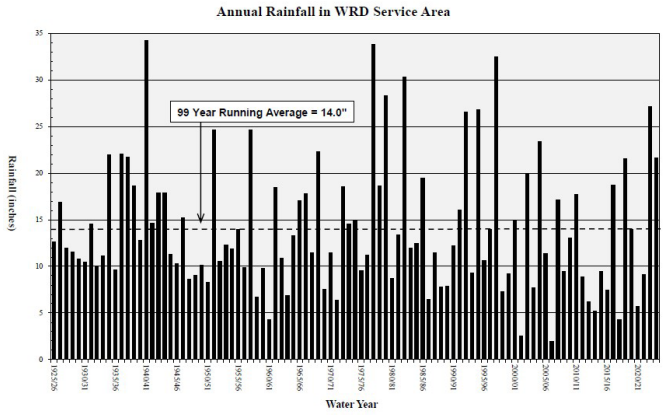
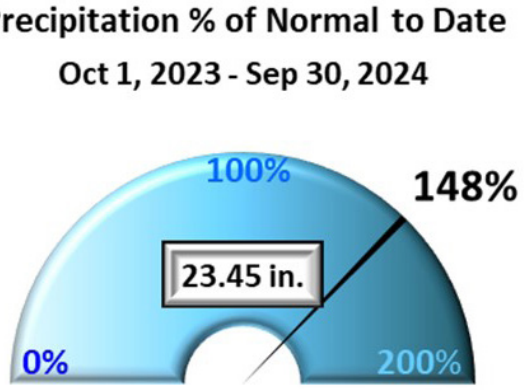
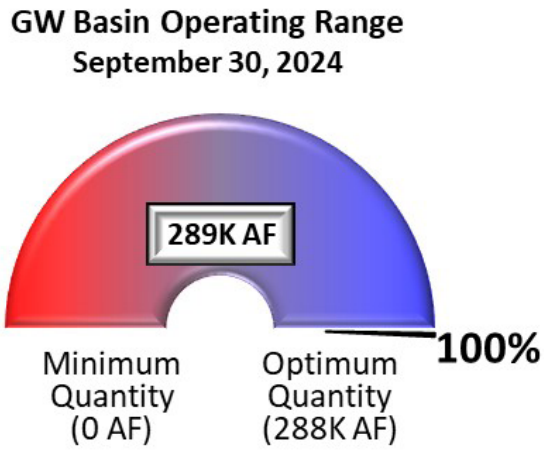
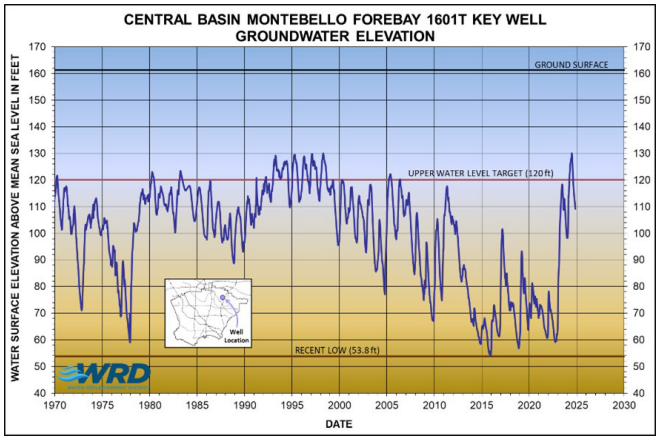
Water Replenishment District









REGIONAL GROUNDWATER MONITORING REPORT WATER YEAR 2023-2024

Central and West Coast Basins
Los Angeles County, California

March 2025

WRD
WATER REPLENISHMENT DISTRICT

Water Replenishment District

REGIONAL GROUNDWATER MONITORING REPORT
CENTRAL BASIN AND WEST COAST BASIN
LOS ANGELES COUNTY, CALIFORNIA
WATER YEAR – 2023 - 2024

MARCH 2025

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Report cover – Clockwise starting at the top left:

(Top left) Historical Annual Rainfall in WRD's Service Area chart showing Water Year (WY) 2023 – 2024 rainfall amounts (21.61 inches) above the 99-year running average (14 inches). (Top right) WRD's Precipitation percentage of Normal to Date gauge for WY 2023 – 2024, highlighting precipitation amounts (23.45 inches) at 148% of normal for the WY. (Bottom right) WRD's hydrograph for key well 1601T, indicative of groundwater level conditions in the Montebello Forebay, where substantial amounts of recharge water to the WRD service area exist. (Bottom left) WRD's Groundwater Basin Operating Range gauge updated at the end of WY 2023 – 2024, highlighting basin operations at 100% (289,000 acre-feet (AF)) of the optimum quantity (288,000 AF).

Executive Summary

The Water Replenishment District (WRD or the District) was formed in 1959 to manage the groundwater replenishment and groundwater quality activities for four million people in 43 cities that overlie the Central Basin and West Coast Basin (CBWCB) in southern Los Angeles County. WRD's service area encompasses most of the Central Basin and nearly all of the West Coast Basin. These two basins currently supply over 40 percent of the water used by the population in the region. The District's mission is to provide, protect, and preserve safe and sustainable groundwater.

This year marks the 65th year that WRD has been monitoring the CBWCB, and this year's annual report presents the most comprehensive information to date utilizing WRD's network of aquifer-specific monitoring wells and in-depth water quality analysis. To that end, WRD has a dedicated Board of Directors (Board) and staff that engage in year-round activities to closely monitor groundwater conditions. The Regional Groundwater Monitoring Program (RGWMP) currently consists of a network of 373 monitoring wells at 67 locations throughout the District. WRD performs extensive collection, analysis, and reporting of groundwater data to ensure proper resource management. The publication of this Regional Groundwater Monitoring Report (RGWMR) is one result of those efforts. It presents information on groundwater levels and groundwater quality over the past Water Year (WY), which runs from October 1 through September 30. This current report covers WY 2023-2024. Detailed information is presented in the body of the report with a summary below:

Groundwater Levels

Across the WRD service area, water levels have increased over the WY. On average water levels rose three feet across the District in WY 2023-2024. In both the Central and West Coast Basins, local changes in water levels have been variable in WY 2023-2024. Groundwater levels increased everywhere in the Central Basin and slightly increased in the West Coast Basin. Overall, there was an increase in groundwater storage of 35,100 acre-feet (AF); 22,400 AF of that increase in storage occurred in the unconfined Montebello Forebay. There was an increase in storage in the Los Angeles Forebay

of 10,800 AF; the Whittier Area experienced an increase of 900 AF; and there was an increase of 1,000 AF of storage in the Central Basin Pressure Area (CBPA). Although groundwater levels slightly increased in the West Coast Basin, no appreciable change in groundwater storage was calculated.

Groundwater Quality

Annually, WRD collects over 600 groundwater samples from its monitoring well network and analyzes them for more than 100 water quality constituents to produce over 60,000 individual data points to help track the water quality in the CBWCB. By analyzing and reviewing water quality results on a regular basis, new and emerging water quality concerns can be identified and managed effectively.

Analysis for this report uses water quality maps and trend graphs to focus on 11 key water quality constituents to represent overall groundwater quality in the basins, including total dissolved solids (TDS), iron, manganese, chloride, nitrate, trichloroethylene (TCE), tetrachloroethylene (PCE), arsenic, perchlorate, hexavalent chromium, and 1,4-dioxane. Overall, groundwater quality in the District remains very good, with only some areas facing poor water quality from natural or anthropogenic sources that WRD staff continue to monitor closely to evaluate increasing or decreasing trends.

This report also complies with the State's *Recycled Water Policy* to present information for the adopted *Salt and Nutrient Management Plan* (SNMP) for the CBWCB. Through the RGWMP, 13 key WRD nested monitoring wells track salt and nutrient water quality trends throughout the District and in the most critical areas of the basins, including areas near groundwater recharge projects that utilize recycled water (i.e., the seawater intrusion barriers and the Montebello Forebay Spreading Grounds). Overall, the data show that salt and nutrient concentrations in groundwater are generally stable, and although a few individual well zones do show increasing trends, a comparable number show decreasing trends.

Future Activities

WRD continues to refine the regional understanding of groundwater occurrence, movement, and quality. Water levels will continue to be recorded using automatic dataloggers to monitor groundwater elevation changes throughout the year, and in select wells telemetry systems have been installed to transmit water level data remotely to the District. Conductivity sensors are also being utilized at select nested monitoring wells to track changes in conductivity and supplement the automated water level data collected by WRD.

WRD also remains committed to its statutory charge to protect and preserve groundwater resources in its service area and will continue to sample groundwater for general water quality constituents including constituents of emerging concern (CECs). WRD staff will also continue to track various regulatory changes at the national and state levels.

WRD will continue to use the data generated by the RGWMP along with WRD's Geographic Information System (GIS) capabilities to address current and potential upcoming issues related to water quality and groundwater replenishment in its service area.

WRD staff will be working on refining the hydrogeologic conceptual model of the CBWCB to improve the framework for understanding the groundwater system and for use as a planning tool. WRD will use data from the RGWMP along with an update to the groundwater model that was developed and published by the United States Geological Survey (USGS) in 2021 as tools in its refinement of the conceptual model.

Consistent with WRD's mission to provide, protect, and preserve safe and sustainable groundwater and as required by the State's *Recycled Water Policy*, a SNMP is in place and will continue to be implemented. Existing and planned implementation measures are and will continue to be protective of groundwater quality and its beneficial uses.

Through the RGWMP, WRD will continue to collect CBWCB groundwater level data, track seasonal and long-term trends, and provide the data to the California Statewide

Groundwater Elevation Monitoring (CASGEM) program and the National Groundwater Monitoring Network (NGWMN) administered by the USGS.

Further information is available on the WRD web site at *http://www.wrd.org*, or by calling WRD at (562) 275-4300. WRD welcomes any comments or suggestions to this RGWMR.

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GLOSSARY OF ACRONYMS

AF	acre-feet
ARC	Albert Robles Center for Water Recycling and Environmental Learning
AWTF	Advanced Water Treatment Facility
BGS	below ground surface
Board	Board of Directors
CASGEM	California Statewide Groundwater Elevation Monitoring
CECs	chemicals of emerging concern
CBWCB	Central Basin and West Coast Basin
CBPA	Central Basin Pressure Area
DDW	State Water Resources Control Board, Division of Drinking Water
DME	Designated Monitoring Entity
DWR	California Department of Water Resources
ELWRF	Edward C. Little Water Recycling Facility
ESR	Engineering Survey and Report
GIS	Geographic Information System
GPS	Global Positioning System
GRIP	Groundwater Reliability Improvement Program
LACSD	Los Angeles County Sanitation Districts
LACPW	Los Angeles County Public Works
LAX	Los Angeles International Airport
LVL AWTF	Leo J. Vander Lans Advanced Water Treatment Facility
MCL	Primary Maximum Contaminant Level
mg/L	milligram per liter
µg/L	microgram per liter
MSL	mean sea level
MWD	Metropolitan Water District of Southern California
NAVD88	North American Vertical Datum of 1988
NDMA	N-nitrosodimethylamine
ng/L	nanogram per liter
NGWMN	National Groundwater Monitoring Network
NL	Notification Level

GLOSSARY OF ACRONYMS (continued)

OEHHA	Office of Environmental Health Hazard Assessment
PCE	tetrachloroethylene
PDF	Portable Document Format
PFAS	perfluoroalkyl and polyfluoroalkyl substances
PFOA	perfluorooctanoic acid
PFOS	perfluorooctane sulfonic acid
PHG	Public Health Goal
RGWMP	Regional Groundwater Monitoring Program
RGWMR	Regional Groundwater Monitoring Report
RL	Response Level
SMCL	Secondary Maximum Contaminant Level
SNMP	Salt and Nutrient Management Plan
SWRCB	State Water Resources Control Board
TCE	trichloroethylene
TDS	total dissolved solids
TIWRP	Terminal Island Water Reclamation Plant
UCMR	Unregulated Contaminant Monitoring Rule
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
WBMWD	West Basin Municipal Water District
WQO	Water Quality Objective
WRD	Water Replenishment District
WRP	Water Reclamation Plant
WY	Water Year

SECTION 1
INTRODUCTION

The Water Replenishment District (WRD or the District) manages groundwater replenishment and water quality activities for the Central Basin and West Coast Basin (CBWCB) in southern Los Angeles County (**Figure 1.1**). WRD's service area encompasses most of the Central Basin and nearly all of the West Coast Basin. Our mission is to provide, protect, and preserve safe and sustainable groundwater.

As part of accomplishing its mission, WRD maintains a thorough and current understanding of groundwater conditions in its service area and strives to predict and prepare for future conditions. This is achieved through groundwater monitoring, modeling, and planning, which provide the necessary information to determine the "health" of the basins. This information in turn provides WRD, the groundwater pumpers in WRD's service area, other interested stakeholders, and the public with the knowledge necessary for responsible water resources planning and management. Each year WRD compiles the most recently collected information into a Regional Groundwater Monitoring Report (RGWMR) that presents the most current understanding of conditions in the basins; the RGWMR is just one of the efforts by WRD to fulfill its mission.

1.1 BACKGROUND OF THE REGIONAL GROUNDWATER MONITORING PROGRAM

Since its formation in 1959, WRD has been actively involved in groundwater replenishment, water quality monitoring, contamination prevention, data management, and data publication. Historical over-pumping of the CBWCB caused overdraft, seawater intrusion, and other groundwater management problems related to supply and quality. Adjudication of the basins in the early 1960s set a limit on allowable groundwater extractions to control the over-pumping. Concurrent with adjudication, WRD was formed to address issues of groundwater recharge and groundwater quality. Following its inception, WRD implemented the Regional Groundwater Monitoring Program

(RGWMP) as a program designed to track groundwater levels and groundwater quality in the WRD service area in the effort to ensure the sustainability of groundwater as a reliable resource.

Prior to 1995, WRD relied heavily upon groundwater data collected, interpreted, and presented by other entities such as the Los Angeles County Public Works (LACPW), the California Department of Water Resources (DWR), and the private sector for understanding basin conditions. However, these data were collected primarily from production wells, which are typically screened across multiple aquifers to maximize water inflow. The result is a mixing of waters from different aquifers into a single well casing, causing an averaging of water levels and water quality.

To obtain more accurate data for specific aquifers from which to infer localized water level and water quality conditions, depth-specific (nested) monitoring wells that tap discrete aquifer zones are necessary. **Figure 1.2** illustrates the capabilities of nested monitoring wells to assess individual aquifers compared to typical production wells.

Data for the RGWMRs are provided for a Water Year (WY), which occurs from October 1 to September 30. During WY 1994-95, WRD and the United States Geological Survey (USGS) began a cooperative study to improve the understanding of the geohydrology and geochemistry of the CBWCB. The initial study was documented in USGS Water Resources Investigations Report 03-4065, *Geohydrology, Geochemistry and Ground-Water Simulation-Optimization of the Central Basin and West Coast Basin, Los Angeles County, California* (Reichard et al., 2003). The study provides the nucleus of WRD's ongoing RGWMP. In addition to compiling existing available data, that study recognized that the sampling of production wells did not adequately characterize the layered multiple aquifer systems of the CBWCB. The study focused on new data collection through drilling and construction of nested groundwater monitoring wells and conducting depth-specific groundwater monitoring.

Figure 1.3 is a District map showing the locations of wells in WRD's nested monitoring well network that are used in the RGWMP. Currently, there are 373 wells at 67 locations; a few of these wells are used exclusively to monitor groundwater elevations, but most are used to monitor both groundwater elevations and water quality within the WRD service area. A listing and well construction details for the WRD nested monitoring wells used in the RGWMP are presented in **Table 1.1.** Listings and well construction details for other wells used to prepare the groundwater elevation contour and groundwater elevation change maps that are included in this report are presented in **Table 1.2**.

An *Annual Report on the Results of Water Quality Monitoring* (*Annual Report*) was published by WRD each year for WYs 1972-73 through 1994-95 and was based on a basin wide monitoring program outlined in the *Report on Program of Water Quality Monitoring* (Bookman-Edmonston Engineering, Inc., January 1973). The latter report recommended a substantial expansion of the then-existing program, particularly the development of a detailed and intensive program for the monitoring of groundwater quality in the Montebello Forebay. The RGWMP was designed to serve as an expanded, more representative basin wide monitoring program for the CBWCB. WRD's RGWMR is published annually in lieu of the previous *Annual Reports*.

On November 4, 2009, the State Legislature amended the Water Code with SBx7- 6, mandating a statewide groundwater elevation monitoring program to track seasonal and long-term trends in California's groundwater basins. In accordance with this amendment, DWR developed the California Statewide Groundwater Elevation Monitoring (CASGEM) program. In October 2011, WRD was assigned as the Designated Monitoring Entity (DME) responsible for collecting and reporting CBWCB groundwater level data to CASGEM. Through the RGWMP, WRD collects groundwater level data from within its service area, tracks seasonal and long-term trends, and provides that data to the aforementioned CASGEM program and, as of 2018, the National Groundwater Monitoring Network (NGMWN) administered by the USGS.

Beginning in WY 2018-19 and culminating in WY 2019-2020, WRD completed a District-wide assessment for the presence of per- and polyfluoroalkyl substance (PFAS) constituents, including perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA), in WRD nested monitoring wells and CBWCB production wells. Data collected from the two-year PFAS assessment were included in the WY 2019-2020 RGWMR published in March 2021, as were water quality maps illustrating the occurrence of PFOS and PFOA across the District.

1.2 CONCEPTUAL HYDROGEOLOGIC MODEL

As described above, the RGWMP has changed the focus of groundwater monitoring efforts in the WRD service area from production wells with averaged groundwater level and groundwater quality information, to a layered multiple aquifer system with individual zones of groundwater quality and groundwater levels. WRD views each aquifer as a significant component of the groundwater system and recognizes the importance of the interrelationships between aquifers. The most accepted hydrogeologic description of the basins and the names of water-bearing zones are provided in a DWR document entitled *Bulletin No. 104: Planned Utilization of the Ground Water Basins of the Coastal Plain of Los Angeles County, Appendix A–Ground Water Geology* (DWR, 1961). WRD generally follows the naming conventions defined in Bulletin 104; however, in some cases WRD's experienced hydrogeologists interpret aquifer classifications that differ from those predicted by that report. During WY 2017-18, WRD updated its interpretation of the aquifer classifications assigned to each well so that they more closely match those of Bulletin 104. This resulted in changes to designations at some wells from those that were previously used and published by WRD. **Tables 1.1, 1.2,** and **2.1** list the specific aquifer or formation assigned to each well used in the RGWMP and indicate whether that designation follows Bulletin 104 or is the result of WRD's most current interpretation.

The locations of idealized geologic cross-sections A-A' and B-B' through the WRD service area are shown on **Figure 1.3**. These cross-sections are presented in **Figures 1.4** and **1.5**, respectively. These cross-sections are modified versions of cross-sections

presented in Bulletin 104 and illustrate a simplified aquifer system in the CBWCB. The main potable production aquifers described in Bulletin 104 are shown, including the deeper Lynwood, Silverado, and Sunnyside aquifers of the lower Pleistocene San Pedro Formation. Other shallower aquifers, which locally produce potable water, include the Gage and Gardena aquifers of the upper Pleistocene Lakewood Formation. Also shown on the geologic sections are the aquitards separating aquifers. Throughout this report the aquifers shown on the geologic sections are referred to as discrete groundwater zones. Many references are made to the Silverado Aquifer, typically thought of as the main producing aquifer in the CBWCB; however, substantial pumping can come from the Lynwood and Sunnyside aquifers as well.

1.3 GIS DEVELOPMENT AND IMPLEMENTATION

WRD uses a Geographic Information System (GIS) as a tool for groundwater management in its service area. Much of the GIS data was compiled during the WRD/USGS cooperative study described above in Section 1.1. The GIS links spatially related information (e.g., well locations, geologic features, cultural features, and contaminated sites) to data on well production, water quality, water levels, and replenishment amounts. WRD uses industry standard Esri ArcGIS® software for data analysis and preparation of spatially related information (maps and graphics tied to data).

WRD utilizes Global Positioning System (GPS) technology to determine and document the locations of basin wide production wells, nested monitoring wells, and other geographic features for use in the GIS database. During WY 2015-16, WRD updated and modernized its database so that a consistent reference surface datum is used when describing the mean sea level (MSL) elevation at each monitoring well. This update required a re-survey of the measurement reference point at each of WRD's wells relative to the North American Vertical Datum of 1988 (NAVD88) reference plane. This update resulted in adjustment for some of the "reference point elevations" that were previously used and published by WRD. Current NAVD88 reference point elevations are listed in **Table 2.1**.

WRD is constantly updating the GIS with new data and newly acquired archives of data acquired by staff or provided by pumpers and other agencies. The GIS is a primary tool for WRD and other water-related agencies to accurately track current and past groundwater use, track groundwater quality, and project future water demands, thus allowing improved management of the basins.

In 2003, WRD completed the development of its internet-based *GIS and Interactive Well Search Tool*, which was made available to the public for access to CBWCB groundwater information. In 2018, a major upgrade to this site was completed to enhance its capabilities, and further enhancements to the site continue to be made over time. WRD's internet-based GIS can be accessed through our GIS website at *http://gis.wrd.org*. The website provides the public with access to much of the water level and water quality data contained in this report. The well information on the website can be accessed through interactive maps or text searches, and the results can be displayed in both tabular and graphical formats.

1.4 SCOPE OF REPORT

This report updates information on groundwater conditions in the WRD service area for WY 2023-2024 and discusses the status of the RGWMP. **Section 1** provides an overview of the WRD and its RGWMP. **Section 2** discusses District-wide groundwater levels for WY 2023-2024. **Section 3** presents water quality data for the WRD nested monitoring wells, basinwide production wells, and replenishment water. **Section 4** summarizes salt and nutrient management in the CBWCB and presents water quality trends for total dissolved solids (TDS) and chloride. **Section 5** summarizes findings from the evaluation of data in this report. **Section 6** presents future regional groundwater monitoring and related activities. **Section 7** lists the references used in this report. Tables and figures are presented in separate sections at the end of the report. This current WY 2023-2024 RGWMR, along with previously published reports for past WYs, can be viewed online and downloaded in Portable Document Format (PDF) form from the WRD website at *http://www.wrd.org* .

SECTION 2
GROUNDWATER LEVELS

Groundwater levels are a direct indication of the amount of groundwater in the basins. Groundwater levels can indicate areas of recharge and discharge from the basins. Differences in groundwater levels suggest which way groundwater is moving so that recharge water or contaminants can be tracked. WRD uses groundwater levels to determine when additional replenishment water is required and to calculate groundwater storage changes. Groundwater levels can also be used to identify possible source areas and pathways for seawater intrusion, and to demonstrate the effectiveness of seawater barrier injection wells. Groundwater levels are dependent on both regional recharge and on the amount of water extracted by pumping.

WRD tracks groundwater levels throughout the year by measuring the depth to water in monitoring wells and production wells located throughout its service area. Groundwater elevations are calculated by comparing depth to water measurements to the MSL elevation at the reference measurement point of each well. **Table 2.1** presents manual groundwater level measurements collected from the District's nested monitoring wells during WY 2023-2024. To capture the daily and seasonal variations in water levels, WRD has installed automatic data-logging equipment in most of the nested monitoring wells to collect water levels more frequently than practical for manual measurements. Recent improvements in cellular telemetry equipment have allowed WRD to equip 51 datalogger-equipped individual wells at 25 nested well sites with telemetry systems that allow near real-time water level data to be remotely transmitted to the District. WRD also obtains water level data from cooperating entities such as pumpers, DWR, and LACPW who measure and collect water levels from their own wells. These data are entered into WRD's GIS water level database for archiving and analysis.

From the water level database, a groundwater elevation contour map, change in groundwater elevation map, and groundwater elevation hydrographs for selected wells

were prepared to aid in analysis and illustrate the current and historical groundwater conditions in the basins. These are presented and explained in the following sections.

2.1 GROUNDWATER ELEVATION CONTOURS

A contour map showing the groundwater elevations measured across the WRD service area in the deeper, main producing aquifers during the fall of 2024 is presented in **Figure 2.1**. Specific well zones used to develop the groundwater contour map are identified on Table 2.1. Figure 2.1 shows that in the Central Basin water levels range from highs of just over 190 feet above MSL to lows of nearly 65 feet below MSL. The highest water levels are in the Montebello Forebay; water levels decrease to the south and west towards the Long Beach area, the Newport-Inglewood Uplift, and the Los Angeles Forebay.

In the West Coast Basin, water levels range from highs of nearly 11 feet above MSL to lows of more than 100 feet below MSL. The highest water levels occur near the West Coast Basin Seawater Intrusion Barrier, and they decrease to the east where they are generally at their lowest elevations in the City of Gardena near the Charnock Fault and in the City of Carson slightly seaward of the Newport-Inglewood Uplift. The Charnock Fault and Newport-Inglewood Uplift are geologic structural features that partially restrict groundwater flow.

2.2 CHANGES IN GROUNDWATER LEVELS

Figure 2.2 is a groundwater level change map that illustrates the difference between groundwater levels measured in fall 2023 and those measured in fall 2024. Specific well zones used to develop the groundwater level change map are identified on Table 2.1. During WY 2023-2024, changes in groundwater levels have mostly increased within the Central Basin and within the West Coast Basin they have increased near the West Coast Basin Seawater Intrusion Barrier, decreased east of the Charnock Fault, and remained unchanged elsewhere.

Groundwater levels measured in fall 2024 increased throughout most of the Central Basin compared to those measured in fall 2023. The greatest increase in water levels occurred within the unconfined Montebello Forebay where they are more than 10 feet higher than they were in fall 2023 within and in close vicinity to the spreading grounds. The increase in water levels is more pronounced moving away from the spreading grounds; along the eastern reach of the Forebay they range from just over five feet higher in the northeast to seven feet higher in the southeast, and along the western reach they are about nine feet higher than they were in fall 2023. Along the southernmost reach of the Montebello Forebay, water levels are just over 10 feet higher than they were in fall 2023. Across the unconfined Los Angeles Forebay, water levels are higher than those measured in fall 2023; in the western portion water levels are over four feet higher than were measured in the previous year, while those in the eastern and southern-central portions are between six to seven feet higher than were measured in fall 2023. In the Whittier Area, water levels increase from west to east; in the west they are as much as five feet higher, and in the east they are over six feet higher compared to water levels measured in fall 2023.

In the Central Basin Pressure Area (CBPA) downgradient from both Forebays and the Whittier Area, water levels steadily decrease towards the south; they are at their highest in the central portion of the CBPA where they are as much as eight feet higher than they were in fall 2023. In the northwestern portion of the CBPA immediately west of the Los Angeles Forebay, water levels are as much as five feet higher than were measured in the previous year, and moving south from there along the Newport-Inglewood Uplift they steadily decrease. In the Long Beach area east of the Newport-Inglewood Uplift, water levels are either relatively unchanged or are over five feet lower than they were in fall 2023. In the area between the Los Angeles and Montebello Forebays, water levels are about 10 feet higher than those measured in fall 2023.

In the West Coast Basin, changes in water levels were somewhat variable in WY 2023-2024. In the northeast portion of the basin between the Newport-Inglewood Uplift and the Charnock Fault water levels are slightly higher in the north but have decreased in the south

and southeast over 10 feet below those measured in fall 2023. In the southern portion of the basin near the Newport-Inglewood Uplift and southern coastal area water levels are relatively unchanged from those measured in fall 2023. In the central portion of the West Coast Basin Barrier Project near the cities of Hermosa Beach and Redondo Beach, water levels have increased slightly and are over one foot higher than they were in fall 2023. In the Hawthorne-Lawndale area, water levels are about one foot higher than they were in fall 2023, and in much of the Torrance and Los Angeles International Airport (LAX) areas, water levels are about one to two feet higher than those measured in fall 2023.

District-wide, groundwater levels increased an average of three feet in WY 2023-2024. Water levels increased throughout the Central Basin; in the Montebello Forebay region water levels increased an average of more than five feet, in the Los Angeles Forebay region they increased an average of more than six feet, and in the Whittier Area, they increased by an average of almost six feet. In the CBPA water levels increased by an average of more than four feet. In the West Coast Basin, water levels slightly increased by an average of nearly half of one foot.

There was an overall gain of 35,100 acre-feet (AF) in groundwater storage across the District in WY 2023-2024, nearly all of which occurred in the Central Basin. In the unconfined Montebello Forebay, there was a gain in groundwater storage of 22,400 AF, in the Los Angeles Forebay a gain of 10,800 AF, in the Whittier Area a gain of 900 AF, and in the CBPA a gain of 1,000 AF. In the West Coast Basin there was no appreciable change in groundwater storage in WY 2023-2024.

2.3 GROUNDWATER LEVEL HYDROGRAPHS

WRD relies on hydrographs to track the changes in water levels in wells over time. Hydrographs reveal the seasonal fluctuations of water levels caused by variations in natural and artificial recharge, and the effects of pumping and other basin discharge. Historical hydrographs of water level data going back to the 1930s and 1940s in the Montebello Forebay, Los Angeles Forebay, CBPA, and West Coast Basin are presented in the annual

WRD *Engineering Survey and Report* (ESR). In general, the hydrographs show that in the Central Basin, water levels were in steep decline through the 1930s and into the late 1950s because of excessive pumping (overdraft). Initiation of groundwater management policies in the late 1950s and early 1960s including formation of the WRD, adjudication of the basins, and installation of seawater barrier wells are evident on the hydrographs in the form of a distinct reversal in water level decline followed by a steady increase through the 1960s. Despite repeated fluctuation between periods of decreasing and increasing trends, water levels in the Central Basin have generally been relatively stable since the 1960s, although over the past several years they have been in decline. In the West Coast Basin, the hydrographs show a similar steep decline in water levels in the 1930s through the 1950s because of overdraft, followed by stabilization and steady increase through the 1960s that continues to the present day. ESR hydrographs are not presented in this RGWMR; however, they can be viewed in the ESRs online and downloaded from the WRD website at *http://www.wrd.org* .

Hydrographs for WRD nested monitoring wells that plot water level measurements from individual aquifer zones against time provide WRD with a graphical method to observe changes in water level and can aid in identifying current and historic trends in aquifer conditions. The data for these annual hydrographs are collected from WRD's network of nested monitoring wells. **Figures 2.3 through 2.15** are hydrographs of 13 key WRD nested monitoring wells, including three in the Montebello Forebay, one in the Los Angeles Forebay, four in the CBPA, one in the Whittier Area, and four in the West Coast Basin. The 13 key nested monitoring well locations are shown on **Figure 1.3**. These hydrographs illustrate that there can be distinct groundwater elevation differences, up to 90 feet, between adjacent aquifers at a single nested well location. The differences in elevation are influenced by variable discharge (i.e., pumping from wells), recharge (i.e., injection, percolation, or underflow) and the degree of hydraulic communication between aquifers. These hydrographs are particularly useful in identifying the zones that are in the main flow system and the zones that show the greatest depth and seasonal fluctuations in groundwater levels during the WY. A discussion of the hydrographs shown on **Figures 2.3 through 2.15** is presented in the following sections.

2.4 GROUNDWATER LEVELS IN THE MONTEBELLO FOREBAY

Figure 2.3 is a hydrograph for WRD's Rio Hondo #1 key nested monitoring well located in the Montebello Forebay at the Rio Hondo Coastal Spreading Grounds. There are six individual wells (zones) that are screened, from shallowest to deepest, in the Gardena, Hollydale, Silverado, and Sunnyside (two zones) Aquifers, and the Pico Formation, with depths ranging from 140 to 1,130 feet below ground surface (BGS). Because this well is located in the Montebello Forebay, where the aquifers are in general hydraulic communication with each other, water level responses in each of the aquifers are similar. Seasonal highs and lows are in response to local recharge and pumping. Groundwater elevations are lowest in Zone 4, the Silverado Aquifer, suggesting that this aquifer is the most heavily pumped in the area. Water levels in Zone 4 increased more than two feet this year compared to the previous WY.

Figure 2.4 is a hydrograph for WRD's Pico #2 key nested monitoring well located in the Montebello Forebay adjacent to the San Gabriel River and just south of the San Gabriel Coastal Spreading Grounds. There are six individual wells (zones) that are screened, from shallowest to deepest, in the Gaspur/Gage, Lynwood, Silverado, and Sunnyside (three deepest zones) Aquifers, with depths ranging from 100 to 1,200 feet BGS. Groundwater elevations are lowest in Zones 1, 2, and 3, all of which are screened in the Sunnyside Aquifer, suggesting that the Sunnyside Aquifer is the most heavily pumped in this area. At the end of WY 2023-2024, water levels in the three Sunnyside Zones were between two and six feet higher than they were at the end of the previous WY.

Figure 2.5 is a hydrograph for WRD's Norwalk #2 key nested monitoring well located in the Montebello Forebay, 3.5 miles south of the San Gabriel Coastal Spreading Grounds. There are six individual wells (zones) that are screened in the following aquifers (from shallowest to deepest): Gardena, Silverado, and Sunnyside (two zones) Aquifers, and the Pico Formation (two deepest zones), with depths ranging from 236 to 1,480 feet BGS. Norwalk #2 is the third key well representing the Montebello Forebay and is at the southern

margin of the Forebay where it transitions into the CBPA. Unlike Rio Hondo #1 and Pico #2, water level responses to seasonal discharge and recharge influences are less pronounced at Norwalk #2, with seasonal swings of around 20 feet compared to the greater than 30-foot seasonal swings observed at Rio Hondo #1 and Pico #2. Groundwater elevations are deepest in Zones 3 and 4, which are both screened in the Sunnyside Aquifer, suggesting that this aquifer is the most heavily pumped in the area. Water levels in Zones 3 and 4 increased about two feet from those measured in the fall of 2023.

2.5 GROUNDWATER LEVELS IN THE LOS ANGELES FOREBAY

Figure 2.6 is a hydrograph for WRD's Huntington Park #1 key nested monitoring well located in the Los Angeles Forebay near the intersection of Slauson Avenue and Alameda Street. There are five individual wells (zones) that are screened in the following aquifers (from shallowest to deepest): Gaspur, Gage, Hollydale, Lynwood, and Silverado, with depths ranging from 114 to 910 feet BGS. Only four of the five zones are shown on the hydrograph because the shallowest well (screened from 114 to 134 feet BGS in the Gaspur Aquifer) is dry. There is a large separation in water levels between Zone 4 and the three deeper zones, suggesting the presence of a low permeability aquitard(s) above Zone 3 that hydraulically isolates the Gage Aquifer from the deeper aquifers. Water levels in the deepest two zones, screened within the Lynwood and Silverado Aquifers, are generally similar and both increased between six and seven feet in WY 2023-2024 compared to the previous WY. Unlike the fluctuations between increasing and decreasing water levels typically observed in the Montebello Forebay, water levels in the Los Angeles Forebay have remained relatively stable over the past 25 years.

2.6 GROUNDWATER LEVELS IN THE CENTRAL BASIN PRESSURE AREA

Figure 2.7 is a hydrograph for WRD's South Gate #1 key nested monitoring well, which is located in the north-central portion of the CBPA, just outside the Montebello and Los Angeles Forebays. There are five individual wells (zones) that are screened, from shallowest to deepest, in the Exposition, Lynwood, Silverado, and Sunnyside (two

deepest zones) Aquifers, with depths ranging from 220 to 1,460 feet BGS. Water levels in Zones 1 through 4 generally behave similarly in response to seasonal discharge and recharge. The upper Zone 5 has much shallower water levels, shows little seasonal response, and is isolated from the aquifers below by an aquitard, resulting in the observed hydraulic separation. Water levels in the deepest three aquifers at South Gate #1 increased between seven and nine feet in WY 2023-2024 compared to the previous WY. Water levels in Zone 5 have increased by nearly ten feet over the past two WYs, likely in response to above average rainfall in the region throughout this period. However, they have steadily decreased by more than 15 feet over the past 25 years.

Figure 2.8 is a hydrograph for WRD's Willowbrook #1 key nested monitoring well, which is located in the CBPA, about seven miles down-gradient of the Montebello Forebay. There are four individual wells (zones) that are screened, from shallowest to deepest, in the Gage, Lynwood, Silverado, and Sunnyside Aquifers, with depths ranging from 200 to 905 feet BGS. Zone 1 is screened in the deepest responding aquifer. Water levels in the upper three zones are typically shallower than those observed in Zone 1. The differences in water levels between Zones 1 and 2, and between Zones 2 and 3, indicate hydraulic separation, and thus suggest the presence of aquitards that separate these zones from one another. Water levels in Zones 3 and 4 track very closely which indicates there is little hydraulic separation between them. Water levels in Zone 1 have increased more than 22 feet over the past two WYs, likely in response to above average rainfall in the region throughout this period. Water levels in the overlying shallower zones have increased more than four feet from those measured in fall 2023. Water levels in Willowbrook #1 have declined since the wells were first installed in 1999, but they have remained relatively stable since the fall of 2008.

Figure 2.9 is a hydrograph for key nested monitoring well Long Beach #6 located in the southern portion of the CBPA. There are six individual wells (zones) that are screened, from shallowest to deepest, in the Gage, Lynwood, Silverado, and Sunnyside (two zones) Aquifers, and the Pico Formation, with depths ranging from 220 to 1,510 feet BGS. Because this portion of the CBPA has multiple confined aquifers separated by substantial

aquitards, and experiences heavy local seasonal pumping cycles, water level fluctuations can be larger here than in other areas. For example, water levels in Zones 4 and 5 are the deepest responders; they are screened in the Silverado and Lynwood Aquifers, they can rise and fall by more than 100 feet through typical seasonal cycles and have been recorded historically at elevations ranging from highs near sea level to lows deeper than 120 feet below sea level. Water levels in the other zones also show significant seasonal variation. **Figure 2.9** shows that water levels in the deeper three zones decreased between one and two feet from those measured in fall 2023. Water levels in Zones 4 and 5 are about two feet higher than those measured in fall 2023. Water levels in the shallowest zone increased by more than three feet.

Figure 2.10 is a hydrograph for key nested monitoring well Seal Beach #1, which is included as a key nested monitoring well for the CBPA due to its proximity inland of the Alamitos Gap Seawater Intrusion Barrier Recycled Water Project. There are seven individual wells (zones) that are screened, from shallowest to deepest, in the Artesia, Gage, Lynwood, Silverado, and Sunnyside (three deepest zones) Aquifers, with depths ranging from 60 to 1,365 feet BGS. Zone 4, screened in the Silverado Aquifer, is the deepest responding unit at Seal Beach #1. Zone 5 responds similarly to Zone 4 but draws down less during heavily pumped periods. Zones 1, 2, and 3 overlay on the hydrograph and these water levels remained relatively unchanged over WY 2023-2024. Water levels in Zone 4 remained relatively unchanged, and in Zone 5 water levels increased more than one foot during WY 2023-2024. Water levels within Zones 6 and 7 have increased between one and three feet over the WY; here they show a smaller seasonal response than the five deeper zones, with groundwater elevations at, slightly above, or slightly below sea level, suggesting partial isolation from the lower aquifer systems.

2.7 GROUNDWATER LEVELS IN THE WHITTIER AREA

The Whittier Area of the Central Basin extends from the Puente Hills south and southwest to the Santa Fe Springs-Coyote Hills Uplift. The western boundary is an arbitrary line separating the Whittier Area from the Montebello Forebay and the eastern boundary is the

Orange County line. **Figure 2.11** is a hydrograph from WRD's Whittier #1 key nested monitoring well located in the eastern part of the Whittier Area. There are five individual wells (zones) that are screened, from shallowest to deepest, in the Jefferson, Silverado, and Sunnyside Aquifers, and the Pico Formation (two deepest zones), with depths ranging from 200 to 1,200 feet BGS. Groundwater levels in the Whittier Area do not show a seasonal fluctuation typical of other areas of the Central Basin and adjacent Montebello Forebay Area, which suggests limited groundwater discharge and recharge. Zones 1 through 4 have similar groundwater elevations and have tracked very closely over time while the Zone 5 groundwater elevation is more than 80 feet higher than elevations in the deeper zones suggesting substantial isolation by an aquitard(s). The Whittier #1 hydrograph indicates that groundwater levels in the Whittier Area have increased between one and seven feet over WY 2023-2024 and have decreased about three feet over the past 24 years.

2.8 GROUNDWATER LEVELS IN THE WEST COAST BASIN

Figure 2.12 is a hydrograph for WRD's PM-4 Mariner key nested monitoring well, which is located in the City of Torrance, in the coastal area inland from the West Coast Basin Seawater Intrusion Barrier. There are four individual wells (zones) that are screened, from shallowest to deepest, in the Gardena, Lynwood, Silverado, and Sunnyside Aquifers, with depths ranging from 200 to 710 feet BGS. All four zones respond similarly to seasonal fluctuations. Historically, water levels in Zone 1 (Sunnyside) have been the deepest and were consistently separated from Zone 2 (Silverado) water levels by one or two feet; however, since April 2020 water levels within the two zones have converged and now mostly fluctuate above and below one another. This decline in Zone 2 water levels is likely due to an increase in pumping from the Silverado aquifer in this area of Torrance. Water levels in Zones 3 and 4 (Lynwood and Gardena) are both historically higher than those in Zones 1and 2 and increased more than one foot during WY 2023-2024.

Figure 2.13 is a hydrograph for WRD's Carson #1 key nested monitoring well, which is located in the inland region of the West Coast Basin. There are four individual wells

(zones) that are screened, from shallowest to deepest, in the Gage, Lynwood, and Silverado (two deepest zones) Aquifers, with depths ranging from 250 to 1,010 feet BGS. Water levels in Zone 1 track very similar to Zone 2 throughout the year and are the deep responding aquifers at this location. Zone 3 tracks similar to Zone 4. Groundwater elevations currently differ by about 40 feet between the upper two and lower two zones, which suggests the presence of a low permeability aquitard(s) between them that hydraulically isolate the shallow aquifers from the deeper ones. Water levels in Zones 1 and 2 remained relatively unchanged over WY 2023-2024, and have steadily decreased over the past six years but have generally increased by over 20 feet over the past 25 years.

Figure 2.14 is a hydrograph for WRD's Manhattan Beach #1 key nested monitoring well for the West Coast Basin located one half mile inland of the West Coast Basin Seawater Intrusion Barrier. There are seven individual wells (zones) at Manhattan Beach #1 that are screened, from shallowest to deepest, in the Gage, Silverado, and Sunnyside (two zones) Aquifers, and the Pico Formation (three deepest zones), with depths ranging from 180 to 1,990 feet BGS. Zone 3 is screened in the Pico Formation and has the deepest groundwater levels, as much as 30 feet lower than Zones 1, 2, 4, and 5 which all generally track together. Water levels in Zones 6 and 7 track together and are about six to eight feet higher than those in Zones 1, 2, 4, and 5. Seasonal fluctuations are not pronounced at the Manhattan Beach #1 location and in general groundwater levels did not change significantly over the previous WY. Water levels in Zone 3 increased nearly one foot over the previous WY and have increased about 12 feet since the wells were installed in WY 2010-11.

Figure 2.15 is a hydrograph for WRD's Wilmington #2 key nested monitoring well, which is located in the West Coast Basin, inland of the Dominguez Gap Seawater Intrusion Barrier. There are five individual wells (zones) that are screened, from shallowest to deepest, in the Gage, Lynwood, Silverado (two zones), and Sunnyside Aquifers with depths ranging from 120 to 970 feet BGS. Water levels in Zones 1 through 4 are generally deeper and behave similarly in response to seasonal influences. The upper Zone 5 has

shallower water levels and shows less seasonal change than the deeper zones suggesting hydraulic separation from them. Wilmington #2 water levels increased by about one foot in WY 2023-2024 compared to the previous WY, but over the past 26 years they have increased by as much as 25 feet.

SECTION 3
GROUNDWATER AND REPLENISHMENT WATER QUALITY

This section discusses the vertical and horizontal distribution of water quality constituents in WRD's service area based on data from WRD's nested monitoring wells, purveyors' production wells, and source waters used for CBWCB groundwater replenishment. Regional groundwater quality maps included herein depict constituents of interest to WRD and District stakeholders in the nested monitoring wells and production wells where water quality data is available.

Comparisons of water quality results to various regulatory standards are made throughout this section. A brief discussion of the regulatory standards used in the report follows. A Primary Maximum Contaminant Level (MCL) is an enforceable drinking water standard that the California Environmental Protection Agency, State Water Resources Control Board, Division of Drinking Water (DDW) establishes after health effects, risk assessment, detection capability, treatability, and economic feasibility are considered. A Secondary Maximum Contaminant Level (SMCL) is established for constituents that impact aesthetics of the water, such as taste, odor, and color, but do not impact health. A Public Health Goal (PHG) is an advisory level that is developed by the Office of Environmental Health Hazard Assessment (OEHHA) after a thorough review of health effects and risk assessment studies. A Notification Level (NL) and Response Level (RL) are non-enforceable health-based advisory levels established by the DDW based on preliminary reviews of health effects studies for which enforceable levels have not been established. NLs and RLs replaced State Action Levels effective January 1, 2005, per California Health and Safety Code Section 116455. It should be noted that constituents with NLs often are considered unregulated contaminants for which additional monitoring may be required to determine the extent of exposure before MCLs and/or PHGs are established.

3.1 QUALITY OF GROUNDWATER

The focus of this section is groundwater quality in samples collected from WRD nested monitoring wells and purveyors' production wells. Section 1 of this report described the value of data from aquifer-specific nested monitoring wells and that these data provide the most valuable insight into CBWCB groundwater quality. Groundwater samples collected from WRD's nested monitoring wells are submitted immediately after collection to a State-certified laboratory for analysis for general water quality constituents, known or suspected natural and man-made contaminants, and other select constituents of interest.

Historically, WRD has performed groundwater sampling of its nested monitoring wells on a semi-annual schedule, and over the past few decades has compiled an enormous database of analytical results. In WY 2017-18, WRD conducted an intensive review of this database specifically to determine if the frequency of sampling could be reduced at some wells without compromising its current high-quality assessment of groundwater conditions in the CBWCB. Using criteria such as the length of time a well has been in service, and the nature of concentration trends within each zone at a nested monitoring well site, WRD was able to identify 11 nested wells where the sampling frequency could be reduced from semi-annual to annual. Commencing in WY 2017-18 and continuing into WY 2023-2024, semi-annual sampling was not conducted during fall sampling events at Bell Gardens #1, Carson #2, Cerritos #1, Commerce #1, Compton #2, Hawthorne #1, Lakewood #1, Long Beach #2, Long Beach #8, Norwalk #1, and Whittier #2. However, annual sampling was conducted at those wells each year during the spring sampling events. This reduction in sampling has produced net cost savings without sacrificing the quality of data provided by WRD. As the quantity of data from each nested monitoring well site continues to increase, WRD will periodically review that data, and where conditions allow, reduce the sampling frequency at additional nested monitoring well sites. WRD will closely monitor the data collected from the reduced frequency wells to assure that conditions that allowed their reductions still exist; if they do not, sampling will be resumed on a semi-annual schedule.

Table 3.1 presents water quality analytical results from 38 WRD nested monitoring wells (220 individual well zones) in the Central Basin during WY 2023-2024. **Table 3.2** presents water quality analytical results from 25 WRD nested monitoring wells (127 individual well zones) in the West Coast Basin during WY 2023-2024. Complementing the data from WRD's nested monitoring well network, data for CBWCB production wells were obtained from the DDW based on results submitted by purveyors for their DDW Title 22 drinking water compliance.

Water quality maps for nested monitoring wells for WY 2023-2024, and production wells for the three-year period spanning October 2021 through September 2024, are presented herein for 11 water quality constituents (**Figures 3.1 – 3.22**). The 11 constituents include TDS, iron, manganese, chloride, nitrate, trichloroethylene (TCE), tetrachloroethylene (PCE), arsenic, perchlorate, hexavalent chromium, and 1,4-dioxane. The maps illustrate areal and vertical differences in water quality and compare the aquifer-specific water quality data from WRD's nested monitoring wells to the averaged water quality data collected from purveyors' production wells.

3.1.1 Total Dissolved Solids (TDS)

TDS is a measure of the total mineralization of water and is indicative of general water quality. In general, the higher the TDS, the less desirable a given water supply is for beneficial uses. The SMCL for TDS ranges from 500 milligrams per liter (mg/L), which is the recommended level, to an upper level of 1,000 mg/L, and to 1,500 mg/L, which is the level allowed for short-term use. WRD uses the 1,000 mg/L upper level SMCL for water quality comparisons and analyses.

WRD nested monitoring well data for WY 2023-2024 indicate relatively low TDS concentrations for groundwater in the producing aquifers of the Central Basin. As shown on **Figure 3.1**, in the Central Basin, TDS was detected in WRD nested monitoring wells at concentrations above the upper level SMCL in 19 out of 220 individual well zones (9%). In the West Coast Basin, TDS was detected in WRD nested monitoring wells at concentrations above the upper level SMCL in 48 out of 127 individual well zones (38%).

Elevated TDS concentrations in the West Coast Basin were observed along the coast from Redondo Beach to LAX, in the Torrance, Inglewood, Gardena, and Dominguez Gap areas.

Figure 3.2 presents DDW water quality data for the maximum TDS detection in production wells across the WRD service area for a three-year period spanning WYs 2021-2024. In the Central Basin, TDS was detected above the upper level SMCL of 1,000 mg/L in one of the 207 (< 1%) production wells sampled for TDS during this period. In the West Coast Basin, TDS was detected at concentrations above the upper level SMCL in six out of 27 production wells (22%). The elevated TDS levels detected in the West Coast Basin may be caused by seawater intrusion, connate brines, or perhaps oil field brines.

3.1.2 Iron

Iron occurs naturally in groundwater. Sources for iron in the water supply are both natural and man-made. Iron is leached from sediments in subsurface aquifers and steel pipes used for construction of water wells and distribution systems. Sufficient concentrations of iron in water can affect its suitability for domestic or industrial purposes. Some industrial processes cannot tolerate more than 0.1 mg/L iron. The SMCL for iron in drinking water is 0.3 mg/L. High concentrations of iron in water can stain plumbing fixtures and clothing, encrust well screens, clog pipes, and may impart a salty taste. While these problems are recognized, iron is considered an essential nutrient, important for human health, and does not pose significant health effects except in special cases.

Nested monitoring well data does not indicate iron to be a widespread water quality problem in groundwater in the WRD service area. As shown on **Figure 3.3,** in the Central Basin, iron was detected in WRD nested monitoring wells at concentrations above the SMCL of 0.3 mg/L in 15 out of 220 individual well zones (7%). In the West Coast Basin, iron was detected in WRD nested monitoring wells at concentrations above the SMCL in 20 out of 127 individual well zones (16%).

Figure 3.4 presents DDW water quality data for the maximum iron detection in production wells across the WRD service area for a three-year period spanning WYs 2021-2024. In

the Central Basin, iron was detected at concentrations above the SMCL of 0.3 mg/L in 22 out of 213 production wells (10%). In the West Coast Basin, iron was detected at concentrations above the SMCL in two out of 30 production wells (7%).

3.1.3 Manganese

Manganese is naturally occurring and in high concentrations may be objectionable in water in the same manner as iron. Stains caused by manganese are black and are more unsightly and harder to remove than those caused by iron. While manganese is considered an essential nutrient for human health at low levels, an SMCL of 50 micrograms per liter (µg/L) is established for manganese due to its undesirable aesthetic qualities; manganese also has an NL of 500 µg/L.

Manganese concentrations in the WRD nested monitoring wells exhibit widespread vertical and horizontal variations across the WRD service area. In the southeast portion of the Central Basin, elevated manganese typically occurs in shallower aquifers above the Silverado producing zones. In the northern portion of the Central Basin, manganese is present in shallow zones, the Silverado zones, and the deeper zones. As shown in **Figure 3.5**, in the Central Basin nested monitoring well sites, manganese concentrations exceed the SMCL of 50 µg/L in 77 out of 220 individual well zones (35%), and in three of those 77 zones (4%) manganese was detected at concentrations above the NL of 500 µg/L. In West Coast Basin nested monitoring well sites, manganese was detected at concentrations above the SMCL in 64 out of 127 individual well zones (50%), and in 13 of those 64 zones (20%) it was detected at concentrations above the NL.

Figure 3.6 presents DDW water quality data for the maximum manganese detection in production wells across the WRD service area for a three-year period spanning WYs 2021-2024. Manganese was detected in Central Basin production wells at concentrations above the SMCL of 50 µg/L in 41 out of 218 production wells (19%), and in one of those 41 wells (2%) manganese was detected at a concentration above the NL of 500 µg/L. Manganese was detected in West Coast Basin production wells at

concentrations above the SMCL in 17 out of 30 production wells (57%) but was not detected at concentrations above the NL in any of those 17 wells.

3.1.4 Chloride

Chloride at elevated levels causes water to taste salty and it is the characteristic constituent used to identify seawater intrusion. The recommended SMCL for chloride is 250 mg/L with an upper SMCL of 500 mg/L, and a short term SMCL of 600 mg/L.

Figure 3.7 presents water quality data for chloride in WRD nested monitoring wells in the WRD service area during WY 2023-2024. In the Central Basin, with only a few exceptions, all 38 nested well sites generally have low chloride concentrations. As shown on Figure 3.7, chloride was detected in WRD nested monitoring wells in the Central Basin at concentrations above the upper SMCL of 500 mg/L in five out of 220 individual well zones (2%). In the West Coast Basin, chloride was detected in WRD nested monitoring wells at concentrations above the upper SMCL of 500 mg/L in 31 out of 127 individual well zones (24%); in 29 of those 31 individual well zones (94%) chloride was at a concentration above the short term SMCL of 600 mg/L.

Figure 3.8 presents DDW water quality data for the maximum chloride detection in production wells in the WRD service area for a three-year period spanning WYs 2021-2024. Chloride was not detected above the upper SMCL of 500 mg/L in any of the 208 Central Basin production wells sampled for chloride. In the West Coast Basin, three of the 28 (11%) production wells tested, all of which are located on the west side of the basin near the coast, had chloride concentrations above both the upper SMCL of 500 mg/L and the short term SMCL of 600 mg/L.

3.1.5 Nitrate

MCLs were established by DDW for two forms of nitrogen in drinking water, nitrate, and nitrite. Nitrate (measured as nitrate) has an MCL of 45 mg/L, which corresponds to 10 mg/L of nitrate as nitrogen. Nitrite (measured as nitrogen) has an MCL of 1 mg/L. The combined total of the nitrate and nitrite, measured as nitrogen, has an

MCL of 10 mg/L. These constituents are regulated because they present possible acute health risks and can cause anoxia in infants. When consumed at concentrations in excess of the MCLs, they reduce the uptake of oxygen causing shortness of breath, lethargy, and bluish skin color.

Nitrate concentrations in groundwater are also a concern because their presence indicates that a degree of contamination has occurred due to the degradation of organic matter. Native groundwater typically does not contain nitrate. It can be introduced into groundwater from agricultural practices such as fertilization of crops or lawns and leaching of animal wastes. Low concentrations of nitrogen compounds, including nitrate and nitrite, are present in treated recycled water below regulatory and permitted limits and may be a source of nitrate loading to groundwater. Typically, organic nitrogen and ammonia are the initial byproducts of the decomposition of human or animal wastes. Upon oxidation, the organic nitrogen and ammonia are converted first to nitrite and then to nitrate ions in the subsurface. A portion of the nitrate and nitrite are converted to nitrogen gas and are returned to the atmosphere.

Figure 3.9 presents nitrate (as nitrogen) water quality data for nested monitoring wells in the WRD service area during WY 2023-2024. In the Central Basin, nitrate (as nitrogen) was detected in WRD nested monitoring well locations at concentrations above the MCL of 10 mg/L in two out of 220 individual well zones (<1%). In general, nested monitoring wells in the immediate vicinity of the Montebello and Los Angeles Forebays typically contain nitrate at concentrations below the MCL in the shallower zones. Some wells downgradient from the Montebello Forebay have intermediate zones with nitrate detections below the MCL. Nested monitoring wells further downgradient from the Forebays generally do not have detectable concentrations of nitrate. In the West Coast Basin, nitrate was detected in WRD nested monitoring well locations at concentrations above the MCL in two out of 127 individual well zones (2%).

Figure 3.10 presents DDW water quality data for the maximum nitrate detection in production wells across the WRD service area for a three-year period

spanning WYs 2021-2024. None of the 219 Central Basin production wells tested for nitrate contained nitrate (as nitrogen) above the MCL of 10 mg/L. None of the 30 production wells tested in the West Coast Basin for nitrate exceeded the MCL during WYs 2021-2024.

3.1.6 Trichloroethylene (TCE)

TCE is a solvent used in metal degreasing, textile processing, and dry cleaning. In addition to its multiple, acute effects on health, TCE is also classified as a probable human carcinogen. The MCL for TCE in drinking water is 5 µg/L. If present in water, TCE can be removed easily by common treatment processes, including air stripping or vapor extraction utilizing granular activated carbon filtration media.

As shown on **Figure 3.11**, in the Central Basin TCE was detected in WRD nested monitoring well locations at concentrations above the MCL of 5 µg/L in five out of 220 individual well zones (2%). The nested wells impacted by TCE are located within or immediately adjacent to the Los Angeles Forebay. In the West Coast Basin, TCE was detected in WRD nested monitoring well locations at concentrations above the MCL in two out of 127 individual well zones (2%). Nested wells impacted by TCE in the West Coast Basin are generally located in the northern eastern portion of the basin in the Inglewood - Hawthorne area.

Figure 3.12 presents DDW water quality data for the maximum TCE detection in production wells across the WRD service area for a three-year period spanning WYs 2021-2024. As shown on Figure 3.12, in the Central Basin TCE was detected at concentrations above the MCL of 5 µg/L in 13 out of 225 production wells (6%). Wells impacted by TCE are generally located in the northern portion of the Central Basin within, between and downgradient of the Montebello and Los Angeles Forebays. In the West Coast Basin, TCE was detected at a concentration above the MCL of 5 µg/L in one of the 31 production wells (3%) tested for TCE during WYs 2021-2024.

3.1.7 Tetrachloroethylene (PCE)

PCE (also known as tetrachloroethylene, tetrachloroethene, perc, perclene, and perchlor) is a solvent used commonly in the dry-cleaning industry, as well as in metal degreasing and textile processing. The MCL for PCE in drinking water is 5 µg/L. In addition to its multiple acute health effects, PCE is also classified as a probable human carcinogen. If present in water, PCE can be removed easily by common treatment processes, including air stripping or vapor extraction utilizing granular activated carbon filtration media.

As shown on **Figure 3.13**, in the Central Basin PCE was not detected in WRD nested monitoring well locations at a concentration above the MCL of 5 µg/L. PCE was not detected at a concentration above the MCL in any of the WRD nested monitoring well sites located in the West Coast Basin.

Figure 3.14 presents DDW water quality data for the maximum PCE detection in production wells across the WRD service area for a three-year period spanning WYs 2021-2024. In the Central Basin, PCE was detected at concentrations above the MCL of 5 µg/L in 11 out of 224 production wells (5%). Production wells with detectable PCE concentrations are primarily located within and in between the Los Angeles and Montebello Forebays; however, several are located to the south and further into the CBPA. PCE was not detected in any of the 31 West Coast Basin production wells tested for PCE.

3.1.8 Arsenic

Arsenic is an element that occurs naturally in the earth's crust and accordingly there are natural sources of arsenic, including weathering and erosion of rocks, deposition of arsenic in water bodies, and uptake of the metal by plants and animals. Consumption of food and water are the major sources of arsenic exposure for the majority of U.S. citizens. Over 90% of commercial arsenic is used as a wood preservative in the form of chromate copper arsenate to prevent dry rot, fungi, molds, termites, and other pests. People may also be exposed from industrial applications, such as semiconductor manufacturing, petroleum refining, animal feed additives, and herbicides. Arsenic is classified as a known human

carcinogen by the United States Environmental Protection Agency (USEPA), and causes other health effects, such as high blood pressure and diabetes. The DDW established an MCL of 10 µg/L for arsenic.

Figure 3.15 presents water quality data for arsenic in WRD nested monitoring wells during WY 2023-2024. In the Central Basin, arsenic was detected in WRD nested monitoring well locations at concentrations above the MCL of 10 µg/L in 20 out of 220 individual well zones (9%). In the West Coast Basin, arsenic was detected at a concentration above the MCL in one out of 127 individual well zones (<1%).

Figure 3.16 presents DDW water quality data for the maximum arsenic detection in production wells across the WRD service area for a three-year period spanning WYs 2021-2024. In the Central Basin, arsenic was detected at concentrations above the MCL of 10 µg/L in 10 out of 213 (5%) production wells. In the West Coast Basin, arsenic was not detected at a concentration above the MCL in any of the 26 production wells tested for arsenic.

3.1.9 Perchlorate

Perchlorate is used in a variety of defense and industrial applications, such as rockets, missiles, road flares, fireworks, air bag inflators, lubricating oils, tanning, and finishing leather, and the production of paints and enamels. Under certain conditions, perchlorate is also reported to occur naturally in groundwater (Trumpolt, 1995). When ingested, it can inhibit the proper uptake of iodide by the thyroid gland, which causes a decrease in hormones for normal growth and development and normal metabolism. In October 2007, the DDW established an MCL of 6 µg/L for perchlorate.

Figure 3.17 presents perchlorate water quality data for WRD nested monitoring wells during WY 2023-2024. In the Central Basin, perchlorate was detected in WRD nested monitoring well locations at concentrations above the MCL of 6 µg/L in one out of

220 individual well zones (<1%). In the West Coast Basin, perchlorate was detected at a concentration above the MCL in one out of 127 individual well zones (<1%).

Figure 3.18 presents DDW water quality data for the maximum perchlorate detection in production wells across the WRD service area for a three-year period spanning WYs 2021-2024. In the Central Basin, perchlorate was detected at concentrations above the MCL of 6 µg/L in two out of 218 production wells (<1%). Perchlorate was not detected in any of the 28 West Coast Basin production wells that were tested for perchlorate.

3.1.10 Hexavalent Chromium

Hexavalent chromium (chromium-6) and trivalent chromium (chromium-3) are two forms of the metal chromium found in groundwater. Together, these two forms of chromium are designated "total chromium". The MCL for total chromium is 50 µg/L. In October 2024, the hexavalent chromium MCL was reestablished at 10 µg/L.

Both forms of chromium occur naturally in groundwater and are also introduced to soil and groundwater through disposal practices from commercial and industrial operations. Only hexavalent chromium is considered to pose health risks. It has been known to increase cancer risk when inhaled and has recently been shown to increase the risk of cancer if ingested.

Figure 3.19 shows hexavalent chromium concentrations in WRD nested monitoring wells in the WRD service area. In the Central Basin, hexavalent chromium was detected at concentrations above the historic MCL value of 10 µg/L in two out of 220 individual well zones (<1%). In the West Coast Basin, hexavalent chromium was not detected at concentrations above the historic MCL in any of the individual well zones.

Figure 3.20 presents DDW water quality data for the maximum hexavalent chromium detection in production wells across the WRD service area for a three-year period spanning WYs 2021-2024. In the Central Basin, hexavalent chromium was detected at a

concentration above the historic MCL of 10 µg/L in five out of 60 production wells (8%). In the West Coast Basin, hexavalent chromium was not detected at a concentration above the historic MCL in any of the two production wells tested for hexavalent chromium during the three-year period.

3.1.11 1,4-Dioxane

1,4-Dioxane is a synthetic organic compound. It is used as a stabilizer for solvents (in particular 1,1,1-trichloroethane) and as a solvent itself in several industrial and commercial applications. 1,4-Dioxane is also found in trace amounts in some cosmetic and personal care products such as detergents and shampoos. 1,4-Dioxane is highly soluble in water, does not readily bind to soils, readily leaches to groundwater, and is resistant to naturally occurring biodegradation processes. The USEPA classifies 1,4-dioxane as a probable human carcinogen and a known irritant, and as a result it is included in the Third Unregulated Contaminant Monitoring Rule (UCMR 3). In November 2010, the SWRCB established a drinking water NL of 1 µg/L, and a RL of 35 µg/L, for 1,4-dioxane.

Figure 3.21 shows 1,4-dioxane concentrations in WRD nested monitoring wells in the WRD service area. In the Central Basin, 1,4-dioxane was detected at concentrations above the NL of 1 µg/L in 26 out of 220 individual well zones (12%) but was not detected at concentrations above the RL of 35 µg/L in any of those 26 well zones. In the West Coast Basin, 1,4-dioxane was not detected above the NL of 1 µg/L or the RL of 35 µg/L in any of the 127 individual well zones.

Figure 3.22 presents DDW water quality data for the maximum 1,4-Dioxane detection in production wells across the WRD service area for a three-year period spanning WYs 2021-2024. In the Central Basin 1,4-Dioxane was detected at concentrations above the NL of 1 µg/L in 54 of the 89 (61%) production wells that were tested. 1,4-Dioxane was not detected above the RL of 35 µg/L in any of the Central Basin production wells. In the West Coast Basin, 1,4-dioxane was not detected at a concentration above the NL or the RL in any of the three production wells tested for 1,4-dioxane during the three-year period.

3.2 QUALITY OF REPLENISHMENT WATER

This section discusses water quality data for key water quality constituents in CBWCB replenishment water and local surface water. Although numerous constituents are monitored, the constituents discussed and reported here are the ones found to be most prevalent at elevated levels or are of current regulatory interest. The data are classified according to their sources. The key water quality parameters of this discussion were also discussed for the WRD nested monitoring wells: TDS, iron, manganese, chloride, nitrate, TCE, PCE, arsenic, perchlorate, hexavalent chromium, and 1,4-dioxane. Monitoring of these constituents helps to understand the general chemical nature of the recharge source, and its suitability for replenishing the groundwater basins.

3.2.1 Quality of Imported Water

Surface water is imported by the Metropolitan Water District of Southern California (MWD) to the WRD service area from Northern California via the State Water Project for potable supply and for groundwater recharge and, if needed, from the Colorado River via the Colorado River aqueduct. Untreated imported water, when needed and available, may be used for recharge at the Montebello Forebay Spreading Grounds. For groundwater recharge at the spreading grounds, Colorado River water deliveries have been suspended due to the potential presence of quagga mussels and since WY 2018-2019, there has been no imported water received from the State Water Project for groundwater replenishment at the spreading grounds. Currently, treated imported water and advanced treated recycled water are injected into the three seawater intrusion barriers. Treated imported water meets all drinking water standards and is thus suitable for direct injection. For WY 2023-2024, approximately 14,724 AF of treated imported water were injected into the West Coast Basin, Dominguez Gap, and Alamitos Gap Barrier Projects combined. Average water quality data for treated and untreated imported water are presented in **Table 3.3.**

In 2023, the average TDS concentration of untreated Colorado River water was 649 mg/L and the average TDS concentration of untreated water from the State Water Project was 208 mg/L.

In 2023, the average concentration of nitrate (as Nitrogen) was below the detection limit in untreated Colorado River water. The average concentration of nitrate (as Nitrogen) in untreated water from the State Water Project was 0.70 mg/L. Recently and historically, both Colorado River and State Water Project nitrate concentrations have remained below the MCL.

In 2023, the average concentration of iron was below the detection limit in untreated Colorado River water, however, it exceeded the SMCL of 300 µg/L in untreated water from the State Water Project. This is likely due to iron leaching from natural deposits. The average concentration of manganese was below detection limits in untreated Colorado River water, and although it was detected in untreated water from the State Water Project, it did not exceed the SMCL of 50 µg/L. Colorado River and State Water Project iron and manganese concentrations have historically been below their respective SMCLs.

The average chloride concentrations in untreated water from the Colorado River and State Water Project have not changed significantly over the past several years. State Water Project and Colorado River chloride concentrations have historically been below the SMCL of 500 mg/L for chloride.

According to the MWD, TCE, PCE, hexavalent chromium, and perchlorate were not detected in water from the Colorado River or State Water Project during calendar year 2023. Both Colorado River and State Water Project TCE, PCE, hexavalent chromium, and perchlorate concentrations have historically been below their respective MCLs.

3.2.2 Quality of Recycled Water

Recycled water is used for groundwater recharge in the WRD Service Area for percolation through the Montebello Forebay Spreading Grounds, which is comprised of the Rio Hondo Coastal Spreading Grounds and the San Gabriel Coastal Spreading Grounds, and for injection into the seawater barriers. In the Montebello Forebay, recycled water is produced by two entities: the Los Angeles County Sanitation Districts (LACSD), and the WRD. Both entities divert their produced water into the Montebello Forebay Spreading Grounds

where it percolates into the subsurface to recharge the underlying aquifers. LACSD produces its tertiary-treated recycled water at its Whittier Narrows Water Reclamation Plant (WRP), San Jose Creek East WRP, San Jose Creek West WRP, and Pomona WRP facilities. WRD produces advanced treated recycled water that meets drinking water quality standards and other stringent regulations at its Albert Robles Center for Water Recycling and Environmental Learning (ARC) advanced water treatment facility (AWTF). The effluent from each of these five facilities is carefully controlled and monitored, as required by permits and other regulations, and typically shows little water quality variation over time. Average water quality data for the effluent from the five facilities is shown in Table 3.3.

All constituents listed have remained stable over recent WYs. Furthermore, arsenic, TCE, PCE, perchlorate, and hexavalent chromium have either not been detected or have been detected well below their respective MCLs in recycled water from the five facilities. 1,4-Dioxane concentrations in recycled water from the Whittier Narrows, San Jose Creek West, San Jose Creek East, and Pomona WRPs, and from the ARC AWTF do not exceed the NL of 1.0 µg/L or the RL of 35 µg/L. N-Nitrosodimethylamine (NDMA) was detected above its NL of 10 nanograms per liter (ng/L) in recycled water from the San Jose Creek West, San Jose Creek East, and Pomona WRPs.

Currently, both treated imported water and advanced treated recycled water produced by the West Basin Municipal Water District (WBMWD) Edward C. Little Water Recycling Facility (ELWRF) are injected at the West Coast Basin Barrier to prevent the intrusion of seawater and replenish the groundwater basin. Treatment processes at the ELWRF include microfiltration, reverse osmosis, ultraviolet light, advanced oxidation with hydrogen peroxide, and chemical stabilization. The advanced treated recycled water complies with all drinking water standards and thus, is suitable for direct injection. The ELWRF was expanded in September 2013, and it is expected that ultimately advanced treated recycled water will replace nearly all the imported water used for injection at the West Coast Basin

Barrier. Table 3.3 presents average water quality data for the advanced treated recycled water produced by the ELWRF.

The Alamitos Gap Seawater Intrusion Barrier currently receives both treated imported water and advanced treated recycled water produced by WRD's Leo J. Vander Lans Advanced Water Treatment Facility (LVL AWTF) for injection. The LVL AWTF treats the tertiary-treated effluent from the LACSD Long Beach WRP using microfiltration, reverse osmosis, ultraviolet light, and advanced oxidation with hydrogen peroxide. The advanced treated recycled water meets drinking water quality standards and other stringent regulations for direct injection into the aquifers. The LVL AWTF was expanded in 2014 to allow additional capacity and ultimately to replace nearly all the imported water used for injection at the Alamitos Gap Seawater Intrusion Barrier. The facility has been consistently operational during WY 2023-2024 and has provided approximately 68% of barrier demand. The facility is expected to run at near full capacity in the future. Table 3.3 presents average water quality data for the advanced treated recycled water produced by the LVL AWTF.

The City of Los Angeles Terminal Island Water Reclamation Plant/Advanced Water Treatment Facility (TIWRP) produces advanced treated recycled water using microfiltration, reverse osmosis, ultraviolet light, and advanced oxidation using sodium hypochlorite. This water meets drinking water quality standards and other stringent regulations for direct injection into aquifers. Currently, treated imported water is blended with advanced treated recycled water from the TIWRP for injection at the Dominguez Gap Seawater Intrusion Barrier. Expansion of the TIWRP was completed in December 2016 and included the installation of an advanced oxidation process into the treatment train. In WY 2023-2024, the TIWRP has delivered approximately 76% of barrier demand. It is anticipated that ultimately the advanced treated recycled water produced at the facility will replace nearly all the imported water used for injection into the Dominguez Gap Seawater Intrusion Barrier. Table 3.3 presents average water quality data for the advanced treated recycled water produced by the TIWRP.

3.2.3 Quality of Stormwater

Stormwater infiltrates the subsurface to varying degrees throughout the WRD service area. It is also intentionally diverted from the major storm channels and used for groundwater recharge along with imported and recycled water at the Montebello Forebay Spreading Grounds. Routine stormwater quality analyses are typically performed by LACPW and other entities; however, most of the constituents that are usually reported by LACPW were not analyzed during WY 2022-2023, and therefore those results are not available for inclusion in this report. Average stormwater quality data for those constituents that were provided by LACPW for WY 2022-2023 are presented on Table 3.3.

3.3 MINERAL CHARACTERISTICS OF GROUNDWATER IN THE CENTRAL BASIN AND WEST COAST BASIN

Major minerals data obtained from the WRD nested monitoring wells were used to characterize groundwater of discrete vertical zones (**Table 3.4**). Research by the USGS led to three distinct groupings of groundwater compositions. Group A groundwater is typically calcium bicarbonate or calcium bicarbonate/sulfate dominant. Group B groundwater has a typically calcium-sodium bicarbonate or sodium bicarbonate character. Group C has a sodium chloride character. Several of the WRD wells yield results that do not fall into one of the three major groups and are thus classified separately as Group D.

Groundwater from Group A likely represents recent recharge water containing a significant percentage of imported water. Group B represents older native groundwater replenished by natural local recharge. Group C represents groundwater impacted by seawater intrusion or connate saline brines. Table 3.4 lists the groundwater group for each WRD nested monitoring well. Comparison of groundwater groups with well locations indicates that, in general, Group A groundwater is found at and immediately downgradient from the Montebello Forebay Spreading Grounds in all but the deepest zones. Group B groundwater is found farther down the flow path within the Central Basin and inland of the West Coast Basin Seawater Intrusion Barrier. Group C groundwater is generally found near the coastlines or in deeper zones. Several wells, grouped as “Group D” on Table 3.4, exhibit

a chemical character range different from Groups A, B, or C and indicate unique waters not characteristic of the dominant flow systems in the basins.

SECTION 4
SALT AND NUTRIENTS IN GROUNDWATER

In February 2009, the SWRCB adopted Resolution No. 2009-0011, which established a statewide Recycled Water Policy. This Policy encourages increased use of recycled water and local stormwater for groundwater recharge across the State. It also requires local entities to develop a Salt and Nutrient Management Plan (SNMP) for each groundwater basin in California to monitor groundwater quality and any impact due to increased use of recycled water and stormwater for recharge.

A SNMP Workplan was jointly prepared by the CBWCB stakeholders and approved by the Los Angeles Regional Water Quality Control Board in December 2011. The SNMP for the CBWCB was finalized on February 12, 2015, and adopted in July 2015. The full text of the "*Salt Nutrient Management Plan*" (WRD, 2015) can be found at *https://www.wrd.org/other-reports.*

The objective of the SNMP is to manage salts and nutrients from all sources "… on a basin wide or watershed-wide basis in a manner that ensures attainment of water quality objectives and protection of beneficial uses." Future groundwater quality and assimilative capacity were calculated based on predicted salt and nutrient loading through 2025 in the CBWCB. Accordingly, current and proposed projects through 2025 were identified and used to develop strategies to manage salt and nutrient loading. The SNMP included the following:

- Stormwater and Recycled Water Use/Recharge Goals and Objectives,
- Characterization of the Hydrogeologic Conceptual Model/Water Quality,
- Estimation of Current and Future Salt and Nutrient Loading,
- A Basin Wide Water Quality Monitoring Plan,
- Estimation of Salt and Nutrient Assimilative Capacity,
- An Anti-degradation Analysis,
- Implementation Measures to Manage Salt and Nutrient Loading, and
- California Environmental Quality Act analysis of the SNMP.

WRD's RGWMP was used to develop the SNMP monitoring program. The groundwater data evaluated in the annual RGWMRs provide an annual assessment of salt and nutrients in groundwater. In addition to the water quality maps generated and discussed in Section 3, historical trend graphs at key monitoring well locations, as described in the following sections, were used to assess salt and nutrient concentrations in groundwater.

4.1 SALT AND NUTRIENT MONITORING LOCATIONS

As discussed in the SNMP, TDS, chloride, and nitrate were identified as the most appropriate indicators of salt and nutrients in the CBWCB. These constituents, as well as other constituents of concern identified in the SNMP, are monitored in the WRD nested monitoring wells along with production wells located throughout the CBWCB.

As part of the SNMP monitoring program, 13 key monitoring well locations in the CBWCB were selected to evaluate past and current salt and nutrient concentrations in groundwater with respect to applicable water quality objectives (WQOs). As established in the SNMP, the WQO for TDS in the Central Basin CBWCB is 700 mg/L and in the West Coast Basin it is 800 mg/L. The WQO for chloride in the Central Basin is 150 mg/L and 250 mg/L in the West Coast Basin. The MCL/WQO for nitrate (as nitrogen) is 10 mg/L in both the Central Basin and the West Coast Basin.

In accordance with the statewide Recycled Water Policy, the 13 selected nested monitoring well locations are in the most critical areas of the basins, based on their proximity to water supply wells and groundwater recharge projects that utilize recycled water, including the seawater intrusion barriers (Alamitos Gap Barrier, Dominguez Gap Barrier, and West Coast Basin Barrier) and the Montebello Forebay Spreading Grounds. There are three nested well locations in the Montebello Forebay, one in the Los Angeles Forebay, four in the CBPA, one in the Whittier Area, and four in the West Coast Basin. Monitoring locations in the Montebello Forebay and Los Angeles Forebay target groundwater where connectivity with adjacent surface waters is possible.

The 13 key nested well locations are shown as a different symbol set on **Figure 1.3**. These locations include 69 individual monitoring zones, screened in specific CBWCB aquifers. The depths and aquifer designation for these key monitoring wells are provided in **Table 1.1**. WRD is the entity, designated by the SWRCB, responsible for collecting TDS, chloride, and nitrate samples (on a semi-annual basis) from these nested wells.

4.2 SALT AND NUTRIENT MONITORING RESULTS AND EVALUATION

Concentrations of salt and nutrients have been and continue to be closely monitored in all WRD nested monitoring wells and purveyors' production wells and results are discussed in **Section 3**. Concentrations of TDS, chloride, and nitrate (as nitrogen) for all WRD nested wells sampled during WY 2023-2024 are shown on maps (**Figures 3.1, 3.7,** and **3.9**, respectively) and are summarized along with other monitored constituents identified in **Tables 3.1** and **3.2**. TDS, chloride, and nitrate (as nitrogen) concentrations in production wells, sampled during WYs 2021-2024 are presented on maps (**Figures 3.2, 3.8**, and **3.10,** respectively). Trends for TDS and chloride concentrations at the 13 key well locations discussed above in Section 4.1 are plotted on graphs and compared to SMCLs and WQOs (**Figures 4.1** through **4.13**). Nitrate generally has not been detected in the monitoring wells, or it has been detected only at concentrations significantly below the MCLs and WQOs, and thus, trend graphs for nitrate have not been prepared. However, nitrate continues to be monitored as part of the RGWMP and is reported in **Section 3** of the annual RGWMRs.

For the Montebello Forebay, TDS and chloride concentration trends for the key well locations Rio Hondo #1 (six zones), Pico #2 (six zones), and Norwalk #2 (six zones) are presented on **Figures 4.1** through **4.3**, respectively.

- At Rio Hondo #1, TDS and chloride concentrations have historically been and remain below the WQOs and SMCLs.
- At Pico #2, TDS and chloride concentrations have generally remained below the SMCLs and WQOs, with the exception of a one-time detection in September 2008 of TDS in Zone 2 at a concentration slightly above the WQO (750 mg/L), and a

one-time detection in September 2018 of chloride in Zone 6 at the WQO of 150 mg/L. TDS concentrations in Zone 2 have increased slightly since the fall of 2020, but they remain below the WQO. Chloride concentrations in Zone 6 have increased since the spring of 2023, but they remain below the WQO.

- At Norwalk #2, TDS and chloride concentrations have historically been and remain below the WQOs and SMCLs.

For the Los Angeles Forebay, the key well is Huntington Park #1 (four zones). TDS and chloride concentration trend graphs are shown on **Figure 4.4**.

- At Huntington Park #1, the deeper two zones show stable trends for TDS and chloride at concentrations below the WQOs and SMCLs. The shallower two zones indicate a relatively stable trend in chloride concentrations that are below both the WQO and SMCL. TDS concentrations in the shallower two zones have increased slightly since the wells were first installed. Over the past 14 years, TDS concentrations in the shallowest zone (Zone 4) are consistently above the WQO of 700 mg/L. TDS concentrations in Zone 3 have fluctuated just above and below the WQO over the past 15 years; however, since the fall of 2021 they have been measured at concentrations greater than the WQO. TDS concentrations in both shallow zones remain below the SMCL of 1,000 mg/L.

For the CBPA, key wells include South Gate #1 (five zones), Willowbrook #1 (four zones), Long Beach #6 (six zones), and Seal Beach #1 (seven zones). TDS and chloride trends are shown on **Figures 4.5** through **4.8,** respectively.

- At South Gate #1, the four deeper zones show TDS and chloride concentrations at relatively consistent values below the SMCLs and WQOs. TDS and chloride concentrations in Zone 5 of South Gate #1 have increased slightly since initial sampling but have remained relatively stable over the past 14 years and are below both the WQOs and SMCLs.
- At Willowbrook #1, all four zones show stable trends in TDS and chloride concentrations and are at values well below both the WQOs and SCMLs.

- At Long Beach #6, all six zones show relatively stable chloride trends with concentrations well below both the WQO and SMCL. TDS concentrations in Zones 3, 4, and 5 are stable and below both the WQO and SMCL. In Zone 1, the deepest zone at Long Beach #6, TDS is typically detected close to the WQO of 700 mg/L. TDS concentrations in Zone 2 have historically fluctuated by as much as 50% with highs near or slightly above the WQO; however, over the past 12 years TDS concentrations have remained below the WQO and show a steadily decreasing trend. In Zone 6, the shallowest zone at Long Beach #6, chloride has gradually increased since 2020 but remains below both the WQO and SMCL.
- At Seal Beach #1, the deeper six zones have historically contained TDS and chloride at concentrations below the WQOs and SMCLs; however, chloride concentrations in Zone 5 have increased over the past six years and have been measured at concentrations above the WQO, but below the SMCL, since 2019. TDS concentrations in Zone 5 have increased over the past seven years and have been measured at concentrations above the WQO, but below the SMCL, since 2023. TDS and chloride concentrations in Zone 7 are both at values well above the WQOs and SCMLs and are likely due to the effects of seawater intrusion.

For the Whittier Area, the key well is Whittier #1 (five zones) and TDS and chloride trends are shown on **Figure 4.9**.

- At Whittier #1, TDS concentrations in Zones 4 and 5 have been generally stable since the wells were installed. Concentrations have been consistently below the SMCL but have fluctuated between slightly above and slightly below the WQO. TDS concentrations in Zones 1, 2, and 3 have historically exceeded the WQO and SMCL; however, TDS concentrations in Zones 1 and 2 have remained stable, and in Zone 3 after increasing for several years, TDS concentrations have remained relatively stable for the past eight years. Chloride concentrations in Zones 4 and 5 have been below both the WQO and SMCL since the wells were installed. Chloride concentrations in Zones 1, 2, and 3 have shown a stable trend since the wells were

installed; although they have remained well below the SCML, they have consistently exceeded the WQO.

For the West Coast Basin, key wells include PM-4 Mariner (four zones), Carson #1 (four zones), Manhattan Beach #1 (seven zones), and Wilmington #2 (five zones). TDS and chloride trends are presented on **Figures 4.10** through **4.13**, respectively.

- At PM-4 Mariner, Zones 1, 3, and 4 show TDS and chloride at relatively consistent concentrations below the WQOs and SMCLs. However, in Zone 2 TDS and chloride concentrations are well above the WQOs and SMCLs and both show generally increasing trends since monitoring began in 1998. These increasing concentration trends are attributed to historical seawater intrusion prior to the construction of the West Coast Basin Seawater Barrier.
- At Carson #1, all four zones contain TDS and chloride concentrations below both the WQOs and SMCLs. Here the three deeper zones show relatively stable TDS and chloride concentrations, while concentrations of both constituents in the shallow Zone 4 have decreased from those observed during the first few years of monitoring, concentrations of both have been stable for the past 21 years.
- At Manhattan Beach #1, groundwater in this coastal area shows evidence of impact by seawater intrusion. TDS concentrations in five of the seven zones exceed the WQO and SMCL, and in four zones the WQO and SMCL for chloride are exceeded. TDS and chloride concentrations in Zones 1 through 4 and Zones 6 through 7 at Manhattan Beach #1 appear to be rather stable.
- At Wilmington #2, TDS and chloride concentrations in Zones 1 and 3 have historically been below the WQOs and SMCLs but have increased to values that have exceeded the WQOs for the past several years. In Zones 2 and 5, TDS and chloride concentrations have been consistently above both the WQOs and SMCLs; in Zone 2 they have remained relatively stable, but in Zone 5 they have decreased to values well below those detected during the first years of sampling. In Zone 4, TDS and chloride concentrations initially exceeded both the WQOs and SMCLs, but they have decreased over time to the extent that they have been below

both the WQOs and SMCLs for the past several years. Concentration decreases in Zone 4 are likely due to the salt and nutrient loading implementation measures discussed in **Section 4.3** below.

4.3 IMPLEMENTATION MEASURES TO MANAGE SALT AND NUTRIENT LOADING

As summarized in the previous section, overall TDS and chloride concentrations are generally stable at most of the 13 key nested monitoring locations in the CBWCB. While a few individual zones show increasing trends, a comparable number show decreasing trends. Notably, TDS and chloride concentrations in the two shallowest zones at nested well location Rio Hondo #1 and the three shallowest zones at Pico #2, each of which is beneath and adjacent to the Montebello Forebay recharge basins, have generally fluctuated within the same concentration range since 1998. At the key well location in the Los Angeles Forebay, Huntington Park #1, the two shallower zones have relatively stable TDS concentrations at and above the WQO, and the two deeper zones do not show increasing TDS levels. In the CBPA, TDS concentrations in the shallowest zone at key well location South Gate #1 fluctuate slightly but remain relatively stable, and chloride concentrations have remained relatively stable over the past 17 years. TDS and chloride concentrations in the four lower zones are stable. Key nested monitoring well locations near the coast, including PM-4 Mariner, Manhattan Beach #1, and Seal Beach #1, have zones that show increasing TDS and chloride concentration trends that can be attributed to historical seawater intrusion. In the relatively isolated Whittier Area, historically high TDS and chloride concentrations in the intermediate and deep zones are stable and are not expected to fluctuate in response to anticipated management practices.

As discussed in the SNMP, TDS and chloride concentrations in the Central Basin are not expected to exceed WQOs in the future, and current and proposed projects in the basin are not expected to increase salt and nutrient concentrations above the available assimilative capacity. Two notable projects in the Central Basin include the increased use of advanced treated recycled water for injection at the Alamitos Gap Seawater Intrusion Barrier and the

increased use of recycled water at the Montebello Forebay Spreading Grounds using a blend of tertiary treated water produced by the LACSD and advanced treated recycled water produced by WRD at its ARC AWTF (formerly known as the Groundwater Reliability Improvement Program (GRIP)).

In the West Coast Basin, average TDS and chloride concentrations can exceed WQOs due to historical seawater intrusion. However, these concentrations are either relatively stable or generally decreasing and are anticipated to achieve WQOs in the future due to implementation measures such as the increased use of advanced treated recycled water for injection at the West Coast Basin and Dominguez Gap Seawater Intrusion Barriers. WRD is also in the design phase of a desalter expansion that will result in the installation of additional desalter wells focusing on an area of high chloride concentrations near WRD nested monitoring well PM-4 Mariner. Desalter facility expansion is anticipated to commence in 2025.

Nitrate concentrations in the CBWCB remain low and are not expected to increase above the MCL or WQO in the future. Overall, the data show that salt and nutrient concentrations in groundwater are stable as a result of past and current groundwater management practices. Based on the existing water quality of the CBWCB and the future groundwater quality as estimated from the SNMP analysis, existing and planned implementation measures appear to be achieving effective management of salt and nutrient loading on a sustainable basis.

SECTION 5
SUMMARY OF FINDINGS

This RGWMR was prepared by WRD to provide a comprehensive review of groundwater conditions in the WRD service area during WY 2023-2024. A summary of findings is presented below.

- Artificial replenishment activities combined with natural replenishment and controlled pumping have ensured a sustainable, reliable supply of groundwater in the WRD service area. Artificial replenishment water sources used by WRD include imported water supplied by MWD member agencies, tertiary-treated recycled water produced by the LACSD, and advanced treated recycled water produced by WBMWD, the City of Los Angeles, and WRD.
- Groundwater levels (heads) are monitored continuously in the WRD service area throughout the year. The WRD nested monitoring wells show clear, significant differences in groundwater elevations between the various aquifers. The water level differences in these nested wells reflect both hydrogeologic and pumping conditions in the WRD service area. Vertical head differences of up to 90 feet occur between zones above and within the producing aquifers. The greatest head differences between aquifers tend to occur in the southern area of the Central Basin (Long Beach) and the inland, eastern areas of the West Coast Basin (Gardena and Carson), while the smallest differences occur in the recharge area of the Montebello Forebay, and the southern area of the West Coast Basin (Torrance), which has merged and unconfined aquifers.
- Hydrographs and groundwater elevations measured in basin wide nested monitoring wells and key production wells in WY 2023-2024 indicate variable changes in groundwater elevations across the CBWCB during WY 2023-2024. In the unconfined Montebello Forebay in the vicinity of the spreading grounds, water levels are more than 11 feet higher than they were in fall 2023. Across the unconfined Los Angeles Forebay, water levels have increased from those measured in fall 2023; in the west they are more than four feet higher, and in the eastern and

southern-central portions they are more than six feet higher than those measured in WY 2022-2023. Water levels in the Whittier Area are five feet higher in the west, and over six feet higher in the east than those measured in WY 2022-2023. Water levels throughout most of the CBPA are higher this year than in fall 2023, and they steadily decrease from north to south. In the northwest portion, immediately west of the Los Angeles Forebay, they are more than five feet higher; but in the southern portion of the CBPA, along the Newport Inglewood Uplift, they are more than five feet lower than they were in fall 2023.

- In the West Coast Basin, water level changes were somewhat variable in WY 2023-2024. In the northern portion of the basin, between the Newport-Inglewood Uplift and the Charnock Fault, water levels are slightly higher in the north but have decreased in the south and southeast by over 10 feet below those measured in fall 2023. In the southern portion of the basin, near the Newport-Inglewood Uplift and southern coastal area, water levels are relatively unchanged during WY 2023-2024. In the vicinity of the central portion of the West Coast Basin Barrier Project near the cities of Hermosa Beach and Redondo Beach, water levels have increased slightly and are over one foot higher than they were in fall 2023. In much of the Torrance and LAX areas, water levels are one to two feet higher than those measured in fall 2023.
- District wide, groundwater levels increased an average of more than three feet in WY 2023-2024. Across the entire Central Basin, water levels increased: in the Montebello Forebay region, water levels increased an average of more than five feet, in the Los Angeles Forebay region, they increased an average of more than six feet, and in the Whittier Area, they increased by an average of nearly six feet. In the CBPA, water levels increased by an average of more than four feet. In the West Coast Basin, water levels slightly increased by an average of nearly half of one foot.
- There was an overall gain in groundwater storage across the District of 35,100 AF in WY 2023-2024, essentially all of which occurred in the Central Basin. In the unconfined Montebello Forebay, there was a gain in storage of 22,400 AF; in the Los Angeles Forebay, a gain of 10,800 AF; in the Whittier Area, a gain of 900 AF; and in the CBPA, there was a gain of 1,000 AF. In the West Coast Basin, there was

no appreciable change in groundwater storage in WY 2023-2024.

- For the RGWMP assessment of groundwater quality, WRD collected over 600 samples from its nested monitoring wells throughout the WY and obtained water quality data from potable wells in the District from the DDW database. WRD uses 11 chemical compounds to summarize overall water quality across the District, although results for over 100 compounds are present in our databases for each sample collected for the RGWMP. A discussion of the 11 constituents used is as follows:
  - TDS concentrations for wells located in the Central Basin are relatively low, while those in the West Coast Basin are elevated in certain portions; primarily the coastal areas from Redondo Beach to LAX and the Torrance, Inglewood-Gardena, and Dominguez Gap areas. The elevated TDS concentrations (above the SMCL) may be caused by seawater intrusion, connate brines, or perhaps oil field brines.
  - Iron is generally common at low concentrations across the WRD service area. In Central Basin nested wells, iron concentrations above the SMCL are observed in and just downgradient of the Los Angeles and Montebello Forebays, while in production wells iron concentrations above the SMCL extend further downgradient from the Forebays southward into the CBPA. Across the West Coast Basin in both nested and production well sites, iron is present at concentrations above the SMCL at numerous locations.
  - Manganese is very common in groundwater across the CBWCB and was detected at all of the nested monitoring well sites and about three-quarters of the production well sites. It is present in the Central Basin at concentrations above the SMCL in approximately 35% of the nested monitoring wells and approximately 19% of production wells, but was only present above its NL in less than 5% of either type of those wells. Manganese is even more widespread in the West Coast Basin, where it was detected above the SMCL in about 50% of nested monitoring wells and approximately 57% of the production wells. It was detected above the NL in about 10% of the nested monitoring wells and

was not detected above the NL in any of the production wells in the West Coast Basin.

- Chloride concentrations are low in the Central Basin and in wells within the inland areas of the West Coast Basin. Some coastal areas of the West Coast Basin are impacted by seawater intrusion and thus have high chloride concentrations in groundwater.
- Nitrate concentrations in WRD nested monitoring wells in the CBWCB are generally below the MCL. The few nested wells that have nitrate concentrations approaching or exceeding the MCL are limited to the shallowest zones at a given location and are likely due either to localized surface recharge, or isolated areas of shallow impacts from industrial operations. Nitrate concentrations in CBWCB production wells are below the MCL.
- In the Central Basin, TCE was detected above the MCL in approximately 2% of nested monitoring wells. TCE detections in Central Basin nested monitoring wells are restricted to within, and in close proximity to, the Los Angeles Forebay; but in Central Basin production wells elevated TCE concentrations are also observed in wells in the vicinity, and downgradient of, both the Los Angeles and Montebello Forebays. TCE was detected, at a concentration above the MCL, in 6% of the Central Basin production wells. In the West Coast Basin, TCE is observed at a concentration above the MCL in approximately 2% of nested monitoring wells. TCE was detected, at a concentration above the MCL, in 3% of the West Coast Basin production wells.
- PCE was not detected above the MCL in any Central Basin nested monitoring wells. Historically, detections below the MCL are observed within, and near, the Los Angeles and Montebello Forebays. Elevated concentrations of PCE in Central Basin production wells are observed in the areas within, between, and downgradient of the Los Angeles and Montebello Forebays. In the West Coast Basin, PCE was not detected at a concentration above the MCL in any of the nested monitoring wells or in any of the production wells.
- Arsenic is present at low concentrations in groundwater from most of the WRD nested monitoring well sites. Arsenic in nested monitoring wells at

concentrations above the MCL is generally restricted to areas within the central and southeastern portions of the Central Basin and in the Gardena area of the West Coast Basin. Arsenic is also common in Central Basin production wells; however, it was only detected at concentrations above the MCL in about 5% of the wells tested, and these wells are generally restricted to the southeastern portion of the Central Basin. In the West Coast Basin, Arsenic was not detected at a concentration above the MCL in any of the 26 production wells tested.

- Perchlorate is relatively common at low concentrations in the nested monitoring wells within and downgradient of the Los Angeles and Montebello Forebays in the Central Basin but is less common in West Coast Basin nested wells. Perchlorate in Central Basin production wells is detected within and just east of the Los Angeles Forebay, within the Montebello Forebay, and between the two Forebays. Perchlorate was not detected in any of the 28 West Coast Basin production wells tested.
- Hexavalent chromium is present in the CBWCB at low concentrations at nearly every nested monitoring well site, but it is only found at concentrations above the historic MCL (10 µg/L) at two nested monitoring well sites located in the Central Basin either in, or just outside of, the Los Angeles Forebay. In production wells, hexavalent chromium is present at concentrations above its historic MCL in a few wells located in the Central Basin within, and downgradient of, the Los Angeles and Montebello Forebays. Testing for hexavalent chromium was not detected in any of the West Coast Basin production wells.
- 1,4-Dioxane is present at concentrations above the NL in Central Basin nested monitoring and production wells within and between both the Los Angeles and Montebello Forebays, as well as south into the CBPA adjacent to the Los Angeles and San Gabriel Rivers. In the West Coast Basin, 1,4-dioxane was not detected above the NL in any of the nested monitoring wells or production wells tested.

- The water quality of key constituents in untreated imported water recharged at the Montebello Forebay Spreading Grounds and treated imported water injected at the seawater barriers remains in compliance with regulatory limits. Historically, average TDS, iron, manganese, chloride, nitrate, and arsenic concentrations in imported water used for recharge do not exceed their respective MCLs. Meanwhile, TCE, PCE, hexavalent chromium, and perchlorate were not detected in the untreated imported water.
- The water quality of key constituents in recycled water used for recharge at the Montebello Forebay Spreading Grounds and injection at the seawater intrusion barriers complies with regulatory limits and is monitored regularly to ensure its safe use.
- A total of 13 WRD nested groundwater monitoring wells across the CBWCB are designated for salt and nutrient (specifically, TDS, chloride, and nitrate) sampling and reporting as part of the SNMP monitoring program. Overall TDS and chloride concentrations are generally stable at most of the 13 key nested monitoring locations in the CBWCB. While a few individual zones show increasing trends, a comparable number show decreasing trends. Nitrate concentrations remain below the MCL at all 13 monitoring locations.
- In the Central Basin, TDS concentrations have been generally stable but exceed the WQO in the two shallowest zones at Huntington Park #1; and they exceed both the WQO and SMCL in the three deepest zones at Whittier #1 and the shallowest zone at Seal Beach #1. Chloride concentrations have also been relatively stable but exceed the WQO in the three deepest zones at Whittier #1; and they exceed both the WQO and SMCL in the shallowest zone at Seal Beach #1. TDS and chloride concentrations have increased in Zone 5 at Seal Beach #1 in recent years, and chloride has been observed at concentrations in excess of the WQO in that zone for the past six years. In each of the remaining six key nested monitoring well sites located in the Central Basin, TDS and chloride concentrations have remained relatively stable within each of the individual monitoring wells at concentrations below both the WQOs and SMCLs.

- In the West Coast Basin, average TDS and chloride concentrations exceed WQOs and SMCLs locally due to historical seawater intrusion. However, except for Zone 2 at PM-4 Mariner, these concentrations are generally rather stable or are decreasing slightly and are anticipated to achieve WQOs in the future as a result of current groundwater management practices. TDS and Chloride concentrations in Zone 2 at PM-4 Mariner have increased slightly since 2018.

As shown by the data presented herein, groundwater in the WRD service area is of generally good quality and is suitable for use by the pumpers in the District, the stakeholders, and the public. Groundwater from localized areas with marginal to poor water quality can still be utilized but may require treatment prior to being used as a potable source.

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SECTION 6
FUTURE ACTIVITIES

WRD will continue to update and augment its RGWMP to best serve the needs of the District, the pumpers, and the public. Some of the activities planned for the RGWMP in the current WY 2024-2025 are listed below.

- WRD continues refining the regional understanding of groundwater occurrence, movement, and quality. Water levels will continue to be recorded using automatic dataloggers to monitor groundwater elevation differences throughout the year; and in select wells, telemetry systems will be used to transmit water level data to District computers. Conductivity sensors are being utilized at selected nested monitoring wells to track water quality changes and supplement the automated water level data.
- WRD will continue to sample groundwater from nested monitoring wells and analyze the samples for general water quality constituents. The focus will continue on constituents of interest (such as TCE, PCE, manganese, arsenic, perchlorate, hexavalent chromium, and 1,4-dioxane) to WRD, the pumpers, and other stakeholders. As regulators consider new water quality standards for chemicals of emerging concern (CECs) that have not been comprehensively monitored in the past, WRD's nested monitoring well network is in good position to screen for emerging CECs in groundwater which may include pesticides, pharmaceuticals and personal care products, oil and gas field indicators, and other CECs.
- WRD will be working on refining the hydrogeologic conceptual model of the CBWCB to improve the framework for understanding the groundwater system and for use as a planning tool. WRD will use data from the RGWMP along with an update to the groundwater model, that was developed and published by the USGS in 2021, as tools in its refinement of the conceptual model.
- Consistent with WRD's mission to provide, protect, and preserve safe and sustainable groundwater and as required by the State's Recycled Water Policy, a SNMP is in place and will continue to be implemented. Existing and planned

implementation measures are, and will continue to be, protective of groundwater quality and its beneficial uses.

- Through the RGWMP, WRD will continue to collect CBWCB groundwater level data, track seasonal and long-term trends, and provide the data to the CASGEM and NGWMN programs.
- WRD will continue to monitor the quality of replenishment water sources to ensure the CBWCB are being recharged with high-quality water.
- WRD will continue to use the data generated by the RGWMP, along with WRD's GIS capabilities, to address current and potential water quality issues and groundwater replenishment in its service area.

SECTION 7
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TABLES

TABLE 1.1
CONSTRUCTION INFORMATION FOR WRD NESTED MONITORING WELLS

Well Name	Zone	WRD ID Number	Depth of Well (feet)	Top of Perforation (feet)	Bottom of Perforation (feet)	Aquifer Designation [1]
Bell #1	1	102041	1750	1730	1750	Pico Formation [2]
	2	102042	1215	1195	1215	Sunnyside
	3	102043	985	965	985	Sunnyside
	4	102044	635	615	635	Silverado
	5	102045	440	420	440	Jefferson
	6	102046	270	250	270	Gage
Bell Gardens #1	1	101954	1795	1775	1795	Sunnyside [2]
	2	101955	1410	1390	1410	Sunnyside [2]
	3	101956	1110	1090	1110	Sunnyside
	4	101957	875	855	875	Sunnyside
	5	101958	575	555	575	Silverado
	6	101959	390	370	390	Lynwood
Carson #1	1	100030	1010	990	1010	Silverado
	2	100031	760	740	760	Silverado
	3	100032	480	460	480	Lynwood
	4	100033	270	250	270	Gage [2]
Carson #2	1	101787	1250	1230	1250	Sunnyside [2]
	2	101788	870	850	870	Sunnyside [2]
	3	101789	620	600	620	Silverado
	4	101790	470	450	470	Silverado
	5	101791	250	230	250	Lynwood
Carson #3	1	102075	1800	1600	1620	Pico Formation [2]
	2	102076	1240	1220	1240	Sunnyside [2]
	3	102077	1100	1080	1100	Silverado [2]
	4	102078	890	870	890	Silverado
	5	102079	640	620	640	Silverado
	6	102080	380	360	380	Lynwood
Cerritos #1	1	100870	1215	1155	1175	Sunnyside [2]
	2	100871	1020	1000	1020	Silverado [2]
	3	100872	630	610	630	Lynwood
	4	100873	290	270	290	Gage
	5	100874	200	180	200	Artesia
	6	100875	135	125	135	Artesia
Cerritos #2	1	101781	1470	1350	1370	Sunnyside [2]
	2	101782	935	915	935	Silverado
	3	101783	760	740	760	Lynwood [2]
	4	101784	510	490	510	Hollydale
	5	101785	370	350	370	Gage
	6	101786	170	150	170	Artesia
Cerritos #3	1	103085	2120	2100	2120	Sunnyside
	2	103086	1670	1650	1670	Sunnyside
	3	103087	1395	1375	1395	Sunnyside
	4	103088	1050	1030	1050	Silverado
	5	103089	780	760	780	Hollydale
	6	103090	450	430	450	Hollydale
	7	103091	255	235	255	Gage

1 - Unless otherwise noted, aquifer designations are based on DWR's Bulletin 104.

2 - Aquifer designation is based on WRD's in-house interpretation.

TABLE 1.1
CONSTRUCTION INFORMATION FOR WRD NESTED MONITORING WELLS

Well Name	Zone	WRD ID Number	Depth of Well (feet)	Top of Perforation (feet)	Bottom of Perforation (feet)	Aquifer Designation [1]
Chandler #3B	1	100082	363	341	363	Silverado [2]
Chandler #3A	2	100083	192	165	192	Lynwood [2]
Commerce #1	1	100881	1390	1330	1390	Pico Formation [2]
	2	100882	960	940	960	Sunnyside
	3	100883	780	760	780	Sunnyside [2]
	4	100884	590	570	590	Silverado
	5	100885	345	325	345	Jefferson
	6	100886	225	205	225	Hollydale
Compton #1	1	101809	1410	1370	1390	Sunnyside [2]
	2	101810	1170	1150	1170	Sunnyside [2]
	3	101811	820	800	820	Silverado
	4	101812	480	460	480	Hollydale
	5	101813	325	305	325	Gage
Compton #2	1	101948	1495	1475	1495	Pico Formation [2]
	2	101949	850	830	850	Sunnyside [2]
	3	101950	605	585	605	Silverado
	4	101951	400	380	400	Lynwood [2]
	5	101952	315	295	315	Hollydale [2]
	6	101953	170	150	170	Exposition
Downey #1	1	100010	1190	1170	1190	Sunnyside [2]
	2	100011	960	940	960	Sunnyside [2]
	3	100012	600	580	600	Silverado
	4	100013	390	370	390	Jefferson
	5	100014	270	250	270	Gage
	6	100015	110	90	110	Gaspur
Gardena #1	1	100020	990	970	990	Pico Formation [2]
	2	100021	465	445	465	Silverado
	3	100022	365	345	365	Lynwood [2]
	4	100023	140	120	140	Gage
Gardena #2	1	101804	1335	1275	1335	Pico Formation [2]
	2	101805	790	770	790	Silverado
	3	101806	630	610	630	Silverado
	4	101807	360	340	360	Lynwood
	5	101808	255	235	255	Gardena
Hawthorne #1	1	100887	990	910	950	Pico Formation [2]
	2	100888	730	710	730	Sunnyside [2]
	3	100889	540	520	540	Sunnyside [2]
	4	100890	420	400	420	Silverado
	5	100891	260	240	260	Lynwood
	6	100892	130	110	130	Gage
Huntington Park #1	1	100005	910	890	910	Silverado
	2	100006	710	690	710	Lynwood
	3	100007	440	420	440	Hollydale
	4	100008	295	275	295	Gage
	5	100009	134	114	134	Gaspur

1 - Unless otherwise noted, aquifer designations are based on DWR's Bulletin 104.
2 - Aquifer designation is based on WRD's in-house interpretation.

TABLE 1.1
CONSTRUCTION INFORMATION FOR WRD NESTED MONITORING WELLS

Well Name	Zone	WRD ID Number	Depth of Well (feet)	Top of Perforation (feet)	Bottom of Perforation (feet)	Aquifer Designation [1]
Inglewood #1	1	100091	1400	1380	1400	Pico Formation [2]
	2	100092	885	865	885	Pico Formation [2]
	3	100093	450	430	450	Silverado
	4	100094	300	280	300	Lynwood [2]
	5	100095	170	150	170	Gage
Inglewood #2	1	100824	860	800	840	Pico Formation [2]
	2	100825	470	450	470	Silverado [2]
	3	100826	350	330	350	Lynwood [2]
	4	100827	245	225	245	Gage [2]
Inglewood #3	1	102138	1940	1900	1940	Pico Formation [2]
	2	102139	1460	1440	1460	Pico Formation [2]
	3	102140	1275	1255	1275	Pico Formation [2]
	4	102141	910	890	910	Pico Formation [2]
	5	102142	560	540	560	Silverado
	6	102143	390	370	390	Lynwood
	7	102144	265	245	265	Gage
Lakewood #1	1	100024	1009	989	1009	Sunnyside
	2	100025	660	640	660	Lynwood
	3	100026	470	450	470	Hollydale
	4	100027	300	280	300	Gage
	5	100028	160	140	160	Artesia
	6	100029	90	70	90	Bellflower
Lakewood #2	1	102151	2000	1960	2000	Sunnyside [2]
	2	102152	1760	1740	1760	Sunnyside [2]
	3	102153	1320	1300	1320	Sunnyside [2]
	4	102154	1015	995	1015	Silverado
	5	102155	710	690	710	Lynwood
	6	102156	575	555	575	Jefferson
	7	102157	275	255	275	Gage
	8	102158	120	110	120	Artesia
La Mirada #1	1	100876	1150	1130	1150	Sunnyside
	2	100877	985	965	985	Silverado [2]
	3	100878	710	690	710	Lynwood [2]
	4	100879	490	470	490	Jefferson [2]
	5	100880	245	225	245	Gage
Lawndale #1	1	102171	1400	1360	1400	Pico Formation [2]
	2	102172	905	885	905	Sunnyside [2]
	3	102173	635	615	635	Silverado
	4	102174	415	395	415	Silverado
	5	102175	310	290	310	Lynwood
	6	102176	190	170	190	Gardena
Lomita #1	1	100818	1340	1240	1260	Pico Formation [2]
	2	100819	720	700	720	Silverado
	3	100820	570	550	570	Silverado
	4	100821	420	400	420	Lynwood
	5	100822	240	220	240	Gage [2]
	6	100823	120	100	120	Gage [2]

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2 - Aquifer designation is based on WRD's in-house interpretation.

TABLE 1.1
CONSTRUCTION INFORMATION FOR WRD NESTED MONITORING WELLS

Well Name	Zone	WRD ID Number	Depth of Well (feet)	Top of Perforation (feet)	Bottom of Perforation (feet)	Aquifer Designation [1]
Long Beach #1	1	100920	1470	1430	1450	Sunnyside [2]
	2	100921	1250	1230	1250	Sunnyside
	3	100922	990	970	990	Silverado [2]
	4	100923	619	599	619	Lynwood [2]
	5	100924	420	400	420	Jefferson [2]
	6	100925	175	155	175	Artesia
Long Beach #2	1	101740	1090	970	990	Sunnyside
	2	101741	740	720	740	Silverado [2]
	3	101742	470	450	470	Silverado
	4	101743	300	280	300	Lynwood
	5	101744	180	160	180	Gage
	6	101745	115	95	115	Gaspur
Long Beach #3	1	101751	1390	1350	1390	Pico Formation [2]
	2	101752	1017	997	1017	Silverado
	3	101753	690	670	690	Silverado [2]
	4	101754	550	530	550	Silverado [2]
	5	101755	430	410	430	Lynwood
Long Beach #4	1	101759	1380	1200	1220	Pico Formation [2]
	2	101760	820	800	820	Sunnyside [2]
Long Beach #6	1	101792	1530	1490	1510	Pico Formation [2]
	2	101793	950	930	950	Sunnyside
	3	101794	760	740	760	Sunnyside
	4	101795	500	480	500	Silverado
	5	101796	400	380	400	Lynwood
	6	101797	240	220	240	Gage
Long Beach #8	1	101819	1495	1435	1455	Pico Formation [2]
	2	101820	1040	1020	1040	Sunnyside [2]
	3	101821	800	780	800	Silverado [2]
	4	101822	655	635	655	Silverado [2]
	5	101823	435	415	435	Silverado [2]
	6	101824	185	165	185	Lynwood [2]
Los Angeles #1	1	100926	1370	1350	1370	Sunnyside [2]
	2	100927	1100	1080	1100	Sunnyside
	3	100928	940	920	940	Sunnyside
	4	100929	660	640	660	Silverado
	5	100930	370	350	370	Lynwood [2]
Los Angeles #2	1	102003	1370	1330	1370	Pico Formation [2]
	2	102004	730	710	730	Sunnyside
	3	102005	525	505	525	Silverado
	4	102006	430	410	430	Lynwood
	5	102007	265	245	265	Hollydale [2]
	6	102008	155	135	155	Gardena

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2 - Aquifer designation is based on WRD's in-house interpretation.

TABLE 1.1
CONSTRUCTION INFORMATION FOR WRD NESTED MONITORING WELLS

Well Name	Zone	WRD ID Number	Depth of Well (feet)	Top of Perforation (feet)	Bottom of Perforation (feet)	Aquifer Designation [1]
Los Angeles #3	1	102069	1570	1210	1230	Pico Formation [2]
	2	102070	895	875	895	Sunnyside [2]
	3	102071	725	705	725	Sunnyside [2]
	4	102072	570	550	570	Sunnyside
	5	102073	350	330	350	Silverado [2]
	6	102074	210	190	210	Gage [2]
Los Angeles #4	1	102131	1780	1740	1780	Pico Formation [2]
	2	102132	1230	1190	1230	Sunnyside [2]
	3	102133	740	720	740	Sunnyside
	4	102134	510	490	510	Silverado
	5	102135	375	355	375	Lynwood
	6	102136	255	235	255	Gage
Los Angeles #5	1	103029	2000	1960	2000	Pico Formation [2]
	2	103030	1255	1235	1255	Sunnyside [2]
	3	103031	770	750	770	Sunnyside
	4	103032	575	555	575	Sunnyside
	5	103033	450	430	450	Silverado
	6	103034	235	215	235	Lynwood [2]
	7	103035	105	95	105	Exposition
Los Angeles #6	1	103047	600	580	600	Pico Formation [2]
	2	103048	440	420	440	Sunnyside
	3	103049	365	345	365	Silverado
	4	103050	275	255	275	Lynwood
Lynwood #1	1	102211	2900	2880	2900	Pico Formation [2]
	2	102212	2450	2430	2450	Pico Formation [2]
	3	102213	1670	1650	1670	Sunnyside [2]
	4	102214	1465	1445	1465	Sunnyside [2]
	5	102215	1220	1200	1220	Silverado [2]
	6	102216	900	880	900	Silverado [2]
	7	102217	660	640	660	Lynwood
	8	102218	335	315	335	Gardena
	9	102219	180	160	180	Gaspur
Manhattan Beach #1	1	102081	1990	1950	1990	Pico Formation [2]
	2	102082	1590	1570	1590	Pico Formation [2]
	3	102083	1270	1250	1270	Pico Formation [2]
	4	102084	885	865	885	Sunnyside [2]
	5	102085	660	640	660	Sunnyside [2]
	6	102086	340	320	340	Silverado
	7	102087	200	180	200	Gage
Montebello #1	1	101770	980	900	960	Pico Formation [2]
	2	101771	710	690	710	Sunnyside
	3	101772	520	500	520	Sunnyside
	4	101773	390	370	390	Silverado
	5	101774	230	210	230	Lynwood
	6	101775	110	90	110	Gage

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TABLE 1.1
CONSTRUCTION INFORMATION FOR WRD NESTED MONITORING WELLS

Well Name	Zone	WRD ID Number	Depth of Well (feet)	Top of Perforation (feet)	Bottom of Perforation (feet)	Aquifer Designation [1]
Montebello #2	1	103080	780	745	780	Pico Formation
	2	103081	435	415	435	Pico Formation
	3	103082	260	250	260	Sunnyside
	4	103083	200	180	200	Sunnyside
	5	103084	115	100	115	Gage
Norwalk #1	1	101814	1420	1400	1420	Sunnyside
	2	101815	1010	990	1010	Silverado
	3	101816	740	720	740	Lynwood
	4	101817	450	430	450	Hollydale
	5	101818	240	220	240	Gage
Norwalk #2	1	101942	1480	1460	1480	Pico Formation [2]
	2	101943	1280	1260	1280	Pico Formation [2]
	3	101944	980	960	980	Sunnyside [2]
	4	101945	820	800	820	Sunnyside [2]
	5	101946	500	480	500	Silverado
	6	101947	256	236	256	Gardena
Paramount #1	1	103093	2100	2080	2100	Pico Formation [2]
	2	103094	1720	1700	1720	Pico Formation [2]
	3	103095	1210	1190	1210	Pico Formation [2]
	4	103096	945	925	945	Sunnyside
	5	103097	640	620	640	Lynwood
	6	103098	440	420	440	Hollydale
	7	103099	235	215	235	Exposition
Pico #1	1	100001	900	860	900	Pico Formation [2]
	2	100002	480	460	480	Silverado
	3	100003	400	380	400	Silverado
	4	100004	190	170	190	Gardena [2]
Pico #2	1	100085	1200	1180	1200	Sunnyside [2]
	2	100086	850	830	850	Sunnyside [2]
	3	100087	580	560	580	Sunnyside
	4	100088	340	320	340	Silverado
	5	100089	255	235	255	Lynwood
	6	100090	120	100	120	Gaspur/Gage [2]
PM-1 Columbia	1	100042	605	555	595	Silverado
	2	100043	510	460	500	Silverado
	3	100044	290	240	280	Lynwood
	4	100045	210	160	200	Gardena
PM-2 Police Station	1	102237	665	645	665	Sunnyside [2]
	2	102238	540	520	540	Silverado
	3	102239	390	370	390	Lynwood/Silverado [2]
	4	102240	260	240	260	Lynwood
PM-3 Madrid	1	100034	685	640	680	Sunnyside [2]
	2	100035	525	480	520	Silverado
	3	100036	285	240	280	Lynwood
	4	100037	190	145	185	Gardena

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TABLE 1.1
CONSTRUCTION INFORMATION FOR WRD NESTED MONITORING WELLS

Well Name	Zone	WRD ID Number	Depth of Well (feet)	Top of Perforation (feet)	Bottom of Perforation (feet)	Aquifer Designation [1]
PM-4 Mariner	1	100038	720	670	710	Sunnyside [2]
	2	100039	550	500	540	Silverado
	3	100040	390	340	380	Lynwood
	4	100041	250	200	240	Gardena
PM-5 Columbia Park	1	102047	1480	1360	1380	Pico Formation [2]
	2	102048	960	940	960	Pico Formation [2]
	3	102049	790	770	790	Sunnyside [2]
	4	102050	600	580	600	Silverado
	5	102051	340	320	340	Lynwood [2]
	6	102052	160	140	160	Gardena
PM-6 Madrona Marsh	1	102053	1235	1195	1235	Pico Formation [2]
	2	102054	925	905	925	Sunnyside [2]
	3	102055	790	770	790	Sunnyside [2]
	4	102056	550	530	550	Silverado
	5	102057	410	390	410	Lynwood
	6	102058	260	240	260	Lynwood
PM-7 Mariner	1	103111	665	645	665	Silverado
	2	103112	505	485	505	Silverado
	3	103113	440	420	440	Silverado/Lynwood
	4	103114	380	360	380	Lynwood
	5	103115	310	290	310	Gardena
PM-8 Pioneer	1	103116	640	620	640	Silverado
	2	103117	485	465	485	Silverado
	3	103118	430	410	430	Silverado/Lynwood
	4	103119	375	355	375	Lynwood
	5	103120	290	270	290	Gardena
PM-9 La Romeria Park	1	103121	800	740	800	Pico Formation [2]
	2	103122	580	560	580	Silverado
	3	103123	470	450	470	Silverado
	4	103124	320	300	320	Gardena
	5	103125	245	225	245	Gardena
Rio Hondo #1	1	100064	1150	1110	1130	Pico Formation [2]
	2	100065	930	910	930	Sunnyside [2]
	3	100066	730	710	730	Sunnyside
	4	100067	450	430	450	Silverado
	5	100068	300	280	300	Hollydale
	6	100069	160	140	160	Gardena
Seal Beach #1	1	102062	1485	1345	1365	Sunnyside [2]
	2	102063	1180	1160	1180	Sunnyside [2]
	3	102064	1040	1020	1040	Sunnyside [2]
	4	102065	795	775	795	Silverado
	5	102066	625	605	625	Lynwood [2]
	6	102067	235	215	235	Gage
	7	102068	70	60	70	Artesia

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TABLE 1.1
CONSTRUCTION INFORMATION FOR WRD NESTED MONITORING WELLS

Well Name	Zone	WRD ID Number	Depth of Well (feet)	Top of Perforation (feet)	Bottom of Perforation (feet)	Aquifer Designation [1]
South Gate #1	1	100893	1460	1440	1460	Sunnyside [2]
	2	100894	1340	1320	1340	Sunnyside [2]
	3	100895	930	910	930	Silverado [2]
	4	100896	585	565	585	Lynwood
	5	100897	250	220	240	Exposition [2]
South Gate #2	1	102180	1760	1740	1760	Sunnyside [2]
	2	102181	1430	1410	1430	Sunnyside [2]
	3	102182	1082	1062	1082	Sunnyside
	4	102183	690	670	690	Silverado [2]
	5	102184	430	410	430	Hollydale
	6	102185	225	205	225	Gaspur [2]
Westchester #1	1	101776	860	740	760	Pico Formation [2]
	2	101777	580	560	580	Sunnyside [2]
	3	101778	475	455	475	Sunnyside [2]
	4	101779	330	310	330	Silverado
	5	101780	235	215	235	Silverado
Whittier #1	1	101735	1298	1180	1200	Pico Formation [2]
	2	101736	940	920	940	Pico Formation [2]
	3	101737	620	600	620	Sunnyside
	4	101738	470	450	470	Silverado
	5	101739	220	200	220	Jefferson
Whittier #2	1	101936	1390	1370	1390	Pico Formation [2]
	2	101937	1110	1090	1110	Pico Formation [2]
	3	101938	675	655	675	Sunnyside
	4	101939	445	425	445	Silverado
	5	101940	335	315	335	Silverado
	6	101941	170	150	170	Gage [2]
Whittier Narrows #1	1	100046	810	749	769	Sunnyside
	2	100047	810	610	629	Sunnyside
	3	100048	810	463	482.5	Sunnyside
	4	100049	810	393	402	Silverado
	5	100050	810	334	343.5	Silverado
	6	100051	810	273	282.5	Lynwood
	7	100052	810	234	243	Lynwood
	8	100053	810	163	173	Gardena
	9	100054	810	95	104.5	Gaspur
Whittier Narrows #2	1	100055	720	659	678.4	Pico Formation [2]
	2	100056	720	579	598.2	Pico Formation [2]
	3	100057	720	469	488.2	Pico Formation [2]
	4	100058	720	419	428.2	Pico Formation [2]
	5	100059	720	329	338.3	Pico Formation [2]
	6	100060	720	263	273.3	Lynwood
	7	100061	720	214	223.3	Lynwood
	8	100062	720	136	145.3	Gardena [2]
	9	100063	720	91	100.3	Gardena

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TABLE 1.1
CONSTRUCTION INFORMATION FOR WRD NESTED MONITORING WELLS

Well Name	Zone	WRD ID Number	Depth of Well (feet)	Top of Perforation (feet)	Bottom of Perforation (feet)	Aquifer Designation [1]
Willowbrook #1	1	100016	905	885	905	Sunnyside [2]
	2	100017	520	500	520	Silverado
	3	100018	380	360	380	Lynwood
	4	100019	220	200	220	Gage
Wilmington #1	1	100070	1040	915	935	Sunnyside [2]
	2	100071	800	780	800	Silverado
	3	100072	570	550	570	Silverado
	4	100073	245	225	245	Lynwood
	5	100074	140	120	140	Gage
Wilmington #2	1	100075	1030	950	970	Sunnyside [2]
	2	100076	775	755	775	Silverado
	3	100077	560	540	560	Silverado
	4	100078	410	390	410	Lynwood
	5	100079	140	120	140	Gage

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TABLE 1.2
CONSTRUCTION INFORMATION FOR WELLS NOT LISTED IN TABLE 1.1 THAT ARE USED TO PREPARE FIGURES 2.1 AND 2.2

Well Name	Zone	WRD ID Number	Reference Point Elevation (feet msl)	Depth of Well (feet)	Top of Perforation (feet)	Bottom of Perforation (feet)	Date of Measurement	Groundwater Elevation (feet msl)	Aquifer Designation [1]
Hawkins #1	3	102233	147.75	296	286	296	9/16/2024	66.18	Lynwood
LADWP MW-01	2	102251	133.91	580	510	560	9/10/2024	-8.11	Silverado
La Habra Heights #1	1	102164	151.00	570	540	560	9/16/2024	94.59	Sunnyside
LongBeach #7	2	101899	16.35	670	650	670	9/20/2024	-45.75	Silverado
Sepulveda #1	1	201058	90.00	550	370	530	9/12/2024	4.43	Silverado

1 - Aquifer designations are based on DWR's Bulletin 104.

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TABLE 2.1
GROUNDWATER ELEVATIONS, WATER YEAR 2023 - 2024

	ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5	ZONE 6	ZONE 7	ZONE 8	ZONE 9
Bell #1									Reference Point Elevation: 149.25
Depth of Screen Interval	1730-1750	1195-1215	965-985	615-635	420-440	250-270			
Aquifer Name [1]	Pico Form. [2]	Sunnyside	Sunnyside	Silverado	Jefferson	Gage			
12/18/2023	-0.01	-12.56	-1.67	-4.22	-0.94	12.26			
3/18/2024	2.96	-13.70	4.10	0.30	4.37	14.50			
6/10/2024	10.83	-9.90	9.84	3.47	8.60	15.66			
6/12/2024	10.46	-10.34	9.73	3.84	8.56	15.71			
9/19/2024	-9.24	-5.75	6.61	-0.21	6.42	13.72			
Bell Gardens #1									Reference Point Elevation: 121.03
Depth of Screen Interval	1775-1795	1390-1410	1090-1110	855-875	555-575	370-390			
Aquifer Name [1]	Sunnyside [2]	Sunnyside [2]	Sunnyside	Sunnyside	Silverado	Lynwood			
12/19/2023	19.65	20.43	24.13	26.72	28.26	23.79			
3/18/2024	26.70	29.35	33.45	34.10	34.58	29.15			
6/6/2024	33.46	35.82	40.10	40.91	40.59	33.34			
6/10/2024	33.38	35.77	40.84	40.71	40.53	33.60			
9/19/2024	27.99	29.03	38.31	36.36	37.62	32.03			
Carson #1									Reference Point Elevation: 26.86
Depth of Screen Interval	990-1010	740-760	460-480	250-270					
Aquifer Name [1]	Silverado	Silverado	Lynwood	Gage [2]					
12/15/2023	-42.63	-39.03	-9.10	-7.69					
3/22/2024	-45.34	-44.16	-8.29	-6.88					
4/26/2024	-45.20	-44.10	-8.05	-6.51					
6/11/2024	-45.69	-44.58	-8.21	-6.61					
8/22/2024	-45.59	-45.12	-8.14	-6.55					
9/10/2024	-47.68	-46.56	-8.49	-6.80					
Carson #2									Reference Point Elevation: 43.04
Depth of Screen Interval	1230-1250	850-870	600-620	450-470	230-250				
Aquifer Name [1]	Sunnyside [2]	Sunnyside [2]	Silverado	Silverado	Lynwood				
12/15/2023	-28.81	-24.24	-23.87	-20.49	-18.14				
3/22/2024	-29.58	-24.96	-24.58	-20.78	-18.16				
4/25/2024	-29.41	-24.72	-24.39	-20.52	-17.87				
6/14/2024	-30.01	-25.25	-25.86	-20.91	-18.16				
9/18/2024	-30.98	-26.24	-25.86	-21.90	-19.11				
Carson #3									Reference Point Elevation: 20.18
Depth of Screen Interval	1600-1620	1220-1240	1080-1100	870-890	620-640	360-380			
Aquifer Name [1]	Pico Form. [2]	Sunnyside [2]	Silverado [2]	Silverado	Silverado	Lynwood			
12/8/2023	-26.28	-33.52	-33.83	-35.99	-35.83	-11.27			
3/22/2024	-25.85	-33.74	-34.57	-37.92	-37.97	-11.07			
5/29/2024	-25.74	-34.31	-35.98	-39.05	-39.07	-10.95			
6/14/2024	-25.85	-34.45	-36.32	-39.41	-39.50	-11.11			
9/10/2024	-26.04	-34.79	-36.87	-40.32	-40.36	-11.36			
9/23/2024	-26.07	-35.16	-37.24	-40.62	-40.68	-11.53			
Cerritos #1									Reference Point Elevation: 43.35
Depth of Screen Interval	1155-1175	1000-1020	610-630	270-290	180-200	125-135			
Aquifer Name [1]	Sunnyside [2]	Silverado [2]	Lynwood	Gage	Artesia	Artesia			
12/8/2023	-16.59	-25.96	-11.2	23.15	24.05	24.12			
3/13/2024	-6.15	-11.88	-0.07	26.90	27.25	27.30			
5/14/2024	-8.17	-21.63	-3.44	23.49	27.85	27.90			
6/11/2024	-16.10	-31.80	-10.85	26.86	27.36	27.34			
9/16/2024	-22.15	-34.24	-15.36	24.30	25.67	25.65			

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- Shaded cell indicates the zone and measurement used in Figures 2.1 and 2.2.

- Reference Point Elevations surveyed relative to the NAVD88 reference plane

TABLE 2.1
GROUNDWATER ELEVATIONS, WATER YEAR 2023 - 2024

	ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5	ZONE 6	ZONE 7	ZONE 8	ZONE 9
Cerritos #2									Reference Point Elevation: 76.47
Depth of Screen Interval	1350-1370	915-935	740-760	490-510	350-370	150-170			
Aquifer Name [1]	Sunnyside [2]	Silverado	Lynwood [2]	Hollydale	Gage	Artesia			
12/5/2023	-5.49	-11.98	-16.09	0.71	18.41	24.77			
3/13/2024	1.12	-1.42	2.17	10.96	22.75	26.77			
5/21/2024	5.40	-6.91	-13.51	6.75	21.57	27.67			
6/11/2024	3.98	-10.97	-13.04	5.26	21.81	27.82			
9/11/2024	-5.60	-14.37	-14.97	4.14	22.02	28.20			
Cerritos #3									Reference Point Elevation: 64.29
Depth of Screen Interval	2100-2120	1650-1670	1375-1395	1030-1050	760-780	430-450	235-255		
Aquifer Name [1]	Sunnyside	Sunnyside	Sunnyside	Silverado	Hollydale	Hollydale	Gage		
12/14/2023	32.99	0.85	-0.08	-8.23	-16.57	-9.47	19.09		
3/13/2024	35.24	3.62	5.38	-0.95	-13.30	-4.01	22.04		
3/27/2024	36.25	6.56	7.60	0.99	-7.16	-0.74	22.44		
6/11/2024	41.49	10.53	9.67	2.96	-12.67	-5.88	22.33		
7/31/2024	40.65	4.27	3.04	-2.99	-21.58	-11.39	21.86		
9/24/2024	37.92	-4.46	-4.95	-7.62	-20.91	-10.57	21.85		
Chandler #3									Reference Point Elevation: 156.01
Depth of Screen Interval	341-363	165-192							
Aquifer Name [1]	Silverado [2]	Lynwood [2]							
12/7/2023	-9.28	-9.09							
3/14/2024	-8.52	-8.37							
4/4/2024	-8.51	-8.38							
6/13/2024	-9.02	-8.80							
9/12/2024	-9.28	-9.13							
Commerce #1									Reference Point Elevation: 159.31
Depth of Screen Interval	1330-1390	940-960	760-780	570-590	325-345	205-225			
Aquifer Name [1]	Pico Form. [2]	Sunnyside	Sunnyside [2]	Silverado	Jefferson	Hollydale			
12/18/2023	33.56	37.38	35.35	2.49	-3.29	24.17			
3/14/2024	38.16	41.87	40.41	9.92	0.80	25.21			
6/4/2024	42.88	46.90	45.49	14.59	5.17	26.26			
6/5/2024	42.78	46.84	45.47	14.40	4.98	26.24			
9/19/2024	39.18	47.49	45.52	14.18	7.03	27.31			
Compton #1									Reference Point Elevation: 68.84
Depth of Screen Interval	1370-1390	1150-1170	800-820	460-480	305-325				
Aquifer Name [1]	Sunnyside [2]	Sunnyside [2]	Silverado	Hollydale	Gage				
12/8/2023	-29.43	-29.33	-14.07	-16.48	-3.34				
3/12/2024	-23.93	-23.76	-10.07	-11.86	1.49				
5/30/2024	-23.69	-23.51	-6.75	-10.65	2.73				
6/14/2024	-25.99	-25.80	-7.29	-11.36	2.10				
9/17/2024	-34.41	-34.16	-10.47	-13.03	1.51				
9/25/2024	-35.33	-35.38	-10.91	-13.60	Not Measured				
Compton #2									Reference Point Elevation: 76.97
Depth of Screen Interval	1479-1495	830-850	585-605	380-400	295-315	150-170			
Aquifer Name [1]	Pico Form. [2]	Sunnyside [2]	Silverado	Lynwood [2]	Hollydale [2]	Exposition			
12/8/2023	-13.23	-37.71	-42.65	-41.41	-32.48	-27.83			
3/12/2024	-10.15	-33.03	-40.62	-39.18	-30.65	-26.07			
4/19/2024	-6.75	-30.57	-40.96	-40.08	-31.54	-26.57			
6/14/2024	-2.70	-29.56	-39.96	-39.15	-31.15	-26.13			
9/17/2024	-6.22	-34.24	-40.12	-38.65	-30.03	-25.54			

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- Reference Point Elevations surveyed relative to the NAVD88 reference plane

TABLE 2.1
GROUNDWATER ELEVATIONS, WATER YEAR 2023 - 2024

	ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5	ZONE 6	ZONE 7	ZONE 8	ZONE 9
Downey #1									Reference Point Elevation: 99.39
Depth of Screen Interval	1170-1190	940-960	580-600	370-390	250-270	90-110			
Aquifer Name [1]	Sunnyside [2]	Sunnyside [2]	Silverado	Jefferson	Gage	Gaspur			
12/13/2023	14.69	14.58	16.23	15.39	27.27	28.49			
3/25/2024	23.01	22.08	23.71	22.02	29.90	30.43			
4/15/2024	26.20	24.85	26.12	24.15	30.58	30.85			
6/6/2024	28.72	26.74	25.33	23.51	31.27	31.98			
8/13/2024	22.37	21.51	21.84	21.12	32.36	33.33			
9/20/2024	19.54	19.31	21.70	21.66	33.07	34.36			
Gardena #1									Reference Point Elevation: 84.23
Depth of Screen Interval	970-990	445-465	345-365	120-140					
Aquifer Name [1]	Pico Form. [2]	Silverado	Lynwood [2]	Gage					
12/15/2023	-32.77	-94.41	-60.65	-2.10					
3/15/2024	-32.03	-73.20	-47.29	-1.58					
5/16/2024	-34.06	-80.72	-62.93	-1.75					
6/15/2024	-34.70	-97.18	-62.03	-1.66					
9/3/2024	-37.11	-93.20	-68.51	-1.94					
9/15/2024	-37.33	-102.34	-69.18	-1.89					
Gardena #2									Reference Point Elevation: 29.45
Depth of Screen Interval	1275-1335	770-790	610-630	340-360	235-255				
Aquifer Name [1]	Pico Form. [2]	Silverado	Silverado	Lynwood	Gardena				
12/8/2023	-28.30	-43.33	-44.11	-13.23	-2.68				
3/15/2024	-28.79	-46.92	-48.29	-13.16	-1.59				
5/7/2024	-29.52	-47.94	-49.12	-13.30	-1.50				
6/11/2024	-30.11	-49.85	-51.25	-14.13	-2.06				
8/21/2024	-30.84	-50.04	-51.44	-14.35	-2.41				
9/17/2024	-31.19	-51.08	-52.54	-14.97	-2.58				
Hawthorne #1									Reference Point Elevation: 88.98
Depth of Screen Interval	910-950	710-730	520-540	400-420	240-260	110-130			
Aquifer Name [1]	Pico Form. [2]	Sunnyside [2]	Sunnyside [2]	Silverado	Lynwood	Gage			
12/15/2023	-24.04	-4.49	-3.77	-3.56	0.52	9.12			
3/11/2024	-23.67	-2.30	-1.35	-1.34	2.08	9.64			
4/10/2024	-23.38	0.19	0.76	0.91	3.54	9.53			
6/13/2024	-21.73	0.19	0.72	0.88	3.60	9.78			
9/16/2024	-22.98	-2.45	-1.62	-1.48	2.13	10.08			
Huntington Park #1									Reference Point Elevation: 179.44
Depth of Screen Interval	890-910	690-710	420-440	275-295	114-134				
Aquifer Name [1]	Silverado	Lynwood	Hollydale	Gage	Gaspur				
12/13/2023	-21.91	-24.99	-17.81	8.43	Dry				
3/12/2024	-17.44	-19.73	-12.71	9.54	Dry				
4/22/2024	-16.32	-19.99	-12.21	9.98	Dry				
6/10/2024	-16.50	-20.73	-12.63	10.06	Dry				
8/29/2024	-15.42	-18.17	-10.85	10.12	Dry				
9/16/2024	-14.80	-19.04	-11.08	10.24	Dry				
Inglewood #1									Reference Point Elevation: 112.82
Depth of Screen Interval	1380-1400	865-885	430-450	280-300	150-170				
Aquifer Name [1]	Pico Form. [2]	Pico Form. [2]	Silverado	Lynwood [2]	Gage				
12/6/2023	-24.53	-20.98	-10.09	0.92	6.61				
3/12/2024	-23.66	-20.38	-9.08	1.24	6.78				
5/6/2024	-23.56	-20.50	-8.50	1.73	6.96				
6/12/2024	-23.74	-20.10	-7.74	1.95	7.39				
9/9/2024	-22.73	-19.90	-7.53	2.33	7.73				
9/16/2024	-22.65	-19.97	-7.61	2.13	7.65				

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- Reference Point Elevations surveyed relative to the NAVD88 reference plane

TABLE 2.1
GROUNDWATER ELEVATIONS, WATER YEAR 2023 - 2024

	ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5	ZONE 6	ZONE 7	ZONE 8	ZONE 9
Inglewood #2									Reference Point Elevation: 219.82
Depth of Screen Interval	800-840	450-470	330-350	225-245					
Aquifer Name [1]	Pico Form. [2]	Silverado [2]	Lynwood [2]	Gage [2]					
12/6/2023	-24.23	-16.28	-1.81	2.37					
3/12/2024	-23.06	-16.22	-1.66	2.82					
6/12/2024	-21.72	-15.50	-1.57	2.87					
9/9/2024	-20.73	-15.28	-1.52	2.91					
Inglewood #3									Reference Point Elevation: 72.20
Depth of Screen Interval	1900-1940	1440-1460	1255-1275	890-910	540-560	370-390	245-265		
Aquifer Name [1]	Pico Form. [2]	Pico Form. [2]	Pico Form. [2]	Pico Form. [2]	Silverado	Lynwood	Gage		
12/6/2023	-35.15	-25.29	-24.65	-24.18	-24.63	-1.31	7.64		
3/12/2024	-33.50	-25.11	-26.70	-23.73	-24.08	-1.01	7.95		
4/9/2024	-33.23	-25.32	-26.88	-23.74	-24.04	-0.20	8.05		
8/21/2024	-31.66	-25.65	-28.13	-23.12	-23.29	0.38	8.68		
9/10/2024	-31.45	-25.48	-28.26	-23.29	-23.63	-0.55	8.77		
Lakewood #1									Reference Point Elevation: 53.87 (Zones 5 and 6) and 53.14 (Zones 1, 2, 3 and 4)
Depth of Screen Interval	989-1009	640-660	450-470	280-300	140-160	70-90			
Aquifer Name [1]	Sunnyside	Lynwood	Hollydale	Gage	Artesia	Bellflower			
12/15/2023	-21.34	-22.84	-20.36	-4.93	7.26	23.91			
3/15/2024	-14.66	-17.71	-14.92	0.38	12.45	26.97			
3/21/2024	-12.76	-17.24	-14.39	0.50	12.51	26.75			
6/15/2024	-15.99	-18.88	-17.06	-0.66	11.79	27.66			
9/15/2024	-24.64	-22.80	-20.91	-3.00	9.90	27.32			
Lakewood #2									Reference Point Elevation: 40.51
Depth of Screen Interval	1960-2000	1740-1760	1300-1320	995-1015	690-710	555-575	255-275	110-120	
Aquifer Name [1]	Sunnyside [2]	Sunnyside [2]	Sunnyside [2]	Silverado	Lynwood	Jefferson	Gage	Artesia	
12/13/2023	-8.94	-22.98	-26.88	-40.13	-12.94	-2.73	20.59	22.54	
3/13/2024	0.02	-14.35	-15.80	-16.43	0.11	6.38	22.88	24.66	
5/23/2024	8.33	-17.11	-27.12	-37.61	-6.48	3.37	23.88	29.58	
6/14/2024	6.35	-20.08	-30.54	-45.76	-12.60	-7.71	23.83	25.50	
9/19/2024	-6.04	-30.23	-38.79	-49.44	-20.90	-5.40	22.79	24.58	
9/26/2024	-7.53	-30.74	-39.24	-49.60	-24.30	-7.90	22.72	24.51	
La Mirada #1									Reference Point Elevation: 78.30
Depth of Screen Interval	1130-1150	965-985	690-710	470-490	225-245				
Aquifer Name [1]	Sunnyside	Silverado [2]	Lynwood [2]	Jefferson [2]	Gage				
12/5/2023	7.98	8.03	-3.10	-18.62	3.00				
3/12/2024	7.48	14.00	6.75	-11.05	10.75				
4/30/2024	20.87	21.30	10.46	-5.58	13.38				
6/11/2024	11.55	17.58	1.98	-13.85	8.24				
8/28/2024	1.16	8.45	-4.99	-20.71	3.24				
9/16/2024	-2.82	5.30	-4.69	-22.19	3.01				
Lawndale #1									Reference Point Elevation: 48.93
Depth of Screen Interval	1360-1400	895-905	615-635	395-415	290-310	170-190			
Aquifer Name [1]	Pico Form. [2]	Sunnyside [2]	Silverado	Silverado	Lynwood	Gardena			
12/21/2023	-24.50	-43.21	-5.83	-5.41	-2.34	0.72			
3/22/2024	-24.59	-46.53	-3.55	-3.00	-0.02	-0.64			
4/2/2024	-24.28	-46.82	-2.88	-2.39	1.22	2.21			
6/7/2024	-24.80	-49.59	-3.92	-3.40	-2.15	1.31			
8/5/2024	-25.17	-48.25	-4.03	-4.01	-2.82	-1.62			
9/10/2024	-25.33	-50.32	-5.30	-4.88	-3.32	-2.31			

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- Reference Point Elevations surveyed relative to the NAVD88 reference plane

TABLE 2.1
GROUNDWATER ELEVATIONS, WATER YEAR 2023 - 2024

	ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5	ZONE 6	ZONE 7	ZONE 8	ZONE 9
Lomita #1									Reference Point Elevation: 79.48
Depth of Screen Interval	1240-1260	700-720	550-570	400-420	220-240	100-120			
Aquifer Name [1]	Pico Form. [2]	Silverado	Silverado	Lynwood	Gage [2]	Gage [2]			
12/7/2023	-22.07	-12.75	-9.08	-11.80	-8.23	-8.20			
3/11/2024	-17.05	-12.13	-8.15	-11.40	-7.65	-7.63			
5/29/2024	-17.82	-13.58	-7.83	-11.08	-7.67	not measured			
6/13/2024	-18.06	-12.79	-9.12	-11.08	-7.63	-7.71			
9/12/2024	-17.64	-12.67	-8.42	-11.80	-7.55	-7.42			
9/17/2024	-13.37	-13.86	-8.72	-11.90	-8.09	not measured			
Long Beach #1									Reference Point Elevation: 30.86
Depth of Screen Interval	1430-1450	1230-1250	970-990	599-619	400-420	155-175			
Aquifer Name [1]	Sunnyside [2]	Sunnyside	Silverado [2]	Lynwood [2]	Jefferson [2]	Artesia			
12/15/2023	-11.36	-13.53	-31.15	-20.93	-18.95	-0.71			
3/14/2024	-7.86	-9.73	-14.96	-10.27	-6.23	6.23			
4/29/2024	0.95	-1.25	-12.41	-11.60	-11.55	5.51			
6/14/2024	-11.15	-14.49	-28.19	-19.44	-18.02	1.72			
9/9/2024	-21.31	-24.68	-42.39	-27.37	-25.49	-0.97			
9/11/2024	-21.44	-24.86	-42.70	-27.57	-25.77	-1.19			
Long Beach #2									Reference Point Elevation: 44.20
Depth of Screen Interval	970-990	720-740	450-470	280-300	160-180	95-115			
Aquifer Name [1]	Sunnyside	Silverado [2]	Silverado	Lynwood	Gage	Gaspur			
12/15/2023	-39.34	-35.40	-38.60	-10.02	-0.12	1.58			
3/12/2024	-30.59	-29.55	-35.18	-8.31	1.17	2.58			
3/22/2024	-24.69	-28.63	-36.05	-8.05	1.16	2.65			
6/13/2024	-42.88	-29.74	-36.77	-7.45	2.09	3.55			
9/11/2024	-52.33	-35.38	-41.61	-7.51	2.55	4.09			
Long Beach #3									Reference Point Elevation: 26.67
Depth of Screen Interval	1350-1390	997-1017	670-690	530-550	410-430				
Aquifer Name [1]	Pico Form. [2]	Silverado	Silverado [2]	Silverado [2]	Lynwood				
12/20/2023	-31.78	-44.17	-44.20	-44.77	1.46				
3/11/2024	-31.45	-47.29	-47.30	-47.81	2.61				
5/8/2024	-31.12	-48.78	-48.64	-49.30	3.34				
6/18/2024	-31.68	-48.31	-48.29	-48.75	2.99				
8/22/2024	-31.55	-48.31	-48.34	-48.87	2.44				
9/18/2024	-31.85	-49.86	-49.85	-50.20	2.04				
Long Beach #4									Reference Point Elevation: 12.34
Depth of Screen Interval	1200-1220	800-820							
Aquifer Name [1]	Pico Form. [2]	Sunnyside [2]							
12/22/2023	-27.31	-9.15							
3/26/2024	-27.66	-9.61							
6/13/2024	-28.19	-9.71							
9/19/2024	-27.81	-8.96							
Long Beach #6									Reference Point Elevation: 34.47
Depth of Screen Interval	1490-1510	930-950	740-760	480-500	380-400	220-240			
Aquifer Name [1]	Pico Form. [2]	Sunnyside	Sunnyside	Silverado	Lynwood	Gage			
12/14/2023	-24.31	-38.63	-41.81	-46.57	-46.51	-24.14			
3/14/2024	-22.70	-24.94	-24.87	-26.62	-26.54	-21.51			
5/13/2024	-13.95	-39.12	-41.98	-44.45	-44.34	-22.19			
6/7/2024	-22.26	-49.51	-52.28	-53.56	-53.42	-23.45			
9/5/2024	-37.25	-61.52	-63.89	-63.52	-63.45	-26.52			
9/13/2024	-37.99	-62.08	-64.59	-64.84	-64.76	-26.97			

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- Reference Point Elevations surveyed relative to the NAVD88 reference plane

TABLE 2.1
GROUNDWATER ELEVATIONS, WATER YEAR 2023 - 2024

	ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5	ZONE 6	ZONE 7	ZONE 8	ZONE 9
Long Beach #8									Reference Point Elevation: 21.20
Depth of Screen Interval	1435-1455	1020-1040	780-800	635-655	415-435	165-185			
Aquifer Name [1]	Pico Form. [2]	Sunnyside [2]	Silverado [2]	Silverado [2]	Silverado [2]	Lynwood [2]			
1/5/2024	-10.04	-26.14	-39.60	-37.55	-37.01	5.35			
3/22/2024	-9.63	-26.15	-40.24	-38.56	-37.56	5.39			
5/3/2024	-9.73	-25.63	-40.63	-38.26	-37.74	6.03			
6/13/2024	-9.67	-25.75	-40.75	-38.42	-38.00	6.21			
9/19/2024	-9.61	-25.98	-41.74	-39.46	-38.96	6.30			
Los Angeles #1									Reference Point Elevation:176.21
Depth of Screen Interval	1350-1370	1080-1100	920-940	640-660	350-370				
Aquifer Name [1]	Sunnyside [2]	Sunnyside	Sunnyside	Silverado	Lynwood [2]				
12/13/2023	-20.78	-16.98	-17.84	-18.34	-11.35				
3/26/2024	-18.37	-14.12	-15.00	-15.59	-9.79				
4/24/2024	-17.48	-13.02	-14.13	-15.09	-9.26				
6/28/2024	-15.79	-12.13	-13.26	-14.20	-8.51				
9/11/2024	-16.19	-11.65	-12.68	-13.16	-7.49				
Los Angeles #2									Reference Point Elevation: 220.33
Depth of Screen Interval	1330-1370	710-730	505-525	410-430	245-265	135-155			
Aquifer Name [1]	Pico Form. [2]	Sunnyside	Silverado	Lynwood	Hollydale [2]	Gardena			
12/5/2023	43.10	-0.47	-0.62	-15.45	-22.65	Dry			
3/13/2024	42.89	0.82	-1.00	-13.44	-21.12	Dry			
5/17/2024	not measured	2.94	2.82	-11.92	-18.78	Dry			
6/12/2024	45.45	3.60	3.52	-11.28	-18.16	Dry			
9/4/2024	not measured	5.38	5.27	-9.82	-16.48	Dry			
9/20/2024	43.11	5.62	5.42	-9.51	-16.38	Dry			
Los Angeles #3									Reference Point Elevation: 145.35
Depth of Screen Interval	1210-1230	875-895	705-725	550-570	330-350	190-210			
Aquifer Name [1]	Pico Form. [2]	Sunnyside [2]	Sunnyside [2]	Sunnyside	Silverado [2]	Gage [2]			
12/5/2023	-13.65	-4.94	-8.47	-10.65	-8.58	4.14			
3/13/2024	-11.61	-3.46	-6.84	-10.19	-5.79	5.03			
5/1/2024	-10.78	-2.82	-5.80	-8.90	-7.02	5.52			
6/12/2024	-9.87	-2.40	-5.36	-8.45	-6.54	5.83			
8/28/2024	-9.81	-2.04	-4.93	-7.44	-5.71	6.36			
9/20/2024	-9.38	-1.73	-4.65	-7.27	-5.24	6.75			
Los Angeles #4									Reference Point Elevation: 136.04
Depth of Screen Interval	1740-1780	1190-1230	720-740	490-510	355-375	235-255			
Aquifer Name [1]	Pico Form. [2]	Sunnyside [2]	Sunnyside	Silverado	Lynwood	Gage			
3/12/2024	-17.58	-21.21	-21.29	-21.38	-22.09	-15.17			
4/25/2024	-15.50	-18.67	-17.98	-20.59	-21.38	-14.67			
6/10/2024	-13.50	-17.09	-17.74	-20.38	-21.19	-14.17			
8/6/2024	-13.13	-17.87	-18.88	-19.59	-20.43	-13.61			
9/17/2024	-13.31	-18.42	-18.83	-19.52	-20.23	-13.21			
Los Angeles #5									Reference Point Elevation: 104.11
Depth of Screen Interval	1960-2000	1235-1255	750-770	555-575	430-450	215-235	95-105		
Aquifer Name [1]	Pico Form. [2]	Sunnyside [2]	Sunnyside	Sunnyside	Silverado	Lynwood [2]	Exposition		
12/12/2023	5.67	8.26	12.86	7.84	5.27	33.74	64.53		
3/25/2024	6.16	9.16	14.96	8.15	5.73	34.50	66.78		
4/22/2024	4.83	9.52	14.27	8.46	5.96	34.74	not measured		
6/19/2024	6.56	9.61	13.73	8.97	6.38	35.21	not measured		
9/10/2024	6.57	9.93	14.08	9.33	6.69	35.54	67.06		

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TABLE 2.1
GROUNDWATER ELEVATIONS, WATER YEAR 2023 - 2024

	ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5	ZONE 6	ZONE 7	ZONE 8	ZONE 9
Los Angeles #6									Reference Point Elevation: 213.59
Depth of Screen Interval	580-600	420-440	345-365	255-275					
Aquifer Name [1]	Pico Form. [2]	Sunnyside	Silverado	Lynwood					
1/8/2024	4.56	-1.91	-2.15	-3.29					
3/26/2024	5.32	-1.25	-1.53	-2.62					
6/10/2024	6.15	-0.44	-0.72	-1.77					
7/19/2024	6.50	-0.22	-0.45	-1.56					
9/20/2024	7.37	0.53	0.23	-0.89					
Lynwood #1									Reference Point Elevation: 88.86 (Zones 3, 4, 5, 6, 7 and 9) and 89.29 (Zones 1, 2 and 8)
Depth of Screen Interval	2880-2900	2430-2450	1650-1670	1445-1465	1200-1220	880-900	640-660	315-335	160-180
Aquifer Name [1]	Pico Form. [2]	Pico Form. [2]	Sunnyside [2]	Sunnyside [2]	Silverado [2]	Silverado [2]	Lynwood	Gardena	Gaspur
12/8/2023	-10.38	-22.72	-27.64	-22.85	-13.70	-15.65	-18.83	-12.85	32.92
3/22/2024	-6.74	-18.01	-20.12	-15.45	-7.36	-12.13	-14.69	-8.84	34.24
6/4/2024	-2.50	-13.35	not measured	not measured	not measured	not measured	not measured	-7.06	not measured
6/5/2024	not measured	not measured	-19.71	-13.78	-2.75	-9.21	-12.11	not measured	34.08
6/14/2024	-3.59	-14.12	-20.84	-14.78	-3.75	-10.04	-13.04	-8.15	34.02
9/3/2024	-2.50	-19.48	not measured	not measured	not measured	not measured	not measured	-9.92	not measured
9/4/2024	not measured	not measured	-26.48	-20.21	-8.55	-12.23	-14.81	not measured	34.26
9/19/2024	-2.47	-20.09	-27.27	-21.14	-9.30	-12.55	-15.00	-10.74	34.38
Manhattan Beach #1									Reference Point Elevation: 128.71
Depth of Screen Interval	1950-1990	1570-1590	1250-1270	865-885	640-660	320-340	180-200		
Aquifer Name [1]	Pico Form. [2]	Pico Form. [2]	Pico Form. [2]	Sunnyside [2]	Sunnyside [2]	Silverado	Gage		
1/2/2024	1.87	-0.77	-24.00	1.31	0.29	9.61	12.60		
3/11/2024	2.13	-0.42	-23.67	2.37	1.46	10.55	13.42		
3/28/2024	1.92	-0.75	-24.06	2.57	1.27	10.39	Not Measured		
3/29/2024	Not Measured	Not Measured	Not Measured	Not Measured	Not Measured	Not Measured	13.31		
6/17/2024	2.57	-0.42	-24.00	3.38	1.39	10.73	13.57		
7/24/2024	2.02	-0.64	-24.32	3.40	1.84	11.15	13.90		
9/16/2024	2.26	-0.41	-24.30	2.73	1.76	11.11	14.03		
Montebello #1									Reference Point Elevation: 193.11
Depth of Screen Interval	900-960	690-710	500-520	370-390	210-230	90-110			
Aquifer Name [1]	Pico Form. [2]	Sunnyside	Sunnyside	Silverado	Lynwood	Gage			
12/14/2023	88.63	84.35	83.62	79.72	76.03	Dry			
3/14/2024	95.86	97.31	96.61	91.88	80.09	Dry			
5/16/2024	102.79	104.04	103.31	98.35	87.67	Dry			
6/4/2024	103.86	104.89	104.03	99.16	89.57	Dry			
8/20/2024	105.35	102.57	101.66	97.15	93.36	Dry			
9/17/2024	102.34	97.87	96.96	92.99	92.75	Dry			
Montebello #2									Reference Point Elevation: 182.95
Depth of Screen Interval	745-780	415-435	250-260	180-200	100-115				
Aquifer Name [1]	Pico Form. [2]	Pico Form. [2]	Sunnyside	Sunnyside	Gage				
12/14/2023	119.49	135.92	133.86	133.30	140.47				
3/14/2024	124.01	140.99	145.40	145.10	148.20				
5/31/2024	125.60	147.76	153.40	153.48	156.11				
6/4/2024	118.75	148.21	153.52	153.26	156.30				
9/6/2024	127.12	148.46	147.43	147.21	152.72				
Norwalk #1									Reference Point Elevation: 96.18
Depth of Screen Interval	1400-1420	990-1010	720-740	430-450	220-240				
Aquifer Name [1]	Sunnyside	Silverado	Lynwood	Hollydale	Gage				
12/12/2023	44.68	7.89	20.12	2.14	0.74				
3/15/2024	46.97	10.55	24.92	6.35	4.50				
5/23/2024	51.30	20.04	31.30	8.05	6.13				
6/13/2024	52.98	18.80	31.39	7.74	6.17				
9/19/2024	51.28	2.05	25.73	6.18	6.17				

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- Reference Point Elevations surveyed relative to the NAVD88 reference plane

TABLE 2.1
GROUNDWATER ELEVATIONS, WATER YEAR 2023 - 2024

	ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5	ZONE 6	ZONE 7	ZONE 8	ZONE 9
Norwalk #2									Reference Point Elevation: 116.73
Depth of Screen Interval	1460-1480	1260-1280	960-980	800-820	480-500	236-256			
Aquifer Name [1]	Pico Form. [2]	Pico Form. [2]	Sunnyside [2]	Sunnyside [2]	Silverado	Gardena			
12/12/2023	26.31	26.29	23.27	25.55	26.95	29.33			
4/4/2024	32.43	32.45	34.83	37.68	36.18	36.35			
6/13/2024	37.29	37.31	38.02	40.86	37.60	38.82			
9/20/2024	32.59	32.56	27.90	31.52	35.45	39.99			
9/25/2024	32.29	32.24	27.51	31.11	35.25	39.86			
Paramount #1									Reference Point Elevation: 70.70
Depth of Screen Interval	2080-2100	1700-1720	1190-1210	925-945	620-640	420-440	215-235		
Aquifer Name [1]	Pico Form. [2]	Pico Form. [2]	Pico Form. [2]	Sunnyside	Lynwood	Hollydale	Exposition		
12/20/2023	5.43	-7.79	-3.56	2.15	5.14	23.67	28.06		
4/8/2024	14.64	-0.15	6.32	10.59	13.13	26.26	29.67		
4/25/2024	17.29	1.20	6.34	10.66	12.83	26.68	30.05		
6/6/2024	19.09	0.53	4.02	8.86	11.50	27.04	30.59		
8/20/2024	13.28	-4.78	-1.65	5.34	8.71	27.23	31.33		
9/11/2024	11.49	-4.98	-1.03	2.44	4.72	25.97	31.60		
Pico #1									Reference Point Elevation: 182.89
Depth of Screen Interval	860-900	460-480	380-400	170-190					
Aquifer Name [1]	Pico Form. [2]	Silverado	Silverado	Gardena [2]					
12/15/2023	143.54	133.28	132.76	130.54					
3/15/2024	148.89	146.74	146.41	146.02					
4/17/2024	154.46	152.41	152.00	151.77					
6/15/2024	159.11	155.60	155.21	154.72					
8/29/2024	156.78	148.67	148.12	146.59					
9/15/2024	155.09	146.35	145.85	142.29					
Pico #2									Reference Point Elevation: 151.83
Depth of Screen Interval	1180-1200	830-850	560-580	320-340	235-255	100-120			
Aquifer Name [1]	Sunnyside [2]	Sunnyside [2]	Sunnyside	Silverado	Lynwood	Gaspur/Gage [2]			
12/15/2023	77.27	76.51	83.99	102.54	104.26	108.86			
3/15/2024	95.24	96.67	103.42	115.03	115.94	121.01			
5/15/2024	101.77	101.12	110.83	123.97	124.85	129.97			
6/15/2024	101.54	102.40	111.21	127.09	123.60	133.83			
9/10/2024	90.40	89.04	99.18	117.42	118.38	122.76			
9/15/2024	90.77	89.74	98.98	117.81	117.68	121.72			
PM-1 Columbia									Reference Point Elevation: 81.39
Depth of Screen Interval	555-595	460-500	240-280	160-200					
Aquifer Name [1]	Silverado	Silverado	Lynwood	Gardena					
12/27/2023	-1.42	-1.21	Not Measured	-0.18					
3/28/2024	-0.21	0.62	Not Measured	0.59					
5/1/2024	0.42	1.19	Not Measured	Not Measured					
6/13/2024	-0.30	0.16	Not Measured	1.21					
9/4/2024	-0.48	-0.02	Not Measured	Not Measured					
9/14/2024	-0.57	-0.06	Not Measured	1.31					
PM-2 Police Station									Reference Point Elevation: 87.43
Depth of Screen Interval	635-655	520-540	370-390	240-260					
Aquifer Name [1]	Sunnyside [2]	Silverado	Silver/Lyn [2]	Lynwood					
12/27/2023	-5.94	0.40	0.91	1.02					
3/15/2024	-4.85	2.05	1.80	1.80					
6/7/2024	-4.26	2.35	2.37	2.52					
7/23/2024	-3.94	3.09	3.09	3.25					
9/16/2024	-4.35	1.87	2.48	3.19					

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- Reference Point Elevations surveyed relative to the NAVD88 reference plane

TABLE 2.1
GROUNDWATER ELEVATIONS, WATER YEAR 2023 - 2024

	ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5	ZONE 6	ZONE 7	ZONE 8	ZONE 9
PM-3 Madrid									Reference Point Elevation: 73.12
Depth of Screen Interval	640-680	480-520	240-280	145-185					
Aquifer Name [1]	Sunnyside [2]	Silverado	Lynwood	Gardena					
12/27/2023	-5.22	-2.64	-2.61	-2.60					
3/26/2024	-4.17	-1.76	-1.77	-1.80					
5/14/2024	-3.82	-1.23	-1.26	-1.23					
6/7/2024	-4.39	-1.62	-1.50	-1.51					
8/23/2024	-3.82	-1.23	-1.26	-1.23					
9/17/2024	-4.74	-1.83	-1.74	-1.71					
PM-4 Mariner									Reference Point Elevation: 100.38
Depth of Screen Interval	670-710	500-540	340-380	200-240					
Aquifer Name [1]	Sunnyside [2]	Silverado	Lynwood	Gardena					
12/15/2023	-1.31	-1.82	1.73	1.77					
3/29/2024	0.57	0.60	4.04	4.11					
4/21/2024	0.85	1.54	4.30	5.01					
6/3/2024	-0.36	1.29	4.89	4.94					
9/19/2024	-1.01	-0.23	3.48	3.58					
9/22/2024	-0.56	-0.18	3.55	3.56					
PM-5 Columbia Park									Reference Point Elevation: 78.57
Depth of Screen Interval	1360-1380	940-960	770-790	580-600	320-340	140-160			
Aquifer Name [1]	Pico Form. [2]	Pico Form. [2]	Sunnyside [2]	Silverado	Lynwood [2]	Gardena			
12/28/2023	-24.78	-32.82	-4.65	-3.56	2.28	2.48			
3/25/2024	-24.62	-34.47	-1.96	-0.41	3.98	4.08			
3/29/2024	-24.60	-34.54	-2.07	-0.52	3.71	3.95			
6/3/2024	-24.69	-35.76	-2.86	-2.30	3.99	4.25			
8/12/2024	-25.01	-35.97	-3.04	-1.08	4.05	4.33			
9/16/2024	-24.97	-36.61	-3.77	-1.68	3.37	3.62			
PM-6 Madrona Marsh									Reference Point Elevation: 80.88
Depth of Screen Interval	1195-1235	905-925	770-790	530-550	390-410	240-260			
Aquifer Name [1]	Pico Form. [2]	Sunnyside [2]	Sunnyside [2]	Silverado	Lynwood	Lynwood			
12/28/2023	-25.94	-6.41	-3.32	0.74	2.25	2.14			
3/28/2024	-27.38	-4.25	-0.33	1.76	3.64	3.48			
6/3/2024	-27.51	-4.55	-0.68	2.14	3.86	3.78			
6/13/2024	-27.93	-3.96	-0.01	2.23	3.87	3.79			
9/12/2024	-28.74	-7.15	-5.69	2.01	3.25	3.64			
PM-7 Mariner									Reference Point Elevation: 94.36
Depth of Screen Interval	645-665	485-505	420-440	360-380	290-310				
Aquifer Name [1]	Silverado	Silverado	Silverado/Lyn	Lynwood	Gardena				
12/28/2023	-4.17	-0.05	3.13	3.21	3.24				
3/29/2024	-1.49	1.39	4.54	4.60	4.65				
4/28/2024	-1.01	1.87	4.99	5.09	5.13				
6/3/2024	-0.94	1.67	5.07	5.18	5.25				
9/8/2024	-1.23	0.95	4.34	4.39	4.48				
9/12/2024	-0.84	0.87	4.30	4.39	4.43				
PM-8 Pioneer									Reference Point Elevation: 89.63
Depth of Screen Interval	620-640	465-485	410-430	355-375	270-290				
Aquifer Name [1]	Silverado	Silverado	Silverado/Lyn	Lynwood	Gardena				
12/27/2024	-3.10	0.51	1.78	2.43	2.49				
3/29/2024	-0.68	2.11	3.20	3.86	3.88				
5/20/2024	-1.36	3.18	4.30	4.82	4.84				
6/3/2024	-0.71	2.00	3.89	4.62	4.67				
8/7/2024	-0.84	2.12	3.77	4.44	4.47				
9/18/2024	-1.52	0.74	2.54	3.24	3.28				

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- Reference Point Elevations surveyed relative to the NAVD88 reference plane

TABLE 2.1
GROUNDWATER ELEVATIONS, WATER YEAR 2023 - 2024

	ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5	ZONE 6	ZONE 7	ZONE 8	ZONE 9
PM-9 La Romeria Park									Reference Point Elevation: 117.18
Depth of Screen Interval	740-800	560-580	450-470	300-320	225-245				
Aquifer Name [1]	Pico Form. [2]	Silverado	Silverado	Gardena	Gardena				
12/27/2024	-0.11	1.70	4.68	4.79	4.82				
3/26/2024	1.82	3.03	5.96	6.05	6.09				
6/3/2024	1.23	3.59	6.46	6.55	6.59				
6/11/2024	1.46	3.72	3.72	6.69	6.73				
8/8/2024	0.80	3.51	6.64	6.71	6.77				
9/17/2024	1.00	2.93	6.04	6.13	6.15				
Rio Hondo #1									Reference Point Elevation: 146.51
Depth of Screen Interval	1110-1130	910-930	710-730	430-450	280-300	140-160			
Aquifer Name [1]	Pico Form. [2]	Sunnyside [2]	Sunnyside	Silverado	Hollydale	Gardena			
12/14/2023	70.31	69.94	69.17	63.39	70.81	74.38			
3/12/2024	81.52	87.03	86.33	82.16	90.55	88.17			
5/8/2024	88.36	94.37	93.67	88.16	101.43	97.96			
6/10/2024	88.83	92.98	92.19	87.48	100.68	97.53			
9/5/2024	83.59	84.56	83.60	76.93	92.53	88.25			
9/17/2024	82.30	82.89	82.06	76.19	90.75	86.73			
Seal Beach #1									Reference Point Elevation: 9.06
Depth of Screen Interval	1345-1365	1160-1180	1020-1040	775-795	605-625	215-235	60-70		
Aquifer Name [1]	Sunnyside [2]	Sunnyside [2]	Sunnyside [2]	Silverado	Lynwood [2]	Gage	Artesia		
12/15/2023	-11.10	-11.28	-11.15	-26.55	-20.49	3.20	4.65		
3/12/2024	-9.22	-9.35	-9.24	-14.95	-14.46	8.17	7.27		
5/2/2024	0.35	0.24	0.50	-10.46	-12.23	0.11	6.88		
6/18/2024	-9.43	-9.64	-9.42	-23.68	-19.72	4.78	5.91		
9/17/2024	-19.66	-19.89	-19.70	-40.10	-29.47	-0.30	3.23		
South Gate #1									Reference Point Elevation: 102.50
Depth of Screen Interval	1440-1460	1320-1340	910-930	565-585	220-240				
Aquifer Name [1]	Sunnyside [2]	Sunnyside [2]	Silverado [2]	Lynwood	Exposition [2]				
1/2/2024	7.82	10.04	13.20	9.97	30.76				
3/13/2024	12.93	19.58	17.99	11.56	32.29				
4/17/2024	16.86	18.58	21.49	14.99	33.08				
8/7/2024	15.78	17.55	20.23	11.86	34.58				
8/14/2024	15.44	17.55	20.04	12.91	34.62				
9/20/2024	13.60	15.65	19.35	12.20	35.32				
South Gate #2									Reference Point Elevation: 120.29
Depth of Screen Interval	1740-1760	1410-1430	1062-1082	670-690	410-430	205-225			
Aquifer Name [1]	Sunnyside [2]	Sunnyside [2]	Sunnyside	Silverado [2]	Hollydale	Gaspur [2]			
12/5/2023	-20.20	-20.88	-24.36	-15.12	32.36	38.11			
3/13/2024	-14.69	-16.05	-19.07	-10.78	32.63	38.14			
6/11/2024	-13.02	-15.60	-18.35	-10.53	32.91	38.26			
9/20/2024	-14.06	-15.35	-18.37	-11.30	37.98	38.35			
9/24/2024	-14.25	-15.45	-18.41	-11.50	32.99	38.37			
Westchester #1									Reference Point Elevation: 126.95
Depth of Screen Interval	740-760	560-580	455-475	310-330	215-235				
Aquifer Name [1]	Pico Form. [2]	Sunnyside [2]	Sunnyside [2]	Silverado	Jefferson				
12/5/2023	1.67	9.34	9.73	9.93	10.09				
3/11/2024	2.00	9.64	10.08	10.36	10.45				
5/23/2024	2.70	9.95	10.47	10.60	10.80				
6/12/2024	2.72	10.02	10.41	10.60	10.83				
9/10/2024	3.12	10.40	10.70	10.85	10.97				
9/12/2024	3.09	10.40	10.79	10.93	11.09				

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TABLE 2.1
GROUNDWATER ELEVATIONS, WATER YEAR 2023 - 2024

	ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5	ZONE 6	ZONE 7	ZONE 8	ZONE 9
Whittier #1					Reference Point Elevation: 217.35 (Zones 1, 2, 4 and 5) and 217.81 (Zone 3)				
Depth of Screen Interval	1180-1200	920-940	600-620	450-470	200-220				
Aquifer Name [1]	Pico Form. [2]	Pico Form. [2]	Sunnyside	Silverado	Jefferson				
12/11/2023	105.77	105.82	102.90	101.84	197.16				
3/15/2024	107.10	107.07	103.62	103.03	199.87				
6/4/2024	108.35	108.27	105.36	104.94	199.65				
9/19/2024	110.30	110.30	107.48	107.18	199.26				
9/23/2024	110.25	110.22	107.44	107.14	199.10				
Whittier #2									Reference Point Elevation: 167.55
Depth of Screen Interval	1370-1390	1090-1110	655-675	425-445	315-335	150-170			
Aquifer Name [1]	Pico Form. [2]	Pico Form. [2]	Sunnyside	Silverado	Silverado	Gage [2]			
12/4/2023	92.57	93.07	87.59	86.04	116.31	121.47			
3/11/2024	97.27	97.87	103.70	104.45	124.43	127.80			
5/15/2024	Not Measured	103.30	103.81	109.60	107.88	130.46			
6/12/2024	104.85	104.87	108.45	106.82	131.41	134.62			
9/16/2024	102.46	102.92	100.33	97.30	125.80	131.24			
Whittier Narrows #1									Reference Point Elevation: 214.66
Depth of Screen Interval	749-769	610-629	463-483	393-402	334-344	273-283	234-243	163-173	95-105
Aquifer Name [1]	Sunnyside	Sunnyside	Sunnyside	Silverado	Silverado	Lynwood	Lynwood	Gardena	Gaspur
3/19/2024	189.91	189.98	191.84	194.06	194.99	195.87	195.81	195.60	193.74
9/9/2024	178.02	180.58	183.69	189.32	190.23	191.26	191.19	191.07	189.88
Whittier Narrows #2									Reference Point Elevation: 209.15
Depth of Screen Interval	659-678	579-598	469-488	419-428	328-338	263-273	214-223	136-145	91-100
Aquifer Name [1]	Pico Form. [2]	Pico Form. [2]	Pico Form. [2]	Pico Form. [2]	Pico Form. [2]	Lynwood	Lynwood	Gardena [2]	Gardena
3/20/2024	-15.58	-15.42	-15.00	-5.72	118.07	173.39	174.79	176.08	180.03
9/9/2024	-14.58	-14.47	-14.15	-4.82	119.43	171.75	172.78	174.18	179.29
Willowbrook #1									Reference Point Elevation: 98.87
Depth of Screen Interval	885-905	500-520	360-380	200-220					
Aquifer Name [1]	Sunnyside [2]	Silverado	Lynwood	Gage					
12/15/2023	-37.47	-36.42	-40.10	-39.05					
3/15/2024	-32.58	-34.92	-37.79	-37.15					
5/22/2024	-29.49	-34.51	-40.75	-36.12					
6/6/2024	-30.94	-34.32	-36.92	-36.11					
9/16/2024	-34.39	-34.72	-36.82	-36.04					
9/24/2024	-34.38	-34.65	-36.80	-35.96					
Wilmington #1									Reference Point Elevation: 40.74
Depth of Screen Interval	915-935	780-800	550-570	225-245	120-140				
Aquifer Name [1]	Sunnyside [2]	Silverado	Silverado	Lynwood	Gage				
12/15/2023	-40.16	-40.48	-40.26	-10.38	-7.14				
2/26/2024	-42.65	-42.88	-42.82	-10.24	-6.80				
3/22/2024	-41.36	-41.71	-41.55	-9.08	-5.51				
6/11/2024	-42.51	-42.77	-42.73	-9.83	-6.43				
8/12/2024	-39.51	-39.74	-39.72	-9.38	-6.11				
9/18/2024	-44.40	-44.48	-44.58	-10.38	-6.84				
Wilmington #2									Reference Point Elevation: 32.30
Depth of Screen Interval	950-970	755-775	540-560	390-410	120-140				
Aquifer Name [1]	Sunnyside [2]	Silverado	Silverado	Lynwood	Gage				
12/19/2023	-25.74	-20.95	-16.88	-15.90	-1.05				
3/5/2024	-27.45	-21.41	-17.67	-16.53	-0.75				
3/26/2024	-26.50	-21.25	-16.92	-15.85	-0.48				
6/11/2024	-27.07	-21.38	-16.95	-15.85	0.05				
8/13/2024	-26.40	-21.59	-17.26	-16.20	0.05				

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- Reference Point Elevations surveyed relative to the NAVD88 reference plane

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TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Bell #1											
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5		Zone 6	
				6/12/2024	9/19/2024	6/12/2024	9/19/2024	6/12/2024	9/19/2024	6/12/2024	9/19/2024	6/12/2024	9/19/2024	6/12/2024	9/19/2024
General Minerals															
Alkalinity	mg/l			610	630	190	170	180	180	190	200	190	200	290	290
Anion Sum	meq/l			18	18	6.2	5.9	6.2	5.7	6.3	6.5	8.1	8.2	12	12
Bicarbonate as HCO3	mg/l			750	770	230	210	220	220	230	240	230	240	350	360
Boron	mg/l	1	N	**1.6**	**1.8**	0.14	0.14	0.13	0.13	0.16	0.17	0.14	0.14	0.17	0.17
Bromide	mg/l			1.3	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			13.8	15	49.3	50.3	44.4	44.6	54.3	55	73.7	73.7	121	124
Carbon Dioxide	mg/l			544	562	169	157	166	161	173	179	175	182	270	275
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			16	17	5.2	5.4	5.1	5.1	5.6	5.8	7.3	7.3	11	12
Chloride	mg/l	500	S	190	180	24	25	31	31	30	31	56	56	100	100
Fluoride	mg/l	2	P	0.33	0.33	0.2	0.2	0.35	0.31	0.36	0.37	0.33	0.34	0.32	0.31
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			340	270	30	20	32	36	35	38	11	8.5	13	8.5
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND	11	11	6.7	6.8
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	2.5	2.5	1.5	1.5
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			7.6	8.8	2.8	2.9	3.7	3.8	3.4	3.6	3.2	3.2	3.2	3.3
Sodium, Total	mg/l			330	360	44	46	44	45	41	45	47	48	57	60
Sulfate	mg/l	500	S	ND	ND	83	83	79	61	77	77	120	120	160	160
Total Dissolved Solid (TDS)	mg/l	1000	S	1000	1000	330	340	300	300	340	350	460	460	710	700
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	2.5	2.5	1.5	1.5
General Physical Properties															
Apparent Color	ACU	15	S	**250**	**200**	3	ND	ND	ND	3	ND	ND	ND	ND	ND
Hardness (Total, as CaCO3)	mg/l			59.2	63.2	164	166	153	152	188	189	260	256	436	442
Lab pH	Units			8.12	8.07	7.97	7.93	7.89	7.85	7.86	7.85	7.77	7.72	7.6	7.52
Langelier Index	None			0.494	0.494	0.513	0.43	0.372	0.334	0.442	0.457	0.456	0.428	0.637	0.57
Odor	TON	3	S	**16**	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	**1700**	**1700**	530	530	500	500	560	570	730	720	1100	840
Turbidity	NTU	5	S	0.1	0.15	ND	0.15	ND	0.1	0.2	0.15	0.25	0.2	3.8	0.5
Metals															
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	ND	ND	ND	ND	ND	ND	0.89	0.9	3	3.1	1.3	1.2
Barium, Total	ug/l	1000	P	15	9.9	37	37	37	37	77	82	240	250	130	130
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.87	0.42	ND	ND	ND	ND	ND	ND	2.9	2.5	4.5	4.1
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.12	0.34	0.13	0.15	0.17	0.025	0.06	0.1	2.5	2.4	3.8	4.1
Copper, Total	ug/l	1300	P	0.82	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	0.08	0.066	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			6.02	6.27	9.93	9.72	10.3	9.96	12.8	12.5	18.4	17.6	32.5	32
Manganese, Total	ug/l	50	S	24	16	**74**	**72**	**52**	**51**	**86**	**90**	**160**	**140**	1.4	1.4
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	3.6	4.2	4.6	4.5
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds															
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	0.86	ND	ND	0.86	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	**36**	2.9	2.3	**34**	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others															
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND	**1.6**	**1.5**	0.13	0.14
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	2.4	2.2	1.8	1.7
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			14	12	0.67	0.53	0.61	0.54	0.46	0.46	0.39	ND	0.57	0.53

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Bell Gardens #1					
				Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
				6/6/2024	6/6/2024	6/6/2024	6/6/2024	6/6/2024	6/6/2024
General Minerals									
Alkalinity	mg/l			180	180	160	110	140	160
Anion Sum	meq/l			7.8	5.9	7.3	4.7	5.9	7.1
Bicarbonate as HCO3	mg/l			220	220	200	130	180	190
Boron	mg/l	1	N	0.052	0.12	0.17	0.12	0.13	0.36
Bromide	mg/l			ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			93.9	43.9	66.1	39.5	53.6	68.2
Carbon Dioxide	mg/l			165	161	147	102	137	145
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			7	5.2	6.4	4.3	5.4	6.6
Chloride	mg/l	500	S	53	38	66	34	51	70
Fluoride	mg/l	2	P	0.18	0.23	0.28	0.36	0.19	0.26
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND
Iodide	ug/l			8.2	15	3.2	1.4	2.2	1.3
Nitrate (as NO3)	mg/l	45	P	ND	ND	11	8.2	12	15
Nitrate as Nitrogen	mg/l	10	P	ND	ND	2.5	1.9	2.8	3.4
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			2.4	2.7	3.6	3	3.2	6
Sodium, Total	mg/l			27	51	49	38	41	45
Sulfate	mg/l	500	S	130	56	96	68	67	84
Total Dissolved Solid (TDS)	mg/l	1000	S	450	310	410	280	340	410
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	2.5	1.9	2.8	3.4
General Physical Properties									
Apparent Color	ACU	15	S	ND	ND	ND	ND	ND	ND
Hardness (Total, as CaCO3)	mg/l			288	144	211	128	178	224
Lab pH	Units			7.92	8.01	7.72	7.7	7.48	7.56
Langelier Index	None			0.689	0.484	0.295	-0.076	-0.076	0.149
Odor	TON	3	S	2	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	680	520	650	450	550	660
Turbidity	NTU	5	S	0.1	ND	ND	0.15	0.4	0.15
Metals									
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	200
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	3.5	ND	2.6	2.5	1	1.7
Barium, Total	ug/l	1000	P	110	78	110	49	63	280
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	ND	ND	0.67	0.86	0.83	0.82
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.073	0.11	0.63	0.76	0.73	0.69
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	0.037	ND	ND	ND	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			13.1	8.41	11.2	7.12	10.6	12.9
Manganese, Total	ug/l	50	S	26	40	ND	ND	ND	ND
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	0.6	0.93	2.1	1.6
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	**110**
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds									
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	0.71
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	1.1	2.9
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND
Others									
1,4-Dioxane	ug/l	1	N	**5.2**	0.53	1	0.13	0.29	0.57
Perchlorate	ug/l	6	P	ND	ND	0.61	0.51	0.62	0.58
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			0.43	0.42	0.49	0.32	0.33	0.44

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Cerritos #1					
				Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
				5/14/2024	5/14/2024	5/14/2024	5/14/2024	5/14/2024	5/14/2024
General Minerals									
Alkalinity	mg/l			180	180	200	200	210	210
Anion Sum	meq/l			5.2	4.8	5.9	5.4	5.2	5
Bicarbonate as HCO3	mg/l			220	220	240	240	260	250
Boron	mg/l	1	N	0.086	0.056	0.089	0.085	0.086	0.079
Bromide	mg/l			ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			35.8	39.8	42.5	45	39.7	46.4
Carbon Dioxide	mg/l			161	160	177	178	188	196
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			4.6	4.3	5.1	4.8	4.5	4.6
Chloride	mg/l	500	S	16	13	21	15	12	11
Fluoride	mg/l	2	P	0.24	0.28	0.35	0.47	0.4	0.28
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND
Iodide	ug/l			11	23	30	22	17	77
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			2.4	2.3	2.3	2.2	2.1	2.3
Sodium, Total	mg/l			53	39	55	37	39	34
Sulfate	mg/l	500	S	54	39	66	45	33	26
Total Dissolved Solid (TDS)	mg/l	1000	S	270	250	300	270	250	260
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND
General Physical Properties									
Apparent Color	ACU	15	S	ND	ND	ND	3	3	3
Hardness (Total, as CaCO3)	mg/l			109	125	132	155	139	153
Lab pH	Units			8.16	8.1	8.02	7.92	7.95	7.44
Langelier Index	None			0.557	0.55	0.529	0.463	0.466	0.021
Odor	TON	3	S	ND	ND	ND	ND	2	ND
Specific Conductance	umho/cm	1600	S	450	400	490	450	430	420
Turbidity	NTU	5	S	0.1	0.15	0.1	0.25	0.15	0.2
Metals									
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	**15**	**11**	**19**	5.3	9.9	**38**
Barium, Total	ug/l	1000	P	54	120	140	64	90	110
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.15	0.031	0.11	ND	0.079	0.11
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	ND	ND	0.031	0.085	0.065	0.098
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			4.76	6.26	6.34	10.4	9.67	9.06
Manganese, Total	ug/l	50	S	29	41	**52**	**89**	**130**	**160**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds									
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND
Others									
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			ND	0.33	ND	ND	0.4	0.4

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Cerritos #2											
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5		Zone 6	
				5/21/2024	9/11/2024	5/21/2024	9/11/2024	5/21/2024	9/11/2024	5/21/2024	9/11/2024	5/21/2024	9/11/2024	5/21/2024	9/11/2024
General Minerals															
Alkalinity	mg/l			160	170	190	200	170	180	180	210	180	200	350	360
Anion Sum	meq/l			3.8	4	8.6	8.9	3.9	4.2	4.2	4.7	4.2	4.5	12	13
Bicarbonate as HCO3	mg/l			190	200	230	250	210	220	230	260	220	240	420	440
Boron	mg/l	1	N	0.055	0.057	0.17	0.18	0.06	0.065	0.075	0.078	0.074	0.077	0.11	0.11
Bromide	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			42.1	42.6	82.4	83.8	44.7	46.6	51.4	52.6	50.7	51.9	143	147
Carbon Dioxide	mg/l			140	151	169	190	150	162	165	228	161	182	318	349
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			3.6	3.7	7.5	7.7	3.7	3.9	4.1	4.2	4	4.1	11	12
Chloride	mg/l	500	S	6.6	6.6	80	79	5.7	5.7	6.1	6.1	6.4	6.4	75	74
Fluoride	mg/l	2	P	0.25	0.25	0.33	0.34	0.25	0.26	0.38	0.4	0.3	0.32	0.3	0.31
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			3.4	2.2	8.6	6.7	4.8	4.8	6.7	5.3	6.8	5.8	25	20
Nitrate (as NO3)	mg/l	45	P	ND	ND	13	13	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	3	2.9	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			2.8	2.9	4.4	4.6	2.5	2.6	2.7	2.7	2.8	2.8	4.4	4.7
Sodium, Total	mg/l			22	24	47	50	20	22	18	19	19	21	43	46
Sulfate	mg/l	500	S	23	23	120	120	18	18	16	17	17	17	150	150
Total Dissolved Solid (TDS)	mg/l	1000	S	200	200	490	470	210	220	230	220	240	230	730	690
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	3	2.9	ND	ND	ND	ND	ND	ND	ND	ND
General Physical Properties															
Apparent Color	ACU	15	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	3	10	10
Hardness (Total, as CaCO3)	mg/l			127	128	270	273	136	141	163	166	156	159	474	486
Lab pH	Units			8	7.8	7.81	7.57	8.12	7.95	8.04	6.99	8.04	7.68	7.69	7.4
Langelier Index	None			0.441	0.272	0.538	0.332	0.609	0.479	0.608	-0.361	0.598	0.298	0.878	0.619
Odor	TON	3	S	ND	ND	ND	ND	2	ND	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	350	350	770	760	360	360	390	400	390	380	1100	1100
Turbidity	NTU	5	S	0.1	0.15	0.1	0.25	0.55	0.35	0.2	0.2	0.2	0.35	1.8	2.1
Metals															
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	2.4	2.4	2.1	2	3	3.1	4.1	4.6	**16**	**17**	4	3.9
Barium, Total	ug/l	1000	P	110	110	120	120	120	120	170	170	180	170	140	130
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.42	0.45	0.74	0.75	ND	ND	ND	ND	ND	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.37	0.38	0.61	0.69	0.038	0.041	0.043	0.034	ND	0.023	ND	ND
Copper, Total	ug/l	1300	P	ND	ND	0.54	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	ND	ND	ND	ND	ND	ND	0.043	0.047	0.082	0.084	**0.38**	**0.39**
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			5.26	5.29	15.5	15.6	5.87	6.07	8.37	8.47	7.04	7.13	28.5	29
Manganese, Total	ug/l	50	S	5.3	5	1.3	ND	41	40	**100**	**100**	**120**	**120**	**290**	**280**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds															
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	0.81	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others															
1,4-Dioxane	ug/l	1	N	ND	ND	**2.8**	**2.4**	ND	ND	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	0.66	0.63	ND	ND	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			ND	ND	0.46	0.47	ND	ND	ND	ND	ND	ND	0.98	0.86

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Cerritos #3													
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5		Zone 6		Zone 7	
				3/27/2024	7/31/2024	3/27/2024	7/31/2024	3/27/2024	7/31/2024	3/27/2024	7/31/2024	3/27/2024	7/31/2024	3/27/2024	7/31/2024	3/27/2024	7/31/2024
General Minerals																	
Alkalinity	mg/l			240	250	140	170	150	52	240	240	210	190	240	250	180	200
Anion Sum	meq/l			7.4	7.6	4.1	4.1	5.8	3.8	7.3	7.1	6.4	5.4	7.4	7.4	5.6	6.1
Bicarbonate as HCO3	mg/l			290	310	170	210	190	64	290	290	260	230	290	310	220	250
Boron	mg/l	1	N	0.25	0.25	0.11	0.11	0.1	0.1	0.24	0.24	0.2	0.14	0.24	0.22	0.074	0.075
Bromide	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			11.4	11.8	18.7	18.2	13.6	13.8	11.6	11.5	11.5	8.83	11.9	11.9	52.6	54
Carbon Dioxide	mg/l			214	222	125	150	135	45.5	208	208	188	166	210	223	162	183
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			6.6	6.6	3.6	3.6	5.2	5.2	6.5	6.4	5.8	4.7	6.6	6.3	5.2	5.2
Chloride	mg/l	500	S	59	59	35	21	29	29	59	53	46	28	59	53	35	34
Fluoride	mg/l	2	P	0.22	0.22	0.29	0.34	0.53	0.54	0.22	0.24	0.22	0.23	0.22	0.23	ND	0.3
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			72	74	13	20	43	45	88	88	79	58	54	52	20	33
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			1.9	1.4	8.4	6.3	1.9	1.5	2	1.5	2.2	1.6	1.8	1.5	3.1	2.8
Sodium, Total	mg/l			130	130	49	52	100	100	130	130	110	93	130	130	43	42
Sulfate	mg/l	500	S	44	44	16	4.5	90	90	44	41	42	41	44	41	51	51
Total Dissolved Solid (TDS)	mg/l	1000	S	410	410	230	230	340	340	460	420	360	300	410	380	310	310
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
General Physical Properties																	
Apparent Color	ACU	15	S	10	10	**100**	**50**	5	5	5	10	10	10	10	10	ND	3
Hardness (Total, as CaCO3)	mg/l			38.7	39.8	60.9	57.1	37.6	38.5	38.9	38.8	38.7	29.6	40	39.9	163	166
Lab pH	Units			8.23	8.25	7.95	8.2	8.46	8.48	8.31	8.37	8.25	8.32	8.32	8.35	7.82	7.86
Langelier Index	None			0.217	0.27	-0.03	0.291	0.336	-0.099	0.293	0.358	0.195	0.123	0.325	0.38	0.373	0.47
Odor	TON	3	S	ND	ND	**8**	**4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	690	670	400	350	550	530	690	640	600	470	680	630	520	510
Turbidity	NTU	5	S	0.1	0.1	3.1	2.6	0.15	0.1	**66**	**42**	0.95	3.9	0.6	1.3	0.65	0.6
Metals																	
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	170	840	ND	25	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	ND	ND	1.4	1.4	**11**	**11**	1.2	1.3	8.6	10	1.7	2.4	**14**	**13**
Barium, Total	ug/l	1000	P	9.5	9.6	15	12	24	24	18	20	24	17	14	15	52	57
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	ND	ND	0.23	0.39	ND	ND	0.22	0.48	ND	ND	ND	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	ND	0.032	0.041	0.065	ND	0.034	0.023	0.04	ND	0.046	ND	0.029	ND	0.023
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND	ND	0.52	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	ND	ND	0.098	0.053	ND	ND	0.065	**0.35**	ND	ND	ND	ND	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	0.65	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			2.47	2.52	3.45	2.84	0.91	0.966	2.4	2.45	2.41	1.83	2.5	2.47	7.67	7.66
Manganese, Total	ug/l	50	S	3.5	3.6	39	31	8.3	8.6	22	31	45	33	17	19	**97**	**97**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds																	
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others																	
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	0.085	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			0.96	0.98	6.8	2.9	0.42	3.1	1	0.88	1.1	0.69	0.98	0.9	0.37	0.4

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Commerce #1					
				Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
				6/5/2024	6/5/2024	6/5/2024	6/5/2024	6/5/2024	6/5/2024
General Minerals									
Alkalinity	mg/l			460	330	270	210	220	230
Anion Sum	meq/l			240	11	8.6	8.8	8.9	9.9
Bicarbonate as HCO3	mg/l			560	400	320	250	260	280
Boron	mg/l	1	N	**6.3**	0.72	0.23	0.25	0.14	0.13
Bromide	mg/l			40	0.91	ND	ND	ND	ND
Calcium, Total	mg/l			161	42.4	59.2	45.1	80.5	87.1
Carbon Dioxide	mg/l			426	291	239	189	198	212
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			190	10	7.8	8.2	8.1	9.2
Chloride	mg/l	500	S	**8000**	150	93	83	80	100
Fluoride	mg/l	2	P	ND	0.37	0.31	0.41	0.27	0.36
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND
Iodide	ug/l			10000	290	160	61	12	8.6
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	24	39
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	5.5	8.9
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			82	6.7	4	4.2	2.7	2.7
Sodium, Total	mg/l			3800	140	74	99	52	58
Sulfate	mg/l	500	S	2.6	2.5	32	110	94	83
Total Dissolved Solid (TDS)	mg/l	1000	S	**13000**	600	440	480	480	550
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	5.5	8.9
General Physical Properties									
Apparent Color	ACU	15	S	**75**	**35**	5	3	ND	ND
Hardness (Total, as CaCO3)	mg/l			958	185	226	190	288	331
Lab pH	Units			7.6	8	7.96	7.86	7.7	7.64
Langelier Index	None			0.573	0.657	0.707	0.371	0.483	0.463
Odor	TON	3	S	**4**	**16**	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	**21000**	1000	770	800	790	900
Turbidity	NTU	5	S	**9**	0.1	0.15	0.2	0.2	0.4
Metals									
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	2.4	ND
Arsenic, Total	ug/l	10	P	3.8	ND	ND	ND	0.62	0.51
Barium, Total	ug/l	1000	P	610	68	91	230	78	84
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.22	0.3	ND	ND	5.7	12
Hexavalent Chromium (Cr VI)	ug/l	10	P	ND	0.11	ND	0.029	5.1	**11**
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	**1**	ND	ND	0.089	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			135	19.1	18.9	18.7	21.2	27.6
Manganese, Total	ug/l	50	S	**110**	5.9	33	**63**	6.7	ND
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	0.89	0.91
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds									
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	1.9	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	1	1.5	0.8	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	2.8	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	0.81
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	4.3	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND
Others									
1,4-Dioxane	ug/l	1	N	ND	ND	ND	**6.2**	**4.9**	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	2.8	5.1
Surfactants	mg/l	0.5	S	0.21	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			39	4.8	1.1	0.85	0.45	0.44

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Compton #1							
				Zone 1		Zone 2		Zone 3		Zone 4	
				5/30/2024	9/25/2024	5/30/2024	9/25/2024	5/30/2024	9/25/2024	5/30/2024	9/25/2024
General Minerals											
Alkalinity	mg/l			140	140	160	170	180	190	190	210
Anion Sum	meq/l			4.8	4.9	5.1	5.3	5.6	5.9	6	6.5
Bicarbonate as HCO3	mg/l			170	170	190	200	220	230	230	260
Boron	mg/l	1	N	0.15	0.15	0.1	0.1	0.11	0.11	0.094	0.092
Bromide	mg/l			ND	ND	ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			21.9	23	37.4	39.3	49.5	51.4	62.3	63.6
Carbon Dioxide	mg/l			122	123	139	147	158	168	167	189
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			4	4.1	4.4	4.6	5	5.2	5.5	5.6
Chloride	mg/l	500	S	22	22	24	24	26	27	23	24
Fluoride	mg/l	2	P	0.25	0.22	0.31	0.27	0.26	0.28	0.23	0.25
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			28	30	32	30	39	37	27	30
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			1.6	1.7	1.8	1.8	2.8	2.8	2.6	2.6
Sodium, Total	mg/l			62	64	52	54	41	41	41	42
Sulfate	mg/l	500	S	68	70	59	61	63	65	76	80
Total Dissolved Solid (TDS)	mg/l	1000	S	270	250	280	270	310	290	330	310
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
General Physical Properties											
Apparent Color	ACU	15	S	15	10	5	10	5	5	ND	ND
Hardness (Total, as CaCO3)	mg/l			61.9	64.9	106	111	159	165	182	185
Lab pH	Units			8.17	8.18	8.15	8.16	8.06	8.07	7.96	7.97
Langelier Index	None			0.245	0.282	0.512	0.573	0.586	0.642	0.604	0.672
Odor	TON	3	S	ND	ND	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	420	450	450	490	490	530	530	700
Turbidity	NTU	5	S	0.4	0.25	0.2	0.2	0.35	0.65	0.45	0.35
Metals											
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	ND	ND	ND	ND	ND	ND	**15**	**15**
Barium, Total	ug/l	1000	P	7.2	7.3	11	11	66	66	170	170
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.32	ND	ND	ND	0.24	ND	0.28	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.037	0.94	0.065	0.23	0.12	0.12	0.058	0.15
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	ND	ND	ND	ND	ND	ND	0.062	0.061
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			1.73	1.8	3.1	3.23	8.63	8.79	6.31	6.28
Manganese, Total	ug/l	50	S	7.9	7.5	17	15	**51**	47	**76**	**68**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds											
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND
Others											
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			1.2	0.56	0.79	0.83	0.56	1.1	0.34	0.31

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Compton #2					
				Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
				4/19/2024	4/19/2024	4/19/2024	4/19/2024	4/19/2024	4/19/2024
General Minerals									
Alkalinity	mg/l			430	250	150	170	180	200
Anion Sum	meq/l			9	5.5	4.8	6.5	6.3	8.5
Bicarbonate as HCO3	mg/l			510	310	180	210	220	240
Boron	mg/l	1	N	0.67	0.18	0.1	0.12	0.12	0.18
Bromide	mg/l			ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			11.5	26.1	41.4	70.1	63.3	84
Carbon Dioxide	mg/l			378	226	135	157	159	182
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			9.4	5.8	4.7	6.3	6.1	8.1
Chloride	mg/l	500	S	16	15	22	39	34	71
Fluoride	mg/l	2	P	0.38	0.24	0.2	0.21	0.29	0.34
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND
Iodide	ug/l			61	20	24	27	27	6.5
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	4.6
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	1
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			3.4	4.7	2.6	2.6	3.9	4.3
Sodium, Total	mg/l			200	91	47	41	40	52
Sulfate	mg/l	500	S	ND	ND	57	93	86	120
Total Dissolved Solid (TDS)	mg/l	1000	S	580	340	290	380	360	500
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	1
General Physical Properties									
Apparent Color	ACU	15	S	ND	**25**	5	ND	5	ND
Hardness (Total, as CaCO3)	mg/l			37.2	85.9	128	224	213	286
Lab pH	Units			8.17	8.04	8.08	7.91	7.97	7.6
Langelier Index	None			0.378	0.423	0.455	0.544	0.59	0.356
Odor	TON	3	S	**4**	2	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	900	560	480	620	600	810
Turbidity	NTU	5	S	2.1	0.4	0.2	0.1	3.3	0.3
Metals									
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	0.89
Arsenic, Total	ug/l	10	P	1.2	0.56	ND	0.77	1.1	4.5
Barium, Total	ug/l	1000	P	13	19	30	38	88	93
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.31	0.27	ND	ND	0.34	1.1
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.45	0.066	0.026	0.053	0.023	0.42
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	0.042	0.053	ND	0.035	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			2.03	5.02	5.9	11.9	13.2	18.6
Manganese, Total	ug/l	50	S	13	39	27	**51**	**110**	40
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	4.1
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds									
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND
Others									
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	0.64
Surfactants	mg/l	0.5	S	0.053	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			13	3	0.75	ND	ND	ND

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Downey #1											
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5		Zone 6	
				4/15/2024	8/13/2024	4/15/2024	8/13/2024	4/15/2024	8/13/2024	4/15/2024	8/13/2024	4/15/2024	8/13/2024	4/15/2024	8/13/2024
General Minerals															
Alkalinity	mg/l			180	160	180	160	200	180	210	210	240	220	390	400
Anion Sum	meq/l			4.2	3.7	6.8	6.3	9	8.4	9.8	9.7	8.6	7.8	17	18
Bicarbonate as HCO3	mg/l			220	190	220	190	250	220	260	250	290	260	480	480
Boron	mg/l	1	N	0.058	0.059	0.066	0.064	0.12	0.12	0.2	0.2	0.091	0.094	0.26	0.28
Bromide	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			40.6	40	78.7	75.6	98.2	94.8	95.6	95.2	99.9	94.4	180	182
Carbon Dioxide	mg/l			166	148	165	151	188	176	197	185	218	195	381	365
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			3.6	3.5	6.2	5.9	8.1	7.8	9	8.9	7.8	7.4	16	17
Chloride	mg/l	500	S	5.6	5.6	40	39	76	75	89	89	52	47	110	120
Fluoride	mg/l	2	P	0.29	0.29	0.26	0.26	0.31	0.3	0.35	0.34	0.37	0.36	0.3	0.29
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			1.5	1.6	1.3	1.4	2.2	1.6	4.8	4.3	9	7.3	6.4	6
Nitrate (as NO3)	mg/l	45	P	ND	ND	11	9.4	17	16	10	9.9	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	2.4	2.1	3.9	3.5	2.3	2.2	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			2.8	2.9	3.6	3.6	3.9	3.9	4.6	4.8	3.9	3.9	7	7.2
Sodium, Total	mg/l			24	23	25	24	38	36	57	55	27	25	98	97
Sulfate	mg/l	500	S	20	19	92	90	120	120	140	140	110	100	290	310
Total Dissolved Solid (TDS)	mg/l	1000	S	210	220	360	370	490	500	560	560	470	450	1000	1000
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	2.4	2.1	3.9	3.5	2.3	2.2	ND	ND	ND	ND
General Physical Properties															
Apparent Color	ACU	15	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hardness (Total, as CaCO3)	mg/l			125	123	248	238	318	307	319	317	327	309	600	606
Lab pH	Units			7.62	7.53	7.76	7.38	7.67	7.3	7.54	7.88	7.65	7.85	7.36	7.67
Langelier Index	None			0.093	-0.058	0.475	0.024	0.496	0.063	0.362	0.699	0.567	0.709	0.656	0.982
Odor	TON	3	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	340	340	580	590	780	800	880	900	740	710	**1700**	**1800**
Turbidity	NTU	5	S	0.1	0.1	0.15	0.1	ND	0.15	0.1	ND	1.8	0.6	0.25	1.1
Metals															
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	3	2.9	2.3	2.3	3	2.8	1.9	1.9	4	4	2.4	2.4
Barium, Total	ug/l	1000	P	99	97	160	160	120	120	83	86	230	220	72	74
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	4.5	4.3	2.1	2.1	1.4	1.3	0.44	0.42	ND	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	3.8	4	1.9	1.9	1.2	1.2	0.33	0.47	0.022	0.11	0.03	0.12
Copper, Total	ug/l	1300	P	ND	ND	0.61	ND	0.64	ND	0.67	ND	ND	ND	0.79	ND
Iron, Total	mg/l	0.3	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			5.77	5.59	12.5	11.9	17.7	17.1	19.4	19.3	18.9	17.8	36.4	36.6
Manganese, Total	ug/l	50	S	ND	ND	ND	ND	ND	ND	ND	ND	**130**	**120**	**200**	**200**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	0.63	0.58	1	0.97	0.72	0.69	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds															
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others															
1,4-Dioxane	ug/l	1	N	ND	ND	**4.6**	**4.4**	**6.8**	**5.8**	**2.4**	**2**	**1.4**	0.79	**1.2**	0.88
Perchlorate	ug/l	6	P	ND	ND	2.4	2.3	1.5	1.3	0.32	0.31	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			ND	ND	ND	ND	ND	0.31	0.4	0.49	ND	0.31	0.81	0.9

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Huntington Park #1							
				Zone 1		Zone 2		Zone 3		Zone 4	
				4/22/2024	8/29/2024	4/22/2024	8/29/2024	4/22/2024	8/29/2024	4/22/2024	8/29/2024
General Minerals											
Alkalinity	mg/l			210	210	200	200	260	310	380	390
Anion Sum	meq/l			7	7	7	7	12	13	14	14
Bicarbonate as HCO3	mg/l			260	260	250	250	320	380	460	470
Boron	mg/l	1	N	0.14	0.14	0.14	0.14	0.21	0.22	0.2	0.2
Bromide	mg/l			ND	ND	ND	ND	ND	ND	2.2	1.7
Calcium, Total	mg/l			64.2	62.6	65.7	66.1	132	132	150	150
Carbon Dioxide	mg/l			198	238	186	188	242	285	359	370
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			6.2	6.1	6.4	6.5	12	12	14	14
Chloride	mg/l	500	S	25	25	30	31	110	110	87	87
Fluoride	mg/l	2	P	0.44	0.42	0.37	0.37	0.3	0.3	0.29	0.3
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			47	41	9.8	6.3	28	30	9.1	7.2
Nitrate (as NO3)	mg/l	45	P	ND	ND	2.7	2.8	7.6	8.3	30	28
Nitrate as Nitrogen	mg/l	10	P	ND	ND	0.6	0.63	1.7	1.9	6.8	6.3
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			3.6	3.5	3.6	3.6	4.9	5	5.8	5.8
Sodium, Total	mg/l			39	39	40	41	60	61	62	63
Sulfate	mg/l	500	S	98	96	98	97	180	180	170	170
Total Dissolved Solid (TDS)	mg/l	1000	S	360	370	380	400	760	760	830	840
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	0.6	0.63	1.7	1.9	6.8	6.3
General Physical Properties											
Apparent Color	ACU	15	S	5	10	ND	ND	ND	ND	ND	ND
Hardness (Total, as CaCO3)	mg/l			223	219	229	232	455	461	535	538
Lab pH	Units			7.57	6.93	7.69	7.58	7.63	7.64	7.42	7.41
Langelier Index	None			0.263	-0.39	0.367	0.255	0.649	0.736	0.649	0.649
Odor	TON	3	S	ND	ND	ND	ND	**4**	**4**	ND	ND
Specific Conductance	umho/cm	1600	S	590	570	620	610	1100	1100	1300	1200
Turbidity	NTU	5	S	1.1	1.3	0.1	0.1	0.15	0.15	0.1	0.2
Metals											
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	0.88	0.81	0.7	0.71	0.48	0.45	0.59	0.57
Barium, Total	ug/l	1000	P	66	65	80	82	96	97	91	92
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.25	ND	1	1.1	ND	ND	7.6	7.2
Hexavalent Chromium (Cr VI)	ug/l	10	P	ND	0.021	0.84	0.98	0.034	0.21	6.2	6.9
Copper, Total	ug/l	1300	P	ND	ND	0.53	0.53	ND	ND	1.2	ND
Iron, Total	mg/l	0.3	S	0.28	0.3	ND	ND	ND	ND	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			15.2	15.2	15.7	16.2	30.8	31.7	38.9	39.5
Manganese, Total	ug/l	50	S	50	45	1	1	8.8	8.1	5	6.4
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	1.9	1.9	ND	ND	3.8	3.6
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds											
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	0.84	0.78	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	**3.4**	**3.2**	**3.4**	**2**
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	0.62	0.85	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	19	13
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	0.53	0.55	1.4	1.6
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	0.66	0.65
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	**12**	**12**	**9.5**	**9.2**
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND
Others											
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	0.13	0.14	0.33	0.3
Perchlorate	ug/l	6	P	ND	ND	ND	ND	1.1	1.1	**7.2**	**6.3**
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	**1.4**	**0.72**	ND	ND
Total Organic Carbon	mg/l			ND	0.3	ND	ND	5.3	5.3	0.5	0.53

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Lakewood #1					
				Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
				3/21/2024	3/21/2024	3/21/2024	3/21/2024	3/21/2024	3/21/2024
General Minerals									
Alkalinity	mg/l			100	150	170	180	190	210
Anion Sum	meq/l			3	3.7	4	4.5	4.5	9.8
Bicarbonate as HCO3	mg/l			120	190	210	220	230	260
Boron	mg/l	1	N	0.053	0.055	0.065	0.071	0.088	0.087
Bromide	mg/l			ND	ND	ND	ND	ND	0.85
Calcium, Total	mg/l			9.8	37.3	38.6	49.9	48.9	125
Carbon Dioxide	mg/l			87.5	137	152	161	170	196
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			2.6	3.5	3.6	4.4	4.3	9.3
Chloride	mg/l	500	S	22	7.9	10	23	14	150
Fluoride	mg/l	2	P	0.4	0.22	0.27	0.28	0.43	0.17
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND
Iodide	ug/l			32	7.8	17	36	22	120
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			0.96	2.3	2.5	4.3	2.8	5
Sodium, Total	mg/l			49	29	29	30	23	44
Sulfate	mg/l	500	S	16	19	15	14	14	60
Total Dissolved Solid (TDS)	mg/l	1000	S	170	190	210	250	230	670
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND
General Physical Properties									
Apparent Color	ACU	15	S	10	ND	ND	5	ND	5
Hardness (Total, as CaCO3)	mg/l			24.5	110	115	149	159	364
Lab pH	Units			8.67	8.17	8.11	8.02	7.86	7.71
Langelier Index	None			0.281	0.533	0.535	0.568	0.43	0.628
Odor	TON	3	S	2	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	290	330	360	410	400	950
Turbidity	NTU	5	S	0.45	0.35	0.6	0.95	0.2	0.9
Metals									
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	**14**	**13**	2	8.1	3.3	**26**
Barium, Total	ug/l	1000	P	16	27	35	190	110	400
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.26	0.026	0.027	0.053	ND	ND
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	ND	ND	ND	0.048	0.1	0.19
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			ND	3.99	4.55	5.97	8.91	12.6
Manganese, Total	ug/l	50	S	3.6	22	29	**83**	**60**	**350**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds									
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND
Others									
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	0.059
Total Organic Carbon	mg/l			0.67	ND	ND	0.38	ND	0.95

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Lakewood #2															
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5		Zone 6		Zone 7		Zone 8	
				5/23/2024	9/26/2024	5/23/2024	9/26/2024	5/23/2024	9/26/2024	5/23/2024	9/26/2024	5/23/2024	9/26/2024	5/23/2024	9/26/2024	5/23/2024	9/26/2024	5/23/2024	9/26/2024
General Minerals																			
Alkalinity	mg/l			110	130	150	160	150	160	180	220	180	200	190	210	220	210	180	230
Anion Sum	meq/l			3.7	4.2	3.5	3.6	3.4	3.5	5.3	6.1	4.2	4.5	4.2	4.6	4.9	4.8	3.9	5
Bicarbonate as HCO3	mg/l			140	160	190	190	190	190	220	260	220	240	240	260	270	260	220	280
Boron	mg/l	1	N	0.06	0.062	0.051	0.055	0.047	0.048	0.069	0.075	0.056	0.058	0.063	0.067	0.064	0.064	0.077	0.079
Bromide	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			12	12.1	26.6	29	25	26.6	64.7	73.9	44.8	47	48.4	52	52.8	53.8	57	59.6
Carbon Dioxide	mg/l			100	116	138	181	138	141	167	199	164	178	174	191	199	193	161	214
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			3.2	3.4	3	3.3	2.9	3.1	5	5.7	3.9	4.1	3.9	4.3	4	4.1	4.5	4.7
Chloride	mg/l	500	S	14	14	5.9	5.9	7.8	6	18	20	6.2	6.2	5.7	5.7	6	6	7.4	7.4
Fluoride	mg/l	2	P	0.37	0.4	0.28	0.3	0.28	0.26	0.36	0.38	0.24	0.26	0.3	0.32	0.19	0.22	0.32	0.34
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			25	25	11	9.1	15	9.9	1.2	1.5	7.1	6.4	7.4	6.6	10	8.9	21	25
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	1.8	2.3	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	0.41	0.52	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			0.95	1.1	2.1	2.4	1.7	1.8	3.2	3.6	2.5	2.6	2.7	2.9	2.4	2.5	2.8	2.9
Sodium, Total	mg/l			60	64	32	35	33	36	20	24	26	28	21	23	22	24	23	25
Sulfate	mg/l	500	S	51	53	15	15	6.8	6.5	53	58	18	19	7.9	8.6	16	16	6.1	6.9
Total Dissolved Solid (TDS)	mg/l	1000	S	210	200	190	180	180	180	300	300	230	210	220	220	240	220	260	250
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	0.41	0.53	ND	ND	ND	ND	ND	ND	ND	ND
General Physical Properties																			
Apparent Color	ACU	15	S	10	10	3	3	5	5	ND	ND	ND	ND	ND	3	ND	3	ND	3
Hardness (Total, as CaCO3)	mg/l			30	30.1	81.1	88.2	71.6	75.8	202	229	134	140	149	159	147	149	171	178
Lab pH	Units			8.09	8.55	7.76	6.87	7.94	7.96	7.68	7.65	7.81	7.83	7.89	7.9	7.8	7.86	7.85	7.71
Langelier Index	None			-0.181	0.356	-0.023	-0.843	0.134	0.209	0.326	0.441	0.318	0.412	0.459	0.543	0.464	0.518	0.453	0.442
Odor	TON	3	S	ND	ND	ND	ND	ND	ND	ND	ND	2	ND	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	340	350	300	300	290	290	480	490	370	370	380	380	420	380	380	420
Turbidity	NTU	5	S	0.1	0.2	0.1	0.2	0.1	0.15	0.15	0.1	1.5	0.55	0.15	0.3	0.25	0.2	0.35	0.3
Metals																			
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	**16**	**16**	ND	ND	2	1.8	3.3	3.2	**22**	**21**	7.1	6.4	**42**	**40**	**42**	**40**
Barium, Total	ug/l	1000	P	15	15	7.3	7.3	9.7	9.1	110	120	120	120	75	77	140	140	130	120
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	0.73	0.7	ND	ND	ND	ND	ND	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.31	0.02	0.12	ND	0.13	ND	0.64	0.67	0.094	ND	0.13	ND	0.097	ND	0.042	ND
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	ND	ND	ND	ND	ND	ND	ND	ND	0.046	0.044	0.057	0.065	0.079	0.072	0.076	0.079
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			ND	ND	3.58	3.83	2.2	2.29	9.71	10.8	5.29	5.39	6.79	7.06	3.67	3.65	6.96	7.08
Manganese, Total	ug/l	50	S	4.7	4.2	14	13	16	15	ND	ND	**110**	**110**	**170**	**170**	**110**	**100**	**210**	**190**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	0.79	0.84	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds																			
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others																			
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	0.31	0.37	ND	ND	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	0.91	0.93	ND	ND	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			0.6	0.56	0.51	0.38	0.75	0.66	0.32	0.59	0.31	ND	0.54	0.5	0.48	0.34	0.45	0.43

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	La Mirada #1									
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5	
				4/30/2024	8/28/2024	4/30/2024	8/28/2024	4/30/2024	8/28/2024	4/30/2024	8/28/2024	4/30/2024	8/28/2024
General Minerals													
Alkalinity	mg/l			170	180	160	170	210	200	220	210	210	200
Anion Sum	meq/l			6.4	6.6	4.8	5	6	5.8	8.9	8.5	12	13
Bicarbonate as HCO3	mg/l			200	220	200	210	250	240	260	250	250	250
Boron	mg/l	1	N	0.14	0.15	0.1	0.1	0.15	0.15	0.13	0.14	0.15	0.17
Bromide	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	0.5	ND
Calcium, Total	mg/l			15.6	15.9	9.83	10.3	21	20.7	59.6	60.3	79.2	95.4
Carbon Dioxide	mg/l			155	161	143	154	186	179	196	188	190	188
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			5.8	5.9	4.1	4.3	5.3	5.4	8.1	8.4	10	12
Chloride	mg/l	500	S	29	28	16	16	19	19	82	77	160	200
Fluoride	mg/l	2	P	0.7	0.71	0.49	0.5	0.65	0.66	0.47	0.45	0.39	0.33
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			34	34	11	10	26	26	49	48	10	6.7
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	1.6	1.3	40	**48**
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	0.36	0.3	9.1	**11**
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			2.4	2.6	1.9	2	2.7	2.8	3.5	3.7	3.9	4.7
Sodium, Total	mg/l			110	110	80	84	84	88	76	81	94	110
Sulfate	mg/l	500	S	100	100	52	51	59	59	110	110	110	100
Total Dissolved Solid (TDS)	mg/l	1000	S	350	360	250	260	320	310	480	450	660	710
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	0.36	0.3	9.1	**11**
General Physical Properties													
Apparent Color	ACU	15	S	ND	ND	ND	ND	5	3	ND	ND	ND	ND
Hardness (Total, as CaCO3)	mg/l			52.9	54.4	30.3	31.8	77.1	76.8	236	240	314	380
Lab pH	Units			7.63	8.1	8.32	8.26	8.09	8.04	7.78	7.79	7.72	7.66
Langelier Index	None			-0.38	0.119	0.11	0.094	0.308	0.234	0.433	0.434	0.441	0.433
Odor	TON	3	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	590	570	430	410	520	500	820	780	1100	1200
Turbidity	NTU	5	S	0.1	ND	0.1	ND	0.15	ND	0.1	0.2	0.15	0.1
Metals													
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	6.7	5.9	9.1	7.8	6.3	5.6	3.9	3.7	1.6	1.3
Barium, Total	ug/l	1000	P	63	56	30	26	57	45	67	57	89	90
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.29	ND	ND	ND	ND	ND	0.26	ND	0.28	0.54
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.22	0.19	0.057	0.2	0.052	0.18	0.077	0.13	0.24	0.53
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	0.65	0.67	ND	0.57	ND	0.59
Iron, Total	mg/l	0.3	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	0.39	ND	ND	ND
Magnesium, Total	mg/l			3.4	3.55	1.4	1.5	6	6.11	21.3	21.7	28.2	34.4
Manganese, Total	ug/l	50	S	13	11	4.3	3.4	21	17	14	13	34	30
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	6.4	5.2	7.3	6.8
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds													
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others													
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	3	3.8
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			ND	ND	ND	ND	0.55	0.46	ND	ND	0.39	0.37

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Long Beach #1											
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5		Zone 6	
				4/29/2024	9/9/2024	4/29/2024	9/9/2024	4/29/2024	9/9/2024	4/29/2024	9/9/2024	4/29/2024	9/9/2024	4/29/2024	9/9/2024
General Minerals															
Alkalinity	mg/l			180	200	170	170	140	140	160	150	170	150	250	280
Anion Sum	meq/l			4.2	4.4	3.9	3.8	3.5	3.4	4.4	4	12	12	19	19
Bicarbonate as HCO3	mg/l			190	200	170	170	140	170	200	180	200	180	310	340
Boron	mg/l	1	N	0.17	0.17	0.16	0.16	0.082	0.082	0.075	0.065	0.16	0.15	0.13	0.13
Bromide	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.59	0.55
Calcium, Total	mg/l			2.96	2.71	2.55	2.46	5.18	5.1	18.4	19.2	46.3	45	185	179
Carbon Dioxide	mg/l			157	166	145	140	118	116	152	127	149	130	234	274
Carbonate as CO3	mg/l			32	29	31	27	26	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			3.6	3.5	3.4	3.3	2.9	2.9	3.6	3.5	11	10	17	17
Chloride	mg/l	500	S	18	16	16	15	13	12	14	13	150	140	230	240
Fluoride	mg/l	2	P	0.51	0.49	0.51	0.49	0.58	0.54	0.37	0.36	0.28	0.29	0.23	0.24
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			23	32	17	24	6.3	7.9	7.8	6.8	13	11	60	58
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			0.77	0.78	0.58	0.62	0.64	0.67	1.3	1.3	3.5	3.3	5.2	5.1
Sodium, Total	mg/l			78	77	75	73	60	60	58	55	180	170	120	110
Sulfate	mg/l	500	S	ND	ND	ND	ND	16	14	33	35	240	230	330	320
Total Dissolved Solid (TDS)	mg/l	1000	S	240	250	220	220	200	190	230	230	720	710	**1100**	**1100**
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
General Physical Properties															
Apparent Color	ACU	15	S	**120**	**100**	**100**	**100**	**35**	**35**	**25**	10	ND	3	10	5
Hardness (Total, as CaCO3)	mg/l			7.38	6.76	6.37	6.15	12.9	12.7	52.4	54.5	143	138	601	578
Lab pH	Units			8.93	8.92	8.97	8.97	8.83	8.83	7.64	8.38	7.97	8.05	7.68	7.3
Langelier Index	None			0.247	0.242	0.204	0.188	0.297	0.294	-0.289	0.439	0.356	0.371	0.782	0.436
Odor	TON	3	S	2	ND	2	ND	2	ND	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	360	370	340	340	300	300	360	360	1200	1100	**1800**	**1900**
Turbidity	NTU	5	S	0.15	0.25	0.2	0.35	0.3	1	1.1	3.5	1.8	1.3	0.7	0.7
Metals															
Aluminum, Total	ug/l	1000	P	34	30	30	27	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	ND	ND	ND	ND	ND	ND	0.53	0.42	0.86	0.79	8.4	7.1
Barium, Total	ug/l	1000	P	2.9	2.6	2.6	2.1	1.9	1.5	9.2	8.2	46	41	200	180
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.62	0.52	0.5	0.39	0.33	0.3	0.22	ND	0.21	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.17	0.5	0.19	0.29	0.18	0.45	0.15	0.068	0.11	0.051	ND	ND
Copper, Total	ug/l	1300	P	0.68	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.19	0.18
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			ND	ND	ND	ND	ND	ND	1.55	1.61	6.6	6.31	33.4	31.6
Manganese, Total	ug/l	50	S	4.6	4.5	3.1	1.8	3.6	2.6	16	13	**60**	**52**	**500**	**420**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds															
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others															
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.13	0.095
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			3.2	3	2.5	2.4	1.3	1.3	0.98	0.53	1.2	1.2	1.2	1.1

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Long Beach #2					
				Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
				3/22/2024	3/22/2024	3/22/2024	3/22/2024	3/22/2024	3/22/2024
General Minerals									
Alkalinity	mg/l			310	210	160	160	300	310
Anion Sum	meq/l			6.8	4.7	3.9	7.4	16	19
Bicarbonate as HCO3	mg/l			380	250	200	200	360	380
Boron	mg/l	1	N	0.53	0.2	0.15	0.096	0.29	0.24
Bromide	mg/l			ND	ND	ND	ND	0.84	1.1
Calcium, Total	mg/l			6.8	15.4	12.8	63.6	166	218
Carbon Dioxide	mg/l			274	180	141	146	269	284
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			6.7	4.5	3.7	6.9	15	18
Chloride	mg/l	500	S	19	22	25	72	120	160
Fluoride	mg/l	2	P	ND	0.4	0.43	0.23	0.16	0.22
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND
Iodide	ug/l			70	38	41	48	43	48
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			3.1	2.1	1.4	3.8	5.8	6.6
Sodium, Total	mg/l			140	81	68	71	110	100
Sulfate	mg/l	500	S	ND	ND	ND	100	300	400
Total Dissolved Solid (TDS)	mg/l	1000	S	420	260	220	410	940	**1200**
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND
General Physical Properties									
Apparent Color	ACU	15	S	**200**	**40**	**30**	5	5	5
Hardness (Total, as CaCO3)	mg/l			22.8	45.2	36.5	188	525	689
Lab pH	Units			8.51	8.37	8.39	8.16	7.83	7.72
Langelier Index	None			0.38	0.47	0.305	0.718	0.984	0.975
Odor	TON	3	S	**4**	ND	ND	ND	ND	2
Specific Conductance	umho/cm	1600	S	630	410	360	680	1400	**1800**
Turbidity	NTU	5	S	0.15	0.1	ND	0.25	0.7	1.3
Metals									
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	ND	ND	ND	0.89	4.1	5.4
Barium, Total	ug/l	1000	P	5.6	9.7	5.5	42	58	77
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.59	ND	ND	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.14	0.15	0.17	0.097	ND	ND
Copper, Total	ug/l	1300	P	1.3	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	0.072	ND	ND	0.033	0.23	0.25
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			1.42	1.64	1.11	6.96	27	35.2
Manganese, Total	ug/l	50	S	12	15	7.4	30	**180**	**390**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds									
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	1	3.2
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	1.6
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	3.3	**7.8**
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	8	7.9
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	ND	ND	ND	12	**80**	**130**
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	1
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	0.55
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND
Others									
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	**6.7**	**9.1**
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	0.061	0.086	0.071
Total Organic Carbon	mg/l			6.9	3.4	2.2	1.3	1.1	1.3

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Long Beach #6											
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5		Zone 6	
				5/13/2024	9/5/2024	5/13/2024	9/5/2024	5/13/2024	9/5/2024	5/13/2024	9/5/2024	5/13/2024	9/5/2024	5/13/2024	9/5/2024
General Minerals															
Alkalinity	mg/l			540	530	340	320	190	180	170	150	150	140	160	160
Anion Sum	meq/l			11	11	7.4	7	4.4	4.2	4	3.6	3.8	3.5	5.9	5.8
Bicarbonate as HCO3	mg/l			630	620	380	370	200	200	200	180	180	170	200	190
Boron	mg/l	1	N	**1.1**	**1.1**	0.61	0.54	0.25	0.25	0.12	0.092	0.081	0.078	0.047	0.047
Bromide	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			7.78	7.49	5.74	5.06	5.39	5.45	9.11	9.3	12.3	12.3	53.9	54.8
Carbon Dioxide	mg/l			476	466	297	281	166	159	144	127	131	125	145	142
Carbonate as CO3	mg/l			27	ND	27	20	28	24	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			11	11	6.9	6.4	3.7	3.8	3.2	3.2	3	3.1	5	5.1
Chloride	mg/l	500	S	19	20	19	20	16	18	14	14	16	17	76	77
Fluoride	mg/l	2	P	0.54	0.58	0.5	0.55	0.47	0.52	0.51	0.51	0.42	0.42	0.2	0.19
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			100	120	54	65	28	37	13	12	22	30	74	110
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			2.2	2.2	1.3	1.3	0.7	0.75	1.1	1.1	1.2	1.3	2.4	2.5
Sodium, Total	mg/l			240	240	150	140	78	81	62	61	53	55	42	43
Sulfate	mg/l	500	S	ND	ND	ND	ND	ND	ND	12	13	15	16	23	24
Total Dissolved Solid (TDS)	mg/l	1000	S	690	670	440	380	240	230	210	190	170	180	300	300
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
General Physical Properties															
Apparent Color	ACU	15	S	**300**	**250**	**200**	**200**	**150**	**150**	**50**	**35**	**20**	15	3	3
Hardness (Total, as CaCO3)	mg/l			25.9	25	18.1	15.8	13.5	13.6	25.4	25.8	34.2	34.1	156	158
Lab pH	Units			8.42	8.35	8.54	8.47	8.8	8.67	8.65	8.54	8.57	7.68	8.16	7.94
Langelier Index	None			0.537	0.446	0.372	0.235	0.403	0.259	0.445	0.298	0.457	-0.464	0.675	0.463
Odor	TON	3	S	**8**	**8**	**8**	**4**	ND	ND	2	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	1000	1000	660	610	370	380	330	310	310	310	520	530
Turbidity	NTU	5	S	1.8	1.2	0.45	0.45	0.1	0.3	0.25	0.3	0.2	0.15	0.3	0.25
Metals															
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	2.6	2.1	0.55	0.58	ND	ND	ND	ND	ND	ND	2.1	1.9
Barium, Total	ug/l	1000	P	6.6	6.3	6.2	5.4	4.3	4.3	6.5	6	2.6	2.8	23	24
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.48	0.23	0.65	0.6	0.64	0.51	0.28	ND	ND	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.078	0.26	0.12	0.19	0.05	0.31	0.21	0.21	0.11	0.2	0.042	ND
Copper, Total	ug/l	1300	P	0.62	ND	0.75	ND	0.81	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	0.079	0.056	0.067	0.063	0.033	0.035	ND	ND	ND	ND	0.053	0.052
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			1.57	1.52	0.902	0.773	ND	ND	0.653	0.62	0.834	0.812	5.13	5.2
Manganese, Total	ug/l	50	S	13	12	12	9.5	3.6	3.6	17	15	5.3	4.8	**54**	**54**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds															
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others															
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			16	16	10	8.3	4.1	3.8	2.2	1.4	1.4	1.1	0.78	0.76

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Los Angeles #1									
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5	
				4/24/2024	9/11/2024	4/24/2024	9/11/2024	4/24/2024	9/11/2024	4/24/2024	9/11/2024	4/24/2024	9/11/2024
General Minerals													
Alkalinity	mg/l			190	200	180	210	190	210	200	230	230	240
Anion Sum	meq/l			6.3	6.6	6.2	6.7	6.5	6.8	7.2	7.7	11	11
Bicarbonate as HCO3	mg/l			230	250	220	260	230	250	240	280	280	290
Boron	mg/l	1	N	0.15	0.15	0.14	0.15	0.15	0.15	0.14	0.15	0.19	0.19
Bromide	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			57.1	57.5	61.3	61.8	61.7	60.9	71.2	70.7	105	106
Carbon Dioxide	mg/l			174	184	169	194	176	193	183	211	219	228
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			5.9	5.9	6	6	6.1	6	6.9	6.8	9.9	10
Chloride	mg/l	500	S	26	26	24	24	27	25	33	31	78	77
Fluoride	mg/l	2	P	0.26	0.26	0.42	0.44	0.37	0.38	0.38	0.43	0.38	0.33
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			24	21	24	18	12	8.2	25	24	8.2	4.9
Nitrate (as NO3)	mg/l	45	P	0.65	1.5	ND	ND	ND	ND	4.4	2.7	**53**	**51**
Nitrate as Nitrogen	mg/l	10	P	0.15	0.34	ND	ND	ND	ND	0.99	0.61	**12**	**12**
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			4.3	4.3	3.5	3.6	3.6	3.5	4.2	4.3	4.8	4.9
Sodium, Total	mg/l			44	43	38	38	39	38	43	42	55	55
Sulfate	mg/l	500	S	81	83	89	89	92	91	110	110	140	140
Total Dissolved Solid (TDS)	mg/l	1000	S	360	350	360	360	350	360	410	400	620	620
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	0.15	0.36	ND	ND	ND	ND	1	0.64	**12**	**12**
General Physical Properties													
Apparent Color	ACU	15	S	ND	ND	5	3	ND	ND	ND	ND	5	5
Hardness (Total, as CaCO3)	mg/l			194	196	212	215	216	213	248	246	373	375
Lab pH	Units			7.76	7.88	7.58	7.62	7.59	7.66	7.6	7.57	7.42	7.43
Langelier Index	None			0.359	0.507	0.186	0.297	0.225	0.33	0.305	0.335	0.311	0.343
Odor	TON	3	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	570	580	580	570	590	580	660	640	980	960
Turbidity	NTU	5	S	0.1	0.2	0.65	0.8	ND	0.2	0.15	0.4	0.1	0.25
Metals													
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	ND	ND	ND	ND	0.68	0.66	1.9	2.1	0.63	0.63
Barium, Total	ug/l	1000	P	31	30	53	53	78	76	99	100	150	150
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.43	ND	ND	ND	0.63	0.43	9.9	5.2	**240**	**230**
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.082	0.064	0.031	0.053	0.36	0.37	8.1	4.3	**210**	**210**
Copper, Total	ug/l	1300	P	0.54	ND	ND	ND	ND	ND	ND	ND	0.9	ND
Iron, Total	mg/l	0.3	S	ND	ND	0.19	0.19	ND	ND	ND	ND	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			12.5	12.7	14.4	14.6	15	14.9	17.1	17	26.8	27.2
Manganese, Total	ug/l	50	S	17	14	**53**	48	7.2	6.3	26	30	ND	ND
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	0.79	1.1	ND	ND	0.61	0.56	ND	ND	3.7	3.6
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds													
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	0.8	0.81
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	**1.1**	**1.2**
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	0.89	0.95	ND	ND	ND	ND	ND	ND	3.9	4.5
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	0.63	0.68
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	3.2	3.1	ND	ND	ND	ND	2.4	1.9	**45**	**48**
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others													
1,4-Dioxane	ug/l	1	N	0.11	0.087	ND	ND	ND	ND	ND	ND	0.21	0.18
Perchlorate	ug/l	6	P	ND	0.1	ND	ND	ND	ND	0.26	0.24	3.4	3
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			0.45	0.44	ND	ND	ND	0.34	0.31	0.32	ND	0.49

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Los Angeles #2							
				Zone 2		Zone 3		Zone 4		Zone 5	
				5/17/2024	9/4/2024	5/17/2024	9/4/2024	5/17/2024	9/4/2024	5/17/2024	9/5/2024
General Minerals											
Alkalinity	mg/l			330	340	340	320	320	360	320	330
Anion Sum	meq/l			19	20	19	19	19	20	24	24
Bicarbonate as HCO3	mg/l			400	410	420	390	400	440	390	400
Boron	mg/l	1	N	0.25	0.24	0.22	0.22	0.29	0.28	0.44	0.43
Bromide	mg/l			0.55	0.55	ND	ND	0.71	0.71	0.72	0.72
Calcium, Total	mg/l			196	192	191	191	186	178	223	219
Carbon Dioxide	mg/l			318	324	331	312	322	357	334	340
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			19	18	18	18	18	18	23	22
Chloride	mg/l	500	S	240	270	240	250	220	220	150	150
Fluoride	mg/l	2	P	0.17	0.17	0.28	0.28	0.29	0.29	0.27	0.28
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			87	150	59	67	68	78	61	57
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			12	11	7.8	7.9	8.6	8.5	11	11
Sodium, Total	mg/l			98	99	91	93	120	120	140	140
Sulfate	mg/l	500	S	260	300	260	270	280	300	**630**	**640**
Total Dissolved Solid (TDS)	mg/l	1000	S	**1200**	**1300**	**1200**	**1200**	**1100**	**1200**	**1500**	**1500**
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
General Physical Properties											
Apparent Color	ACU	15	S	5	3	10	**30**	3	**30**	ND	3
Hardness (Total, as CaCO3)	mg/l			708	685	676	669	660	624	808	798
Lab pH	Units			7.35	7.42	7.37	7.32	7.24	7.29	7.11	7.13
Langelier Index	None			0.586	0.649	0.608	0.532	0.452	0.522	0.358	0.383
Odor	TON	3	S	ND	ND	ND	ND	ND	ND	**4**	2
Specific Conductance	umho/cm	1600	S	**2000**	**2000**	**2000**	**1800**	**1900**	**2000**	**2300**	**2300**
Turbidity	NTU	5	S	0.7	1.3	4	**10**	0.35	**12**	**21**	**14**
Metals											
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	1.8	4.5
Arsenic, Total	ug/l	10	P	ND	ND	ND	ND	ND	ND	4.3	2.9
Barium, Total	ug/l	1000	P	91	86	110	110	110	110	56	49
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	0.26	0.32
Chromium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	ND	ND	ND	ND	0.1	ND	ND	0.061
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND	ND	0.53
Iron, Total	mg/l	0.3	S	0.19	0.18	**1**	**0.99**	**1.2**	**1.1**	**0.68**	0.033
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			52.8	49.6	48.5	46.6	47.4	43.4	61	61.3
Manganese, Total	ug/l	50	S	**400**	**370**	**200**	**190**	**140**	**140**	**620**	**510**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	210	260
Volatile Organic Compounds											
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	11	**28**	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND
Others											
1,4-Dioxane	ug/l	1	N	ND	ND	0.078	ND	**1.8**	**1.3**	0.55	0.49
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			0.75	0.67	0.8	0.61	0.97	0.83	1.5	1.2

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Los Angeles #3											
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5		Zone 6	
				5/1/2024	8/28/2024	5/1/2024	8/28/2024	5/1/2024	8/28/2024	5/1/2024	8/28/2024	5/1/2024	8/28/2024	5/1/2024	8/28/2024
General Minerals															
Alkalinity	mg/l			260	280	210	200	200	220	220	210	220	210	230	240
Anion Sum	meq/l			6.9	7.3	6.7	6.6	6.3	6.7	7.6	7.4	9.6	9.3	12	12
Bicarbonate as HCO3	mg/l			320	340	260	250	240	260	270	260	270	260	280	290
Boron	mg/l	1	N	0.33	0.37	0.13	0.15	0.14	0.15	0.15	0.16	0.18	0.2	0.18	0.19
Bromide	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			15.6	17.1	58.5	62.7	58.7	63.3	68.9	74.6	89.8	99.6	122	135
Carbon Dioxide	mg/l			234	250	190	181	179	198	203	194	206	213	210	218
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			5.9	6.7	5.8	6.4	5.8	6.4	6.7	7.4	8.6	9.7	11	12
Chloride	mg/l	500	S	41	41	34	34	24	24	46	46	61	61	130	120
Fluoride	mg/l	2	P	0.22	0.27	0.24	0.29	0.35	0.41	0.33	0.37	0.25	0.3	0.27	0.31
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			76	64	50	52	31	25	38	39	7.6	7.7	8.3	7.2
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND	**46**	41	32	28
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	10	9.2	7.3	6.4
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			4.7	6.1	3.9	4.8	3.9	4.8	4.4	5.4	4.7	5.6	4.5	5.5
Sodium, Total	mg/l			100	120	38	45	38	44	42	49	51	60	56	65
Sulfate	mg/l	500	S	24	24	73	75	81	83	87	89	120	130	170	170
Total Dissolved Solid (TDS)	mg/l	1000	S	390	380	350	340	340	340	400	390	560	550	690	700
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	10	9.2	7.3	6.4
General Physical Properties															
Apparent Color	ACU	15	S	**20**	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hardness (Total, as CaCO3)	mg/l			61.8	67.7	203	216	202	217	236	255	314	347	424	465
Lab pH	Units			8.03	8.17	7.92	7.93	7.8	7.74	7.79	7.76	7.71	7.24	7.71	7.66
Langelier Index	None			0.193	0.408	0.575	0.597	0.438	0.453	0.524	0.511	0.525	0.082	0.653	0.664
Odor	TON	3	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	670	620	590	570	580	560	680	650	870	850	1100	1100
Turbidity	NTU	5	S	ND	0.1	0.2	0.5	0.95	0.3	0.2	0.55	0.25	0.75	0.1	0.2
Metals															
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	ND	ND	ND	ND	0.88	0.82	ND	ND	0.6	0.56	0.4	ND
Barium, Total	ug/l	1000	P	10	9	24	21	49	46	84	79	150	140	130	120
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	ND	ND	0.26	ND	ND	ND	ND	ND	2.2	2	6.9	6.1
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.073	0.07	0.067	0.052	0.11	0.06	ND	0.068	1.7	1.9	5.5	5.8
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	ND	ND	ND	0.036	ND	ND	0.061	0.086	ND	ND	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			5.56	6.08	13.7	14.6	13.5	14.4	15.6	16.7	21.8	23.8	28.7	31.1
Manganese, Total	ug/l	50	S	27	22	**98**	**82**	**55**	48	**53**	47	1.4	ND	ND	ND
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	1.7	1.4	12	10
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds															
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	0.66	ND	3.1	3.6
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	0.64	0.87	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	5	4.2	ND	0.59
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others															
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND	0.26	0.21	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	1.4	1.5	0.85	0.98	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			1.8	1.6	0.35	ND	0.3	ND	0.32	ND	0.44	0.4	0.47	0.38

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Los Angeles #4											
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5		Zone 6	
				4/25/2024	8/6/2024	4/25/2024	8/6/2024	4/25/2024	8/6/2024	4/25/2024	8/6/2024	4/25/2024	8/6/2024	4/25/2024	8/6/2024
General Minerals															
Alkalinity	mg/l			1600	1600	450	480	200	170	200	180	200	180	190	180
Anion Sum	meq/l			32	33	9.3	9.9	6.4	5.8	6.3	5.9	6.4	5.9	7.6	7.3
Bicarbonate as HCO3	mg/l			1900	1900	550	590	240	210	240	210	240	220	230	220
Boron	mg/l	1	N	**6**	**12**	0.53	0.51	0.13	0.13	0.13	0.13	0.13	0.13	0.15	0.15
Bromide	mg/l			ND	0.53	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			11.8	23.2	17.7	17.1	57	54.3	55.7	55.6	57.9	56.9	69.6	69.1
Carbon Dioxide	mg/l			1400	1410	408	435	182	155	179	160	181	159	190	163
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			31	63	8.7	8.5	5.7	5.4	5.6	5.6	5.7	5.6	6.7	6.7
Chloride	mg/l	500	S	36	36	8.5	8.5	23	22	22	22	23	22	56	56
Fluoride	mg/l	2	P	0.3	0.29	0.22	0.22	0.35	0.26	0.26	0.35	0.31	0.31	0.23	0.24
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			190	200	19	20	36	27	25	38	25	26	10	8.8
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	21	19
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.8	4.4
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			20	37	13	12	3.8	2.9	3.3	3.5	3.8	3.6	3.7	3.5
Sodium, Total	mg/l			670	1400	160	160	40	41	42	39	39	38	48	47
Sulfate	mg/l	500	S	ND	ND	ND	ND	83	82	83	82	84	83	87	86
Total Dissolved Solid (TDS)	mg/l	1000	S	**2200**	**2100**	520	500	340	320	330	340	350	330	430	410
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.8	4.4
General Physical Properties															
Apparent Color	ACU	15	S	**1000**	**1000**	**150**	**75**	ND	3	ND	ND	ND	ND	ND	ND
Hardness (Total, as CaCO3)	mg/l			54.9	107	75.1	72.4	195	180	185	189	194	190	227	226
Lab pH	Units			8.04	8.08	7.93	7.96	7.73	8.02	7.98	7.8	7.84	7.94	7.24	7.77
Langelier Index	None			0.652	0.993	0.358	0.405	0.356	0.559	0.598	0.369	0.47	0.522	-0.092	0.416
Odor	TON	3	S	**4**	**8**	**4**	2	ND	ND	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	**3000**	**2600**	820	820	540	530	540	540	550	540	670	670
Turbidity	NTU	5	S	0.55	0.15	1.5	2.9	0.15	0.25	0.15	0.15	0.35	0.7	0.2	0.65
Metals															
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	0.43	1.7	6.6	6.6	1.7	ND	ND	1.6	1.2	1.2	1.2	1.2
Barium, Total	ug/l	1000	P	7.5	35	38	35	73	17	18	70	62	60	86	83
Beryllium, Total	ug/l	4	P	ND	0.11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.69	2.9	0.61	0.23	0.58	ND	0.24	ND	ND	ND	1.5	1.2
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.63	0.14	0.27	0.12	0.09	0.15	0.11	0.072	0.089	0.064	1.1	1.2
Copper, Total	ug/l	1300	P	ND	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	**0.57**	**1**	0.14	0.12	ND	ND	ND	ND	0.058	0.047	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			6.17	12	7.52	7.22	12.7	10.9	11.2	12.3	12	11.7	13	12.9
Manganese, Total	ug/l	50	S	3.1	13	**52**	45	39	39	42	37	**73**	**67**	**92**	**81**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	0.51	ND	ND	ND	ND	ND	ND	ND	ND	2	1.9
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds															
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others															
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.24	0.21
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			95	78	6.5	6.5	0.41	0.37	0.36	ND	ND	ND	0.31	ND

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Los Angeles #5											
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5		Zone 6	
				4/23/2024	9/10/2024	4/23/2024	9/10/2024	4/23/2024	9/10/2024	4/23/2024	9/10/2024	4/23/2024	9/10/2024	4/23/2024	9/10/2024
General Minerals															
Alkalinity	mg/l			850	870	880	930	190	190	250	270	250	280	200	220
Anion Sum	meq/l			120	110	30	30	6	6	10	11	10	9.8	7.4	7.8
Bicarbonate as HCO3	mg/l			1000	1100	1100	1100	230	230	300	330	310	340	240	270
Boron	mg/l	1	N	**7.5**	**7.7**	**2.5**	**2.7**	0.13	0.13	0.38	0.39	0.15	0.16	0.14	0.15
Bromide	mg/l			29	29	4.5	3.8	ND	ND	1.5	1.3	ND	0.86	ND	ND
Calcium, Total	mg/l			40.1	41.6	19.5	21.7	52.8	54.2	99.9	99.9	88.1	93.1	72.2	73.9
Carbon Dioxide	mg/l			765	791	780	830	169	169	225	248	228	255	178	200
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			110	110	30	28	5.4	5.5	10	10	8.4	9	6.9	7.1
Chloride	mg/l	500	S	**3800**	**3300**	450	420	23	23	190	180	170	130	36	36
Fluoride	mg/l	2	P	ND	ND	0.18	0.18	0.22	0.26	0.21	0.19	0.3	0.23	0.34	0.32
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			8700	13000	1300	1100	28	25	410	340	160	230	39	40
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND	0.71	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	0.16	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			58	59	22	24	3.4	3.5	6	6.1	4.9	5.1	3.4	3.5
Sodium, Total	mg/l			2300	2500	640	580	42	43	67	69	51	54	44	45
Sulfate	mg/l	500	S	ND	ND	ND	ND	77	76	2.6	4.1	15	14	120	120
Total Dissolved Solid (TDS)	mg/l	1000	S	**6900**	**6800**	**1800**	**1800**	320	320	740	600	560	520	420	420
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	0.16	ND	ND	ND
General Physical Properties															
Apparent Color	ACU	15	S	**200**	**150**	**250**	**300**	ND	3	10	10	5	5	ND	ND
Hardness (Total, as CaCO3)	mg/l			287	301	96.7	109	173	179	348	350	305	324	244	251
Lab pH	Units			7.87	7.85	8.1	8.07	8.03	8.01	7.79	7.71	7.89	7.88	7.79	7.76
Langelier Index	None			0.566	0.574	0.701	0.741	0.605	0.597	0.674	0.652	0.751	0.823	0.498	0.52
Odor	TON	3	S	**4**	**8**	2	ND	ND	ND	2	2	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	**12000**	**12000**	**3200**	**3100**	520	520	1100	1000	880	880	670	670
Turbidity	NTU	5	S	0.25	0.15	0.2	0.15	0.15	0.15	1.2	0.95	0.5	0.5	0.3	0.45
Metals															
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	ND	ND	ND	ND	ND	ND	0.84	0.83	0.64	0.64	0.49	0.45
Barium, Total	ug/l	1000	P	61	63	23	27	26	26	99	97	88	95	67	67
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.55	0.34	1	1.2	0.2	ND	ND	ND	ND	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	ND	0.2	0.024	0.12	0.15	0.053	ND	0.028	0.021	0.04	0.11	0.074
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	**0.32**	**0.34**	0.19	0.23	ND	ND	**0.34**	**0.35**	0.21	0.23	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			45.3	47.8	11.7	13.2	10.1	10.6	24	24.5	20.6	22.2	15.5	16.2
Manganese, Total	ug/l	50	S	31	31	39	44	36	35	**140**	**130**	**180**	**180**	26	21
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds															
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	9.4	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others															
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	0.091	0.12	0.067	0.063	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			37	37	26	30	0.61	0.41	0.73	0.72	0.43	0.49	ND	0.4

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Los Angeles #6							
				Zone 1		Zone 2		Zone 3		Zone 4	
				7/19/2024	9/20/2024	7/19/2024	9/20/2024	7/19/2024	9/20/2024	7/19/2024	9/20/2024
General Minerals											
Alkalinity	mg/l			360	380	240	250	300	320	280	310
Anion Sum	meq/l			17	17	8.9	9.1	16	16	11	11
Bicarbonate as HCO3	mg/l			440	460	290	310	360	390	340	380
Boron	mg/l	1	N	0.62	0.59	0.29	0.31	0.4	0.41	0.22	0.22
Bromide	mg/l			2.9	2.9	0.9	0.92	2.8	3	0.61	0.63
Calcium, Total	mg/l			12.1	12.1	40	36.2	76.8	75.5	92	91
Carbon Dioxide	mg/l			320	338	216	228	272	297	271	293
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			16	14	8.3	8.3	15	14	9.9	9.8
Chloride	mg/l	500	S	350	330	130	130	350	340	120	120
Fluoride	mg/l	2	P	0.25	0.2	0.24	0.23	0.18	0.16	0.41	0.41
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			1100	570	330	210	1100	1000	130	120
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			20	20	10	11	13	14	6	6
Sodium, Total	mg/l			320	280	120	120	210	200	77	77
Sulfate	mg/l	500	S	4.1	3.4	25	26	ND	1.1	89	91
Total Dissolved Solid (TDS)	mg/l	1000	S	980	920	490	470	880	850	590	570
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
General Physical Properties											
Apparent Color	ACU	15	S	**50**	**50**	5	10	10	10	ND	ND
Hardness (Total, as CaCO3)	mg/l			58.9	57.9	147	133	270	263	322	316
Lab pH	Units			7.97	7.96	7.85	7.84	7.67	7.63	7.39	7.43
Langelier Index	None			0.061	0.082	0.365	0.334	0.498	0.483	0.314	0.398
Odor	TON	3	S	2	ND	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	**1800**	**1800**	860	850	**1700**	1600	970	970
Turbidity	NTU	5	S	1.9	1.2	0.25	0.4	0.35	0.2	0.6	0.3
Metals											
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	5.4	5.3	1.8	1.9	ND	ND	1.1	1
Barium, Total	ug/l	1000	P	36	36	37	34	86	88	68	68
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.22	0.21	ND	ND	ND	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.074	ND	ND	0.24	ND	0.07	ND	ND
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	0.063	0.069	0.032	0.03	0.081	0.066	0.047	0.064
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			7	6.71	11.5	10.3	18.9	18.1	22.5	21.6
Manganese, Total	ug/l	50	S	49	**55**	**56**	**55**	**76**	**81**	**82**	**85**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds											
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	4.7	5.3
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	3.5	3.3
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND
Others											
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			2.9	3.1	0.96	0.99	1.9	2	0.59	0.64

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Lynwood #1																	
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5		Zone 6		Zone 7		Zone 8		Zone 9	
				6/4/2024	9/3/2024	6/4/2024	9/3/2024	6/5/2024	9/4/2024	6/5/2024	9/4/2024	6/5/2024	9/4/2024	6/5/2024	9/4/2024	6/5/2024	9/4/2024	6/4/2024	9/3/2024	6/5/2024	9/4/2024
General Minerals																					
Alkalinity	mg/l			590	550	150	150	140	150	160	160	180	170	190	180	200	190	200	200	310	310
Anion Sum	meq/l			12	11	4.6	4.6	5.1	5.2	5.6	5.7	5.2	5.1	6	5.8	6.3	6	8.2	8.1	18	18
Bicarbonate as HCO3	mg/l			700	650	150	150	170	180	190	200	220	210	230	220	250	230	250	250	380	380
Boron	mg/l	1	N	**1.3**	**1.4**	0.17	0.17	0.1	0.1	0.086	0.084	0.088	0.085	0.13	0.12	0.12	0.12	0.14	0.14	0.18	0.18
Bromide	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.56	0.56
Calcium, Total	mg/l			9.71	10.1	5.63	5.57	41.1	39.7	46.3	45.5	44.7	43.5	55.5	52	60.6	57.9	80.9	80.3	200	199
Carbon Dioxide	mg/l			520	486	129	130	125	130	142	144	161	153	167	159	186	168	189	184	291	290
Carbonate as CO3	mg/l			ND	ND	23	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			11	11	4	3.9	4.5	4.4	5	4.9	4.6	4.6	5.5	5.2	5.9	5.6	7.4	7.4	17	17
Chloride	mg/l	500	S	11	12	23	23	22	23	23	23	21	21	22	22	23	23	57	56	150	150
Fluoride	mg/l	2	P	0.44	0.46	0.36	0.36	0.26	0.26	0.23	0.23	0.24	0.24	0.32	0.32	0.28	0.28	0.34	0.34	0.25	0.26
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			12	ND	29	35	19	29	26	29	28	33	20	28	25	29	2.7	2.6	70	170
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.2	6.7	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.6	1.5	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			3.2	3.2	0.8	0.64	1.5	1.4	2	1.9	2.3	2.2	3.8	3.5	3.3	3.1	3.8	3.6	5.6	5.6
Sodium, Total	mg/l			230	230	85	83	45	44	49	49	49	49	39	37	41	40	42	41	74	74
Sulfate	mg/l	500	S	ND	ND	46	46	79	79	85	85	48	48	76	76	76	76	120	110	360	370
Total Dissolved Solid (TDS)	mg/l	1000	S	680	670	250	130	270	290	280	300	310	270	310	320	340	320	450	450	**1100**	**1100**
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.6	1.5	ND	ND
General Physical Properties																					
Apparent Color	ACU	15	S	**200**	**200**	**25**	**50**	ND	3	ND	ND	ND	ND	3	ND	ND	ND	ND	ND	10	5
Hardness (Total, as CaCO3)	mg/l			32.3	33.9	14.1	13.9	126	121	140	136	123	119	186	173	199	188	275	274	676	666
Lab pH	Units			8.34	8.31	8.54	8.63	8.16	8.02	8.12	8.1	8.15	8.13	8.04	8.03	7.78	8.03	7.58	7.75	7.53	7.58
Langelier Index	None			0.593	0.552	0.059	0.19	0.508	0.377	0.575	0.541	0.632	0.587	0.64	0.575	0.432	0.645	0.331	0.498	0.759	0.807
Odor	TON	3	S	**8**	**4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	1000	1000	420	490	450	450	490	480	450	450	510	510	540	540	720	720	1600	**1700**
Turbidity	NTU	5	S	1.4	1.4	0.15	0.1	ND	0.2	0.1	0.2	ND	0.15	ND	0.15	0.15	0.3	0.15	1	2.1	2.5
Metals																					
Aluminum, Total	ug/l	1000	P	ND	ND	22	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	**220**	**230**	0.69	0.58	ND	ND	ND	ND	4.7	4.5	0.61	0.55	0.99	0.98	1.6	1.5	**11**	9.2
Barium, Total	ug/l	1000	P	14	15	2.1	1.9	4.3	4.3	160	160	120	120	46	45	120	120	120	120	100	110
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.55	0.53	0.39	0.29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.74	0.71	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.18	0.28	0.16	0.29	0.14	0.14	0.13	0.054	0.089	0.15	0.082	0.26	0.1	0.16	0.65	0.85	ND	ND
Copper, Total	ug/l	1300	P	ND	ND	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	0.065	0.067	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.039	0.033	ND	ND	**0.38**	**0.35**
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			1.96	2.11	ND	ND	5.79	5.36	5.78	5.48	2.65	2.48	11.6	10.5	11.5	10.7	17.8	17.8	42.5	41.2
Manganese, Total	ug/l	50	S	11	11	2.8	2.6	15	15	31	31	22	22	**61**	**57**	**82**	**78**	1.7	ND	**250**	**260**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1	1	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds																					
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	0.51	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.9	3.3	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.56	0.62	1.2	0.67
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others																					
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2.2**	**1.8**	0.073	0.075
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5	0.4	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			12	10	1.9	1.5	0.44	0.4	0.38	0.39	ND	ND	0.41	0.36	0.42	ND	0.39	0.32	0.97	0.98

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Montebello #1									
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5	
				5/16/2024	8/20/2024	5/16/2024	8/20/2024	5/16/2024	8/20/2024	5/16/2024	8/20/2024	5/16/2024	8/20/2024
General Minerals													
Alkalinity	mg/l			900	880	570	560	200	200	200	190	160	150
Anion Sum	meq/l			36	36	15	15	8.6	8.6	8.7	8.6	6	5.8
Bicarbonate as HCO3	mg/l			1100	1100	690	690	250	240	240	230	200	180
Boron	mg/l	1	N	**6.4**	**6.6**	**2.2**	**2.2**	0.12	0.12	0.1	0.1	0.17	0.17
Bromide	mg/l			4	4	0.7	0.67	ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			12.6	13.3	16.3	16.8	92.2	96	95.6	100	48.3	48.9
Carbon Dioxide	mg/l			795	778	502	501	180	178	176	172	150	139
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			33	33	13	14	7.7	7.9	8	8.3	5.3	5.4
Chloride	mg/l	500	S	**640**	**650**	120	110	63	63	68	69	37	39
Fluoride	mg/l	2	P	0.36	0.38	0.27	0.27	0.15	0.16	0.18	0.19	0.32	0.33
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			850	900	140	150	33	29	28	26	4.3	4.1
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND	10	11
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	2.3	2.4
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			8.5	12	6.9	7	4	4.1	4	4.1	3	3.1
Sodium, Total	mg/l			720	720	270	280	40	41	42	43	46	47
Sulfate	mg/l	500	S	ND	ND	ND	ND	130	130	140	140	74	71
Total Dissolved Solid (TDS)	mg/l	1000	S	**2200**	**2100**	860	840	510	480	510	510	340	320
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	2.3	2.4
General Physical Properties													
Apparent Color	ACU	15	S	**500**	**500**	**250**	**250**	ND	ND	ND	ND	ND	ND
Hardness (Total, as CaCO3)	mg/l			54.5	57.3	68.5	70.3	293	303	302	315	160	161
Lab pH	Units			8.22	8.21	8.17	8.17	7.96	7.97	7.93	7.93	7.68	7.66
Langelier Index	None			0.61	0.621	0.606	0.614	0.754	0.788	0.74	0.737	0.137	0.1
Odor	TON	3	S	**8**	**4**	ND	2	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	**3700**	**3800**	1400	1300	770	740	790	770	540	530
Turbidity	NTU	5	S	0.25	0.2	0.25	0.25	0.6	0.25	0.2	0.2	0.2	0.15
Metals													
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	3.2	3.5	ND	ND	ND	ND	0.84	0.79	1.7	1.8
Barium, Total	ug/l	1000	P	38	42	24	25	46	49	90	99	52	57
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	1.9	1.8	0.91	0.88	0.23	ND	ND	ND	0.26	0.37
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.022	0.096	0.033	0.087	0.045	0.11	0.11	0.13	0.8	0.34
Copper, Total	ug/l	1300	P	0.7	0.71	0.52	0.59	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	0.14	0.15	0.18	0.18	0.032	0.033	ND	ND	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			5.59	5.85	6.74	6.85	15.2	15.4	15.3	15.7	9.52	9.5
Manganese, Total	ug/l	50	S	7.9	8.5	25	25	**91**	**92**	**59**	**60**	ND	ND
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	1.4	1.5
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds													
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others													
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	**7.2**	**6.5**	**8.5**	**7.7**	0.43	0.4
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	0.57	0.49
Surfactants	mg/l	0.5	S	0.054	0.082	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			24	27	16	17	0.63	0.44	0.53	0.56	0.37	0.36

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Montebello #2									
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5	
				5/31/2024	9/6/2024	5/31/2024	9/6/2024	5/31/2024	9/6/2024	5/31/2024	9/6/2024	5/31/2024	9/6/2024
General Minerals													
Alkalinity	mg/l			1000	1100	210	210	150	160	190	190	150	160
Anion Sum	meq/l			32	35	7.5	7.5	6.4	6.5	7.6	6.1	5.6	6.7
Bicarbonate as HCO3	mg/l			1200	1400	260	260	100	140	230	230	190	190
Boron	mg/l	1	N	**6.6**	**7.1**	0.17	0.17	0.21	0.21	0.16	0.16	0.14	0.14
Bromide	mg/l			1.8	2.1	0.68	0.6	0.56	0.54	ND	ND	ND	ND
Calcium, Total	mg/l			11.4	9.57	52.3	50.8	36.7	33.7	70.1	64	40.6	39.6
Carbon Dioxide	mg/l			892	984	191	188	105	113	175	188	143	147
Carbonate as CO3	mg/l			92	ND	ND	ND	68	47	ND	ND	ND	ND
Cation Sum	meq/l			28	30	6.7	6.5	7.3	6.7	6.9	6.4	4.9	4.7
Chloride	mg/l	500	S	380	430	97	95	94	94	64	34	36	60
Fluoride	mg/l	2	P	0.47	0.48	0.32	0.34	0.28	0.26	0.4	0.38	0.37	0.43
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			180	220	97	130	110	100	37	30	3	2.5
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	8	13	13	9.4
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	1.8	2.9	2.9	2.1
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			21	18	7.3	7	19	15	3.4	3.3	4	3.6
Sodium, Total	mg/l			610	670	57	55	95	88	48	47	46	44
Sulfate	mg/l	500	S	4.4	0.56	25	25	33	34	87	59	60	81
Total Dissolved Solid (TDS)	mg/l	1000	S	**1800**	**2000**	400	400	360	400	420	300	300	400
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	1.8	2.9	2.9	2.1
General Physical Properties													
Apparent Color	ACU	15	S	**250**	**400**	5	3	15	15	ND	ND	3	ND
Hardness (Total, as CaCO3)	mg/l			50.9	49	203	196	136	124	235	212	139	134
Lab pH	Units			8.81	8.54	7.98	8.2	9.83	9.75	7.74	7.18	7.61	7.5
Langelier Index	None			1.23	0.911	0.574	0.781	2.07	1.98	0.413	-0.155	-0.025	-0.144
Odor	TON	3	S	2	**4**	ND	**4**	**4**	**4**	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	**3000**	**3400**	690	690	610	600	670	650	490	490
Turbidity	NTU	5	S	**20**	2.7	0.45	0.35	**13**	3.6	0.95	1.5	0.2	0.1
Metals													
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	230	240	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	0.63	0.41	ND	ND	2.3	1.6	1.9	1.8	2	2.1
Barium, Total	ug/l	1000	P	50	53	64	62	54	51	91	83	59	57
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	1.8	1.5	0.23	ND	0.29	ND	0.2	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.67	0.49	0.09	0.12	0.17	0.23	0.16	0.13	0.16	0.092
Copper, Total	ug/l	1300	P	ND	0.55	ND	ND	ND	ND	ND	ND	0.7	ND
Iron, Total	mg/l	0.3	S	0.11	0.14	0.081	0.053	ND	ND	ND	ND	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			5.45	6.1	17.6	16.8	10.8	9.59	14.5	12.8	9.24	8.57
Manganese, Total	ug/l	50	S	21	28	**120**	**110**	**52**	**54**	24	24	**83**	**80**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	0.052	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	2.2	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds													
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	0.61	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others													
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	0.25	0.2	**1.7**	**1.4**	0.17	0.13
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	0.051	0.056	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			20	25	0.81	0.61	2.3	1.7	0.74	0.68	0.88	0.79

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Norwalk #1				
				Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
				5/23/2024	5/23/2024	5/23/2024	5/23/2024	5/23/2024
General Minerals								
Alkalinity	mg/l			300	180	120	140	200
Anion Sum	meq/l			8.1	5.3	3.8	3.7	8.7
Bicarbonate as HCO3	mg/l			370	210	140	170	240
Boron	mg/l	1	N	0.4	0.2	0.049	0.049	0.083
Bromide	mg/l			ND	ND	ND	ND	0.69
Calcium, Total	mg/l			11.9	9.24	20.1	27.3	77.1
Carbon Dioxide	mg/l			268	159	111	132	187
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND
Cation Sum	meq/l			7.4	4.7	3.3	3.2	8.2
Chloride	mg/l	500	S	71	60	39	26	160
Fluoride	mg/l	2	P	0.42	0.51	0.28	0.27	0.22
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND
Iodide	ug/l			93	100	66	41	130
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND
Potassium, Total	mg/l			2.7	1.4	1.9	1.7	4
Sodium, Total	mg/l			140	95	48	32	64
Sulfate	mg/l	500	S	6	ND	16	6.8	7.3
Total Dissolved Solid (TDS)	mg/l	1000	S	470	310	230	200	540
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND
General Physical Properties								
Apparent Color	ACU	15	S	**20**	**30**	ND	ND	ND
Hardness (Total, as CaCO3)	mg/l			53.8	27.9	57.5	89.8	266
Lab pH	Units			8.02	8.37	7.46	7.63	7.54
Langelier Index	None			0.11	0.166	-0.555	-0.175	0.251
Odor	TON	3	S	**8**	ND	ND	ND	**16**
Specific Conductance	umho/cm	1600	S	780	510	370	340	870
Turbidity	NTU	5	S	0.2	0.25	0.25	1.2	**25**
Metals								
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	ND	ND	6.4	**13**	10
Barium, Total	ug/l	1000	P	11	7.1	69	120	410
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.25	0.24	ND	0.22	0.63
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.13	0.098	0.043	ND	ND
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	ND	ND	ND	0.03	0.16
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			5.85	1.17	1.79	5.24	17.9
Manganese, Total	ug/l	50	S	2.7	6.8	17	40	**180**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND
Volatile Organic Compounds								
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	6.7
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND
Others								
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	0.093
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	0.15
Total Organic Carbon	mg/l			2.2	2.5	0.43	0.48	2.2

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Norwalk #2					
				Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
				9/25/2024	9/25/2024	9/25/2024	9/25/2024	9/25/2024	9/25/2024
General Minerals									
Alkalinity	mg/l			220	210	180	190	210	210
Anion Sum	meq/l			8.1	5.4	5.2	7	9.3	8.7
Bicarbonate as HCO3	mg/l			270	250	220	230	260	260
Boron	mg/l	1	N	0.26	0.23	0.037	0.056	0.17	0.16
Bromide	mg/l			ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			32.7	12.9	46.7	75.2	85.8	79
Carbon Dioxide	mg/l			197	184	162	174	196	199
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			7	4.6	4.3	6.2	8	7.8
Chloride	mg/l	500	S	72	33	17	38	81	72
Fluoride	mg/l	2	P	0.32	0.44	0.19	0.27	0.24	0.35
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND
Iodide	ug/l			84	35	7.1	1.8	7	1.4
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	8.2	13	11
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	1.9	2.8	2.5
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			4.1	2.7	2.8	3.7	4.7	4.5
Sodium, Total	mg/l			110	85	34	32	51	56
Sulfate	mg/l	500	S	83	16	50	91	120	110
Total Dissolved Solid (TDS)	mg/l	1000	S	430	270	240	350	480	450
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	1.9	2.8	2.5
General Physical Properties									
Apparent Color	ACU	15	S	10	15	ND	ND	ND	ND
Hardness (Total, as CaCO3)	mg/l			108	42	139	239	284	263
Lab pH	Units			7.9	8.22	8.03	7.8	7.74	7.63
Langelier Index	None			0.303	0.241	0.553	0.521	0.531	0.392
Odor	TON	3	S	ND	ND	**4**	ND	ND	ND
Specific Conductance	umho/cm	1600	S	460	420	600	770	740	430
Turbidity	NTU	5	S	0.15	0.25	0.45	0.15	0.15	0.4
Metals									
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	2.3	ND	ND	1.9	2.1	1.4
Barium, Total	ug/l	1000	P	39	13	32	170	77	55
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	ND	ND	ND	3	0.82	1.1
Hexavalent Chromium (Cr VI)	ug/l	10	P	ND	0.021	ND	3.1	0.84	1.1
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	ND	ND	ND	ND	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			6.31	2.4	5.33	12.4	16.9	16
Manganese, Total	ug/l	50	S	11	15	18	ND	17	ND
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	1	0.58	2.4
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds									
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	1.2	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	0.51	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND
Others									
1,4-Dioxane	ug/l	1	N	0.21	ND	ND	1	**2.2**	0.25
Perchlorate	ug/l	6	P	ND	ND	ND	2.3	0.65	0.72
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			1.4	1.2	0.41	0.37	0.51	0.49

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Paramount #1													
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5		Zone 6		Zone 7	
				4/8/2024	8/20/2024	4/8/2024	8/20/2024	4/8/2024	8/20/2024	4/8/2024	8/20/2024	4/8/2024	8/20/2024	4/8/2024	8/20/2024	4/8/2024	8/20/2024
General Minerals																	
Alkalinity	mg/l			130	120	150	170	170	190	200	200	200	210	200	190	280	280
Anion Sum	meq/l			3.4	3.2	3.6	3.9	5	5.3	6.3	6.3	7.8	8	4.4	4.2	9.4	9.4
Bicarbonate as HCO3	mg/l			160	150	190	210	210	230	250	250	250	260	240	230	340	340
Boron	mg/l	1	N	0.042	0.044	0.049	0.05	0.084	0.084	0.11	0.11	0.13	0.13	0.075	0.078	0.083	0.083
Bromide	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			22.7	23.4	35.4	35.2	48.2	50.6	51.1	51.8	86.4	87.9	50.5	51.9	102	107
Carbon Dioxide	mg/l			117	108	135	152	155	168	182	182	184	193	176	168	258	258
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			3	3	3.4	3.4	4.8	4.8	5.7	5.6	7.6	7.6	4	4.1	8.8	9
Chloride	mg/l	500	S	12	12	6.6	6.5	22	22	29	29	52	52	7	6.8	54	54
Fluoride	mg/l	2	P	0.3	0.33	0.25	0.25	0.27	0.27	0.38	0.38	0.32	0.32	0.28	0.28	0.37	0.36
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			22	21	4.3	7.7	20	31	13	19	4.4	3.9	5	8.6	14	20
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND	2.4	2.1	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	0.54	0.48	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			1.6	1.7	2.4	2.4	3.4	3.2	3.5	3.5	4.1	4.1	2.8	2.9	4.7	4.7
Sodium, Total	mg/l			38	39	28	28	43	41	50	49	41	41	23	23	48	46
Sulfate	mg/l	500	S	19	18	18	17	45	43	67	67	110	110	15	14	110	110
Total Dissolved Solid (TDS)	mg/l	1000	S	180	180	200	190	280	290	320	320	460	460	230	240	530	520
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	0.55	0.5	ND	ND	ND	ND
General Physical Properties																	
Apparent Color	ACU	15	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hardness (Total, as CaCO3)	mg/l			63.4	65	104	103	141	146	169	170	284	288	149	154	331	343
Lab pH	Units			8.52	8.36	8.26	7.87	8.07	8.01	7.93	7.92	7.75	7.73	7.95	7.95	7.72	7.65
Langelier Index	None			0.607	0.427	0.596	0.263	0.569	0.575	0.513	0.509	0.527	0.536	0.566	0.542	0.701	0.653
Odor	TON	3	S	**4**	2	2	2	ND	ND	ND	ND	ND	ND	ND	ND	2	2
Specific Conductance	umho/cm	1600	S	290	290	320	320	460	450	540	520	720	700	380	380	840	800
Turbidity	NTU	5	S	0.1	0.15	0.15	0.1	0.15	0.1	0.1	ND	0.1	0.35	0.1	0.15	0.7	0.85
Metals																	
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	4.7	4.8	9.6	10	**37**	**30**	5	4.9	3.7	3.5	**86**	**91**	10	10
Barium, Total	ug/l	1000	P	56	59	71	73	110	120	72	71	160	160	150	150	110	120
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	0.3	ND	0.27	0.27	ND	0.21	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.069	0.15	0.15	0.13	0.036	0.1	0.04	0.12	0.19	0.33	0.039	0.13	ND	0.064
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.6	ND	ND
Iron, Total	mg/l	0.3	S	ND	ND	ND	ND	0.061	0.053	ND	ND	ND	ND	ND	0.03	0.18	0.18
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			1.61	1.59	3.86	3.77	5.08	4.84	10	9.96	16.7	16.6	5.67	5.79	18.2	18.6
Manganese, Total	ug/l	50	S	14	14	33	30	**100**	**84**	43	43	**77**	**67**	**87**	**85**	**200**	**200**
Mercury	ug/l	2	P	ND	ND	ND	ND	0.052	ND	0.057	ND	0.059	ND	ND	ND	0.058	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds																	
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	0.62	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others																	
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND	**2.1**	**1.9**	ND	ND	0.11	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	0.11	ND	0.11	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			ND	0.38	ND	0.35	ND	0.32	ND	ND	ND	0.38	0.32	0.31	1.4	1

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Pico #1						
				Zone 1	Zone 2		Zone 3		Zone 4	
				4/17/2024	4/17/2024	8/29/2024	4/17/2024	8/29/2024	4/17/2024	8/29/2024
General Minerals										
Alkalinity	mg/l			320	180	190	210	210	240	240
Anion Sum	meq/l			6.5	4.8	5	9.7	9.4	11	11
Bicarbonate as HCO3	mg/l			390	220	230	260	250	290	300
Boron	mg/l	1	N	0.7	0.067	0.064	0.095	0.092	0.25	0.24
Bromide	mg/l			ND	ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			9.1	52	49.3	115	109	101	93.5
Carbon Dioxide	mg/l			286	165	175	204	199	235	241
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			6.2	4.3	4	8.9	8.4	10	9.8
Chloride	mg/l	500	S	3.4	9.9	9.4	83	80	110	100
Fluoride	mg/l	2	P	0.17	0.22	0.26	0.23	0.28	0.18	0.24
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			8.2	3.8	3	12	11	1.7	1
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	21	18
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	4.7	4.1
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			4.4	2.8	2.6	4.4	4.2	6	5.8
Sodium, Total	mg/l			120	20	19	35	34	86	81
Sulfate	mg/l	500	S	0.61	44	44	150	140	150	150
Total Dissolved Solid (TDS)	mg/l	1000	S	380	260	250	540	540	660	620
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	4.7	4.1
General Physical Properties										
Apparent Color	ACU	15	S	**50**	10	5	15	15	ND	ND
Hardness (Total, as CaCO3)	mg/l			35.9	167	157	366	344	329	304
Lab pH	Units			8.07	7.68	7.63	7.4	7.38	7.26	7.25
Langelier Index	None			0.092	0.243	0.197	0.306	0.263	0.145	0.109
Odor	TON	3	S	2	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	580	390	400	840	830	1000	980
Turbidity	NTU	5	S	**6.6**	3.9	1.1	0.3	1.1	1.2	0.65
Metals										
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	5.9	0.49	0.49	0.57	0.59	2.5	2.4
Barium, Total	ug/l	1000	P	17	67	68	75	76	68	68
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	ND	ND	ND	ND	ND	0.98	1
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.082	ND	0.037	ND	ND	0.81	1
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND	1
Iron, Total	mg/l	0.3	S	0.089	0.24	0.22	**0.47**	**0.44**	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			3.21	9.03	8.26	19.2	17.6	18.9	17.1
Manganese, Total	ug/l	50	S	35	19	18	16	15	ND	ND
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	3.2	2.9
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds										
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND
Others										
1,4-Dioxane	ug/l	1	N	ND	0.11	0.095	0.57	0.52	0.3	0.25
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	1.1	0.86
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			2.7	ND	ND	0.32	0.41	0.47	0.41

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Pico #2											
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5		Zone 6	
				5/15/2024	9/10/2024	5/15/2024	9/10/2024	5/15/2024	9/10/2024	5/15/2024	9/10/2024	5/15/2024	9/10/2024	5/15/2024	9/10/2024
General Minerals															
Alkalinity	mg/l			230	220	220	220	210	210	170	160	150	160	110	140
Anion Sum	meq/l			9.6	9.4	11	10	9.8	9.8	8.9	8.6	7.4	6	5.4	7.2
Bicarbonate as HCO3	mg/l			280	270	270	270	250	260	200	190	180	190	140	180
Boron	mg/l	1	N	0.059	0.065	0.16	0.16	0.17	0.17	0.26	0.27	0.25	0.22	0.1	0.14
Bromide	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			115	114	117	113	97.7	94.2	61	59.6	44.8	31.4	40.6	57.4
Carbon Dioxide	mg/l			218	203	204	205	191	201	157	152	143	149	110	196
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			8.7	8.7	9.7	9.4	8.6	8.3	7.7	7.6	6.6	5	4.9	6.5
Chloride	mg/l	500	S	72	73	110	110	100	98	110	110	84	46	47	83
Fluoride	mg/l	2	P	0.2	0.22	0.22	0.24	0.25	0.26	0.27	0.28	0.28	0.34	0.24	0.24
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			ND	1.2	1.2	1.4	2.5	1.7	1.8	1.3	1.2	4.3	1	6.2
Nitrate (as NO3)	mg/l	45	P	14	14	17	17	20	20	20	19	15	7.5	4.6	6.2
Nitrate as Nitrogen	mg/l	10	P	3.1	3.1	3.9	3.9	4.5	4.4	4.6	4.3	3.5	1.7	1	1.4
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			4.2	4.4	4.4	4.2	4.7	4.5	4.7	4.7	4.9	4	8.2	9.4
Sodium, Total	mg/l			25	27	42	41	47	45	80	80	72	59	38	48
Sulfate	mg/l	500	S	130	130	140	130	120	120	100	100	88	69	86	88
Total Dissolved Solid (TDS)	mg/l	1000	S	540	540	610	610	540	540	500	490	390	310	290	400
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	3.1	3.1	3.9	3.9	4.5	4.4	4.6	4.3	3.5	1.7	1	1.4
General Physical Properties															
Apparent Color	ACU	15	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hardness (Total, as CaCO3)	mg/l			375	372	390	375	324	312	206	201	165	115	149	212
Lab pH	Units			7.47	7.64	7.64	7.53	7.65	7.52	7.49	7.43	7.37	7.39	7.24	6.62
Langelier Index	None			0.415	0.562	0.56	0.435	0.485	0.339	0.037	-0.057	-0.246	-0.332	-0.527	-0.921
Odor	TON	3	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	840	840	950	940	870	860	830	820	690	520	500	680
Turbidity	NTU	5	S	0.1	0.2	0.1	0.65	0.25	0.45	0.3	0.25	0.1	0.3	0.2	0.3
Metals															
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.57	0.5
Arsenic, Total	ug/l	10	P	1.7	1.6	2.1	2	1.5	1.4	2.5	2.5	0.77	0.94	6.5	5.7
Barium, Total	ug/l	1000	P	96	95	96	92	92	89	69	69	81	57	120	170
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	1.1	0.99	1.1	1	1.6	1.6	0.79	0.74	0.95	0.96	0.29	0.21
Hexavalent Chromium (Cr VI)	ug/l	10	P	1	0.97	0.93	0.94	1.4	1.4	0.72	0.62	0.85	0.87	0.32	0.18
Copper, Total	ug/l	1300	P	0.51	0.84	ND	0.52	ND	ND	0.56	0.73	1.1	1.1	1.4	5.4
Iron, Total	mg/l	0.3	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			21.2	21	23.6	22.5	19.5	18.6	13	12.7	12.9	8.99	11.7	16.6
Manganese, Total	ug/l	50	S	ND	2.7	2.7	2.9	1.8	ND	ND	4.1	23	25	ND	21
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	2.1	ND	2.5	ND	ND	2.1
Selenium, Total	ug/l	50	P	1	1	1.3	1.1	0.9	0.77	0.54	0.47	1.8	2	0.76	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds															
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	0.51	0.64	ND	ND	0.76	1.1	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	2	2.1	3.5	3.4	9.4	8.5	1.2	0.6	ND	1
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others															
1,4-Dioxane	ug/l	1	N	**2.3**	**2.2**	0.69	0.54	**1.2**	**1.2**	0.67	0.44	0.44	0.16	0.073	0.13
Perchlorate	ug/l	6	P	1.2	1.1	0.52	0.48	0.71	0.68	0.32	0.32	0.39	0.24	0.27	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			0.4	0.32	0.38	0.38	ND	0.36	0.43	0.44	0.6	0.67	0.96	1.4

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Rio Hondo #1											
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5		Zone 6	
				5/8/2024	9/5/2024	5/8/2024	9/5/2024	5/8/2024	9/5/2024	5/8/2024	9/5/2024	5/8/2024	9/5/2024	5/8/2024	9/5/2024
General Minerals															
Alkalinity	mg/l			180	180	170	180	210	220	130	130	110	110	120	120
Anion Sum	meq/l			5.5	5.4	7.1	7.2	9.2	9.1	5.3	5.2	3.1	3.2	4.9	4.3
Bicarbonate as HCO3	mg/l			220	220	210	220	260	260	160	160	130	140	150	150
Boron	mg/l	1	N	0.062	0.066	0.049	0.051	0.15	0.16	0.12	0.13	0.064	0.067	0.12	0.12
Bromide	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			38.7	40.5	78.8	82.3	89.5	95.4	37.2	38.1	21.9	24.8	33.9	29.9
Carbon Dioxide	mg/l			166	164	160	166	199	200	125	124	106	107	120	115
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			4.3	4.5	6.1	6.4	7.9	8.4	4.3	4.5	2.6	2.8	4	3.7
Chloride	mg/l	500	S	21	21	45	44	81	79	45	41	11	14	37	27
Fluoride	mg/l	2	P	0.23	0.22	0.2	0.19	0.26	0.25	0.29	0.28	0.33	0.32	0.28	0.3
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			34	32	6	6.4	4.6	2.7	3.4	1.6	2.6	1.5	2.9	2.3
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	12	11	10	9.3	5.9	3	10	7.2
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	2.8	2.5	2.4	2.1	1.3	0.68	2.3	1.6
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			2.8	3.1	3.2	3.4	4.1	4.5	3.1	3.3	2.6	2.9	2.9	2.9
Sodium, Total	mg/l			38	41	22	24	45	49	41	44	21	22	38	37
Sulfate	mg/l	500	S	57	54	110	110	120	110	59	56	23	24	59	51
Total Dissolved Solid (TDS)	mg/l	1000	S	280	260	420	400	520	520	300	280	160	170	260	230
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	2.8	2.5	2.4	2.1	1.3	0.68	2.3	1.6
General Physical Properties															
Apparent Color	ACU	15	S	ND	ND	3	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hardness (Total, as CaCO3)	mg/l			128	134	255	265	290	308	123	126	79.5	90	115	101
Lab pH	Units			7.87	7.88	7.72	7.73	7.62	7.59	7.57	7.57	7.41	7.43	7.39	7.37
Langelier Index	None			0.299	0.335	0.396	0.454	0.421	0.439	-0.165	-0.149	-0.579	-0.51	-0.408	-0.473
Odor	TON	3	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	440	450	620	640	810	820	480	470	270	290	430	390
Turbidity	NTU	5	S	0.4	1.3	0.2	0.25	0.25	0.2	ND	0.2	0.7	0.85	0.8	0.65
Metals															
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	0.59	0.49	0.76	0.66	2.2	2	2.7	2.4	1.3	1.1	1.9	1.7
Barium, Total	ug/l	1000	P	27	24	55	49	140	130	64	57	58	57	56	49
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.2	ND	ND	ND	0.83	0.74	0.85	0.7	0.57	0.38	1	0.93
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.22	0.072	0.14	ND	0.68	0.58	0.68	0.69	0.47	0.29	0.88	0.81
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1	ND	ND
Iron, Total	mg/l	0.3	S	ND	ND	0.065	0.069	ND	ND	ND	ND	ND	ND	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			7.62	7.92	14	14.5	16.2	17	7.31	7.44	6.02	6.79	7.28	6.39
Manganese, Total	ug/l	50	S	45	39	30	25	ND	ND	ND	ND	ND	ND	ND	ND
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	0.84	0.75	0.66	0.61	0.84	ND	0.93	0.77
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds															
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	3.9	3.5	ND	ND	2.5	1.6
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others															
1,4-Dioxane	ug/l	1	N	ND	ND	**5.2**	**4.2**	0.95	0.82	0.24	0.2	ND	ND	0.2	0.14
Perchlorate	ug/l	6	P	ND	ND	ND	ND	0.37	0.36	0.57	0.5	0.43	0.15	0.57	0.46
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			0.32	ND	ND	0.3	0.43	0.38	0.3	0.4	0.4	0.44	0.35	0.36

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Seal Beach #1													
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5		Zone 6		Zone 7	
				5/2/2024	9/17/2024	5/2/2024	9/17/2024	5/2/2024	9/17/2024	5/2/2024	9/17/2024	5/2/2024	9/17/2024	5/2/2024	9/17/2024	5/2/2024	9/17/2024
General Minerals																	
Alkalinity	mg/l			250	260	170	170	170	170	120	130	66	69	140	130	230	190
Anion Sum	meq/l			5.7	5.7	4.1	3.9	3.9	3.8	9	8.4	12	12	9.1	8.7	31	28
Bicarbonate as HCO3	mg/l			280	270	180	160	170	160	150	160	81	84	170	160	280	230
Boron	mg/l	1	N	0.24	0.23	0.14	0.12	0.19	0.18	0.16	0.16	0.059	0.037	0.16	0.14	0.15	0.13
Bromide	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	1	1.3	ND	ND	2.9	3.3
Calcium, Total	mg/l			5.93	6.18	4.84	3.89	3.66	3.75	74.8	62.8	74.9	87.2	74.7	75.9	263	274
Carbon Dioxide	mg/l			220	225	148	147	145	144	114	117	59.4	61.5	124	117	210	180
Carbonate as CO3	mg/l			27	35	29	37	28	37	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			4.8	5.1	3.5	3.5	3.2	3.3	8.1	7.7	10	12	7.9	8.1	27	28
Chloride	mg/l	500	S	20	20	18	16	15	15	95	87	350	340	92	90	**750**	**730**
Fluoride	mg/l	2	P	0.28	0.34	0.37	0.41	0.43	0.58	0.23	0.28	0.16	0.18	0.22	0.27	0.22	0.31
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			58	40	28	25	19	18	8	14	6.7	7.4	11	11	200	190
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			0.89	0.93	0.68	0.65	0.56	0.57	4.3	3.7	3	3.4	2.8	2.9	7.5	8.2
Sodium, Total	mg/l			100	110	75	76	69	72	74	83	140	160	70	71	200	210
Sulfate	mg/l	500	S	0.8	ND	4.6	ND	ND	ND	190	160	48	53	180	170	230	180
Total Dissolved Solid (TDS)	mg/l	1000	S	340	330	220	210	220	200	530	480	820	810	500	500	**2400**	**2000**
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
General Physical Properties																	
Apparent Color	ACU	15	S	**250**	**250**	**200**	**100**	**100**	**100**	ND	10	3	ND	ND	3	3	3
Hardness (Total, as CaCO3)	mg/l			14.8	15.4	12.1	9.72	9.14	9.36	242	200	205	238	240	244	902	935
Lab pH	Units			8.62	8.49	8.87	8.86	8.89	8.89	7.73	7.76	8	8.02	7.98	7.98	7.62	7.52
Langelier Index	None			0.356	0.265	0.384	0.283	0.282	0.3	0.208	0.207	0.168	0.275	0.53	0.505	0.725	0.588
Odor	TON	3	S	2	ND	2	**4**	ND	ND	ND	ND	ND	ND	ND	**16**	ND	ND
Specific Conductance	umho/cm	1600	S	510	490	380	340	340	330	870	780	1300	1300	860	810	**3400**	**3200**
Turbidity	NTU	5	S	0.15	0.35	0.2	0.3	0.15	0.25	**16**	0.35	1.4	0.5	0.1	0.25	0.6	0.85
Metals																	
Aluminum, Total	ug/l	1000	P	45	30	36	29	41	26	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	0.63	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	0.74	0.67	ND	ND	ND	ND	5.7	5	0.51	0.45	0.42	0.42	3.1	2.6
Barium, Total	ug/l	1000	P	10	8.9	6.1	4.3	4.5	3.7	180	95	86	90	160	140	110	150
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	1.2	0.94	0.8	0.58	0.56	0.44	0.24	ND	ND	ND	ND	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.24	0.7	0.17	1.1	0.18	0.45	0.056	0.33	0.071	0.28	0.1	0.29	ND	0.11
Copper, Total	ug/l	1300	P	1.1	0.67	0.67	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	0.043	0.046	ND	ND	ND	ND	ND	0.051	ND	ND	0.031	0.032	0.17	0.22
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			ND	ND	ND	ND	ND	ND	13.4	10.5	4.44	4.94	13.1	13.2	59.7	60.8
Manganese, Total	ug/l	50	S	8.8	6.8	6.4	3.9	3.8	2.7	**150**	**100**	30	31	**110**	**100**	**750**	**810**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds																	
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others																	
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			8.5	8	3.3	3.2	2.6	2.4	1.1	1.4	0.43	0.3	1.1	1	0.7	0.7

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	South Gate #1									
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5	
				4/17/2024	8/14/2024	4/17/2024	8/14/2024	4/17/2024	8/14/2024	4/17/2024	8/14/2024	4/17/2024	8/14/2024
General Minerals													
Alkalinity	mg/l			180	180	160	140	170	160	200	190	220	220
Anion Sum	meq/l			5.5	5.4	6.8	6.5	7.1	6.9	8.6	8.5	9.9	9.6
Bicarbonate as HCO3	mg/l			220	220	190	170	200	190	240	230	270	260
Boron	mg/l	1	N	0.11	0.11	0.15	0.15	0.13	0.13	0.17	0.17	0.14	0.14
Bromide	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			49	47.6	63.7	61.9	69.7	66.7	89.2	87.7	97.6	95.2
Carbon Dioxide	mg/l			164	159	168	124	155	144	180	195	206	199
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			5.1	4.8	6.2	5.9	6.5	6.2	8.3	8.1	9.3	9
Chloride	mg/l	500	S	22	22	56	57	53	53	70	71	100	96
Fluoride	mg/l	2	P	0.22	0.26	0.23	0.27	0.28	0.34	0.28	0.32	0.32	0.37
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			32	26	6.7	4.1	6	3.6	2.7	2	120	92
Nitrate (as NO3)	mg/l	45	P	ND	ND	9.6	9.3	10	10	8.4	8.6	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	2.2	2.1	2.4	2.3	1.9	1.9	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			2.5	2.5	3.4	3.3	3	2.9	3.8	3.8	3.3	3.2
Sodium, Total	mg/l			44	41	46	42	40	37	53	51	52	50
Sulfate	mg/l	500	S	56	57	96	96	98	97	130	120	130	120
Total Dissolved Solid (TDS)	mg/l	1000	S	300	290	380	370	400	370	510	490	560	550
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	2.2	2.1	2.4	2.3	1.9	1.9	ND	ND
General Physical Properties													
Apparent Color	ACU	15	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	3
Hardness (Total, as CaCO3)	mg/l			154	150	206	200	233	223	294	289	348	338
Lab pH	Units			8	8.07	7	7.81	7.62	7.76	7.64	7.14	7.69	7.63
Langelier Index	None			0.525	0.585	-0.433	0.309	0.247	0.349	0.42	-0.105	0.541	0.472
Odor	TON	3	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	490	480	620	610	630	630	800	800	890	890
Turbidity	NTU	5	S	0.35	0.1	0.25	0.1	0.2	0.15	0.25	0.1	0.5	0.35
Metals													
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	2	1.9	2.7	2.6	2.8	2.8	1.8	1.7	2.1	2.1
Barium, Total	ug/l	1000	P	140	130	85	82	140	140	84	83	230	220
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	ND	ND	ND	ND	0.76	0.65	0.66	0.7	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	ND	0.13	0.043	0.15	0.58	0.65	0.53	0.7	ND	0.13
Copper, Total	ug/l	1300	P	ND	ND	0.58	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	0.034	ND	ND	ND	ND	ND	ND	ND	0.13	0.13
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			7.77	7.53	11.5	11.1	14.3	13.7	17.3	16.9	25.3	24.5
Manganese, Total	ug/l	50	S	47	43	3.5	3.3	1.8	ND	ND	ND	**130**	**120**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	0.98	0.93	0.71	0.64	1.3	1.2	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds													
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	3.2	2.5	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	0.66	0.75	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	1.4	1.2	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others													
1,4-Dioxane	ug/l	1	N	ND	ND	**1.4**	**1.2**	**2.3**	**1.7**	**1.7**	**1.7**	ND	ND
Perchlorate	ug/l	6	P	ND	ND	0.66	0.6	1.2	1.1	0.37	0.34	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			ND	ND	ND	0.39	ND	ND	0.37	0.35	0.74	0.84

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	South Gate #2					
				Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
				9/24/2024	9/24/2024	9/24/2024	9/24/2024	9/24/2024	9/24/2024
General Minerals									
Alkalinity	mg/l			210	210	220	210	210	230
Anion Sum	meq/l			6.5	6.6	6.4	7.7	6.6	7
Bicarbonate as HCO3	mg/l			260	260	260	260	260	280
Boron	mg/l	1	N	0.13	0.13	0.1	0.14	0.14	0.15
Bromide	mg/l			ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			57.6	59.9	55.1	67.8	57.1	63.3
Carbon Dioxide	mg/l			194	194	193	195	191	208
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			5.6	5.8	5.2	6.6	5.6	6.2
Chloride	mg/l	500	S	22	22	20	40	22	25
Fluoride	mg/l	2	P	0.38	0.35	0.21	0.39	0.4	0.46
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND
Iodide	ug/l			26	25	26	7.7	27	22
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	4.5	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	1	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			3.5	3.7	2.2	3.7	3.3	3
Sodium, Total	mg/l			38	40	39	41	40	40
Sulfate	mg/l	500	S	82	81	72	100	83	84
Total Dissolved Solid (TDS)	mg/l	1000	S	330	340	300	400	340	360
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	1	ND	ND
General Physical Properties									
Apparent Color	ACU	15	S	ND	ND	ND	ND	ND	ND
Hardness (Total, as CaCO3)	mg/l			196	201	173	236	190	218
Lab pH	Units			7.6	7.9	8.01	7.79	7.9	7.78
Langelier Index	None			0.254	0.568	0.673	0.497	0.547	0.507
Odor	TON	3	S	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	530	540	490	630	540	570
Turbidity	NTU	5	S	0.15	0.4	0.8	0.15	0.2	0.2
Metals									
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	ND	2	3.6	0.79	0.81	0.75
Barium, Total	ug/l	1000	P	59	71	140	90	100	99
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	ND	ND	ND	2.6	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.063	0.082	0.031	2.5	ND	ND
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	0.051	0.13	ND	ND	ND	0.044
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			12.6	12.5	8.63	16.2	11.6	14.6
Manganese, Total	ug/l	50	S	**58**	37	**81**	2.3	19	**59**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	2.5	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds									
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	0.54	ND	ND	1
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND
Others									
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	0.66	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			ND	ND	0.44	ND	ND	0.3

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Whittier #1									
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5	
				6/4/2024	9/23/2024	6/4/2024	9/23/2024	6/4/2024	9/23/2024	6/4/2024	9/23/2024	6/4/2024	9/23/2024
General Minerals													
Alkalinity	mg/l			290	300	310	320	320	320	270	300	250	270
Anion Sum	meq/l			41	43	39	35	33	29	12	12	12	12
Bicarbonate as HCO3	mg/l			350	370	380	390	390	390	330	370	300	320
Boron	mg/l	1	N	0.89	0.9	0.96	1	0.79	0.82	0.19	0.2	0.16	0.16
Bromide	mg/l			1.3	1.4	1.2	1.2	1	1.1	ND	ND	ND	ND
Calcium, Total	mg/l			186	188	178	184	175	179	78.9	79.4	81.3	81
Carbon Dioxide	mg/l			267	283	286	302	291	299	255	278	233	265
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			39	40	36	39	31	32	11	11	11	11
Chloride	mg/l	500	S	270	280	230	250	210	240	79	79	89	89
Fluoride	mg/l	2	P	0.24	0.21	0.25	0.23	0.39	0.39	0.17	0.16	0.28	0.28
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			230	250	210	230	190	180	100	77	31	21
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	18	18	25	25
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	4.2	4.1	5.7	5.7
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			13	16	11	15	9.5	11	4.9	4.9	4.2	4.2
Sodium, Total	mg/l			430	460	380	430	320	340	100	100	88	86
Sulfate	mg/l	500	S	**1300**	**1400**	**1200**	**1000**	**1000**	**750**	180	190	180	180
Total Dissolved Solid (TDS)	mg/l	1000	S	**2800**	**2700**	**2600**	**2500**	**2100**	**2200**	700	690	700	690
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	4.2	4.2	5.7	5.8
General Physical Properties													
Apparent Color	ACU	15	S	**20**	**20**	15	15	15	15	ND	ND	ND	ND
Hardness (Total, as CaCO3)	mg/l			1000	998	952	967	855	861	342	341	366	361
Lab pH	Units			7.58	7.54	7.63	7.51	7.69	7.62	7.58	7.6	7.52	7.24
Langelier Index	None			0.612	0.597	0.683	0.597	0.782	0.715	0.402	0.472	0.322	0.075
Odor	TON	3	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	**4100**	**4200**	**3800**	**3400**	**3300**	**5400**	1100	1100	1000	860
Turbidity	NTU	5	S	2.8	3.6	1.7	2.1	1.9	1.8	ND	0.15	0.1	0.45
Metals													
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	ND	ND	ND	ND	ND	ND	1.3	1.3	0.78	0.72
Barium, Total	ug/l	1000	P	18	18	17	17	24	25	32	32	27	27
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	3.7	3.6
Hexavalent Chromium (Cr VI)	ug/l	10	P	ND	ND	ND	ND	ND	ND	0.19	0.19	3.5	3.5
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	**0.57**	**0.56**	**0.44**	**0.45**	**0.36**	**0.36**	ND	ND	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			131	128	123	123	102	101	35.2	34.7	39.6	38.6
Manganese, Total	ug/l	50	S	49	47	**66**	**62**	**77**	**74**	22	21	2.2	1.9
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	9.9	9.1	16	16
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds													
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others													
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	1.2	1.1	2.6	2.5
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			1.8	1.8	2.3	2.2	2	1.9	ND	ND	0.34	0.32

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Whittier #2					
				Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
				5/15/2024	5/15/2024	5/15/2024	5/15/2024	5/15/2024	5/15/2024
General Minerals									
Alkalinity	mg/l			240	180	230	390	280	310
Anion Sum	meq/l			11	4.7	13	26	13	14
Bicarbonate as HCO3	mg/l			290	220	280	470	340	370
Boron	mg/l	1	N	0.7	0.21	0.26	0.79	0.2	0.33
Bromide	mg/l			1	ND	0.55	0.83	ND	ND
Calcium, Total	mg/l			31.9	23	88.6	119	134	121
Carbon Dioxide	mg/l			219	161	209	373	262	294
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			10	4	12	26	13	13
Chloride	mg/l	500	S	170	21	130	210	120	120
Fluoride	mg/l	2	P	0.39	0.28	0.26	0.44	0.21	0.25
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND
Iodide	ug/l			250	30	51	110	11	10
Nitrate (as NO3)	mg/l	45	P	ND	ND	3.4	13	31	27
Nitrate as Nitrogen	mg/l	10	P	ND	ND	0.76	3	7	6.2
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			3.4	2.5	4.7	5.3	5.7	5.1
Sodium, Total	mg/l			170	56	110	290	81	110
Sulfate	mg/l	500	S	96	22	240	**600**	180	190
Total Dissolved Solid (TDS)	mg/l	1000	S	650	260	790	**1600**	800	850
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	0.76	3	7	6.2
General Physical Properties									
Apparent Color	ACU	15	S	10	ND	ND	ND	ND	ND
Hardness (Total, as CaCO3)	mg/l			155	73.3	373	639	449	424
Lab pH	Units			7.74	8.03	7.79	7.4	7.49	7.38
Langelier Index	None			0.126	0.239	0.578	0.451	0.542	0.425
Odor	TON	3	S	**4**	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	1100	400	1200	**2600**	1200	1300
Turbidity	NTU	5	S	0.85	0.1	0.1	0.1	0.2	0.1
Metals									
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	1.6	ND	1.1	0.46	1.1	1.2
Barium, Total	ug/l	1000	P	14	25	51	13	83	32
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	ND	ND	3.7	0.62	3.8	3.4
Hexavalent Chromium (Cr VI)	ug/l	10	P	ND	0.074	3.1	0.44	3.2	2.8
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	0.55	0.77
Iron, Total	mg/l	0.3	S	**0.46**	ND	ND	ND	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			18.3	3.86	36.8	82.8	27.6	29.6
Manganese, Total	ug/l	50	S	**68**	40	21	**120**	ND	ND
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	3.9	1.1	1.1
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds									
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	1.6
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND
Others									
1,4-Dioxane	ug/l	1	N	ND	ND	0.76	ND	**3.1**	0.52
Perchlorate	ug/l	6	P	ND	ND	1.7	1.8	3.2	1.5
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			0.81	0.38	0.4	0.65	0.48	0.52

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Whittier Narrows #1								
				Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Zone 9
				3/19/2024	3/19/2024	3/19/2024	3/19/2024	3/19/2024	3/20/2024	3/20/2024	3/20/2024	3/20/2024
General Minerals												
Alkalinity	mg/l			120	110	160	170	170	180	180	190	180
Anion Sum	meq/l			19	2.8	8	8.4	8.8	9	8.6	9.1	9.3
Bicarbonate as HCO3	mg/l			140	130	190	210	200	220	220	230	220
Boron	mg/l	1	N	**1.3**	0.12	0.11	0.16	0.16	0.24	0.21	0.2	0.21
Bromide	mg/l			6.1	ND	ND	ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			41.9	5.82	92.2	96.3	104	76.7	66.8	69.6	66
Carbon Dioxide	mg/l			165	97.8	145	157	151	161	165	170	169
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			14	2.5	7.1	8.1	8.4	8.5	8.1	8.4	8.6
Chloride	mg/l	500	S	**590**	14	93	95	110	110	97	100	100
Fluoride	mg/l	2	P	0.79	0.42	0.19	0.18	0.18	0.22	0.22	0.24	0.31
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			650	16	10	14	3.3	4.4	4.1	4.4	8
Nitrate (as NO3)	mg/l	45	P	ND	ND	5.7	5.8	12	9.5	8.5	17	20
Nitrate as Nitrogen	mg/l	10	P	ND	ND	1.3	1.3	2.7	2.1	1.9	3.8	4.5
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	0.19	ND	ND	ND
Potassium, Total	mg/l			4.1	1.3	3.3	5	5	5.8	5.6	5.8	7.4
Sodium, Total	mg/l			250	49	38	50	45	82	84	85	84
Sulfate	mg/l	500	S	ND	14	100	100	100	100	96	100	110
Total Dissolved Solid (TDS)	mg/l	1000	S	**1200**	150	480	490	550	520	500	550	500
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	1.4	1.4	2.8	2.3	2	3.9	4.6
General Physical Properties												
Apparent Color	ACU	15	S	15	ND	ND	ND	ND	ND	ND	ND	ND
Hardness (Total, as CaCO3)	mg/l			144	14.5	268	289	315	241	214	229	235
Lab pH	Units			6.58	7.82	7.72	7.82	7.86	7.93	7.93	7.81	7.64
Langelier Index	None			-1.29	-0.741	0.424	0.567	0.628	0.597	0.541	0.452	0.246
Odor	TON	3	S	2	2	ND	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	**2200**	260	740	800	840	870	810	830	880
Turbidity	NTU	5	S	**120**	0.65	0.45	0.4	0.35	0.1	0.5	0.35	0.2
Metals												
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	0.85	2	0.84	1.2	1.2	1.5	1.8	1.3	0.71
Barium, Total	ug/l	1000	P	400	14	130	150	210	100	84	74	88
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	ND	ND	0.27	0.27	0.27	ND	ND	0.2	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.23	0.19	0.19	0.29	0.2	0.053	0.043	0.11	0.076
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	1.8	1.4	1.9	2.8
Iron, Total	mg/l	0.3	S	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			9.62	ND	9.26	11.7	13.7	11.9	11.4	13.3	17.1
Manganese, Total	ug/l	50	S	**580**	8.1	17	**80**	42	50	32	22	**210**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	13	9.1	12	13	4.8	8.6	22
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	32	27	40	14	12	12	12
Volatile Organic Compounds												
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others												
1,4-Dioxane	ug/l	1	N	ND	ND	0.55	0.55	0.71	0.46	0.43	0.43	0.46
Perchlorate	ug/l	6	P	ND	ND	0.17	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			12	ND	0.34	0.46	0.72	0.9	0.84	0.91	1.1

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.1
CENTRAL BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Willowbrook #1							
				Zone1		Zone2		Zone3		Zone4	
				5/22/2024	9/24/2024	5/22/2024	9/24/2024	5/22/2024	9/24/2024	5/22/2024	9/24/2024
General Minerals											
Alkalinity	mg/l			250	280	200	230	200	210	190	220
Anion Sum	meq/l			5.6	6.2	4.9	5.4	6.4	6.7	6.1	6.8
Bicarbonate as HCO3	mg/l			310	340	240	270	240	260	230	270
Boron	mg/l	1	N	0.16	0.17	0.12	0.12	0.13	0.13	0.13	0.13
Bromide	mg/l			ND	ND	ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			32.1	33.9	46.2	50.1	58.9	61.6	60.9	66.1
Carbon Dioxide	mg/l			230	251	178	200	180	189	171	198
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			4.9	5.4	4.7	5	5.7	5.9	5.9	6.4
Chloride	mg/l	500	S	19	19	22	22	24	25	36	37
Fluoride	mg/l	2	P	0.26	0.28	0.26	0.29	0.35	0.39	0.31	0.38
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			33	29	31	28	32	28	57	45
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			4.7	5.2	2.7	2.7	3.6	3.7	3.3	3.4
Sodium, Total	mg/l			62	70	37	40	37	40	43	47
Sulfate	mg/l	500	S	1.4	1	16	12	83	84	59	62
Total Dissolved Solid (TDS)	mg/l	1000	S	300	300	260	280	350	340	370	360
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
General Physical Properties											
Apparent Color	ACU	15	S	10	15	ND	ND	ND	ND	5	ND
Hardness (Total, as CaCO3)	mg/l			107	112	150	161	199	207	196	211
Lab pH	Units			7.77	8.09	8.06	8.1	7.88	7.88	7.86	7.94
Langelier Index	None			0.254	0.647	0.617	0.747	0.517	0.56	0.484	0.666
Odor	TON	3	S	ND	2	ND	2	ND	ND	ND	**4**
Specific Conductance	umho/cm	1600	S	510	510	460	460	550	560	580	590
Turbidity	NTU	5	S	1.4	1.3	0.15	0.2	0.25	0.3	**35**	1.7
Metals											
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	2.6	2.4	ND	ND	3.1	3	6.7	6.6
Barium, Total	ug/l	1000	P	43	43	56	56	82	80	150	160
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	0.8	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	ND	ND	0.18	ND	ND	0.14	0.028	0.22
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	0.048	0.048	ND	ND	0.087	0.088	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			6.49	6.74	8.43	8.84	12.5	12.8	10.6	11.3
Manganese, Total	ug/l	50	S	43	42	48	46	31	28	**100**	**100**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds											
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND
Others											
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			1.5	1.5	0.52	0.35	0.41	ND	0.44	0.31

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.2
WEST COAST BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Carson #1							
				Zone 1		Zone 2		Zone 3		Zone 4	
				4/26/2024	8/22/2024	4/26/2024	8/22/2024	4/26/2024	8/22/2024	4/26/2024	8/22/2024
General Minerals											
Alkalinity	mg/l			170	160	190	180	180	190	210	200
Anion Sum	meq/l			4	3.9	4.4	4.3	5.8	5.8	7.6	7.4
Bicarbonate as HCO3	mg/l			210	200	230	220	230	230	260	250
Boron	mg/l	1	N	0.096	0.095	0.11	0.11	0.11	0.1	0.12	0.13
Bromide	mg/l			ND	ND	ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			20.6	20.4	33	32.9	44.7	43.7	58.1	58.6
Carbon Dioxide	mg/l			154	144	167	164	165	166	192	186
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			3.5	3.5	4	4	5.3	5.1	6.8	6.8
Chloride	mg/l	500	S	22	22	23	22	25	24	57	56
Fluoride	mg/l	2	P	0.22	0.22	0.18	0.18	0.25	0.25	0.33	0.33
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			23	28	25	27	25	33	83	87
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			3	2.9	2.5	2.4	3.2	3	4.1	4
Sodium, Total	mg/l			47	47	41	41	44	43	57	58
Sulfate	mg/l	500	S	ND	ND	ND	ND	67	65	84	80
Total Dissolved Solid (TDS)	mg/l	1000	S	200	190	220	220	300	300	400	390
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
General Physical Properties											
Apparent Color	ACU	15	S	5	5	ND	3	ND	3	ND	3
Hardness (Total, as CaCO3)	mg/l			67.4	66.6	110	109	164	159	211	211
Lab pH	Units			7.94	8.12	8.12	8.1	8.06	8.03	7.76	7.75
Langelier Index	None			0.097	0.249	0.522	0.477	0.545	0.529	0.4	0.375
Odor	TON	3	S	ND	ND	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	340	340	390	380	500	500	660	650
Turbidity	NTU	5	S	0.15	0.15	0.25	0.35	0.1	0.8	0.1	0.35
Metals											
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	0.57	0.56	ND	ND	ND	ND	0.55	0.56
Barium, Total	ug/l	1000	P	16	15	40	38	70	66	190	190
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.091	0.13	0.15	0.15	0.097	0.1	0.084	0.11
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	ND	ND	ND	ND	ND	ND	0.084	0.082
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			3.86	3.77	6.71	6.56	12.6	12	16.1	15.8
Manganese, Total	ug/l	50	S	20	19	14	13	32	29	**110**	**110**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds											
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND
Others											
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			0.8	0.76	0.58	0.43	0.45	0.5	0.57	0.47

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.2
WEST COAST BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Carson #2				
				Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
				4/25/2024	4/25/2024	4/25/2024	4/25/2024	4/25/2024
General Minerals								
Alkalinity	mg/l			180	210	210	230	210
Anion Sum	meq/l			4.3	5	5.2	5.3	5.3
Bicarbonate as HCO3	mg/l			190	260	250	280	250
Boron	mg/l	1	N	0.14	0.14	0.13	0.11	0.11
Bromide	mg/l			ND	ND	ND	ND	ND
Calcium, Total	mg/l			2.26	16.6	31.7	35.1	42.5
Carbon Dioxide	mg/l			160	189	183	205	184
Carbonate as CO3	mg/l			27	ND	ND	ND	ND
Cation Sum	meq/l			3.7	4.3	4.6	4.5	4.6
Chloride	mg/l	500	S	20	23	23	25	22
Fluoride	mg/l	2	P	0.28	0.21	0.25	0.18	0.25
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND
Iodide	ug/l			35	28	28	31	21
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND
Potassium, Total	mg/l			1.8	4.8	4.5	4.1	3.3
Sodium, Total	mg/l			82	67	47	39	38
Sulfate	mg/l	500	S	ND	0.86	22	ND	27
Total Dissolved Solid (TDS)	mg/l	1000	S	220	240	260	240	270
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND
General Physical Properties								
Apparent Color	ACU	15	S	**50**	10	5	5	ND
Hardness (Total, as CaCO3)	mg/l			5.63	65.1	121	133	144
Lab pH	Units			8.65	8.31	8.19	8.03	8
Langelier Index	None			-0.139	0.449	0.604	0.535	0.539
Odor	TON	3	S	2	ND	ND	2	ND
Specific Conductance	umho/cm	1600	S	370	420	440	430	450
Turbidity	NTU	5	S	0.15	0.15	0.45	0.4	0.2
Metals								
Aluminum, Total	ug/l	1000	P	20	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	ND	ND	ND	ND	ND
Barium, Total	ug/l	1000	P	1.4	8.6	16	22	27
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.23	ND	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.17	0.15	0.18	0.18	0.097
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	ND	ND	ND	ND	0.053
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			ND	5.73	10.2	11.1	9.22
Manganese, Total	ug/l	50	S	2.5	9.1	14	14	43
Mercury	ug/l	2	P	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND
Volatile Organic Compounds								
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND
TBA	ug/l	12	N	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND
Others								
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			1.6	0.9	0.6	0.69	0.38

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.2
WEST COAST BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Carson #3											
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5		Zone 6	
				5/29/2024	9/23/2024	5/29/2024	9/23/2024	5/29/2024	9/23/2024	5/29/2024	9/23/2024	5/29/2024	9/23/2024	5/29/2024	9/23/2024
General Minerals															
Alkalinity	mg/l			360	390	170	190	180	200	180	200	200	210	200	210
Anion Sum	meq/l			7.6	8.3	4.2	4.6	4.3	4.5	4.3	4.6	4.6	4.8	5.8	6.1
Bicarbonate as HCO3	mg/l			410	480	210	230	220	240	220	240	240	250	240	260
Boron	mg/l	1	N	0.66	0.68	0.1	0.11	0.1	0.11	0.089	0.092	0.11	0.11	0.12	0.12
Bromide	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			8.16	8.25	19.6	19.8	16.5	17.1	24.7	25	31.4	31.9	45.8	45.8
Carbon Dioxide	mg/l			317	348	149	165	160	173	162	174	178	185	184	191
Carbonate as CO3	mg/l			23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			7.2	7.1	3.7	3.8	3.6	3.8	3.8	3.8	4.1	4.1	5.1	5
Chloride	mg/l	500	S	13	13	21	23	22	22	22	22	22	23	23	23
Fluoride	mg/l	2	P	0.45	0.5	0.2	0.23	0.24	0.28	0.21	0.22	0.22	0.22	0.3	0.32
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			120	120	28	28	28	30	25	27	25	27	26	23
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			3	3.2	3.3	3.4	3.4	3.5	3.9	3.9	3.1	3.2	3.7	3.7
Sodium, Total	mg/l			150	150	54	55	57	60	44	45	41	42	39	39
Sulfate	mg/l	500	S	ND	ND	11	11	ND	ND	ND	ND	ND	0.53	55	56
Total Dissolved Solid (TDS)	mg/l	1000	S	450	470	180	220	270	220	210	210	250	220	320	280
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
General Physical Properties															
Apparent Color	ACU	15	S	**150**	**150**	10	10	10	10	5	5	3	3	3	ND
Hardness (Total, as CaCO3)	mg/l			29.5	29.5	64.2	64.3	53.1	54.5	88	87.9	112	112	162	161
Lab pH	Units			8.4	8.27	8.32	8.22	8.29	8.22	8.22	8.19	8.18	8.16	7.66	7.98
Langelier Index	None			0.408	0.314	0.461	0.4	0.35	0.358	0.476	0.497	0.572	0.62	0.196	0.549
Odor	TON	3	S	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2
Specific Conductance	umho/cm	1600	S	680	690	370	380	370	370	370	370	400	400	490	490
Turbidity	NTU	5	S	0.3	0.15	0.2	0.15	0.3	0.2	0.2	0.3	0.15	0.15	0.6	0.45
Metals															
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	ND	ND	ND	ND	0.72	0.73	0.57	0.48	ND	ND	2.1	1.8
Barium, Total	ug/l	1000	P	7.2	7	17	17	20	21	25	24	30	30	65	66
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.74	0.69	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.2	0.082	0.11	0.07	0.094	0.097	0.048	0.051	0.042	0.067	0.1	0.047
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	0.042	0.039	ND	ND	ND	ND	ND	ND	ND	ND	0.03	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			2.22	2.17	3.69	3.59	2.91	2.9	6.36	6.18	8.14	7.94	11.7	11.2
Manganese, Total	ug/l	50	S	16	14	17	16	36	35	49	44	27	25	**60**	**52**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds															
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	1.1	ND	0.56	ND	1.2	ND	ND	ND	0.56	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others															
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			10	11	0.98	0.89	1.1	1.1	0.68	0.63	0.44	0.48	0.57	0.3

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.2
WEST COAST BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Chandler #3			
				Zone 1		Zone 2	
				4/4/2024	9/12/2024	4/4/2024	9/12/2024
General Minerals							
Alkalinity	mg/l			390	400	380	400
Anion Sum	meq/l			14	13	15	16
Bicarbonate as HCO3	mg/l			470	480	470	490
Boron	mg/l	1	N	0.21	0.21	0.25	0.26
Bromide	mg/l			0.65	0.64	1.6	0.63
Calcium, Total	mg/l			98.4	99.2	142	148
Carbon Dioxide	mg/l			361	385	358	399
Carbonate as CO3	mg/l			ND	ND	ND	ND
Cation Sum	meq/l			12	12	15	15
Chloride	mg/l	500	S	160	150	200	190
Fluoride	mg/l	2	P	0.19	0.21	0.16	0.14
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND
Iodide	ug/l			86	90	25	14
Nitrate (as NO3)	mg/l	45	P	ND	ND	**46**	44
Nitrate as Nitrogen	mg/l	10	P	ND	ND	10	9.9
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND
Potassium, Total	mg/l			5	5.1	4.6	4.7
Sodium, Total	mg/l			120	110	100	96
Sulfate	mg/l	500	S	59	54	76	97
Total Dissolved Solid (TDS)	mg/l	1000	S	720	720	920	930
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	10	9.9
General Physical Properties							
Apparent Color	ACU	15	S	ND	5	ND	3
Hardness (Total, as CaCO3)	mg/l			362	362	523	546
Lab pH	Units			7.58	7.32	7.52	7.22
Langelier Index	None			0.654	0.409	0.712	0.451
Odor	TON	3	S	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	1200	1200	1500	1600
Turbidity	NTU	5	S	0.95	0.95	1.6	**6.9**
Metals							
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	3	2.4	1.6	1.7
Barium, Total	ug/l	1000	P	29	28	130	130
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	ND	ND	1	1.7
Hexavalent Chromium (Cr VI)	ug/l	10	P	ND	ND	0.76	1.4
Copper, Total	ug/l	1300	P	ND	ND	ND	1
Iron, Total	mg/l	0.3	S	0.22	0.21	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND
Magnesium, Total	mg/l			28.2	27.8	40.8	42.9
Manganese, Total	ug/l	50	S	**81**	**74**	15	13
Mercury	ug/l	2	P	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	**150**	**180**
Selenium, Total	ug/l	50	P	ND	ND	12	9.4
Silver, Total	ug/l	100	S	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND
Volatile Organic Compounds							
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND
Others							
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	3.7	3.3
Surfactants	mg/l	0.5	S	ND	ND	ND	ND
Total Organic Carbon	mg/l			1.1	1.2	0.75	0.89

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.2
WEST COAST BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Gardena #1							
				Zone1		Zone2		Zone3		Zone4	
				5/16/2024	9/3/2024	6/12/2024	9/3/2024	5/16/2024	9/3/2024	5/16/2024	9/3/2024
General Minerals											
Alkalinity	mg/l			290	290	200	210	200	190	280	290
Anion Sum	meq/l			6.4	6.4	5.4	5.5	6.1	6.1	25	28
Bicarbonate as HCO3	mg/l			360	360	240	250	240	240	340	350
Boron	mg/l	1	N	0.35	0.33	0.13	0.13	0.12	0.12	0.15	0.15
Bromide	mg/l			ND	ND	ND	ND	ND	ND	1.8	1.7
Calcium, Total	mg/l			13.2	13	47.9	47.2	50.5	51.7	267	264
Carbon Dioxide	mg/l			258	262	180	187	177	173	285	286
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			5.5	5.4	5.2	5.1	5.2	5.3	26	26
Chloride	mg/l	500	S	20	20	49	40	24	24	**620**	**630**
Fluoride	mg/l	2	P	0.17	0.17	0.39	0.34	0.36	0.35	0.14	0.14
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			36	39	50	35	29	30	5.1	4.1
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	**140**
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	**32**
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			12	12	3.9	3.7	3.3	3.3	7.8	7.6
Sodium, Total	mg/l			90	90	43	41	38	40	120	120
Sulfate	mg/l	500	S	ND	ND	2.7	9.4	72	72	99	99
Total Dissolved Solid (TDS)	mg/l	1000	S	330	330	290	260	320	310	**2600**	**1800**
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	**32**
General Physical Properties											
Apparent Color	ACU	15	S	**25**	**30**	3	3	ND	3	ND	ND
Hardness (Total, as CaCO3)	mg/l			62	61.3	162	161	173	177	1030	1020
Lab pH	Units			8.19	8.05	7.88	7.94	7.95	7.93	7.14	7.23
Langelier Index	None			0.343	0.197	0.444	0.528	0.528	0.499	0.325	0.481
Odor	TON	3	S	2	2	**4**	2	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	570	560	510	420	520	510	**3100**	**2900**
Turbidity	NTU	5	S	0.9	1	0.75	3	0.5	4.4	**38**	**64**
Metals											
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	**14**	**13**	ND	ND	ND	ND	ND	ND
Barium, Total	ug/l	1000	P	15	15	45	42	49	46	350	330
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.43	ND	ND	ND	0.26	ND	10	9
Hexavalent Chromium (Cr VI)	ug/l	10	P	ND	0.11	ND	ND	ND	0.15	8.5	7.4
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	0.15	0.14	ND	ND	0.051	0.056	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			7.03	7.02	10.3	10.5	11.4	11.6	88.1	87.6
Manganese, Total	ug/l	50	S	41	38	41	41	**55**	**51**	1.5	4
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	3.8	4.2	12
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	2.4	2.2
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds											
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	0.56	0.79
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND
Others											
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	0.08	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	**7.4**	**6.7**
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			2	2	0.46	0.41	ND	0.36	1	0.95

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.2
WEST COAST BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Gardena #2									
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5	
				5/7/2024	8/21/2024	5/7/2024	8/21/2024	5/7/2024	8/21/2024	5/7/2024	8/21/2024	5/7/2024	8/21/2024
General Minerals													
Alkalinity	mg/l			300	300	200	190	200	200	200	200	230	200
Anion Sum	meq/l			6.5	6.5	6.3	6	6.1	5.9	4.6	4.6	6.3	5.7
Bicarbonate as HCO3	mg/l			370	370	250	230	250	240	240	240	280	250
Boron	mg/l	1	N	0.31	0.32	0.14	0.15	0.13	0.13	0.098	0.098	0.12	0.13
Bromide	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			15.2	16	41.5	43	48.4	50.1	29.7	30.4	50.5	52.4
Carbon Dioxide	mg/l			268	268	187	169	183	175	177	176	204	181
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			5.6	5.9	5.4	5.6	5.3	5.5	4	4.1	5.4	5.5
Chloride	mg/l	500	S	15	15	25	24	24	24	23	23	59	58
Fluoride	mg/l	2	P	0.22	0.21	0.24	0.24	0.32	0.32	0.24	0.24	0.25	0.25
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			39	36	33	24	31	24	35	27	35	30
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			6	6.4	6.3	6.5	4.2	4.4	3.5	3.5	3.4	3.5
Sodium, Total	mg/l			96	100	46	48	42	44	39	41	43	44
Sulfate	mg/l	500	S	ND	ND	75	73	65	63	ND	ND	1.2	1.1
Total Dissolved Solid (TDS)	mg/l	1000	S	390	340	320	340	310	320	230	240	320	310
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
General Physical Properties													
Apparent Color	ACU	15	S	**25**	**25**	5	3	3	3	5	5	ND	ND
Hardness (Total, as CaCO3)	mg/l			62	64.6	160	165	168	174	110	112	171	176
Lab pH	Units			8.29	8.21	7.68	7.98	7.95	7.96	8	7.93	8.03	8.01
Langelier Index	None			0.504	0.459	0.173	0.461	0.513	0.535	0.375	0.312	0.669	0.607
Odor	TON	3	S	**4**	2	ND	ND	ND	ND	2	ND	**8**	2
Specific Conductance	umho/cm	1600	S	560	550	530	520	510	500	380	380	530	520
Turbidity	NTU	5	S	0.2	0.15	0.1	0.15	0.1	ND	0.15	0.4	0.1	0.1
Metals													
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	ND	ND	ND	ND	ND	ND	0.45	ND	ND	ND
Barium, Total	ug/l	1000	P	22	22	22	21	23	22	40	38	110	110
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.044	0.061	0.096	ND	0.081	0.037	0.078	0.04	ND	ND
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	ND	ND	0.034	0.048	0.034	0.035	0.071	0.068	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			5.85	6.01	13.7	13.9	11.6	11.8	8.71	8.73	10.9	11.1
Manganese, Total	ug/l	50	S	29	27	32	28	38	34	**54**	47	50	46
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds													
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others													
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			2.8	2.6	0.48	0.4	0.43	0.38	0.39	2.6	0.6	0.34

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.2
WEST COAST BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Hawthorne #1					
				Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
				4/10/2024	4/10/2024	4/10/2024	4/10/2024	4/10/2024	4/10/2024
General Minerals									
Alkalinity	mg/l			680	680	430	340	210	360
Anion Sum	meq/l			15	15	10	8.2	13	27
Bicarbonate as HCO3	mg/l			830	830	520	420	250	440
Boron	mg/l	1	N	**1.4**	**1.2**	0.52	0.4	0.12	0.26
Bromide	mg/l			ND	ND	ND	ND	0.8	1.2
Calcium, Total	mg/l			15.2	19.2	35	32.3	112	218
Carbon Dioxide	mg/l			610	599	380	306	186	327
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			15	15	9.7	7.6	12	26
Chloride	mg/l	500	S	52	52	60	48	280	440
Fluoride	mg/l	2	P	0.1	0.2	0.19	0.34	0.26	0.22
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND
Iodide	ug/l			81	110	83	60	60	170
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	3
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	0.68
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			26	19	16	11	8.6	8.6
Sodium, Total	mg/l			290	290	130	100	77	210
Sulfate	mg/l	500	S	ND	2.7	ND	ND	36	330
Total Dissolved Solid (TDS)	mg/l	1000	S	870	840	530	410	930	**1700**
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	0.68
General Physical Properties									
Apparent Color	ACU	15	S	ND	ND	**50**	ND	ND	ND
Hardness (Total, as CaCO3)	mg/l			90.3	93.3	182	142	434	812
Lab pH	Units			8.06	8.2	8.04	8.03	7.92	7.81
Langelier Index	None			0.541	0.786	0.742	0.621	0.75	1.08
Odor	TON	3	S	ND	**4**	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	1400	1400	920	720	1300	**2700**
Turbidity	NTU	5	S	0.2	1.1	0.25	0.15	0.1	0.5
Metals									
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	ND	0.53	ND	ND	ND	1.6
Barium, Total	ug/l	1000	P	33	35	35	28	120	54
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.79	2	0.29	0.22	ND	0.22
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.044	0.12	ND	0.044	ND	ND
Copper, Total	ug/l	1300	P	ND	1.2	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	0.15	0.15	0.17	0.096	ND	0.14
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			12.7	11	23	14.8	37.3	64.8
Manganese, Total	ug/l	50	S	15	**60**	**61**	34	**100**	**700**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	0.44
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds									
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	1.2
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	0.98
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	4.7
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	**190**
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	0.68
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	7
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	**34**
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND
Others									
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	1
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	0.65
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	0.06
Total Organic Carbon	mg/l			10	10	3.7	2.8	0.87	1.5

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.2
WEST COAST BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Inglewood #1									
				Zone1		Zone2		Zone3		Zone4		Zone5	
				5/6/2024	9/16/2024	5/6/2024	9/16/2024	5/6/2024	9/16/2024	5/6/2024	9/16/2024	5/6/2024	9/16/2024
General Minerals													
Alkalinity	mg/l			1500	1500	920	990	360	390	260	270	290	290
Anion Sum	meq/l			72	73	27	28	22	21	17	17	23	23
Bicarbonate as HCO3	mg/l			1800	1900	1100	1200	440	480	310	330	350	350
Boron	mg/l	1	N	**10**	**10**	**2.2**	**2.3**	0.51	0.5	0.21	0.19	0.24	0.22
Bromide	mg/l			17	17	1.7	2	4.1	4.1	1.5	1.6	2.7	2.3
Calcium, Total	mg/l			31.5	32.8	45.2	43.7	150	153	130	131	199	198
Carbon Dioxide	mg/l			1310	1390	840	894	336	367	238	249	283	285
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			66	65	26	24	21	21	16	16	22	22
Chloride	mg/l	500	S	**1500**	**1500**	290	290	410	360	320	330	480	480
Fluoride	mg/l	2	P	0.2	0.11	0.2	0.15	0.38	0.41	0.32	0.35	0.24	0.28
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			5700	3900	170	230	1300	980	130	120	54	26
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND	**65**	**64**
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	**15**	**15**
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			51	40	24	25	10	11	12	12	10	11
Sodium, Total	mg/l			1400	1400	480	440	200	190	100	100	140	140
Sulfate	mg/l	500	S	ND	ND	ND	1.1	160	170	120	120	120	120
Total Dissolved Solid (TDS)	mg/l	1000	S	**4400**	**4300**	**1500**	**1500**	**1400**	**1300**	**1100**	950	**1800**	**1500**
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	**15**	**15**
General Physical Properties													
Apparent Color	ACU	15	S	**400**	**400**	**250**	**400**	15	15	10	15	ND	ND
Hardness (Total, as CaCO3)	mg/l			192	196	199	192	624	635	549	552	800	796
Lab pH	Units			7.96	7.93	7.79	7.84	7.56	7.52	7.66	7.65	7.29	7.27
Langelier Index	None			0.863	0.854	0.803	0.87	0.696	0.71	0.626	0.655	0.419	0.423
Odor	TON	3	S	**8**	**16**	**8**	**8**	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	**6800**	**6800**	**2500**	**2600**	**2300**	**2400**	**1700**	**1700**	**2400**	**2500**
Turbidity	NTU	5	S	0.25	0.2	2	2.5	2.3	3	2	2.4	0.1	0.35
Metals													
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	0.67	0.53	7.9	6.8	ND	ND	0.43	ND	0.51	0.41
Barium, Total	ug/l	1000	P	130	130	95	87	60	56	160	140	160	150
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	1.2	0.98	1.4	1.1	0.22	ND	ND	ND	0.75	0.53
Hexavalent Chromium (Cr VI)	ug/l	10	P	ND	0.62	0.5	0.45	ND	0.13	ND	0.19	0.48	0.64
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND	ND	ND	1.4	0.75
Iron, Total	mg/l	0.3	S	**1**	**1.1**	**1.1**	**1**	**0.55**	**0.56**	**0.42**	**0.43**	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			27.5	27.8	20.9	20.1	60.6	61.6	54.4	54.7	73.9	73.1
Manganese, Total	ug/l	50	S	37	32	**53**	44	**440**	**380**	**300**	**260**	1.5	ND
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	0.48	0.43	ND	ND	ND	ND	ND	ND	3.5	3.2
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds													
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	1.4	2.5
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	1.8	2.5
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	0.54	0.58
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	**9.4**	**13**
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others													
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	0.71	0.45	0.39	0.33
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	4
Surfactants	mg/l	0.5	S	0.12	0.15	0.092	0.098	0.051	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			81	74	18	18	2	2	0.75	0.78	0.73	2.9

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.2
WEST COAST BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Inglewood #3													
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5		Zone 6		Zone 7	
				4/9/2024	8/21/2024	4/9/2024	8/21/2024	4/9/2024	8/21/2024	4/9/2024	8/21/2024	4/9/2024	8/21/2024	4/9/2024	8/21/2024	4/9/2024	8/21/2024
General Minerals																	
Alkalinity	mg/l			700	710	1100	1100	550	570	790	790	450	460	230	230	240	250
Anion Sum	meq/l			45	45	24	24	12	12	17	17	12	12	9	9.1	17	18
Bicarbonate as HCO3	mg/l			850	860	1400	1400	680	700	970	960	550	560	280	280	290	310
Boron	mg/l	1	N	**4.3**	**4.2**	**5.5**	**5.3**	**1.2**	**1.2**	**2.3**	**2.2**	0.58	0.58	0.12	0.12	0.11	0.11
Bromide	mg/l			9.6	8.9	1.8	1.7	ND	ND	ND	ND	0.57	0.53	0.52	ND	1.4	1.3
Calcium, Total	mg/l			19.4	19	11.3	11.3	5.8	5.93	15.3	14.9	53	55.1	74.6	77.4	172	172
Carbon Dioxide	mg/l			623	632	985	993	488	508	706	706	405	415	209	208	219	231
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			43	39	24	21	11	11	17	16	11	11	8.4	8.6	17	17
Chloride	mg/l	500	S	**1100**	**1100**	58	58	17	17	30	30	96	96	150	150	410	410
Fluoride	mg/l	2	P	0.37	0.37	0.42	0.41	0.19	0.19	0.17	0.17	0.21	0.21	0.27	0.27	0.32	0.32
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			3100	2100	650	550	50	52	65	65	180	160	51	51	51	74
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			25	25	19	19	9.1	9.1	23	22	13	13	8.1	7.9	8.2	8.1
Sodium, Total	mg/l			930	850	510	450	240	240	330	310	150	150	58	60	91	91
Sulfate	mg/l	500	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.6	4.1	47	45
Total Dissolved Solid (TDS)	mg/l	1000	S	**2700**	**2700**	**1500**	**1500**	670	690	960	970	630	650	520	540	**1300**	**1200**
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
General Physical Properties																	
Apparent Color	ACU	15	S	ND	**250**	**1500**	**1500**	**500**	**380**	**750**	**750**	**30**	**25**	ND	3	ND	3
Hardness (Total, as CaCO3)	mg/l			91.7	89.5	54.5	54.1	27.2	27.8	80.3	78	205	211	282	290	641	639
Lab pH	Units			8.01	7.99	8.2	8.12	8.28	8.2	8.08	8	7.92	7.84	7.9	7.87	7.79	7.74
Langelier Index	None			0.448	0.425	0.687	0.608	0.281	0.223	0.616	0.524	0.803	0.746	0.661	0.643	0.82	0.798
Odor	TON	3	S	**8**	**4**	**8**	2	**4**	**4**	**8**	ND	ND	ND	ND	ND	**4**	**8**
Specific Conductance	umho/cm	1600	S	**4400**	**4400**	**2200**	**2200**	1000	1000	500	1400	**3200**	1100	860	850	**1900**	**1800**
Turbidity	NTU	5	S	0.15	0.25	0.15	0.15	0.3	0.35	0.2	0.3	0.1	0.1	0.2	0.15	0.75	0.6
Metals																	
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	34	34	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	0.98	1.1	0.85	0.83	1.7	1.7	2.6	2.5	ND	ND	0.47	0.52	1.7	1.1
Barium, Total	ug/l	1000	P	60	61	27	26	14	14	45	45	57	59	81	86	270	280
Beryllium, Total	ug/l	4	P	ND	ND	0.11	0.16	ND	ND	0.11	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.62	0.55	5.5	5.4	1.9	1.8	3	2.9	0.26	ND	ND	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.021	0.036	0.097	0.11	0.072	0.087	0.13	0.085	ND	0.068	ND	0.17	ND	0.047
Copper, Total	ug/l	1300	P	ND	ND	3	3.3	1.8	1.6	2	2	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	0.2	0.19	**0.47**	**0.46**	0.14	0.14	**0.36**	**0.35**	0.12	0.12	ND	ND	0.13	0.15
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			10.5	10.2	6.37	6.28	3.07	3.15	10.2	9.89	17.6	17.9	23.2	23.5	51.4	50.6
Manganese, Total	ug/l	50	S	**54**	**51**	24	21	21	20	43	39	48	46	**130**	**120**	**340**	**300**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	2.4	2.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	0.51	0.51	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds																	
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	0.92
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**28**	**27**
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.4	3.8
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others																	
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	0.074	0.073	0.056	ND	ND	ND	0.066	ND	ND	ND	0.15	0.15	0.47	0.45
Total Organic Carbon	mg/l			22	22	66	58	6.9	5.5	14	12	3.5	3.2	2.3	2.2	4.7	4.4

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.2
WEST COAST BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Lawndale #1										
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5		Zone 6
				4/2/2024	8/5/2024	4/2/2024	8/5/2024	4/2/2024	8/5/2024	4/2/2024	8/5/2024	4/2/2024	8/5/2024	8/5/2024
General Minerals														
Alkalinity	mg/l			200	330	530	600	130	220	170	200	120	210	250
Anion Sum	meq/l			4.7	7.2	11	13	3	5.2	5.5	7.1	3.8	7.2	19
Bicarbonate as HCO3	mg/l			210	390	610	710	130	270	210	250	150	250	310
Boron	mg/l	1	N	0.15	0.53	0.93	**1.1**	0.059	0.16	0.082	0.11	0.048	0.095	0.17
Bromide	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.97
Calcium, Total	mg/l			20.4	16.5	13.9	12	16.6	19.4	47.9	62.7	33.5	54.6	163
Carbon Dioxide	mg/l			174	295	463	529	116	197	151	185	109	184	244
Carbonate as CO3	mg/l			26	ND	23	ND	25	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			3.9	6.9	11	12	2.6	5	4.9	6.9	3.4	6.5	17
Chloride	mg/l	500	S	12	15	29	33	9.2	24	45	65	27	64	410
Fluoride	mg/l	2	P	0.3	0.33	0.2	0.2	0.2	0.22	0.22	0.3	0.2	0.35	0.16
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			25	100	48	80	14	36	27	39	14	33	40
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.8
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.2
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			2.9	5.3	12	12	4.4	9.2	3.3	4.6	2.8	5.2	7.7
Sodium, Total	mg/l			56	130	220	250	27	71	32	49	22	53	130
Sulfate	mg/l	500	S	17	4.6	0.69	ND	3.4	1.1	41	56	28	60	120
Total Dissolved Solid (TDS)	mg/l	1000	S	230	430	640	730	140	280	270	400	180	380	**1300**
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.2
General Physical Properties														
Apparent Color	ACU	15	S	**50**	**100**	**150**	**200**	15	10	10	5	15	5	5
Hardness (Total, as CaCO3)	mg/l			70.2	58.9	57.9	52	63.9	86.1	168	233	119	205	576
Lab pH	Units			8.57	8.29	8.36	8.27	8.73	8.21	8.07	7.82	7.92	7.96	7.35
Langelier Index	None			0.779	0.571	0.73	0.615	0.696	0.425	0.569	0.472	0.144	0.577	0.374
Odor	TON	3	S	**8**	ND	**4**	ND	2	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	390	670	1000	1200	250	490	480	670	350	650	**1900**
Turbidity	NTU	5	S	**5.6**	3.1	0.9	0.8	0.5	0.15	0.6	0.3	1.8	0.85	1.6
Metals														
Aluminum, Total	ug/l	1000	P	32	ND	ND	ND	ND	ND	ND	ND	37	ND	ND
Antimony, Total	ug/l	6	P	0.95	ND	ND	ND	0.57	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	4.6	1.2	4	2.4	2.1	1.1	2.6	2.4	4.5	1.8	2.7
Barium, Total	ug/l	1000	P	18	17	22	21	11	19	44	54	61	100	280
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.57	0.34	0.66	0.7	ND	ND	ND	ND	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.086	0.14	0.11	0.15	0.039	0.08	0.12	0.034	ND	0.06	ND
Copper, Total	ug/l	1300	P	1.8	0.9	1.2	0.72	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	0.061	0.048	0.14	0.11	ND	ND	ND	0.11	0.081	0.042	0.23
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			4.66	4.27	5.65	5.33	5.47	9.17	11.8	18.4	8.68	16.7	40.7
Manganese, Total	ug/l	50	S	21	24	46	43	27	44	**59**	**97**	**98**	**110**	**580**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.8
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds														
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others														
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.54
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1	ND
Surfactants	mg/l	0.5	S	ND	0.06	0.099	ND	ND	ND	0.052	ND	ND	ND	ND
Total Organic Carbon	mg/l			6.4	6.8	6.3	8	1.9	1.3	1.3	0.44	1.5	0.52	0.8

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.2
WEST COAST BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Lomita #1									
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5	
				5/29/2024	9/17/2024	5/29/2024	9/17/2024	5/29/2024	9/17/2024	5/29/2024	9/17/2024	5/29/2024	9/17/2024
General Minerals													
Alkalinity	mg/l			290	280	290	300	280	300	260	250	290	290
Anion Sum	meq/l			29	29	29	31	18	19	14	15	34	34
Bicarbonate as HCO3	mg/l			350	340	360	360	340	360	320	310	350	360
Boron	mg/l	1	N	0.58	0.6	0.49	0.62	0.52	0.53	0.44	0.46	0.79	0.77
Bromide	mg/l			9	8.9	8.6	9.7	3.7	4.5	3.1	3.7	10	11
Calcium, Total	mg/l			236	226	229	248	113	130	98.2	111	269	278
Carbon Dioxide	mg/l			272	264	275	285	259	284	239	232	276	279
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			28	28	27	30	18	20	14	15	33	33
Chloride	mg/l	500	S	**830**	**810**	**790**	**870**	390	400	310	330	**970**	**950**
Fluoride	mg/l	2	P	ND	ND	0.11	ND	0.15	0.14	0.21	0.22	ND	ND
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			2000	2000	1900	2200	800	820	700	740	2300	2400
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	2.3	3.3	ND	ND	0.96	0.9
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	0.52	0.73	ND	ND	0.22	0.2
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			20	21	19	21	12	15	11	12	22	23
Sodium, Total	mg/l			240	230	230	250	200	220	150	160	290	280
Sulfate	mg/l	500	S	8.5	27	28	34	70	94	7.8	8.7	42	46
Total Dissolved Solid (TDS)	mg/l	1000	S	**2100**	**1900**	**2000**	**2100**	**1100**	**1200**	840	910	**2300**	**2400**
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	0.52	0.73	ND	ND	0.22	0.2
General Physical Properties													
Apparent Color	ACU	15	S	5	5	10	10	15	10	15	15	5	5
Hardness (Total, as CaCO3)	mg/l			881	848	850	923	427	493	363	413	1010	1040
Lab pH	Units			7.45	7.51	7.52	7.41	7.57	7.4	7.84	7.73	7.41	7.45
Langelier Index	None			0.629	0.671	0.694	0.626	0.507	0.416	0.718	0.635	0.632	0.68
Odor	TON	3	S	**4**	ND	**4**	ND	ND	2	2	ND	ND	**8**
Specific Conductance	umho/cm	1600	S	**3300**	**3200**	**3300**	**3500**	**2100**	**2100**	1600	**1800**	**3900**	**4000**
Turbidity	NTU	5	S	**180**	**30**	2.3	3.3	**5.6**	**12**	0.65	0.9	2	0.65
Metals													
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	ND	ND	ND	ND	1.1	0.86	ND	ND	ND	ND
Barium, Total	ug/l	1000	P	150	150	140	150	73	86	61	70	190	190
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.35	0.31	ND	ND	0.28	ND	ND	ND	0.21	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	ND	ND	ND	0.05	0.073	0.22	ND	ND	ND	ND
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	**0.58**	**0.31**	0.077	0.074	ND	ND	ND	0.079	0.14	0.17
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			70.9	68.7	67.6	73.8	35.2	40.7	28.7	32.6	81	83.5
Manganese, Total	ug/l	50	S	**530**	**480**	**520**	**520**	**76**	**51**	**190**	**210**	**580**	**570**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds													
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others													
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	0.33	0.41	ND	ND	0.14	ND
Surfactants	mg/l	0.5	S	ND	0.055	ND	ND	ND	ND	ND	ND	ND	0.086
Total Organic Carbon	mg/l			2.4	1.9	2.1	2	2.3	2.1	2	2.1	2	2

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.2
WEST COAST BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Long Beach #3									
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5	
				5/8/2024	8/22/2024	5/8/2024	8/22/2024	5/8/2024	8/22/2024	5/8/2024	8/22/2024	5/8/2024	8/22/2024
General Minerals													
Alkalinity	mg/l			370	390	170	170	180	180	150	140	180	170
Anion Sum	meq/l			7.6	8.3	4.5	4.4	4.5	4.6	26	25	25	25
Bicarbonate as HCO3	mg/l			430	470	210	200	220	220	190	170	210	210
Boron	mg/l	1	N	0.36	0.37	0.12	0.13	0.12	0.12	0.11	0.11	0.12	0.12
Bromide	mg/l			ND	ND	ND	ND	ND	ND	7.3	6.4	6.6	6
Calcium, Total	mg/l			10.9	11.1	15.4	16.6	19	20.3	234	236	222	241
Carbon Dioxide	mg/l			327	342	150	145	158	162	142	127	169	157
Carbonate as CO3	mg/l			23	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			7.4	7.6	3.4	3.7	3.7	4	24	24	22	24
Chloride	mg/l	500	S	6.5	19	21	21	34	32	**760**	**750**	**680**	**700**
Fluoride	mg/l	2	P	ND	0.42	0.32	0.31	0.28	0.29	0.18	0.14	0.15	0.14
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			79	56	37	30	66	65	2100	1700	1900	1600
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			3.9	3.9	2	2.1	2.4	2.5	16	16	11	12
Sodium, Total	mg/l			150	150	55	60	55	60	140	150	140	150
Sulfate	mg/l	500	S	ND	ND	22	21	ND	ND	80	79	87	88
Total Dissolved Solid (TDS)	mg/l	1000	S	450	440	230	230	240	230	**2500**	**1800**	**2300**	**2200**
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
General Physical Properties													
Apparent Color	ACU	15	S	**75**	**100**	15	15	15	**20**	5	5	5	5
Hardness (Total, as CaCO3)	mg/l			40.3	41	48.6	52.2	60.3	64.3	851	846	775	830
Lab pH	Units			8.37	8.3	8.4	8.32	8.21	8.12	7.67	7.64	7.4	7.71
Langelier Index	None			0.516	0.479	0.418	0.371	0.342	0.284	0.532	0.526	0.332	0.659
Odor	TON	3	S	**4**	ND	2	2	ND	ND	2	ND	ND	**4**
Specific Conductance	umho/cm	1600	S	720	720	360	360	390	380	**2900**	**2800**	**2700**	**2900**
Turbidity	NTU	5	S	0.15	0.8	0.2	0.2	0.15	ND	0.55	0.5	0.6	0.5
Metals													
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	ND	ND	ND	ND	ND	ND	0.55	0.46	0.79	0.73
Barium, Total	ug/l	1000	P	10	9.1	17	14	8.7	8	98	86	140	140
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.38	0.21	ND	ND	0.2	ND	ND	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.084	ND	0.06	0.027	0.028	ND	ND	ND	ND	ND
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND	12	ND	ND	ND
Iron, Total	mg/l	0.3	S	0.036	0.033	ND	ND	0.03	0.03	0.19	0.18	0.18	0.2
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			3.21	3.22	2.46	2.61	3.15	3.3	64.6	62.5	53.4	55.5
Manganese, Total	ug/l	50	S	13	11	8.8	6.8	9.6	8.4	**240**	**210**	**300**	**270**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds													
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	ND	ND	ND	ND	ND	ND	8.9	7.8	6.4	7
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others													
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			7.1	6.9	1.4	1.2	2.3	2.2	1.2	1.1	1.2	1.2

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.2
WEST COAST BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Long Beach #8					
				Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
				5/3/2024	5/3/2024	5/3/2024	5/3/2024	5/3/2024	5/3/2024
General Minerals									
Alkalinity	mg/l			540	460	630	400	320	210
Anion Sum	meq/l			11	10	15	24	19	18
Bicarbonate as HCO3	mg/l			650	560	760	490	390	260
Boron	mg/l	1	N	**1.2**	0.75	**1.3**	**1.1**	0.59	0.2
Bromide	mg/l			ND	ND	ND	4.6	3.6	1.7
Calcium, Total	mg/l			7.55	9.15	10.1	45.7	61.1	107
Carbon Dioxide	mg/l			471	405	553	364	290	197
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			11	9.2	13	22	17	17
Chloride	mg/l	500	S	23	35	88	**560**	440	480
Fluoride	mg/l	2	P	0.65	0.66	0.46	0.19	0.16	0.46
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND
Iodide	ug/l			90	110	18	1200	950	87
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			2.2	4.1	8.5	15	11	8
Sodium, Total	mg/l			230	190	280	390	270	200
Sulfate	mg/l	500	S	ND	ND	ND	ND	ND	26
Total Dissolved Solid (TDS)	mg/l	1000	S	680	610	900	**1400**	**1100**	**1300**
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND
General Physical Properties									
Apparent Color	ACU	15	S	**500**	**300**	**400**	**100**	**50**	15
Hardness (Total, as CaCO3)	mg/l			27.1	35.5	45.5	251	266	415
Lab pH	Units			8.36	8.26	8.27	7.95	7.94	7.58
Langelier Index	None			0.466	0.392	0.535	0.615	0.668	0.346
Odor	TON	3	S	**16**	**16**	**16**	**4**	**4**	ND
Specific Conductance	umho/cm	1600	S	1000	920	1400	**2500**	**2100**	**2100**
Turbidity	NTU	5	S	0.4	0.3	0.4	0.1	0.55	3.7
Metals									
Aluminum, Total	ug/l	1000	P	21	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	1.4	0.73	1.1	ND	0.52	ND
Barium, Total	ug/l	1000	P	10	9.9	14	22	21	140
Beryllium, Total	ug/l	4	P	0.11	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	1.4	1.4	1.8	0.52	0.36	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.23	0.12	0.038	0.11	ND	ND
Copper, Total	ug/l	1300	P	3.6	1.8	1.1	ND	ND	ND
Iron, Total	mg/l	0.3	S	0.16	0.13	0.2	0.15	0.22	**0.66**
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			2.01	3.07	4.89	33.3	27.5	35.7
Manganese, Total	ug/l	50	S	17	26	23	12	46	**350**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds									
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND
Others									
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	0.055	ND	ND	ND
Total Organic Carbon	mg/l			13	14	23	19	14	1.1

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.2
WEST COAST BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Manhattan Beach #1													
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5		Zone 6		Zone 7	
				3/29/2024	7/25/2024	3/28/2024	7/24/2024	3/29/2024	7/25/2024	3/28/2024	7/24/2024	3/28/2024	7/24/2024	3/28/2024	7/24/2024	3/29/2024	7/24/2024
General Minerals																	
Alkalinity	mg/l			590	610	450	420	960	950	490	460	150	130	190	180	160	160
Anion Sum	meq/l			130	110	47	48	23	23	11	10	370	350	39	170	13	12
Bicarbonate as HCO3	mg/l			720	750	550	520	1200	1200	600	560	180	160	230	220	190	190
Boron	mg/l	1	N	**16**	**15**	**6.9**	**6.7**	**3.8**	**3.8**	0.41	0.39	0.59	0.57	0.12	0.12	0.2	0.19
Bromide	mg/l			14	28	11	10	2.5	2.5	ND	ND	ND	63	15	15	ND	ND
Calcium, Total	mg/l			46.1	44.8	31.4	31.2	15.6	15.9	25.8	24.7	1810	1840	909	887	65.6	66.4
Carbon Dioxide	mg/l			534	559	411	380	854	851	442	408	160	144	185	173	144	140
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			110	110	42	41	20	20	10	9.5	380	370	130	130	11	11
Chloride	mg/l	500	S	**4000**	**3500**	**1300**	**1400**	130	130	39	39	**12000**	**11000**	**820**	**5300**	150	150
Fluoride	mg/l	2	P	0.27	ND	0.48	ND	0.31	ND	0.18	0.19	ND	ND	ND	ND	0.16	0.16
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			5000	7300	2800	3000	700	1000	130	140	140	230	30	38	37	40
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	36	ND	ND	25	24
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.1	ND	ND	5.7	5.5
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			26	100	25	24	35	44	12	11	150	170	49	59	6.2	6
Sodium, Total	mg/l			2400	2400	880	880	400	400	180	170	4600	4500	1400	1400	150	140
Sulfate	mg/l	500	S	ND	ND	ND	ND	ND	ND	ND	ND	**1700**	**1300**	**560**	**620**	230	230
Total Dissolved Solid (TDS)	mg/l	1000	S	**7400**	**7500**	**2800**	**2800**	**1300**	**1300**	600	620	**31000**	**27000**	**12000**	**9500**	740	760
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.8	5.5
General Physical Properties																	
Apparent Color	ACU	15	S	**80**	**100**	**200**	**150**	**350**	**250**	**40**	**35**	ND	3	ND	3	ND	3
Hardness (Total, as CaCO3)	mg/l			255	244	130	128	90	90.5	107	101	8560	8500	3360	3210	228	230
Lab pH	Units			7.86	7.76	7.87	7.95	8.04	7.99	8.02	8.05	7.04	7	7.35	7.37	7.9	7.95
Langelier Index	None			0.449	0.35	0.319	0.367	0.629	0.583	0.633	0.612	0.654	0.526	0.695	0.7	0.408	0.46
Odor	TON	3	S	**4**	**8**	**4**	**8**	**4**	**8**	ND	ND	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	**13000**	**13000**	**4900**	**4700**	**2100**	**2200**	970	980	**33000**	**33000**	**12000**	**12000**	1200	1200
Turbidity	NTU	5	S	0.2	0.8	ND	0.2	0.1	0.8	0.1	0.2	**6.5**	**54**	**6.7**	**18**	0.9	0.7
Metals																	
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	1.1	1.4	0.46	0.45	0.52	0.62	0.56	0.53	0.51	0.63	0.42	0.46	3.7	3.4
Barium, Total	ug/l	1000	P	750	690	210	190	97	97	41	37	200	180	230	210	55	54
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.4	0.3	0.34	0.23	1.9	1.9	0.24	ND	0.57	ND	0.25	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	ND	0.14	ND	0.38	0.078	0.44	0.081	0.27	ND	ND	ND	ND	0.055	0.19
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND	41	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	**0.42**	**0.45**	0.15	0.16	0.21	0.21	0.089	0.085	**4.1**	**4**	**1.7**	**1.6**	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			34	31.9	12.6	12.1	12.4	12.3	10.2	9.6	979	948	266	242	15.6	15.6
Manganese, Total	ug/l	50	S	43	42	39	36	42	42	**58**	**54**	**810**	**820**	**990**	**990**	**150**	**130**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.8	3.5
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds																	
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others																	
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.2	2.3
Surfactants	mg/l	0.5	S	0.14	0.15	0.065	0.091	0.091	0.062	ND	ND	0.11	0.12	0.1	0.098	ND	ND
Total Organic Carbon	mg/l			26	26	35	30	40	37	4.8	0.63	1.5	1.4	0.52	4.2	0.83	0.93

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.2
WEST COAST BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	PM-2 Police Station							
				Zone 1		Zone 2		Zone 3		Zone 4	
				3/15/2024	7/23/2024	3/15/2024	7/23/2024	3/15/2024	7/23/2024	3/15/2024	7/23/2024
General Minerals											
Alkalinity	mg/l			130	140	150	190	150	170	160	180
Anion Sum	meq/l			170	180	33	44	12	15	13	12
Bicarbonate as HCO3	mg/l			160	170	180	230	190	210	200	220
Boron	mg/l	1	N	0.18	0.18	0.19	0.24	0.29	0.27	0.31	0.3
Bromide	mg/l			20	21	3.9	6.1	0.97	0.82	0.78	0.92
Calcium, Total	mg/l			1150	1150	295	366	94.3	87.7	67.8	64.6
Carbon Dioxide	mg/l			123	132	134	176	137	154	144	169
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			180	180	32	40	14	13	12	11
Chloride	mg/l	500	S	**5300**	**5700**	**1000**	**1400**	170	280	210	170
Fluoride	mg/l	2	P	ND	ND	0.29	0.25	0.29	0.28	0.28	0.29
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			110	110	100	140	14	21	76	150
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			120	97	20	23	10	9.9	8.5	8.3
Sodium, Total	mg/l			1800	1700	210	250	160	150	140	130
Sulfate	mg/l	500	S	**720**	**780**	46	59	180	170	180	190
Total Dissolved Solid (TDS)	mg/l	1000	S	**15000**	**16000**	**2900**	**3000**	880	880	700	710
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
General Physical Properties											
Apparent Color	ACU	15	S	5	10	10	**20**	ND	3	ND	3
Hardness (Total, as CaCO3)	mg/l			5270	5210	1140	1400	357	330	259	245
Lab pH	Units			7.36	7.38	7.67	7.47	7.91	7.89	8.04	7.5
Langelier Index	None			0.634	0.686	0.61	0.601	0.526	0.529	0.568	0.058
Odor	TON	3	S	ND	ND	2	2	ND	2	ND	2
Specific Conductance	umho/cm	1600	S	**18000**	**17000**	**3500**	**4800**	1500	1500	1100	1200
Turbidity	NTU	5	S	1	1.8	0.2	4.4	ND	0.1	ND	0.15
Metals											
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	ND	ND	6.5	9.3	1.2	1.3	0.77	0.75
Barium, Total	ug/l	1000	P	250	250	260	340	41	40	39	38
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.26	ND	ND	ND	ND	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	ND	ND	ND	ND	ND	ND	0.032	ND
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	**0.36**	**0.35**	0.036	**0.7**	ND	ND	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			581	569	98.3	119	29.4	26.9	21.9	20.3
Manganese, Total	ug/l	50	S	**370**	**350**	**250**	**360**	**120**	**110**	**55**	49
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	56	14	ND	ND	ND	ND
Volatile Organic Compounds											
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND
Others											
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	0.1	0.07	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			0.81	1	1.9	1.6	1.2	1.4	1.4	1.5

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.2
WEST COAST BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	PM-3 Madrid							
				Zone 1		Zone 2		Zone 3		Zone 4	
				5/14/2024	8/23/2024	5/14/2024	8/23/2024	5/14/2024	8/23/2024	5/14/2024	8/23/2024
General Minerals											
Alkalinity	mg/l			280	350	210	200	180	200	200	200
Anion Sum	meq/l			6.7	7.8	9.6	9.5	11	14	15	15
Bicarbonate as HCO3	mg/l			320	430	260	250	220	240	250	240
Boron	mg/l	1	N	0.28	0.33	0.16	0.16	0.18	0.25	0.39	0.4
Bromide	mg/l			ND	ND	0.97	0.95	1.6	2.1	2.1	2
Calcium, Total	mg/l			18.9	14.9	80.4	79.1	97.8	113	110	109
Carbon Dioxide	mg/l			251	311	193	187	163	183	188	187
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			6	6.8	9	9	10	13	14	14
Chloride	mg/l	500	S	32	26	190	190	230	300	310	320
Fluoride	mg/l	2	P	0.22	0.24	0.24	0.25	0.18	0.22	0.26	0.27
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			23	41	100	140	240	270	310	230
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			12	14	5.2	5	6.5	7.6	7.5	7.5
Sodium, Total	mg/l			92	110	70	73	79	110	130	140
Sulfate	mg/l	500	S	3.1	ND	0.61	ND	54	63	110	110
Total Dissolved Solid (TDS)	mg/l	1000	S	330	380	580	550	730	850	930	920
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
General Physical Properties											
Apparent Color	ACU	15	S	**25**	**35**	10	10	10	5	15	10
Hardness (Total, as CaCO3)	mg/l			84.9	73.3	294	288	346	411	403	399
Lab pH	Units			8.35	8.18	7.78	7.67	7.76	7.63	7.55	7.48
Langelier Index	None			0.643	0.455	0.522	0.39	0.494	0.454	0.351	0.279
Odor	TON	3	S	**4**	ND	**8**	ND	**8**	ND	**4**	2
Specific Conductance	umho/cm	1600	S	550	630	940	950	1100	1400	1600	**1700**
Turbidity	NTU	5	S	1.2	0.75	0.6	0.9	4	1.3	2.3	1.3
Metals											
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	1.1	ND	ND	ND	1.3	0.8	7.7	8
Barium, Total	ug/l	1000	P	33	29	35	31	86	100	92	89
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.37	0.21	ND	ND	ND	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.067	ND	ND	0.045	0.04	ND	ND	ND
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	ND	ND	0.21	**0.32**	0.045	0.071	**0.36**	**0.38**
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			9.16	8.78	22.5	22	24.7	31.5	31.2	30.6
Manganese, Total	ug/l	50	S	34	31	**69**	**58**	**86**	**84**	**380**	**380**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	17	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds											
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	0.76	0.89	ND	0.51
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	0.75	0.83
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	0.6
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND
Others											
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	0.14	0.19
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			3	2.9	0.81	0.74	2.4	1.1	1.2	1.1

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.2
WEST COAST BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	PM-4 Mariner							
				Zone 1		Zone 2		Zone 3		Zone 4	
				4/21/2024	9/22/2024	4/21/2024	9/22/2024	4/21/2024	9/22/2024	4/21/2024	9/22/2024
General Minerals											
Alkalinity	mg/l			280	310	170	180	170	170	240	260
Anion Sum	meq/l			6.4	7.1	230	240	9.5	9.1	12	12
Bicarbonate as HCO3	mg/l			340	380	200	220	210	200	290	310
Boron	mg/l	1	N	0.17	0.17	0.25	0.25	0.22	0.2	0.23	0.23
Bromide	mg/l			ND	ND	24	24	ND	ND	ND	ND
Calcium, Total	mg/l			27.4	27.8	1440	1570	45.9	35.2	76.2	76.4
Carbon Dioxide	mg/l			248	279	170	175	154	147	211	229
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			5.8	5.9	210	230	8.6	7.9	11	11
Chloride	mg/l	500	S	30	31	**7300**	**7700**	92	84	130	130
Fluoride	mg/l	2	P	0.3	0.31	ND	ND	0.34	0.42	0.21	0.2
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			67	60	76	77	29	22	60	51
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			7.8	8.3	66	71	6.2	6.1	7.3	7.7
Sodium, Total	mg/l			77	78	2400	2600	120	120	120	120
Sulfate	mg/l	500	S	ND	ND	**940**	**980**	160	160	160	160
Total Dissolved Solid (TDS)	mg/l	1000	S	340	330	**18000**	**15000**	540	500	680	680
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
General Physical Properties											
Apparent Color	ACU	15	S	5	10	5	10	5	15	5	10
Hardness (Total, as CaCO3)	mg/l			116	117	5470	5670	165	126	273	272
Lab pH	Units			7.93	7.96	7.17	7.28	8.17	8.21	8.01	8.03
Langelier Index	None			0.383	0.467	0.66	0.831	0.584	0.517	0.769	0.824
Odor	TON	3	S	ND	ND	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	560	560	**20000**	**19000**	880	830	1100	1100
Turbidity	NTU	5	S	0.1	0.2	1	1.3	0.85	1.5	0.15	0.3
Metals											
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
Barium, Total	ug/l	1000	P	19	19	200	200	75	61	59	58
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	ND	ND	0.44	ND	0.22	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.058	ND	ND	ND	0.076	0.14	ND	ND
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	0.057	0.052	0.19	0.19	ND	ND	0.12	0.12
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			11.6	11.5	457	422	12.3	9.2	20.1	19.8
Manganese, Total	ug/l	50	S	31	28	**840**	**800**	36	26	**80**	**74**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds											
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND
Others											
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	0.11	0.089
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	0.1	0.12	ND	ND	ND	ND
Total Organic Carbon	mg/l			1.5	1.5	0.96	0.91	1.5	1.5	0.98	0.96

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.2
WEST COAST BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	PM-5 Columbia Park											
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5		Zone 6	
				3/25/2024	8/12/2024	3/25/2024	8/12/2024	3/25/2024	8/12/2024	3/25/2024	8/12/2024	3/25/2024	8/12/2024	3/25/2024	8/12/2024
General Minerals															
Alkalinity	mg/l			700	710	910	900	410	440	310	300	180	200	210	210
Anion Sum	meq/l			16	17	19	18	9.2	9.7	7.1	7	39	40	13	13
Bicarbonate as HCO3	mg/l			850	860	1100	1100	500	530	370	370	220	250	260	260
Boron	mg/l	1	N	**2.5**	**2.6**	**1.9**	**2**	0.36	0.38	0.19	0.19	0.23	0.24	0.21	0.22
Bromide	mg/l			ND	1.5	ND	ND	ND	ND	ND	ND	3.3	3.3	0.57	0.55
Calcium, Total	mg/l			12.4	13.1	6.91	7.19	13.1	14.1	25.8	27	268	308	84.2	87.6
Carbon Dioxide	mg/l			620	630	807	793	371	386	273	267	169	188	195	189
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			15	15	17	17	8.7	9.2	6.7	6.9	36	38	12	12
Chloride	mg/l	500	S	90	99	15	17	32	33	34	36	**980**	**980**	160	160
Fluoride	mg/l	2	P	ND	0.54	ND	0.27	0.24	0.24	0.27	0.29	0.17	0.17	0.29	0.31
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			620	660	82	94	130	140	39	69	23	38	57	78
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			16	17	13	14	17	18	12	13	16	17	7.3	7.5
Sodium, Total	mg/l			310	320	370	370	160	170	92	95	370	380	140	140
Sulfate	mg/l	500	S	ND	ND	ND	ND	ND	ND	ND	ND	360	380	190	190
Total Dissolved Solid (TDS)	mg/l	1000	S	1000	970	**1100**	**1100**	520	500	380	380	**2900**	**2500**	780	730
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
General Physical Properties															
Apparent Color	ACU	15	S	**250**	**250**	**750**	**750**	**50**	**75**	**25**	**20**	5	3	ND	3
Hardness (Total, as CaCO3)	mg/l			54.8	57.8	38.6	39.8	61.6	65.8	117	121	956	1070	292	302
Lab pH	Units			8.07	8.09	8.15	8.21	8.23	8.27	8.05	8.07	7.63	7.65	7.74	8.01
Langelier Index	None			0.457	0.511	0.385	0.457	0.486	0.592	0.511	0.536	0.607	0.757	0.468	0.763
Odor	TON	3	S	**8**	**4**	**4**	ND	ND	ND	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	1600	1600	1600	**1700**	840	760	630	220	**4100**	**4200**	1200	1100
Turbidity	NTU	5	S	ND	0.2	0.15	0.2	0.2	1.3	0.15	0.15	0.25	0.35	ND	0.1
Metals															
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	0.51	0.45	3.6	3	0.75	0.59	0.68	ND	0.97	0.97	ND	ND
Barium, Total	ug/l	1000	P	93	84	24	21	28	26	25	22	120	110	170	150
Beryllium, Total	ug/l	4	P	ND	ND	0.12	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.94	0.92	2.9	2.7	0.62	0.53	ND	ND	ND	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.22	0.16	0.29	0.17	0.039	0.15	ND	0.11	ND	ND	ND	0.035
Copper, Total	ug/l	1300	P	ND	ND	1.9	1.3	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	0.17	0.17	0.28	0.28	0.045	0.045	0.037	0.034	0.099	0.09	ND	ND
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			5.82	6.1	5.18	5.31	6.99	7.4	12.7	13	69.8	73.3	19.9	20.2
Manganese, Total	ug/l	50	S	43	39	27	25	38	34	28	24	**280**	**270**	**120**	**110**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds															
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	1.6	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others															
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	0.056	ND	ND	0.053	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			28	28	19	17	5.6	5.4	2.7	2.7	1.4	1.5	1.1	1.1

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.2
WEST COAST BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	PM-6 Madrona Marsh					
				Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
				6/13/2024	6/13/2024	6/13/2024	6/13/2024	6/13/2024	6/13/2024
General Minerals									
Alkalinity	mg/l			420	130	140	250	180	180
Anion Sum	meq/l			55	94	210	7.8	43	10
Bicarbonate as HCO3	mg/l			520	160	170	310	220	220
Boron	mg/l	1	N	0.69	0.56	0.23	0.23	0.38	0.17
Bromide	mg/l			5.5	11	25	ND	3.8	ND
Calcium, Total	mg/l			232	219	1130	27.7	193	61.8
Carbon Dioxide	mg/l			386	121	138	222	167	160
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			50	79	190	6.9	38	9.5
Chloride	mg/l	500	S	**1600**	**3300**	**7300**	99	**1100**	130
Fluoride	mg/l	2	P	0.35	ND	ND	0.37	0.12	0.24
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND
Iodide	ug/l			150	610	270	79	94	70
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			33	55	110	6.6	18	6.3
Sodium, Total	mg/l			570	1300	1600	96	520	110
Sulfate	mg/l	500	S	23	ND	89	ND	360	150
Total Dissolved Solid (TDS)	mg/l	1000	S	**4100**	**6400**	**20000**	420	**2700**	610
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND
General Physical Properties									
Apparent Color	ACU	15	S	**250**	10	10	15	10	5
Hardness (Total, as CaCO3)	mg/l			1240	989	5880	126	741	225
Lab pH	Units			7.78	7.7	7.35	8.27	7.58	7.85
Langelier Index	None			1.01	0.329	0.657	0.658	0.426	0.405
Odor	TON	3	S	**16**	2	**64**	ND	ND	2
Specific Conductance	umho/cm	1600	S	**5200**	**8800**	**19000**	720	**4800**	1000
Turbidity	NTU	5	S	2.3	0.25	0.15	0.45	0.6	0.25
Metals									
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	0.57	ND	ND	ND
Arsenic, Total	ug/l	10	P	ND	ND	0.81	1.6	3.1	2
Barium, Total	ug/l	1000	P	620	670	**2900**	31	190	20
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	1.3	ND	0.49	0.22	0.51	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	1.3	1.9	ND	0.21	0.3	ND
Copper, Total	ug/l	1300	P	1.2	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	0.041	0.07	0.03	0.045	0.17	0.14
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			160	107	742	13.8	63	17.2
Manganese, Total	ug/l	50	S	20	**200**	**86**	**70**	**410**	**79**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds									
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			0.56	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND
Others									
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	0.066	0.093	0.13	ND	ND	ND
Total Organic Carbon	mg/l			7	3.7	2	1.9	2	1.3

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.2
WEST COAST BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	PM-7 Mariner									
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5	
				4/28/2024	9/8/2024	4/28/2024	9/8/2024	4/28/2024	9/8/2024	4/28/2024	9/8/2024	4/28/2024	9/8/2024
General Minerals													
Alkalinity	mg/l			370	320	190	170	280	260	240	220	210	190
Anion Sum	meq/l			8.5	7.3	230	240	20	20	12	11	11	10
Bicarbonate as HCO3	mg/l			210	320	230	210	340	320	290	260	260	230
Boron	mg/l	1	N	0.17	0.17	0.24	0.24	0.23	0.24	0.11	0.11	0.19	0.19
Bromide	mg/l			ND	ND	ND	ND	0.83	0.76	ND	ND	ND	ND
Calcium, Total	mg/l			12.6	12.4	1180	1180	31.2	29.1	14.8	15.2	17.3	17.3
Carbon Dioxide	mg/l			279	269	204	194	253	239	213	194	189	168
Carbonate as CO3	mg/l			200	60	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			8	6.5	220	210	19	17	10	9.6	9.7	8.9
Chloride	mg/l	500	S	34	34	**7300**	**7600**	290	290	110	110	99	94
Fluoride	mg/l	2	P	0.21	0.25	ND	ND	0.63	0.73	0.95	1.1	0.92	1
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			69	63	64	71	22	24	51	64	54	46
Nitrate (as NO3)	mg/l	45	P	ND	ND	23	ND	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	5.2	ND	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			65	38	60	73	11	10	7.1	6.8	7.1	6.7
Sodium, Total	mg/l			120	100	2900	2800	380	320	210	190	190	170
Sulfate	mg/l	500	S	0.51	ND	**910**	**1000**	280	290	200	180	190	180
Total Dissolved Solid (TDS)	mg/l	1000	S	490	340	**16000**	**15000**	**1200**	**1200**	680	680	620	610
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	5.2	ND	ND	ND	ND	ND	ND	ND
General Physical Properties													
Apparent Color	ACU	15	S	**30**	15	**50**	ND	**50**	**100**	**25**	15	15	15
Hardness (Total, as CaCO3)	mg/l			56.4	58.9	4790	4590	121	112	56	56.8	65.1	64.2
Lab pH	Units			9.66	8.97	7.01	6.91	7.71	7.75	7.95	7.96	7.92	7.95
Langelier Index	None			1.82	1.13	0.46	0.312	0.076	0.054	-0.003	-0.019	-0.013	-0.024
Odor	TON	3	S	**4**	**4**	ND	ND	ND	ND	2	ND	ND	ND
Specific Conductance	umho/cm	1600	S	760	630	**21000**	**21000**	**2000**	**2000**	1100	1100	1000	990
Turbidity	NTU	5	S	0.75	2	4.4	**20**	0.55	0.85	0.6	0.55	0.3	0.3
Metals													
Aluminum, Total	ug/l	1000	P	220	31	ND	ND	84	65	120	76	37	24
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	1.8	1	4	3.5	3.7	3.1	3.5	2.6	2.7	2.3
Barium, Total	ug/l	1000	P	22	27	290	250	42	38	25	25	27	23
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.4	0.24	0.45	ND	0.88	0.56	0.37	0.26	0.29	0.23
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.1	0.27	0.71	0.27	ND	0.053	ND	0.13	ND	0.075
Copper, Total	ug/l	1300	P	6.4	1.2	ND	ND	0.59	ND	0.69	0.93	ND	ND
Iron, Total	mg/l	0.3	S	ND	ND	**3.6**	**3.7**	**0.61**	**0.54**	0.12	0.1	0.18	0.17
Lead, Total	ug/l	15	P	0.82	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			6.04	6.81	448	400	10.5	9.44	4.64	4.6	5.32	5.12
Manganese, Total	ug/l	50	S	12	6.5	**11000**	**1700**	**1000**	**910**	**380**	**340**	**420**	**370**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	2.6	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	18	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds													
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others													
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.25
Surfactants	mg/l	0.5	S	ND	ND	0.083	0.065	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			2.6	2.1	2	1.8	4.4	3.1	3.3	2.3	2.7	2.2

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.2
WEST COAST BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	PM-8 Pioneer									
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5	
				5/20/2024	8/7/2024	5/20/2024	8/7/2024	5/20/2024	8/7/2024	5/20/2024	8/7/2024	5/20/2024	8/7/2024
General Minerals													
Alkalinity	mg/l			270	270	180	140	260	270	220	210	180	180
Anion Sum	meq/l			6.4	6.2	220	200	62	65	12	15	10	10
Bicarbonate as HCO3	mg/l			290	300	220	170	320	330	270	260	220	220
Boron	mg/l	1	N	0.15	0.15	0.18	0.18	0.37	0.38	0.16	0.15	0.25	0.25
Bromide	mg/l			ND	ND	21	21	ND	5.8	ND	ND	ND	ND
Calcium, Total	mg/l			20	21.4	1280	1360	329	335	30.4	31.7	40.7	40.5
Carbon Dioxide	mg/l			235	234	167	152	249	268	201	193	158	159
Carbonate as CO3	mg/l			38	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			5.9	5.9	190	200	59	60	11	11	9.4	9.6
Chloride	mg/l	500	S	30	30	**7100**	**6500**	**1700**	**1700**	100	110	97	97
Fluoride	mg/l	2	P	0.31	0.31	ND	ND	0.24	0.28	0.46	0.47	0.37	0.36
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			57	68	96	69	40	30	48	43	34	36
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			20	22	79	71	22	29	8.8	9.4	7.3	7.8
Sodium, Total	mg/l			85	83	2100	2200	770	790	190	200	140	150
Sulfate	mg/l	500	S	1.5	0.98	**860**	**880**	490	**520**	220	390	190	190
Total Dissolved Solid (TDS)	mg/l	1000	S	340	340	**19000**	**15000**	**4400**	**4000**	720	740	600	610
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
General Physical Properties													
Apparent Color	ACU	15	S	15	10	3	3	**50**	**75**	15	15	10	10
Hardness (Total, as CaCO3)	mg/l			82.1	88.5	4980	5250	1240	1230	120	124	151	149
Lab pH	Units			8.75	8.27	7.49	6.93	7.44	7.28	7.91	7.79	8	7.94
Langelier Index	None			1.05	0.599	0.956	0.309	0.601	0.48	0.225	0.1	0.376	0.312
Odor	TON	3	S	ND	ND	ND	ND	ND	ND	2	**4**	ND	2
Specific Conductance	umho/cm	1600	S	570	560	**19000**	**20000**	**6300**	**5900**	1200	1200	990	980
Turbidity	NTU	5	S	1.6	0.85	**15**	**18**	**11**	**13**	0.4	1.7	0.15	0.1
Metals													
Aluminum, Total	ug/l	1000	P	42	ND	ND	ND	ND	ND	ND	24	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	5.8	4.4	7.4	7.8	4.5	4.8	5	5	2.7	2.5
Barium, Total	ug/l	1000	P	15	18	320	290	160	140	33	32	71	67
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.22	ND	1.3	ND	0.4	0.27	0.38	0.34	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.11	0.076	0.41	ND	0.57	ND	0.042	ND	0.024	ND
Copper, Total	ug/l	1300	P	2.9	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	ND	ND	**1.7**	**1.8**	**2.2**	**2.4**	0.04	0.057	ND	ND
Lead, Total	ug/l	15	P	0.47	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			7.81	8.52	432	450	103	96.6	10.6	10.8	12	11.6
Manganese, Total	ug/l	50	S	26	27	**3700**	**3100**	**3400**	**3100**	**490**	**480**	**280**	**240**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	3.8	2.4	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	35	17	36	18	18	ND	ND	ND
Volatile Organic Compounds													
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	1.6
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others													
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	0.081	0.13	ND	0.073	ND	ND	ND	ND
Total Organic Carbon	mg/l			1.7	1.4	2.5	1.8	3.4	2.9	2.6	2.4	1.6	1.4

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.2
WEST COAST BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	PM-9 La Romeria Park									
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5	
				6/11/2024	8/8/2024	6/11/2024	8/8/2024	6/11/2024	8/8/2024	6/11/2024	8/8/2024	6/11/2024	8/8/2024
General Minerals													
Alkalinity	mg/l			270	270	180	160	320	310	240	230	290	270
Anion Sum	meq/l			18	18	190	190	15	14	12	12	14	14
Bicarbonate as HCO3	mg/l			330	330	220	190	400	370	300	280	350	330
Boron	mg/l	1	N	0.24	0.25	0.37	0.37	0.22	0.23	0.21	0.22	0.29	0.3
Bromide	mg/l			1.6	2	ND	ND	ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			66.2	67.6	926	929	54	61.2	51.4	58	88.8	91.5
Carbon Dioxide	mg/l			243	243	196	170	295	280	232	213	261	247
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			16	16	170	170	13	14	11	11	13	13
Chloride	mg/l	500	S	450	450	**6200**	**6000**	150	150	120	120	160	160
Fluoride	mg/l	2	P	0.18	0.18	ND	ND	0.28	0.27	0.27	0.26	0.11	0.1
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			110	120	75	77	110	110	100	99	110	110
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			27	28	55	54	9.8	10	11	10	7.7	8
Sodium, Total	mg/l			220	220	2100	2100	200	200	150	150	150	150
Sulfate	mg/l	500	S	ND	ND	**820**	**790**	190	180	170	170	200	200
Total Dissolved Solid (TDS)	mg/l	1000	S	990	1000	**16000**	**14000**	850	820	680	670	820	820
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
General Physical Properties													
Apparent Color	ACU	15	S	10	10	10	10	10	5	5	5	3	3
Hardness (Total, as CaCO3)	mg/l			316	318	3850	3820	209	234	192	213	327	334
Lab pH	Units			8	7.98	7.01	7.01	7.8	7.76	7.42	7.67	7.75	7.8
Langelier Index	None			0.702	0.69	0.331	0.283	0.508	0.513	0.008	0.294	0.635	0.667
Odor	TON	3	S	ND	ND	ND	ND	2	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	**1900**	**2000**	**17000**	**16000**	1400	1200	1100	1100	1300	1200
Turbidity	NTU	5	S	0.1	0.3	0.75	**15**	0.4	1.2	0.3	0.7	0.4	0.35
Metals													
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	2.1	1.1	3.6	3.9	4	4.3	5.4	5.2	1.6	1.6
Barium, Total	ug/l	1000	P	70	66	200	190	69	69	82	80	270	250
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	0.21	ND	ND	0.23	ND	ND	ND	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.093	ND	ND	ND	0.086	ND	ND	ND	0.071	0.91
Copper, Total	ug/l	1300	P	0.57	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	ND	ND	**1.4**	**1.3**	0.084	0.091	0.074	0.08	0.054	0.055
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			36.6	36.2	373	365	18	19.6	15.4	16.5	25.5	25.6
Manganese, Total	ug/l	50	S	**71**	**68**	**3400**	**3100**	**460**	**480**	**460**	**500**	**340**	**340**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	4.7	3.4	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	23	18	ND	ND	15	ND	ND	ND
Volatile Organic Compounds													
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others													
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	0.1	0.082	0.086	0.078	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	0.06	0.09	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			2	1.8	1.4	1.2	2	1.6	1.8	1.6	1.4	1.1

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.2
WEST COAST BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Westchester #1									
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5	
				5/23/2024	9/12/2024	5/23/2024	9/12/2024	5/23/2024	9/12/2024	5/23/2024	9/12/2024	5/23/2024	9/12/2024
General Minerals													
Alkalinity	mg/l			730	780	540	540	420	430	340	350	270	280
Anion Sum	meq/l			18	19	13	13	11	11	11	11	9.3	9.5
Bicarbonate as HCO3	mg/l			890	950	650	660	520	530	410	430	330	340
Boron	mg/l	1	N	**1.6**	**1.8**	0.79	0.85	0.38	0.4	0.23	0.24	0.22	0.23
Bromide	mg/l			0.72	0.8	ND	ND	ND	ND	ND	ND	ND	ND
Calcium, Total	mg/l			40.4	41.7	30.3	31.6	57.3	57	67.1	70.6	58.1	60.5
Carbon Dioxide	mg/l			655	701	478	483	382	391	306	319	245	256
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			17	19	12	12	10	11	9.6	10	8.3	8.8
Chloride	mg/l	500	S	110	120	76	76	68	68	71	70	70	70
Fluoride	mg/l	2	P	0.21	0.21	0.22	0.22	0.22	0.23	0.23	0.24	0.27	0.28
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			190	210	130	130	110	97	87	72	74	70
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			17	20	17	19	12	13	9.8	11	7.4	8
Sodium, Total	mg/l			290	330	190	200	120	120	87	94	77	84
Sulfate	mg/l	500	S	16	14	ND	ND	23	19	84	85	91	91
Total Dissolved Solid (TDS)	mg/l	1000	S	**1100**	**1200**	710	730	590	610	590	590	520	520
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
General Physical Properties													
Apparent Color	ACU	15	S	**500**	**400**	**75**	**100**	**20**	**20**	10	10	10	10
Hardness (Total, as CaCO3)	mg/l			174	179	146	152	243	241	280	294	238	247
Lab pH	Units			8.04	7.96	8.04	7.98	7.93	7.88	7.88	7.74	7.83	7.72
Langelier Index	None			0.946	0.897	0.745	0.7	0.824	0.778	0.751	0.646	0.552	0.476
Odor	TON	3	S	ND	**8**	ND	**4**	ND	ND	ND	ND	ND	ND
Specific Conductance	umho/cm	1600	S	**1700**	**1800**	1200	1200	980	980	950	950	840	840
Turbidity	NTU	5	S	4.7	**6.3**	0.95	0.65	0.35	0.35	0.3	0.3	0.35	0.45
Metals													
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	0.41	ND	ND	ND	0.84	0.85	ND	ND	1	0.75
Barium, Total	ug/l	1000	P	110	110	110	110	73	73	78	79	76	76
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	1.9	2	0.29	0.4	ND	ND	ND	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.36	0.076	0.054	0.029	ND	ND	ND	ND	ND	ND
Copper, Total	ug/l	1300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total	mg/l	0.3	S	0.12	0.13	0.13	0.13	0.23	0.23	0.14	0.14	0.16	0.17
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			17.6	18.3	17.1	17.7	24.3	23.9	27.2	28.5	22.4	23.3
Manganese, Total	ug/l	50	S	**80**	**74**	47	47	**140**	**130**	**120**	**120**	**120**	**120**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	39	15
Volatile Organic Compounds													
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	0.58	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	---	---	---	---	---	---	---	---	---	---
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others													
1,4-Dioxane	ug/l	1	N	ND	ND	ND	ND	ND	ND	ND	ND	0.14	0.17
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	mg/l			17	19	7	7.4	2.7	2.9	1.7	1.5	1.3	1.3

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.2
WEST COAST BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Wilmington #1									
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5	
				2/26/2024	8/12/2024	2/26/2024	8/12/2024	2/26/2024	8/12/2024	2/26/2024	8/12/2024	2/26/2024	8/12/2024
General Minerals													
Alkalinity	mg/l			140	350	180	130	180	170	150	160	180	190
Anion Sum	meq/l			16	19	24	21	25	22	17	16	20	21
Bicarbonate as HCO3	mg/l			170	430	220	160	220	210	180	200	220	230
Boron	mg/l	1	N	0.23	0.23	0.24	0.25	0.3	0.32	0.22	0.23	0.21	0.22
Bromide	mg/l			2.7	2.8	2.9	3.2	3.3	3.7	ND	1	ND	1.4
Calcium, Total	mg/l			103	108	185	162	181	194	84	70.8	143	150
Carbon Dioxide	mg/l			127	386	166	123	171	162	134	147	166	178
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			15	16	24	23	24	25	16	14	19	20
Chloride	mg/l	500	S	460	490	**650**	**670**	**690**	**770**	370	320	430	420
Fluoride	mg/l	2	P	ND	0.1	ND	ND	ND	ND	ND	0.16	ND	0.12
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			880	810	440	490	550	580	37	41	62	68
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			13	13	11	12	10	11	8.2	7.9	10	11
Sodium, Total	mg/l			170	170	250	260	260	260	210	200	180	180
Sulfate	mg/l	500	S	8.8	12	120	120	75	79	170	170	210	250
Total Dissolved Solid (TDS)	mg/l	1000	S	**1300**	1000	**2000**	**1500**	**2000**	**1700**	1000	880	**1400**	**1200**
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
General Physical Properties													
Apparent Color	ACU	15	S	3	3	5	3	5	5	5	5	5	5
Hardness (Total, as CaCO3)	mg/l			393	412	665	581	638	686	333	280	549	576
Lab pH	Units			7.8	6.95	7.55	7.42	7.54	7.47	7.79	7.74	7.62	7.52
Langelier Index	None			0.373	-0.023	0.424	0.137	0.404	0.364	0.34	0.26	0.434	0.4
Odor	TON	3	S	**32**	**16**	**32**	**32**	**130**	**32**	**16**	**16**	**32**	**32**
Specific Conductance	umho/cm	1600	S	**1700**	1000	**2700**	**2600**	**2900**	**2900**	**1900**	620	**2200**	**1900**
Turbidity	NTU	5	S	0.1	0.15	0.2	0.15	0.1	0.15	0.2	0.15	4	3.7
Metals													
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	ND	0.53	0.51	0.65	0.69	0.71	ND	ND	ND	ND
Barium, Total	ug/l	1000	P	20	20	14	13	22	23	35	28	150	150
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexavalent Chromium (Cr VI)	ug/l	10	P	0.074	0.073	ND	ND	0.35	0.066	0.024	0.1	ND	ND
Copper, Total	ug/l	1300	P	1	ND	1.6	ND	1.7	ND	1.4	ND	1.1	ND
Iron, Total	mg/l	0.3	S	ND	ND	0.05	0.045	ND	ND	ND	ND	0.18	0.22
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			33	34.5	49	42.8	45.3	49	29.9	25.1	46.8	49.2
Manganese, Total	ug/l	50	S	38	38	24	20	7	6.9	14	11	**88**	**94**
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium, Total	ug/l	50	P	3.1	3.1	3.5	3.7	4.6	4.3	1.2	0.77	1.6	1.7
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds													
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			5.6	7.3	19	28	15	16	ND	ND	3.3	3.5
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	6.3	9.3	**97**	**190**
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	**58**	**110**	**69**	**110**	**41**	**82**	**24**	**13**	**140**	**160**
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others													
1,4-Dioxane	ug/l	1	N	0.14	0.19	0.52	0.47	0.69	0.59	ND	ND	ND	ND
Perchlorate	ug/l	6	P	3.3	ND	5.2	ND	1.3	ND	ND	ND	1.1	ND
Surfactants	mg/l	0.5	S	0.24	0.29	0.36	0.31	0.3	0.26	0.11	0.07	0.37	0.29
Total Organic Carbon	mg/l			3.3	3.3	4.5	4.2	4.5	4.1	2	1.7	3.7	3

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.2
WEST COAST BASIN WATER QUALITY RESULTS
REGIONAL GROUNDWATER MONITORING - WATER YEAR 2023-24

Constituents	Units	MCL	MCL Type	Wilmington #2									
				Zone 1		Zone 2		Zone 3		Zone 4		Zone 5	
				3/5/2024	8/13/2024	3/5/2024	8/13/2024	3/5/2024	8/13/2024	3/5/2024	8/13/2024	3/5/2024	8/13/2024
General Minerals													
Alkalinity	mg/l			230	220	400	410	150	140	290	180	180	280
Anion Sum	meq/l			22	23	30	32	18	18	11	8.6	62	62
Bicarbonate as HCO3	mg/l			280	270	490	500	190	170	350	220	220	340
Boron	mg/l	1	N	0.56	0.55	**2**	**2**	0.2	0.2	0.63	0.51	0.53	0.64
Bromide	mg/l			ND	2.5	7.6	7.4	4	3.9	ND	1.2	6.1	6.4
Calcium, Total	mg/l			15.5	16.8	36.6	34.8	97	102	18.3	168	173	18.7
Carbon Dioxide	mg/l			201	193	357	366	142	131	256	157	164	261
Carbonate as CO3	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cation Sum	meq/l			21	22	29	29	17	17	9.9	56	58	9.8
Chloride	mg/l	500	S	**640**	**670**	**790**	**840**	**540**	**550**	180	180	**1800**	**1800**
Fluoride	mg/l	2	P	ND	0.38	ND	0.35	0.13	0.15	0.6	0.66	ND	0.18
Hydroxide as OH, Calculated	mg/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodide	ug/l			140	160	210	3400	800	1000	370	440	51	58
Nitrate (as NO3)	mg/l	45	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite, as Nitrogen	mg/l	1	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium, Total	mg/l			15	17	18	20	12	13	6	26	25	6.6
Sodium, Total	mg/l			420	440	570	570	210	210	190	910	950	180
Sulfate	mg/l	500	S	ND	ND	ND	ND	ND	ND	ND	ND	320	290
Total Dissolved Solid (TDS)	mg/l	1000	S	**1300**	**1300**	**1700**	**1800**	**1200**	**1200**	600	620	**3700**	**3900**
Nitrate + Nitrite, as Nitrogen	mg/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
General Physical Properties													
Apparent Color	ACU	15	S	**40**	**40**	**100**	**100**	10	5	**120**	**100**	15	15
Hardness (Total, as CaCO3)	mg/l			92.5	99	199	199	394	408	80.1	768	794	81.3
Lab pH	Units			8.24	8.21	8.04	7.96	7.59	7.5	8.13	8.11	7.66	7.64
Langelier Index	None			0.205	0.191	0.581	0.481	0.178	0.08	0.365	1.1	0.409	-0.393
Odor	TON	3	S	**4**	**4**	**4**	**16**	ND	ND	**4**	2	**16**	**16**
Specific Conductance	umho/cm	1600	S	**2500**	**2700**	**3400**	**3400**	**2000**	**2300**	1000	1100	**6400**	**6100**
Turbidity	NTU	5	S	0.35	ND	0.3	0.75	0.1	0.1	0.75	0.25	0.15	0.05
Metals													
Aluminum, Total	ug/l	1000	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony, Total	ug/l	6	P	ND	ND	ND	0.068	ND	ND	ND	ND	ND	ND
Arsenic, Total	ug/l	10	P	0.58	ND	1.9	1.7	0.67	0.75	ND	1.4	1.5	0.39
Barium, Total	ug/l	1000	P	12	14	67	66	31	31	15	74	69	16
Beryllium, Total	ug/l	4	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium, Total	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ug/l	50	P	ND	ND	ND	0.63	3.8	ND	ND	ND	ND	0.79
Hexavalent Chromium (Cr VI)	ug/l	10	P	ND	ND	0.052	0.18	0.036	0.06	0.2	0.12	ND	ND
Copper, Total	ug/l	1300	P	2.4	2	3	2.3	1.3	ND	1.5	4	5.3	1.2
Iron, Total	mg/l	0.3	S	ND	ND	0.055	0.057	0.039	0.039	ND	0.0081	ND	0.018
Lead, Total	ug/l	15	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium, Total	mg/l			13	13.8	26.2	27.1	36.9	37.3	8.35	84.9	88.2	8.38
Manganese, Total	ug/l	50	S	6.5	6.7	23	13	15	16	5.4	40	42	5.5
Mercury	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, Total	ug/l	100	P	ND	ND	ND	0.95	ND	ND	ND	1.7	ND	ND
Selenium, Total	ug/l	50	P	2.3	2.6	8.9	8.7	3.1	4.1	0.84	7.3	6.2	1.3
Silver, Total	ug/l	100	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium, Total	ug/l	2	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc, Total	ug/l	5000	S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds													
1,1-Dichloroethane	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/l	1	P	ND	ND	0.54	0.47	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/l	70	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl Chloride)	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-Isopropyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/l	300	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ug/l	1200	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/l	13	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/l	100	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tert Amyl Methyl Ether	ug/l			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TBA	ug/l	12	N	5.9	4	6.2	7	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/l	150	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Trihalomethanes	ug/l	80	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ug/l	10	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	ug/l	5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (VC)	ug/l	0.5	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/l	1750	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Others													
1,4-Dioxane	ug/l	1	N	ND	ND	0.19	0.11	ND	ND	ND	ND	ND	ND
Perchlorate	ug/l	6	P	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Surfactants	mg/l	0.5	S	ND	ND	ND	0.097	ND	ND	ND	0.068	ND	0.044
Total Organic Carbon	mg/l			3.1	3.4	11	12	1.9	1.7	6.8	7.2	2.3	2.2

MCL: Maximum Contaminant Level, bold value indicates concentration exceeds MCL. (P) Primary MCL (S) Secondary MCL (N) Notification Level (ND) Not Detected (---) Not Analyzed

TABLE 3.3
QUALITY OF REPLENISHMENT WATER

Constituent	Units	Regulatory Limit	IMPORTED WATER			RECYCLED WATER								LOCAL WATER
			Treated Blend of Colorado River & State Water Project [A]	Untreated Colorado River [B]	Untreated State Water Project [C]	WBMWD ELWRF [D]	LADWP TIWRP [E]	WRD LVL AWTF [F]	WRD ARC AWTF [G]	LACSD Pomona WRP [H]	LACSD San Jose Creek East WRP [H]	LACSD San Jose Creek West WRP [H]	LACSD Whittier Narrows WRP [H]	Stormwater [I]
			2023	2023	2023	2023	2023	2024	2024	2023-2024	2023-2024	2023-2024	2023-2024	2022-2023
Arsenic	µg/L	MCL = 10	ND / ND	ND	2.1	ND	ND	ND	ND	0.24	1.2	ND	0.18	NA
Chloride	mg/L	SMCL = 500	103 [J] / 42 [J]	111 [J]	51 [J]	10	115 [K]	55	15	141	139	115	115	NA
Hexavalent Chromium	µg/L	MCL = 10	ND / ND	ND	ND	0.42	1.5	0.12	0.04	0.16	0.26	0.22	0.16	NA
Iron	µg/L	SMCL = 300	ND / ND	ND	631	ND	11	ND	0.03	19	34	38	31	NA
Manganese	µg/L	SMCL = 50	ND / ND	ND	24	ND	0.56	1.7	0.62	10.8	7.6	4.1	9.5	NA
Nitrate (as N)	mg/L	MCL = 10	0.70 / 1.0	ND	0.70	0.33	0.84	3.3	1.1	5.4	6.0	4.5	6.3	NA
Perchlorate	µg/L	MCL = 6	ND / ND	ND	ND	ND	ND	ND	0.24	0.17	0.06	0.20	0.11	NA
Tetrachloroethylene (PCE)	µg/L	MCL = 5	ND / ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Trichloroethylene (TCE)	µg/L	MCL = 5	ND / ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Total Dissolved Solids (TDS)	mg/L	SMCL = 1,000	583 [J] / 308 [J]	649 [J]	208 [J]	106	340 [K]	165	82.6	558	651	562	592	NA
Alkalinity	mg/L	None	110 [J] / 97 [J]	125 [J]	70 [J]	80	NA	NA	38	158	184	183	169	NA
Boron	µg/L	NL = 1,000	130 / 190	140	150	380	604 [K]	320	205	255	319	325	278	NA
Chromium, Total	µg/L	MCL = 50	ND / ND	ND	ND	ND	0.84	ND	ND	0.87	0.78	1.0	1.1	NA
Copper, Total	µg/L	SMCL = 1,000	ND / ND	ND	ND	2.0	5.8	0.30	0.42	4.5	3.0	3.8	3.0	12
1,4-Dioxane	µg/L	NL = 1	NA	NA	NA	ND	ND	0.08	0.03	0.30	0.51	0.43	0.12	NA
Hardness	mg/L	None	256 [J] / 146 [J]	298 [J]	89 [J]	55	102	29.1	28.7	215	236	214	214	107
Lead, Total	µg/L	AL = 15	ND / ND	ND	ND	ND	0.26	ND	ND	0.05	0.05	0.05	0.02	5.3
Methyl tertiary butyl ether (MTBE)	µg/L	SMCL = 5	ND / ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Nitrite (as N)	mg/L	MCL = 1	ND / ND	ND	ND	0.06	ND	0.21	0.003	0.12	ND	0.10	0.15	NA
n-Nitrosodimethylamine (NDMA)	ng/L	NL = 10	ND / 3.5	NA	NA	1.9	0.64	ND	1.2	50	70	13	7.0	NA
pH	pH Units	None	8.5 / 8.6	8.2	7.9	7.4	8.1	8.2	7.4	7.1	7.2	7.3	7.3	NA
Selenium	µg/L	MCL = 50	ND / ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Specific Conductance	µS/cm	SMCL = 1,600	951 [J] / 511 [J]	1,048 [J]	372 [J]	61	496	328	NA	919	1,072	913	1,006	NA
Sulfate	mg/L	SMCL = 500	212 [J] / 90 [J]	240 [J]	30 [J]	0.19	7.3 [K]	1.1	2.4	65.6	113	87	109	NA
Total Organic Carbon (TOC)	mg/L	None [L]	3.0 / 2.6	3.2 [J]	4.0 [J]	0.21	0.25	0.34	0.18	6.6	5.9	6.2	5.9	NA
Turbidity	NTU	SMCL = 5	0.03 [J] / 0.04 [J]	0.72 [J]	2.6 [J]	0.05	0.10	0.18	0.02	0.40	0.50	0.50	0.10	NA

See footnotes on following page.

TABLE 3.3
QUALITY OF REPLENISHMENT WATER

Notes:

A = Used at the seawater intrusion barriers: generally, Diemer Plant effluent / Jensen Plant effluent (Data Source #1).

B = Historically used at the Montebello Forebay spreading grounds (Lake Mathews) (Data Source #1).

C = Historically used at the Montebello Forebay spreading grounds (Silverwood Lake) (Data Source #1).

D = Effluent of Edward C. Little Water Recycling Facility (ELWRF) before blending with treated water from Colorado River/State Water Project; used at the West Coast Basin Seawater Intrusion Barrier (Data Source #4).

E = Effluent of Terminal Island Water Reclamation Plant/Advanced Water Treatment Facilities (TIWRP) before blending with treated water from Colorado River/State Water Project; used at the Dominguez Gap Seawater Intrusion Barrier. Estimated values used where reported as "detected, but not quantified" [DNQ] (Data Source #6).

F = Effluent of Leo J. Vander Lans Advanced Water Treatment Facility (LVL AWTF) before blending with treated water from Colorado River/State Water Project; used at the Alamitos Gap Seawater Intrusion Barrier (Data Source #7).

G = Effluent of Albert Robles Center for Water Recycling and Environmental Learning Advanced Water Treatment Facility (ARC AWTF); used at the Montebello Forebay spreading grounds (Data Source #8).

H = Effluent of water reclamation plants (WRPs); used at the Montebello Forebay spreading grounds (Data Source #3).

I = Average concentration of water samples collected from LACPW San Gabriel River Monitoring Station S14 from July 2022 through June 2023 (four storm events total) (Data Source #5).

J = Average concentration for Water Year October 2023 through September 2024 (Data Source #2).

K = Average concentration in blended water (treatment plant effluent & treated water from Colorado River/State Water Project), which is delivered to the Dominguez Gap Seawater Intrusion Barrier (Data Source #6).

L = California's 2018 Groundwater Replenishment Using Recycled Water Regulations specify the following TOC limits for groundwater replenishment projects:

- For surface spreading (surface application), TOC limit = 0.5 mg/L divided by the 120-month running monthly average recycled water contribution (e.g., the TOC limit for a 100% recycled water project would be 0.5 mg/L.) applies based on the 1) the 20-week running average of all TOC results; and 2) the average of the last four TOC results. For compliance determination, TOC may be monitored in one of the following: 1) undiluted recycled municipal wastewater prior to application or within the zone of percolation; 2) diluted percolated recycled municipal wastewater, with the value amended to negate the effect of the diluent water; or 3) undiluted recycled municipal wastewater prior to application, with the value amended using a soil-aquifer treatment factor approved by the Division of Drinking Water.
- For injection (subsurface application), TOC limit = 0.5 mg/L applies based on the 1) the 20-week running average of all TOC results; and 2) the average of the last four TOC results. For compliance determination, TOC is monitored in the applied recycled municipal wastewater.

NA = Not Available/Analyzed
ND = Not Detected
NS = Not sampled due to plant shutdown
mg/L = milligrams per liter
µg/L = micrograms per liter
µS/cm = microSiemen per centimeter

NTU = Nephelometric Turbidity Units
MCL = Maximum Contaminant Level
SMCL = Secondary Maximum Contaminant Level
AL = Action Level
NL = Notification Level
WRP = Water Reclamation Plant

LACPW = Los Angeles County Public Works
LACSD = Los Angeles County Sanitation Districts
LADWP = Los Angeles Department of Water and Power
MWD = Metropolitan Water District of Southern California
WBMWD = West Basin Municipal Water District
WRD = Water Replenishment District of Southern California

Sources of Data:

(1) 2023 Water Quality Report to MWD Member Agencies (Metropolitan Water District of Southern California, March 2024)

(2) Table D, Monthly Analyses of the District Water Supplies (Metropolitan Water District of Southern California, October 2023 - September 2024)

(3) October 2023 - September 2024 Annual Monitoring Report, Montebello Forebay Groundwater Recharge (Los Angeles County Sanitation Districts [LACSD], December 13, 2024)

(4) Annual West Coast Basin Barrier Project Monitoring Report for 2023, Edward C. Little Water Recycling Facility (West Basin Municipal Water District [WBMWD], March 27, 2024)

(5) Annual stormwater monitoring data provided by Los Angeles County (Los Angeles County Public Works [LACPW])

(6) Annual Monitoring Report - January - December 2023, Harbor Water Recycling/Dominguez Gap Barrier Project (City of Los Angeles, Bureau of Sanitation)

(7) 2024 Preliminary Annual Summary Data for Alamitos Barrier Recycled Water Project, Leo J. Vander Lans Water Treatment Facility (LVL AWTF).

(8) 2024 Preliminary Annual Summary Data for Albert Robles Center for Water Recycling and Environmental Learning Advanced Water Treatment Facility (ARC AWTF).

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TABLE 3.4
MAJOR MINERAL WATER QUALITY GROUPS

NESTED MONITORING WELL LOCATIONS	GROUP A ZONES Generally Calcium Bicarbonate or Calcium Bicarbonate/Sulfate Dominant	GROUP B ZONES Generally Calcium-Sodium-Bicarbonate or Sodium-Bicarbonate Dominant	GROUP C ZONES Generally Sodium-Chloride Dominant	GROUP D ZONES Generally Different Than Groups A, B, and C
CENTRAL BASIN				
Bell #1	2, 3, 4, 5, 6	1		
Bell Gardens #1	1, 2, 3, 4, 5, 6			
Cerritos #1	4, 5, 6	1, 2, 3		
Cerritos #2	1, 2, 3, 4, 5, 6			
Cerritos #3		1, 2, 4, 5, 6		3, 7
Commerce #1	3, 4, 5, 6		1	2
Compton #1	2, 3, 4, 5	1		
Compton #2	2, 3, 4, 5	1		6
Downey #1	1, 2, 3, 4, 5, 6			
Huntington Park #1	1, 2, 3, 4			
Inglewood #2		1, 2, 3		
Lakewood #1	2, 3, 4, 5, 6	1		
Lakewood #2		1, 2, 3, 4, 5, 6, 7, 8		
La Mirada #1	4, 5	1, 2, 3		
Long Beach #1	4	1, 2, 3, 5		6
Long Beach #2	4, 5, 6	1, 2, 3		
Long Beach #6	6	1, 2, 3, 4, 5		
Los Angeles #1	1, 2, 3, 4, 5			
Los Angeles #2	2, 3, 4			
Los Angeles #3	2, 3, 4, 5, 6	1		
Los Angeles #4	3, 4, 5, 6	1, 2		
Los Angeles #5			1, 2	3, 4, 5, 6
Los Angeles #6		2	1, 3	4
Lynwood #1	3, 4, 5, 6, 7, 8, 9	1, 2		
Montebello #1	3, 4, 5	2		1
Montebello #2		1		2, 3, 4, 5
Norwalk #1	4, 5	1, 2, 3		
Norwalk #2	3, 4, 5, 6	1, 2		
Paramount #1				1, 2, 3, 4, 5, 6, 7
Pico #1	2, 3, 4	1		
Pico #2	1, 2, 3, 4, 5, 6			
Rio Hondo #1	1, 2, 3, 4, 5, 6			
Seal Beach #1	6	1, 2, 3, 4, 5		7
South Gate #1	1, 2, 3, 4, 5			
Willowbrook #1	2, 3, 4	1		
Whittier #1	3, 4, 5		1, 2	
Whittier #2	1, 3, 4, 5, 6	2		
Whittier Narrows #1	3, 4, 5, 6, 7, 8, 9	2	1	
WEST COAST BASIN				
Carson #1	3, 4	1, 2		
Carson #2	1, 2, 3, 4, 5			
Carson #3	5, 6	1, 2, 3, 4		
Chandler #3	2	1		
Gardena #1	2, 3	1	4	
Gardena #2	2, 3, 4, 5	1		
Hawthorne #1	5, 6	1, 2, 3, 4		
Inglewood #1	3, 4, 5			1
Inglewood #3		1, 2, 3, 4, 5	6, 7	
Lawndale #1	4, 5	1, 2, 3		6
Lomita #1	2, 3, 4, 5			1
Long Beach #3		1, 2, 3	4, 5	
Long Beach #8		1, 2, 3	6	4, 5
Manhattan Beach #1		3	5,6	7
PM-2 Police Station			1,2,4	3
PM-3 Madrid	3, 4	1, 2		
PM-4 Mariner	4	1	2	3
PM-5 Columbia Park	6	1, 2, 3, 4	5	
PM-6 Madrona Marsh	6	2, 4	3, 5	1
PM-7 Mariner		1	2	3, 4, 5
PM-8 Pioneer		1	2, 3	4, 5
PM-9 La Romeria Park	5	1	2	3, 4
Westchester #1		1, 2, 3, 4, 5		
Wilmington #1			1, 2, 3, 4, 5	
Wilmington #2		1	2, 3, 4, 5	

Note - Values shown above represent the various zones at each nested well location classified by major mineral water quality group.

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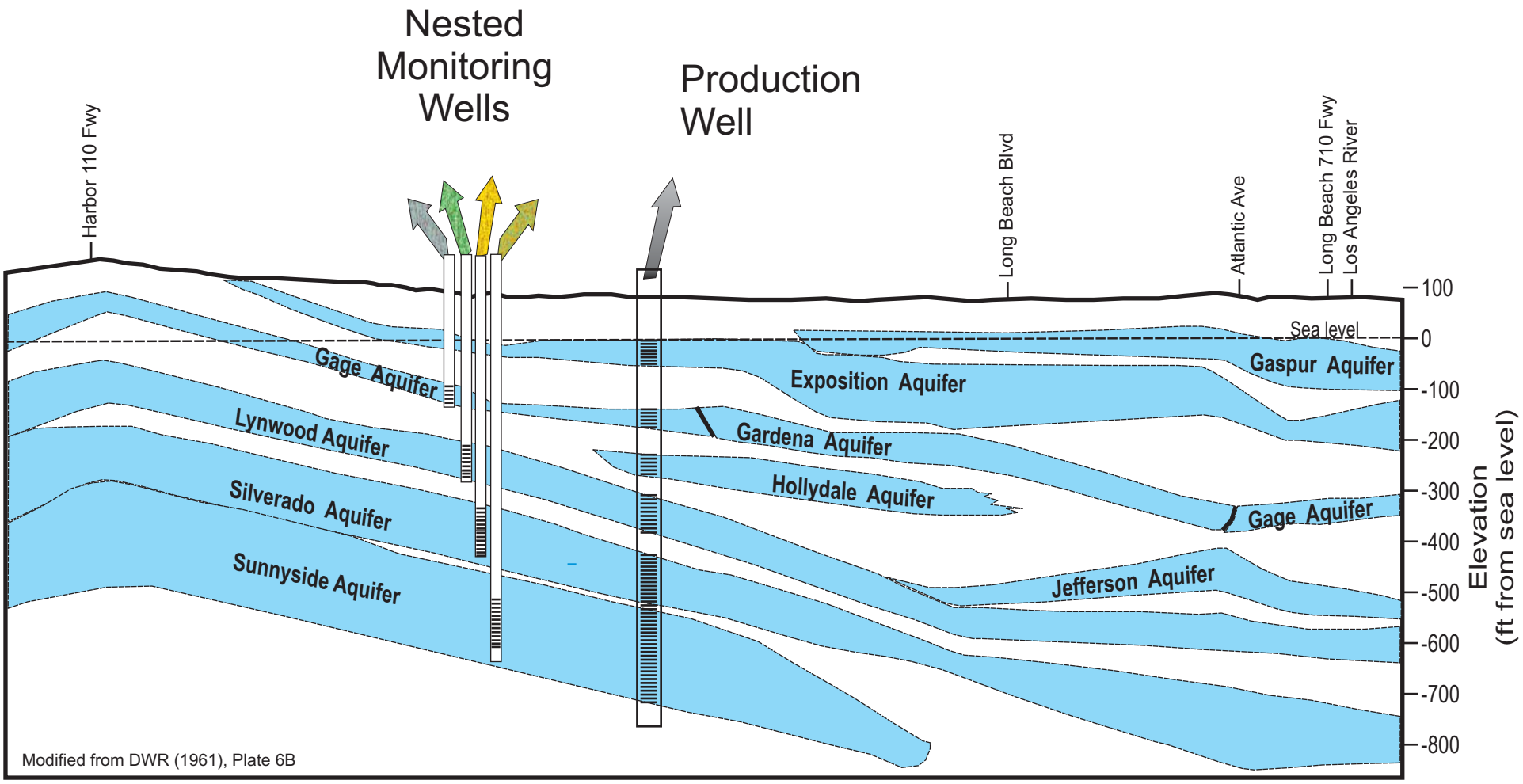
FIGURES

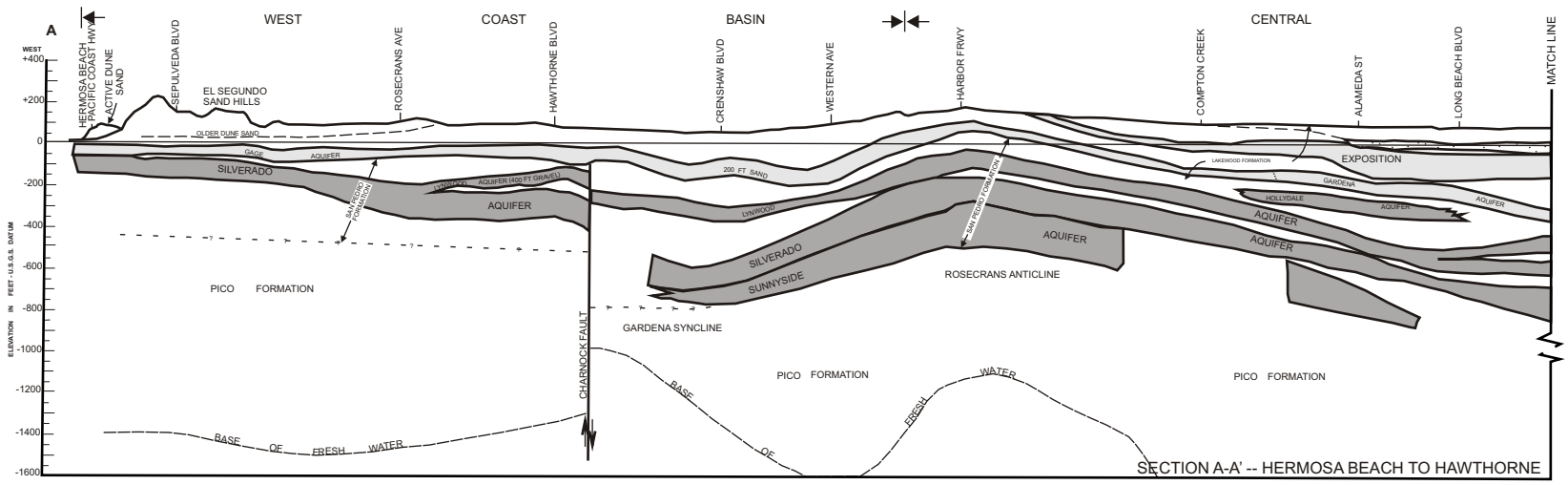

Figure 1.1
Water Replenishment District
Service Area
4040 Paramount Blvd.
Lakewood, CA 90712
(562) 275-4300
www.wrd.org
WRD
WATER REPLENISHMENT DISTRICT
Central
West
Coast
Basin
Los Angeles Forebay
Montebello Forebay
Whittier Area
Non-Pressure Area
Pressure Area
West Coast Barrier Project
Dominguez Gap Barrier Project
Alamitos Gap Barrier Project
Dominguez Gap Spreading Grounds
Rio Hondo Spreading Grounds
San Gabriel River Spreading Grounds
Long Beach Harbor
Los Angeles Harbor
San Pedro Bay
Marina del Rey
Ballona Creek
Arroyo Seco
Rio Hondo
San Gabriel River
Los Angeles River
Compton Creek
Dominguez Channel
Coyote Creek
Alhambra Wash
Eaton Wash
Big Dalton Wash
Walnut Creek
San Jose Creek
La Mirada Creek
La Canada Verde Creek
Brea Creek
Carbon Creek
Los Angeles Harbor
Uplift
Inglewood
Charnock Fault
N
0 1 2 3 4 5
Miles

FIGURE 1.2
NESTED MONITORING WELLS vs. PRODUCTION WELLS
FOR AQUIFER-SPECIFIC DATA

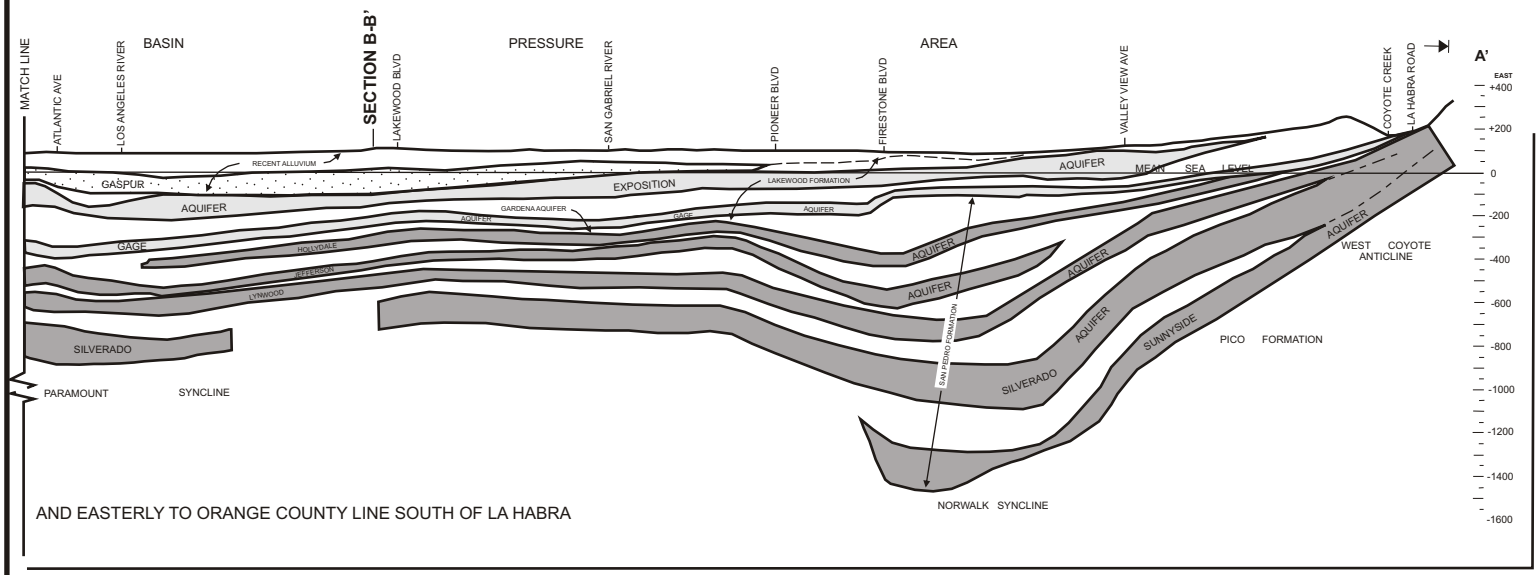


Production wells are typically perforated across multiple aquifers producing an average water quality. Nested monitoring wells are screened in a portion of a specific aquifer, providing water quality and water level information for the specific zone.


Figure 1.3
Monitoring Well Locations
Legend
WRD Key Nested Monitoring Well*
WRD Nested Monitoring Well
Other Monitoring Well with Groundwater Elevation (feet mean sea level)
A A' Location of Cross Section (Figure 1.5)
B B' Location of Cross Section (Figure 1.4)
*WRD Key Monitoring Wells used for Hydrograph Figures (Section 2) and for Salt and Nutrient Monitoring (Section 4).
Central Basin Sub-Area Boundary
Seawater Intrusion Barrier
WRD Service Area Boundary
See Figure 1.1 for Details
LosAngeles 6
LosAngeles 5
Los Angeles 3
Los Angeles 2
Commerce 1
Montebello 2
Whittier Narrows 1
Whittier Narrows 2
Montebello 1
Pico 1
Los Angeles 1
Huntington Park 1
Bell 1
Rio Hondo 1
Pico 2
Whittier 2
LADWP MW-01
Los Angeles 4
Inglewood 1
Inglewood 2
Westchester 1
SouthGate 2
Bell Gardens 1
South Gate 1
Hawkins 1
Norwalk 2
Whittier 1
Koontz 1
La Habra Heights 1
Inglewood 3
Lynwood 1
Willowbrook 1
Downey 1
Norwalk 1
Hawthorne 1
Gardena 1
Compton 2
Compton 1
Paramount 1
Cerritos 2
Cerritos 3
La Mirada 1
Lawndale 1
Manhattan Beach 1
Gardena 2
PM-5 Columbia Park
PM-7 Mariner
PM-9 La Romeria Park
PM-8 Pioneer
PM-1 Columbia
PM-4 Mariner
PM-2 Police Station 2
PM-3 Madrid
Sepulveda 1
PM-6 Madrona Marsh
Carson 3
Carson 1
Carson 2
Lakewood 1
Long Beach 2
Lakewood 2
Cerritos 1
Long Beach 3
Long Beach 6
Lomita 1
Wilmington 1
Long Beach 7
Long Beach 8
Long Beach 1
Chandler 3
Wilmington 2
Long Beach 4
Seal Beach 1
A
A'
B
B'
Marina del Rey
Ballona Creek
Arroyo Seco
Alhambra Wash
Eaton Wash
Rio Hondo
Big Dalton Wash
Walnut Creek
San Gabriel River
San Jose Creek
Los Angeles River
Newport
Inglewood Fault
Dominguez
Compton Creek
La Mirada Creek
La Canada Verde Creek
Brea Creek
San Gabriel River
Carbon Creek
Uplift
Channel
San Pedro Bay
Long Beach Harbor
Los Angeles Harbor
N
0 1 2 3 4 5
Miles
WRD
WATER REPLENISHMENT DISTRICT



SECTION A-A' -- HERMOSA BEACH TO HAWTHORNE



AND EASTERLY TO ORANGE COUNTY LINE SOUTH OF LA HABRA

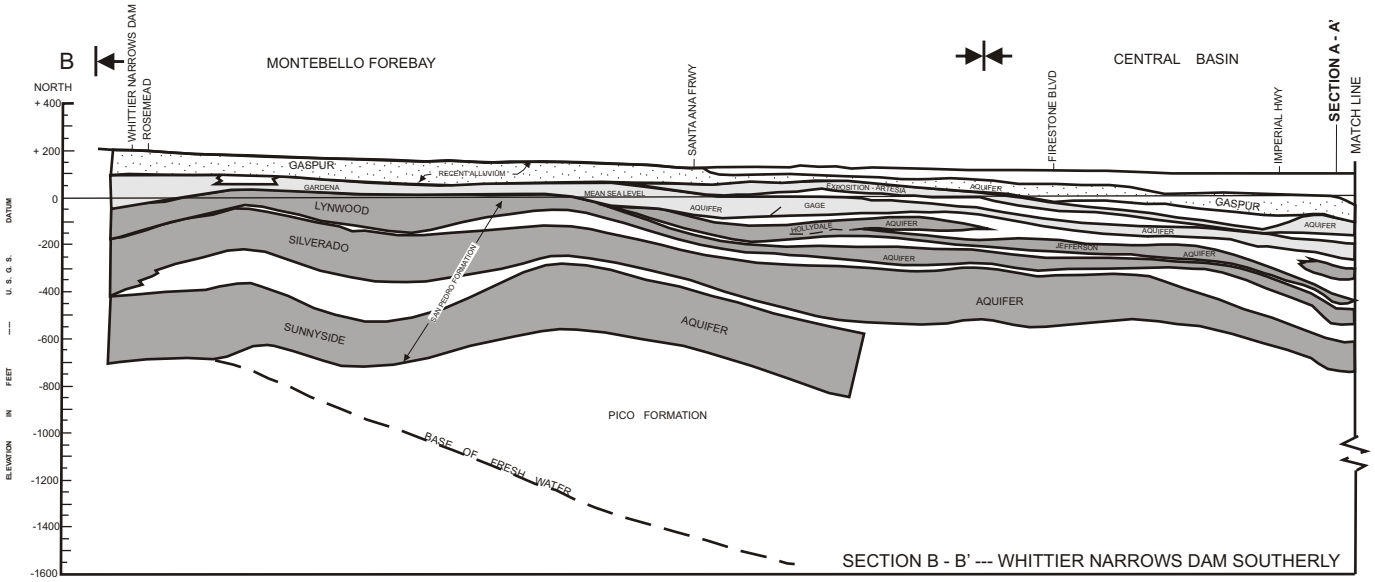
LEGEND

- AQUICLUDES AND DEEPER UNDIFFERENTIATED FORMATIONS
- AQUIFERS IN RECENT ALLUVIUM (INCLUDES THE GASPUR AND BALLONA AQUIFERS)
- AQUIFERS IN LAKEWOOD FORMATION (INCLUDES THE ARTESIA, EXPOSITION, GAGE, AND GARDENA AQUIFERS)
- AQUIFERS IN THE SAN PEDRO FORMATION (INCLUDES THE HOLLYDALE, JEFFERSON, LYNWOOD, SILVERADO AND SUNNYSIDE AQUIFERS)

IDEALIZED GEOLOGIC CROSS SECTION AA'

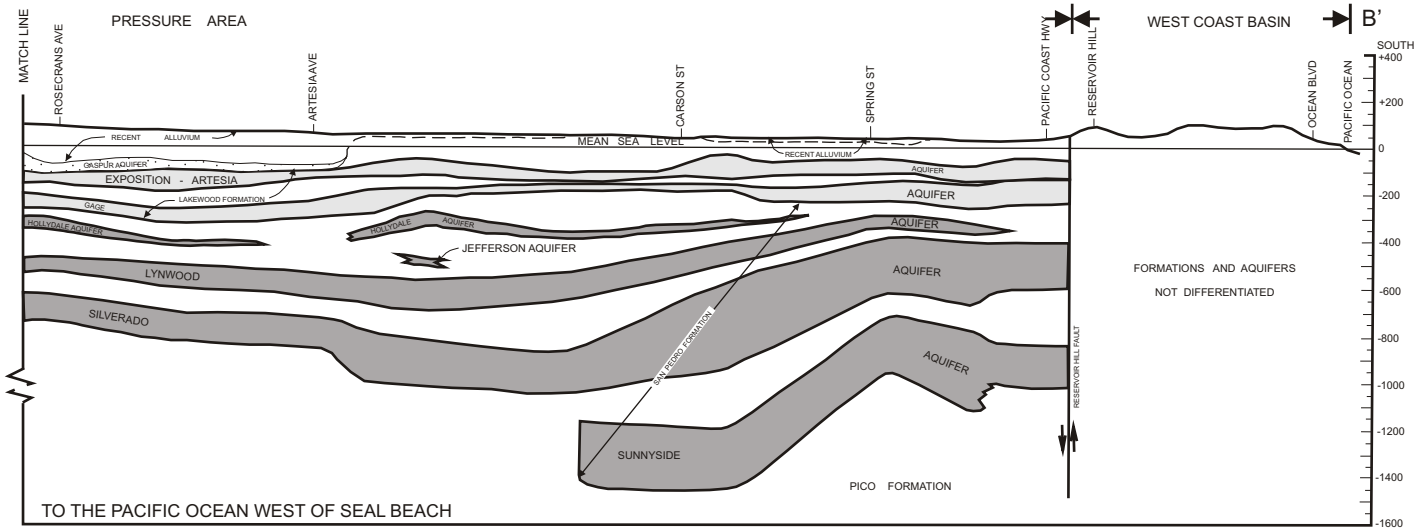
Adapted from
CDWR Bull. 104 App. B

FIGURE 1.4



LEGEND

- AQUICLUDES AND DEEPER UNDIFFERENTIATED FORMATIONS
- AQUIFERS IN RECENT ALLUVIUM (INCLUDES THE GASPUR AND BALLONA AQUIFERS)
- AQUIFERS IN LAKEWOOD FORMATION (INCLUDES THE ARTESIA, EXPOSITION, GAGE, AND GARDENA AQUIFERS)
- AQUIFERS IN THE SAN PEDRO FORMATION (INCLUDES THE HOLLYDALE, JEFFERSON, LYNWOOD, SILVERADO AND SUNNYSIDE AQUIFERS)



IDEALIZED GEOLOGIC CROSS SECTION BB'

Adapted from
CDWR Bull. 104 App. B

FIGURE 1.5

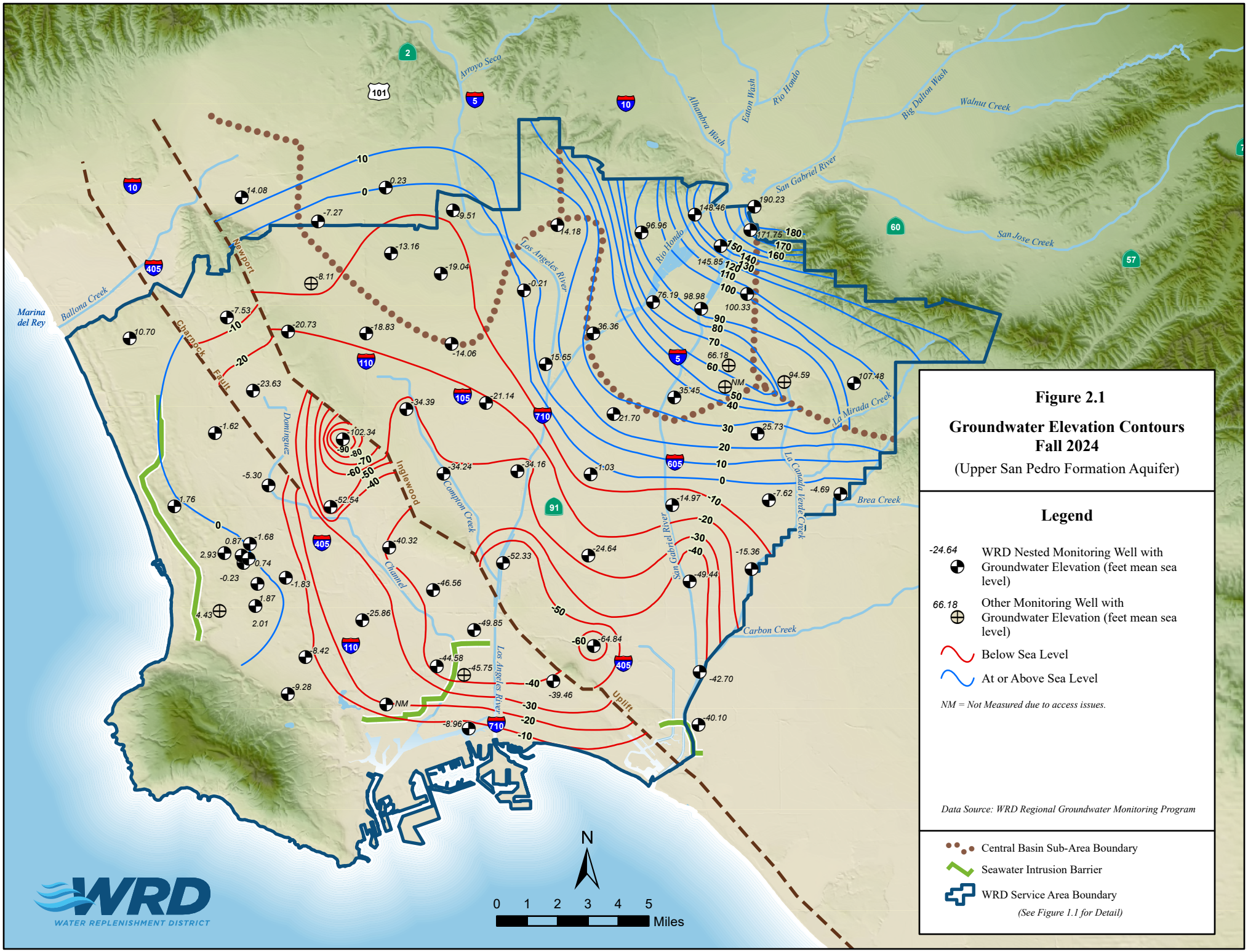


Figure 2.1
Groundwater Elevation Contours
Fall 2024
(Upper San Pedro Formation Aquifer)
Legend
-24.64 WRD Nested Monitoring Well with Groundwater Elevation (feet mean sea level)
66.18 Other Monitoring Well with Groundwater Elevation (feet mean sea level)
Below Sea Level
At or Above Sea Level
NM = Not Measured due to access issues.
Data Source: WRD Regional Groundwater Monitoring Program
Central Basin Sub-Area Boundary
Seawater Intrusion Barrier
WRD Service Area Boundary
(See Figure 1.1 for Detail)
N
0 1 2 3 4 5
Miles
WRD
WATER REPLENISHMENT DISTRICT
Arroyo Seco
Alhambra Wash
Eaton Wash
Rio Hondo
Big Dalton Wash
Walnut Creek
San Gabriel River
San Jose Creek
Los Angeles River
La Mirada Creek
La Cuenada Verde Creek
Brea Creek
Carbon Creek
Compton Creek
Channel
Ballona Creek
Marina del Rey
Newport
Charnock Fault
Dominguez
Inglewood
Uplift

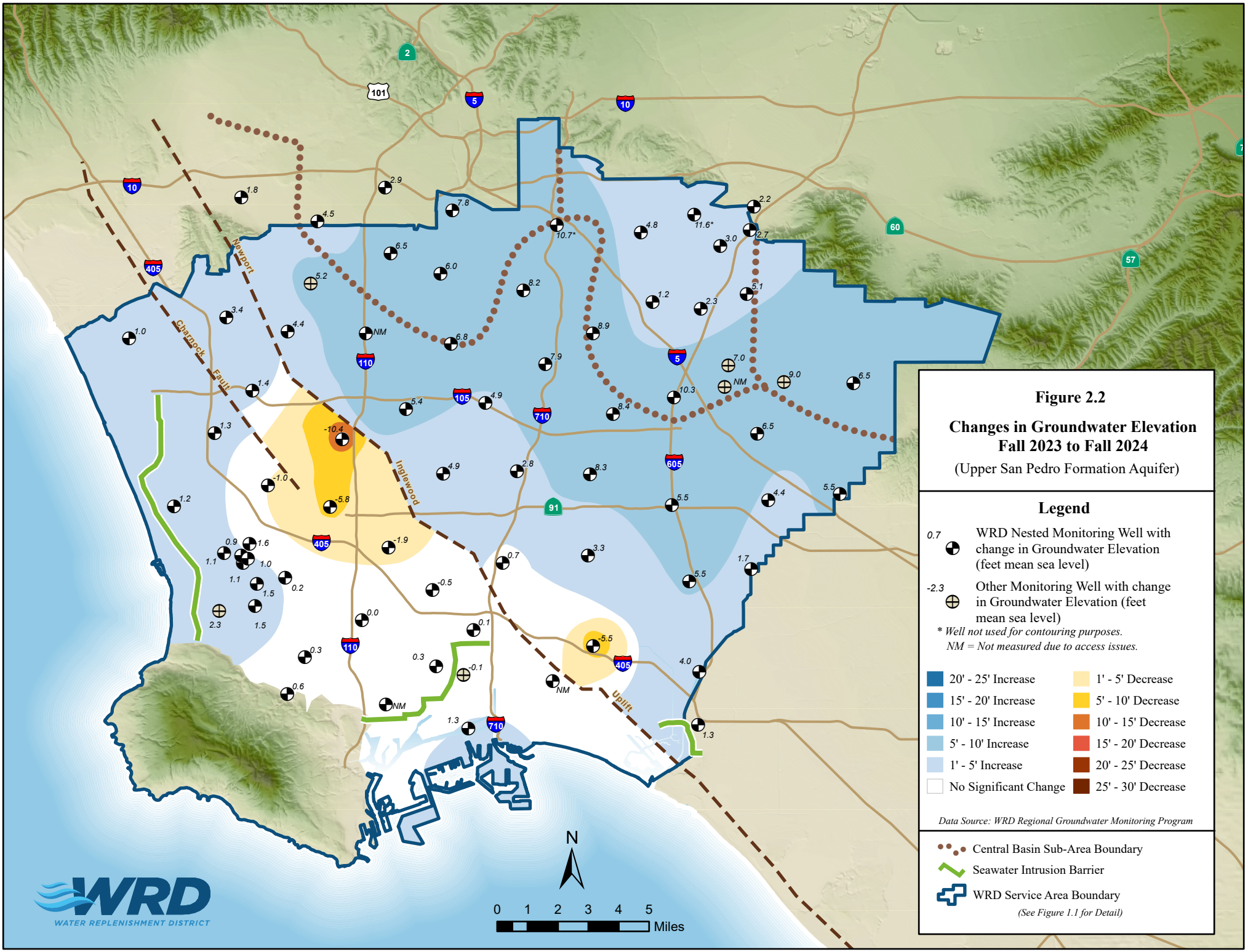


Figure 2.2
Changes in Groundwater Elevation
Fall 2023 to Fall 2024
(Upper San Pedro Formation Aquifer)
Legend
0.7 WRD Nested Monitoring Well with change in Groundwater Elevation (feet mean sea level)
-2.3 Other Monitoring Well with change in Groundwater Elevation (feet mean sea level)
* Well not used for contouring purposes.
NM = Not measured due to access issues.
20' - 25' Increase
15' - 20' Increase
10' - 15' Increase
5' - 10' Increase
1' - 5' Increase
No Significant Change
1' - 5' Decrease
5' - 10' Decrease
10' - 15' Decrease
15' - 20' Decrease
20' - 25' Decrease
25' - 30' Decrease
Data Source: WRD Regional Groundwater Monitoring Program
Central Basin Sub-Area Boundary
Seawater Intrusion Barrier
WRD Service Area Boundary
(See Figure 1.1 for Detail)
Newport
Chanock
Fault
Inglewood
Uplift
N
0 1 2 3 4 5
Miles
WRD
WATER REPLENISHMENT DISTRICT

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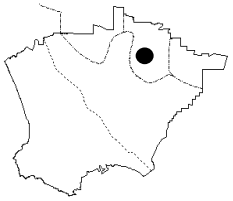


FIGURE 2.3
WATER LEVELS IN WRD KEY NESTED MONITORING WELL RIO HONDO #1

Reference point elevation 146.51 feet above mean sea level

Feet Above Mean Sea Level

Zones 1, 2, and 3 overlay

5
6
4

Zone 1 (1110' - 1130', Pico Fm)
Zone 2 (910' - 930', Sunnyside)
Zone 3 (710' - 730', Sunnyside)
Zone 4 (430' - 450', Silverado)
Zone 5 (280' - 300', Hollydale)
Zone 6 (140' - 160', Gardena)

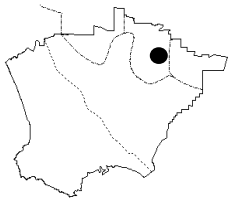
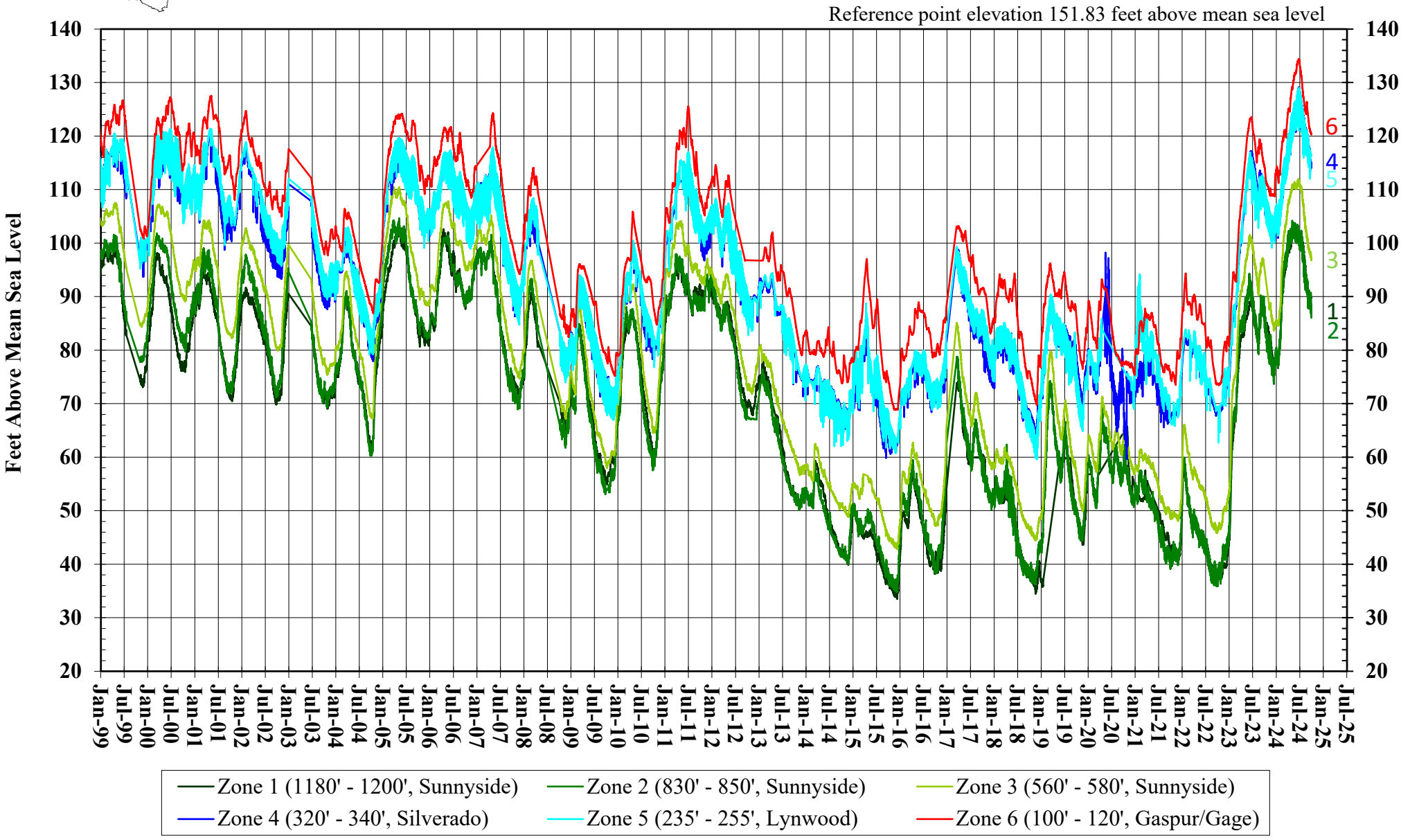


FIGURE 2.4
WATER LEVELS IN WRD KEY NESTED MONITORING WELL PICO #2



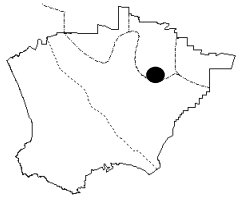


FIGURE 2.5
WATER LEVELS IN WRD KEY NESTED MONITORING WELL NORWALK #2

Reference point elevation 116.73 feet above mean sea level

Feet Above Mean Sea Level

80 70 60 50 40 30 20 10 0 -10 -20 -30

Jan-05 Jul-05 Jan-06 Jul-06 Jan-07 Jul-07 Jan-08 Jul-08 Jan-09 Jul-09 Jan-10 Jul-10 Jan-11 Jul-11 Jan-12 Jul-12 Jan-13 Jul-13 Jan-14 Jul-14 Jan-15 Jul-15 Jan-16 Jul-16 Jan-17 Jul-17 Jan-18 Jul-18 Jan-19 Jul-19 Jan-20 Jul-20 Jan-21 Jul-21 Jan-22 Jul-22 Jan-23 Jul-23 Jan-24 Jul-24 Jan-25 Jul-25

6
5
4
3

Zones 1 and 2 overlay

Zone 1 (1460 - 1480', Pico Fm)
Zone 2 (1260 - 1280', Pico Fm)
Zone 3 (960 - 980', Sunnyside)
Zone 4 (800 - 820', Sunnyside)
Zone 5 (480 - 500', Silverado)
Zone 6 (236 - 256', Gardena)

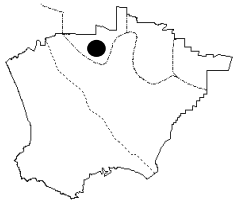
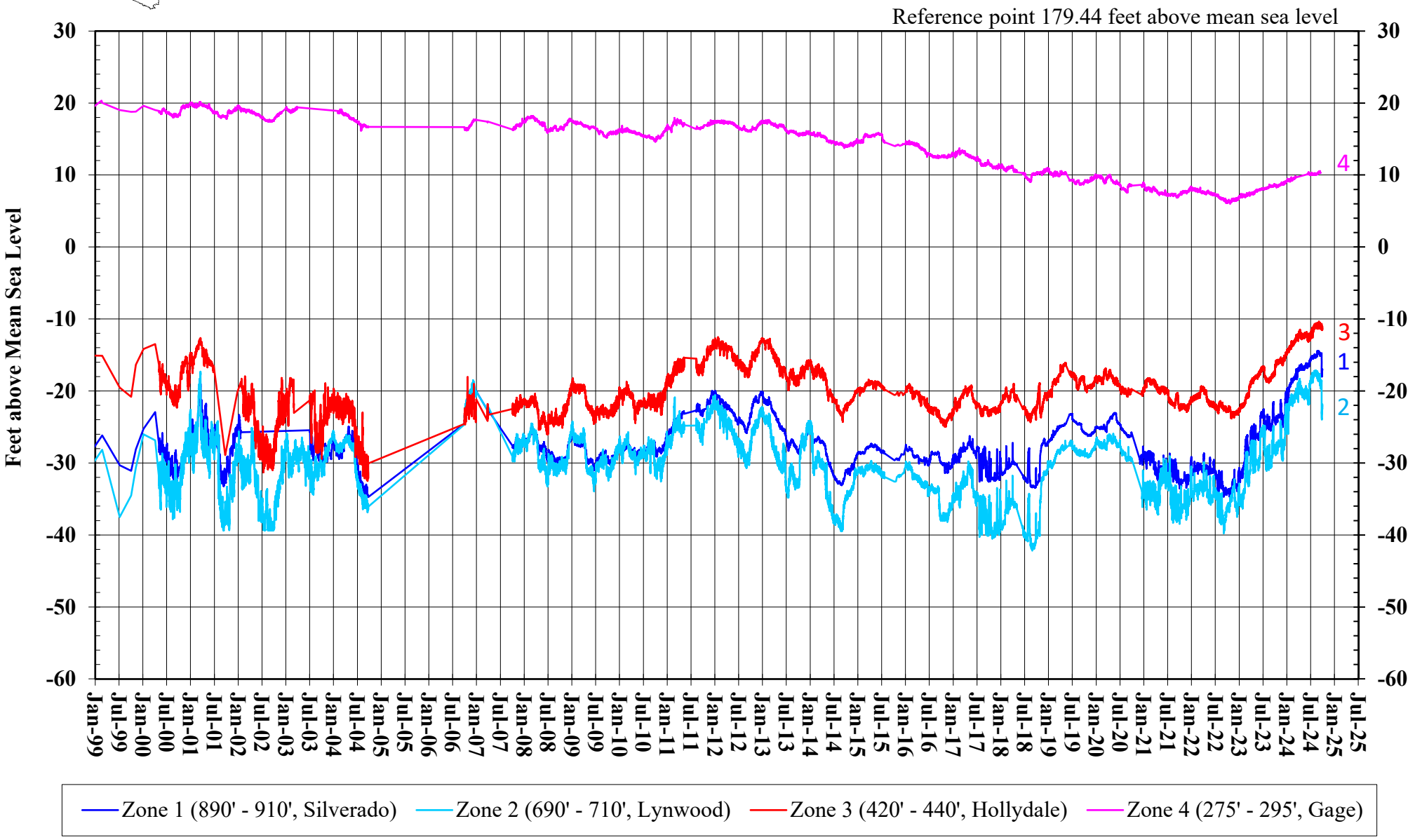


FIGURE 2.6
WATER LEVELS IN WRD KEY NESTED MONITORING WELL HUNTINGTON PARK #1



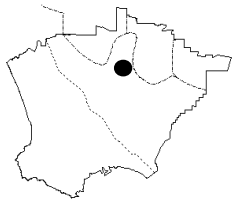
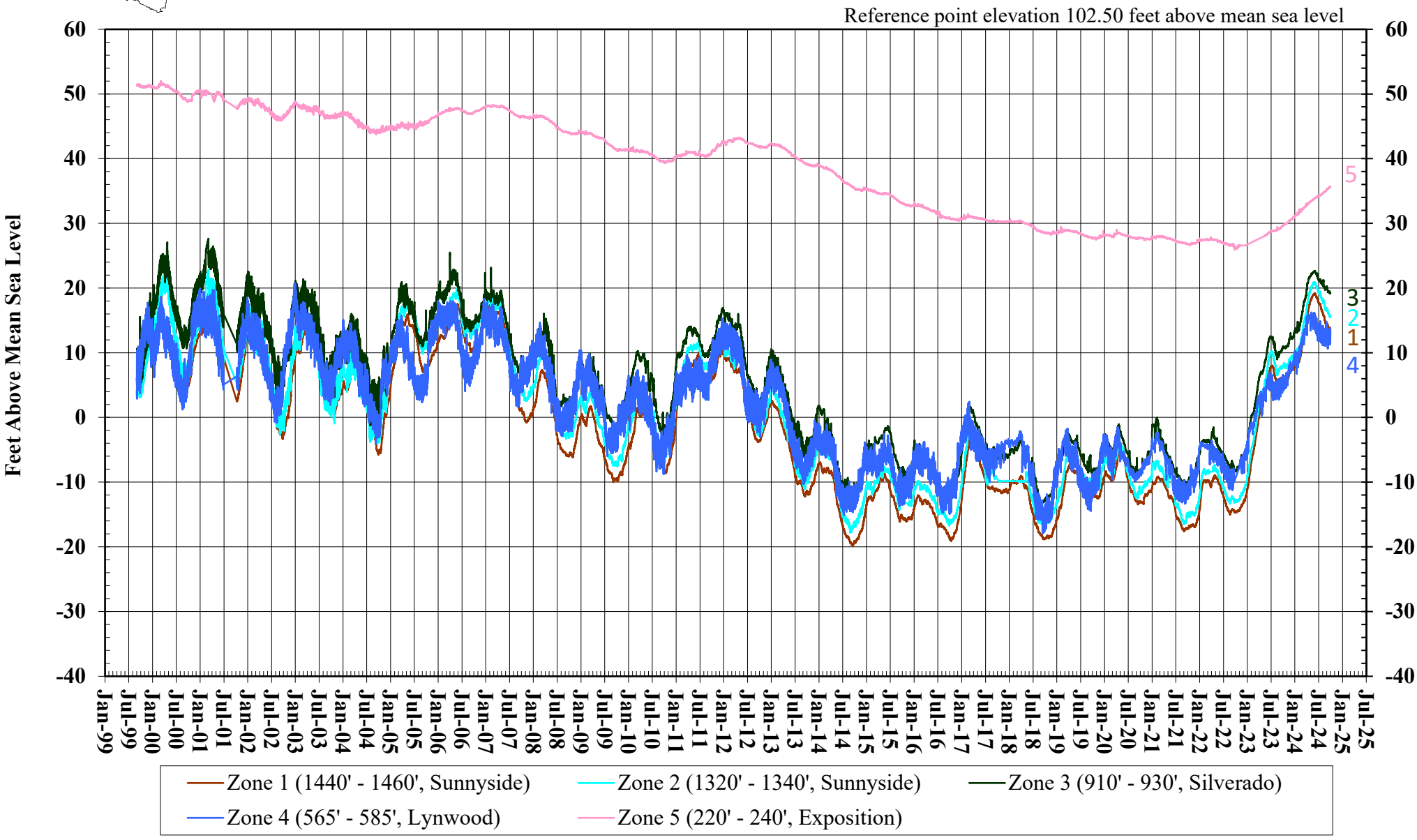


FIGURE 2.7
WATER LEVELS IN WRD KEY NESTED MONITORING WELL SOUTH GATE #1



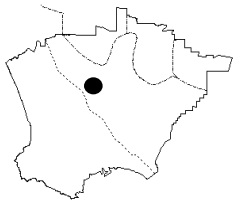


FIGURE 2.8
WATER LEVELS IN WRD KEY NESTED MONITORING WELL WILLOWBROOK #1

Reference point elevation 98.87 feet above mean sea level

Feet Above Mean Sea Level

0 -10 -20 -30 -40 -50 -60 -70 -80

Jan-99 Jul-99 Jan-00 Jul-00 Jan-01 Jul-01 Jan-02 Jul-02 Jan-03 Jul-03 Jan-04 Jul-04 Jan-05 Jul-05 Jan-06 Jul-06 Jan-07 Jul-07 Jan-08 Jul-08 Jan-09 Jul-09 Jan-10 Jul-10 Jan-11 Jul-11 Jan-12 Jul-12 Jan-13 Jul-13 Jan-14 Jul-14 Jan-15 Jul-15 Jan-16 Jul-16 Jan-17 Jul-17 Jan-18 Jul-18 Jan-19 Jul-19 Jan-20 Jul-20 Jan-21 Jul-21 Jan-22 Jul-22 Jan-23 Jul-23 Jan-24 Jul-24 Jan-25 Jul-25

1 2 4 3

Zone 1 (885' - 905', Sunnyside) Zone 2 (500' - 520', Silverado) Zone 3 (360' - 380', Lynwood) Zone 4 (200' - 220', Gage)

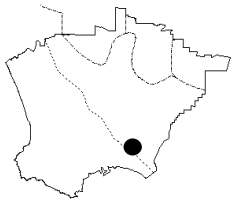
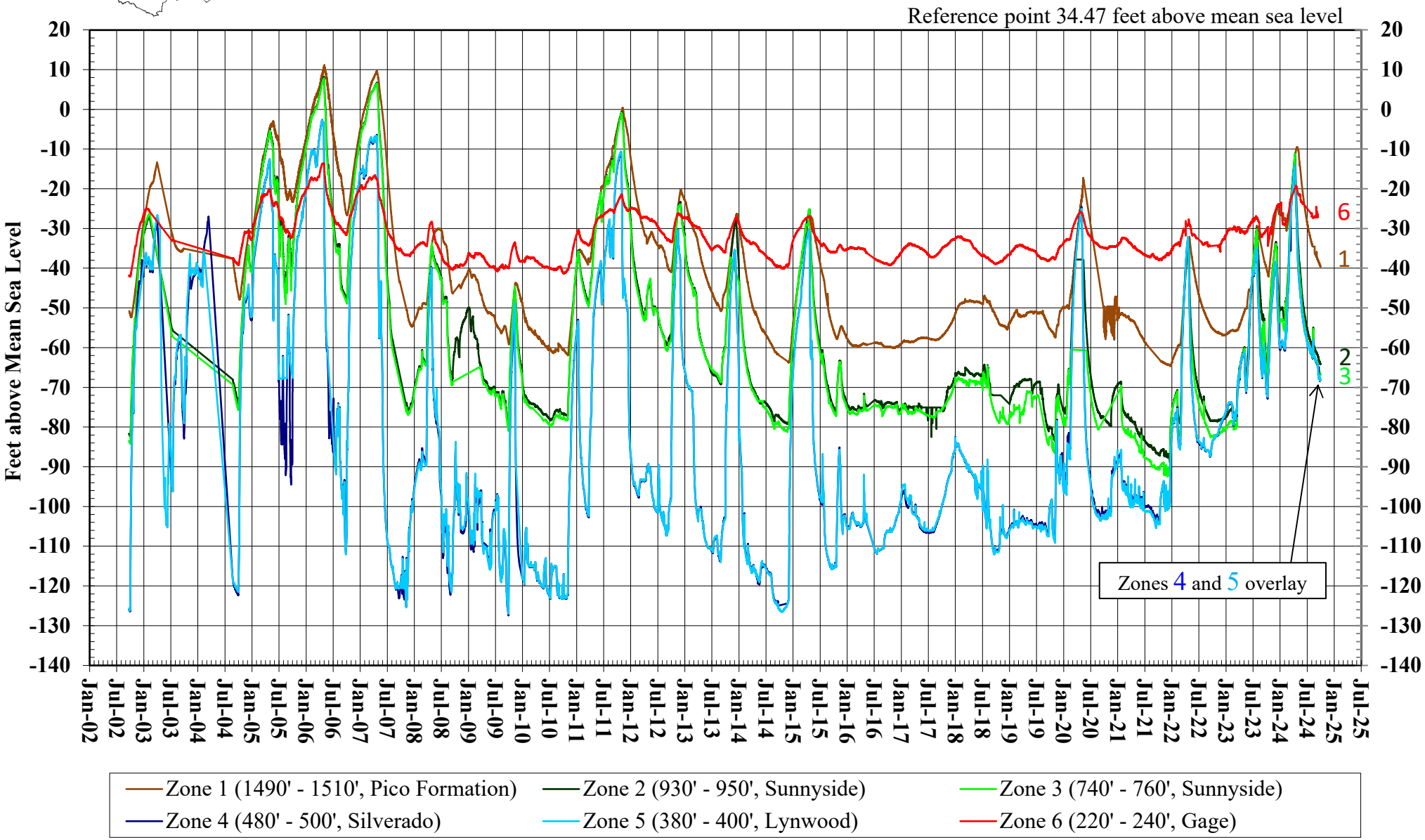


FIGURE 2.9
WATER LEVELS IN WRD KEY NESTED MONITORING WELL LONG BEACH #6



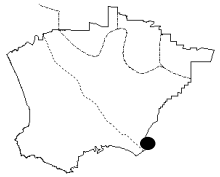
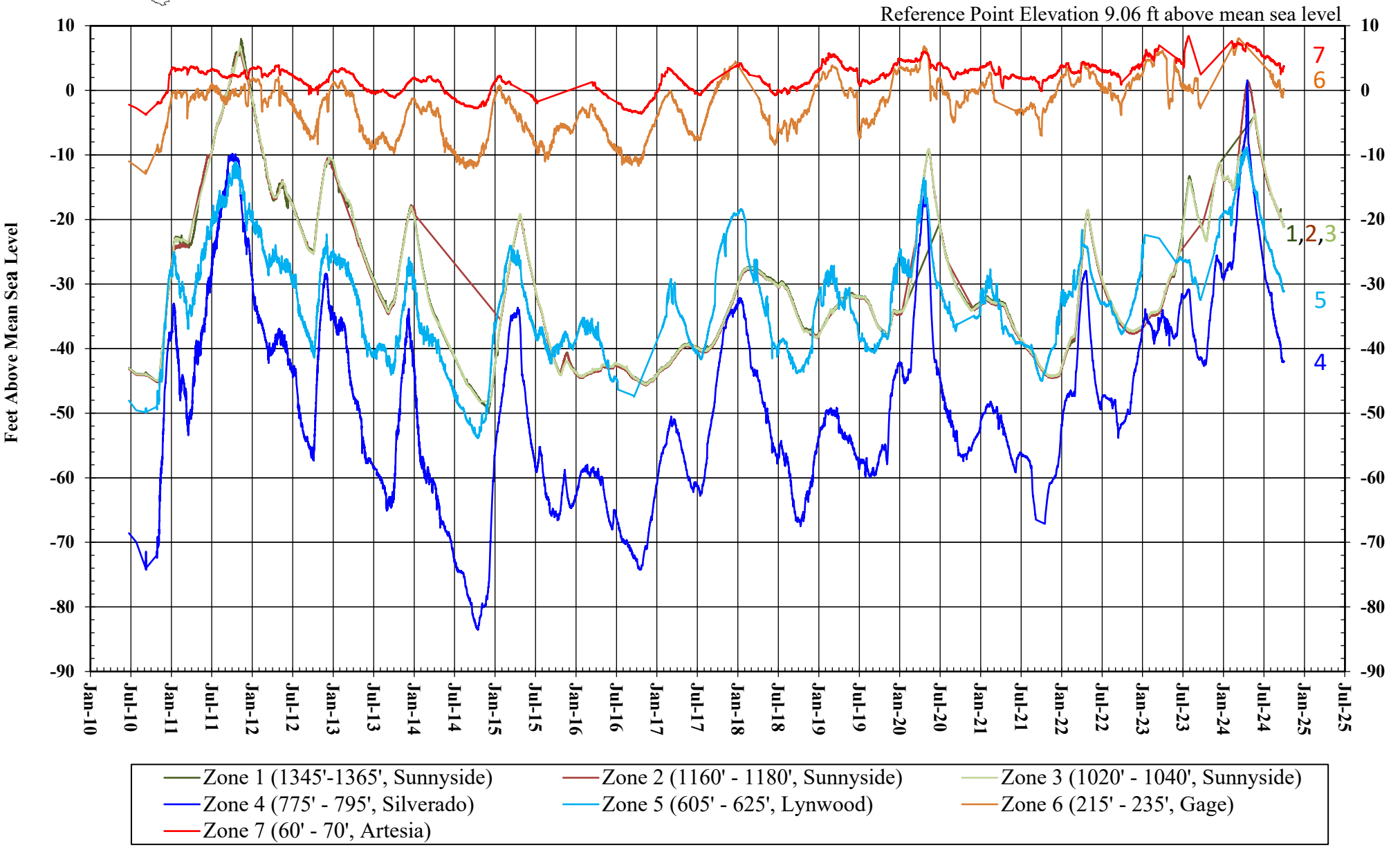


FIGURE 2.10
WATER LEVELS IN WRD KEY NESTED MONITORING WELL SEAL BEACH #1



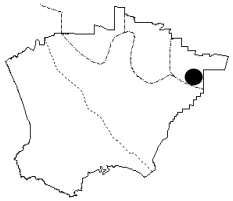


FIGURE 2.11
WATER LEVELS IN WRD KEY NESTED MONITORING WELL WHITTIER #1

Reference point elevations 217.35 (Zones 1, 2, 4, and 5) and 217.81 (Zone 3) feet above mean sea level

Feet Above Mean Sea Level

220 200 180 160 140 120 100 80 60 40 20 0

Jan-00 Jul-00 Jan-01 Jul-01 Jan-02 Jul-02 Jan-03 Jul-03 Jan-04 Jul-04 Jan-05 Jul-05 Jan-06 Jul-06 Jan-07 Jul-07 Jan-08 Jul-08 Jan-09 Jul-09 Jan-10 Jul-10 Jan-11 Jul-11 Jan-12 Jul-12 Jan-13 Jul-13 Jan-14 Jul-14 Jan-15 Jul-15 Jan-16 Jul-16 Jan-17 Jul-17 Jan-18 Jul-18 Jan-19 Jul-19 Jan-20 Jul-20 Jan-21 Jul-21 Jan-22 Jul-22 Jan-23 Jul-23 Jan-24 Jul-24 Jan-25 Jul-25

Zones 1 and 2 overlay

5

3

4

Zone 1 (1180' - 1200', Pico Fm)
Zone 2 (920' - 940', Pico Fm)
Zone 3 (600' - 620', Sunnyside)
Zone 4 (450' - 470', Silverado)
Zone 5 (200' - 220', Jefferson)

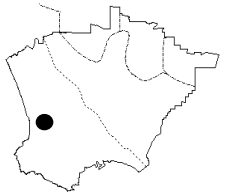
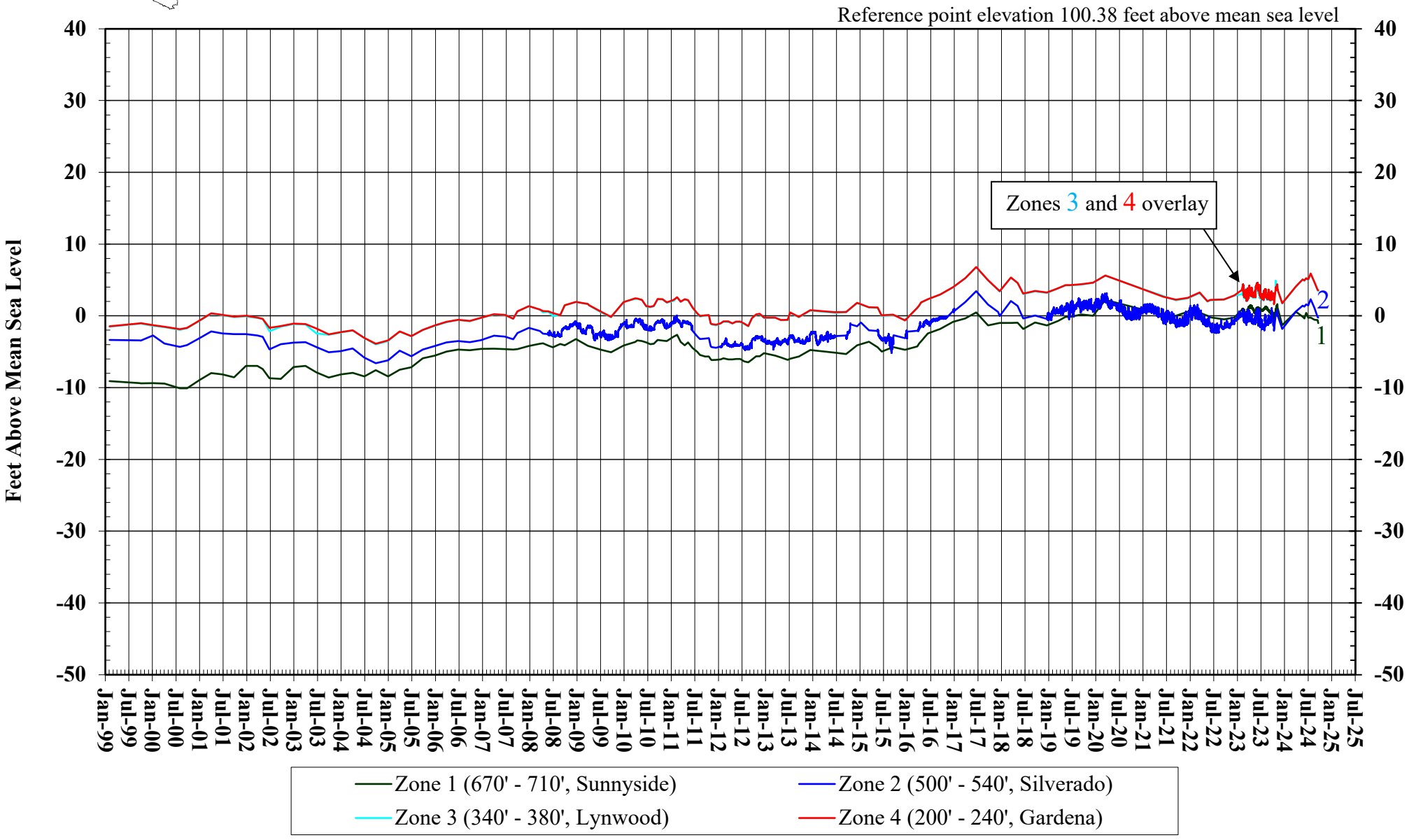


FIGURE 2.12
WATER LEVELS IN WRD KEY NESTED MONITORING WELL PM-4 MARINER



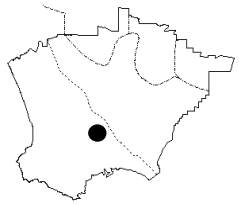
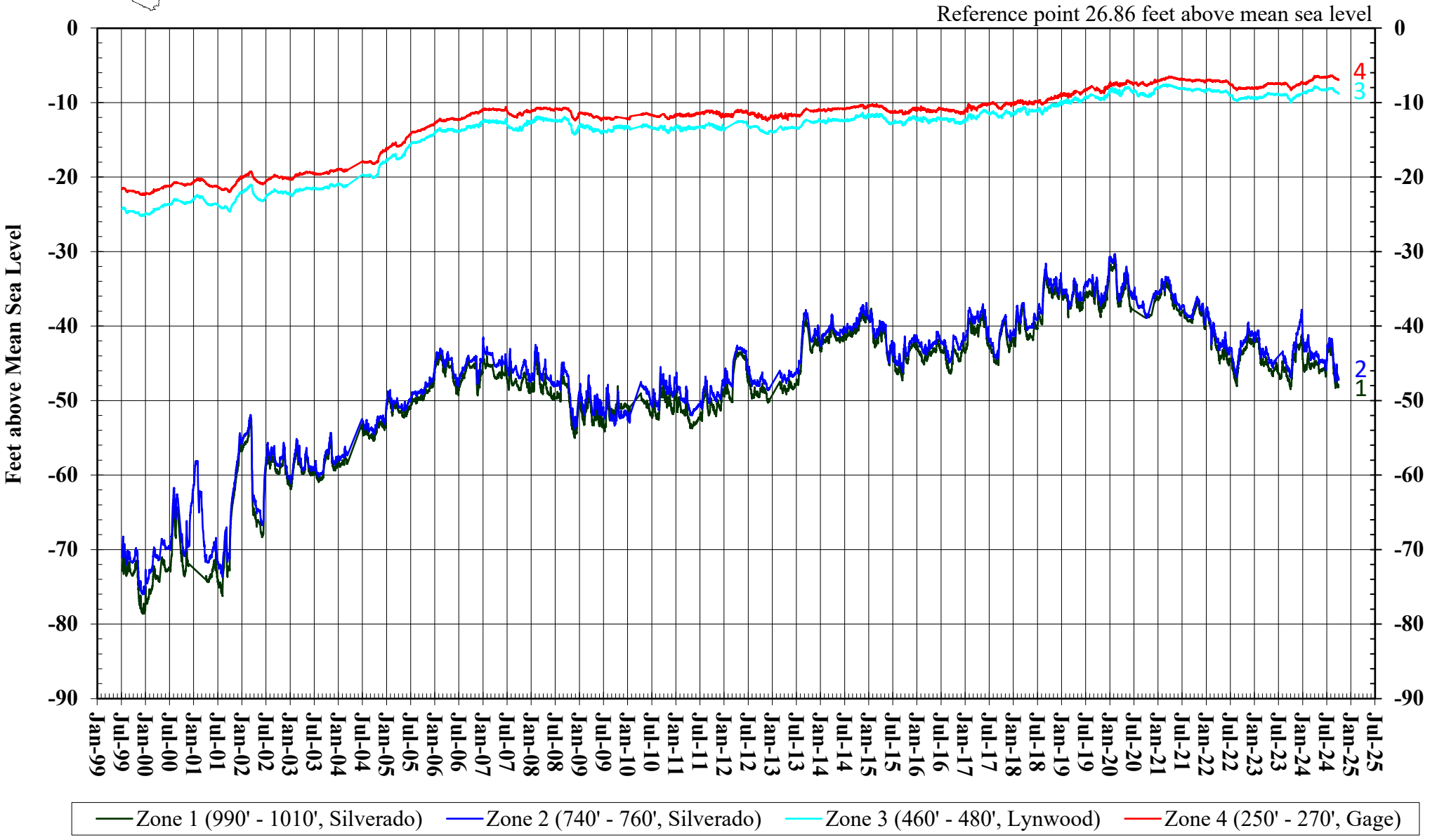


FIGURE 2.13
WATER LEVELS IN WRD KEY NESTED MONITORING WELL CARSON #1



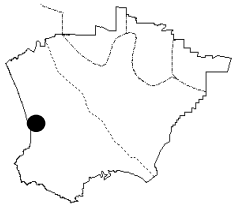


FIGURE 2.14
WATER LEVELS IN WRD KEY NESTED MONITORING WELL MANHATTAN BEACH #1

Reference point elevation 128.71 feet above mean sea level

Feet above Mean Sea Level

30 20 10 0 -10 -20 -30 -40 -50

Jan-11 Jul-11 Jan-12 Jul-12 Jan-13 Jul-13 Jan-14 Jul-14 Jan-15 Jul-15 Jan-16 Jul-16 Jan-17 Jul-17 Jan-18 Jul-18 Jan-19 Jul-19 Jan-20 Jul-20 Jan-21 Jul-21 Jan-22 Jul-22 Jan-23 Jul-23 Jan-24 Jul-24 Jan-25 Jul-25

7 6 4 1 5 2 3

Zone 1 (1950-1990', Pico Fm)
Zone 2 (1570-1590', Pico Fm)
Zone 3 (1250-1270', Pico Fm)
Zone 4 (865-885', Sunnyside)
Zone 5 (640-660', Sunnyside)
Zone 6 (320-340', Silverado)
Zone 7 (180-200', Gage)

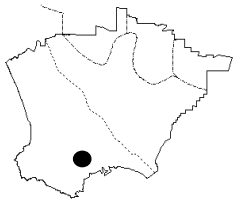


FIGURE 2.15
WATER LEVELS IN WRD KEY NESTED MONITORING WELL WILMINGTON #2

Reference point elevation 32.30 feet above mean sea level

Feet Above Mean Sea Level

10 0 -10 -20 -30 -40 -50 -60 -70 -80

Jul-98 Jan-99 Jul-99 Jan-00 Jul-00 Jan-01 Jul-01 Jan-02 Jul-02 Jan-03 Jul-03 Jan-04 Jul-04 Jan-05 Jul-05 Jan-06 Jul-06 Jan-07 Jul-07 Jan-08 Jul-08 Jan-09 Jul-09 Jan-10 Jul-10 Jan-11 Jul-11 Jan-12 Jul-12 Jan-13 Jul-13 Jan-14 Jul-14 Jan-15 Jul-15 Jan-16 Jul-16 Jan-17 Jul-17 Jan-18 Jul-18 Jan-19 Jul-19 Jan-20 Jul-20 Jan-21 Jul-21 Jan-22 Jul-22 Jan-23 Jul-23 Jan-24 Jul-24 Jan-25 Jul-25

5 4 3 2 1

Zone 1 (950' - 970', Sunnyside)
Zone 2 (755' - 775', Silverado)
Zone 3 (540' - 560', Silverado)
Zone 4 (390' - 410', Lynwood)
Zone 5 (120' - 140', Gage)

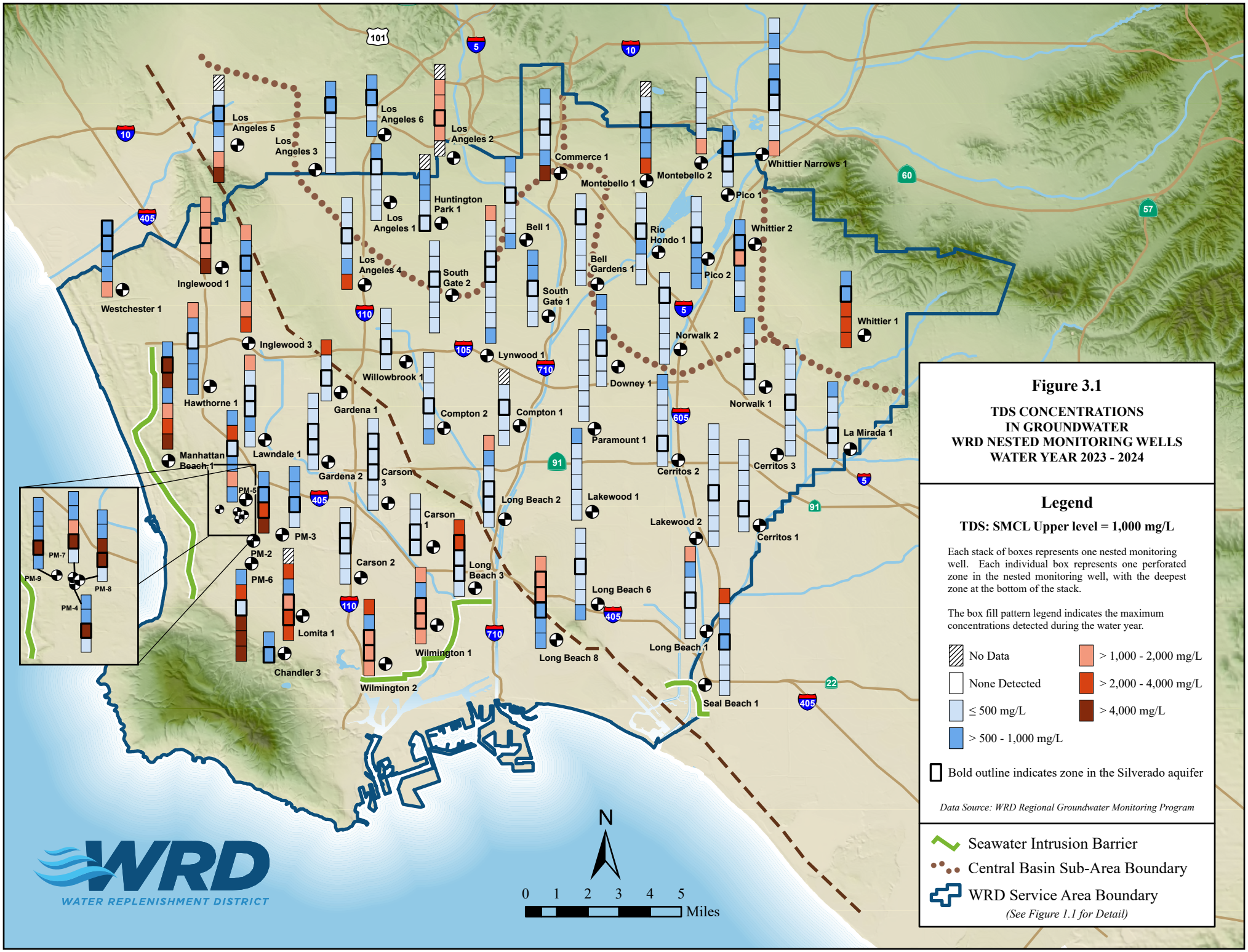


Figure 3.1
TDS CONCENTRATIONS
IN GROUNDWATER
WRD NESTED MONITORING WELLS
WATER YEAR 2023 - 2024
Legend
TDS: SMCL Upper level = 1,000 mg/L
Each stack of boxes represents one nested monitoring well. Each individual box represents one perforated zone in the nested monitoring well, with the deepest zone at the bottom of the stack.
The box fill pattern legend indicates the maximum concentrations detected during the water year.
No Data
None Detected
≤ 500 mg/L
> 500 - 1,000 mg/L
> 1,000 - 2,000 mg/L
> 2,000 - 4,000 mg/L
> 4,000 mg/L
Bold outline indicates zone in the Silverado aquifer
Data Source: WRD Regional Groundwater Monitoring Program
Seawater Intrusion Barrier
Central Basin Sub-Area Boundary
WRD Service Area Boundary
(See Figure 1.1 for Detail)
WRD
WATER REPLENISHMENT DISTRICT
N
0 1 2 3 4 5
Miles
Los Angeles 5
Los Angeles 3
Los Angeles 6
Los Angeles 2
Los Angeles 1
Los Angeles 4
Huntington Park 1
Commerce 1
Montebello 1
Montebello 2
Whittier Narrows 1
Pico 1
Whittier 2
Rio Hondo 1
Pico 2
Bell 1
Bell Gardens 1
South Gate 2
South Gate 1
Whittier 1
Norwalk 2
Norwalk 1
Inglewood 1
Westchester 1
Inglewood 3
Lynwood 1
Willowbrook 1
Downey 1
Hawthorne 1
Gardena 1
Compton 2
Compton 1
Paramount 1
La Mirada 1
Manhattan Beach 1
Lawndale 1
Gardena 2
Carson 3
Cerritos 2
Cerritos 3
PM-5
PM-7
PM-9
PM-8
PM-4
PM-3
PM-2
PM-6
Carson 1
Long Beach 2
Lakewood 1
Lakewood 2
Cerritos 1
Carson 2
Long Beach 3
Long Beach 6
Lomita 1
Wilmington 1
Long Beach 8
Long Beach 1
Chandler 3
Wilmington 2
Seal Beach 1

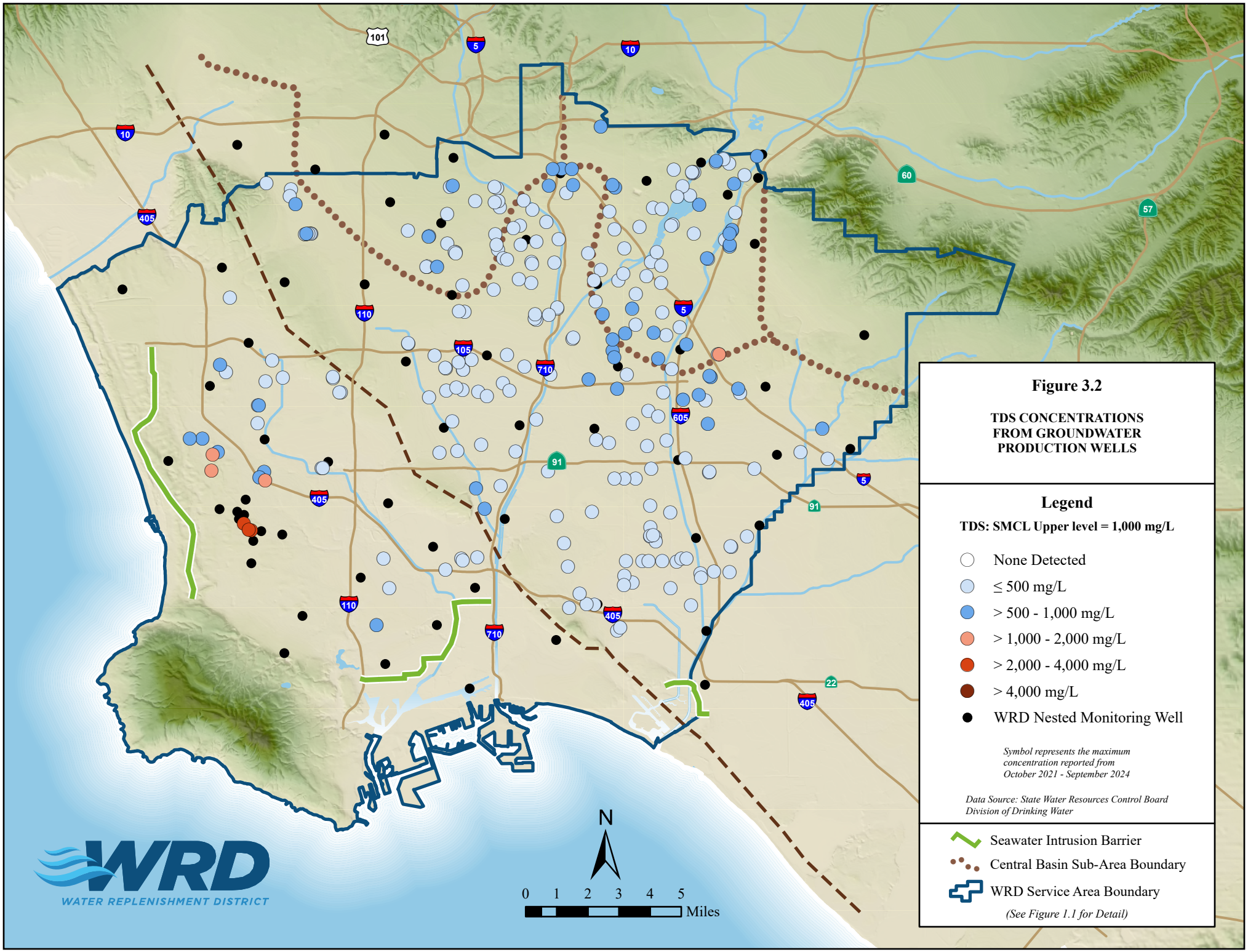
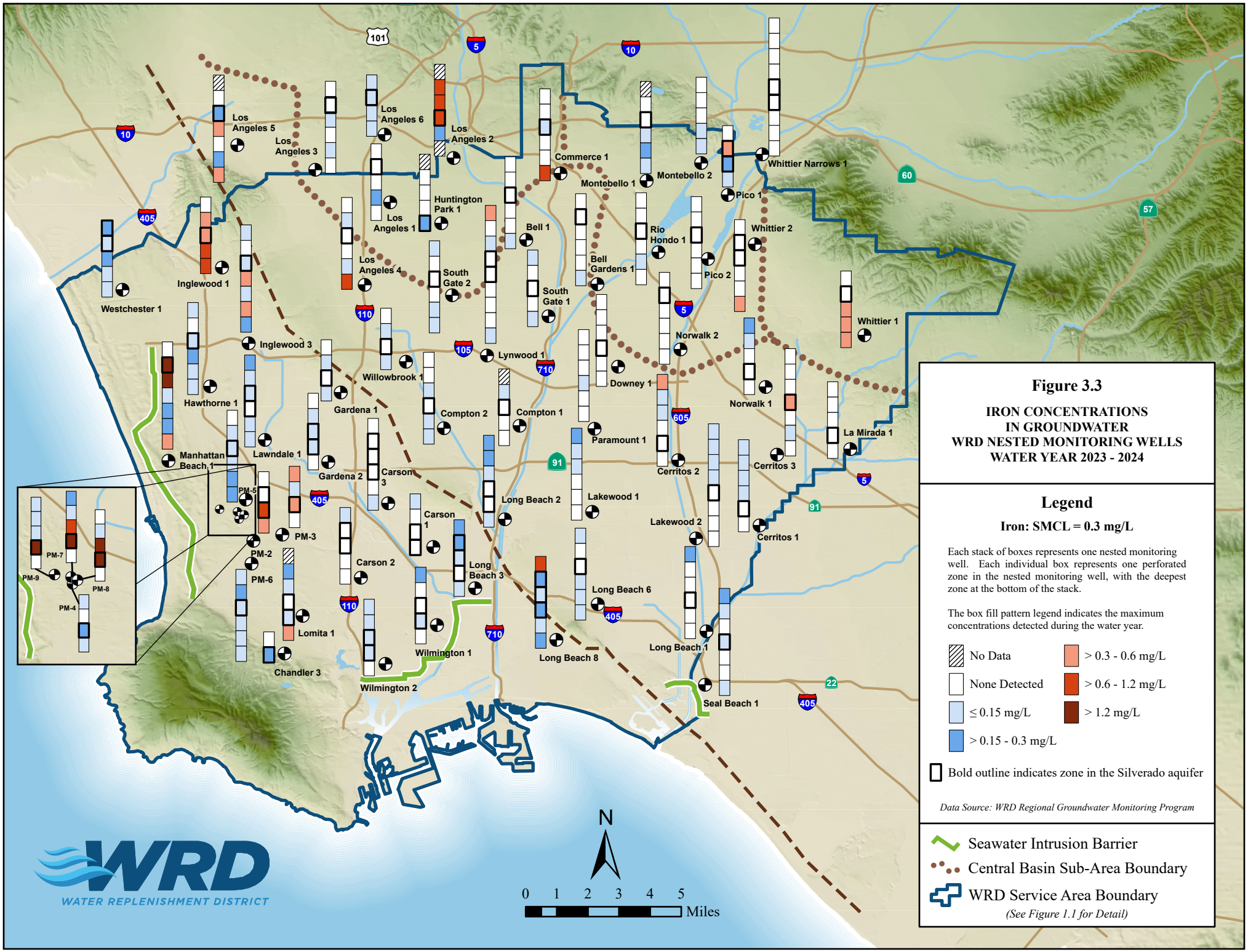


Figure 3.2
TDS CONCENTRATIONS FROM GROUNDWATER PRODUCTION WELLS
Legend
TDS: SMCL Upper level = 1,000 mg/L
None Detected
≤ 500 mg/L
> 500 - 1,000 mg/L
> 1,000 - 2,000 mg/L
> 2,000 - 4,000 mg/L
> 4,000 mg/L
WRD Nested Monitoring Well
Symbol represents the maximum concentration reported from October 2021 - September 2024
Data Source: State Water Resources Control Board Division of Drinking Water
Seawater Intrusion Barrier
Central Basin Sub-Area Boundary
WRD Service Area Boundary
(See Figure 1.1 for Detail)
N
0 1 2 3 4 5
Miles
WRD
WATER REPLENISHMENT DISTRICT


Los Angeles 5
Los Angeles 3
Los Angeles 6
Los Angeles 2
Huntington Park 1
Los Angeles 1
Los Angeles 4
Commerce 1
Montebello 1
Montebello 2
Whittier Narrows 1
Pico 1
Whittier 2
Rio Hondo 1
Pico 2
Bell 1
Bell Gardens 1
South Gate 2
South Gate 1
Inglewood 1
Westchester 1
Inglewood 3
Lynwood 1
Willowbrook 1
Norwalk 2
Whittier 1
Hawthorne 1
Gardena 1
Compton 2
Compton 1
Downey 1
Norwalk 1
La Mirada 1
Manhattan Beach 1
Lawndale 1
Gardena 2
Carson 3
Paramount 1
Cerritos 2
Cerritos 3
PM-5
PM-3
Long Beach 2
Lakewood 1
Carson 1
Lakewood 2
Cerritos 1
PM-7
PM-9
PM-8
PM-4
PM-2
PM-6
Carson 2
Long Beach 3
Long Beach 6
Lomita 1
Wilmington 1
Long Beach 8
Long Beach 1
Chandler 3
Wilmington 2
Seal Beach 1
101
5
10
405
110
105
710
91
605
60
57
22
N
0 1 2 3 4 5
Miles
WRD
WATER REPLENISHMENT DISTRICT
Figure 3.3
IRON CONCENTRATIONS
IN GROUNDWATER
WRD NESTED MONITORING WELLS
WATER YEAR 2023 - 2024
Legend
Iron: SMCL = 0.3 mg/L
Each stack of boxes represents one nested monitoring well. Each individual box represents one perforated zone in the nested monitoring well, with the deepest zone at the bottom of the stack.
The box fill pattern legend indicates the maximum concentrations detected during the water year.
No Data
None Detected
≤ 0.15 mg/L
> 0.15 - 0.3 mg/L
> 0.3 - 0.6 mg/L
> 0.6 - 1.2 mg/L
> 1.2 mg/L
Bold outline indicates zone in the Silverado aquifer
Data Source: WRD Regional Groundwater Monitoring Program
Seawater Intrusion Barrier
Central Basin Sub-Area Boundary
WRD Service Area Boundary
(See Figure 1.1 for Detail)

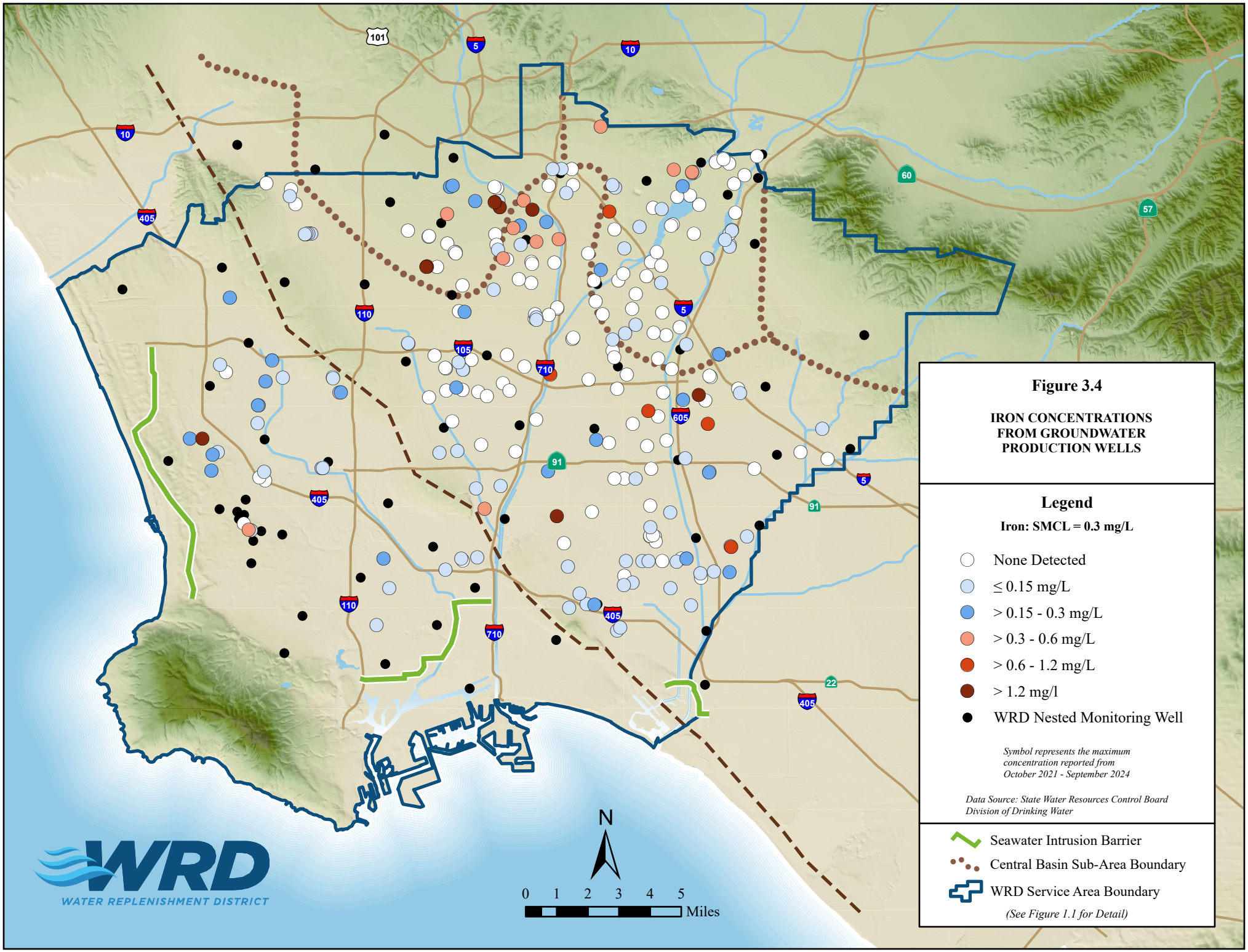


Figure 3.4
IRON CONCENTRATIONS FROM GROUNDWATER PRODUCTION WELLS
Legend
Iron: SMCL = 0.3 mg/L
None Detected
≤ 0.15 mg/L
> 0.15 - 0.3 mg/L
> 0.3 - 0.6 mg/L
> 0.6 - 1.2 mg/L
> 1.2 mg/l
WRD Nested Monitoring Well
Symbol represents the maximum concentration reported from October 2021 - September 2024
Data Source: State Water Resources Control Board Division of Drinking Water
Seawater Intrusion Barrier
Central Basin Sub-Area Boundary
WRD Service Area Boundary
(See Figure 1.1 for Detail)
N
0 1 2 3 4 5
Miles
WRD
WATER REPLENISHMENT DISTRICT

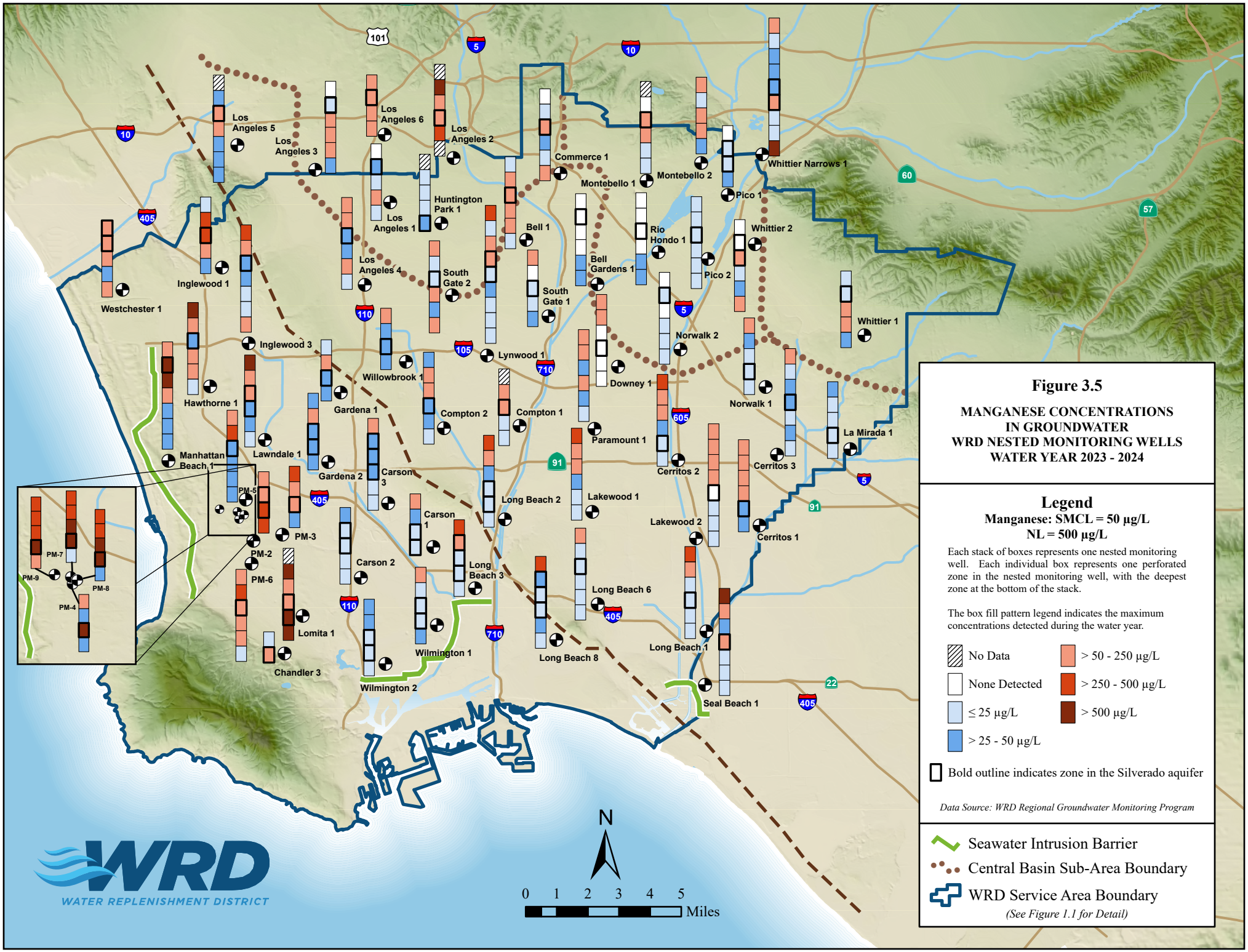


Figure 3.5

MANGANESE CONCENTRATIONS IN GROUNDWATER WRD NESTED MONITORING WELLS WATER YEAR 2023 - 2024

Legend

Manganese: SMCL = 50 µg/L
NL = 500 µg/L

Each stack of boxes represents one nested monitoring well. Each individual box represents one perforated zone in the nested monitoring well, with the deepest zone at the bottom of the stack.

The box fill pattern legend indicates the maximum concentrations detected during the water year.

- No Data
- None Detected
- ≤ 25 µg/L
- > 25 - 50 µg/L
- > 50 - 250 µg/L
- > 250 - 500 µg/L
- > 500 µg/L

Bold outline indicates zone in the Silverado aquifer

Data Source: WRD Regional Groundwater Monitoring Program

- Seawater Intrusion Barrier
- Central Basin Sub-Area Boundary
- WRD Service Area Boundary

(See Figure 1.1 for Detail)

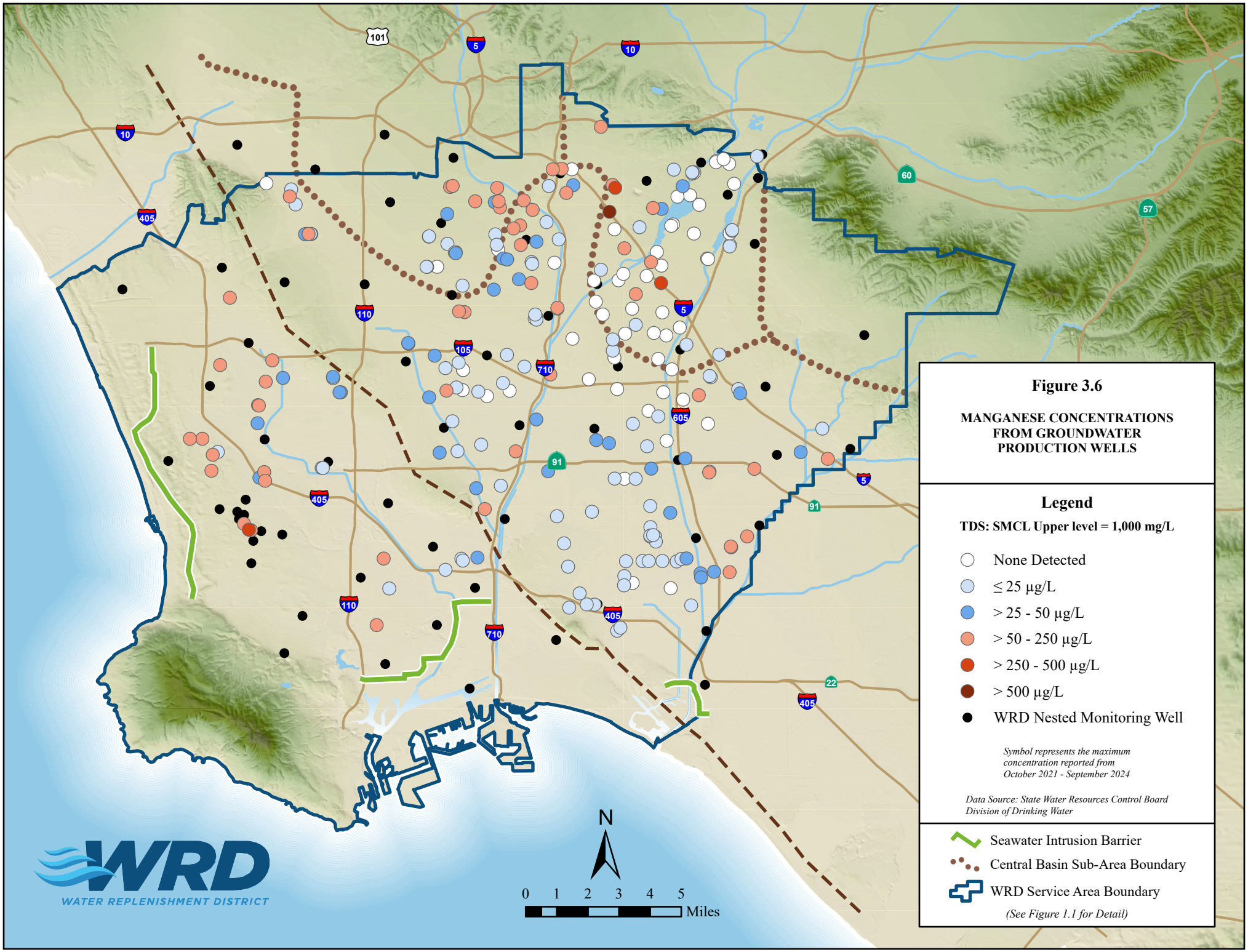


Figure 3.6
MANGANESE CONCENTRATIONS FROM GROUNDWATER PRODUCTION WELLS
Legend
TDS: SMCL Upper level = 1,000 mg/L
None Detected
≤ 25 µg/L
> 25 - 50 µg/L
> 50 - 250 µg/L
> 250 - 500 µg/L
> 500 µg/L
WRD Nested Monitoring Well
Symbol represents the maximum concentration reported from October 2021 - September 2024
Data Source: State Water Resources Control Board Division of Drinking Water
Seawater Intrusion Barrier
Central Basin Sub-Area Boundary
WRD Service Area Boundary
(See Figure 1.1 for Detail)
WRD
WATER REPLENISHMENT DISTRICT
N
0 1 2 3 4 5
Miles

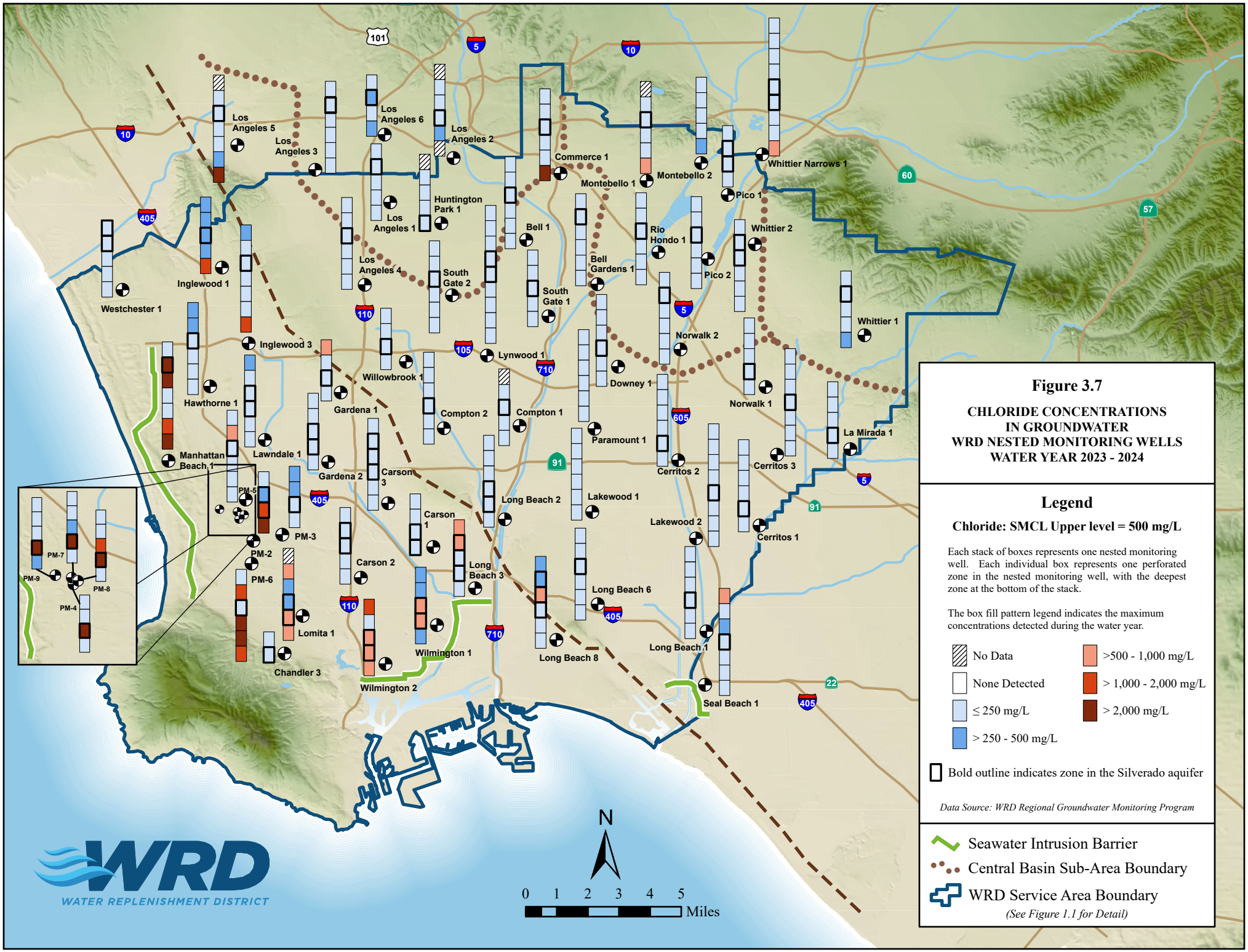


Figure 3.7

CHLORIDE CONCENTRATIONS IN GROUNDWATER WRD NESTED MONITORING WELLS WATER YEAR 2023 - 2024

Legend

Chloride: SMCL Upper level = 500 mg/L

Each stack of boxes represents one nested monitoring well. Each individual box represents one perforated zone in the nested monitoring well, with the deepest zone at the bottom of the stack.

The box fill pattern legend indicates the maximum concentrations detected during the water year.

- No Data
- None Detected
- ≤ 250 mg/L
- > 250 - 500 mg/L
- >500 - 1,000 mg/L
- > 1,000 - 2,000 mg/L
- > 2,000 mg/L

Bold outline indicates zone in the Silverado aquifer

Data Source: WRD Regional Groundwater Monitoring Program

- Seawater Intrusion Barrier
- Central Basin Sub-Area Boundary
- WRD Service Area Boundary

(See Figure 1.1 for Detail)

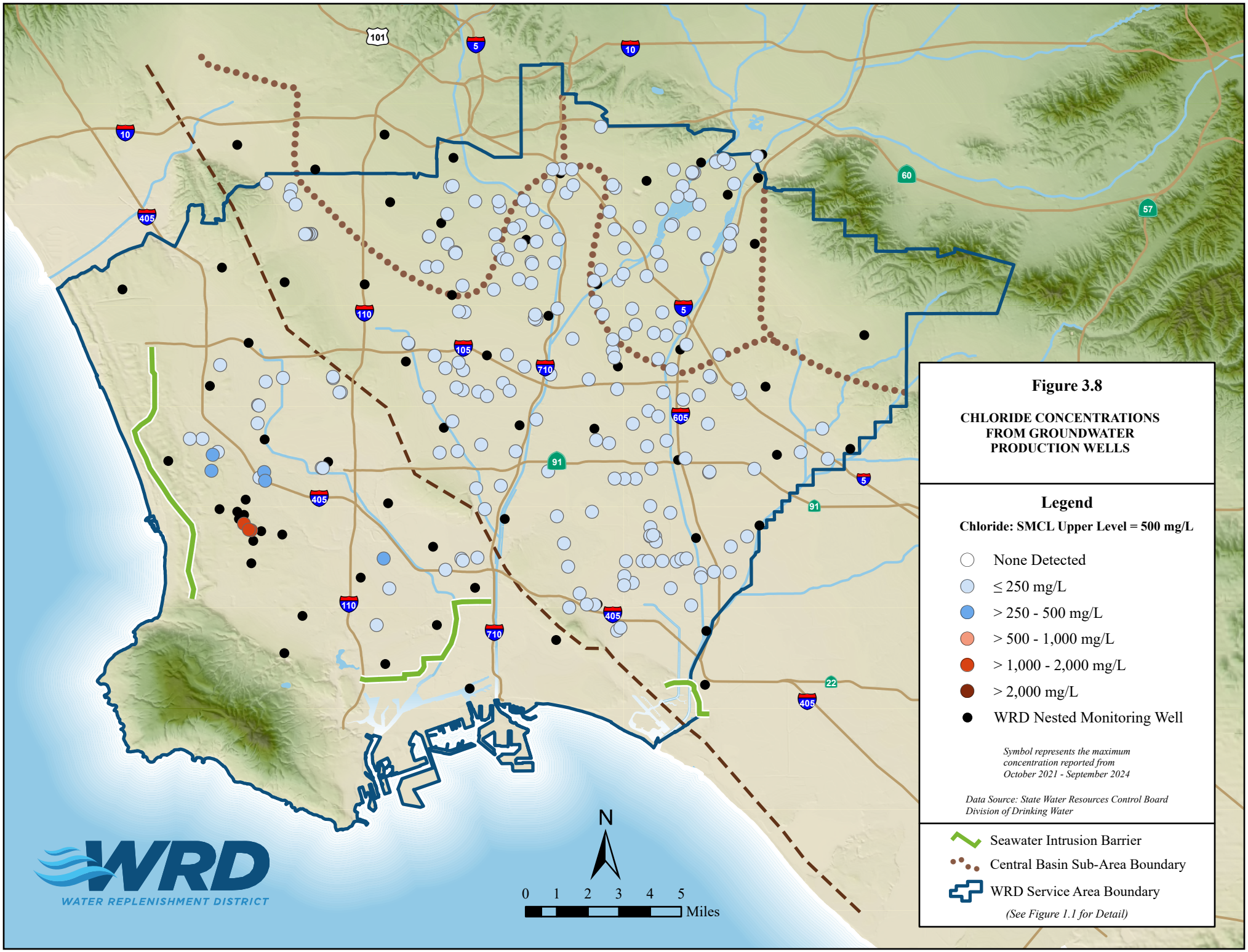


Figure 3.8
CHLORIDE CONCENTRATIONS FROM GROUNDWATER PRODUCTION WELLS
Legend
Chloride: SMCL Upper Level = 500 mg/L
None Detected
≤ 250 mg/L
> 250 - 500 mg/L
> 500 - 1,000 mg/L
> 1,000 - 2,000 mg/L
> 2,000 mg/L
WRD Nested Monitoring Well
Symbol represents the maximum concentration reported from October 2021 - September 2024
Data Source: State Water Resources Control Board Division of Drinking Water
Seawater Intrusion Barrier
Central Basin Sub-Area Boundary
WRD Service Area Boundary
(See Figure 1.1 for Detail)
WRD
WATER REPLENISHMENT DISTRICT
N
0 1 2 3 4 5
Miles

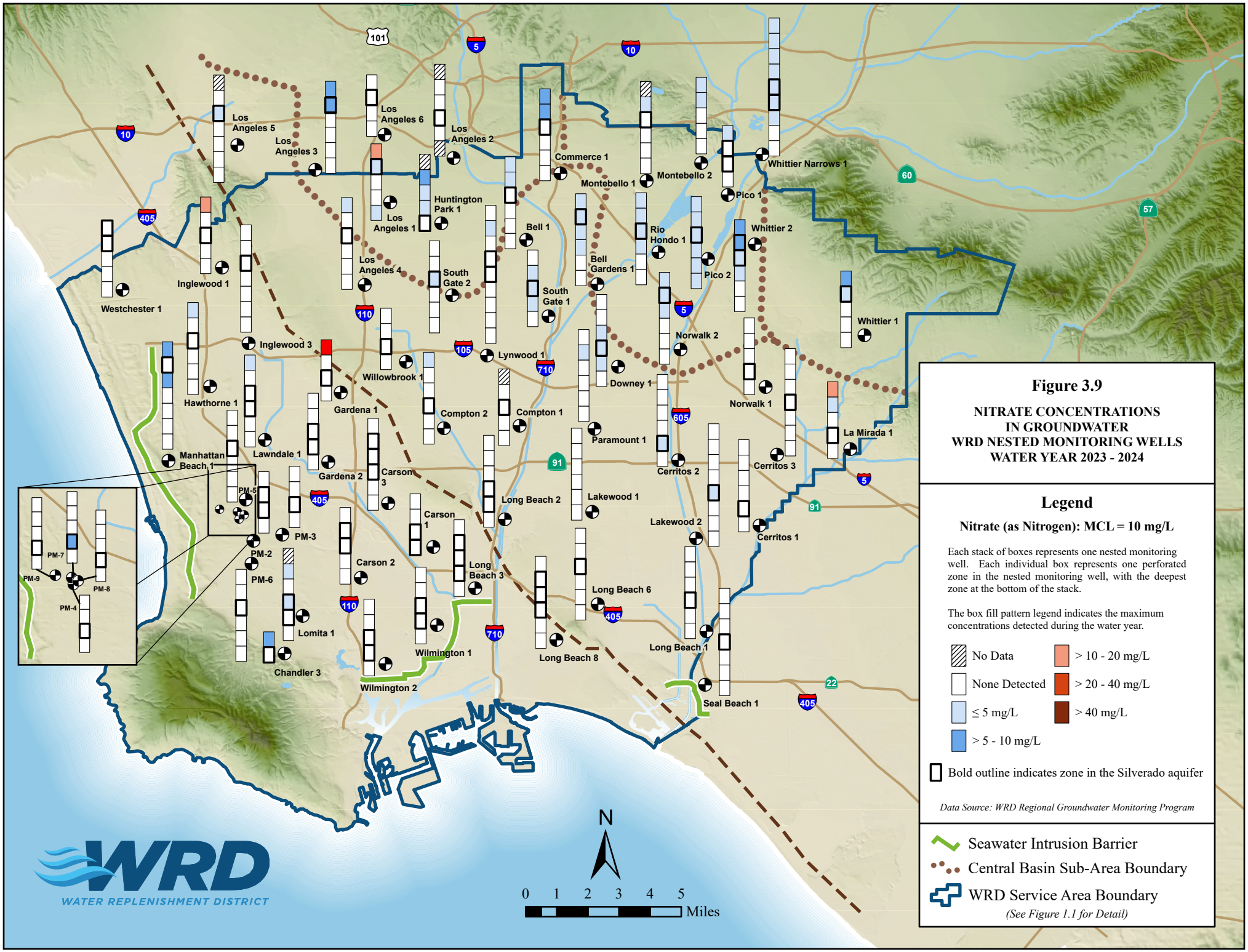


Figure 3.9

NITRATE CONCENTRATIONS IN GROUNDWATER WRD NESTED MONITORING WELLS WATER YEAR 2023 - 2024

Legend

Nitrate (as Nitrogen): MCL = 10 mg/L

Each stack of boxes represents one nested monitoring well. Each individual box represents one perforated zone in the nested monitoring well, with the deepest zone at the bottom of the stack.

The box fill pattern legend indicates the maximum concentrations detected during the water year.

- No Data
- None Detected
- ≤ 5 mg/L
- > 5 - 10 mg/L
- > 10 - 20 mg/L
- > 20 - 40 mg/L
- > 40 mg/L

Bold outline indicates zone in the Silverado aquifer

Data Source: WRD Regional Groundwater Monitoring Program

- Seawater Intrusion Barrier
- Central Basin Sub-Area Boundary
- WRD Service Area Boundary

(See Figure 1.1 for Detail)

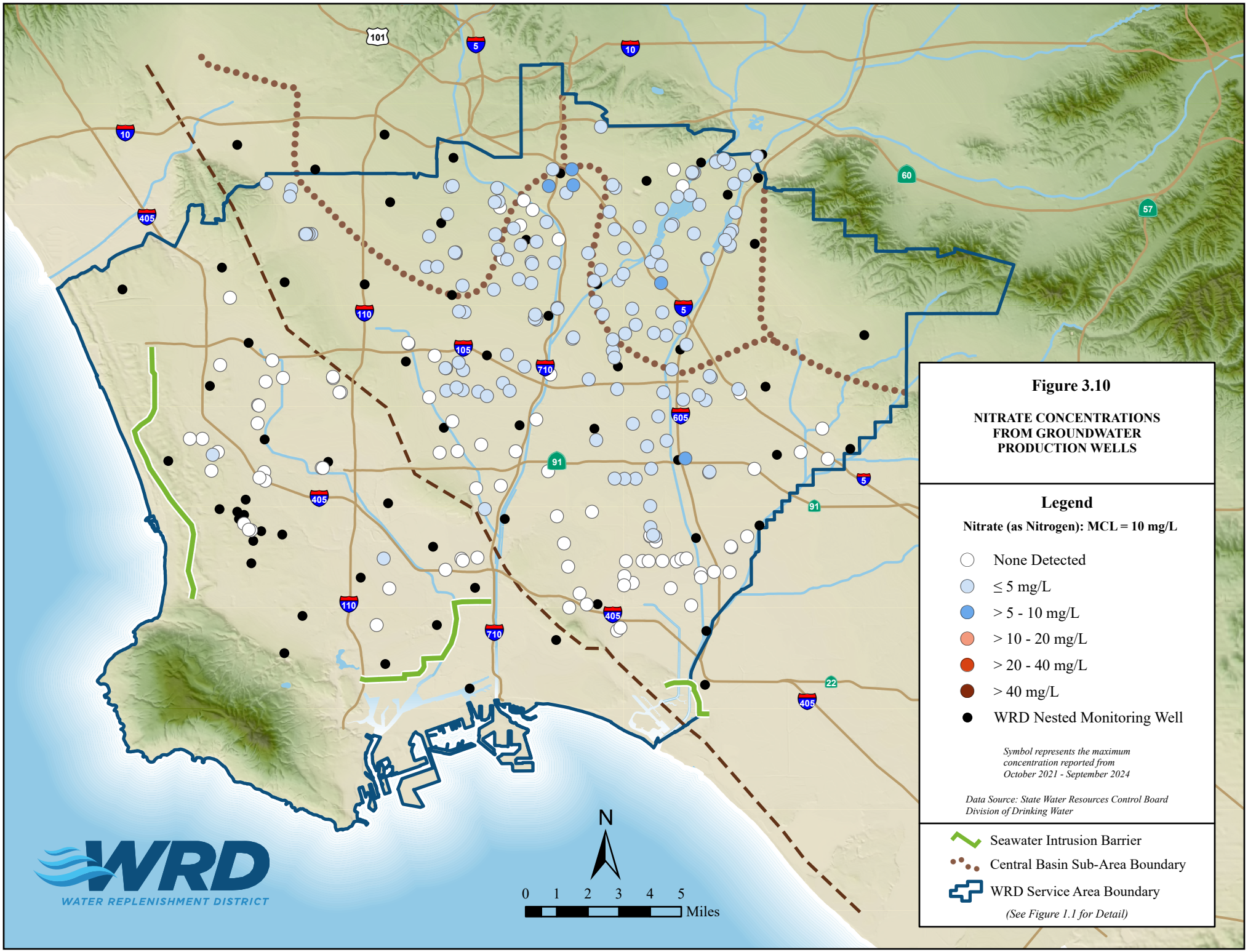
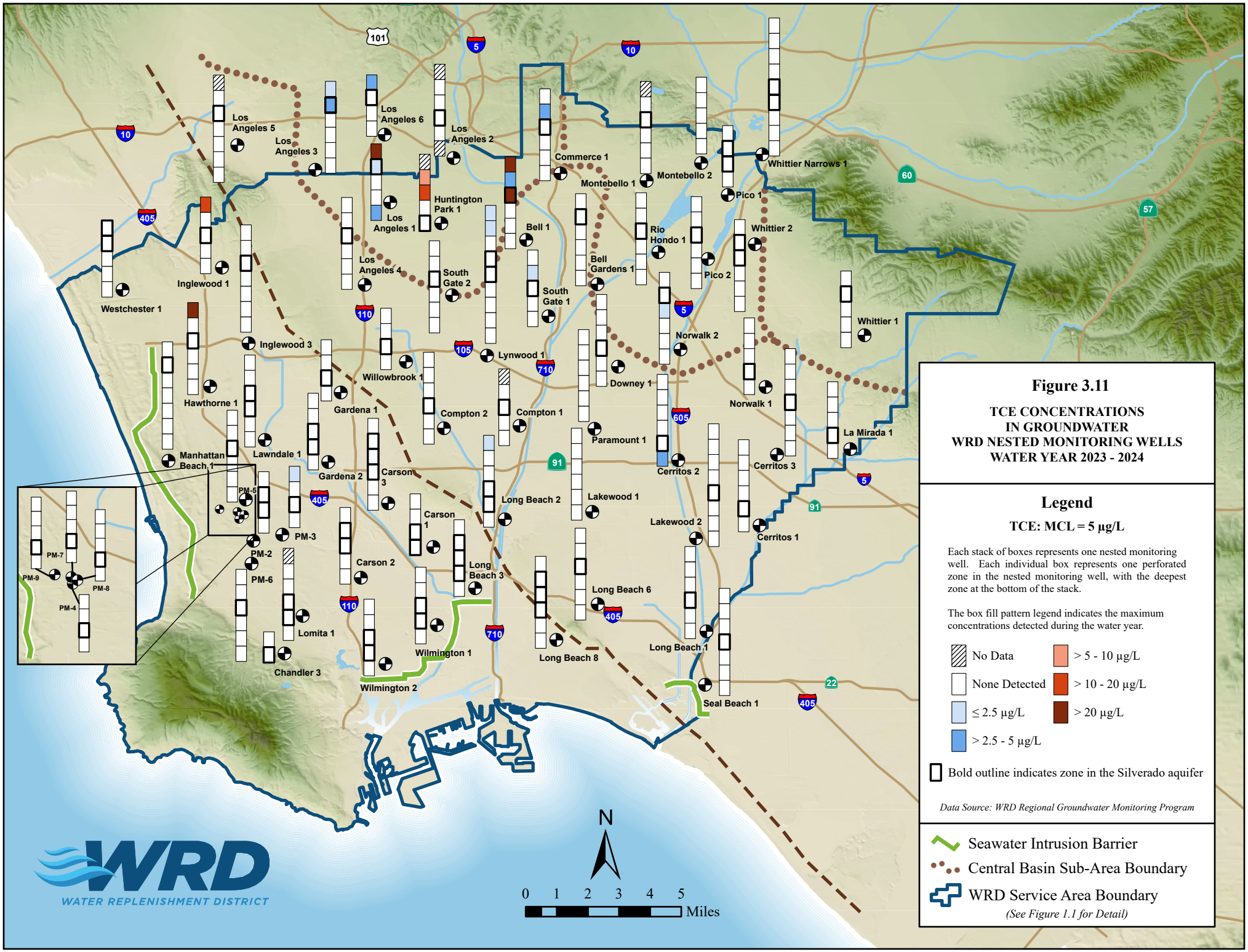


Figure 3.10
NITRATE CONCENTRATIONS FROM GROUNDWATER PRODUCTION WELLS
Legend
Nitrate (as Nitrogen): MCL = 10 mg/L
None Detected
≤ 5 mg/L
> 5 - 10 mg/L
> 10 - 20 mg/L
> 20 - 40 mg/L
> 40 mg/L
WRD Nested Monitoring Well
Symbol represents the maximum concentration reported from October 2021 - September 2024
Data Source: State Water Resources Control Board Division of Drinking Water
Seawater Intrusion Barrier
Central Basin Sub-Area Boundary
WRD Service Area Boundary
(See Figure 1.1 for Detail)
WRD
WATER REPLENISHMENT DISTRICT
N
0 1 2 3 4 5
Miles


Los Angeles 5
Los Angeles 3
Los Angeles 6
Los Angeles 2
Huntington Park 1
Los Angeles 1
Los Angeles 4
Commerce 1
Montebello 1
Montebello 2
Whittier Narrows 1
Pico 1
Whittier 2
Bell 1
South Gate 2
South Gate 1
Bell Gardens 1
Rio Hondo 1
Pico 2
Norwalk 2
Whittier 1
Inglewood 1
Westchester 1
Inglewood 3
Lynwood 1
Willowbrook 1
Downey 1
Norwalk 1
La Mirada 1
Hawthorne 1
Gardena 1
Compton 2
Compton 1
Paramount 1
Cerritos 2
Cerritos 3
Manhattan Beach 1
Lawndale 1
Gardena 2
Carson 3
Long Beach 2
Lakewood 1
Lakewood 2
Cerritos 1
PM-5
PM-3
PM-2
PM-6
PM-7
PM-9
PM-8
PM-4
Carson 2
Carson 1
Long Beach 3
Long Beach 6
Long Beach 1
Lomita 1
Wilmington 1
Long Beach 8
Chandler 3
Wilmington 2
Seal Beach 1
101
5
10
405
110
105
710
91
605
60
57
22
0 1 2 3 4 5
Miles
N
WRD
WATER REPLENISHMENT DISTRICT
Figure 3.11
TCE CONCENTRATIONS
IN GROUNDWATER
WRD NESTED MONITORING WELLS
WATER YEAR 2023 - 2024
Legend
TCE: MCL = 5 µg/L
Each stack of boxes represents one nested monitoring well. Each individual box represents one perforated zone in the nested monitoring well, with the deepest zone at the bottom of the stack.
The box fill pattern legend indicates the maximum concentrations detected during the water year.
No Data
None Detected
≤ 2.5 µg/L
> 2.5 - 5 µg/L
> 5 - 10 µg/L
> 10 - 20 µg/L
> 20 µg/L
Bold outline indicates zone in the Silverado aquifer
Data Source: WRD Regional Groundwater Monitoring Program
Seawater Intrusion Barrier
Central Basin Sub-Area Boundary
WRD Service Area Boundary
(See Figure 1.1 for Detail)

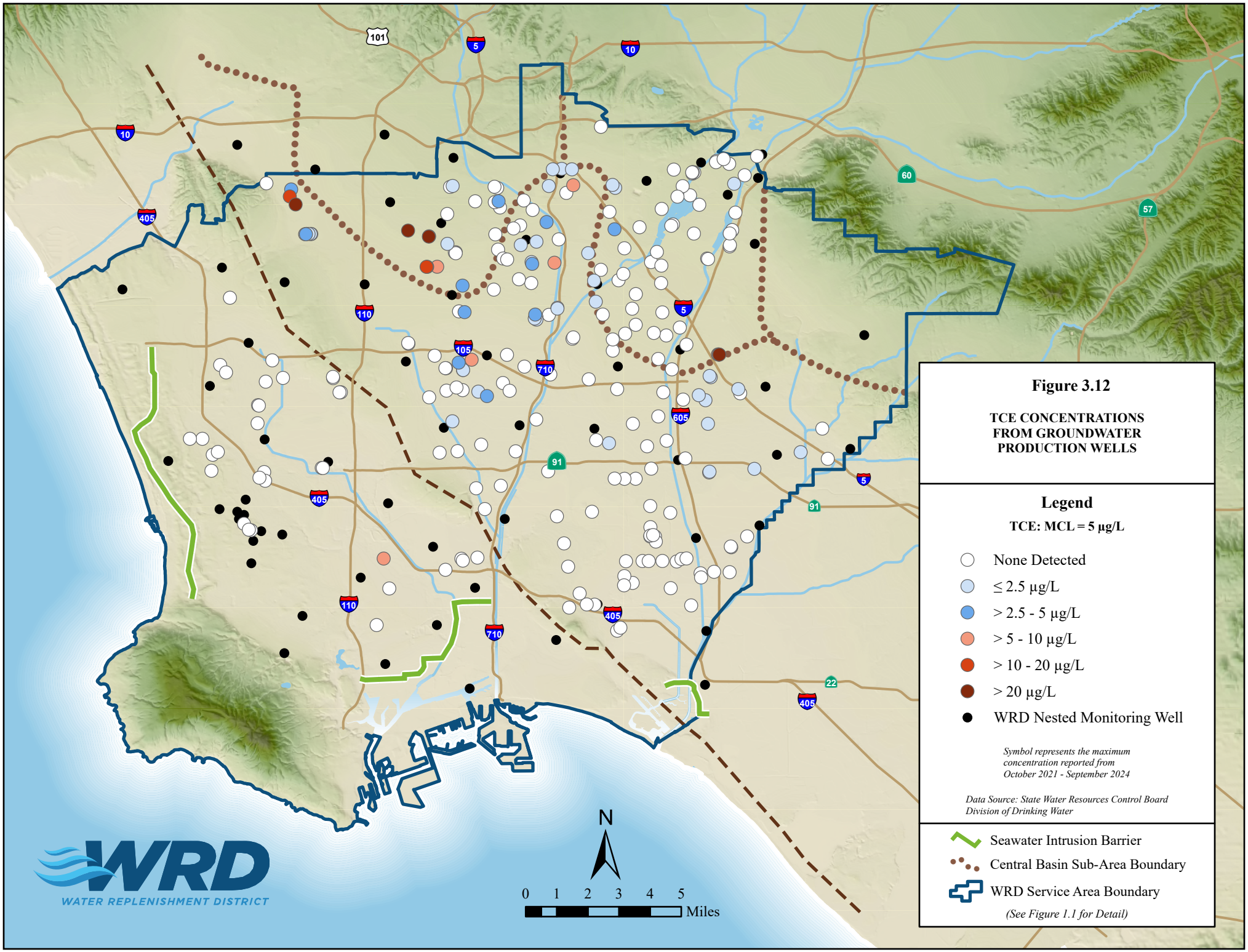


Figure 3.12
TCE CONCENTRATIONS FROM GROUNDWATER PRODUCTION WELLS
Legend
TCE: MCL = 5 µg/L
None Detected
≤ 2.5 µg/L
> 2.5 - 5 µg/L
> 5 - 10 µg/L
> 10 - 20 µg/L
> 20 µg/L
WRD Nested Monitoring Well
Symbol represents the maximum concentration reported from October 2021 - September 2024
Data Source: State Water Resources Control Board Division of Drinking Water
Seawater Intrusion Barrier
Central Basin Sub-Area Boundary
WRD Service Area Boundary
(See Figure 1.1 for Detail)
WRD
WATER REPLENISHMENT DISTRICT
N
0 1 2 3 4 5
Miles

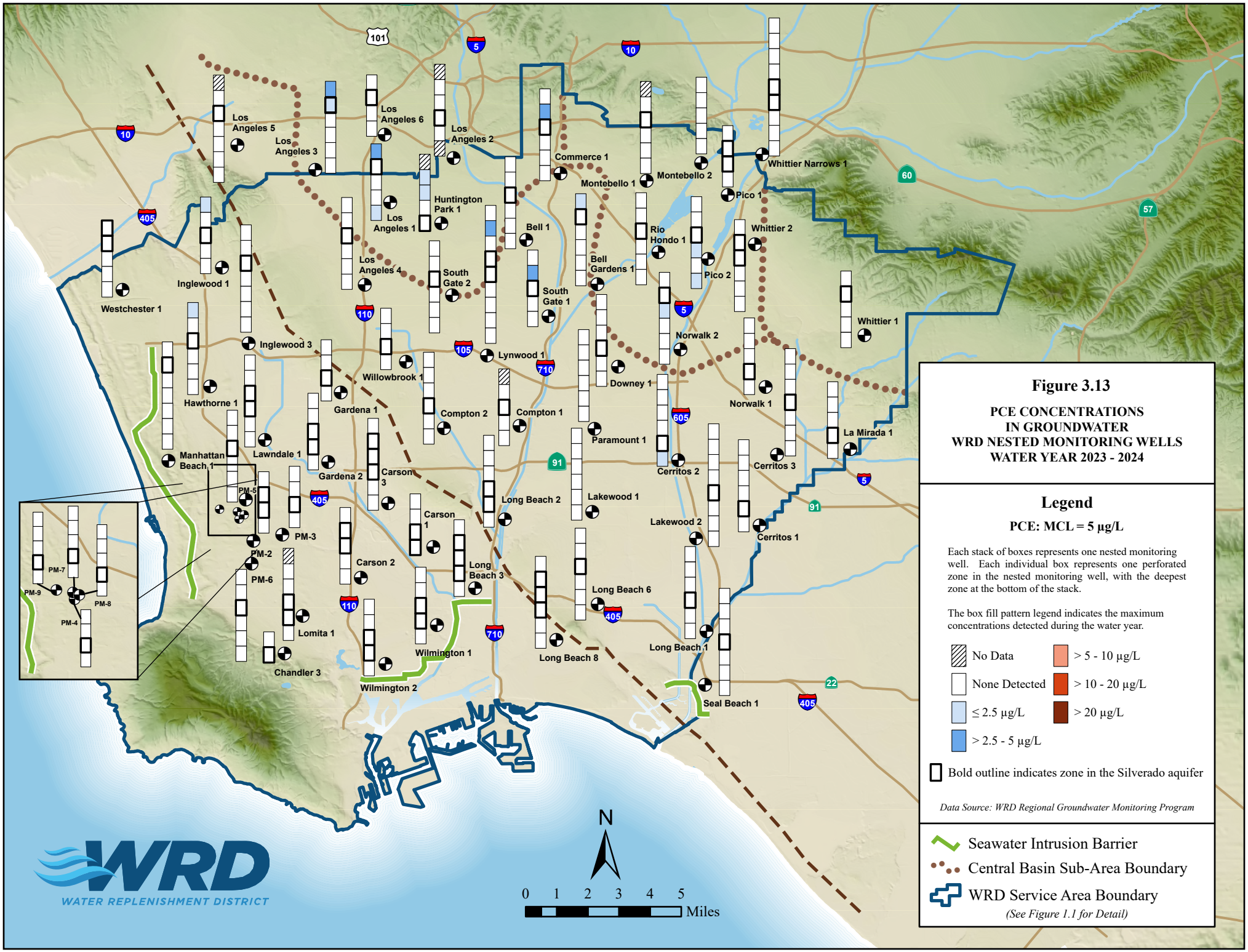


Figure 3.13
PCE CONCENTRATIONS
IN GROUNDWATER
WRD NESTED MONITORING WELLS
WATER YEAR 2023 - 2024
Legend
PCE: MCL = 5 µg/L
Each stack of boxes represents one nested monitoring well. Each individual box represents one perforated zone in the nested monitoring well, with the deepest zone at the bottom of the stack.
The box fill pattern legend indicates the maximum concentrations detected during the water year.
No Data
None Detected
≤ 2.5 µg/L
> 2.5 - 5 µg/L
> 5 - 10 µg/L
> 10 - 20 µg/L
> 20 µg/L
Bold outline indicates zone in the Silverado aquifer
Data Source: WRD Regional Groundwater Monitoring Program
Seawater Intrusion Barrier
Central Basin Sub-Area Boundary
WRD Service Area Boundary
(See Figure 1.1 for Detail)
WATER REPLENISHMENT DISTRICT
N
0 1 2 3 4 5
Miles
Los Angeles 5
Los Angeles 3
Los Angeles 6
Los Angeles 2
Los Angeles 1
Los Angeles 4
Huntington Park 1
Commerce 1
Montebello 1
Montebello 2
Whittier Narrows 1
Pico 1
Whittier 2
Pico 2
Rio Hondo 1
Bell 1
Bell Gardens 1
South Gate 2
South Gate 1
Inglewood 1
Inglewood 3
Westchester 1
Lynwood 1
Willowbrook 1
Norwalk 2
Norwalk 1
Whittier 1
Downey 1
Paramount 1
Compton 2
Compton 1
Hawthorne 1
Gardena 1
Gardena 2
Manhattan Beach 1
Lawndale 1
Carson 3
Carson 1
Carson 2
Long Beach 2
Lakewood 1
Lakewood 2
Cerritos 2
Cerritos 3
Cerritos 1
La Mirada 1
PM-5
PM-3
PM-2
PM-6
PM-7
PM-8
PM-9
PM-4
Lomita 1
Chandler 3
Wilmington 1
Wilmington 2
Long Beach 3
Long Beach 6
Long Beach 8
Long Beach 1
Seal Beach 1

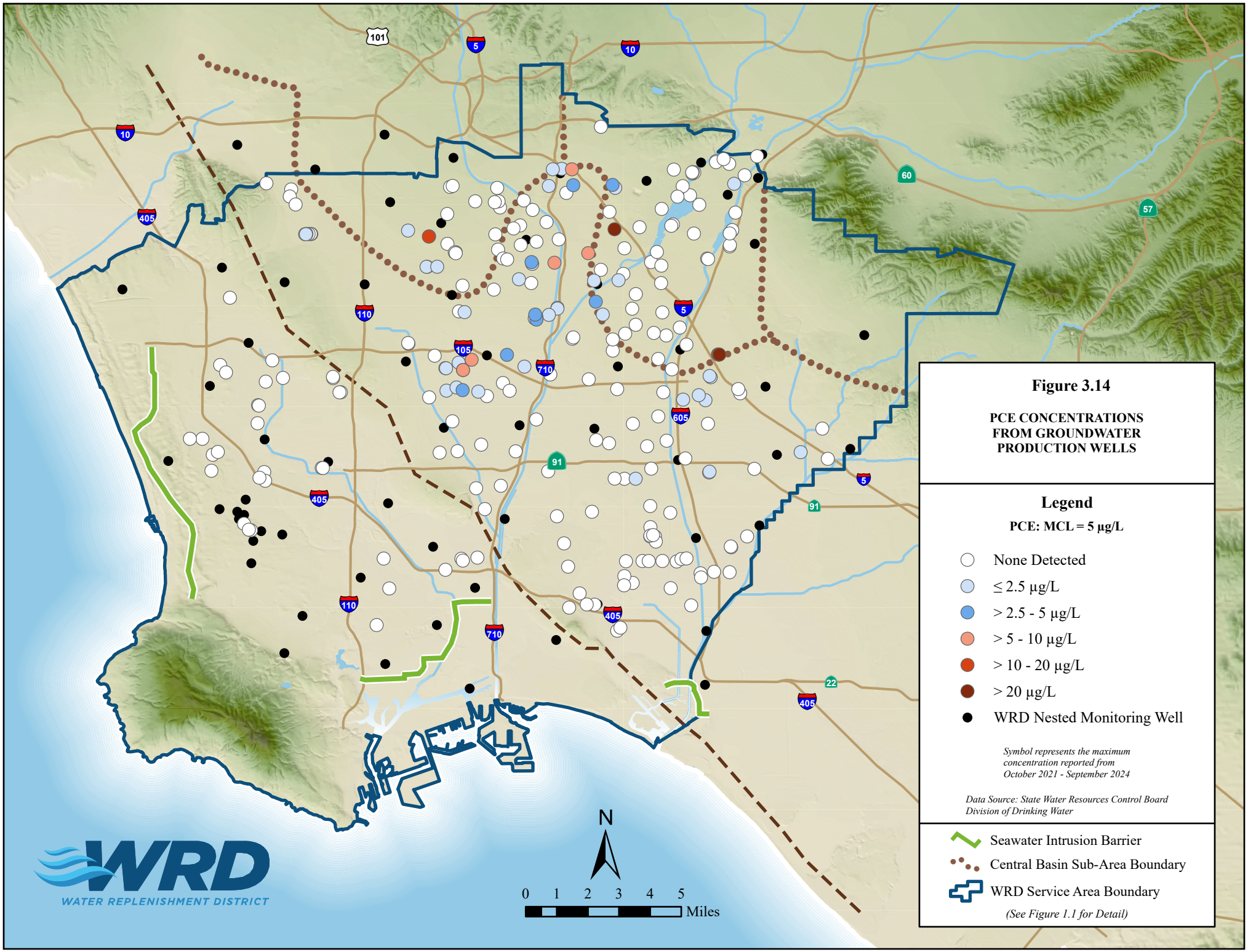
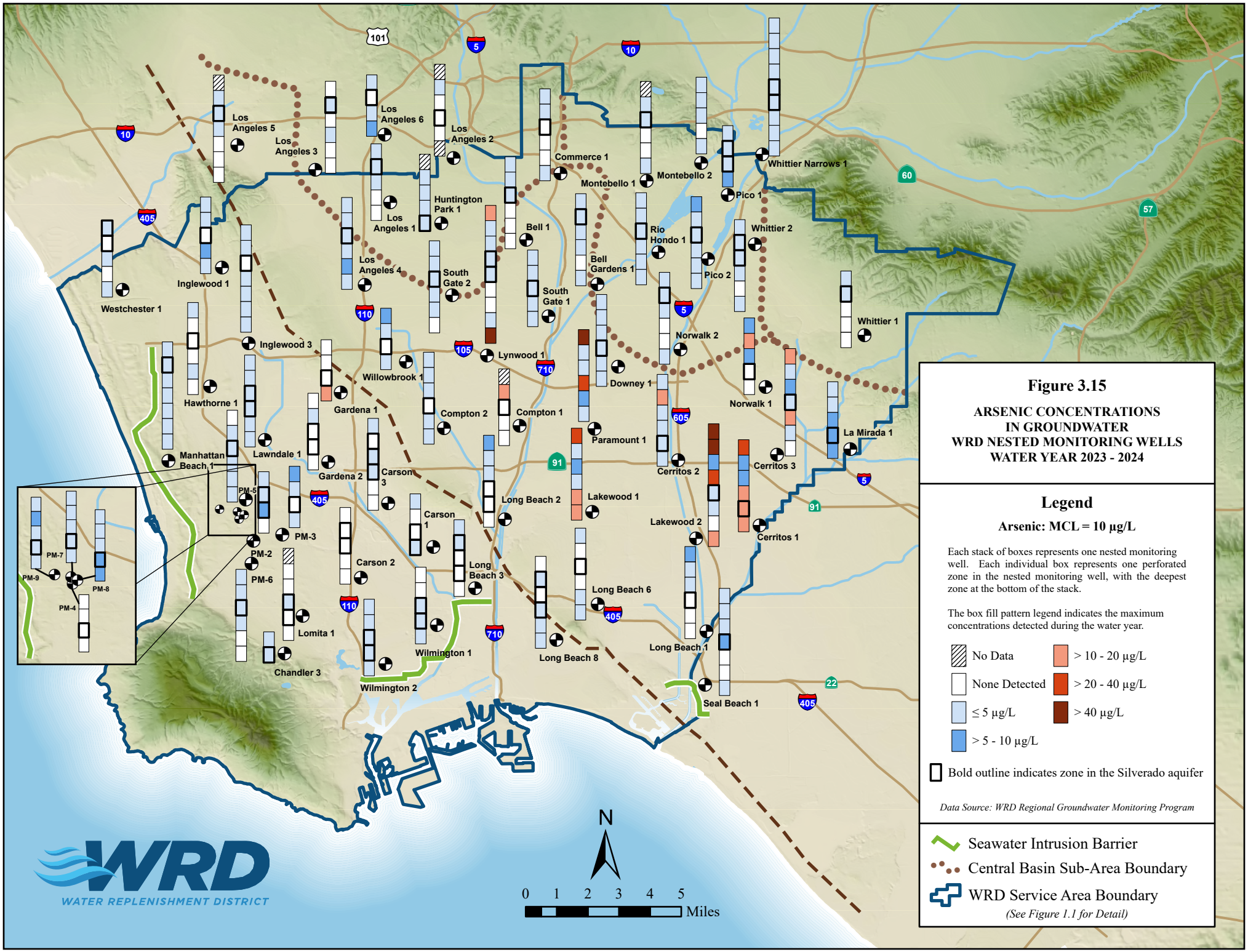


Figure 3.14
PCE CONCENTRATIONS FROM GROUNDWATER PRODUCTION WELLS
Legend
PCE: MCL = 5 µg/L
None Detected
≤ 2.5 µg/L
> 2.5 - 5 µg/L
> 5 - 10 µg/L
> 10 - 20 µg/L
> 20 µg/L
WRD Nested Monitoring Well
Symbol represents the maximum concentration reported from October 2021 - September 2024
Data Source: State Water Resources Control Board Division of Drinking Water
Seawater Intrusion Barrier
Central Basin Sub-Area Boundary
WRD Service Area Boundary
(See Figure 1.1 for Detail)
WRD
WATER REPLENISHMENT DISTRICT
N
0 1 2 3 4 5
Miles


Los Angeles 5
Los Angeles 3
Los Angeles 6
Los Angeles 2
Huntington Park 1
Los Angeles 1
Los Angeles 4
Commerce 1
Montebello 1
Montebello 2
Whittier Narrows 1
Pico 1
Whittier 2
Bell 1
Bell Gardens 1
Rio Hondo 1
Pico 2
South Gate 2
South Gate 1
Inglewood 1
Westchester 1
Inglewood 3
Lynwood 1
Willowbrook 1
Norwalk 2
Whittier 1
Hawthorne 1
Gardena 1
Compton 2
Compton 1
Downey 1
Norwalk 1
La Mirada 1
Manhattan Beach 1
Lawndale 1
Gardena 2
Carson 3
Paramount 1
Cerritos 2
Cerritos 3
PM-5
PM-3
Long Beach 2
Lakewood 1
Lakewood 2
Cerritos 1
PM-7
PM-9
PM-8
PM-4
PM-2
PM-6
Carson 2
Carson 1
Long Beach 3
Long Beach 6
Lomita 1
Wilmington 1
Long Beach 8
Long Beach 1
Chandler 3
Wilmington 2
Seal Beach 1
N
0 1 2 3 4 5
Miles
WRD
WATER REPLENISHMENT DISTRICT
Figure 3.15
ARSENIC CONCENTRATIONS
IN GROUNDWATER
WRD NESTED MONITORING WELLS
WATER YEAR 2023 - 2024
Legend
Arsenic: MCL = 10 µg/L
Each stack of boxes represents one nested monitoring well. Each individual box represents one perforated zone in the nested monitoring well, with the deepest zone at the bottom of the stack.
The box fill pattern legend indicates the maximum concentrations detected during the water year.
No Data
None Detected
≤ 5 µg/L
> 5 - 10 µg/L
> 10 - 20 µg/L
> 20 - 40 µg/L
> 40 µg/L
Bold outline indicates zone in the Silverado aquifer
Data Source: WRD Regional Groundwater Monitoring Program
Seawater Intrusion Barrier
Central Basin Sub-Area Boundary
WRD Service Area Boundary
(See Figure 1.1 for Detail)

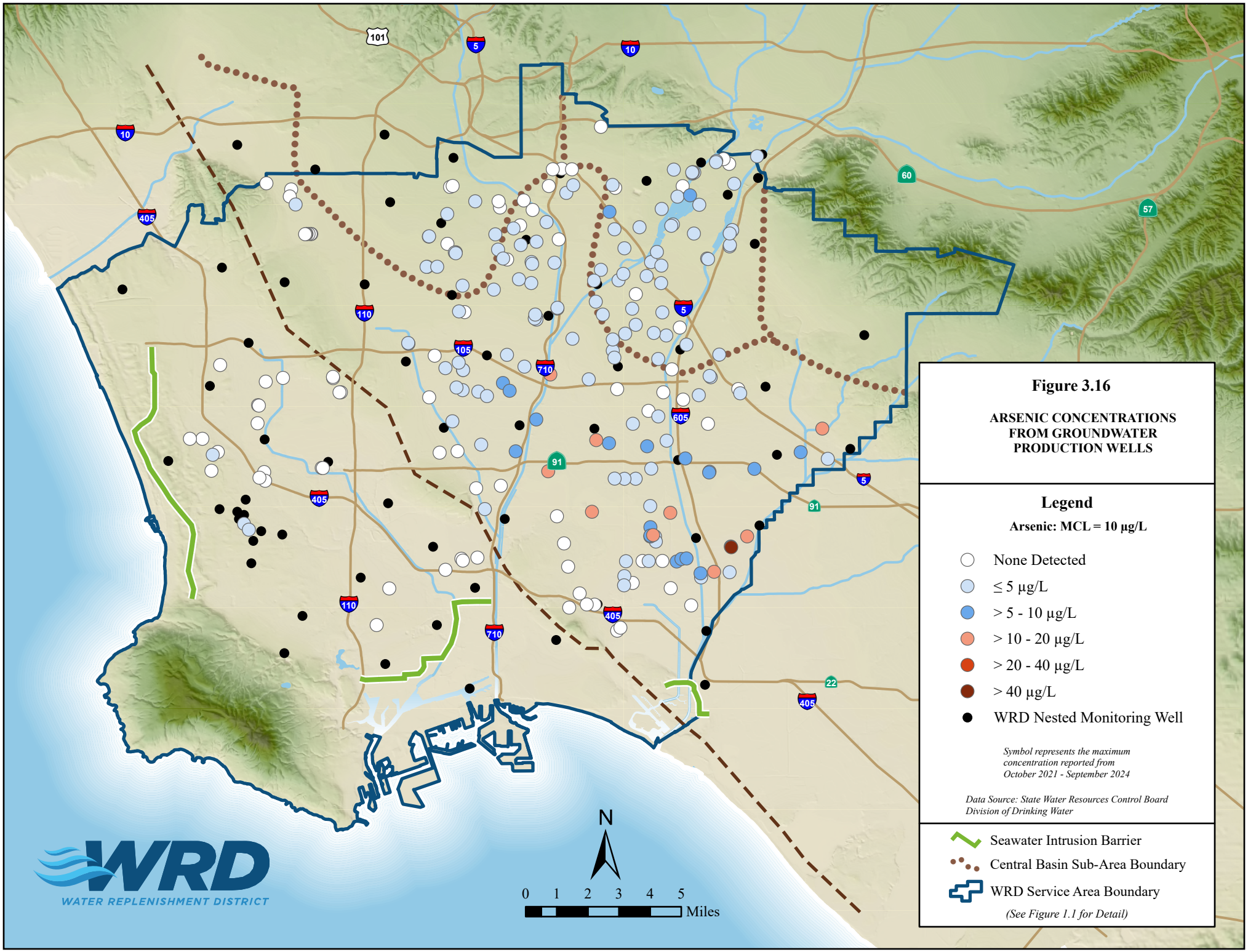


Figure 3.16
ARSENIC CONCENTRATIONS FROM GROUNDWATER PRODUCTION WELLS
Legend
Arsenic: MCL = 10 µg/L
None Detected
≤ 5 µg/L
> 5 - 10 µg/L
> 10 - 20 µg/L
> 20 - 40 µg/L
> 40 µg/L
WRD Nested Monitoring Well
Symbol represents the maximum concentration reported from October 2021 - September 2024
Data Source: State Water Resources Control Board Division of Drinking Water
Seawater Intrusion Barrier
Central Basin Sub-Area Boundary
WRD Service Area Boundary
(See Figure 1.1 for Detail)
WRD
WATER REPLENISHMENT DISTRICT
N
0 1 2 3 4 5
Miles

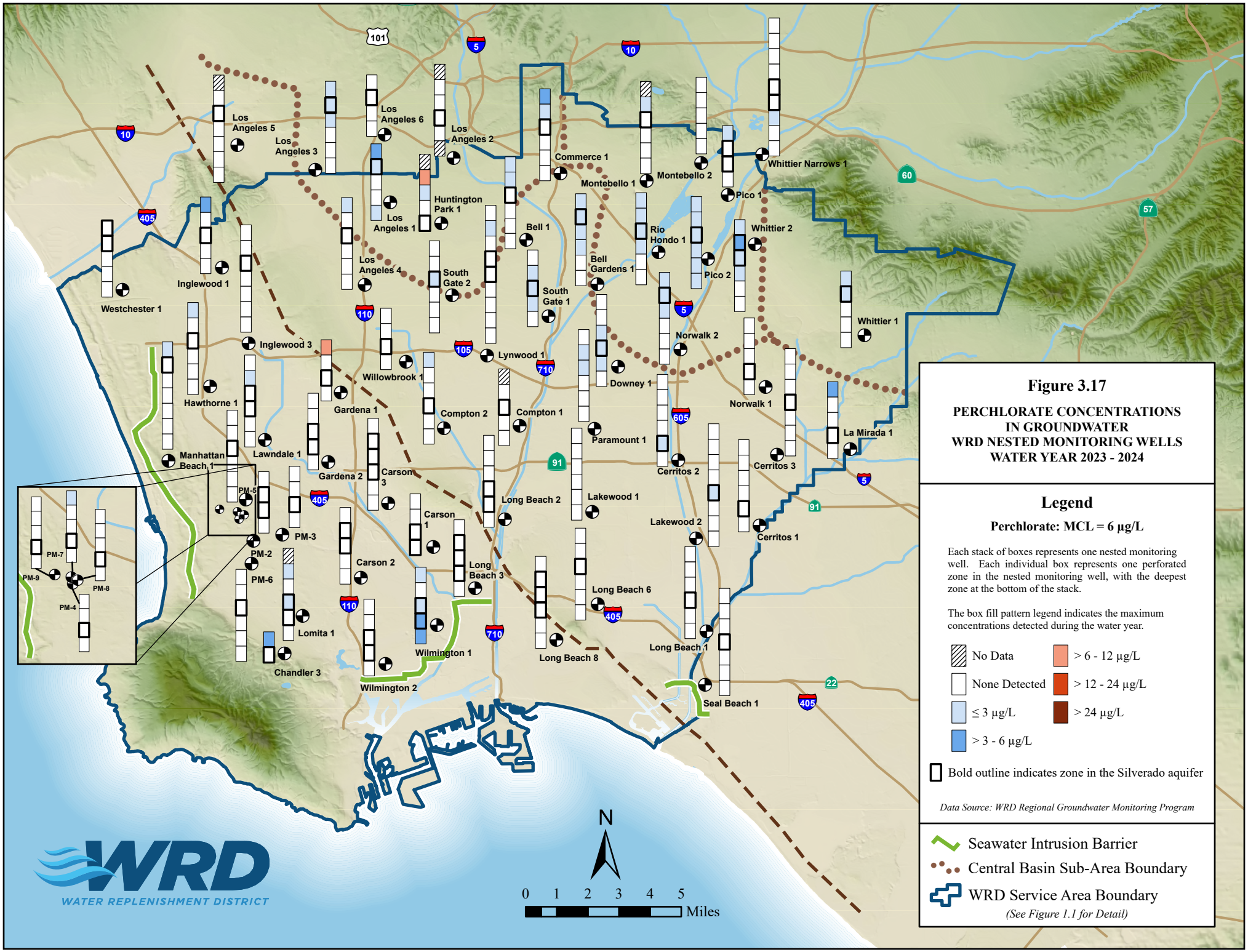


Figure 3.17

PERCHLORATE CONCENTRATIONS IN GROUNDWATER WRD NESTED MONITORING WELLS WATER YEAR 2023 - 2024

Legend

Perchlorate: MCL = 6 µg/L

Each stack of boxes represents one nested monitoring well. Each individual box represents one perforated zone in the nested monitoring well, with the deepest zone at the bottom of the stack.

The box fill pattern legend indicates the maximum concentrations detected during the water year.

- No Data
- None Detected
- ≤ 3 µg/L
- > 3 - 6 µg/L
- > 6 - 12 µg/L
- > 12 - 24 µg/L
- > 24 µg/L

Bold outline indicates zone in the Silverado aquifer

Data Source: WRD Regional Groundwater Monitoring Program

- Seawater Intrusion Barrier
- Central Basin Sub-Area Boundary
- WRD Service Area Boundary

(See Figure 1.1 for Detail)

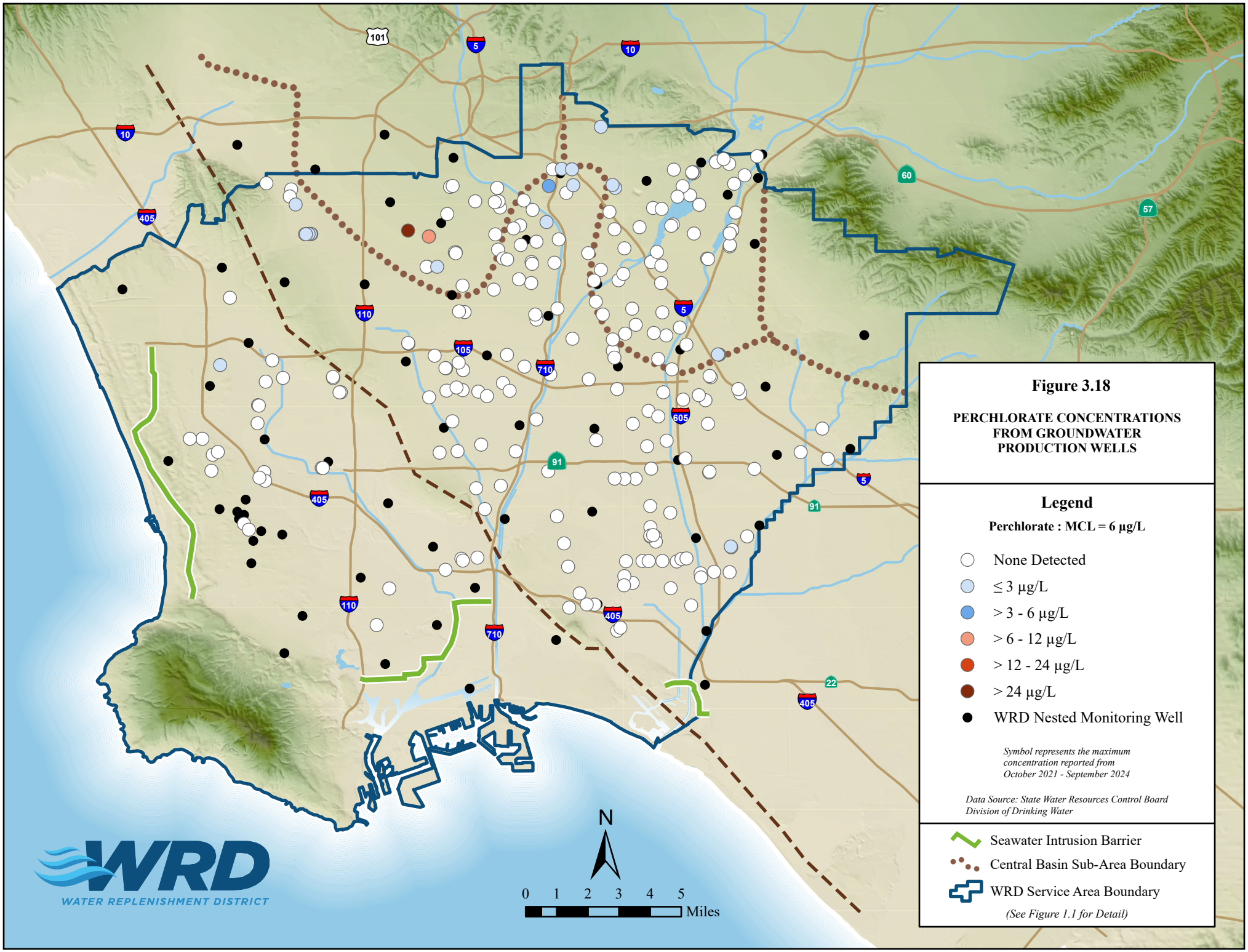
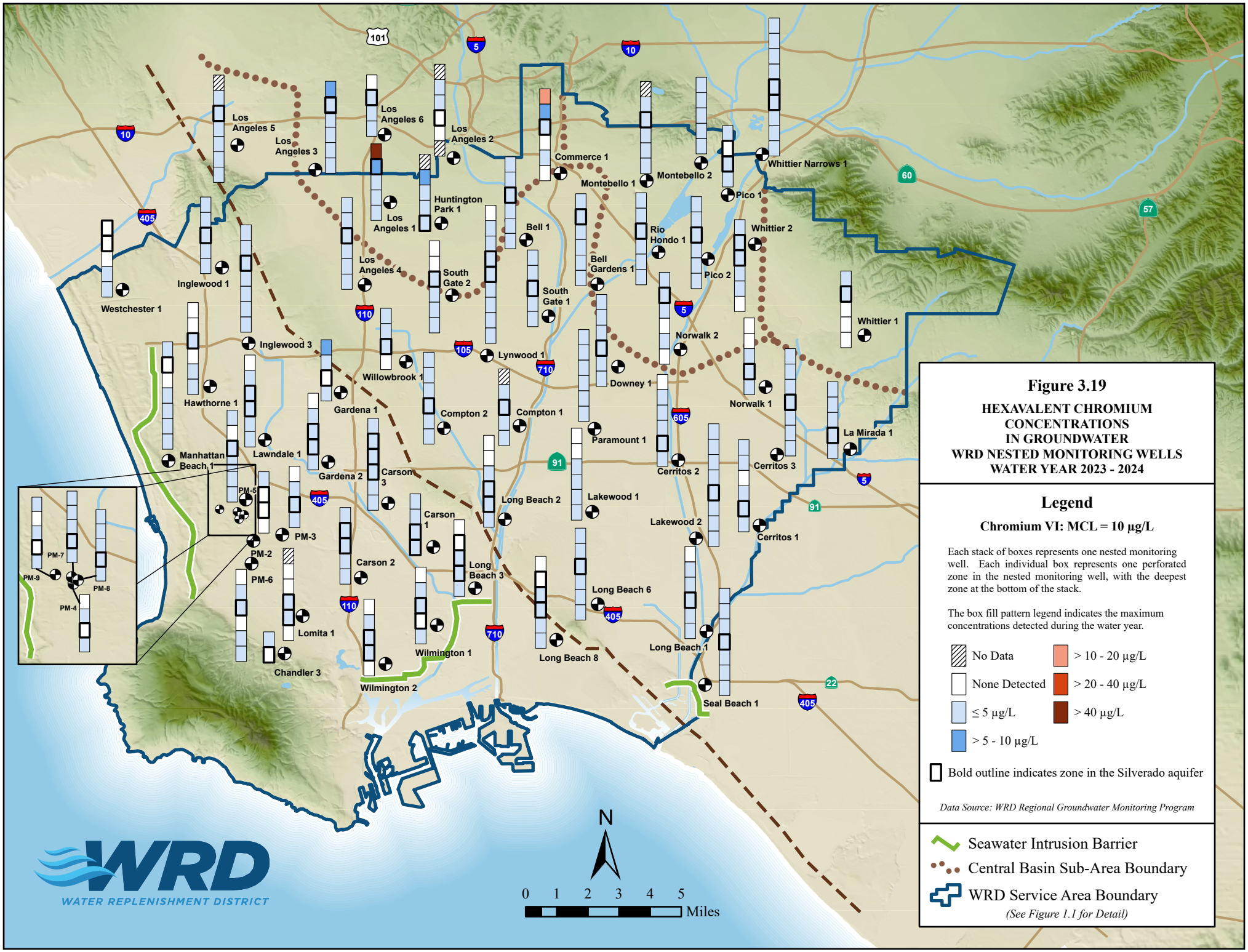


Figure 3.18
PERCHLORATE CONCENTRATIONS FROM GROUNDWATER PRODUCTION WELLS
Legend
Perchlorate : MCL = 6 µg/L
None Detected
≤ 3 µg/L
> 3 - 6 µg/L
> 6 - 12 µg/L
> 12 - 24 µg/L
> 24 µg/L
WRD Nested Monitoring Well
Symbol represents the maximum concentration reported from October 2021 - September 2024
Data Source: State Water Resources Control Board Division of Drinking Water
Seawater Intrusion Barrier
Central Basin Sub-Area Boundary
WRD Service Area Boundary
(See Figure 1.1 for Detail)
N
0 1 2 3 4 5
Miles
WRD
WATER REPLENISHMENT DISTRICT


Los Angeles 5
Los Angeles 3
Los Angeles 6
Los Angeles 2
Huntington Park 1
Los Angeles 1
Los Angeles 4
Commerce 1
Montebello 1
Montebello 2
Whittier Narrows 1
Pico 1
Whittier 2
Rio Hondo 1
Pico 2
Bell 1
Bell Gardens 1
South Gate 2
South Gate 1
Inglewood 1
Westchester 1
Inglewood 3
Lynwood 1
Willowbrook 1
Norwalk 2
Whittier 1
Hawthorne 1
Gardena 1
Compton 2
Compton 1
Downey 1
Norwalk 1
La Mirada 1
Manhattan Beach 1
Lawndale 1
Gardena 2
Carson 3
Paramount 1
Cerritos 2
Cerritos 3
PM-5
PM-3
Long Beach 2
Lakewood 1
Carson 1
Lakewood 2
Cerritos 1
PM-7
PM-2
PM-9
PM-8
PM-6
PM-4
Carson 2
Long Beach 3
Long Beach 6
Lomita 1
Wilmington 1
Long Beach 8
Long Beach 1
Chandler 3
Wilmington 2
Seal Beach 1
101
5
10
405
110
105
710
91
605
22
60
57
N
0 1 2 3 4 5
Miles
WRD
WATER REPLENISHMENT DISTRICT
Figure 3.19
HEXAVALENT CHROMIUM CONCENTRATIONS IN GROUNDWATER
WRD NESTED MONITORING WELLS
WATER YEAR 2023 - 2024
Legend
Chromium VI: MCL = 10 µg/L
Each stack of boxes represents one nested monitoring well. Each individual box represents one perforated zone in the nested monitoring well, with the deepest zone at the bottom of the stack.
The box fill pattern legend indicates the maximum concentrations detected during the water year.
No Data
None Detected
≤ 5 µg/L
> 5 - 10 µg/L
> 10 - 20 µg/L
> 20 - 40 µg/L
> 40 µg/L
Bold outline indicates zone in the Silverado aquifer
Data Source: WRD Regional Groundwater Monitoring Program
Seawater Intrusion Barrier
Central Basin Sub-Area Boundary
WRD Service Area Boundary
(See Figure 1.1 for Detail)

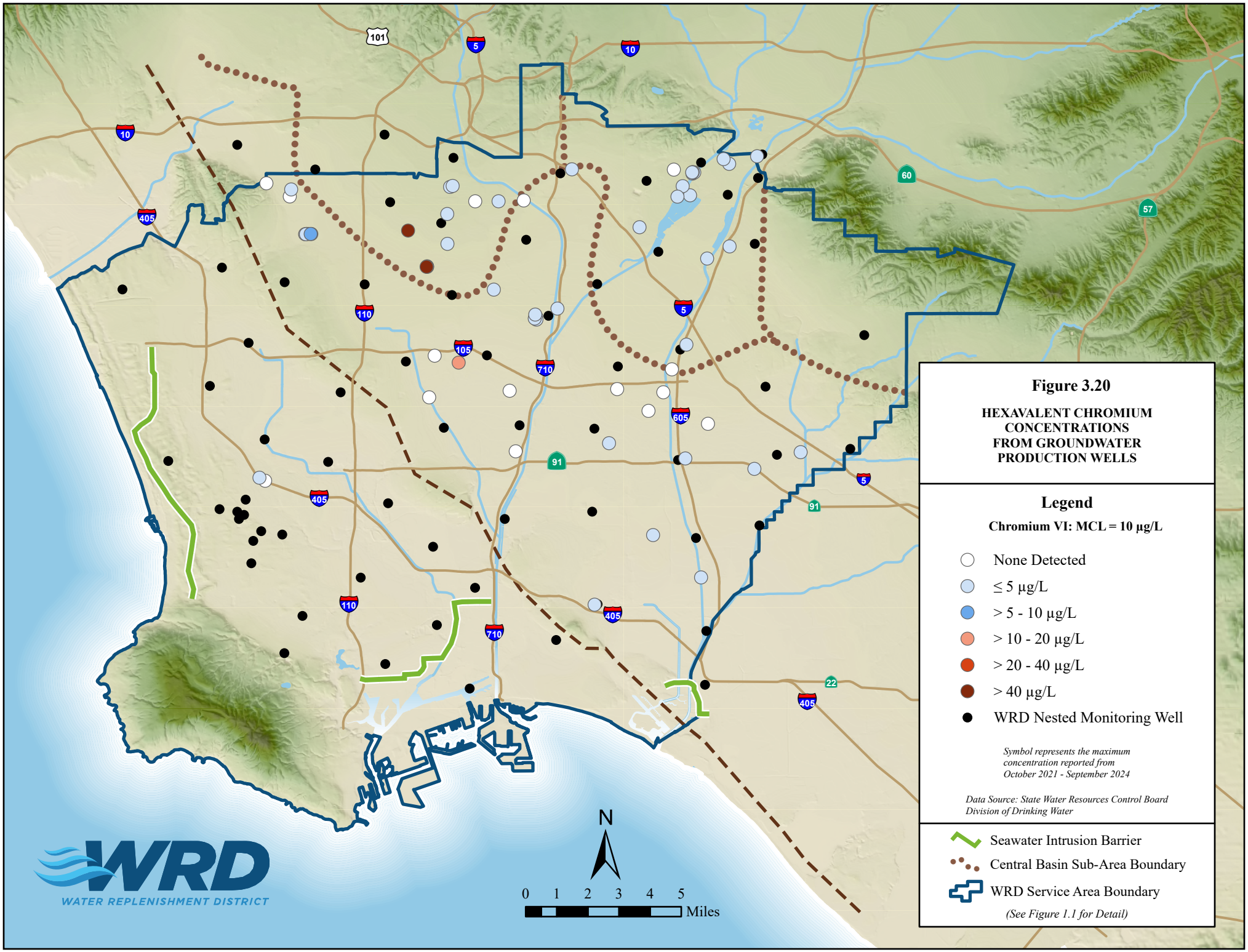
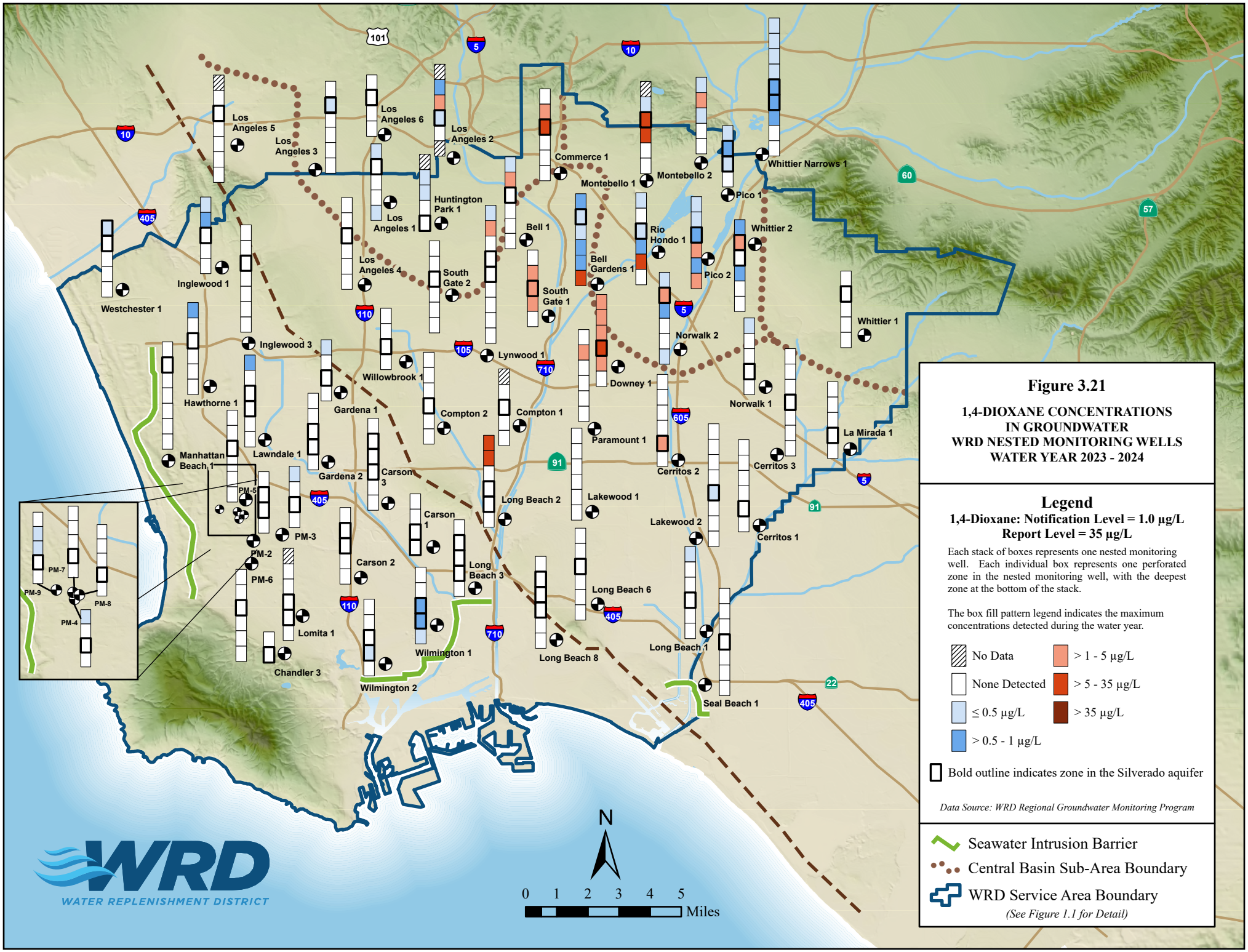


Figure 3.20
HEXAVALENT CHROMIUM CONCENTRATIONS FROM GROUNDWATER PRODUCTION WELLS
Legend
Chromium VI: MCL = 10 µg/L
None Detected
≤ 5 µg/L
> 5 - 10 µg/L
> 10 - 20 µg/L
> 20 - 40 µg/L
> 40 µg/L
WRD Nested Monitoring Well
Symbol represents the maximum concentration reported from October 2021 - September 2024
Data Source: State Water Resources Control Board Division of Drinking Water
Seawater Intrusion Barrier
Central Basin Sub-Area Boundary
WRD Service Area Boundary
(See Figure 1.1 for Detail)
WRD
WATER REPLENISHMENT DISTRICT
N
0 1 2 3 4 5
Miles


Los Angeles 5
Los Angeles 3
Los Angeles 6
Los Angeles 2
Huntington Park 1
Los Angeles 1
Los Angeles 4
Commerce 1
Montebello 1
Montebello 2
Whittier Narrows 1
Pico 1
Whittier 2
Bell 1
Bell Gardens 1
Rio Hondo 1
Pico 2
South Gate 2
South Gate 1
Inglewood 1
Westchester 1
Inglewood 3
Lynwood 1
Willowbrook 1
Norwalk 2
Whittier 1
Hawthorne 1
Gardena 1
Compton 2
Compton 1
Downey 1
Norwalk 1
La Mirada 1
Manhattan Beach 1
Lawndale 1
Gardena 2
Carson 3
Paramount 1
Cerritos 2
Cerritos 3
PM-5
Long Beach 2
Lakewood 1
Carson 1
Lakewood 2
Cerritos 1
PM-3
PM-2
PM-6
Carson 2
Long Beach 3
Long Beach 6
PM-7
PM-9
PM-8
PM-4
Lomita 1
Wilmington 1
Long Beach 8
Long Beach 1
Chandler 3
Wilmington 2
Seal Beach 1
N
0 1 2 3 4 5
Miles
WRD
WATER REPLENISHMENT DISTRICT
Figure 3.21
1,4-DIOXANE CONCENTRATIONS
IN GROUNDWATER
WRD NESTED MONITORING WELLS
WATER YEAR 2023 - 2024
Legend
1,4-Dioxane: Notification Level = 1.0 µg/L
Report Level = 35 µg/L
Each stack of boxes represents one nested monitoring well. Each individual box represents one perforated zone in the nested monitoring well, with the deepest zone at the bottom of the stack.
The box fill pattern legend indicates the maximum concentrations detected during the water year.
No Data
None Detected
≤ 0.5 µg/L
> 0.5 - 1 µg/L
> 1 - 5 µg/L
> 5 - 35 µg/L
> 35 µg/L
Bold outline indicates zone in the Silverado aquifer
Data Source: WRD Regional Groundwater Monitoring Program
Seawater Intrusion Barrier
Central Basin Sub-Area Boundary
WRD Service Area Boundary
(See Figure 1.1 for Detail)

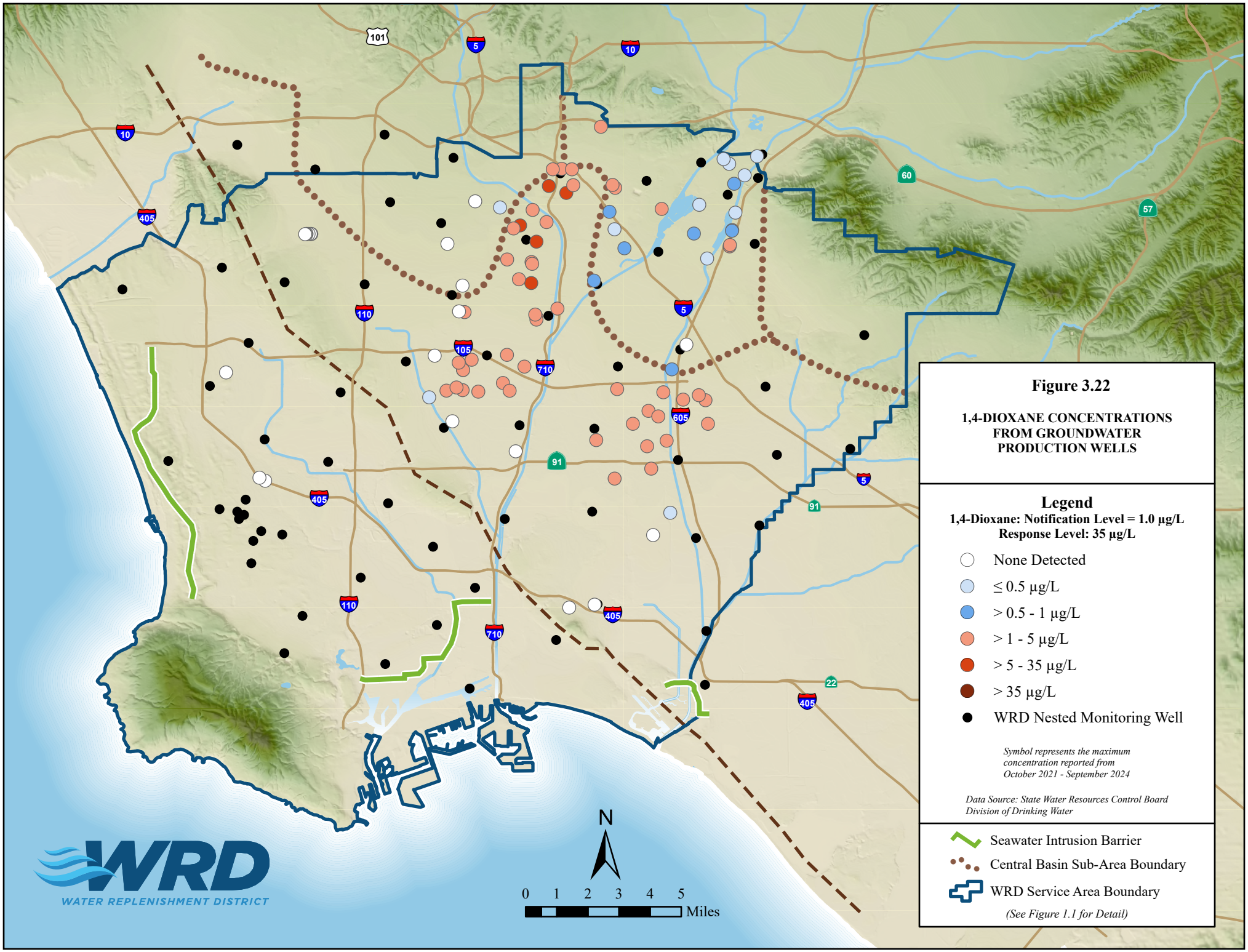


Figure 3.22
1,4-DIOXANE CONCENTRATIONS FROM GROUNDWATER PRODUCTION WELLS
Legend
1,4-Dioxane: Notification Level = 1.0 µg/L
Response Level: 35 µg/L
None Detected
≤ 0.5 µg/L
> 0.5 - 1 µg/L
> 1 - 5 µg/L
> 5 - 35 µg/L
> 35 µg/L
WRD Nested Monitoring Well
Symbol represents the maximum concentration reported from October 2021 - September 2024
Data Source: State Water Resources Control Board Division of Drinking Water
Seawater Intrusion Barrier
Central Basin Sub-Area Boundary
WRD Service Area Boundary
(See Figure 1.1 for Detail)
N
0 1 2 3 4 5
Miles
WRD
WATER REPLENISHMENT DISTRICT

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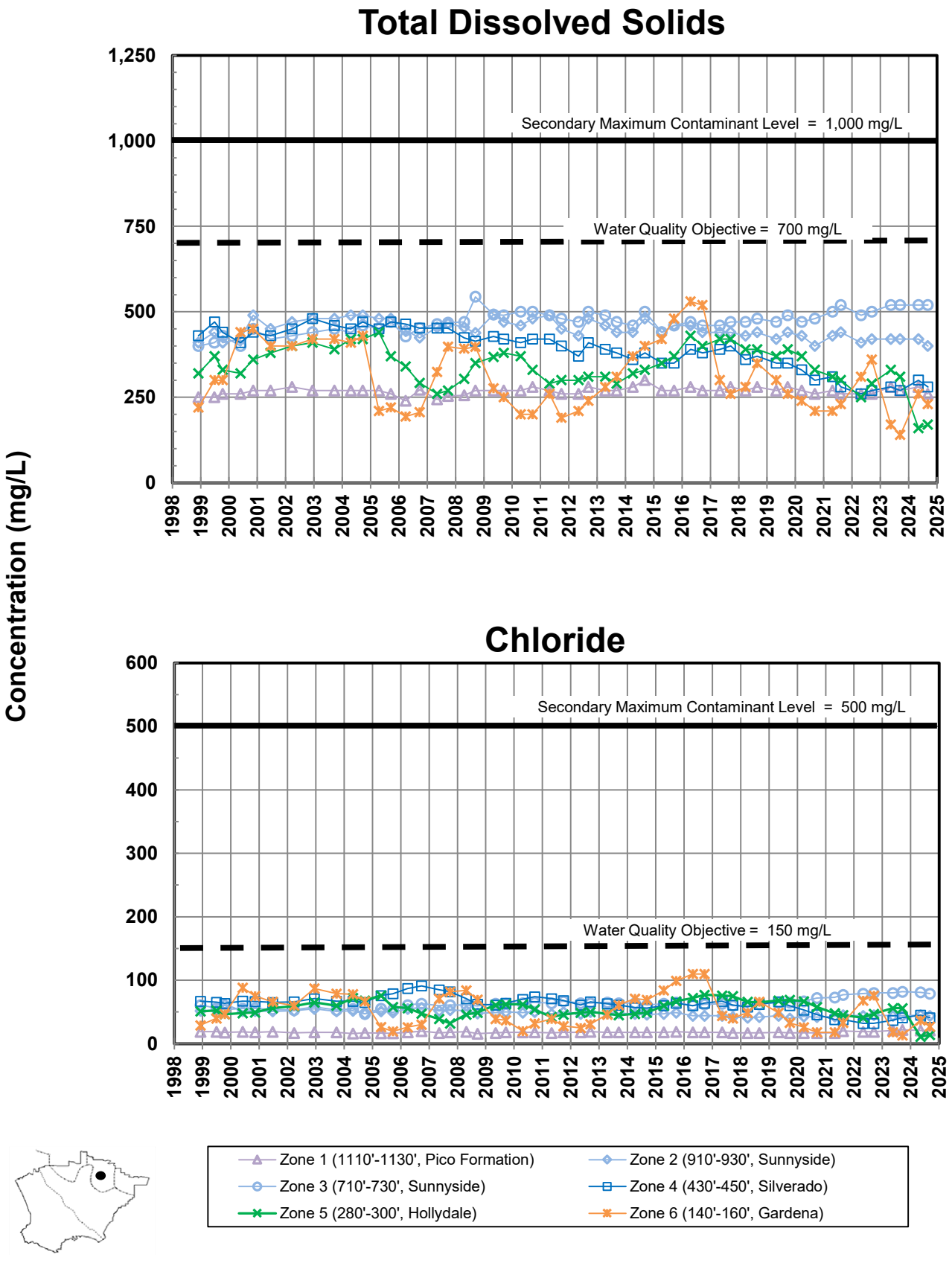
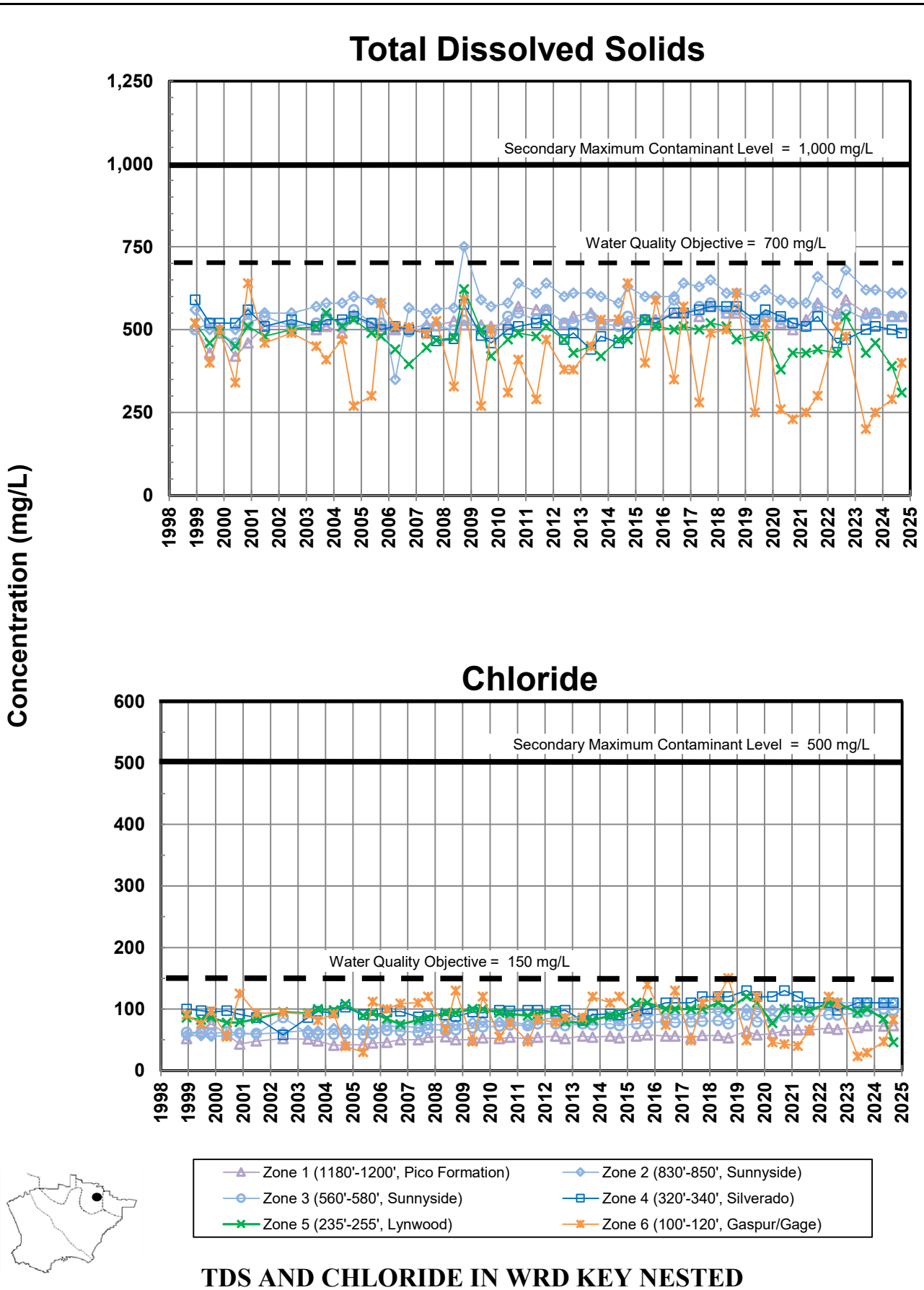


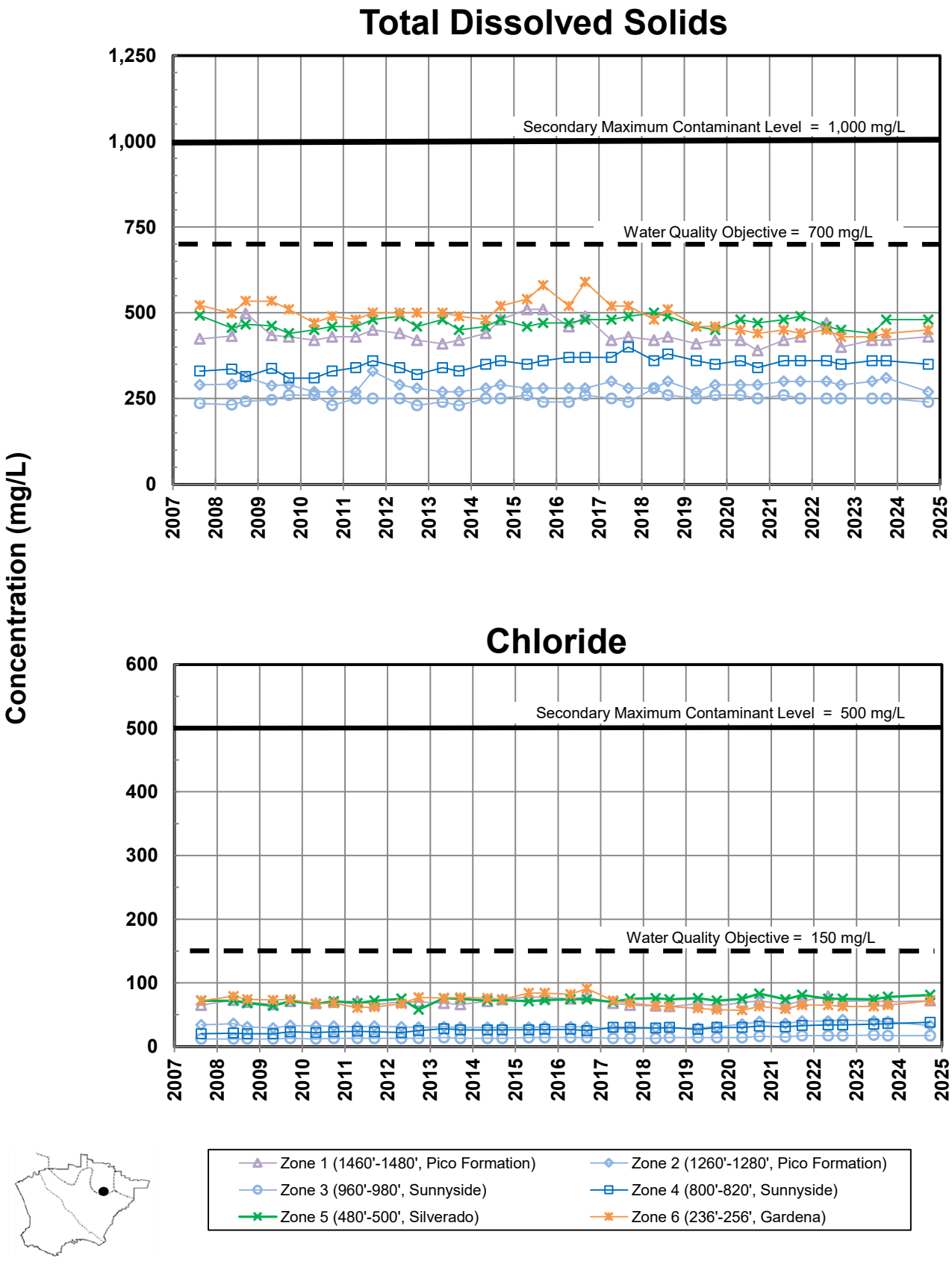
TDS AND CHLORIDE IN WRD KEY NESTED MONITORING WELL RIO HONDO #1

FIGURE 4.1



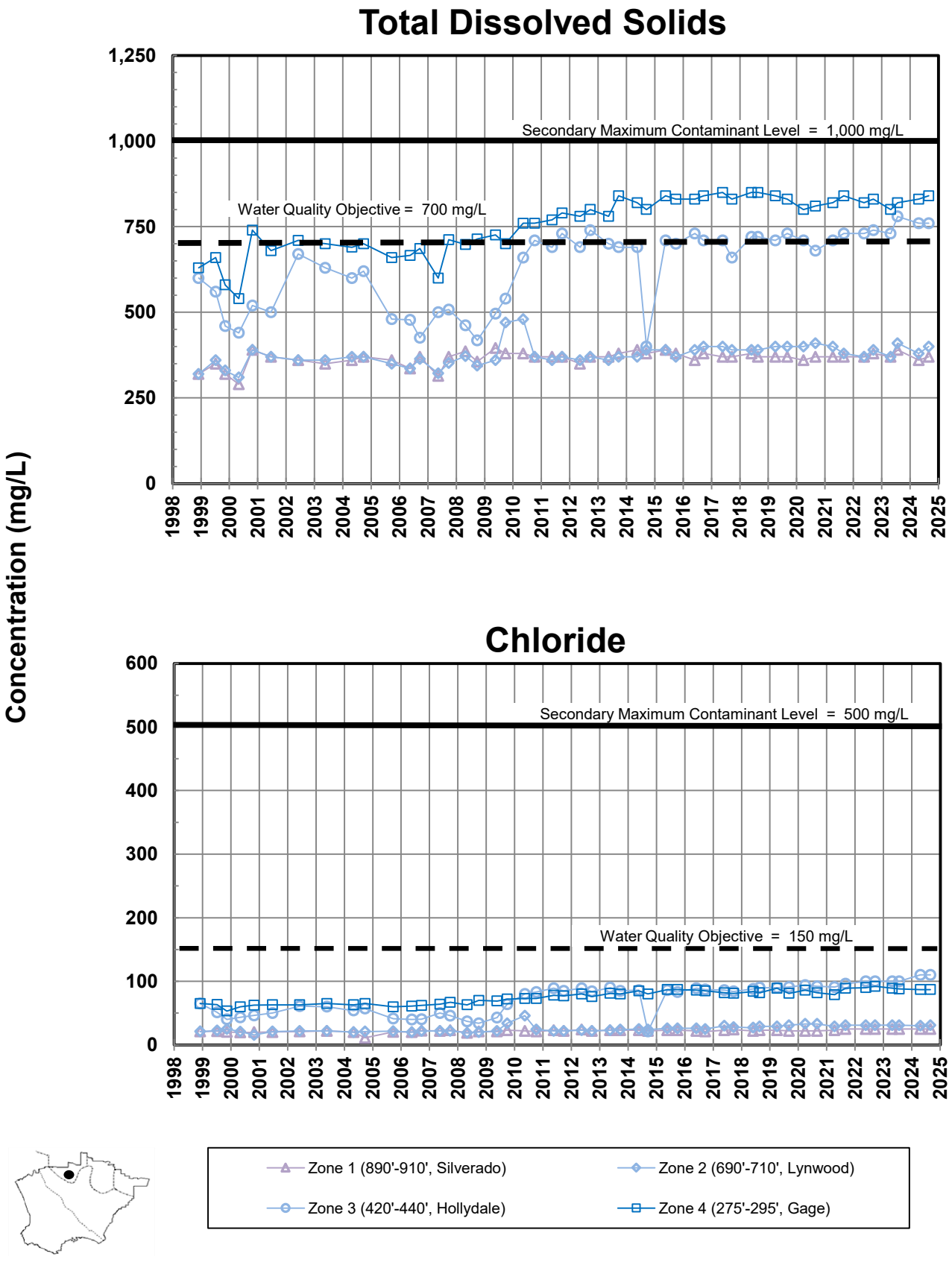
TDS AND CHLORIDE IN WRD KEY NESTED MONITORING WELL PICO #2

FIGURE 4.2



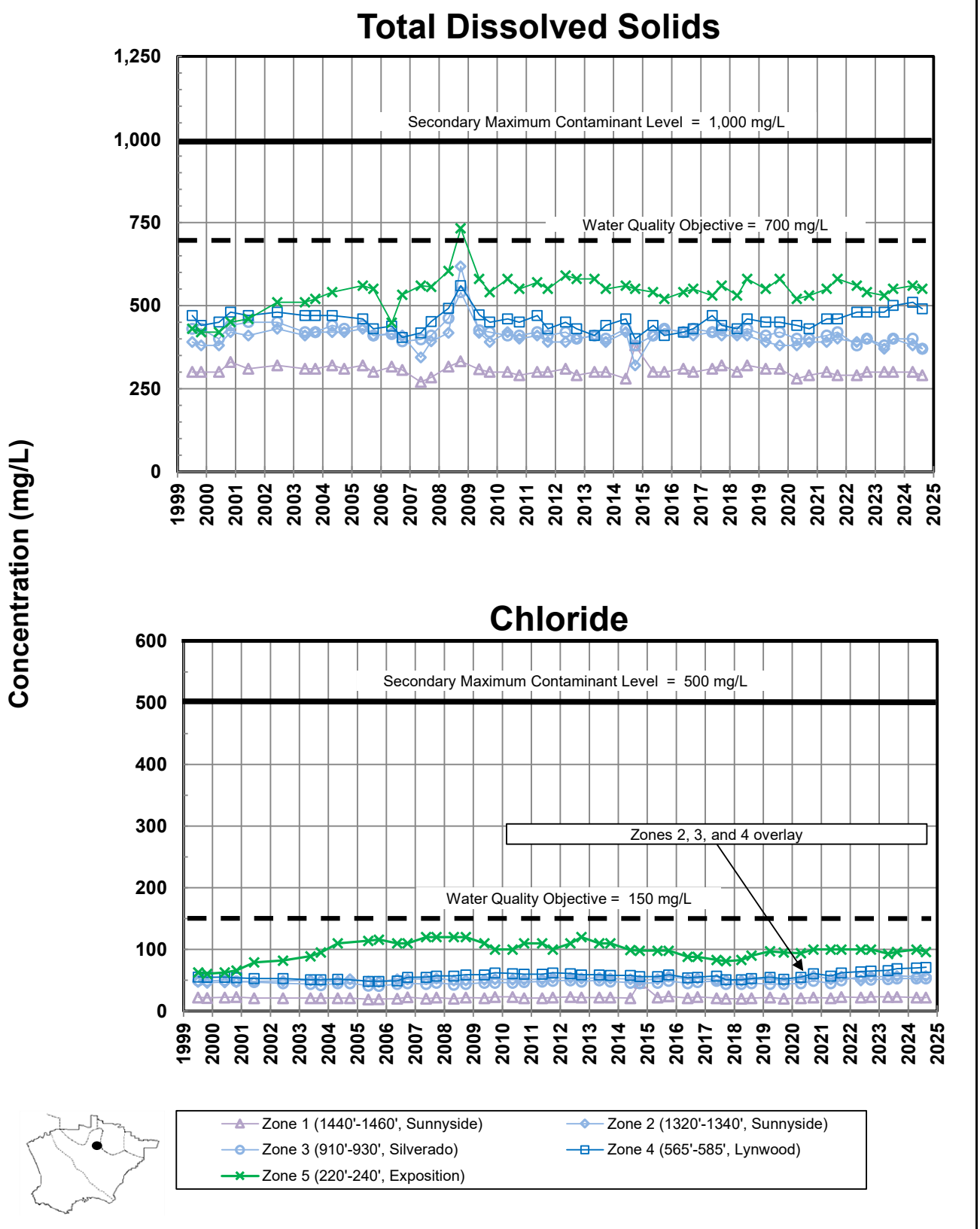
TDS AND CHLORIDE IN WRD KEY NESTED MONITORING WELL NORWALK #2

FIGURE 4.3



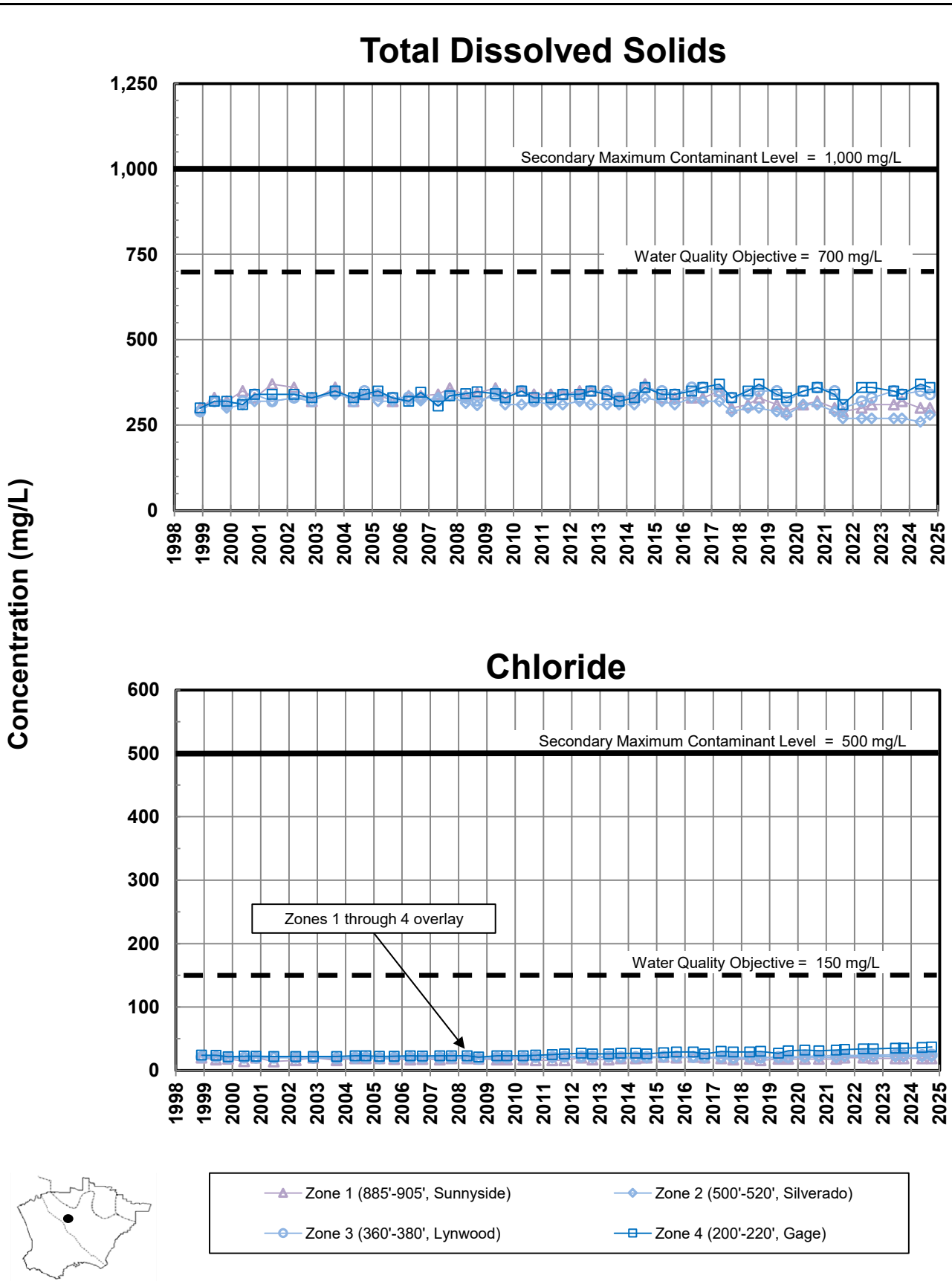
TDS AND CHLORIDE IN WRD KEY NESTED MONITORING WELL HUNTINGTON PARK #1

FIGURE 4.4



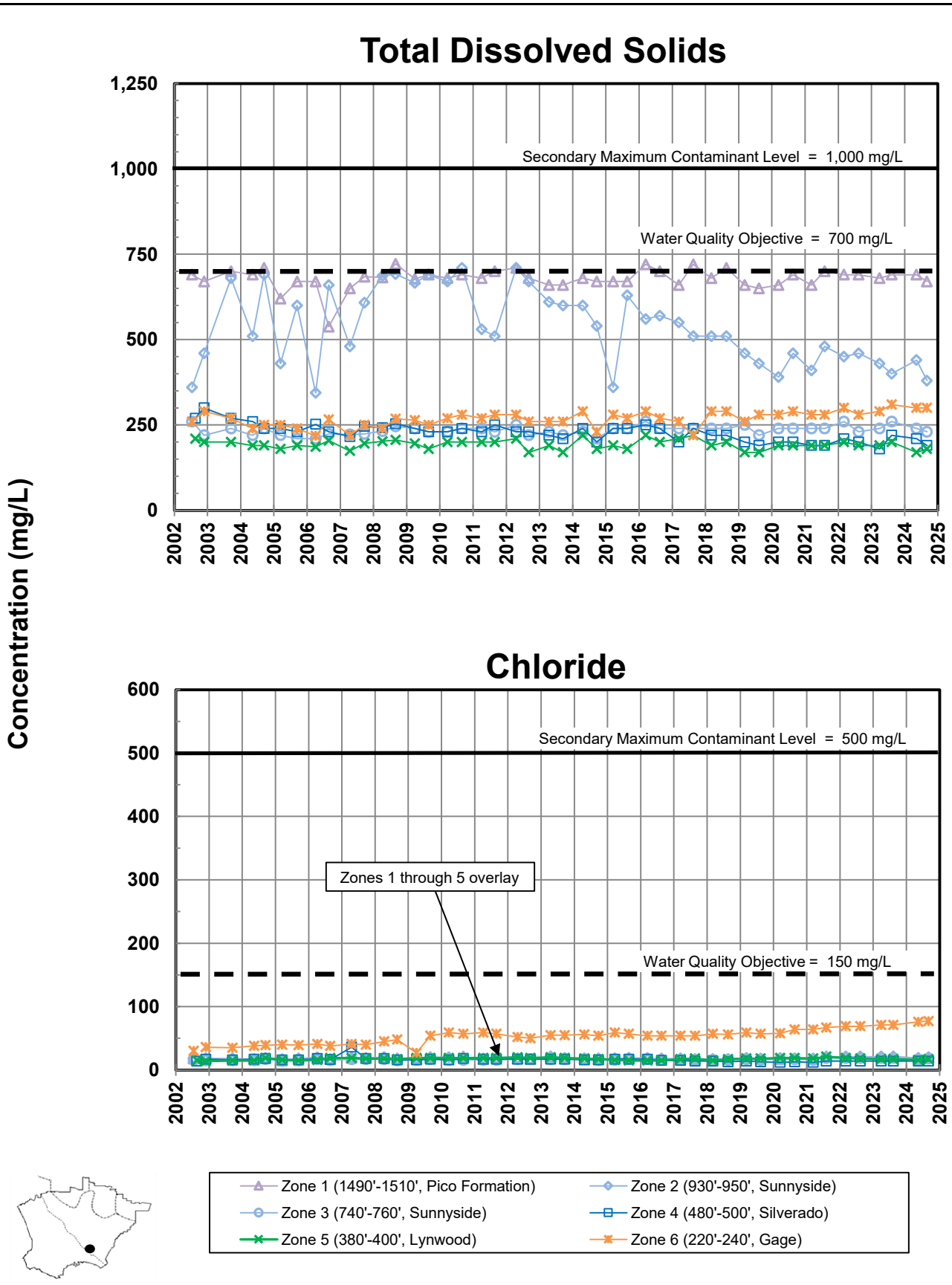
TDS AND CHLORIDE IN WRD KEY NESTED MONITORING WELL SOUTH GATE #1

FIGURE 4.5



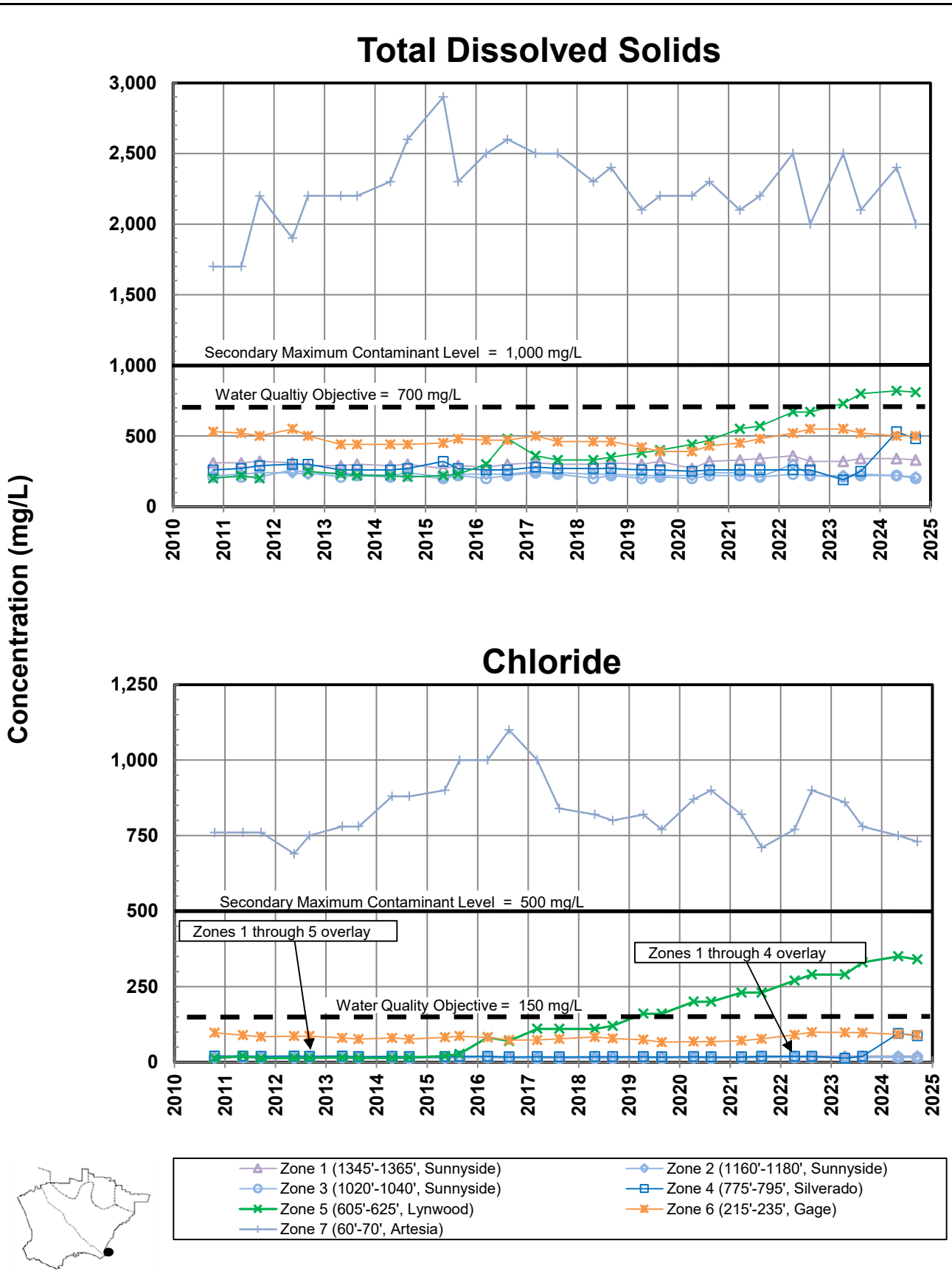
TDS AND CHLORIDE IN WRD KEY NESTED MONITORING WELL WILLOWBROOK #1

FIGURE 4.6



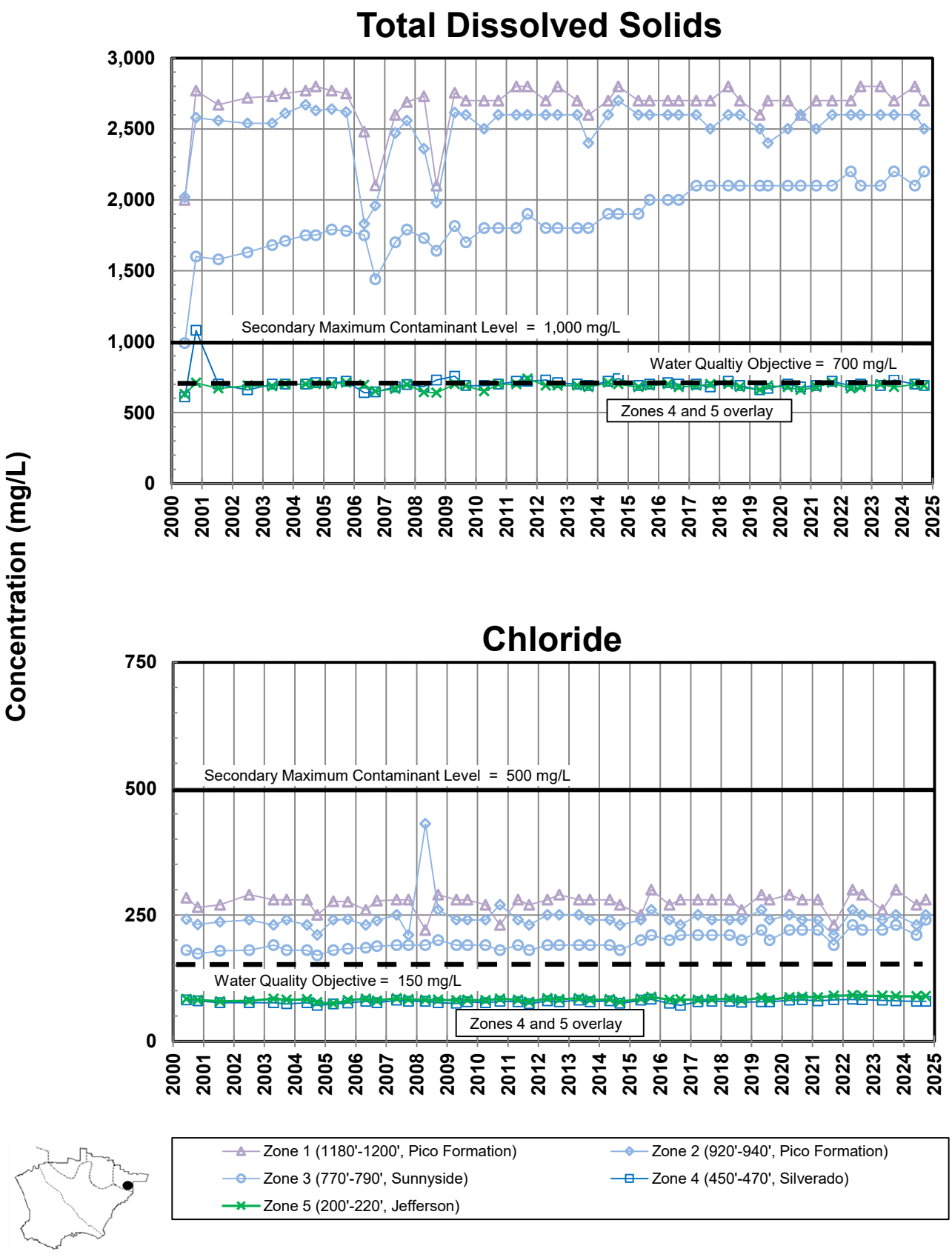
TDS AND CHLORIDE IN WRD KEY NESTED MONITORING WELL LONG BEACH #6

FIGURE 4.7



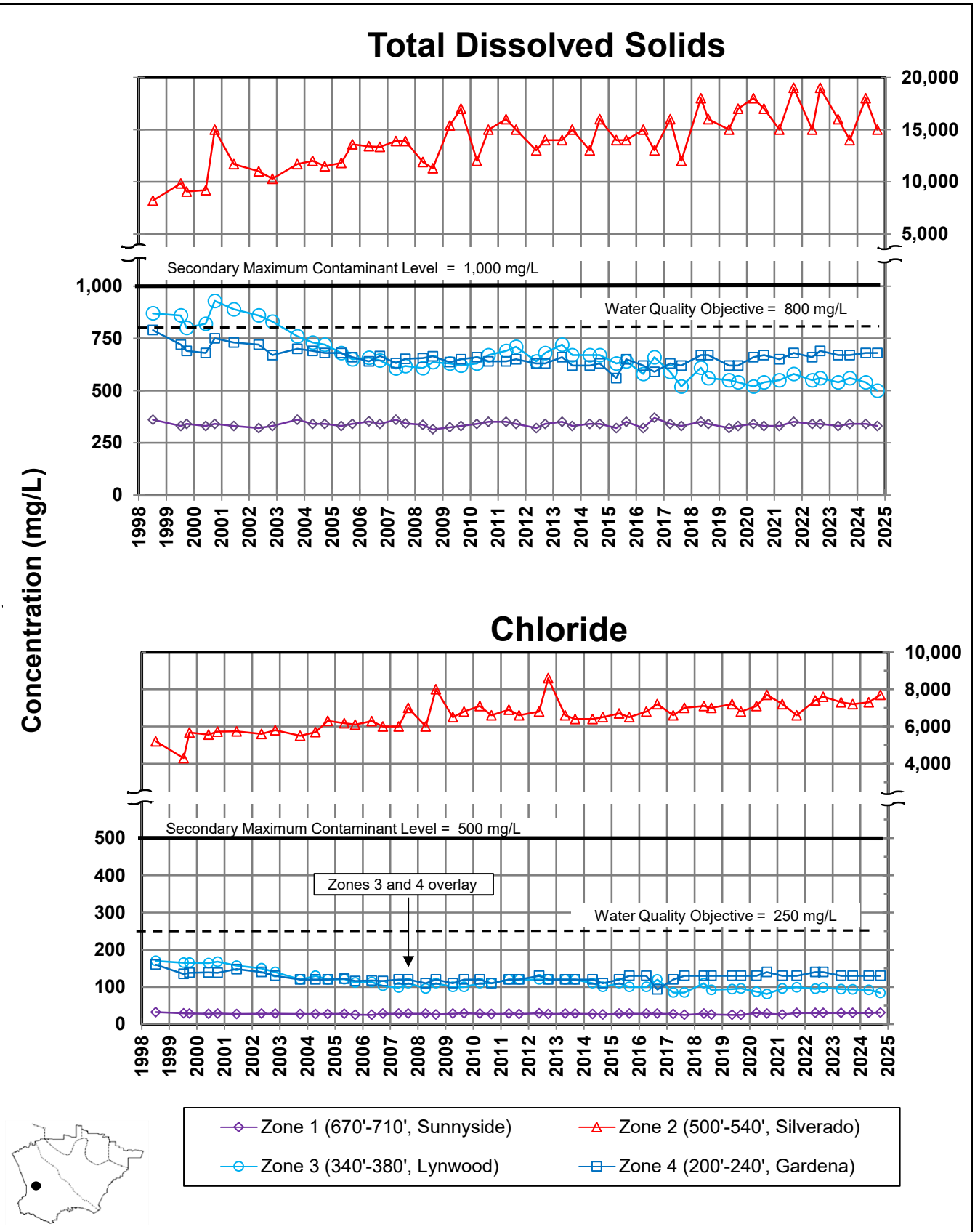
TDS AND CHLORIDE IN WRD KEY NESTED MONITORING WELL SEAL BEACH #1

FIGURE 4.8



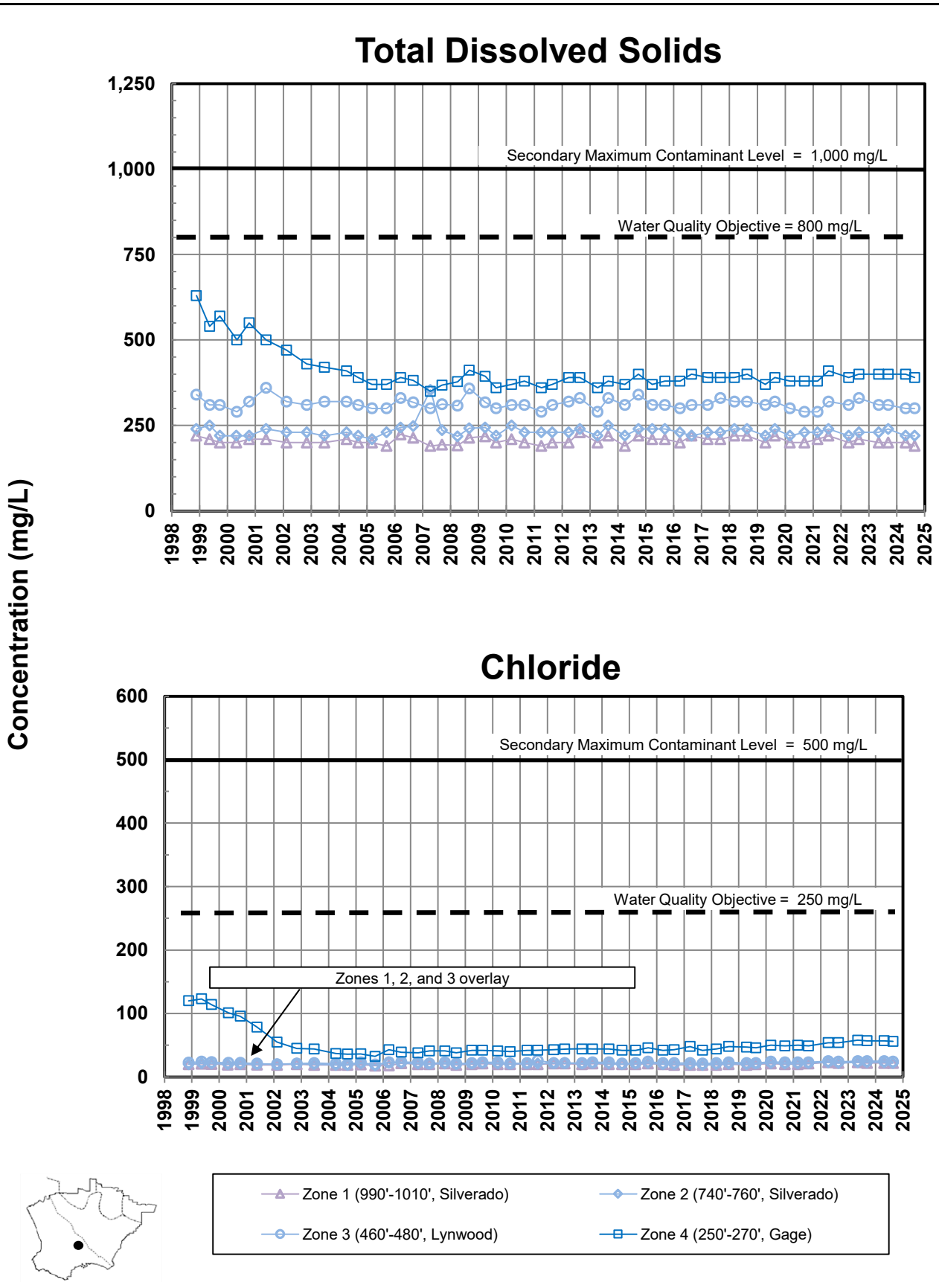
TDS AND CHLORIDE IN WRD KEY NESTED MONITORING WELL WHITTIER #1

FIGURE 4.9



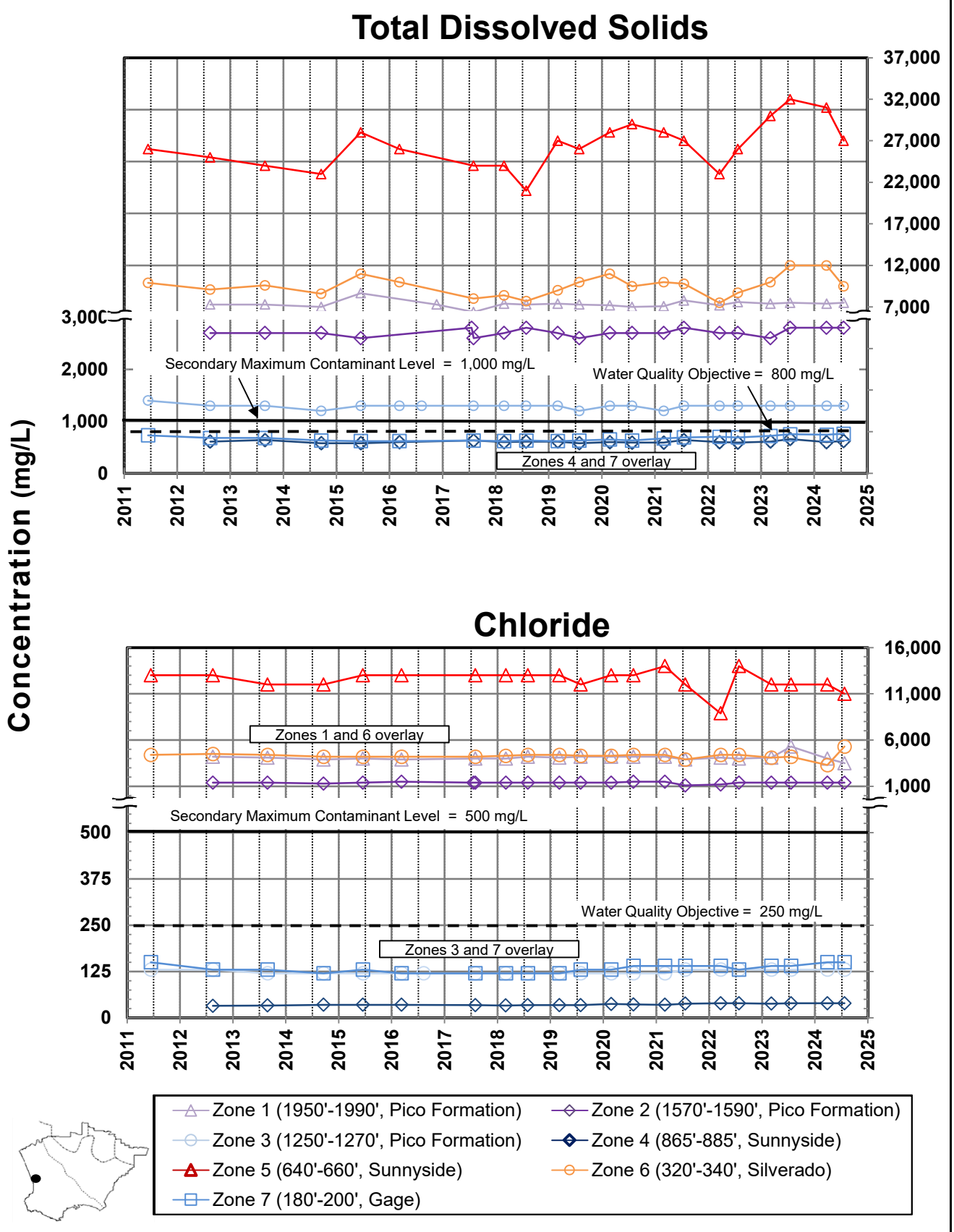
TDS AND CHLORIDE IN WRD KEY NESTED MONITORING WELL PM-4 MARINER

FIGURE 4.10



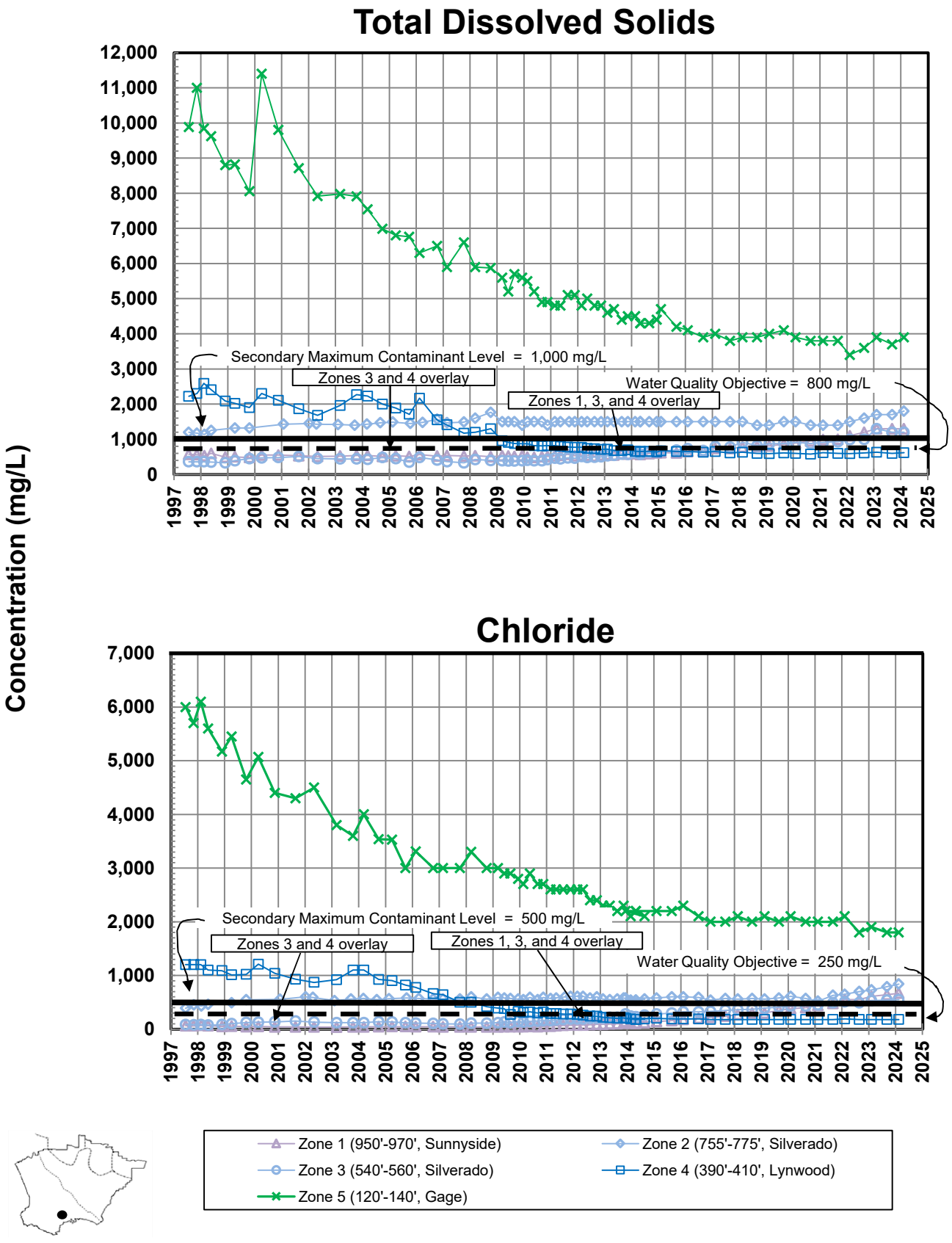
TDS AND CHLORIDE IN WRD KEY NESTED MONITORING WELL CARSON #1

FIGURE 4.11



TDS AND CHLORIDE IN WRD KEY NESTED MONITORING WELL MANHATTAN BEACH #1

FIGURE 4.12



TDS AND CHLORIDE IN WRD KEY NESTED MONITORING WELL WILMINGTON #2

FIGURE 4.13

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Mission:

"To provide, protect and preserve safe and sustainable groundwater"

WRD
WATER REPLENISHMENT DISTRICT

Water Replenishment District
4040 Paramount Boulevard
Lakewood, CA 90712
Tel. (562) 275-4300
www.wrd.org