusion in the shallower aquifers under the present and recent past hydrologic conditions.

As Mr. Hopkins explained, Cal-Am's proposed MPWSP source water pumping on the CEMEX property would adversely impact the existing groundwater conditions in the vicinity of the CEMEX property and would destroy that existing groundwater protective condition against seawater intrusion.

On September 1, 2016, the CPUC held a workshop in Carmel to announce the results of an independent analysis of their groundwater modeling efforts for the Cal Am Monterey Peninsula Water Supply Project. The analysis performed by Lawrence Berkeley Labs validated the findings and concerns raised by Mr. Hopkins in his May 26, 2016 report.

F5. Seawater intrusion results in localized salt-contaminated groundwater that is unsuitable for both urban and agricultural uses.

MCWD's Response: See also the District's response to F4 above. The District disagrees partially. Seawater intrusion can result in localized groundwater that is unsuitable for urban and agricultural uses if it exceeds certain levels of concentration. The current basis used by MCWRA to denote the seawater intrusion front is a chloride concentration of 500 mg/l, which is the upper limit of the California Water Department of Public Health Secondary Drinking Water standard, *as a measure of impairment of drinking water.* However, groundwater with a water quality above 500 mg/l may still be used for non-potable urban and agricultural uses. More importantly, the existing Water Quality Control Plan for the Central Coastal Basin incorporates the State Water Resources Control Board's Resolution No. 88-63, Adoption of Policy Entitled "Sources of Drinking Water," mandates that a standard of 3,000 mg/L of total dissolved solids (5,000 uS/cm, electrical conductivity), and not 500 mg/L, be used instead. In addition, as Mr. Hopkins pointed out in response to F4 above, salt-contaminated groundwater must

be tested to determine whether it is sodium chloride-based seawater or salts and nutrients that are derived from overlying land uses.

F6. If no Groundwater Sustainability Agency (GSA) is formed by June 30, 2017 for the Salinas Valley Basin, the County of Monterey could then choose to become the GSA for that basin.

MCWD's Response: The District disagrees wholly because the finding is based upon an incorrect assumption. As discussed in Section 2 above, if a GSA is not formed for a portion of any SVGB subbasin, and not the SVGB as a whole, by June 30, 2017, then Monterey County is presumed to be the GSA for those "white areas" as that term is used by DWR to denote areas within a subbasin not within the boundaries of any formed GSA. However, Monterey County cannot be the GSA for any lands within a subbasin for which a local agency or combination of local agencies have already elected to become the GSA.

F7. If the County of Monterey chose to become the GSA for the Salinas Valley Basin that choice would prevent the State Water Resources Control Board (SWRCB) from intervening in the local Groundwater Sustainability Plan (GSP) planning process except for overseeing and insuring GSP compliance.

MCWD's Response: The District disagrees partially. Any qualified local agency may elect to be the GSA for the portion of any subbasin or subbasins within the local agency's service area. Such an election would prevent Monterey County from choosing to become the GSA for that portion of the SVGB. The SWRCB may still intervene if the County as GSA does not submit a compliant GSP for the 180/400 Foot Aquifer Subbasin and the Paso Robles Subbasin by January 31, 2020, and for portions of all other SVGB subbasins for which Monterey County is the GSA by January 31, 2022.

F8. Prior to the Sustainable Groundwater Management Act (SGMA), local groundwater management plans lacked sufficient enforcement authority to fully manage groundwater sustainability.

MCWD's Response: The District disagrees partially. While MCWD has not done an extensive review of MCWRA's enforcement authority under the MCWRA Agency Act, Monterey County has inherent police powers as a county to regulate groundwater and to develop and enforce groundwater management plans, but Monterey County has not chosen to exercise all of those police powers. See *Baldwin v. County of Tehama (1994), 31 Cal.App.4th 166.*

F9. SGMA confers on GSAs stronger enforcement authority than had existed under previous groundwater management enactments or local plans.

MCWD's Response: Also see MCWD's Response to F8 above. The District disagrees partially if the finding includes Monterey County. SGMA does confer

on non-county GSAs stronger and clearer enforcement authority than they had under previous groundwater management enactments or local plans.

F10. The non-adjudicated Salinas Valley Marina Area and the Salinas Valley Corral De Tierra Area should be included under the authority of the Salinas Valley Basin GSA and part of the GSA's Groundwater Management Plan (GMP).

MCWD's Response: The District wholly disagrees. The finding incorrectly assumes that SGMA requires one GSA and one GS Plan for the entire SVGB. As explained in Section 2 above, SGMA requires that each SVGB subbasin must have at least one GSA and is required to have at least one GS Plan or a combination of coordinated GS Plans. Inter-subbasin agreements are encouraged but are voluntary, not mandatory. As explained above, MCWD has elected to form a GSA for those portions of its service areas within the Seaside Subbasin and a separate GSA for its service area within the Corral de Tierra Subbasin, which are outside of the Adjudicated Seaside Subbasin.

F11. Consensus Builders, Inc. has been retained by the City of Salinas, on behalf of itself and others, in an attempt to integrate competing Salinas Valley groundwater interest's in order to arrive at a consensus GSA before June 30, 2017.

MCWD's Response: The District agrees with the finding; however, as discussed in Section 2.4 above, CBI's ultimate goal of a single GSA and a single GS Plan for the entire SVGB does not legally comply with SGMA. Unless and until CBI understands and corrects its mistaken assumption, then those local agencies relying upon the CBI process could very well fail to form GSAs for their respective subbasins by June 30, 2017, and then be subject to regulation by the SWRCB.

F12. Many local individuals and entities have for several years been vitally interested in preserving, enhancing, and sustaining both groundwater and surface water availability in the Monterey Peninsula-Salinas Valley areas.

MCWD's Response: The District agrees with the finding.

F13. As a result of past efforts, there are several existing and planned projects that could logically be included in any GSPs adopted within the Monterey Peninsula-Salinas Valley areas, since each such project impacts groundwater sustainability.

MCWD's Response: The District partially disagrees with this finding. A GS Plan should include direct and in-lieu groundwater recharge projects as part of a GS Plan for an overdrafted subbasin. While Monterey County in conjunction with others have implemented CSIP and the Salinas Valley Water Project, it is now failing to comply with its own proposed deadlines to put Salinas River water under SWRCB-issued Permit 11043 to recharge groundwater. Those deadlines were included in the SWRCB order extending the time to put the 135,000 acre-

feet of water per year under Permit 11043 to beneficial use. Permit 11043 was originally applied for by Monterey County in 1949 and the permit originally authorized a diversion of 168,538 acre-feet per year. In addition, Monterey County owns Permit 21089 for 27,900 acre-feet per year, which was granted by the SWRCB as a result of the additional storage in Nacimiento Reservoir recognized after it was built due to more accurate surveying methods. While a cost-effective Interlake Tunnel Project deserves strong consideration, other less costly storm water capture/groundwater recharge projects, which could directly benefit the Critically Overdraft 180/400 Foot Aquifer Subbasin have not been studied.

F14. Some of the existing and planned projects for logical inclusion in a local GSP include:
   a. The Salinas Valley Reclamation Plant (SVRP) and the Castroville Seawater Intrusion Project (CSIP) Distribution System.
   b. The Pure Water Monterey Groundwater Replenishment Project.
   c. The Soledad Water Recycling / Reclamation Project.
   d. The Salinas Valley Water Project.
   e. The Seaside Aquifer Storage & Recovery Project.
   f. The California Statewide Groundwater Elevation Monitoring Program.
   g. The Groundwater Extractions Monitoring System.
   h. The Salinas River Arundo Removal Project.
   i. The Interlake Tunnel Project.
   j. The Cal-Am Monterey Peninsula Water Supply Project.
   k. The DeepWater Desal Desalination/Data Center Project I.
   l. The Marina Coast Water District Desalination Project
   m. The People's Moss Landing Water Desalination Project
   n. The Sand City Water Supply Project
   o. Urban Water Conservation
   p. Agricultural Water Conservation

MCWD's Response: The District partially disagrees with this finding. Having a long list of potential projects in a GS Plan proves nothing and does nothing. The most cost-effective and water efficient projects need to be studied, environmentally reviewed, and actually funded and built. Monterey County has more than sufficient Salinas River surface water rights for cost-effective and water-efficient storm water capture and other direct or in-lieu groundwater recharge projects utilizing high river flows in wetter water years.

F15. As with other legislation that impacts those with divergent interests, legal maneuvering and delaying tactics can, in the case of SGMA, cause the loss of local controls over groundwater planning and management.

MCWD's Response: The District partially disagrees with this finding. Maneuvering and tactics to usurp a local water district's responsibilities within its own service areas and subbasin will "cause the loss of local control over groundwater planning and management." "Legal maneuvering and delay

tactics" is a red herring in the CBI process to promote the idea of a single GSA for the entire SVGB. Each of the eight subbasins within the SVGB is unique. SGMA recognizes that by focusing on each subbasin. Multiple GSAs or GS Plans for every SVGB subbasin is expressly authorized by SGMA. MCWD strongly supports voluntary regional coordination but local control is paramount. Local control is lost through a centralized GSA.

F16. As with other legislation that impacts those with divergent interests, legal maneuvering and delaying tactics can, in the case of SGMA, cause already critical groundwater conditions in Monterey County to get much worse, to the detriment of all concerned.

MCWD's Response: The District disagrees with this finding. See MCWD's response to F15 above. Pressuring local agencies to adopt CBI's approach, which does not legally conform with SGMA, is a real detriment to all concerned.

C. MCWD'S COMMENTS ON FINAL REPORT'S RECOMMENDATIONS

R1. That every public and private entity interested in the formation of a GSA and the adoption of a GSP for the Salinas Valley Basin pledge to consider the groundwater needs of every other interested party with an open mind and a commitment to fairness.

MCWD Comment: Again this recommendation assumes that SGMA requires the formation of one GSA and the adoption of one GS Plan for the entire SVGB. That is not the law, therefore, this recommendation will not be implemented because it is not warranted and is not reasonable. The CBI Collaborative has not itself shown to have "an open mind and commitment to fairness" when a participant disagrees with CBI's "ultimate goal." A more reasonable pledge would be to work through the inevitable disagreements in a civil manner, to try to understand before being understood, to communicate with respect and honestly, and to be quick, accurate, and timely with facts, data, documents, legal opinions, technical analysis, and other tools.

R2. That if the June 30, 2017 deadline for forming one or more GSAs for the Salinas Valley Basin is not met by other interested parties, the County of Monterey agree to become the GSA for that basin in order to prevent state intervention in local groundwater planning.

MCWD Comment: This is the first time in the findings and recommendations that the Final Report recognizes that more than one GSA may be filed for different portions of the SVGB. As explained in Section 2.3 above, Monterey County is only presumed to be the GSA for any portion of a subbasin that is not within the boundaries of a GSA for which a formation notification has been filed with DWR. Therefore, this recommendation requires further analysis.

R3. That the County of Monterey actively participate in the currently ongoing effort by Consensus Builders, Inc. to help achieve the formation of one or more GSAs for the

Salinas Valley Basin before the June 30, 2017 deadline.

MCWD Comment: This recommendation has been implemented. The County has been actively involved in all of the CBI meetings although the County has opposed the formation of more than one GSA for any portion of the SVGB.

R4. That the County of Monterey remain mindful of the possibility that it may become the GSA for the Salinas Valley Basin and, with that in mind, take all steps as far in advance of the June 30, 2017 deadline as necessary for it to assume that role prior to that deadline.

MCWD Comment: This recommendation requires further analysis. The County has been actively involved in all of the CBI meetings and has used its influence to advance it scheme of a single GSA and single GS Plan for the entire SVGB. However, the County has chosen to ignore MCWD pronouncements at those same meetings of the need for local control and that MCWD would likely form its own GSA for its service areas and the County has apparently failed to so inform the Civil Grand Jury.

The County has yet to make definitive proposals as to how funding for the operation of the GSA, preparation of the GS Plan for each subbasin, etc., is to be obtained. Recall that in March 2016, 77.83% of the voters within the San Luis Obispo County portion of the Paso Robles Subbasin voted against a special parcel tax to be levied to fund a local groundwater management district, with a two-thirds majority required for passage.

R5. That the County of Monterey remain mindful of the possibility that it may become the GSA for the Salinas Valley Basin and, with that in mind, begin immediately to consider GSP optional components.

MCWD Comment: Again this recommendation incorrectly assumes that the County will be the single GSA for the entire SVGB and will prepare a single GS Plan. Since the assumption of a single GSA/single GS Plan for the entire SVGB does not legally conform with SGMA, MCWD recommends that the County do further analysis.

Attachments:

A MCWD Board Resolution No. 2016-54
B MCWD GSA formation notification to DWR for the Marina Area of the Seaside Area Subbasin
C MCWD GSA formation notification to DWR for the Ord Area of the Corral de Tierra Subbasin
D Curtis Hopkins' Technical Memorandum dated May 26, 2016, subject: North Marina Area Groundwater Data and Conditions

[End of MCWD Comments]

September 6, 2016

Resolution No. 2016-54
Resolution of the Board of Directors
Marina Coast Water District

Election to Become the Exclusive Groundwater Sustainability Agency
Within Portions of Two Subbasins

RESOLVED by the Board of Directors ("Directors") of the Marina Coast Water District ("District"), at its regular meeting duly called and held on September 6, 2016, at 211 Hillcrest Avenue, Marina, California, as follows:

Recitals

A. The Sustainable Groundwater Management Act of 2014, Water Code Sections 10720 – 10736.6 ("SGMA") was signed into law on September 16, 2014; and,

B. SGMA gives local agencies, such as the District, additional authorities and powers to manage groundwater in a sustainable manner and allows for limited state intervention when those local agencies fail to comply with SGMA's requirements; and,

C. SGMA requires that each California Department of Water Resource ("DWR")-designated groundwater subbasin be managed by a single Groundwater Sustainability Agency ("GSA") or by a combination of GSAs and that such management be implemented pursuant to an approved Groundwater Sustainability Plan ("GS Plan"), or multiple coordinated GS Plans, as the case may be; and,

D. Water Code Section 10723(a) authorizes any local agency with a service area overlying a groundwater subbasin or portion thereof to establish itself as the GSA for its service area; and,

E. Water Code Section 10721(j) defines a GSA as one or more local agencies that implement the provisions of SGMA; and,

F. The District's Central Marina and Ord Community water service areas overly portions of the Seaside Area, Corral de Tierra, and 180/400 Foot Aquifer Subbasins of the Salinas Valley Groundwater Basin; and,

G. The District's Ord Community water service area is within a portion of the Adjudicated Seaside Groundwater Basin and is also within a portion of the statutory boundaries of the Monterey Peninsula Water Management District (MPWMD); and,

H. Water Code Section 10723(c)(2) designates the MPWMD as the exclusive groundwater management area within MPWMD's statutory boundaries unless MPWMD elects to opt out of being the exclusive groundwater management agency for that area; and,

I. By MPWMD Resolution No. 2016-01, the MPWMD Board of Directors elected to opt out of being the exclusive groundwater management agency for that portion of MPWMD situated north of the Adjudicated Seaside Groundwater Basin; and,

J. District staff is proposing that the District become the GSA for (1) that portion of the District's Central Marina water service area within the Seaside Area Subbasin of the Salinas Valley Groundwater Basin and (2) that portion of the District's Ord Community water service area north of the Adjudicated Seaside Groundwater Basin within Seaside Area Subbasin, which shall collectively be referred to as the "Marina Area of the Seaside Area Subbasin" and as shown on the map attached hereto as Exhibit "A"; and,

K. District staff is separately proposing that the District become the GSA for that portion of the District's Ord Community water service area within the Corral de Tierra Subbasin, which shall be referred to as the "Ord Area of the Corral de Tierra Subbasin" as shown on the map attached hereto as Exhibit "B"; and,

L. Establishing the District as the GSA for the Marina Area of the Seaside Area Subbasin and separately for the Ord Area of the Corral de Tierra Subbasin will enable the District to prepare and implement a Groundwater Sustainability Plan for those respective areas; and,

M. The District is committed to sustainable management of its groundwater resources; and,

N. Adoption of this Resolution does not constitute a "project" under California Environmental Quality Act Guidelines Section 15378(b)(5), including organizational and administrative activities of government, because there would be no direct or indirect physical change in the environment; and,

O. Prior to adopting a resolution of intent to establish the District as the GSA for the respective areas, Water Code Section 10723 requires a local agency to hold a public hearing, after publication of notice pursuant to California Government Code Section 6066, on whether or not to adopt a resolution to establish a GSA; and,

P. Pursuant to Government Code Section 6066, notices of a public hearing on whether or not to adopt a resolution to establish one or two GSAs were published on August 19, 2016 and August 26, 2016; and,

Q. On September 6, 2016, the District held a public hearing regarding adoption of a resolution to establish the District as the GSA for for the Marina Area of the Seaside Area Subbasin and separately for the Ord Area of the Corral de Tierra Subbasin as shown on the Exhibit "A" and Exhibit "B" maps, which maps exclude that portion of MCWD's Ord Community service area within the Adjudicated Seaside Groundwater Basin and exclude that portion of its service areas within the 180/400 Foot Aquifer Subbasin; and,

R. It would be in the best interest of the District for it to become the exclusive GSA for that portion of its service areas shown respectively on the Exhibit "A" and Exhibit "B" maps; and,

S. DWR has proposed that the Marina Area of the Seaside Area Subbasin and that portion of the Corral de Tierra Subbasin outside of the Adjudicated Seaside Groundwater Basin be merged into a new subbasin named the "Monterey Subbasin", but that basin boundary modification is not yet finalized so the District's service areas within the Seaside Area Subbasin and the Corral de Tierra Subbasin must be treated separately; and,

T. The District has opposed the proposed merger because it is contrary to the basin boundary modification requested by MPWMD, which the District supported, but the District desires to avoid any delays in processing the District's GSA formation notifications should the new combined Monterey Subbasin go into effect.

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

1. All the recitals in this Resolution are true and correct and the Board of Directors so finds, determines, and represents.

2. The District hereby elects to become the exclusive GSA (a) for the Marina Area of the Seaside Area Subbasin and (b) separately for the Ord Area of the Corral de Tierra Subbasin as shown respectively on the attached Exhibit "A" and Exhibit "B" maps, which are incorporated herein by reference.

3. District staff is hereby directed and authorized to provide separate notices of this election to become the exclusive GSA (a) for the Marina Area of the Seaside Area Subbasin and (b) for the Ord Area of the Corral de Tierra Subbasin to DWR in the manner required by law.

4. Should the new Monterey Subbasin go into effect, then the Board of Directors requests DWR to automatically convert the District's two separate GSA formation notifications into a single notification to form an exclusive GSA for one combined area in order to avoid delay in processing the District's GSA election.

PASSED AND ADOPTED on September 6, 2016, by the Board of Directors of the Marina Coast Water District by the following roll call vote:

Ayes: Directors Shriner, Lee, Moore, Gustafson

Noes: Directors None

Absent: Directors None

Abstained: Directors None

Howard Gustafson, President

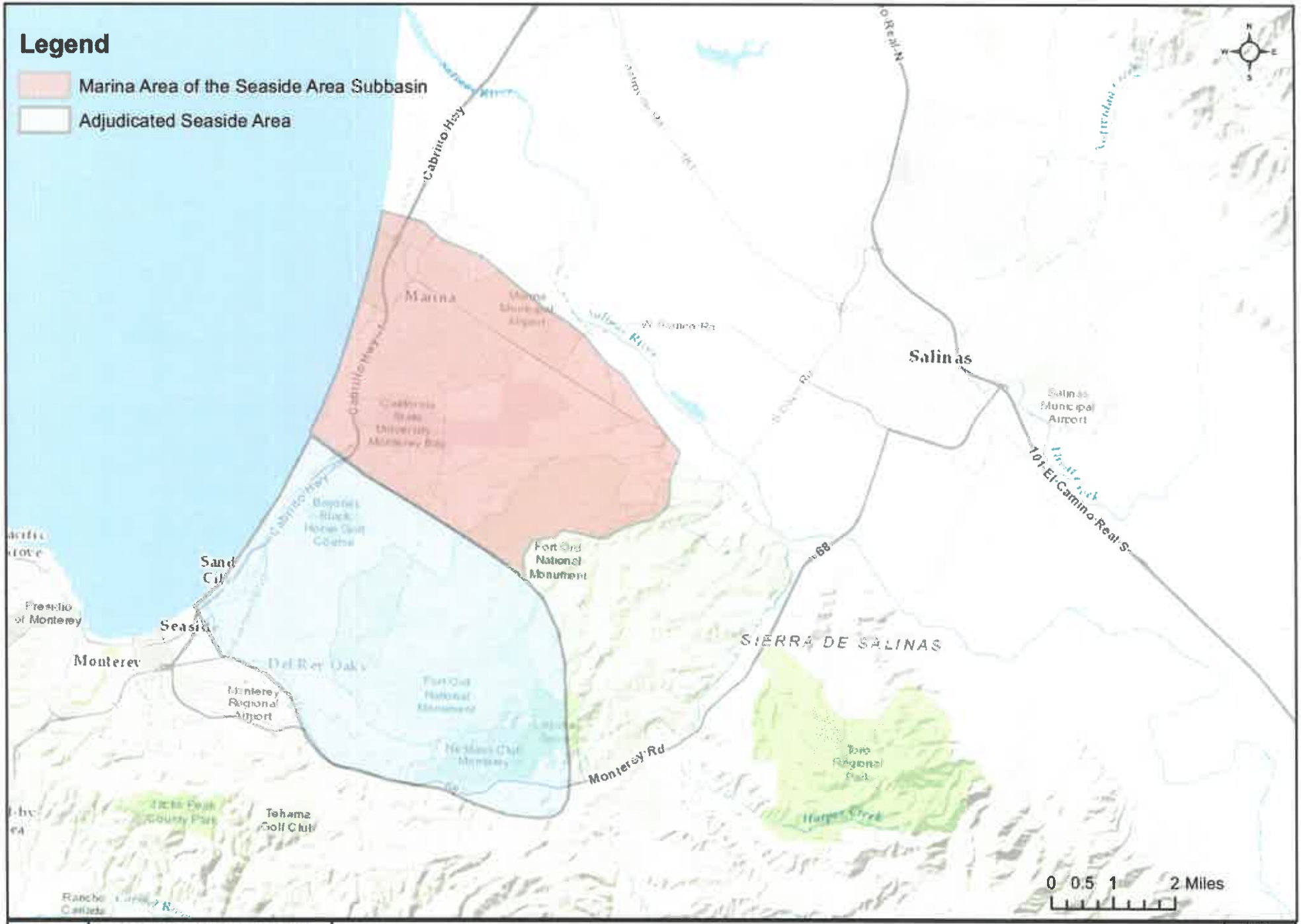
ATTEST:

Keith Van Der Maaten, Secretary

CERTIFICATE OF SECRETARY

The undersigned Secretary of the Board of the Marina Coast Water District hereby certifies that the foregoing is a full, true and correct copy of Resolution No. 2016-54 adopted September 6, 2016.

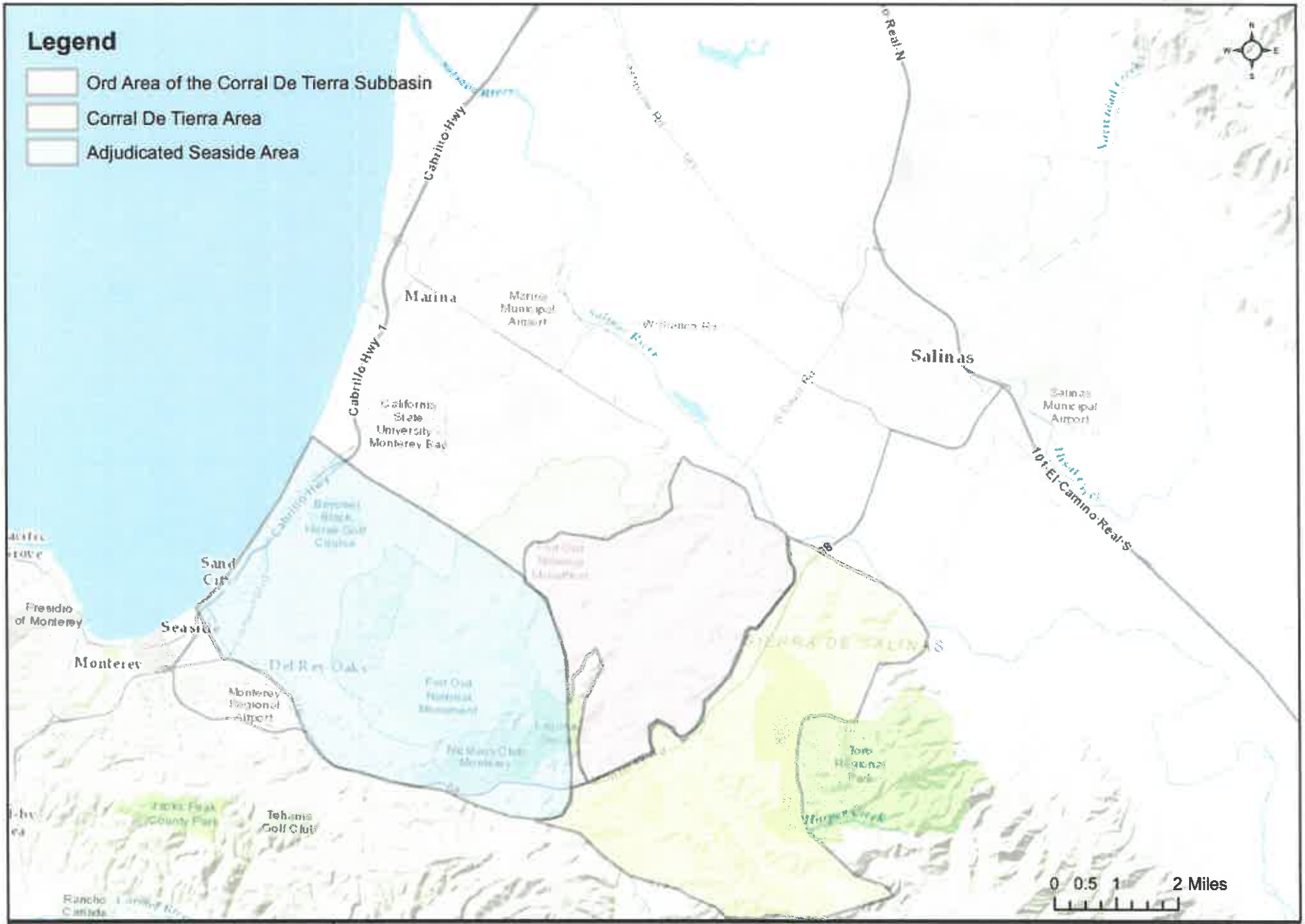
Keith Van Der Maaten, Secretary



Marina Coast Water District
2840 4th Avenue
Marina, CA, 93933

Exhibit A-Marina Area of the Seaside Area Subbasin

Date: 08/25/16
Author: J.Hollida



Marina Coast Water District
2840 4th Avenue
Marina, CA, 93933

Exhibit B-Ord Area of the Corral De Tierra Subbasin

Date: 06/25/16
Author: J.Hollida

MARINA COAST WATER DISTRICT

11 RESERVATION ROAD, MARINA, CA 93933-2099
Home Page: www.mcwd.org
TEL: (831) 384-6131 FAX: (831) 883-5995

September 15, 2016

Mark Norburg,
GSA Project Manager Senior Engineering Geologist
California Department of Water Resources
901 P Street, Room 213A
PO Box 942836
Sacramento, CA 94236
Mark. Nordberg@water.ca.gov

Mike McKenzie
Senior Engineering Geologist
3374 East Shields Avenue
Fresno, CA 93726
Charles.McKenzie@water.ca.gov

Subject: **Notice of Election to Become the Exclusive Groundwater Sustainability Agency for the Marina Area of the Seaside Area Subbasin** (DWR Basin No. 3-04.08)

Dear Mr. Nordberg,

Pursuant to California Water Code section 10723.8 of the Sustainable Groundwater Management Act (SGMA), the Marina Coast Water District (District), a County Water District and political subdivision of the State of California, organized under Division 12, sections 30000 and following, of the California Water Code, gives notice to the California Department of Water Resources (DWR) of its election to assume the role of the Groundwater Sustainability Agency (GSA) to undertake sustainable groundwater management for the portion of the Seaside Area Subbasin (DWR Basin No. 3-04.08) underlying the District's Central Marina and Ord Community service areas.

The District service area within the Seaside Area Subbasins overlaps with the Peninsula Water Management District and the adjudicated Seaside Basin as depicted on attached Exhibit 1. Water Code Section 10723(c)(2) designates the MPWMD as the exclusive groundwater management area within MPWMD's statutory boundaries unless MPWMD elects to opt out of being the exclusive groundwater management agency for that area. By MPWMD Resolution No. 2016-01, attached as Exhibit 2, the MPWMD Board of Directors elected to opt out of being the exclusive groundwater management agency for that portion of MPWMD located north of the Adjudicated Seaside Groundwater Basin which is within MCWD's service area.

On September 6, 2016, after giving notice as required by California Government Code section 6066 and California Water Code section 10723, the District held a public hearing in accordance with California Water Code section 10723(b). Proof of Publication is attached as Exhibit 3. Following the hearing, the District Board Directors adopted Resolution No. 2016-54, attached as Exhibit 4, electing to become the exclusive GSA pursuant to California Water Code section 10723 for the Marina Area of the Seaside Area Subbasin - that portion of the District's service area within the Seaside Area Subbasin north of the Adjudicated Seaside Groundwater Basin, as shown on the attached Exhibit 5 map.

The District will continue to work cooperatively with the adjoining Adjudicated Seaside Groundwater Basin Watermaster and any adjoining GSAs to be formed. The District will enter into such voluntary cooperative agreements as it deems appropriate for groundwater management of the Salinas Valley Groundwater Basin.

Pursuant to California Water Code section 10723.2, the District shall consider the interests of all beneficial uses and groundwater users and managers. An initial list of such interested parties, including an explanation of how their interests will be considered in the development and operation of the groundwater sustainability plan for the GSA, is included as Exhibit 6.

If you have any questions or require further information regarding any of these matters, please contact me at (831) 883-5910.

Sincerely,

Keith Van Der Maaten
General Manager

Attachments:

Exhibit 1 – Map of the Marina Coast Water District bounadaries and the Basins (in pdf and GIS shape file format)
Exhibit 2 – MPWMD Resolution No. 2016-01
Exhibit 3 – Proof of Publication
Exhibit 4 – MCWD Board of Directors Resolution No. 2016-54
Exhibit 5 – MCWD GSA Map - Seaside Area Subbasin (in pdf and GIS shape file format)
Exhibit 6 – Initial List of Beneficial Uses and Users of Groundwater

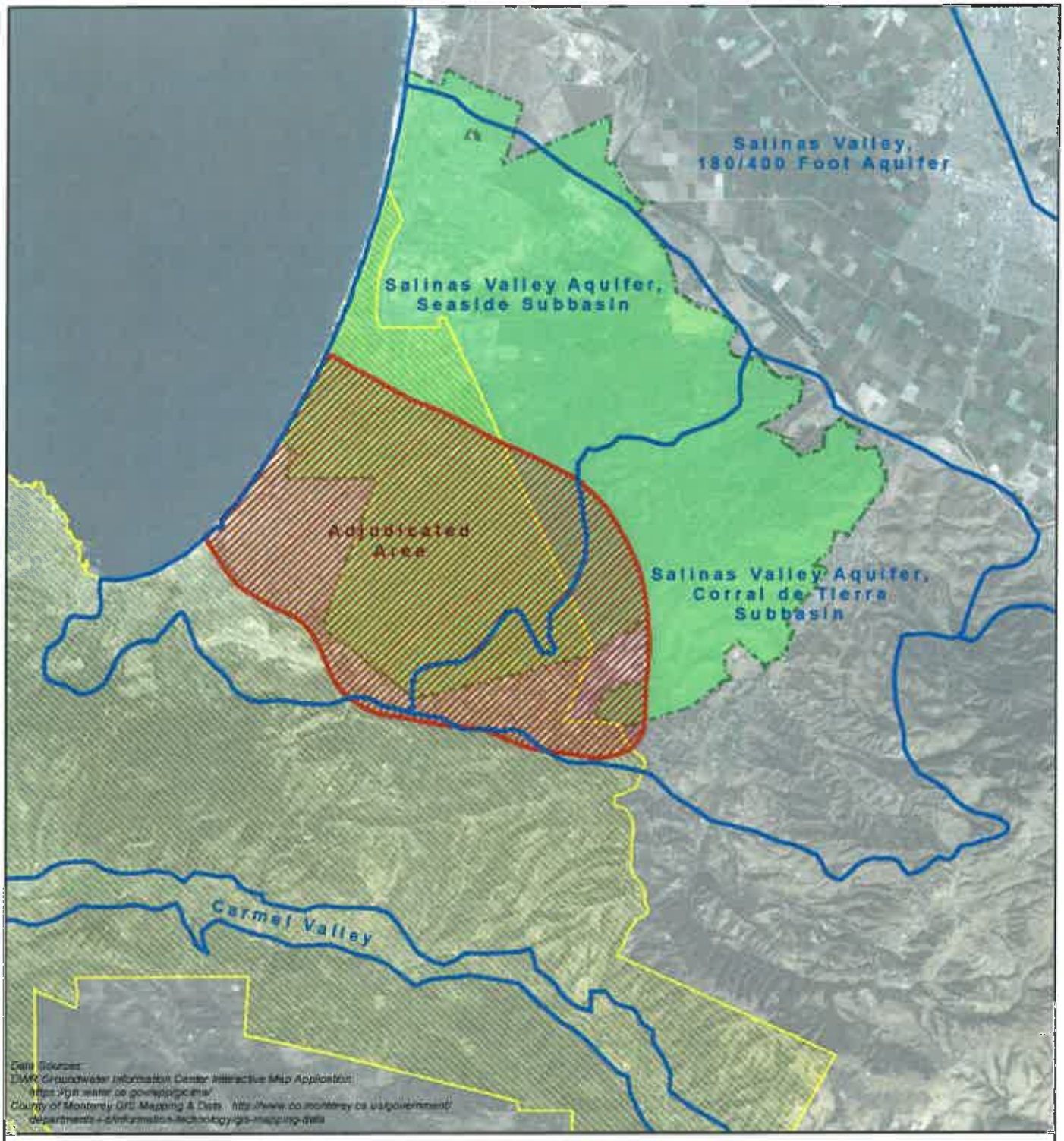


Exhibit 1: Marina Coast Water District and DWR Bulletin 118 Groundwater Basins

- Marina Coast Water District service area
- Monterey Peninsula Water Management District
- Bulletin 118 Groundwater Basin boundary
- Adjudicated Seaside Groundwater Basin

N

0 1 2 Miles

1 inch = 2 miles

Map Date: September 2016

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

RESOLUTION NO. 2016-01

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE MONTEREY PENINSULA WATER MANAGEMENT DISTRICT TO FORMALLY INITIATE THE PROPOSED BASIN BOUNDARY MODIFICATION REQUEST TO RECOGNIZE THE ADJUDICATED SEASIDE GROUNDWATER BASIN WITH THE CALIFORNIA DEPARTMENT OF WATER RESOURCES UNDER THE SUSTAINABLE GROUNDWATER MANAGEMENT ACT

WHEREAS, on September 16, 2014 the Sustainable Groundwater Management Act (SGMA) was signed into law and adopted into the California Water Code, commencing with Section 10720; and

WHEREAS, on November 16, 2015, the Department of Water Resources (DWR) implemented new basin boundary modification regulations (CA Code of Regulations, Title 23, Division 2, Chapter 1.5, Subchapter 1); and

WHEREAS, DWR Bulletin 118 was lasted updated in 2003 and the map (**Attachment 1**) in the area of the Seaside Groundwater Basin is outdated, and does not recognize the adjudicated Seaside Basin boundary per the Adjudication Decision ("Decision") in 2006 (Monterey County Superior Court Case No. M66343); and

WHEREAS, per the DWR basin boundary modification regulations (§ 343.2), the Monterey Peninsula Water Management District (MPWMD or District) is an eligible local agency whose jurisdictional area lies within or borders the existing or proposed basin or subbasin for which boundary modification is sought; and

WHEREAS, the proposed boundary modification is to recognize the adjudicated Seaside Groundwater Basin as a distinct basin boundary, per the Decision; and

WHEREAS, the adjudicated Seaside Groundwater Basin boundary as defined in the Decision and shown on the map in **Attachment 2** more accurately reflects the understanding of hydrogeologic conditions in the basin than that depicted in DWR Bulletin 118 and the Decision sets forth the physical solution needed for the basin's sustainable groundwater management; and

WHEREAS, under Water Code Section 10723(c)(2), MPWMD will elect to opt out of being the exclusive groundwater management agency for that area north of the adjudicated Seaside Groundwater Basin that is within the MPWMD statutory boundaries; and

WHEREAS, MPWMD has determined that a Statutory Exemption applies to the proposed basin boundary modification request as defined in CEQA Guidelines Section 15268 (Ministerial Projects), based on previous environmental determinations by the Courts, which limits CEQA review of water-related issues to areas other than the adjudicated Seaside Groundwater Basin; and

WHEREAS, notices of this public hearing on adoption of a resolution to initiate the basin boundary modification request were published on January 14, 2016 and January 21, 2016; and

WHEREAS, on January 27, 2016 this District held a public hearing regarding the adoption of a resolution to initiate the basin boundary modification request;

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Monterey Peninsula Water Management District:

1. Hereby establishes the rationale for the District to initiate the boundary modification request to recognize the adjudicated Seaside Groundwater Basin in DWR's Bulletin 118; and

2. Hereby authorizes the General Manager or his designee to initiate the process to request a basin boundary modification to recognize the adjudicated Seaside Groundwater Basin boundary with DWR and provide a copy of this resolution to DWR as part of the formal request submittal to comply with the requirements of the DWR's basin boundary modification regulations (§ 344.2); and

3. All the recitals in this Resolution are true and correct and the District so finds, determines, and represents.

On motion of Director Clarke, and second by Director Pendergrass, the foregoing resolution is duly adopted this 27th day of January, 2016 by the following votes:

AYES:	Directors Clarke, Pendergrass, Byrne, Evans and Lewis
NAYS:	None
ABSENT:	Directors Brower and Potter

I, David J. Stoldt, Secretary to the Board of Directors of the Monterey Peninsula Water Management District, hereby certify that the foregoing is a resolution duly adopted on the 27th day of January, 2016.

Witness my hand and seal of the Board of Directors this 3rd day of February, 2016.

David J. Stoldt
Secretary to the Board

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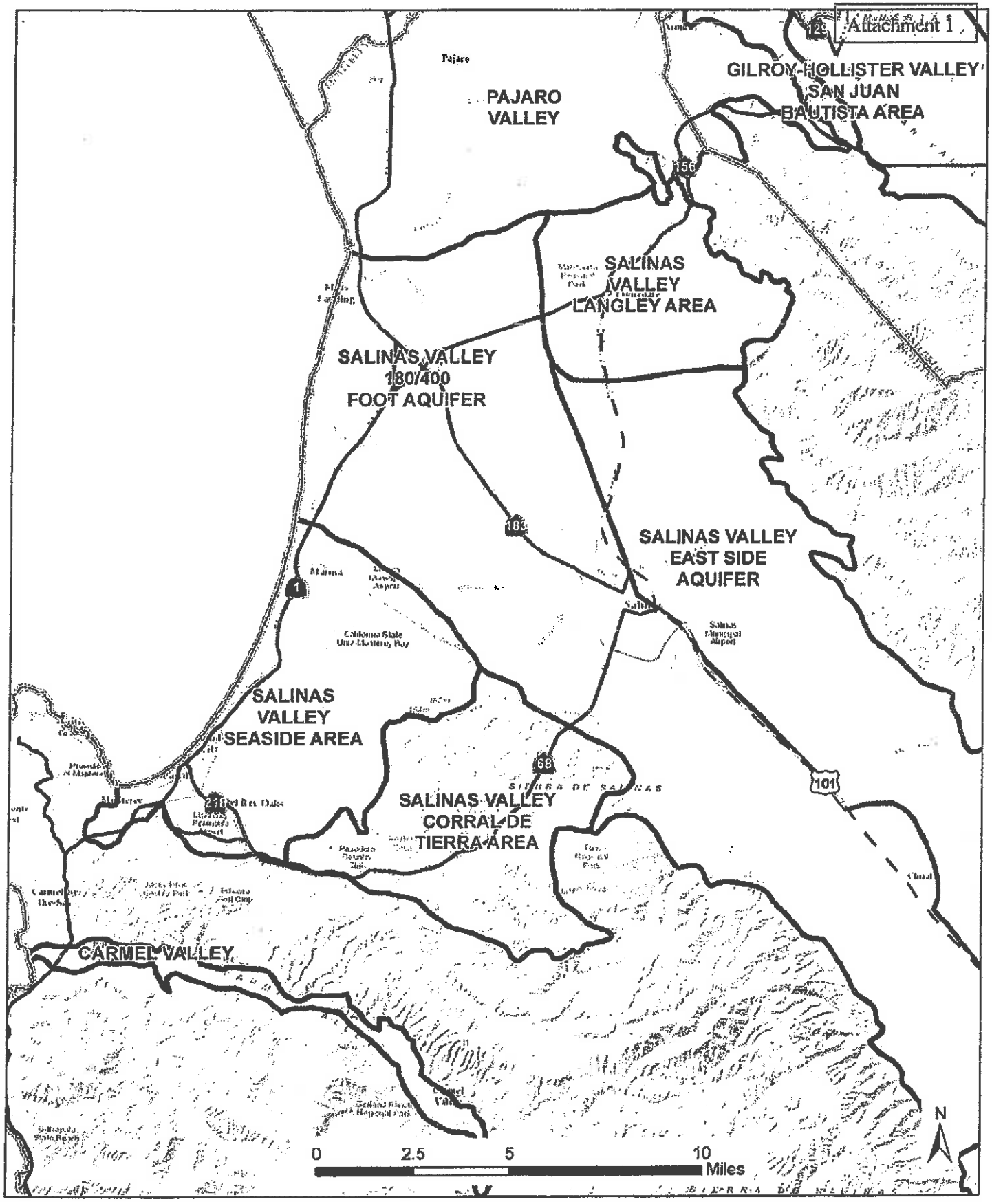
MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

Attachment 1



Seaside Area Sub Basin
and Adjacent Salinas Valley Groundwater Basins

Source: DWR Bulletin 118, 2004

Exhibit 2

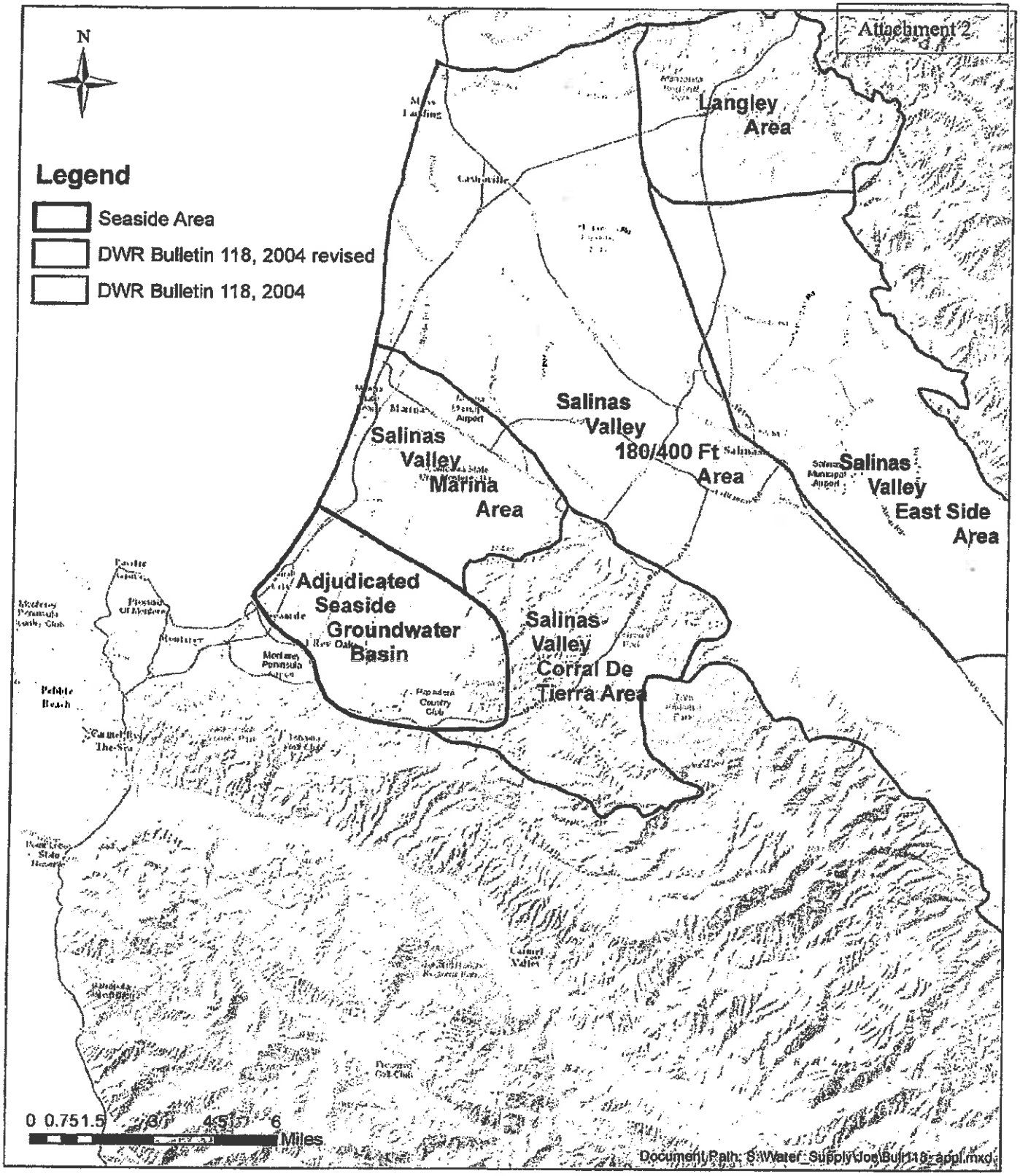


Plate 1: Regional Map showing location of Seaside Groundwater Basin Boundary

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

Exhibit 2

COPY CERTIFICATION

I, David J. Stoldt, Secretary to the Board of Directors of the Monterey Peninsula Water Management District, hereby certify the foregoing is a full, true and correct copy of Resolution No. 2016-01 duly adopted on the 27th day of January 2016.

David J. Stoldt,
Secretary to the Board of Directors

2-3-16
Date

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Exhibit 2

MONTEREY HERALD

Published by The Monterey Herald
P.O. Box 271 • Monterey, California 93942
(831) 726.4382

MARINA COAST WATER DISTRICT
Account No. 2141283
11 RESERVATION RD
MARINA, CA 93933

Legal No. 0005797267
Notice of Public hearing

Ordered by:

PROOF OF PUBLICATION

STATE OF CALIFORNIA
County of Monterey

I am a citizen of the United States and a resident of the County aforesaid. I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of The Monterey Herald, a newspaper of general circulation, printed and published daily and Sunday in the City of Monterey, County of Monterey, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Monterey, State of California; that the notice, of which the annexed is a printed copy (set in type not smaller than 6 point), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

08/19/16, 08/26/16

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Executed on 08/26/2016 at Monterey, California.

Danielle Landaker

Signature

This space is reserved for the County Clerk's Filing Stamp

NOTICE OF PUBLIC HEARING
Marina Coast Water District

Notice is hereby given that Marina Coast Water District (MCWD) will hold a public hearing regarding the adoption of a Resolution of intention to form one or two Groundwater Sustainability Agencies (GSAs) as outlined in the California Water Code, Part 2.74, Sustainable Groundwater Management Act, Section 10723. The proposed GSA boundaries would encompass all of MCWD's water service areas within the Seaside Area Subbasin and the Corral de Tierra Subbasin of the Salinas Valley Groundwater Basin, excluding that portion of MCWD's service area within the Adjudicated Seaside Groundwater Basin. If the non-adjudicated portions of the Seaside Area Subbasin and of the Corral de Tierra Subbasin remain separate subbasins, then the formation of two GSAs will need to be considered. The public hearing is intended to review, provide explanation of, and allow for public input on the formation of one or two GSAs by MCWD within the proposed boundaries.

The public hearing for the proposed formation of one or two GSAs shall be held at the following
date, time, and place:
Tuesday, September 6, 2016, at 7:00 pm
Marina City Council Chambers,
211 Hillcrest Avenue, Marina, CA 93933

If you need special assistance to participate in this public hearing, please contact MCWD at (831) 384-6131. Notification 48 hours prior to the hearing will enable the District to make reasonable arrangements to ensure accessibility to this public hearing. [28 CFR 35.102-35.104 ADA Title II]

FOR ADDITIONAL INFORMATION CONTACT:
Keith Van Der Maaten, General Manager
Marina Coast Water District
11 Reservation Road, Marina, CA 93933
(831)384-6131
or kvandermaaten@mcwd.org

Publish: Aug. 19, 26, 2016

September 6, 2016

Resolution No. 2016-54
Resolution of the Board of Directors
Marina Coast Water District

Election to Become the Exclusive Groundwater Sustainability Agency
Within Portions of Two Subbasins

RESOLVED by the Board of Directors ("Directors") of the Marina Coast Water District ("District"), at its regular meeting duly called and held on September 6, 2016, at 211 Hillcrest Avenue, Marina, California, as follows:

Recitals

A. The Sustainable Groundwater Management Act of 2014, Water Code Sections 10720 – 10736.6 ("SGMA") was signed into law on September 16, 2014; and,

B. SGMA gives local agencies, such as the District, additional authorities and powers to manage groundwater in a sustainable manner and allows for limited state intervention when those local agencies fail to comply with SGMA's requirements; and,

C. SGMA requires that each California Department of Water Resource ("DWR")-designated groundwater subbasin be managed by a single Groundwater Sustainability Agency ("GSA") or by a combination of GSAs and that such management be implemented pursuant to an approved Groundwater Sustainability Plan ("GS Plan"), or multiple coordinated GS Plans, as the case may be; and,

D. Water Code Section 10723(a) authorizes any local agency with a service area overlying a groundwater subbasin or portion thereof to establish itself as the GSA for its service area; and,

E. Water Code Section 10721(j) defines a GSA as one or more local agencies that implement the provisions of SGMA; and,

F. The District's Central Marina and Ord Community water service areas overly portions of the Seaside Area, Corral de Tierra, and 180/400 Foot Aquifer Subbasins of the Salinas Valley Groundwater Basin; and,

G. The District's Ord Community water service area is within a portion of the Adjudicated Seaside Groundwater Basin and is also within a portion of the statutory boundaries of the Monterey Peninsula Water Management District (MPWMD); and,

H. Water Code Section 10723(c)(2) designates the MPWMD as the exclusive groundwater management area within MPWMD's statutory boundaries unless MPWMD elects to opt out of being the exclusive groundwater management agency for that area; and,

I. By MPWMD Resolution No. 2016-01, the MPWMD Board of Directors elected to opt out of being the exclusive groundwater management agency for that portion of MPWMD situated north of the Adjudicated Seaside Groundwater Basin; and,

J. District staff is proposing that the District become the GSA for (1) that portion of the District's Central Marina water service area within the Seaside Area Subbasin of the Salinas Valley Groundwater Basin and (2) that portion of the District's Ord Community water service area north of the Adjudicated Seaside Groundwater Basin within Seaside Area Subbasin, which shall collectively be referred to as the "Marina Area of the Seaside Area Subbasin" and as shown on the map attached hereto as Exhibit "A"; and,

K. District staff is separately proposing that the District become the GSA for that portion of the District's Ord Community water service area within the Corral de Tierra Subbasin, which shall be referred to as the "Ord Area of the Corral de Tierra Subbasin" as shown on the map attached hereto as Exhibit "B"; and,

L. Establishing the District as the GSA for the Marina Area of the Seaside Area Subbasin and separately for the Ord Area of the Corral de Tierra Subbasin will enable the District to prepare and implement a Groundwater Sustainability Plan for those respective areas; and,

M. The District is committed to sustainable management of its groundwater resources; and,

N. Adoption of this Resolution does not constitute a "project" under California Environmental Quality Act Guidelines Section 15378(b)(5), including organizational and administrative activities of government, because there would be no direct or indirect physical change in the environment; and,

O. Prior to adopting a resolution of intent to establish the District as the GSA for the respective areas, Water Code Section 10723 requires a local agency to hold a public hearing, after publication of notice pursuant to California Government Code Section 6066, on whether or not to adopt a resolution to establish a GSA; and,

P. Pursuant to Government Code Section 6066, notices of a public hearing on whether or not to adopt a resolution to establish one or two GSAs were published on August 19, 2016 and August 26, 2016; and,

Q. On September 6, 2016, the District held a public hearing regarding adoption of a resolution to establish the District as the GSA for for the Marina Area of the Seaside Area Subbasin and separately for the Ord Area of the Corral de Tierra Subbasin as shown on the Exhibit "A" and Exhibit "B" maps, which maps exclude that portion of MCWD's Ord Community service area within the Adjudicated Seaside Groundwater Basin and exclude that portion of its service areas within the 180/400 Foot Aquifer Subbasin; and,

R. It would be in the best interest of the District for it to become the exclusive GSA for that portion of its service areas shown respectively on the Exhibit "A" and Exhibit "B" maps; and,

S. DWR has proposed that the Marina Area of the Seaside Area Subbasin and that portion of the Corral de Tierra Subbasin outside of the Adjudicated Seaside Groundwater Basin be merged into a new subbasin named the "Monterey Subbasin", but that basin boundary modification is not yet finalized so the District's service areas within the Seaside Area Subbasin and the Corral de Tierra Subbasin must be treated separately; and,

T. The District has opposed the proposed merger because it is contrary to the basin boundary modification requested by MPWMD, which the District supported, but the District desires to avoid any delays in processing the District's GSA formation notifications should the new combined Monterey Subbasin go into effect.

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

1. All the recitals in this Resolution are true and correct and the Board of Directors so finds, determines, and represents.

2. The District hereby elects to become the exclusive GSA (a) for the Marina Area of the Seaside Area Subbasin and (b) separately for the Ord Area of the Corral de Tierra Subbasin as shown respectively on the attached Exhibit "A" and Exhibit "B" maps, which are incorporated herein by reference.

3. District staff is hereby directed and authorized to provide separate notices of this election to become the exclusive GSA (a) for the Marina Area of the Seaside Area Subbasin and (b) for the Ord Area of the Corral de Tierra Subbasin to DWR in the manner required by law.

4. Should the new Monterey Subbasin go into effect, then the Board of Directors requests DWR to automatically convert the District's two separate GSA formation notifications into a single notification to form an exclusive GSA for one combined area in order to avoid delay in processing the District's GSA election.

PASSED AND ADOPTED on September 6, 2016, by the Board of Directors of the Marina Coast Water District by the following roll call vote:

Ayes: Directors Shriner, Lee, Moore, Gustafson

Noes: Directors None

Absent: Directors None

Abstained: Directors None

Howard Gustafson, President

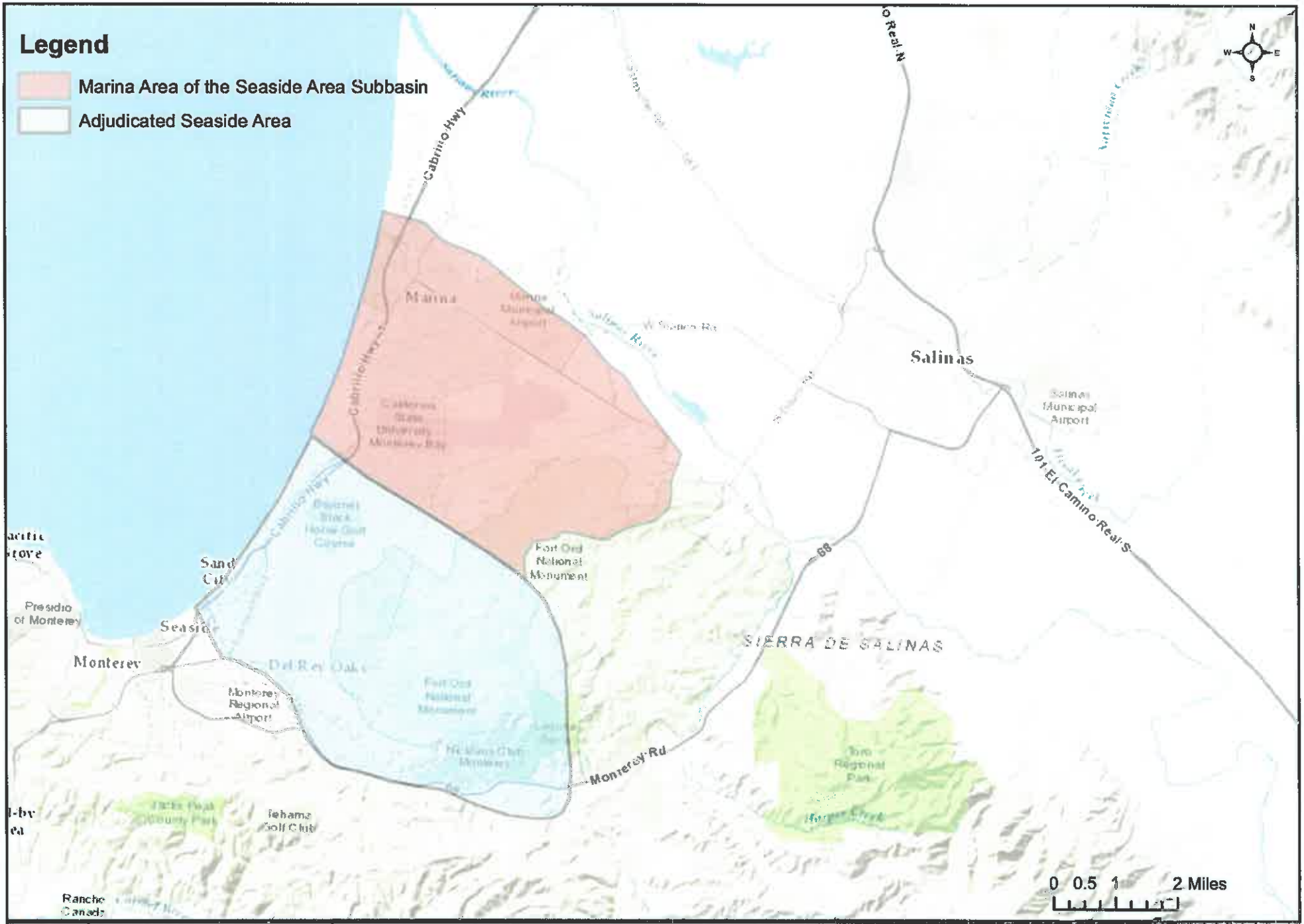
ATTEST:

Keith Van Der Maaten, Secretary

CERTIFICATE OF SECRETARY

The undersigned Secretary of the Board of the Marina Coast Water District hereby certifies that the foregoing is a full, true and correct copy of Resolution No. 2016-54 adopted September 6, 2016.

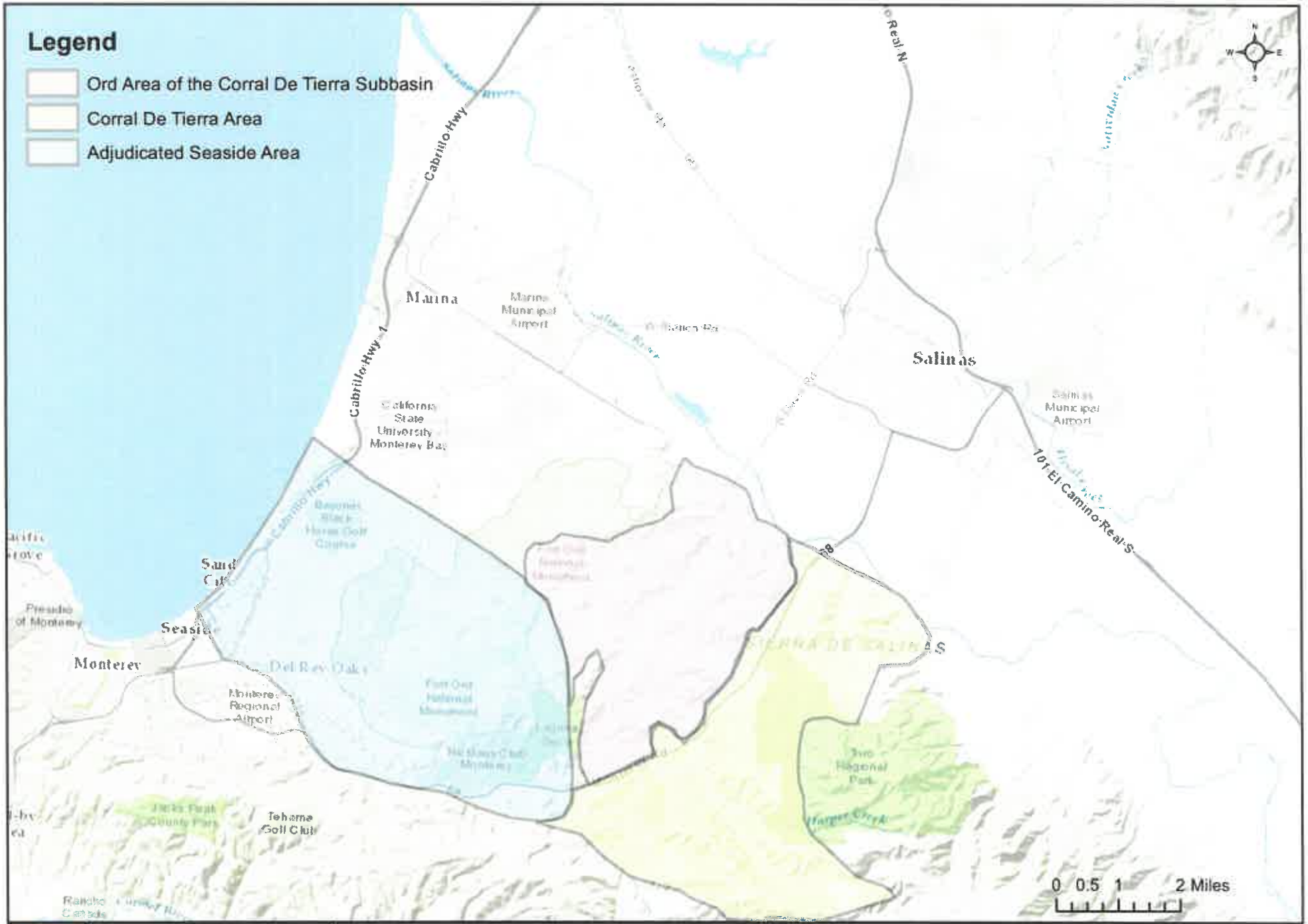
Keith Van Der Maaten, Secretary



Marina Coast Water District
2840 4th Avenue
Marina, CA, 93933

Exhibit A-Marina Area of the Seaside Area Subbasin

Date: 08/25/16
Author: J.Hollida



Marina Coast Water District
2840 4th Avenue
Marina, CA, 93933

Exhibit B-Ord Area of the Corral De Tierra Subbasin

Date: 06/23/16
Author: J.Hollida

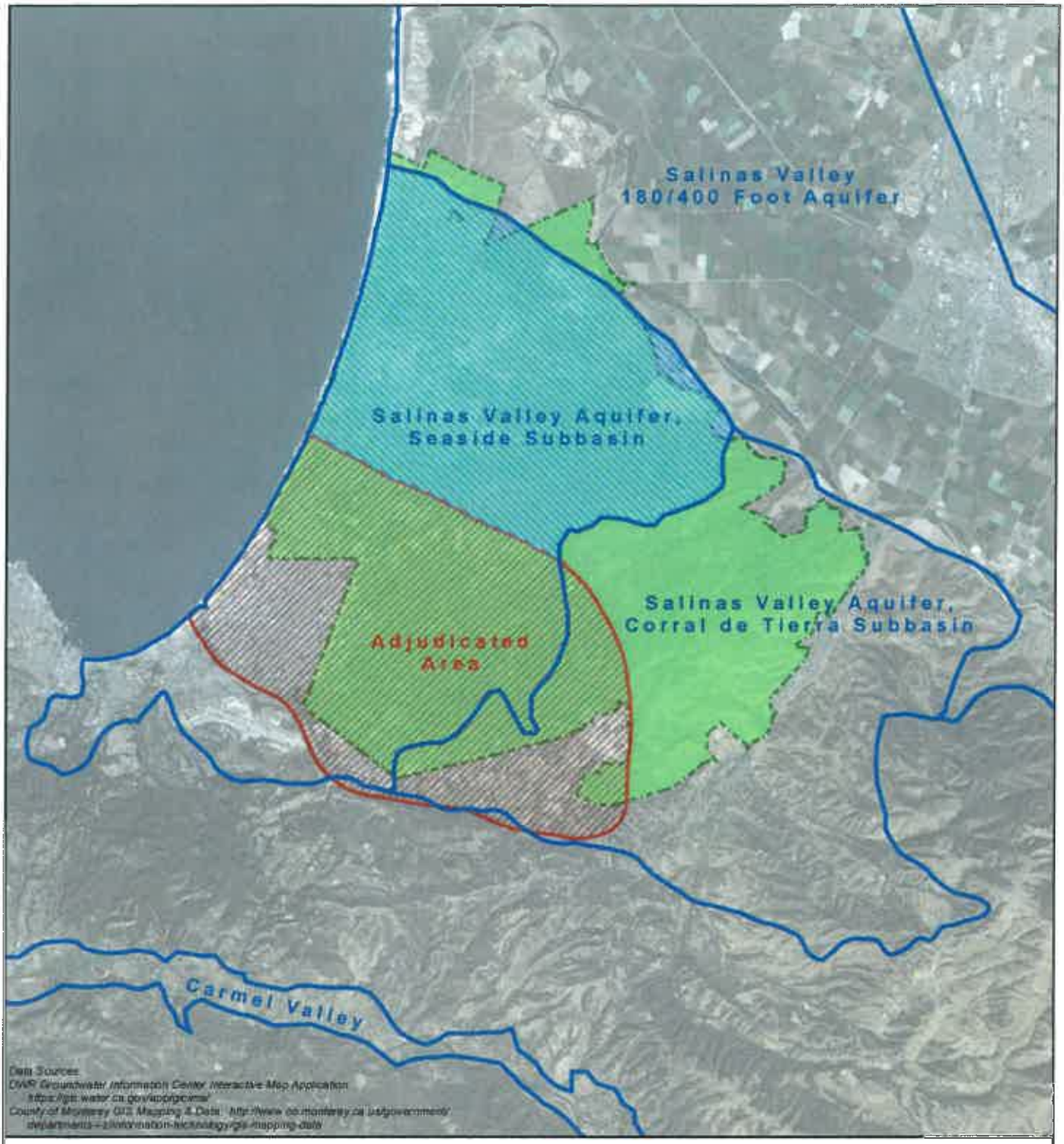


Exhibit 5: MCWD GSA Map - Seaside Area Subbasin

- Marina Coast Water District service area
- Proposed MCWD GSA Area - Seaside Subbasin
- Adjudicated Seaside Groundwater Basin
- Bulletin 118 Groundwater Basin boundary

N

0 1 2 Miles

1 inch = 2 miles

Map Date: September 2016

INITIAL LIST OF BENEFICIAL USES AND USERS OF GROUNDWATER
for the
MARINA AREA GSA OF THE SEASIDE AREA SUBBASIN

In accordance with California Water Code sections 10723.4, a list of interested parties has been developed and will continue to be updated throughout the Marina Coast Water District's (District) development and implementation of a Groundwater Sustainability Plan (GS Plan) for the GSA area. As required by the Sustainable Groundwater Management Act (Water Code section 10720, et seq.), the District will consider all beneficial uses and groundwater users and managers. These beneficial interests and parties include, but are not limited to, all of the following:

1. Local Water Districts within or adjoining the GSA:
    a. Monterey Peninsula Water Mangement District
    b. Adjudicated Seaside Groundwater Basin Watermaster
    c. City of Seaside

2. Holders of Overlying Groundwater Rights: agricultural and domestic well owners, municipal well operators and public water systems
    a. U.S. Army

3. Surface Water Users
    a. Monterey Regional Water Pollution Control Agency

4. Environmental Users of groundwater:
    a. Fort Ord National Monument
    b. Fort Ord Dunes State Park
    c. Marina Beach State Park

5. Local Land Use Planning Agencies: There are several local land use planning agencies located within the Marina Area GSA, including:
    a. City of Marina
    b. City of Seaside
    c. County of Monterey
    d. Fort Ord Reuse Authority

6. Federal Government: There are several federal agencies which may own or mange land overlying the groundwater sub-basins within the boundaries of the Marina Area GSA, including:
    a. U.S. Bureau of Land Mangement
    b. U.S. Army Ord Military Community, Presidio of Monterey

7. California Native American Tribes:
    None within the District's proposed GSA management area.

8. Disadvantaged Communities: There are several qualified Disadvantaged Community Block Groups and Tracts in:
    a. City of Marina
    b. Ord Community

9. Entities listed in California Water Code Section 10927 that are monitoring and reporting groundwater elevations in all or part of the basins to be mangaged by the District as the designated GSA:
    a. Monterey County Water Resources Agency
    b. Monterey Peninsula Water Management District

10. Other Entities:
    a. GSAs that may be formed to manage portions of the adjoining 180/400 Foot Aquifer Subbasin
    b. California State University, Monterey Bay
    c. Monterey Peninsula College

The District will develop an open and inclusive process to implement SGMA. Interested parties will have opportunities, both formal and informal, to provide input to the District throughout the process of developing, operating, and implementing the GSA and GS Plan. Such opportunities may include, but are not limited to, public comment periods required by SGMA (e.g., Water Code section 10728.4); opportunites for public comment during regular and special board meetings; and at other times to be determined and noticed pursuant to Water Code section 10727.8 (a).

The above-referenced agencies, water providers and other interested stakeholders will be contacted to determine how best to consider and protect their interests, and invited to participate in evaluating and defining roles and responsibilities during the GS Plan planning and implementation process.

MARINA COAST WATER DISTRICT

11 RESERVATION ROAD, MARINA, CA 93933-2099
Home Page: www.mcwd.org
TEL: (831) 384-6131 FAX: (831) 883-5995

September 15, 2016

Mark Norburg,
GSA Project Manager Senior Engineering Geologist
California Department of Water Resources
901 P Street, Room 213A
PO Box 942836
Sacramento, CA 94236
Mark. Nordberg@water.ca.gov

Mike McKenzie
Senior Engineering Geologist
3374 East Shields Avenue
Fresno, CA 93726
Charles.McKenzie@water.ca.gov

Subject: **Notice of Election to Become the Exclusive Groundwater Sustainability Agency for the Ord Area of the Corral de Tierra Subbasin** (DWR Basin No. 3-04.10)

Dear Mr. Nordberg,

Pursuant to California Water Code section 10723.8 of the Sustainable Groundwater Management Act (SGMA), the Marina Coast Water District (District), a County Water District and political subdivision of the State of California, organized under Division 12, sections 30000 and following, of the California Water Code, gives notice to the California Department of Water Resources (DWR) of its election to assume the role of the Groundwater Sustainability Agency (GSA) to undertake sustainable groundwater management for the portion of the Corral De Tierra Subbasin (DWR Basin No. 3-04.10) underlying the District's Ord service area.

On September 6, 2016, after giving notice as required by California Government Code section 6066 and California Water Code section 10723, the District held a public hearing in accordance with California Water Code section 10723 (b). Proof of Publication is attached as Exhibit 1. Following the hearing, the District Board Directors adopted Resolution No. 2016-54, attached as Exhibit 2, electing to become the GSA pursuant to California Water Code section 10723 for the District's Ord water service area within the Corral de Tierra Subbasin and outside of the Adjudicated Seaside Groundwater Basin, as shown on the attached Exhibit 3 map.

The District will continue to work cooperatively with any GSA formed for the remainder of the Corral de Tierra Subbasin. The District will enter into any required intra-subbasin cooperative agreement for the subbasin as a whole. In addition, the District will enter into such voluntary cooperative agreements as it deems appropriate for groundwater management of the Salinas Valley Groundwater Basin.

Per California Water Code section 10723.2, the District shall consider the interests of all beneficial uses and users of groundwater, as well as those responsible for implementing GSPs. An initial list of such interested parties, including an explanation of how their interests will be considered in the development and operation of the GSPs, is included as Exhibit 4.

If you have any questions or require further information regarding any of these matters, please contact me at (831) 883-5910.

Sincerely,

Keith Van Der Maaten
General Manager

Attachments:

Exhibit 1 – Proof of Publication
Exhibit 2 – Resolution No. 2016-54
Exhibit 3 – MCWD GSA Map - Corral de Tierra Subbasin (in pdf and GIS shape file format)
Exhibit 4 – Initial List of Beneficial Uses and Users of Groundwater

MONTEREY HERALD

Published by The Monterey Herald
P.O. Box 271 • Monterey, California 93942
(831) 726.4382

MARINA COAST WATER DISTRICT
Account No. 2141283
11 RESERVATION RD
MARINA, CA 93933

Legal No. 0005797267
Notice of Public hearing

Ordered by:

PROOF OF PUBLICATION

STATE OF CALIFORNIA
County of Monterey

I am a citizen of the United States and a resident of the County aforesaid. I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of The Monterey Herald, a newspaper of general circulation, printed and published daily and Sunday in the City of Monterey, County of Monterey, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Monterey, State of California; that the notice, of which the annexed is a printed copy (set in type not smaller than 6 point), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

08/19/16, 08/26/16

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Executed on 08/26/2016 at Monterey, California.

Danielle Landaker

Signature

This space is reserved for the County Clerk's Filing Stamp

NOTICE OF PUBLIC HEARING
Marina Coast Water District

Notice is hereby given that Marina Coast Water District (MCWD) will hold a public hearing regarding the adoption of a Resolution of intention to form one or two Groundwater Sustainability Agencies (GSAs) as outlined in the California Water Code, Part 2.74, Sustainable Groundwater Management Act, Section 10723. The proposed GSA boundaries would encompass all of MCWD's water service areas within the Seaside Area Subbasin and the Corral de Tierra Subbasin of the Salinas Valley Groundwater Basin, excluding that portion of MCWD's service area within the Adjudicated Seaside Groundwater Basin. If the non-adjudicated portions of the Seaside Area Subbasin and of the Corral de Tierra Subbasin remain separate subbasins, then the formation of two GSAs will need to be considered. The public hearing is intended to review, provide explanation of, and allow for public input on the formation of one or two GSAs by MCWD within the proposed boundaries.

The public hearing for the proposed formation of one or two GSAs shall be held at the following
date, time, and place:
Tuesday, September 6, 2016, at 7:00 pm
Marina City Council Chambers,
211 Hillcrest Avenue, Marina, CA 93933

If you need special assistance to participate in this public hearing, please contact MCWD at (831) 384-6131. Notification 48 hours prior to the hearing will enable the District to make reasonable arrangements to ensure accessibility to this public hearing. [28 CFR 35.102-35.104 ADA Title II]

FOR ADDITIONAL INFORMATION CONTACT:
Keith Van Der Maaten, General Manager
Marina Coast Water District
11 Reservation Road, Marina, CA 93933
(831)384-6131
or kvandermaaten@mcwd.org

Publish: Aug. 19, 26, 2016

September 6, 2016

Resolution No. 2016-54
Resolution of the Board of Directors
Marina Coast Water District

Election to Become the Exclusive Groundwater Sustainability Agency
Within Portions of Two Subbasins

RESOLVED by the Board of Directors ("Directors") of the Marina Coast Water District ("District"), at its regular meeting duly called and held on September 6, 2016, at 211 Hillcrest Avenue, Marina, California, as follows:

Recitals

A. The Sustainable Groundwater Management Act of 2014, Water Code Sections 10720 – 10736.6 ("SGMA") was signed into law on September 16, 2014; and,

B. SGMA gives local agencies, such as the District, additional authorities and powers to manage groundwater in a sustainable manner and allows for limited state intervention when those local agencies fail to comply with SGMA's requirements; and,

C. SGMA requires that each California Department of Water Resource ("DWR")-designated groundwater subbasin be managed by a single Groundwater Sustainability Agency ("GSA") or by a combination of GSAs and that such management be implemented pursuant to an approved Groundwater Sustainability Plan ("GS Plan"), or multiple coordinated GS Plans, as the case may be; and,

D. Water Code Section 10723(a) authorizes any local agency with a service area overlying a groundwater subbasin or portion thereof to establish itself as the GSA for its service area; and,

E. Water Code Section 10721(j) defines a GSA as one or more local agencies that implement the provisions of SGMA; and,

F. The District's Central Marina and Ord Community water service areas overly portions of the Seaside Area, Corral de Tierra, and 180/400 Foot Aquifer Subbasins of the Salinas Valley Groundwater Basin; and,

G. The District's Ord Community water service area is within a portion of the Adjudicated Seaside Groundwater Basin and is also within a portion of the statutory boundaries of the Monterey Peninsula Water Management District (MPWMD); and,

H. Water Code Section 10723(c)(2) designates the MPWMD as the exclusive groundwater management area within MPWMD's statutory boundaries unless MPWMD elects to opt out of being the exclusive groundwater management agency for that area; and,

I. By MPWMD Resolution No. 2016-01, the MPWMD Board of Directors elected to opt out of being the exclusive groundwater management agency for that portion of MPWMD situated north of the Adjudicated Seaside Groundwater Basin; and,

J. District staff is proposing that the District become the GSA for (1) that portion of the District's Central Marina water service area within the Seaside Area Subbasin of the Salinas Valley Groundwater Basin and (2) that portion of the District's Ord Community water service area north of the Adjudicated Seaside Groundwater Basin within Seaside Area Subbasin, which shall collectively be referred to as the "Marina Area of the Seaside Area Subbasin" and as shown on the map attached hereto as Exhibit "A"; and,

K. District staff is separately proposing that the District become the GSA for that portion of the District's Ord Community water service area within the Corral de Tierra Subbasin, which shall be referred to as the "Ord Area of the Corral de Tierra Subbasin" as shown on the map attached hereto as Exhibit "B"; and,

L. Establishing the District as the GSA for the Marina Area of the Seaside Area Subbasin and separately for the Ord Area of the Corral de Tierra Subbasin will enable the District to prepare and implement a Groundwater Sustainability Plan for those respective areas; and,

M. The District is committed to sustainable management of its groundwater resources; and,

N. Adoption of this Resolution does not constitute a "project" under California Environmental Quality Act Guidelines Section 15378(b)(5), including organizational and administrative activities of government, because there would be no direct or indirect physical change in the environment; and,

O. Prior to adopting a resolution of intent to establish the District as the GSA for the respective areas, Water Code Section 10723 requires a local agency to hold a public hearing, after publication of notice pursuant to California Government Code Section 6066, on whether or not to adopt a resolution to establish a GSA; and,

P. Pursuant to Government Code Section 6066, notices of a public hearing on whether or not to adopt a resolution to establish one or two GSAs were published on August 19, 2016 and August 26, 2016; and,

Q. On September 6, 2016, the District held a public hearing regarding adoption of a resolution to establish the District as the GSA for for the Marina Area of the Seaside Area Subbasin and separately for the Ord Area of the Corral de Tierra Subbasin as shown on the Exhibit "A" and Exhibit "B" maps, which maps exclude that portion of MCWD's Ord Community service area within the Adjudicated Seaside Groundwater Basin and exclude that portion of its service areas within the 180/400 Foot Aquifer Subbasin; and,

R. It would be in the best interest of the District for it to become the exclusive GSA for that portion of its service areas shown respectively on the Exhibit "A" and Exhibit "B" maps; and,

S. DWR has proposed that the Marina Area of the Seaside Area Subbasin and that portion of the Corral de Tierra Subbasin outside of the Adjudicated Seaside Groundwater Basin be merged into a new subbasin named the "Monterey Subbasin", but that basin boundary modification is not yet finalized so the District's service areas within the Seaside Area Subbasin and the Corral de Tierra Subbasin must be treated separately; and,

T. The District has opposed the proposed merger because it is contrary to the basin boundary modification requested by MPWMD, which the District supported, but the District desires to avoid any delays in processing the District's GSA formation notifications should the new combined Monterey Subbasin go into effect.

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

1. All the recitals in this Resolution are true and correct and the Board of Directors so finds, determines, and represents.

2. The District hereby elects to become the exclusive GSA (a) for the Marina Area of the Seaside Area Subbasin and (b) separately for the Ord Area of the Corral de Tierra Subbasin as shown respectively on the attached Exhibit "A" and Exhibit "B" maps, which are incorporated herein by reference.

3. District staff is hereby directed and authorized to provide separate notices of this election to become the exclusive GSA (a) for the Marina Area of the Seaside Area Subbasin and (b) for the Ord Area of the Corral de Tierra Subbasin to DWR in the manner required by law.

4. Should the new Monterey Subbasin go into effect, then the Board of Directors requests DWR to automatically convert the District's two separate GSA formation notifications into a single notification to form an exclusive GSA for one combined area in order to avoid delay in processing the District's GSA election.

PASSED AND ADOPTED on September 6, 2016, by the Board of Directors of the Marina Coast Water District by the following roll call vote:

Ayes: Directors Shriner, Lee, Moore, Gustafson

Noes: Directors None

Absent: Directors None

Abstained: Directors None

Howard Gustafson, President

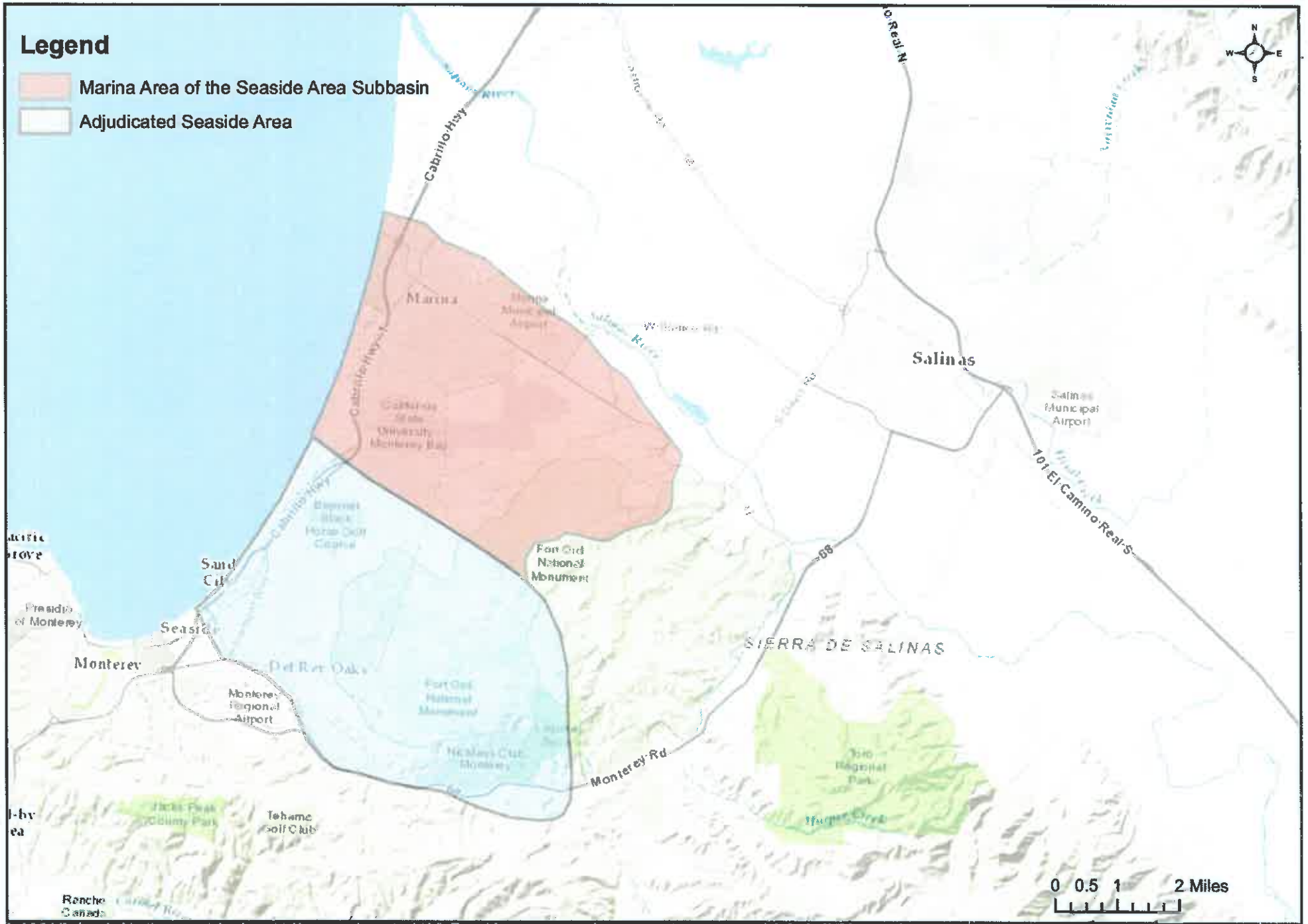
ATTEST:

Keith Van Der Maaten, Secretary

CERTIFICATE OF SECRETARY

The undersigned Secretary of the Board of the Marina Coast Water District hereby certifies that the foregoing is a full, true and correct copy of Resolution No. 2016-54 adopted September 6, 2016.

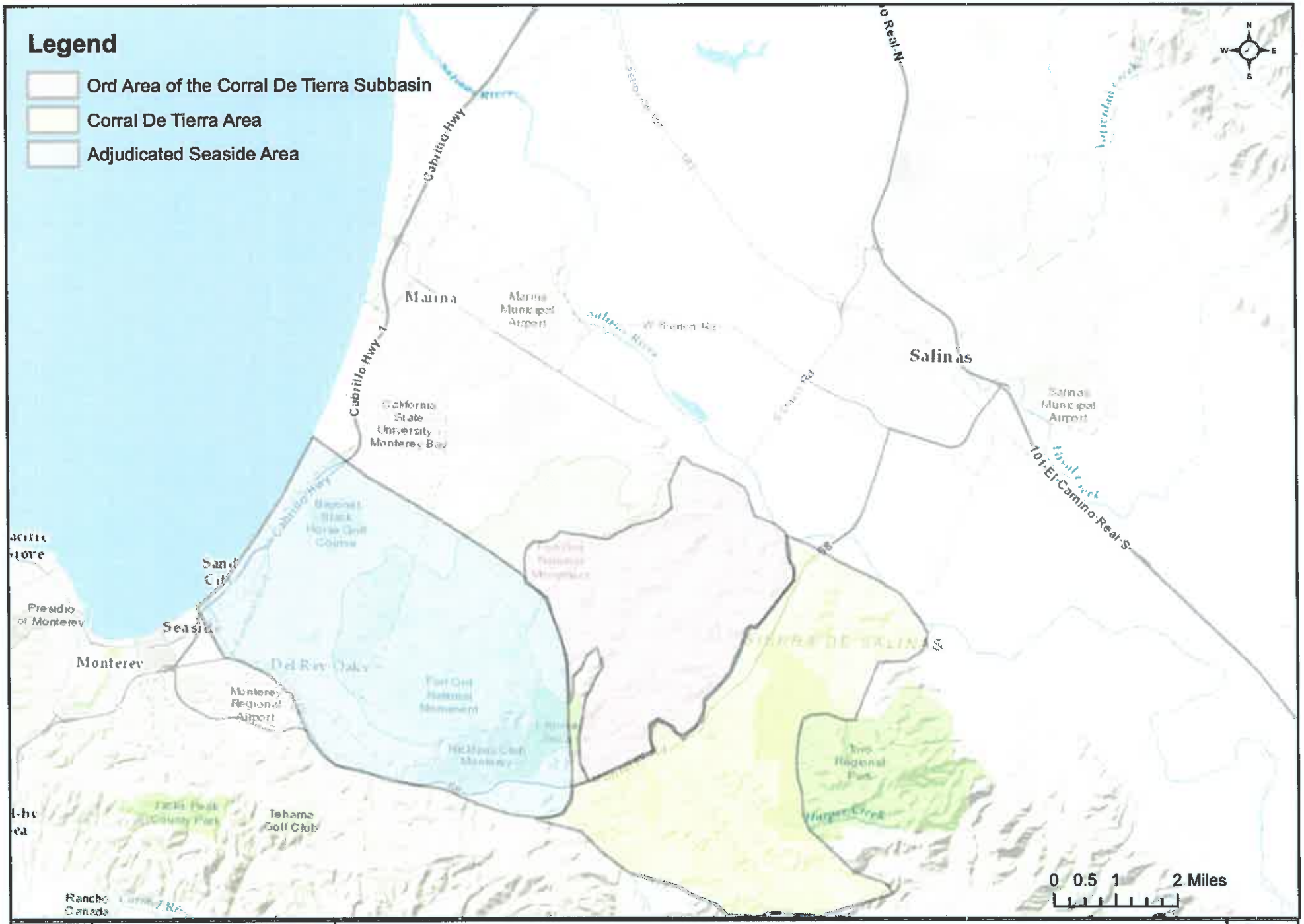
Keith Van Der Maaten, Secretary



Marina Coast Water District
2840 4th Avenue
Marina, CA, 93933

Exhibit A-Marina Area of the Seaside Area Subbasin

Date: 08/25/16
Author: J.Hollida



Marina Coast Water District
2840 4th Avenue
Marina, CA, 93933

Exhibit B-Ord Area of the Corral De Tierra Subbasin

Date: 08/25/16
Author: J.Hollida

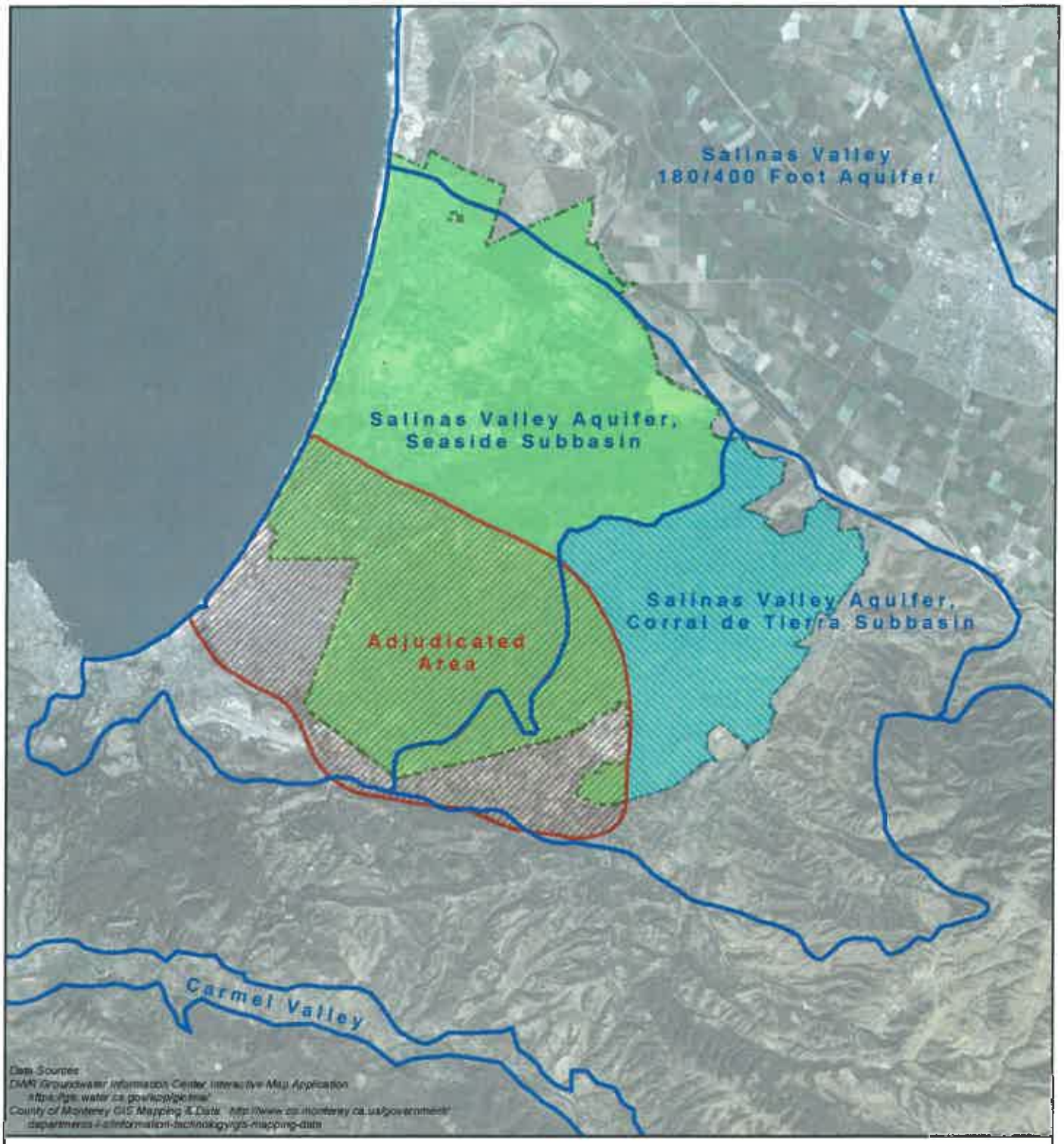


Exhibit 3: MCWD GSA Map - Corral de Tierra Subbasin

- Marina Coast Water District service area
- Proposed MCWD GSA Area - Corral de Tierra Subbasin
- Adjudicated Seaside Groundwater Basin
- Bulletin 118 Groundwater Basin boundary

N

0 1 2 Miles

1 inch = 2 miles

Map Date: September 2016

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for the
MARINA AREA GSA OF THE SEASIDE AREA SUBBASIN

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    a. Monterey Peninsula Water Mangement District
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2. Holders of Overlying Groundwater Rights: agricultural and domestic well owners, municipal well operators and public water systems
    a. U.S. Army

3. Surface Water Users
    a. Monterey Regional Water Pollution Control Agency

4. Environmental Users of groundwater:
    a. Fort Ord National Monument
    b. Fort Ord Dunes State Park
    c. Marina Beach State Park

5. Local Land Use Planning Agencies: There are several local land use planning agencies located within the Marina Area GSA, including:
    a. City of Marina
    b. City of Seaside
    c. County of Monterey
    d. Fort Ord Reuse Authority

6. Federal Government: There are several federal agencies which may own or mange land overlying the groundwater sub-basins within the boundaries of the Marina Area GSA, including:
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    b. U.S. Army Ord Military Community, Presidio of Monterey

7. California Native American Tribes:
    None within the District's proposed GSA management area.

8. Disadvantaged Communities: There are several qualified Disadvantaged Community Block Groups and Tracts in:
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    b. Monterey Peninsula Water Management District

10. Other Entities:
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The above-referenced agencies, water providers and other interested stakeholders will be contacted to determine how best to consider and protect their interests, and invited to participate in evaluating and defining roles and responsibilities during the GS Plan planning and implementation process.

HOPKINS
GROUNDWATER
CONSULTANTS, INC.
THE WATER RESOURCE SPECIALISTS

TECHNICAL MEMORANDUM

To: Mr. Keith Van Der Maaten
General Manager, Marina Coast Water District

From: Curtis J. Hopkins
Principal Hydrogeologist, Hopkins Groundwater Consultants, Inc.

Date: May 26, 2016

Subject: North Marina Area Groundwater Data and Conditions

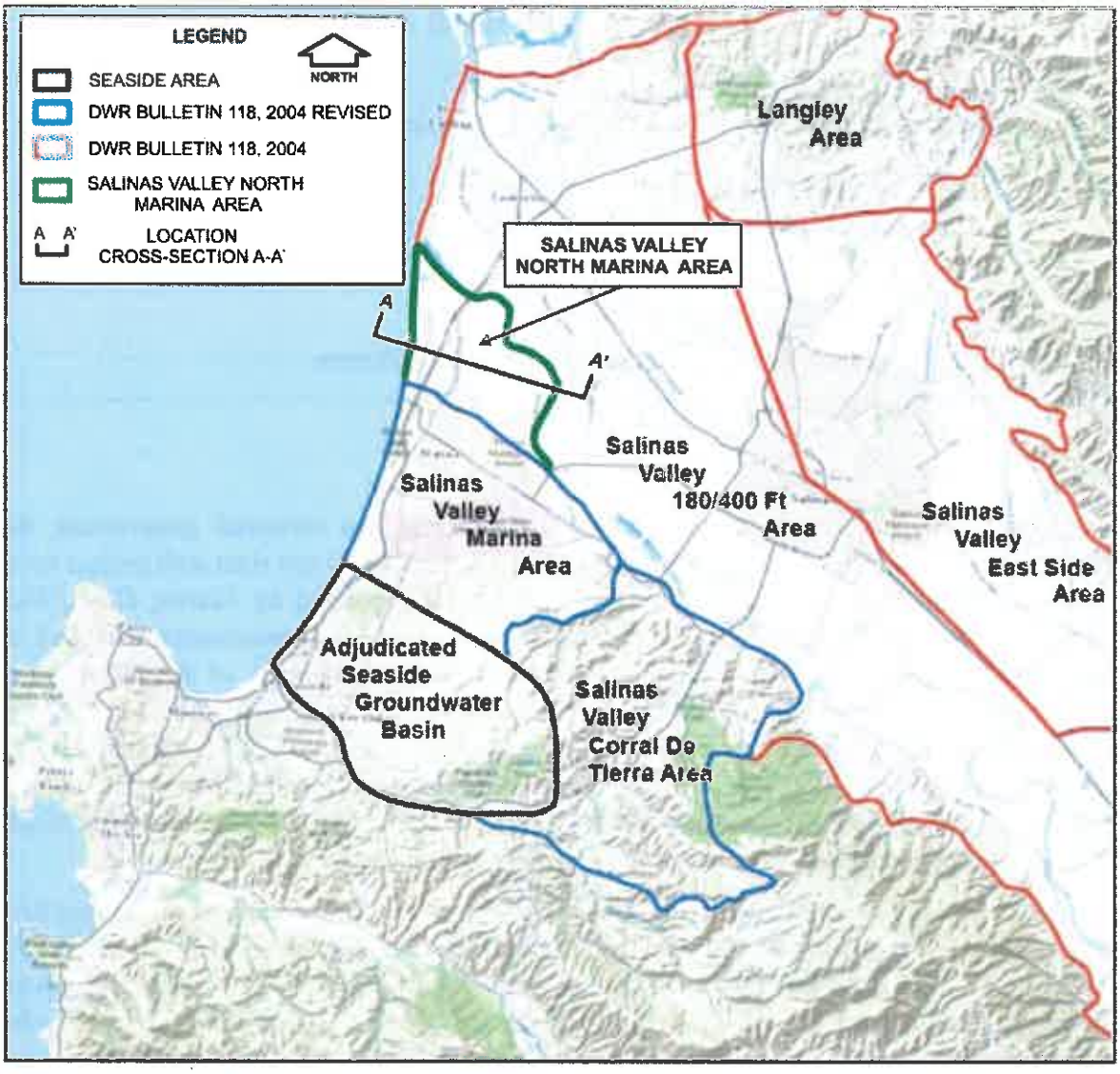
I. Introduction

Hopkins Groundwater Consultants, Inc. (Hopkins) has reviewed groundwater data provided by the California-American Water Company's (Cal-Am's) test slant well project for the Monterey Peninsula Water Supply Project (MPWSP) as requested by Marina Coast Water District (MCWD). This memorandum provides a summary of groundwater data and the conditions that are inferred from these data in the North Marina Area of the 180-400 Foot Aquifer Subbasin[1] within the Salinas Valley Groundwater Basin (SVGB). The North Marina Area is delineated for reference in Figure 1 – Groundwater Basin Boundary Map which shows its location within the SVGB. As shown, the North Marina Area is located between the northern boundary of the Marina Area and the Salinas River. This area of the basin has been largely undeveloped and historically contained very few wells to provide groundwater data.

The geology in the North Marina Area differs from the geology north of the Salinas River in the main portion of the 180-400 Foot Aquifer Subbasin and has been described in detail by studies conducted for the MPWSP. An interpretation of subsurface deposits within this specific coastal area is provided in Plate 1 – Cross-Section A-A', which is a portion of a subsurface profile constructed by Geoscience Support Services, Inc. from borehole data collected in the area (Geoscience, 2014). The approximate location of Cross-Section A-A' is shown in Figure 1. As shown and as described by previous study (Geoscience, 2014 and 2015, KJC, 2004), the terrace deposits that comprise the 180-Foot Equivalent Aquifer (180-FTE) in the North Marina Area grade into the alluvial deposits that comprise the 180-Foot Aquifer in the main portion of the basin around the present location of the Salinas River.

[1] / For purposes of the memorandum, the North Marina Area is defined as that portion of the 180/400 Foot Aquifer Subbasin located south of the Salinas River and north of the Salinas Valley Marina Area.

Figure 1 – Groundwater Basin Boundary Map

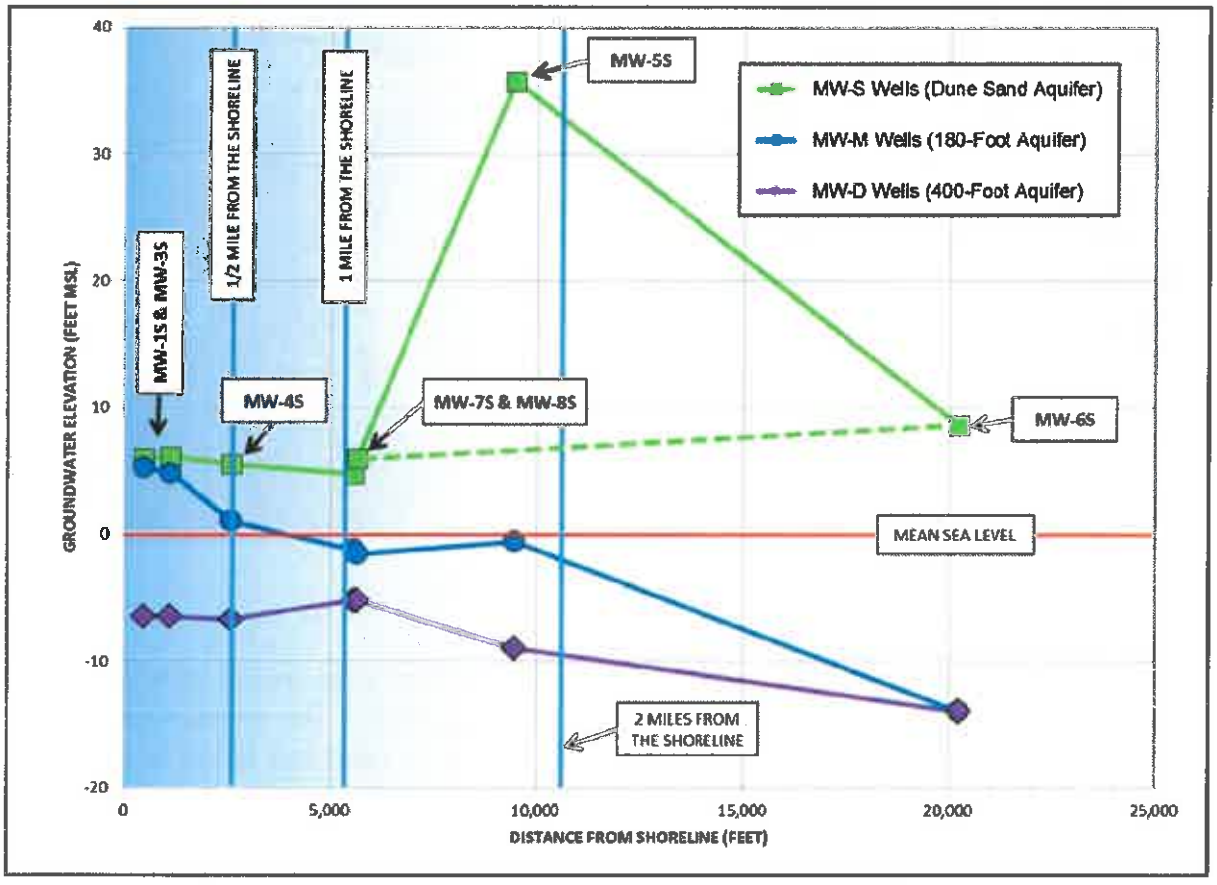


II. Coastal Groundwater Elevations

Recent investigation for the MPWSP includes the installation of a test slant well and multiple monitoring wells in and around the CEMEX property where the MPWSP intake wells are proposed to be located. The monitoring well network is being used to generate background water level and water quality data within the North Marina Area of the 180-400 Foot Aquifer Subbasin. The location of the monitoring facilities is shown on Plate 2 – Well Location Map. The construction details of these wells are included for reference as Attachment A – Well Construction Information.

Routine monitoring of the well network is presented in weekly summary reports that are posted on the Cal-Am website. Water level data are graphically presented as hydrographs which show daily changes and seasonal trends. A set of hydrographs provided by the MPWSP test slant well long term pumping test Monitoring Report No. 55 are included as Attachment B – MPWSP Water Level Data. We must note that while we have over a year of data, the climatic conditions prior to initiation of testing have been extremely dry. For comparison of the groundwater conditions across the area prior to resumption of pumping, data from May 2, 2016 were used to construct Figure 2 – Groundwater Elevation From MPWSP Monitoring Wells. As shown, the water level elevations vary significantly between the shallow Dune Sand Aquifer (indicated by the MW-S Wells), the 180-FTE Aquifer (indicated by the MW-M Wells), and the 400-Foot Aquifer (indicated by the MW-D Wells).

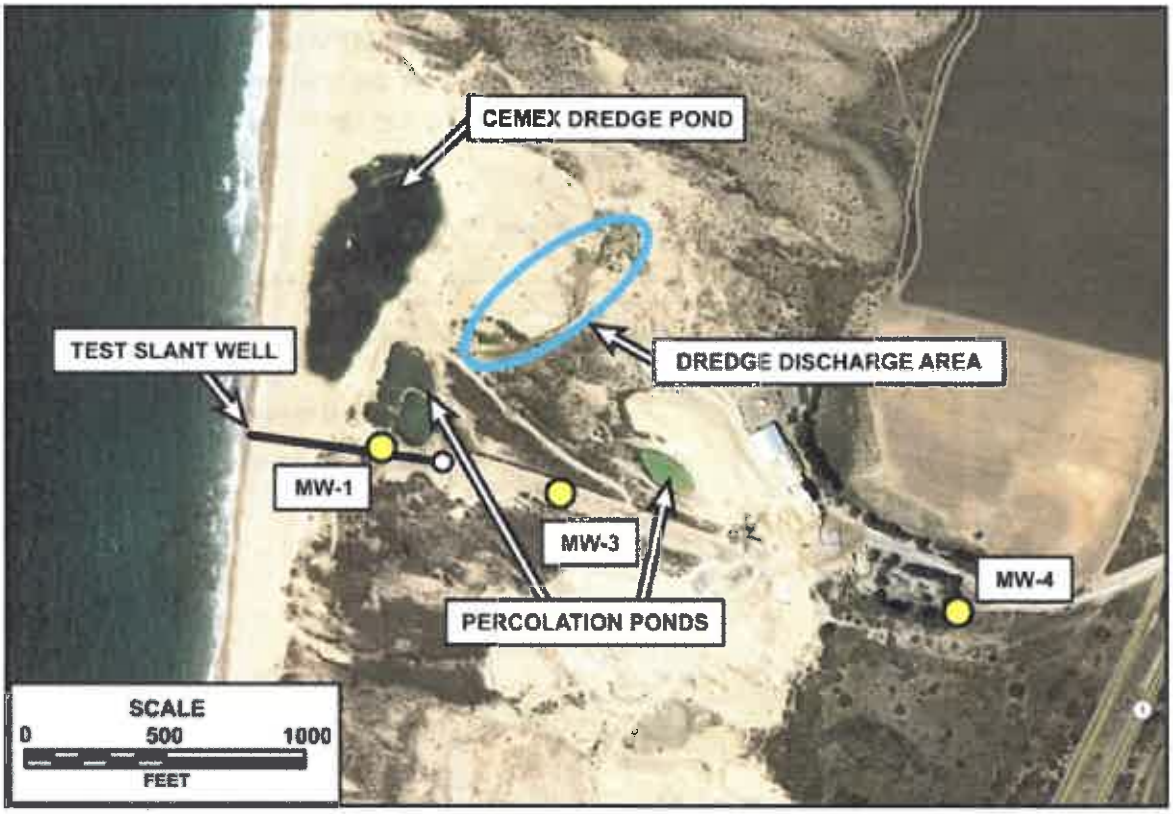
Figure 2 – Groundwater Elevation From MPWSP Monitoring Wells



The Dune Sand Aquifer has water levels that are notably above sea level and maintain a protective head against seawater intrusion (Geoscience, 2013). The coastal groundwater mounding at MW-1 and MW-3 is believed to be maintained by the CEMEX dredge pond operation that is discharged on the landward side of the coastal dunes as well as process water

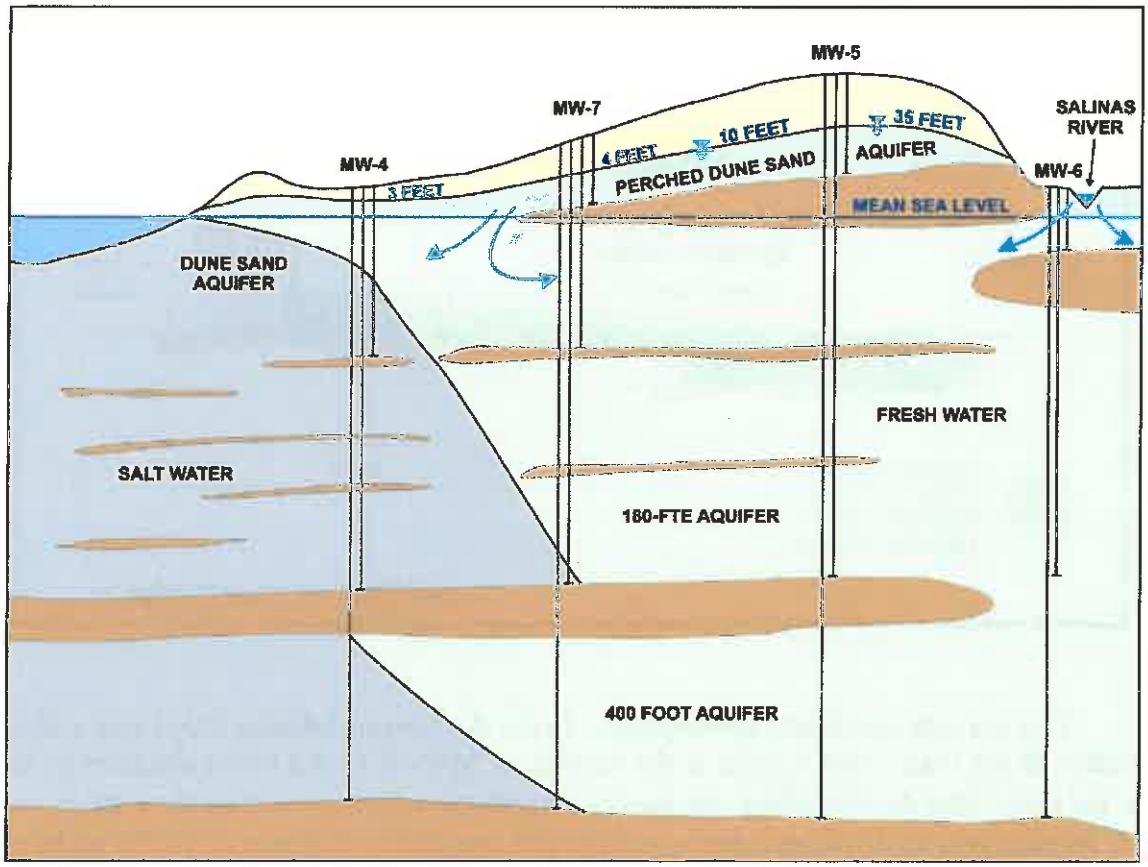
that is discharged to percolation ponds. Figure 3 – CEMEX Salt Water Discharge Locations shows the surface water features that have influenced the groundwater levels and quality at this location along the coast for decades. The maintenance of these features undoubtably increases the amount of ocean water present in the vicinity of the test slant well.

Figure 3 – CEMEX Salt Water Discharge Locations



These data also show the perched groundwater condition in the vicinity of MW-5 where the groundwater elevation is 36 feet above mean sea level (msl). The groundwater perched above the Salinas Valley Aquitard equivalent flows toward the coast and results in downward recharge where the aquitard layer thins (or ends) and provides fresh water recharge into the coastal unconfined Dune Sand Aquifer and the underlying 180-Foot Aquifer in the vicinity of MW-7 and MW-8. Figure 4 – Conceptual Drawing of the Hydrogeology in the North Marina Area illustrates the subsurface conditions indicated by these available data.

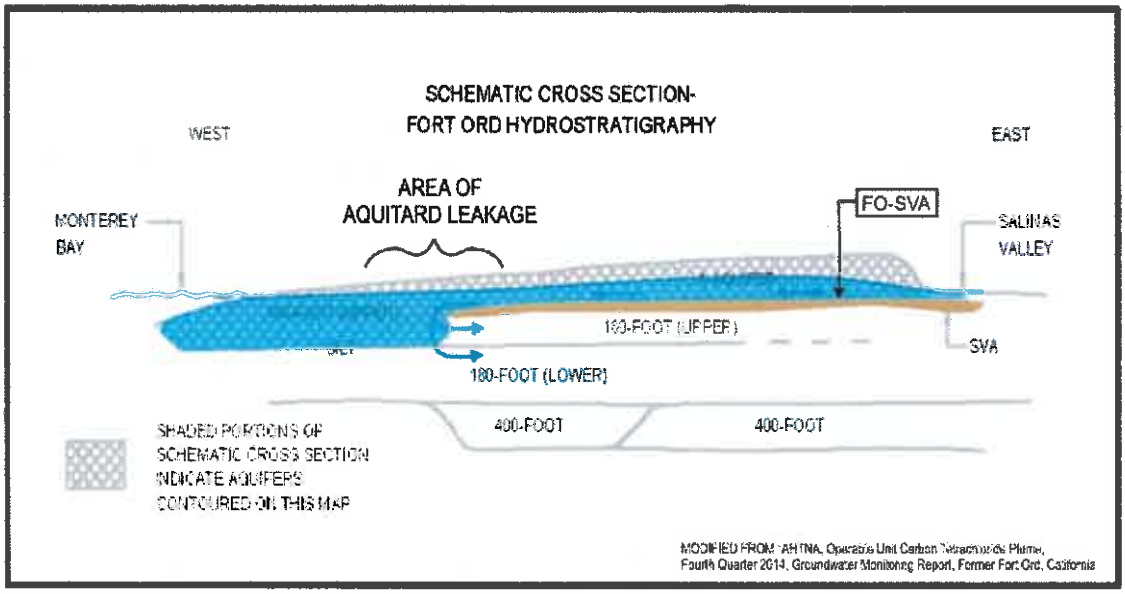
Figure 4 – Conceptual Drawing of the Hydrogeology in the North Marina Area



Years of reduced pumping has resulted in beneficial groundwater conditions that are apparently slowing the movement of seawater and providing a freshwater source that is replenishing the aquifers. Notably, the fact that the Dune Sand and 180-Foot Aquifers at Monitoring Well MW-7 are no longer contaminated by high concentrations of seawater can likely be explained by the changing hydrogeological conditions resulting from the efforts of MCWD (e.g., Annexation Agreement, etc.) and others to reduce pumping in the coastal area. As a result, recharge from rainfall into the Dune Sand Aquifer creates a mound of freshwater that flows toward the Salinas River and the ocean.

We further note this protective condition is not isolated in a small area. This coastal condition was previously documented as part of the Fort Ord cleanup effort located southeast of the CEMEX site. The study named the aquitard layer the "Fort Ord-Salinas Valley Aquitard" (FO-SVA). Figure 5 - Perched Dune Sand Aquifer Schematic from Fort Ord Groundwater Monitoring Program shows a drawing of this condition, which was modified to illustrate groundwater flow directions (Ahtna, 2014).

Figure 5 – Perched Dune Sand Aquifer Schematic from Fort Ord Groundwater Monitoring Program



This is a very significant development. Given that the groundwater found with a 36-foot elevation in the Dune Sand Aquifer at the location of MW-5S (and a 6-foot elevation at MW-7S), the Dune Sand Aquifer effectively provides a protective layer preventing seawater intrusion from moving into the Basin at a shallow depth and percolating downward into the underlying aquifers. Instead of allowing a shallow pathway for ocean water, the Dune Sand Aquifer having a potable fresh water quality based on its TDS concentration, appears to be slowly recharging the lower aquifers (i.e., the 180-Foot Aquifer and perhaps 400-Foot Aquifer), which has significantly reduced their TDS levels in this coastal area. This unique condition in the Marina Subarea is believed to provide recharge all along the coast in an area that effectively forms a linear recharge barrier within a mile of the shoreline. The extent of the Fort Ord-Salinas Valley Aquitard was estimated in a 2001 study conducted as part of the Fort Ord cleanup program (Harding ESE, 2001).

Monitoring data indicate that the elevation of the water levels in Monitoring Wells MW-7M and MW-8M are presently lower than the levels in both MW-4M and MW-5M. While the groundwater elevation is near mean sea level, the gradient indicated by the higher level at MW-5M shows that groundwater flows toward the coast up to MW-7 and MW-8 under these conditions. The significance is that after several years of drought conditions, the groundwater gradient between MW-4M (roughly ½ mile from the coast) and MW-5M (almost 2 miles from the coast) is relatively flat in the 180-FTE Aquifer. A significant decline in the groundwater level is observed to occur between MW-5M and MW-6M (see Figure 2). Further study would be required to understand if the mounding indicated in the 400-Foot Aquifer at MW-7 and MW-8 were from vertical recharge from the 180-FTE in this area along the coast.

III. Groundwater Quality Data

Water quality data developed as part of the test slant well project are summarized in the tables included in Attachment C – Laboratory Water Quality Test Results. The first table shown in Attachment C provides the only data published for wells other than the test slant well and MW-4 (Geoscience, 2015a). This table includes laboratory results for wells including MW-1, MW-3, MW-4, MW-5, and the test slant well. The second table in Attachment C is a compilation of laboratory data received by MCWD in October 2015 in response to a data request in the California Public Utilities Commission proceedings. This table includes data for monitoring wells MW-6, MW-7, MW-8, and MW-9 that to our knowledge, have not be published in any of the MPWSP documents.

The significance of these data is that they indicate beneficial conditions have developed (or have always existed) in the North Marina Area of the 180-400 Foot Aquifer Subbasin and may be contrary to information published by the Monterey County Water Resources Agency (MCWRA). The recent investigation that is being conducted in and around the North Marina Area as part of the MPWSP has discovered an occurrence of freshwater within the shallow Dune Sand Aquifer and the underlying 180-Foot Aquifer within the area delineated as seawater intruded by the MCWRA. As previously shown, water level data from wells in the shallow dune sand aquifer appear to show protective water levels that are sufficiently above sea level to prevent seawater intrusion in the shallower sediments. This condition, combined with the lack of pumping in the 180-Foot Aquifer in the North Marina Area, appears to have slowed seawater intrusion in this portion of the coastline. Water quality test results for total dissolved solids and chloride concentrations in these two uppermost aquifer zones are shown on Figures 6 and 7 – Average Total Dissolved Solids Concentrations in Groundwater and Average Chloride Concentrations in Groundwater, respectively.

These data suggest a change of groundwater conditions in this coastal section of the aquifer or alternatively, they may reveal the groundwater conditions that existed in an area largely lacking historical data. While the freshwater in this area contains salts and nutrients that are derived from overlying land uses that include agriculture, landfill, and wastewater treatment plant and composting facilities, the chemical character is not sodium chloride, which is indicative of seawater intrusion. Figure 8 and 9 – Stiff Diagrams of Dune Sand Aquifer Groundwater and 180-Foot Aquifer Groundwater, respectively show that the chemical character of groundwater in these new wells is predominantly calcium chloride and calcium bicarbonate. Additionally, elevated concentrations of nitrate are present in monitoring wells MW-5S, MW-7S and MW-8S and range from 115 mg/l to 237 mg/l. The concentration of nitrate decreases with depth at all of these sites, and is the highest at MW-5, which is closest to the landfill and the wastewater treatment facilities. Future use of this area for a direct potable groundwater supply may be unlikely; however, existing conditions do show abatement of seawater intrusion in the shallower aquifer zones in this coastal portion of the Salinas Valley Groundwater Basin. This condition may support the future beneficial uses of the 180-Foot Aquifer zone potentially including aquifer storage and recovery of highly purified recycled water for indirect potable reuse.

Figure 6 – Average Total Dissolved Solids Concentrations in Groundwater

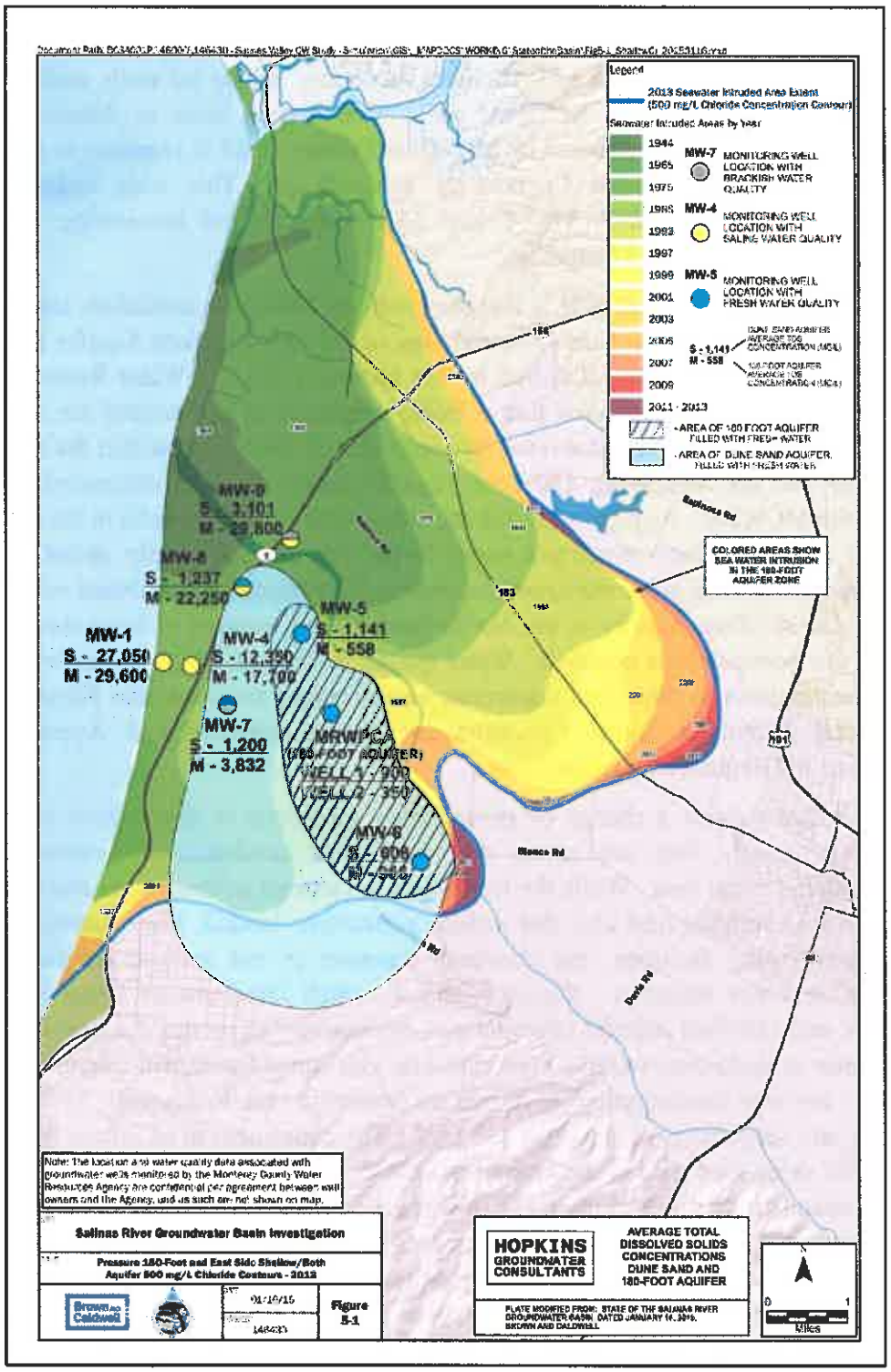


Figure 7 – Average Chloride Concentrations in Groundwater

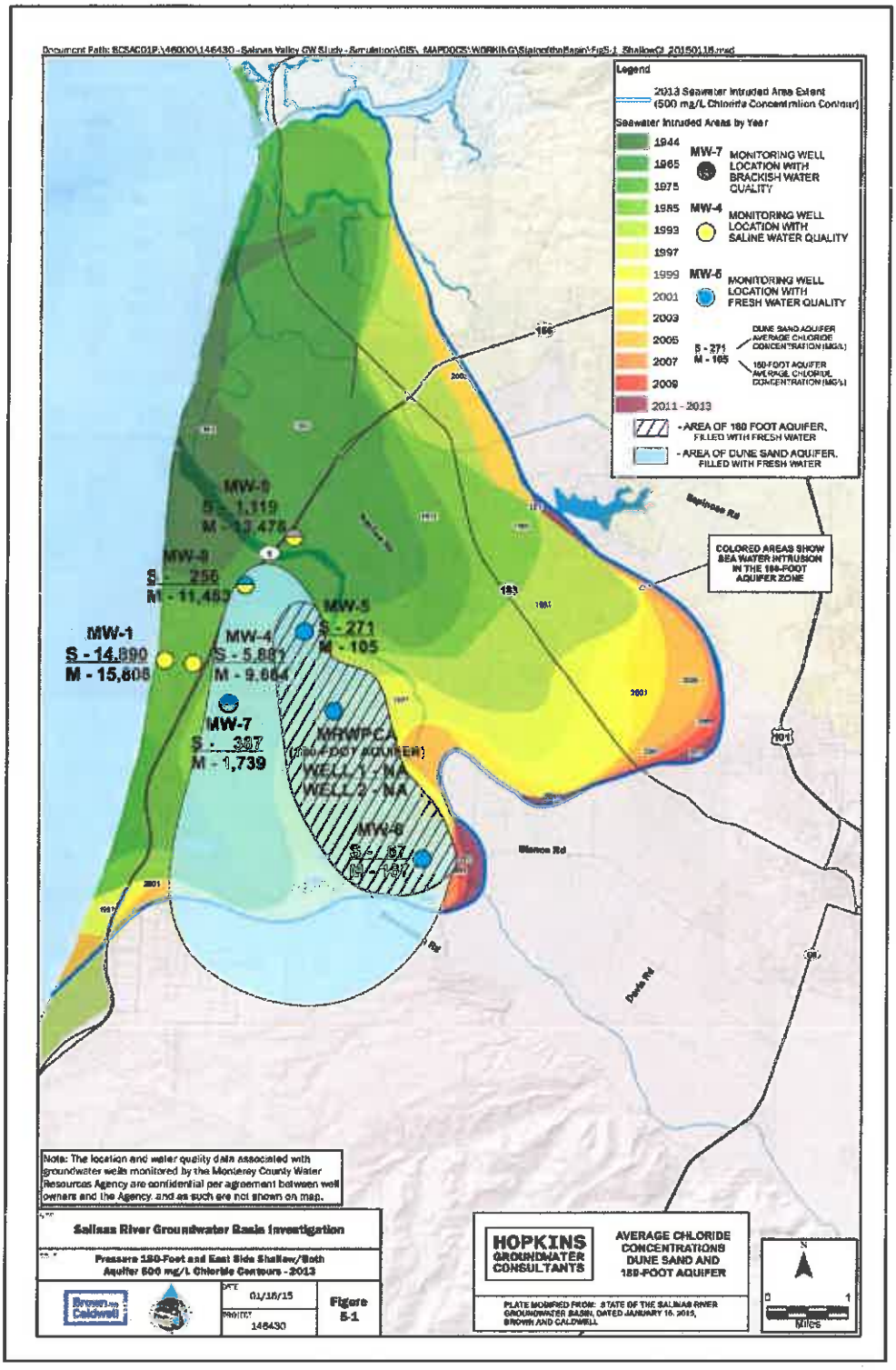


Figure 8 – Stiff Diagrams of Dune Sand Aquifer Groundwater

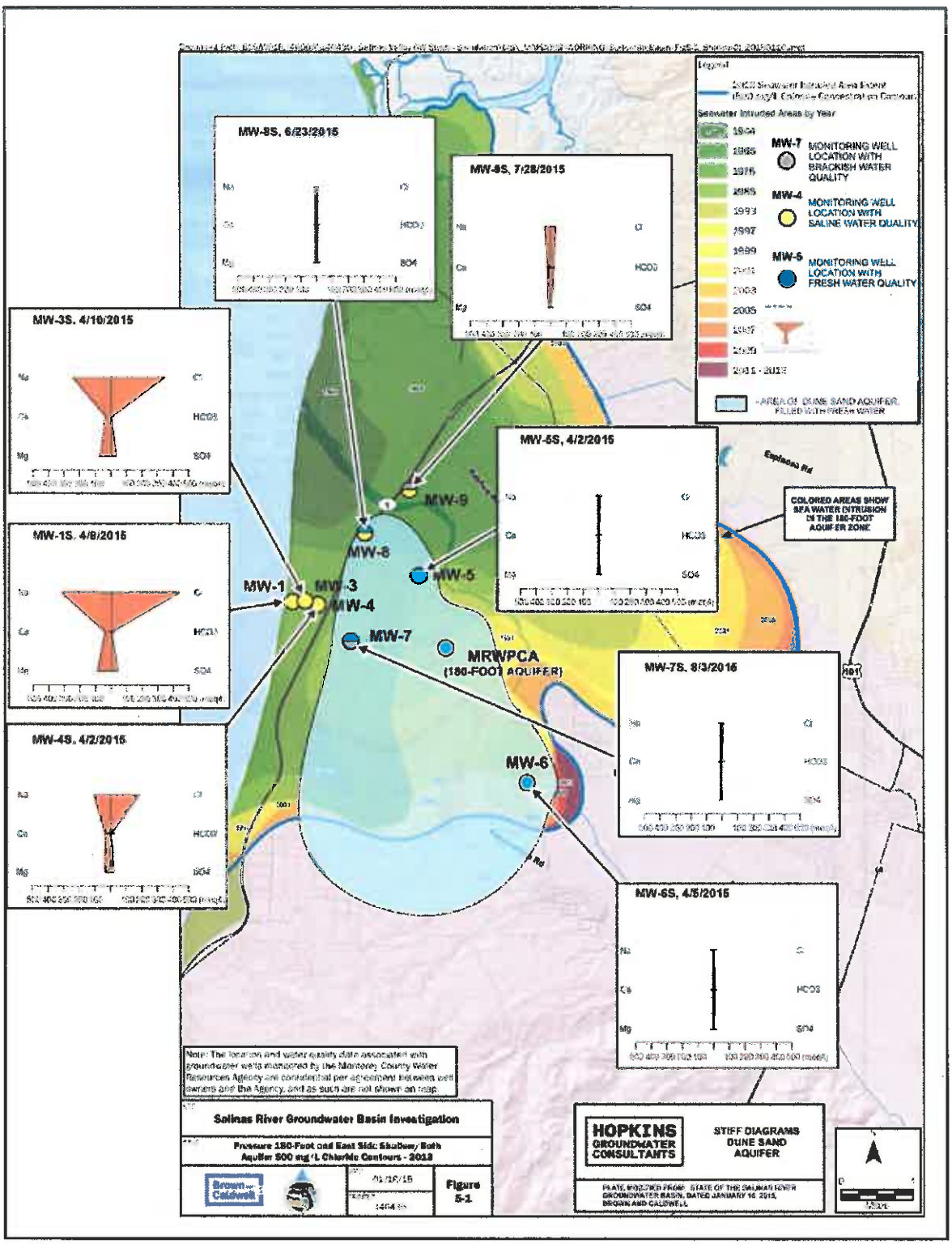
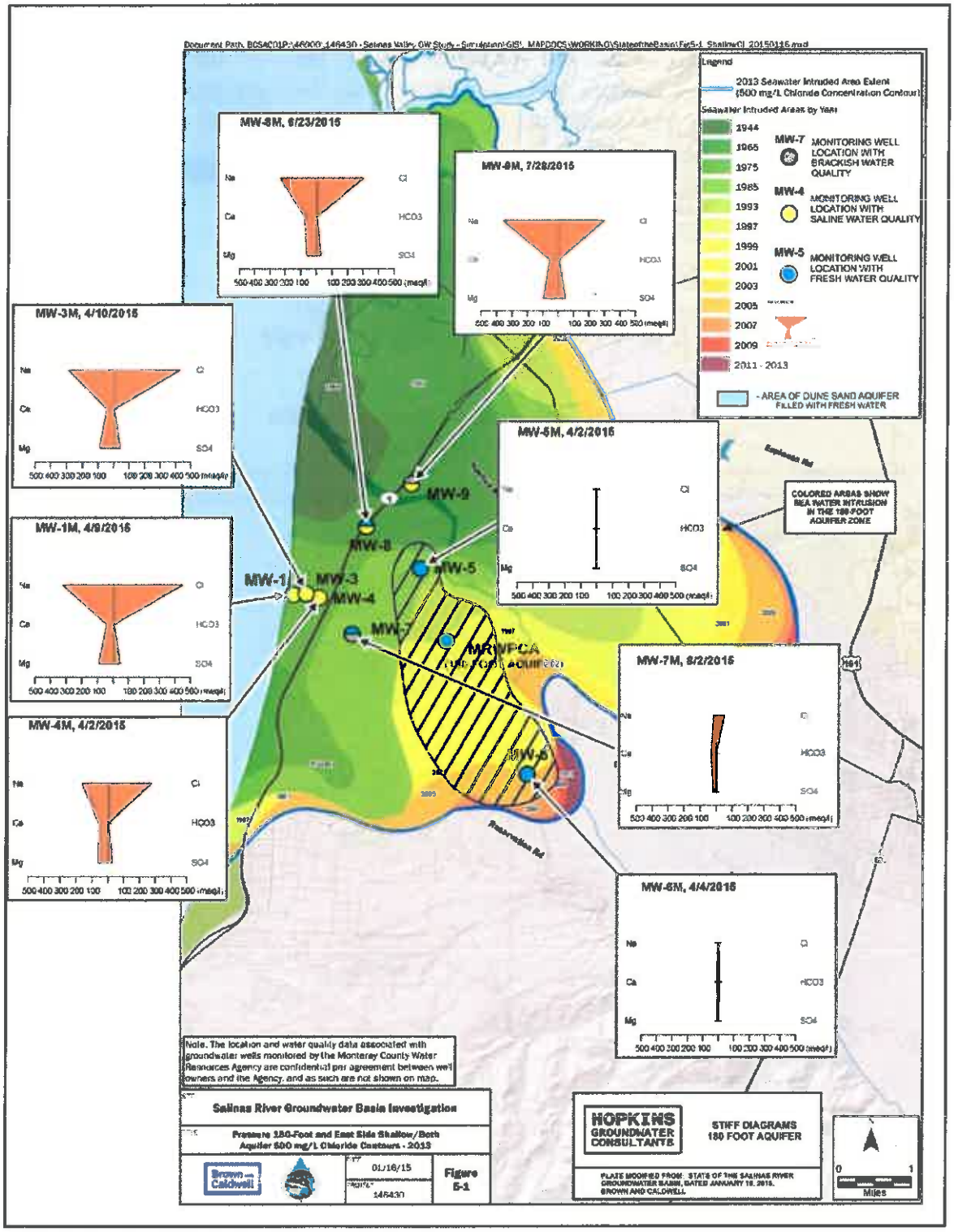


Figure 9 – Stiff Diagrams of 180-Foot Aquifer Groundwater



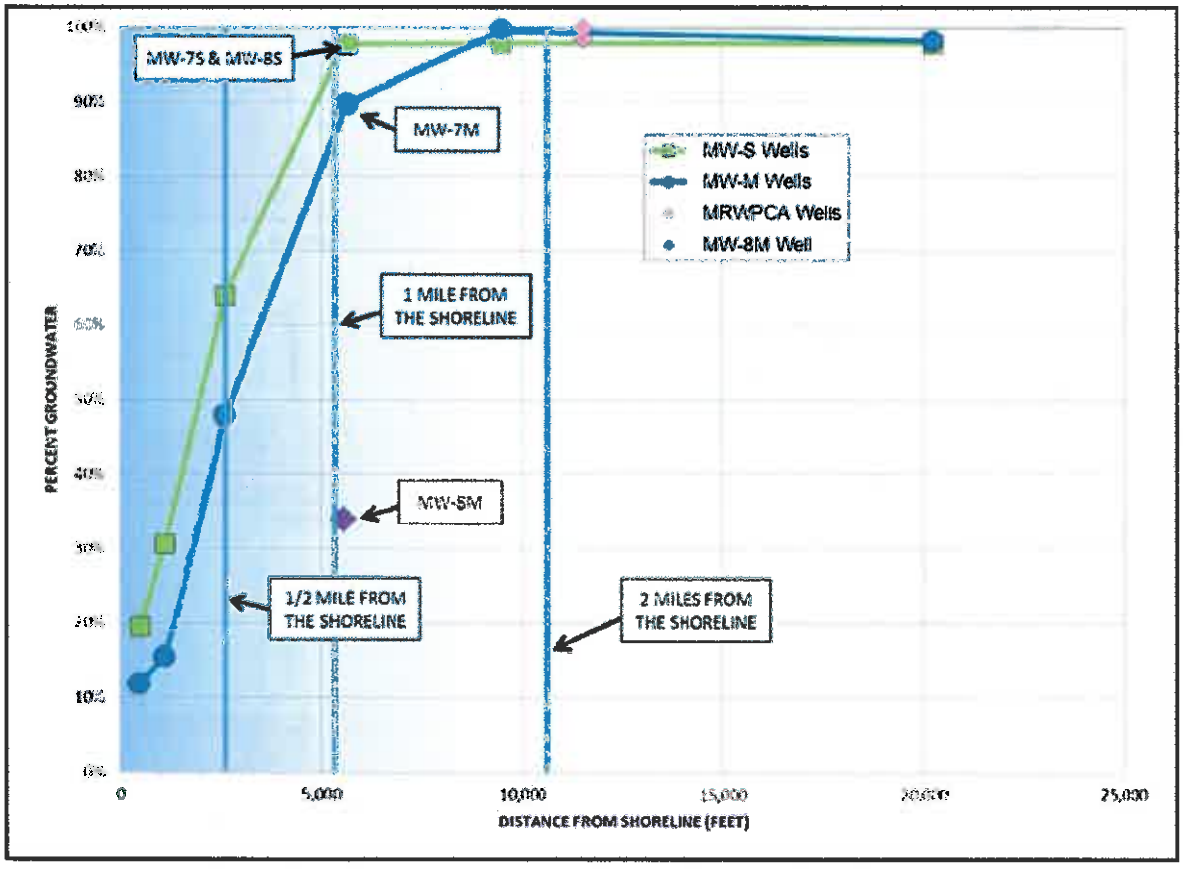
These data indicate a unique condition exists in the North Marina Subarea south of the Salinas River that provides a significant degree of protection against seawater intrusion in the shallower aquifers under the present and recent past hydrologic conditions. Figure 10 – Percent Groundwater with Distance From the Shoreline shows the rudimentary calculation of groundwater percentage versus ocean water percentage using the same equation applied to the test slant well discharge. The percentage of fresh groundwater in well water samples was calculated using the following equation:

$$GWP = [1 - (WSS - GWS/OWS - GWS)] \times 100$$

Where:

GWP = Percent Groundwater
WSS = Well Sample Salinity (mg/l)
GWS = Groundwater Salinity (420 mg/l)
OWS = Ocean Water Salinity (33,500 mg/l)

Figure 10 – Percent Groundwater with Distance From the Shoreline



Water quality data for this analysis were provided by the laboratory test results summarized in Attachment C. These available data show that the percentage of ocean water decreases significantly within a short distance from the coastline in the North Marina Area and the salinity of groundwater that is comparable to seawater is not up to 8 miles inland in the 180-Foot Aquifer as assumed by previous study. Calculation of percent ocean water using this method cannot differentiate between salts from overlying land uses and salt from ocean water. This calculation assumes that all salt in groundwater with a TDS above a concentration of 420 mg/l is from ocean water.

As shown in Figure 10, monitoring wells MW-5M and MW-6M along with the Monterey Regional Water Pollution Control Agency (MRWPCA) Wells are located in the 180-Foot Aquifer and the average TDS concentration for samples from these wells ranges from approximately 454 to 966 milligrams per liter (mg/l) and is also considered fresh water (See Figure 4 and Attachment C). However, the TDS concentration for MW-7M (3,832 mg/l) and MW-8M (22,250 mg/l) show that closer to the coast and closer to the main portion of the Basin north of the river, seawater has impacted the underlying 180-Foot Aquifer as shown in Figure 9 and 10.

We trust this review of available data provides a better understanding of what the MPWSP test slant well monitoring program has discovered. It is clear that without the new monitoring wells, this type of understanding about groundwater conditions in the North Marina Area could not have been provided from available data.

Sincerely,

HOPKINS GROUNDWATER CONSULTANTS, INC.

Curtis J. Hopkins
Principal Hydrogeologist
Certified Engineering Geologist, EG1800
Certified Hydrogeologist, HG114

Attachments: Plate 1 – Cross-Section A-A'
Plate 2 – Well Location Map
Attachment A – Well Construction Information
Attachment B – MPWSP Water Level Data
Attachment C – Laboratory Water Quality Test Results

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PLATES

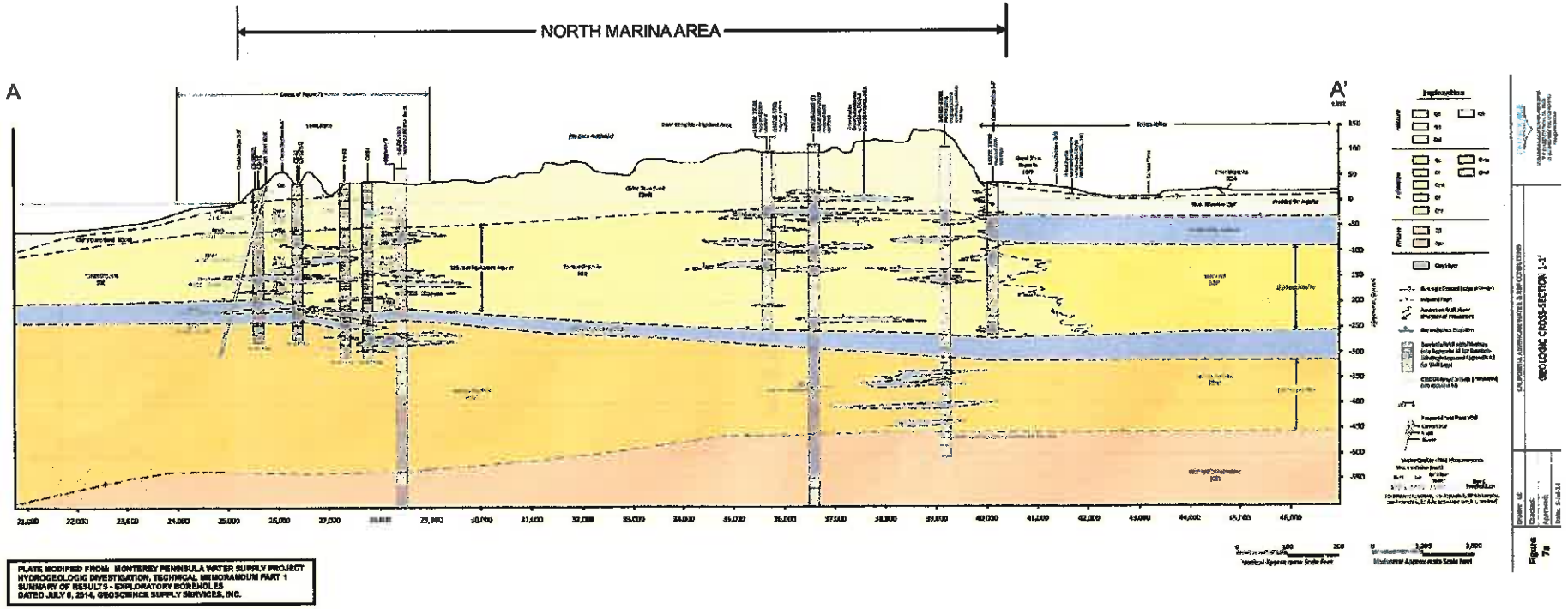

PLATE MODIFIED FROM: MONTEREY PENINSULA WATER SUPPLY PROJECT HYDROGEOLOGIC INVESTIGATION, TECHNICAL MEMORANDUM PART 1 SUMMARY OF RESULTS - EXPLORATORY BOREHOLES DATED JULY 8, 2014, GEOSCIENCE SUPPLY SERVICES, INC.

CROSS-SECTION A-A'
Technical Memorandum
Marina Coast Water District
Marina, California

PLATE 1

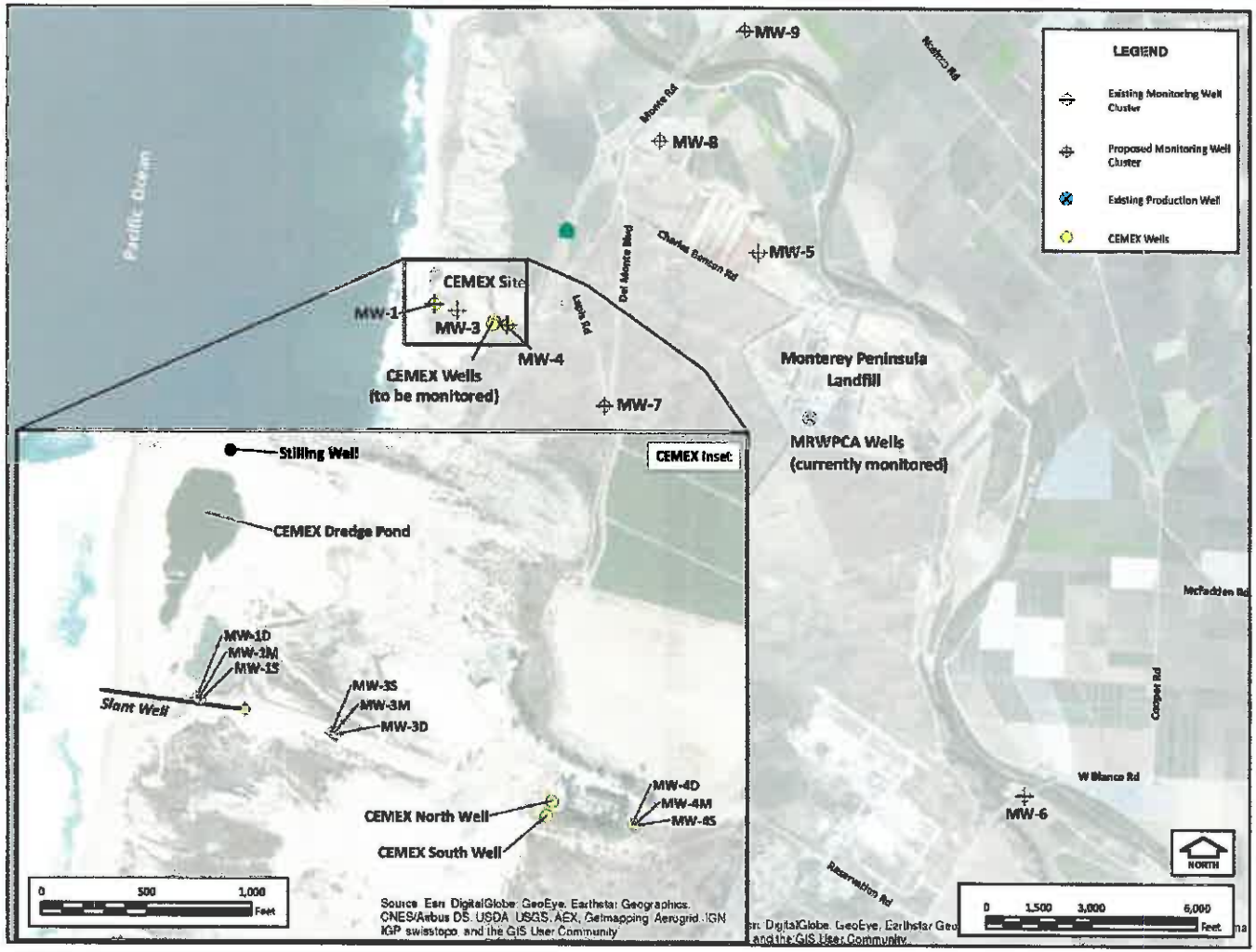

PLATE MODIFIED FROM: MONTEREY PENINSULA WATER SUPPLY PROJECT TEST SLANT WELL LONG TERM PUMPING MONITORING REPORT NO. 05 DATED MAY 24, 2015, GEOSCIENCE SUPPLY SERVICES, INC.

WELL LOCATION MAP
Technical Memorandum
Marina Coast Water District
Marina, California

PLATE 2

ATTACHMENT A
WELL CONSTRUCTION INFORMATION

Table 1: Well Information Table

			State Plane Coordinates										
Well Name	Cluster	Reference Point (RP)	Northing	Easting	RP Elevation ft NAVD88	RP Height (ft above GS)	Distance of RP from Well Head (ft)	Top of Screen Interval (ft below GS)	Bottom of Screen Interval (ft below GS)	Operational Installed Depth (ft below GS)	Survey Date	First Pressure Logging Start Date	Data Collected
MW-1S	MW-1	Top of ABS Transducer Mount	2,154,745.35	5,739,355.82	30.51 [1]	2.65 [1]	211	55	95	76	26-Mar-15	19-Feb-15	Level, Conductivity
MW-1M	MW-1	Top of ABS Transducer Mount	2,154,751.93	5,739,347.94	29.86	2.48	220	115	225	182	26-Mar-15	19-Feb-15	Level, Conductivity
MW-1D	MW-1	Top of ABS Transducer Mount	2,154,753.60	5,739,337.98	29.68 [1]	2.65 [2]	230	277	327	309	26-Mar-15	19-Feb-15	Level, Conductivity
MW-3S	MW-3	Top of ABS Transducer Mount	2,154,599.85	5,739,977.02	37.16	2.86	428	50	90	76	26-Mar-15	4-Mar-15	Level, Conductivity
MW-3M	MW-3	Top of ABS Transducer Mount	2,154,592.96	5,739,988.54	37.35	2.73	441	105	215	182	26-Mar-15	4-Mar-15	Level, Conductivity
MW-3D	MW-3	Top of ABS Transducer Mount	2,154,589.81	5,739,998.68	36.93	2.74	451	285	330	321	26-Mar-15	4-Mar-15	Level, Conductivity
MW-4S	MW-4	Top of ABS Transducer Mount	2,154,170.90	5,741,427.62	41.96	2.26	1,940	60	100	66	26-Mar-15	9-Mar-15	Level, Conductivity
MW-4M	MW-4	Top of ABS Transducer Mount	2,154,172.79	5,741,418.78	41.99	2.15	1,929	130	390	208	26-Mar-15	9-Mar-15	Level, Conductivity
MW-4D	MW-4	Top of ABS Transducer Mount	2,154,174.30	5,741,405.08	41.95	2.15	1,918	290	330	317	26-Mar-15	20-Feb-15	Level, Conductivity
MW-5S	MW-5	Top of ABS Transducer Mount	2,156,239.19	5,748,566.86	80.25 [1]	2.20 [1]	9,135	43	83	71	26-Mar-15	10-Mar-15	Level, Conductivity
MW-5M	MW-5	Top of ABS Transducer Mount	2,156,230.38	5,748,564.26	80.48 [1]	2.31 [1]	9,131	100	310	171	26-Mar-15	10-Mar-15	Level, Conductivity
MW-5D	MW-5	Top of ABS Transducer Mount	2,156,220.77	5,748,560.95	80.06	1.97	9,126	395	435	417	26-Mar-15	19-Feb-15	Level, Conductivity
MW-6S	MW-6	Top of ABS Transducer Mount	2,141,142.87	5,756,164.01	35.89	2.45 [1]	21,436	30	60	61	1-Oct-15	22-Apr-15	Level, Conductivity
MW-6M	MW-6	Top of ABS Transducer Mount	2,141,138.40	5,756,154.35	35.68	2.44 [1]	21,431	150	210	108	1-Oct-15	22-Apr-15	Level, Conductivity
MW-6D	MW-6	Top of ABS Transducer Mount	2,141,133.05	5,756,144.94	35.82	2.42 [1]	21,427	255	325	201	1-Oct-15	22-Apr-15	Level, Conductivity
MW-7S	MW-7	Top of ABS Transducer Mount	2,152,099.25	5,744,148.10	50.64	2.06	5,274	60	80	72	1-Oct-15	13-Aug-15	Level, Conductivity
MW-7M	MW-7	Top of ABS Transducer Mount	2,152,110.46	5,744,146.08	50.29	2.09	5,266	130	220	187	1-Oct-15	13-Aug-15	Level, Conductivity
MW-7D	MW-7	Top of ABS Transducer Mount	2,152,120.50	5,744,144.38	50.24	2.24	5,260	295	345	322	1-Oct-15	13-Aug-15	Level, Conductivity
MW-8S	MW-8	Top of ABS Transducer Mount	2,159,440.33	5,744,871.52	19.96	2.14 [3]	7,116	40	80		1-Oct-15	30-May-15	Hand Level
MW-8M	MW-8	Top of ABS Transducer Mount	2,159,430.86	5,744,866.05	19.99	2.17 [2]	7,106	125	215	181	1-Oct-15	30-May-15	Level, Conductivity
MW-8D	MW-8	Top of ABS Transducer Mount	2,159,421.47	5,744,861.04	20.08	2.10 [3]	7,096	300	350		1-Oct-15	30-May-15	Hand Level
MW-9S	MW-9	Top of ABS Transducer Mount	2,162,010.77	5,747,845.08	18.42	2.16 [3]	10,677	30	110		1-Oct-15	1-Jul-15	Hand Level
MW-9M	MW-9	Top of ABS Transducer Mount	2,162,016.58	5,747,353.64	18.32	2.13 [2]	10,687	143	225	182	1-Oct-15	29-Jun-15	Level, Conductivity
MW-9D	MW-9	Top of ABS Transducer Mount	2,162,022.89	5,747,362.25	18.32	2.15 [3]	10,697	353	393		1-Oct-15	25-Jun-15	Hand Level
Well No. 1 [4]	MRWPCA	Well Cover	2,151,622.14	5,750,015.59	114 ft amsl (GS)	1.60	10,898	260	340	299		19-Feb-15	Level, Conductivity
Well No. 2 [4]	MRWPCA	Well Cover	2,151,550.18	5,749,987.41	115 ft amsl (GS)	1.65	10,892	260	340	319		19-Feb-15	Level, Conductivity
CEMEX Dredge Pond	CEMEX	Top of ABS Transducer Mount	2,155,912.41	5,739,497.26	14.14	8.92 [4]	1,212				26-Mar-15	8-Mar-15	Level, Conductivity
Test Slant Well	CEMEX	Near Ground Surface	2,154,702.56	5,739,561.92	30.86	0	0	46**	231**	305MD	26-Mar-15	1-Apr-15	Level, Conductivity
CEMEX North Well	CEMEX	Well Cover	2,154,284.48	5,741,032.07	39.20	0.25	1,529	244	481	150	1-Oct-15	1-Apr-15	Level, Conductivity
CEMEX South Well [4]	CEMEX	Ground Surface	2,154,213.90	5,740,998.57	31 ft amsl (GS)	0	1,518	400	506				

Horizontal Datum: NAD83 State Plane Zone 4
Vertical Datum: NAVD88
* RP height above pond water level 5.22 ft NAVD88 (8-11 am 26-Mar-15)
** Top of 18 in. screen = 140 ft x Sin(19) = 46 ft TVD, Bottom of 14 in. screen = 710 x Sin(19) = 231 ft TVD

[1] RP/elevation change on May 17, 2015 - New caps
[2] RP/elevation change on July 17, 2015 - New caps
[3] RP/elevation change on September 24, 2015 - New caps
[4] Estimated - not surveyed.

MD: Measured Depth - lineal feet along the angle of the slant well
GS: Ground Surface - approximate ground surface elevation based on Google Earth

ATTACHMENT B
MPWSP WATER LEVEL DATA

Groundwater Elevation in MPWSP MW-1

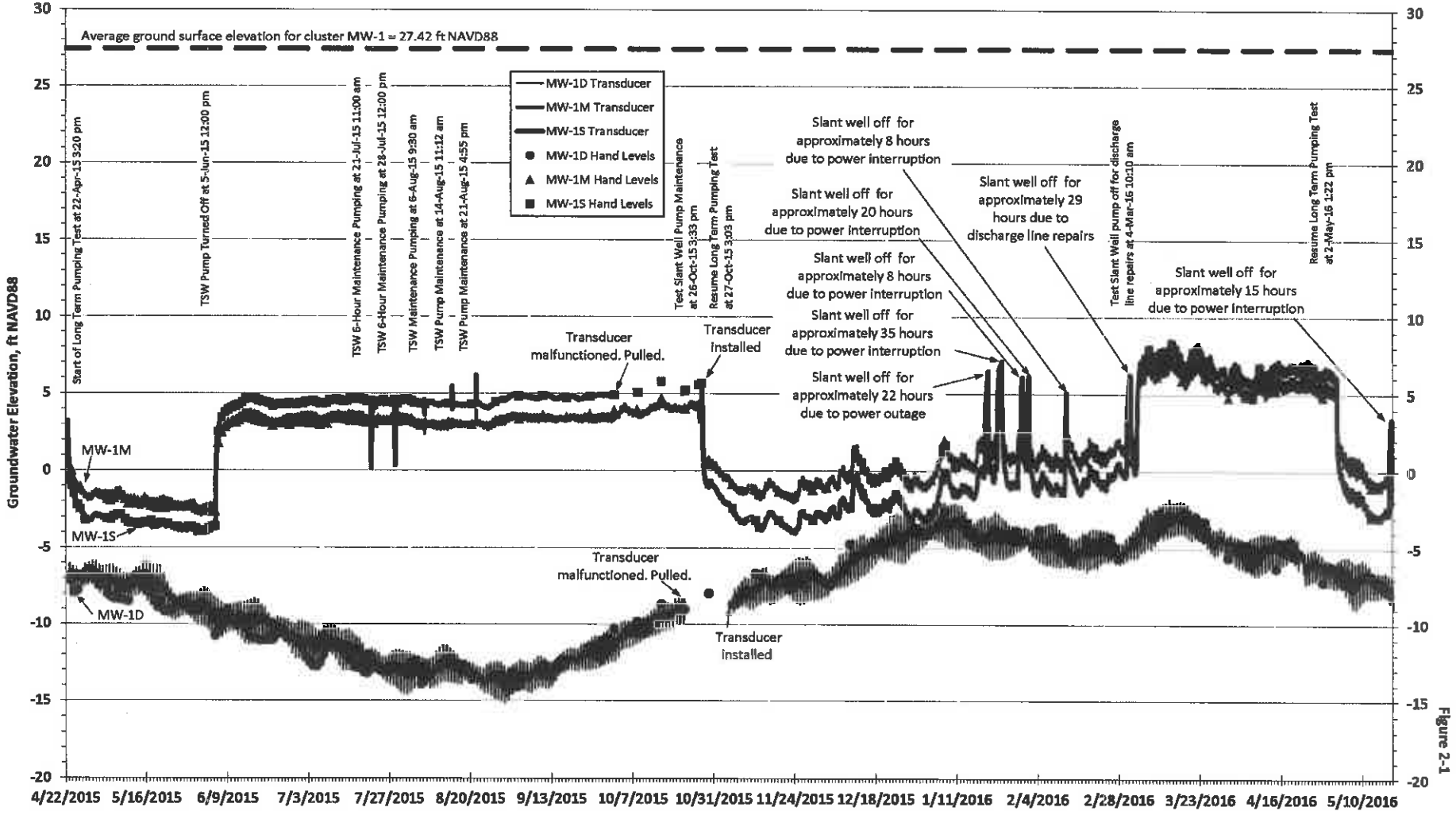

Figure 2-1

Groundwater Elevation in MPWSP MW-3

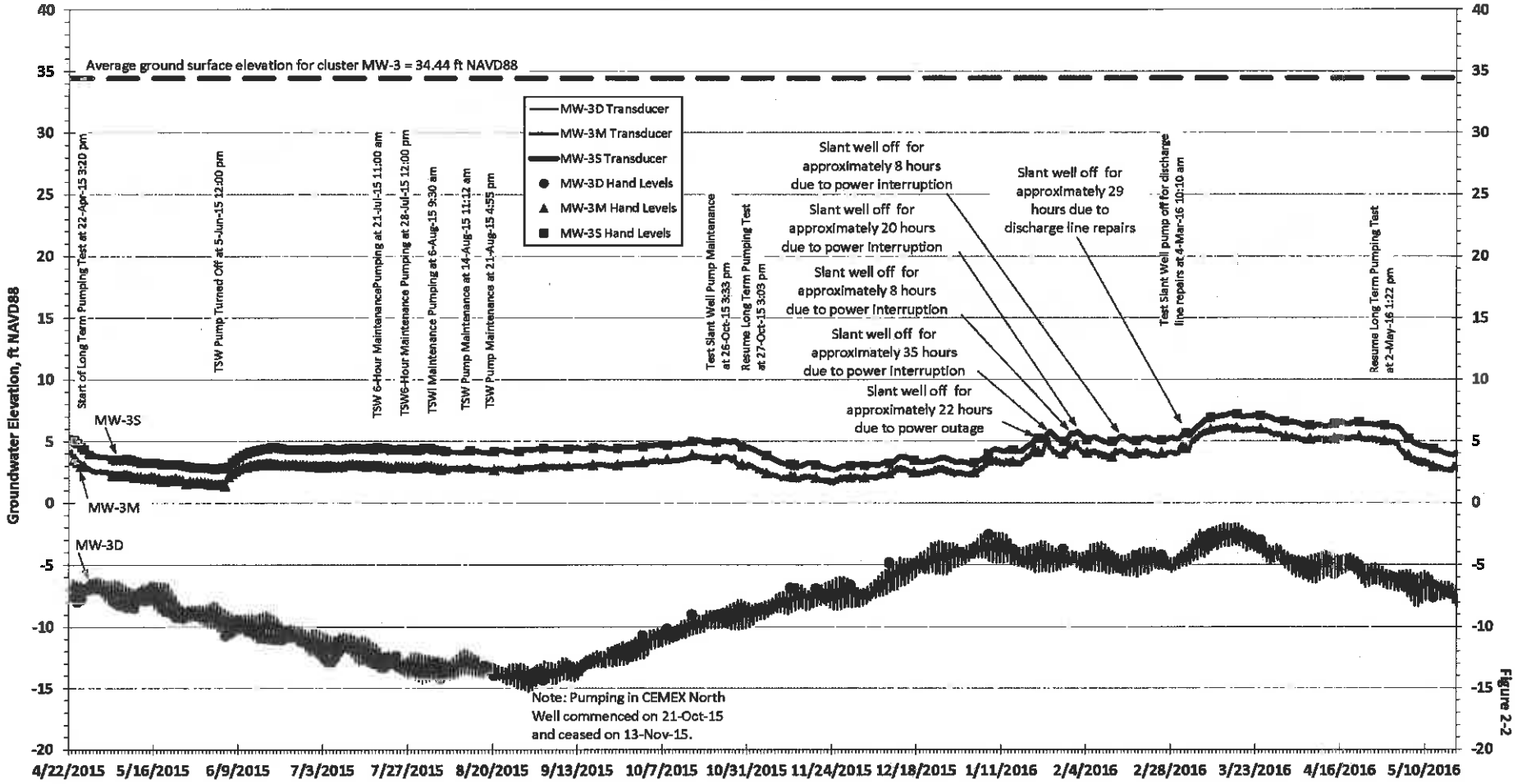

Figure 2-2

Groundwater Elevation in MPWSP MW-4

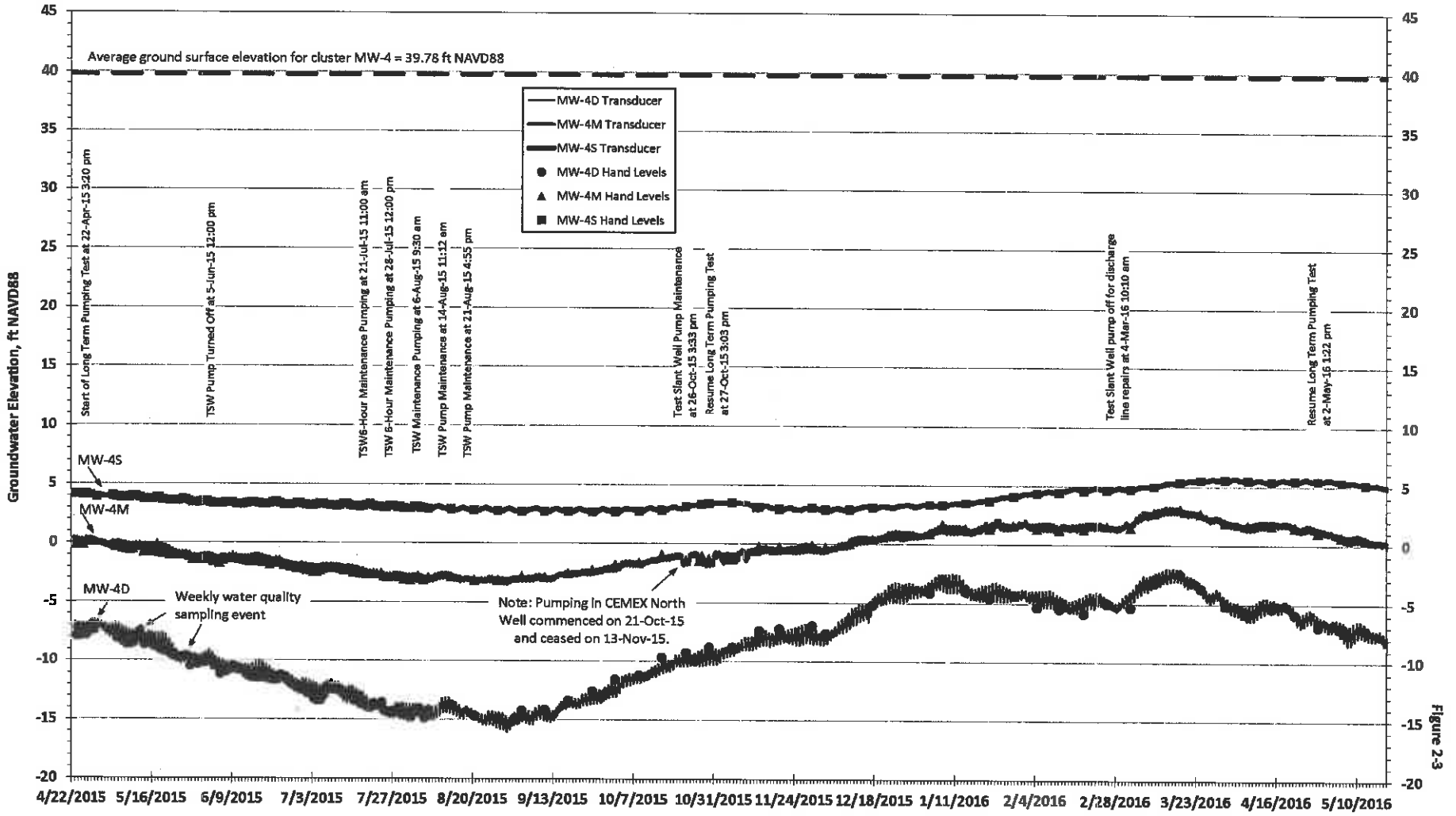

Figure 2-3

Groundwater Elevation in MPWSP MW-5

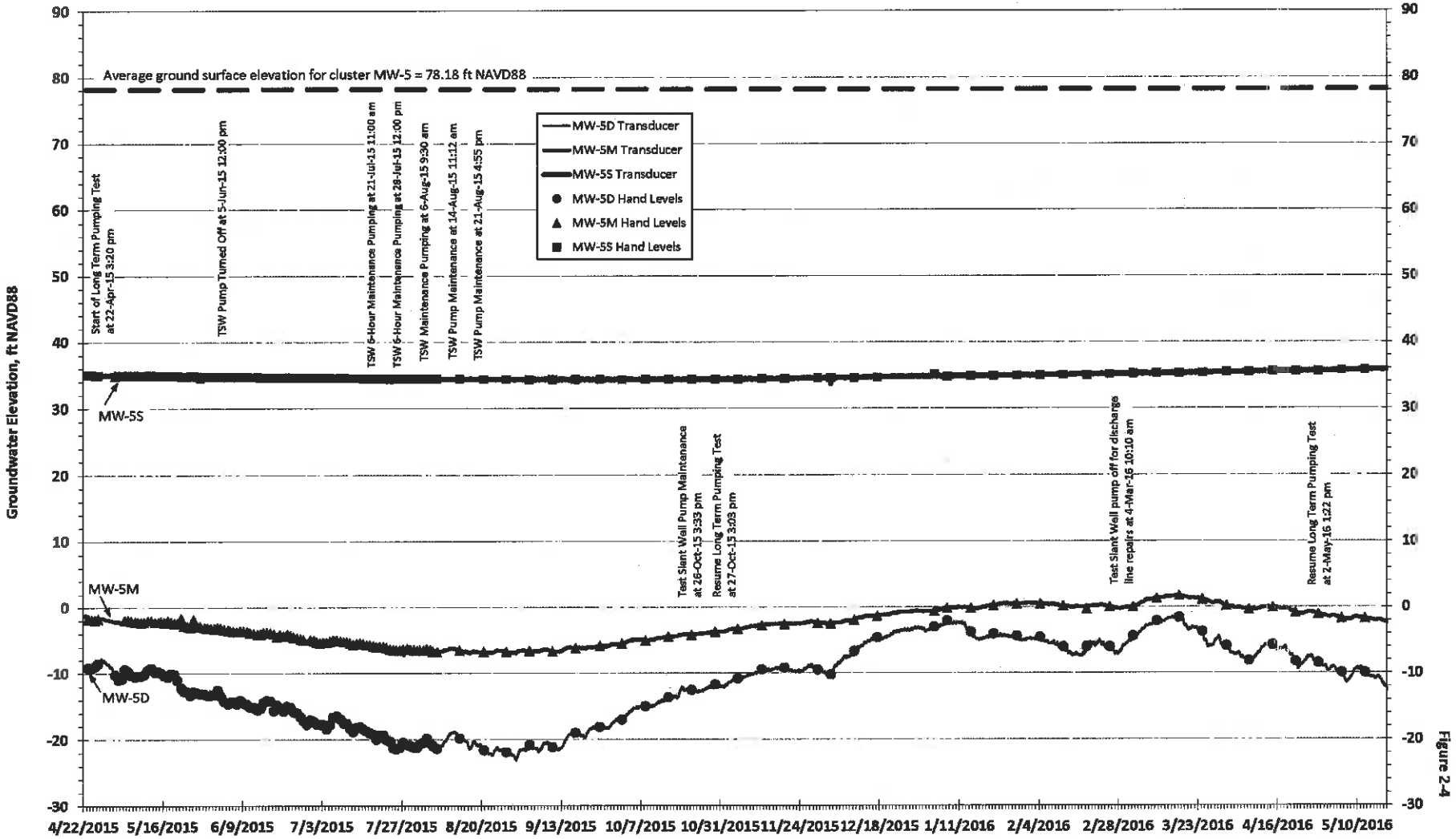

Figure 2-4

Groundwater Elevation in MPWSP MW-6

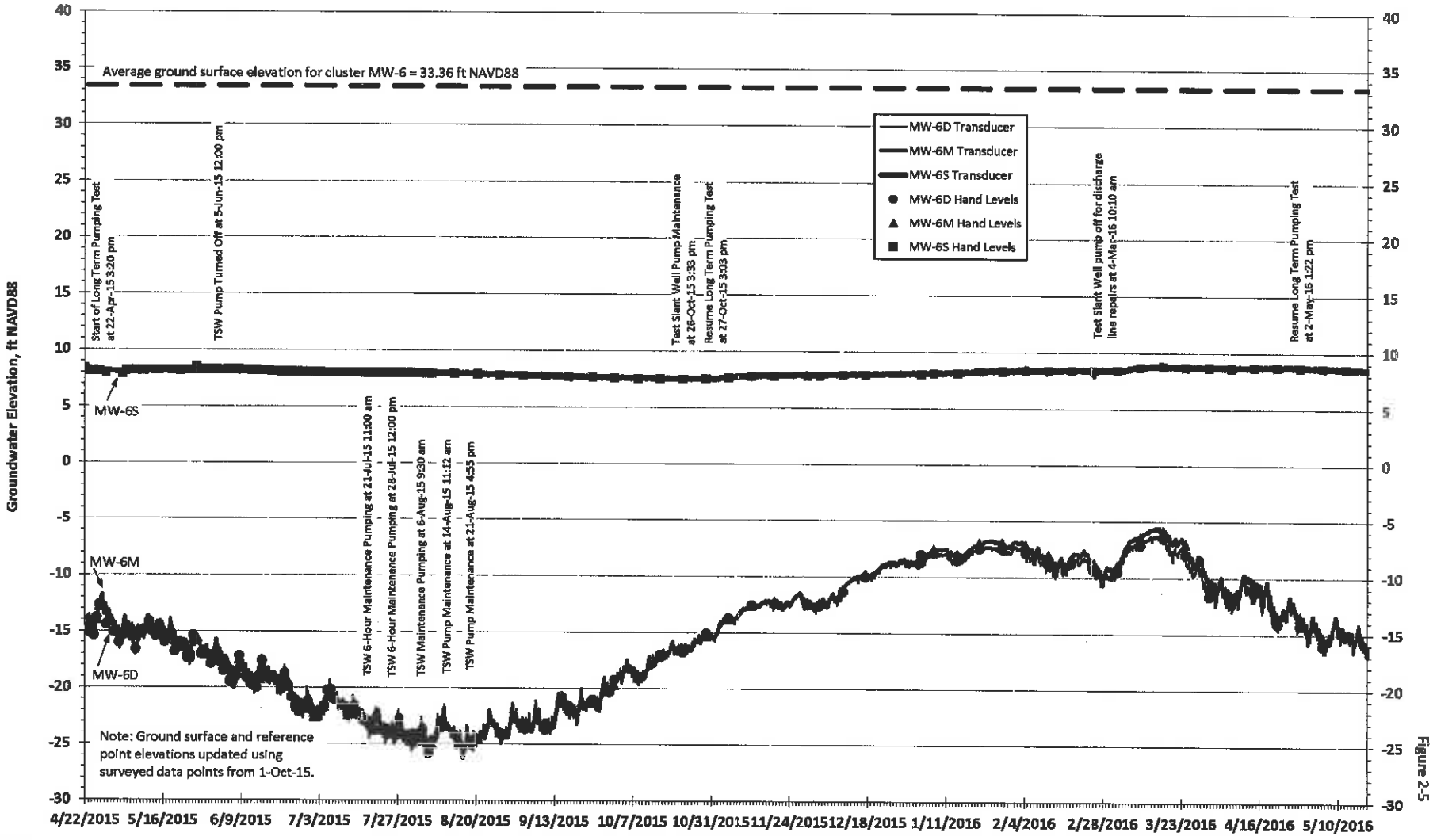

Figure 2-5

Groundwater Elevation in MPWSP MW-7

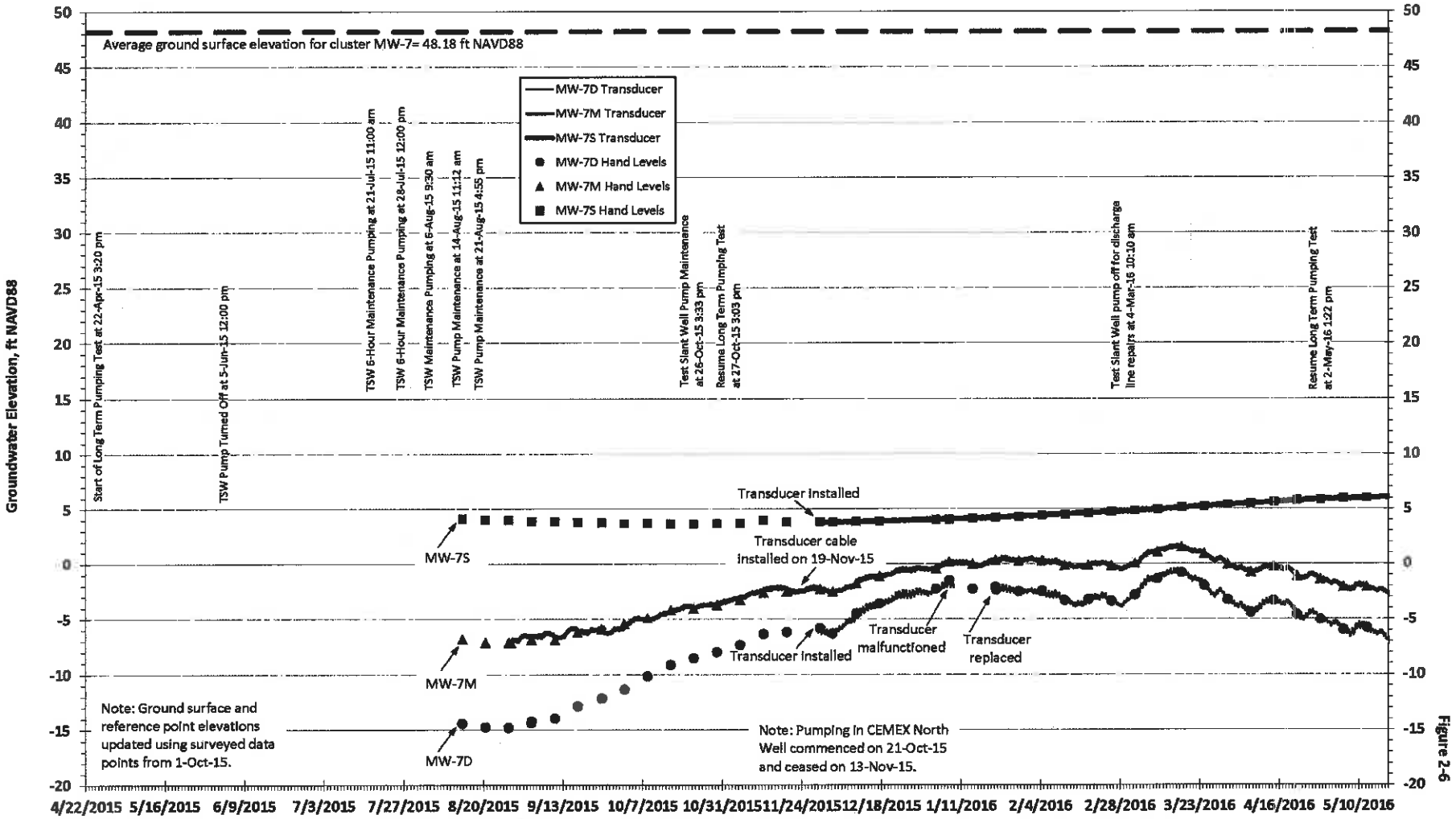

Figure 2-6

Groundwater Elevation in MPWSP MW-8

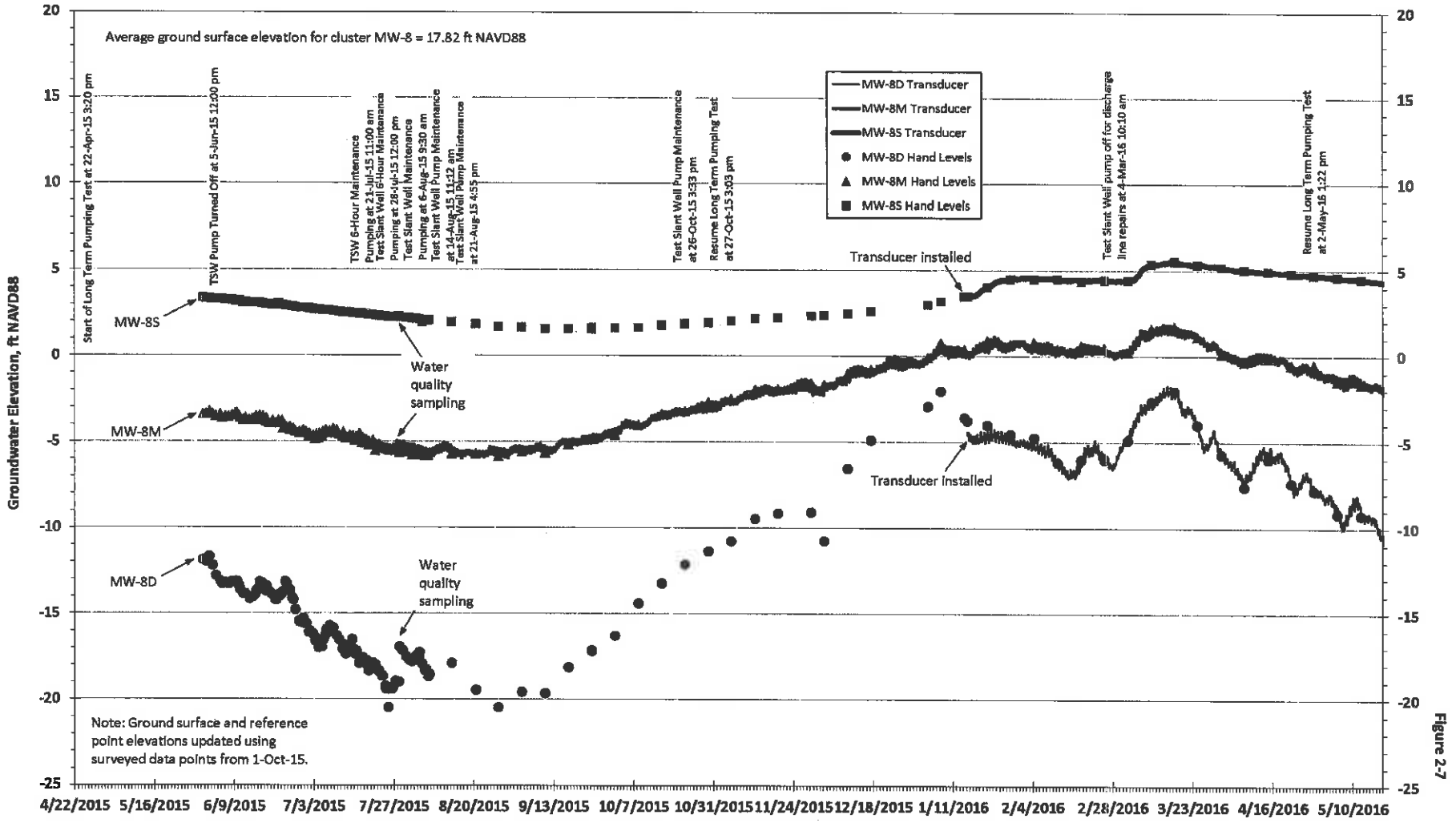

Figure 2-7

Groundwater Elevation in MPWSP MW-9

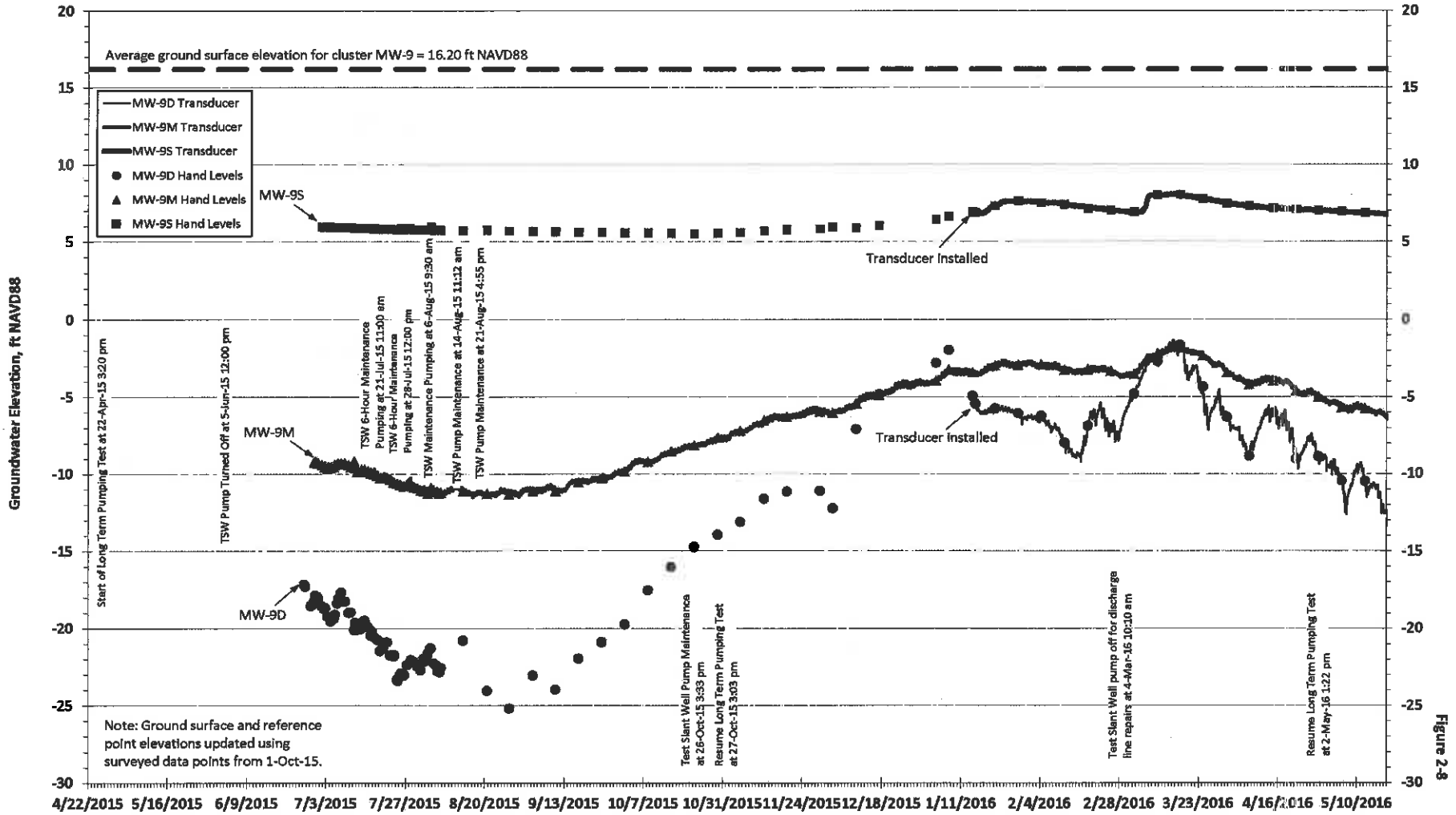

Figure 2-8

Groundwater Elevation in Monterey Regional Water Pollution Control Agency Wells

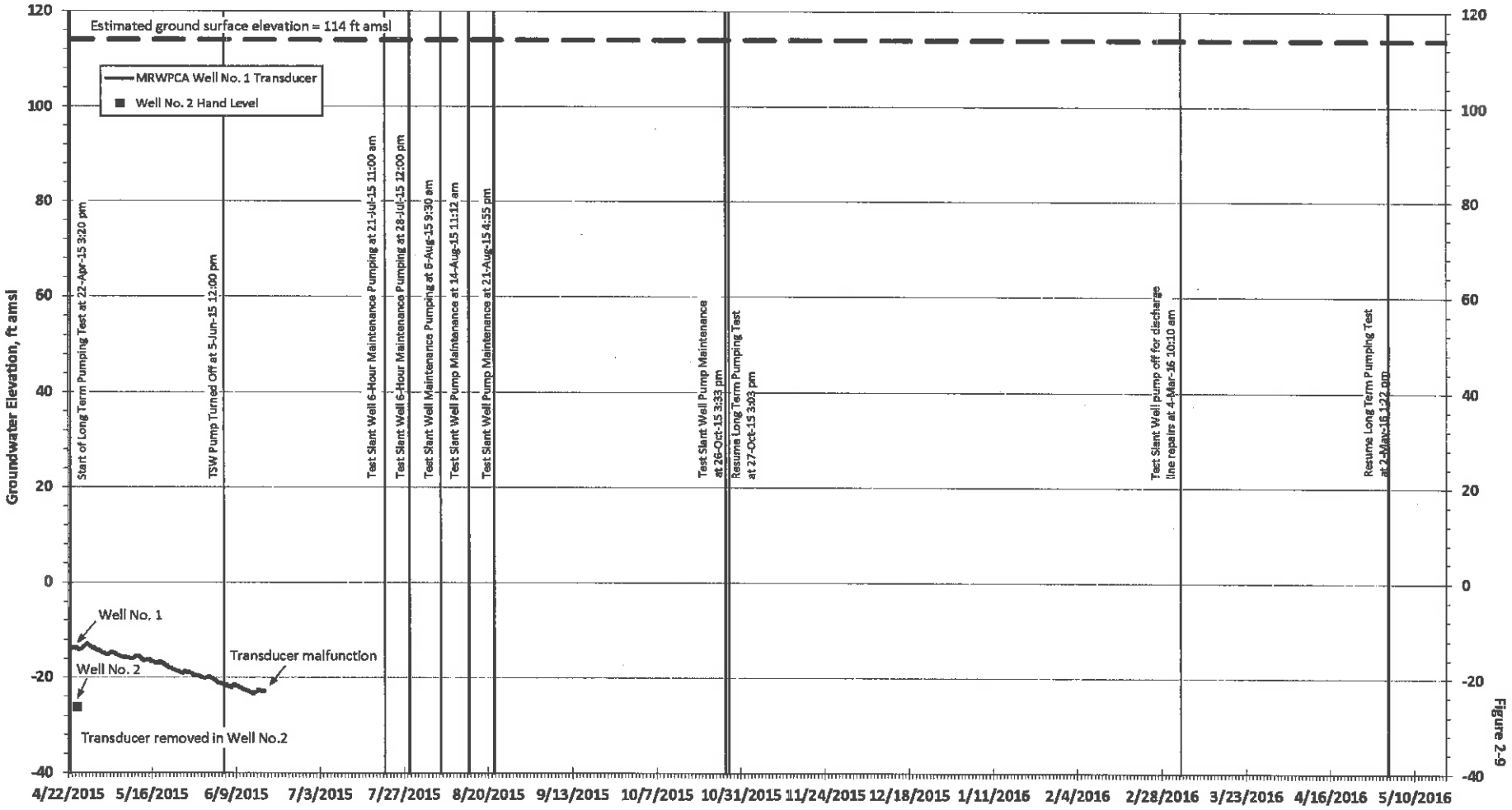

Figure 2-9

Surface Water Elevation in CEMEX Dredge Pond

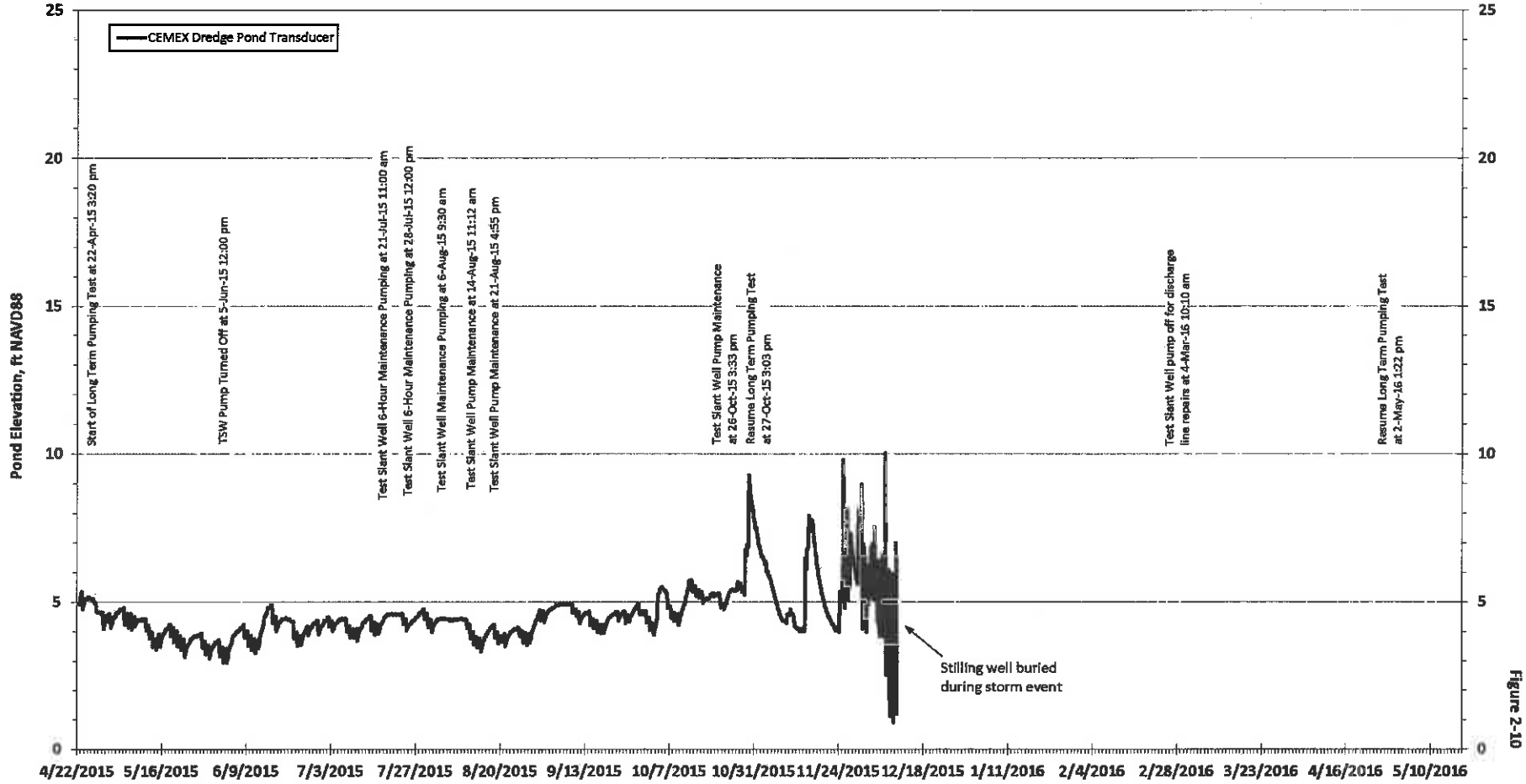

Figure 2-10

Groundwater Elevation in CEMEX North Well

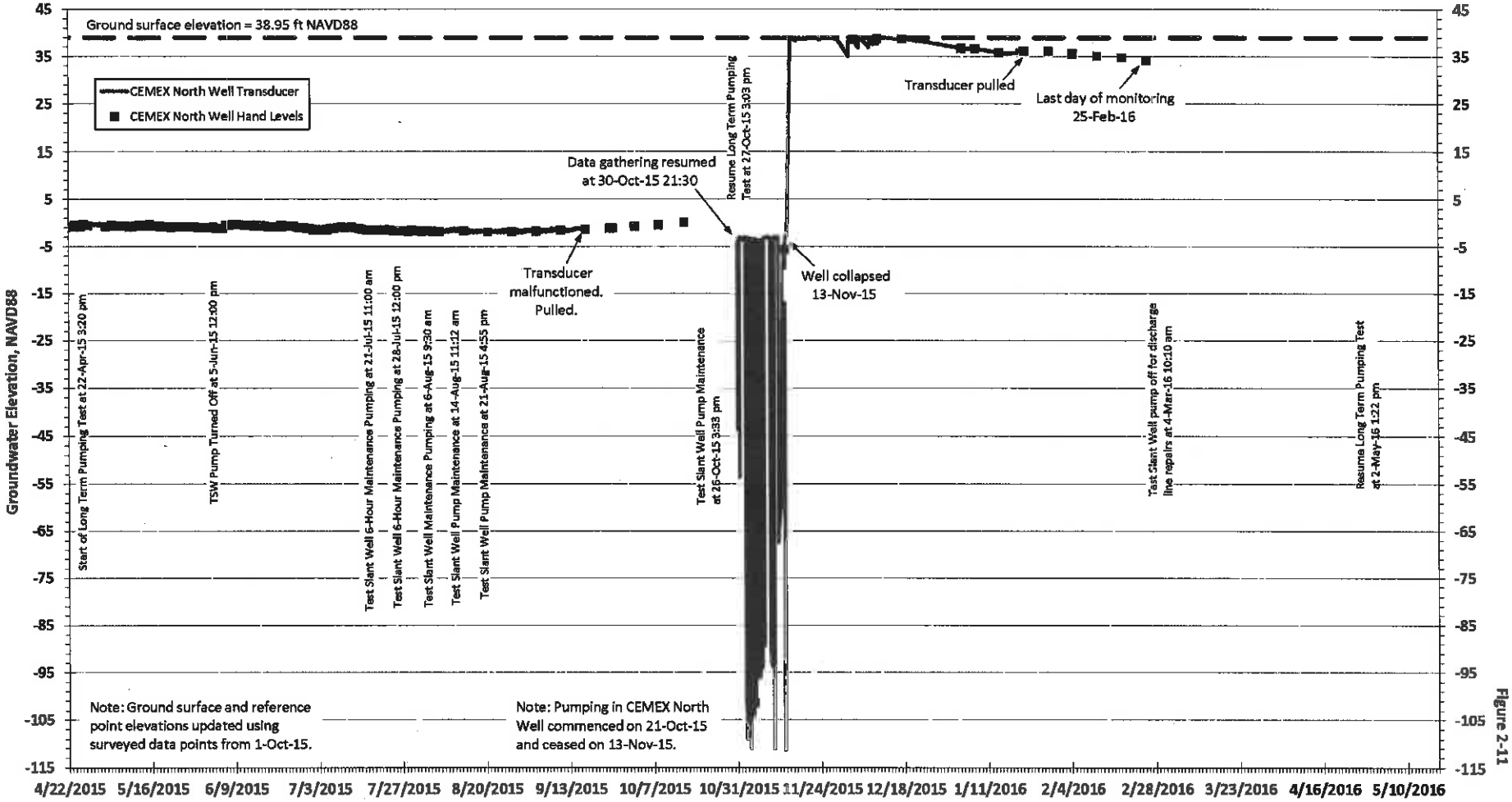

Figure 2-11

Groundwater Elevation in MPWSP Test Slant Well

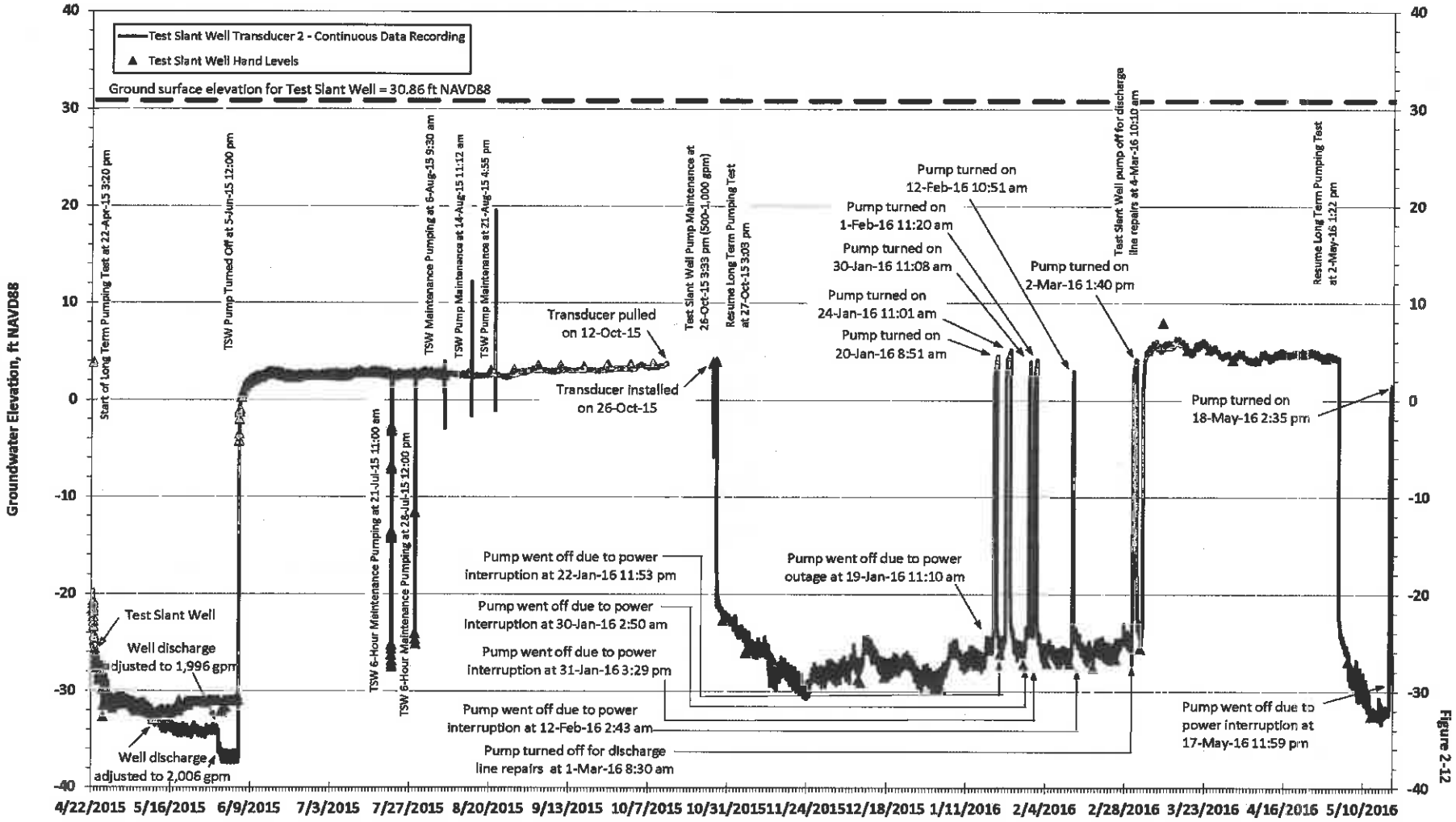

Figure 2-12

ATTACHMENT C
LABORATORY WATER QUALITY
TEST RESULTS

Cal Am / RBF
Baseline Water and Total Dissolved Solids Levels
Monterey Peninsula Water Supply Project Area

Table 2

Summary of Laboratory Water Quality Results in Monitoring Wells

Well Name:	MW-1D		MW-1M		MW-1S		MW-2D		MW-3M		MW-3S		MW-4D		MW-4M		MW-4S		MW-5D		MW-5M		MW-5S		Yes Island Well		
Screen Interval (ft bgs):	277 - 927		115 - 225		55 - 95		285 - 330		165 - 215		50 - 90		280 - 330		100 - 230		55 - 90		280 - 430		100 - 325		50 - 90		140 - 306; 400 - 710 (MD)		
Sample Date:	14-Feb-15	9-Apr-15	14-Feb-15	9-Apr-15	13-Feb-15	9-Apr-15	21-Feb-15	10-Apr-15	26-Feb-15	10-Apr-15	25-Feb-15	10-Apr-15	13-Feb-15	2-Apr-15	6-Mar-15	2-Apr-15	7-Mar-15	2-Apr-15	17-Feb-15	2-Apr-15	9-Mar-15	2-Apr-15	10-Mar-15	2-Apr-15	20-Mar-15	24-Mar-15	8-Apr-15
Constituent[1]	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Alkalinity, Total (as $CaCO_3$)	mg/L	128	124	112	117	105	120	114	118	105	104	97	97	111	124	97	97	86	86	112	117	135	121	50	50	N/A	N/A	117
Aluminum, Total	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	166	18	186	36	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	14	28	N/A	N/A	ND
Ammonia-N	mg/L	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.08	ND	N/A
Ammonia-N, Dissolved	mg/L	ND	*	ND	*	ND	*	ND	*	ND	*	ND	*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	N/A	ND
Ammonia-NH_3 (calc) Un-ionized	ug/L	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	N/A
Arsenic, Total	ug/L	46	34	41	33	43	30	44	39	37	34	34	27	40	38	21	22	15	14	4	3	2	2	4	3	N/A	N/A	33
Barium, Dissolved	ug/L	141	149	61	62	66	63	162	157	79	66	97	91	166	176	104	104	92	107	562	465	86	87	179	200	N/A	N/A	98
Bicarbonate (as HCO3-)	mg/L	156	151	137	143	128	146	139	144	128	127	118	118	135	151	118	118	98	105	137	143	238	148	61	61	N/A	N/A	143
Boron, Dissolved	mg/L	0.88	1.16	2.36	2.78	2.27	2.73	1.06	1.09	1.01	2.68	2.2	2.3	0.65	0.75	1.16	1.08	0.79	0.88	0.09	ND	ND	ND	ND	ND	N/A	N/A	2.6
Bromide, Dissolved	mg/L	44	44	45	50	39	49	44.1	44	5.8	49	44.8	38	43.8	47	31	31	16.7	18	3.9	2	0.4	ND	4.4	5.2	N/A	N/A	37
Calcium	mg/L	2,440	2,510	746	805	661	791	2,470	2,350	826	835	628	664	2,980	2,827	1,040	1,131	594	621	360	359	95	62	129	132	N/A	N/A	349
Calcium, Dissolved	mg/L	2,410	2,480	732	781	646	771	2,370	2,360	814	879	666	664	3,070	2,819	1,060	1,100	617	627	363	356	93	63	142	138	N/A	N/A	371
Carbamates by HPLC (EPA 531)	ug/L	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	N/A	N/A	ND
Carbonate as $CaCO_3$	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	N/A	ND
Chloride, Dissolved	mg/L	14,905	15,346	16,037	15,580	14,504	15,276	16,069	16,456	14,685	14,964	11,680	12,136	14,142	14,177	8,751	9,587	5,477	6,266	1,168	1,192	120	90	271	272	N/A	N/A	13,830
Chlorinated Pesticides and PCB (EPA 508)	ug/L	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	N/A	N/A	ND
Chlorine Residual, Total (Laboratory)	mg/L (H)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	N/A
Coliform, E. Coli (Quantitray)	MPN/100mL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<10	N/A
Coliform, E. Coli (Quantitray)-18 Hour	MPN/100mL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<10	N/A	N/A
Coliform, Total (Quantitray)	MPN/100mL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	490	N/A
Coliform, Total (Quantitray)-18Hour	MPN/100mL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,755	N/A	N/A
Color, Apparent (Unfiltered)	CU	10	25	ND	ND	4	ND	6	ND	ND	ND	ND	7	8	ND	4	ND	3	ND	ND	4	ND	ND	7	8	50	10	4
Copper, Total	ug/L	40	52	61	60	62	57	56	26	62	30	42	28	46	60	42	22	ND	16	13	4	ND	ND	5	ND	N/A	N/A	44
DBCP & EDB	ug/L	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	N/A	N/A	ND
Diazin	ug/L	ND	N/A	ND	N/A	ND	N/A	ND	N/A	RP	N/A	RP	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	N/A	N/A	ND
Diquat (EPA 549)	ug/L	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	N/A	N/A	ND
Dissolved Oxygen (Field)	mg/L (H)	N/A	0.08	N/A	3.34	N/A	2.69	N/A	0.225	N/A	3.85	4.7	3.54	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.28	N/A	N/A
Dissolved Oxygen (Laboratory)	mg/L (H)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7.84	8.84	N/A
Endothall	ug/L	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	N/A	N/A	ND
Fluoride, Dissolved	mg/L	ND	ND	ND	ND	0.3	ND	ND	ND	0.5	ND	0.4	ND	ND	ND	ND	0.1	ND	0.1	0.1	0.1	0.1	0.1	ND	ND	N/A	N/A	0.2
Glyphosate	ug/L	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	N/A	N/A	ND
Hardness (as $CaCO_3$)	mg/L	10,760	11,388	5,927	6,606	5,670	6,439	12,063	11,146	6,376	6,520	5,044	5,109	11,617	11,021	5,631	5,790	3,176	3,321	1,484	1,429	367	229	561	540	N/A	N/A	4,251
Hydroxide	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	N/A	ND
Iodide	ug/L	ND	*	ND	*	ND	*	ND	*	ND	*	ND	*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	N/A	ND
Iron	ug/L	145	722	ND	ND	21	ND	169	671	ND	ND	ND	ND	77	228	ND	ND	ND	169	89	17	ND	ND	ND	26	N/A	N/A	69
Iron, Dissolved	ug/L	118	726	12	ND	15	ND	142	684	ND	ND	ND	ND	80	215	ND	ND	ND	176	ND	ND	ND	ND	ND	ND	N/A	N/A	68
Kjeldahl Nitrogen, Dissolved	mg/L	ND	*	ND	*	ND	*	ND	*	ND	*	ND	*	0.6	ND	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	N/A	ND
Lithium	ug/L	254	200	201	195	172	157	250	194	199	119	144	106	222	189	36	29	16	18	75	53	7	9	6	9	N/A	N/A	192
Magnesium	mg/L	1,130	1,230	1,080	1,120	978	1,080	1,430	1,280	1,050	1,080	844	838	1,020	952	730	706	411	430	142	130	31	18	58	51	N/A	N/A	562
Magnesium, Dissolved	mg/L	1,160	1,230	1,100	1,110	979	1,080	1,290	1,210	1,020	1,160	797	859	979	969	752	681	421	437	135	128	31	18	62	54	N/A	N/A	589
Manganese, Dissolved	ug/L	440	1,060	18	ND	41	ND	258	1,080	ND	ND	ND	170	268	1,230	119	ND	ND	248	340	645	ND	ND	ND	ND	N/A	N/A	26
Manganese, Total	ug/L	494	1,100	19	ND	43	ND	269	1,060	14	ND	58	154	276	1,221	82	ND	ND	269	336	653	ND	ND	ND	ND	N/A	N/A	25
MBAS (Surfactants)	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	N/A	ND
Nitrate as NO_3	mg/L	1	2	2	4	3	4	ND	2	5	3	29	6	1	ND	4	3	29	10	3	1	70	64	239	239	N/A	N/A	5
Nitrate/Nitrite as N	mg/L	0.4	0.6	1.1	1	0.7	0.9	0.1	0.5	1.2	0.8	6.5	1.5	0.2	0.1	1	0.8	6.3	2.3	0.8	0.4	15.2	14.6	54	53.7	N/A	N/A	1
Nitrite as NO_2-N, Dissolved	mg/L	0.2	ND	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.1	ND	0.1	ND	0.1	0.3	0.9	ND	0.1	N/A	N/A	ND
Odor Threshold at 60 C	TON	1	2	1	2	1	1	3	3	3	1	5	2	3	1	1	1	4	14	3	2	12	1	2	10	N/A	N/A	2
Oil & Grease (HEM)	mg/L	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	N/A
o-Phosphate-P	mg/L	0.03	0.05	0.07	0.09	0.07	0.05	0.05	0.04	0.05	0.09	0.18	0.14	0.05	0.01	ND	0.05	0.05	0.03	0.04	0.05	0.05	0.12	0.05	0.12	N/A	N/A	0.1
pH (Field Test)	pH	6.72	7.24	7.02	7.74	7.15	7.87	6.55	6.84	6.89	7.05	7.25	7.27	6.65	6.56	6.78	6.78	6.77	6.91	7	7.15	7.23	7.44	6.46	6.63	7.58	7.67	7.09
pH (Laboratory)	pH (H)	7.1	7.1	7	7.4	7.2	7.3	6.9	7.2	7.2	7.4	7.2	7.5	7	7.1	7.1	7.2	7	7.2	7.5	7.4	7.3	7.5	6.7	7.1	7.7	7.8	7.2
Phenoxy Acid Herbicides (515.3)	ug/L	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	N/A	N/A	ND
Phosphorus, Dissolved Total	mg/L	0.04	0.03	0.09	0.08	0.05	0.04	0.04	ND	ND	0.05	0.12	0.13	0.11	0.14	ND	0.06	0.05	0.07	0.04	0.04	0.05	0.12	0.08	0.08	N/A	N/A	0.09
Potassium	mg/L	62	61	201	209	228	247	64.4	58	197	214	168	157	51.2	46.2	45	43.9	26	26.2	7.8	6.7	8.4	22	2	3.1	N/A	N/A	203
Potassium, Dissolved	mg/L	59	60.9	197	207	224	244	55.7	53.6	197	222	157	161	48.1	46.8	39	43.3	28	31.5	7.1	6.6	8.5	22	2.4	3	N/A	N/A	213
QC Table TDS/SEC		0.73	0.65	0.7	0.67	0.68	0.67	0.71	0.66	0.68	0.68	0.68	0.68	0.72	0.71	0.68	0.68	0.7	0.68	0.68	0.65	0.6	0.64	0.67	0.64	N/A	N/A	0.67
Reg. Org. Compounds (EPA 525)	ug/L	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	N/A	N/A	ND
Settleable Solids	mL/L	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	N/A
Silica as SiO_2, Dissolved	mg/L	38	32	22	21	20	19	32	30	21	18	19	19	36	31	30	27	27	24	45	41	35	32	20	38	N/A	N/A	20
Sodium	mg/L	5,780	5,913	6,011	7,381	7,306	7,211	6,960	5,620	7,292	6,598	5,340	5,632	4,295	4,052	4,079	3,685	2879	2,698	161	191	71	51	120	116	N/A	N/A	7,606
Sodium, Dissolved	mg/L	6,150	6,240	6,320	7,520	7,300	7,480	5,110	5,180	6,930	7,670	5,550	5,280	4,730	4,050	4,320	3,490	2,750	2,550	196	128	76	51	131	120	N/A	N/A	8,040
Specific Conductance (E.C)	umhos/cm	40,120	43,440	43,940	42,510	39,050	40,840	44,020	43,370	41,050	41,040	34,180	34,200	38,000	37,890	26,250	27,200	17,080	18,800	3,775	3,729	1,106	714	1,752	1,735	36,850	36,280	37,880
Specific Conductance (E.C) (Field)	umhos/cm	40,682	43,249	43,788	42,426	38,747	41,857	41,740	43,233	42,240	40,642	33,456	36,786	5,750	37,532	26,779	27,703	16,317	18,376	3,961	3,963	962	796	1,838	1,745	35,270	36,306	38,097
Strontium, Dissolved	ug/L	15,565	16,477	8,589	9,434	7,995	9,094	16,570	15,228	9,300	9,458	7,615	7,287	17,498	17,148	9,697	9,864	5,208	5,435	2,777	2,836	630	435	1,291	1,269	N/A	N/A	7,440

Cal Am / RBF
Baseline Water and Total Dissolved Solids Levels
Monterey Peninsula Water Supply Project Area

Table 2

Summary of Laboratory Water Quality Results in Monitoring Wells

Well Name:		MW-1D		MW-1M		MW-1S		MW-3D		MW-3M		MW-3S		MW-4D		MW-4M		MW-4S		MW-5D		MW-5M		MW-5S		Test Slant Well		
Screen Interval (ft bgs):		277 - 327		113 - 225		55 - 95		285 - 330		105 - 215		50 - 90		280 - 330		100 - 230		50 - 90		380 - 420		100 - 325		50 - 90		140 - 300, 400 - 710 (MD)		
Sample Date:		14-Feb-15	9-Apr-15	14-Feb-15	9-Apr-15	13-Feb-15	9-Apr-15	21-Feb-15	10-Apr-15	26-Feb-15	10 Apr-15	25-Feb-15	10 Apr-15	19-Feb-15	2-Apr-15	6-Mar-15	2-Apr-15	7-Mar-15	2-Apr-15	17-Feb-15	2-Apr-15	3-Mar-15	2-Apr-15	10-Mar-15	2-Apr-15	20-Mar-15	26-Mar-15	8-Apr-15
Constituent[1]	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Sulfate	mg/L	1,980	N/A	3,070	N/A	3,840	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,700	N/A	N/A	N/A	N/A	N/A	58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sulfate, Dissolved	mg/L	N/A	2,148	N/A	2,068	N/A	2,008	2,628	2,158	1,369	1,367	1,193	1,605	N/A	1,796	1,184	1,205	716	807	N/A	31	110	67	197	192	N/A	N/A	1,840
Temperature	°C	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	16.3	N/A	N/A
Temperature (Field)	°C	19.2	20.02	17.2	17.89	18.8	17.64	19.6	20.22	16.3	18.74	17.5	19.17	19.5	198	18.4	18.8	17.7	18.1	21.3	21.4	16.97	18.2	16.7	19.1	20.9	19.1	17.2
Total Diss. Solids	mg/L	29,100	28,700	30,900	28,900	26,600	27,900	32,600	28,600	28,900	28,300	23,400	23,300	27,500	27,600	17,900	17,500	11,900	12,800	2,615	2,437	663	454	1,166	1,117	28,900	28,400	28,400
Total Susp. Solids	mg/L	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	36	ND	n/a
Turbidity	NTU	1.8	0.15	0.1	0.1	0.1	0.15	1	0.3	0.1	0.16	0.15	0.26	0.45	0.15	0.25	0.05	0.3	0.2	0.25	0.28	ND	ND	0.4	0.75	17	1.6	0.4
Turbidity (Field)	NTU	0.65	0.69	0.41	0.35	0.29	0.48	0.38	0.87	0.42	0.21	0.96	0.98	0.76	0.53	0.71	0.84	0.52	0.17	0.71	0.87	0.47	0.45	1.81	1.26	40.3	0.65	0.74
Volatile Org. Compounds (524)	µg/L	ND	N/A	ND	N/A	ND	N/A	ND	N/A	ND	N/A	RP	N/A	RP	N/A	ND	N/A	RP	N/A	RP	N/A	ND	N/A	RP	N/A	N/A	N/A	ND
Zinc, Total	µg/L	ND	ND	ND	ND	413	ND	ND	ND	287	ND	312	ND	ND	ND	211	107	ND	106	31	ND	40	ND	69	ND	N/A	N/A	ND

Notes:

°C	= Degrees Celsius
CU	= Color Units
mg/L	= Milligrams per Liter
NTU	= Nephelometric Turbidity Units
pg/L	= Picograms per Liter
TON	= Threshold Odor Number
ug/L	= Micrograms per Liter
µmhos/cm	= Micromhos per Centimeter
H	= Analyzed outside of hold time
MPN/100mL	= The most probable number (MPN) of coliform or fecal coliform bacteria per 100 milliliter
ND	= NOT DETECTED at or above the Reporting Limit or Practical Quantitation Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
N/A	= No Lab Results available
RP	= Results to be provided

[1] Laboratory water quality reports will be provided in the Test Slant Well and monitoring well completion report.
* Laboratory water quality results pending.

CONSTITUENT	UNIT	MW-6D	MW-6M	MW-6S	MW-7D	MW-7M	MW-7S	MW-8D	MW-8D	MW-8M	MW-8M	MW-8S	MW-8S	MW-9D	MW-9D	MW-9M	MW-9M	MW-9S	MW-9S
		4/2/2015	4/4/2015	4/5/2015	9-Aug-15	2-Aug-15	3-Aug-15	5/21/2015	6/23/2015	5/27/2015	6/23/2015	5/28/2015	6/23/2015	25-Jun-15	28-Jul-15	28-Jun-15	28-Jul-15	30-Jun-15	28-Jul-15
ALKALINITY, TOTAL (as $CaCO_3$)	mg/L	117	397	966	109	98	29	152	112	140	155	320	302	170	176	127	128	1,051	1,019
ALUMINUM, TOTAL	µg/L	ND	ND	ND	ND	18	ND	37	128	292	ND	ND	ND	ND	ND	ND	ND	11	ND
AMMONIA-N	mg/L	NA	NA	NA				NA	NA	NA	NA	NA	NA						
AMMONIA-N, DISSOLVED	mg/L	ND	0.17	0.45	ND	ND	0.08	ND	ND	ND	ND	ND	ND	ND	0.07	0.12	0.17	2.88	2.86
AMMONIA-NH_3 (CALC) UN-IONIZED	ug/L	NA	NA	NA				NA	NA	NA	NA	NA	NA						
ARSENIC, TOTAL	µg/L	3	5	16	41	4	1	1	11	28	24	1	1	2	2	39	35	11	12
BARIUM, DISSOLVED	µg/L	255	155	105	110	282	199	88	178	154	119	57	75	59	48	168	141	315	273
BICARBONATE (AS $HCO3^-$)	mg/L	143	484	447	133	120	35	185	137	171	189	390	368	207	215	155	156	1,282	1,243
BORON, DISSOLVED	mg/L	ND	ND	ND	1.71	ND	ND	0.05	0.66	1.83	1.37	0.22	0.29	0.08	0.07	2.93	2.77	0.69	0.64
BROMIDE, DISSOLVED	mg/L	2	0.5	0.2	44.3	6.6	1.3	0.6	11.5	42.1	33.6	0.9	1	0.2	0.2	49.6	47.6	4.2	3.5
CALCIUM	mg/L	341	139	93	1,900	507	120	64	413	1110	1500	149	142	32	34	878	1,060	209	234
CALCIUM, DISSOLVED	mg/L	347	140	92	1,800	520	114	59	416	1140	1500	151	139	35	33	866	1,100	242	285
CARBAMATES BY HPLC (EPA 531)	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND		ND		ND	
CARBONATE AS $CaCO_3$	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CHLORIDE, DISSOLVED	mg/L	814	167	57	13,589	1,739	387	220	3995	12380	10546	261	251	74	75	16,519	10,486	1,199	1,038
CHLORINATED PESTICIDES AND PCB (EPA 508)	µg/L	ND	A	A	A	ND	ND	ND	ND	ND	ND	A	A	ND		ND		ND	
CHLORINE RESIDUAL, TOTAL (LABORATORY)	mg/L (H)	NA	NA	NA				NA	NA	NA	NA	NA	NA						
COLIFORM, E. COLI (QUANTITRAY)	MPN/100ml	NA	NA	NA				NA	NA	NA	NA	NA	NA						
COLIFORM, E. COLI (QUANTITRAY) - 18 HOUR	MPN/100ml	NA	NA	NA				NA	NA	NA	NA	NA	NA						
COLIFORM, TOTAL (QUANTITRAY)	MPN/100ml	NA	NA	NA				NA	NA	NA	NA	NA	NA						
COLIFORM, TOTAL (QUANTITRAY) - 18 HOUR	MPN/100ml	NA	NA	NA				NA	NA	NA	NA	NA	NA						
COLOR, APPARENT (UNFILTERED)	CU	5	16	20	ND	ND	ND	11	16	ND	7	3	ND	ND	3	6	14	175	60
COPPER, TOTAL	µg/L	8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10	ND	ND	ND	ND	ND
DBCP & EDB	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND	
DIOXIN	pg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND	
DIQUAT (EPA 549)	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND	
DISSOLVED OXYGEN (FIELD)	mg/L (H)	NA	NA	NA				NA	NA	NA	NA	NA	NA						
DISSOLVED OXYGEN (LABORATORY)	mg/L (H)	NA	NA	NA				NA	NA	NA	NA	NA	NA						
ENDOTHALL	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND	
FLUORIDE, DISSOLVED	mg/L	0.1	ND	0.2	ND	ND	0.1	0.3	ND	0.4	ND	0.1	ND	0.3	0.3	ND	ND	ND	0.4
GLYPHOSATE	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND	
HARDNESS (AS $CaCO_3$)	mg/L	1222	565	393	9,080	2,044	547	265	2057	6080	6598	578	556	133	138	6,718	7,296	1,218	1,206
HYDROXIDE	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IODIDE	µg/L	ND	35	35	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	500	330
IRON	µg/L	ND	184	315	ND	ND	33	85	274	ND	ND	104	ND	10	ND	670	1,540	6,964	6,878
IRON, DISSOLVED	µg/L	ND	182	315	ND	ND	26	15	ND	ND	ND	99	ND	ND	ND	667	1,520	6,300	1,400
KJEHLDAHL NITROGEN, DISSOLVED	mg/L	ND	0.7	1	ND	ND	0.09	ND	ND	ND	ND	ND	ND	ND	0.11	0.2	0.19	6.12	2.9
LITHIUM	µg/L	25	17	6	271	29	5	49	157	132	132	ND	6	38	39	289	296	23	20
MAGNESIUM	mg/L	90	53	39	1,040	199	60	25	249	801	717	50	49	13	13	1,100	1,130	169	151
MAGNESIUM, DISSOLVED	mg/L	88	49	37	1,010	192	58	25	250	828	682	51	47	13	13	1,080	1,140	161	152
MANGANESE, DISSOLVED	µg/L	714	821	2090	230	372	476	288	759	353	642	ND	76	247	185	1,120	1,410	4,920	4,880
MANGANESE, TOTAL	µg/L	750	810	1880	232	372	500	310	847	354	668	ND	86	254	188	1,150	1,380	5,340	4,940
MBAS (SURFACTANTS)	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NITRATE AS NO_3	mg/L	2	ND	ND	6	15	198	2	6	5	6	123	115	2	2	5	6	ND	ND
NITRATE+NITRITE AS N	mg/L	0.7	0.5	0.5	1.4	3.4	44.8	0.7	1.3	1.5	1.4	28.2	26.8	0.9	0.8	1.2	1.3	2.5	1.2
NITRITE AS NO_2-N, DISSOLVED	mg/L	0.2	0.1	0.5	ND	ND	0.1	0.3	ND	0.4	ND	0.4	0.8	0.3	0.3	ND	ND	2.5	1.2
ODOR THRESHOLD AT 60C	TON	1	1	2	1	2	2	1	2	1	1	2	1	1	2	1	2	2	5
OIL & GREASE (HEM)	mg/L	NA	NA	NA				NA	NA	NA	NA	NA	NA						
o-PHOSPHATE-P	mg/L	0.05	0.32	1.55	0.05	0.016	0.035	0.06	0.04	0.06	0.04	0.1	0.13	0.06	0.13	0.06	0.04	1.34	0.28
pH (FIELD TEST)	pH	7.24	7.43	7.07	6.77	7.17	7.05	7.33	8.17	6.67	6.92	7.13	6.99	7.44	8.08	6.84	7.08	7.06	7.04
pH (LABORATORY)	pH (H)	7.4		7.1	6.9	7.2	7.3	7.6	8.2	7.2	7.2	7.4	7.2	7.5	7.8	6.9	6.9	7.1	7.1
PHENOXY ACID HERBICIDES (515.3)	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND	
PHOSPHORUS, DISSOLVED TOTAL	mg/L	0.06	0.31	1.38	0.02	0.017	0.04	0.06	ND	0.07	ND	0.11	0.07	0.12	0.029	0.06	ND	1.4	0.16
POTASSIUM	mg/L	7.1	6.4	7.6	57	10	5.9	5.1	41	108	55	4.1	5	3.5	6.1	197	168	14	13
POTASSIUM, DISSOLVED	mg/L	8	7	7.2	55	10	5.5	4.6	42	111	50	4.3	4.8	3.5	6	196	167	12.8	13
QC RATIO TDS/SEC		0.67	0.63	0.61	0.69	0.68	0.68	0.56	0.58	0.83	0.7	0.62	0.63	0.59	0.61	0.66	0.69	0.6	0.58
REG. ORG. COMPOUNDS (EPA 525)	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND	
SETTLEABLE SOLIDS	mL/L	NA	NA	NA				NA	NA	NA	NA	NA							
SILICA AS SiO_2, DISSOLVED	mg/L	44	44	34	35	30	37	45	33	30	33	37	40	45	44	35	30	43	40
SODIUM	mg/L	77	140	79	6,834	338	124	148	2192	6105	5310	262	245	68	75	8,407	8,224	732	691
SODIUM, DISSOLVED	mg/L	78	141	79	6,540	342	119	135	2290	6270	4950	265	239	68	74	8,430	8,240	698	692
SPECIFIC CONDUCTANCE (E.C)	µmhos/cm	2758	1545	989	38,800	5,650	1,768	1045	12190	35070	29320	2036	1935	624	617	44,090	44,660	5,330	5,190
SPECIFIC CONDUCTANCE (E.C) (FIELD)	µmhos/cm	2859	1531	869	39,065	5,507	1,762	1113	15312	35040	29888	2004	1932	574	658	44,462	45,724	5,384	5,255
STRONTIUM, DISSOLVED	µg/L	1826	761	561	12,676	3,689	1,327	470	3536	8504	8507	868	855	273	280	8,148	8,301	3,064	1,861
SULFATE	mg/L	NA	NA	NA				NA	NA	NA	NA	NA	NA						
SULFATE, DISSOLVED	mg/L	85	175	87	1,882	176	61	52	541	1743	1430	258	239	25	23	2,298	2,207	210	220
TEMPERATURE	°C	NA	NA	NA				NA	NA	NA	NA	NA	NA						
TEMPERATURE, (FIELD)	°C	10.6	16.8	NA	19.7	18.4	18.2	21.2	19.2	17.17	17.2	16.83	17	21.2	20.2	17.2	17.3	17.3	17.1
TOTAL DISS. SOLIDS	mg/L	1840	966	608	26,700	3,832	1,200	583	7100	24000	20500	1260	1214	366	377	29,000	30,800	3,204	2,997
TOTAL SUSP. SOLIDS	mg/L	NA	NA	NA				NA	NA	NA	NA	NA	NA						
TURBIDITY	NTU	0.2	0.7	2.6	0.2	0.2	0.3	0.55	1.9	0.1	0.2	0.1	0.15	0.1	0.5	1.3	3	55	50
TURBIDITY (FIELD)	NTU	0.59	0.7	0.62	0.85	0.88	0.7	2.48	1	0.56	1	0.92	1	0.86	0.7	0.29	0.3	0.82	0.2
VOLATILE ORG. COMPOUNDS (524)	µg/L	ND	ND	ND	ND	A	ND	ND	ND	ND	ND	A	A	ND		ND		A	
ZINC, TOTAL	µg/L	24	ND	ND	ND	ND	ND	ND	ND	340	ND	535	ND	22	ND	ND	ND	ND	ND