Groundwater Sustainability Plan

Monterey Subbasin

Marina Coast Water District Groundwater Sustainability Agency
Salinas Valley Basin Groundwater Sustainability Agency

DRAFT Chapter 1-3
September 2021

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1 INTRODUCTION

1.1 Purpose of the Groundwater Sustainability Plan (GSP or Plan)

The purpose of this Groundwater Sustainability Plan (GSP) is to meet the regulatory requirements set forth in the three-bill legislative package consisting of Assembly Bill (AB) 1739 (Dickinson), Senate Bill (SB) 1168 (Pavley), and SB 1319 (Pavley), collectively known as the Sustainable Groundwater Management Act (SGMA). SGMA defines sustainable groundwater management as the "management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results". Undesirable results are defined by the Sustainable Groundwater Management Act (SGMA) as any of the following effects caused by groundwater conditions occurring throughout the basin:

- Chronic lowering of groundwater levels indicating a significant and unreasonable depletion of supply;
- Significant and unreasonable reduction of groundwater storage;
- Significant and unreasonable seawater intrusion;
- Significant and unreasonable degraded water quality;
- Significant and unreasonable land subsidence; and/or
- Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water.

The Monterey Subbasin has been designated by the California Department of Water Resources (DWR) as medium priority. The Monterey Subbasin is one of the nine subbasins in the Salinas Valley. It is located at the northwestern end of the Salinas Valley and borders the Pacific Ocean (Figure 1-1). This document satisfies the GSP requirement for the Monterey Subbasin and meets all of the regulatory standards.

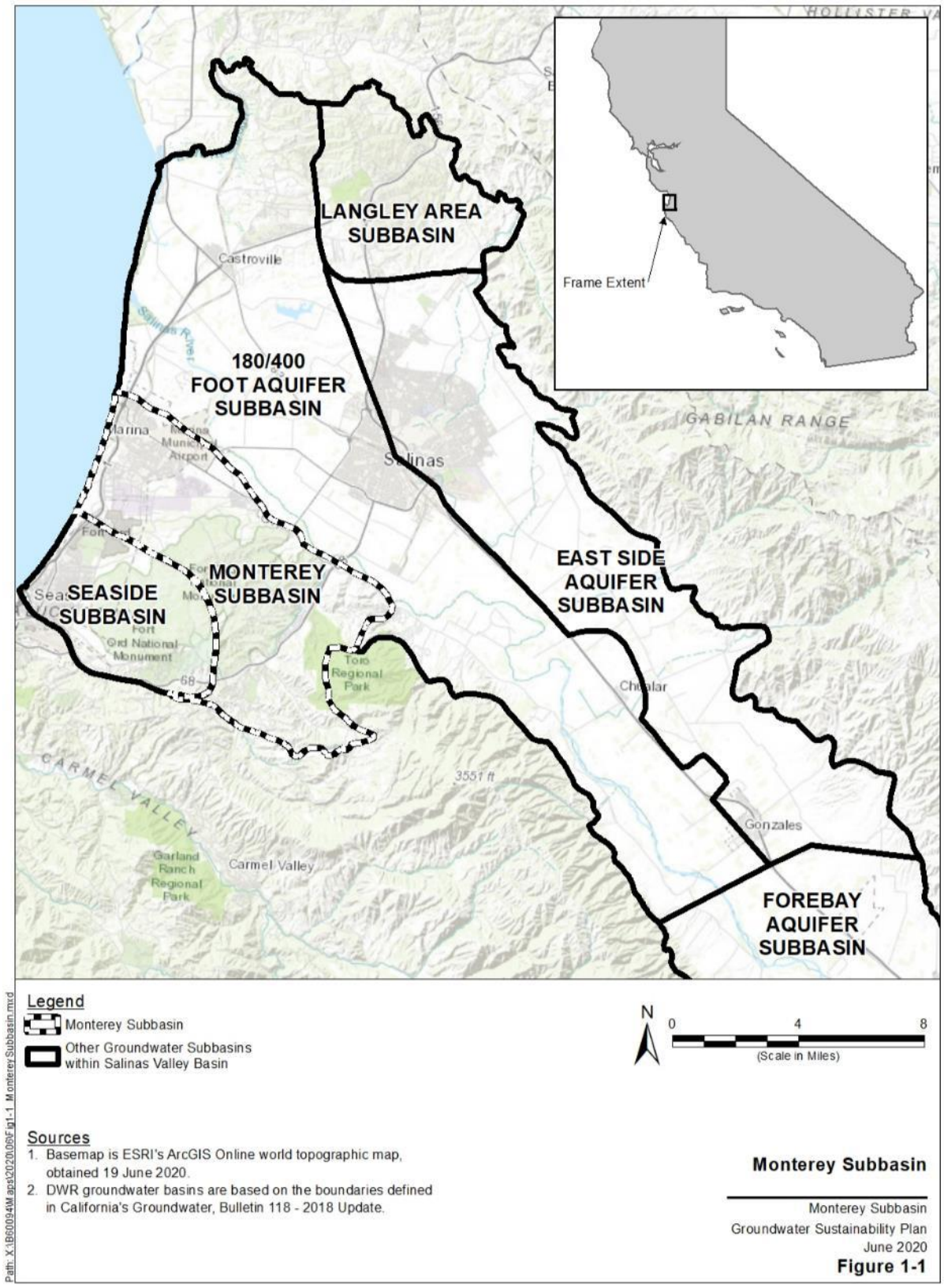
This GSP has been co-developed by the Marina Coast Water District Groundwater Sustainability Agency (MCWD GSA) and the Salinas Valley Basin Groundwater Sustainability Agency (SVBGSA) to meet SGMA regulatory requirements by the January 31, 2022, deadline for medium and high priority basins while reflecting local needs and preserving local control over water resources. This GSP provides a path to achieve and document sustainable groundwater management within 20 years following Plan adoption and preserves the long-term sustainability of locally-managed groundwater resources now and into the future. This GSP was approved by the MCWD GSA Board on DATE and by the SVBGSA Board on DATE (Appendix N).

1.2 Sustainability Goal

The sustainability goal of the Monterey Subbasin is to manage groundwater resources for long-term community, financial, and environmental benefits to the Subbasin's residents and businesses. The goal of this GSP is to ensure long-term viable water supplies to local communities at a reasonable cost. In addition, because the Subbasin is hydrologically connected with other Salinas Valley Basin Subbasins, this GSP aims

to develop a coordinated approach to groundwater management within this Subbasin and neighboring Subbasins. The Subbasin will achieve long-term sustainability through implementation of inter- and intra-basin coordination as well as projects and management actions.

Several projects and management actions are included in this GSP and detailed in Chapter 9. These projects and management actions will diversify the Subbasin' water supply portfolio, increase supply reliability, and protect the Subbasin's groundwater resources against seawater intrusion. The Subbasin's historical efforts to invest in water conservation will continue under SGMA.


LANGLEY AREA SUBBASIN
180/400 FOOT AQUIFER SUBBASIN
MONTEREY SUBBASIN
SEASIDE SUBBASIN
EAST SIDE AQUIFER SUBBASIN
FOREBAY AQUIFER SUBBASIN
Frame Extent
Castroville
Salinas
Marina
Chualar
Gonzales
Carmel Valley
GABILAN RANGE
CARMEL VALLEY
3551 ft
Legend
Monterey Subbasin
Other Groundwater Subbasins within Salinas Valley Basin
N
0
4
8
(Scale in Miles)
Sources
1. Basemap is ESRI's ArcGIS Online world topographic map, obtained 19 June 2020.
2. DWR groundwater basins are based on the boundaries defined in California's Groundwater, Bulletin 118 - 2018 Update.
Monterey Subbasin
Monterey Subbasin
Groundwater Sustainability Plan
June 2020
Figure 1-1
Path: X:\B60094\Maps\2020\06\Fig1-1_MontereySubbasin.mxd

1.3 Agency Information

The Monterey Subbasin is within the jurisdiction of the MCWD GSA and SVBGSA. The GSA boundaries are shown on Figure 1-2.

1.3.1 Name and Mailing Address of the Agency

This GSP has been prepared by MCWD GSA and SVBGSA. The following contact information is provided for each GSA that is a signatory to this GSP, pursuant to California Water Code § 10723.8.

Marina Coast Water District Groundwater Sustainability Agency
Attn.: Remleh Scherzinger, General Manager
11 Reservation Road
Marina, CA 93933
http://www.mcwd.org

Salinas Valley Groundwater Sustainability Agency
Attn.: Donna Meyers, General Manager
1441 Schilling Place
Salinas, CA 93901
https://svbgsa.org

1.3.2 Organization and Management Structure of the Agencies

1.3.2.1 *MCWD GSA*

The MCWD GSA is a single agency GSA formed by MCWD and covering the areas within the MCWD service area within Monterey Subbasin, except for those areas owned by a federal government entity and thus not subject to SGMA. The GSA areas are shown on Figure 1-2. The MCWD GSA Board is comprised of the members of the MCWD Board.

1.3.2.2 *SVBGSA*

The SVBGSA is a Joint Powers Authority (JPA). The JPA membership comprises the County of Monterey, Monterey County Water Resources Agency, City of Salinas, City of Soledad, City of Gonzales, City of King, the Castroville Community Services District (CSD), and Monterey One Water (formerly the Monterey Regional Water Pollution Control Agency). The SVBGSA is governed and administered by an eleven-member Board of Directors, representing public and private groundwater interests throughout the Valley. When a quorum is present, a Majority Vote is required to conduct business. Some business items require a Super Majority Vote or a Super Majority Plus Vote. A Super Majority requires an affirmative vote by eight of the eleven Board members. A Super Majority Vote is required for:

- Approval of a GSP
- Amendment of budget and transfer of appropriations
- Withdrawal or termination of Agency members

A Super Majority Plus requires an affirmative vote by eight of the eleven Board members, including an affirmative vote by three of the four agricultural representatives. A Super Majority Plus Vote is required for:

- Decisions to impose fees not requiring a vote of the electorate or property owners
- Proposals to submit to the electorate or property owners' decisions to impose fees or taxes
- Limitations on well extractions (pumping limits)

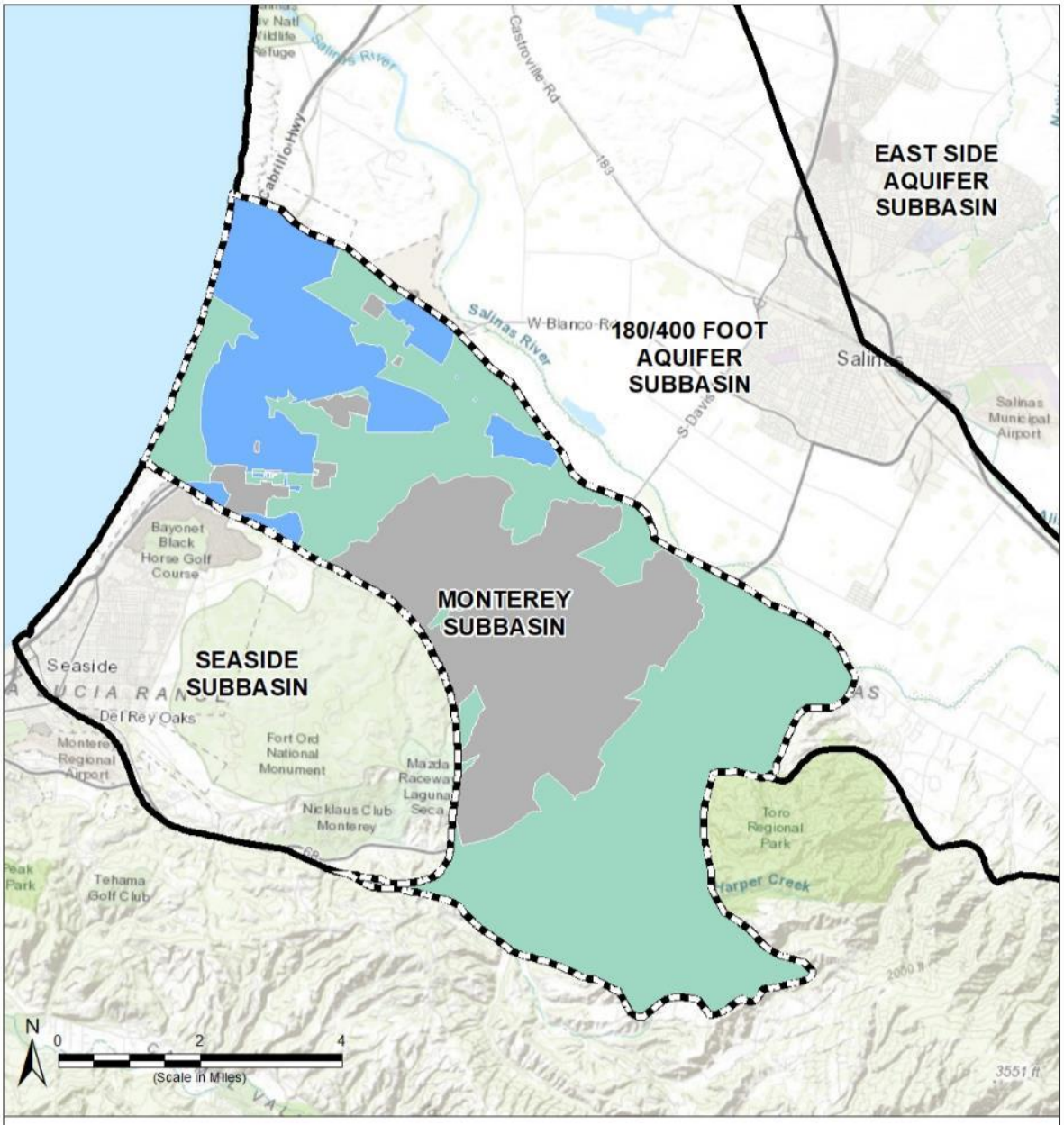
In addition to the Board of Directors, SVBGSA includes an Advisory Committee consisting of Directors and non-Directors. The Advisory Committee is designed to ensure participation by, and input to, the Board of Director by constituencies whose interests are not directly represented on the Board. The SVBGSA's GSA activities are led by a contract General Manager.

1.3.3 Plan Managers

The plan managers for this GSP are Remleh Scherzinger, General Manager of the MCWD, and Donna Meyers, General Manager of the SVBGSA. The contact information for Mr. Scherzingerand and Ms. Meyers is provided below.

Remleh Scherzinger
General Manager
Marina Coast Water District
11 Reservation Road, Marina, CA93933-2099
831-883-5910
rscherzinger@mcwd.org

Donna Meyers
General Manager
Salinas Valley Basin Groundwater Sustainability Agency
1441 Schilling Place
Salinas, CA 93901
meyersd@svbgsa.org
https://svbgsa.org



Legend

- Monterey Subbasin
- Other Groundwater Subbasins within Salinas Valley Basin
- SVBGSA
- MCWD GSA
- Federal Land (Source 3)

Sources

1. Basemap is ESRI's ArcGIS Online world topographic map, obtained 19 June 2020.
2. DWR groundwater basins are based on the boundaries defined in California's Groundwater, Bulletin 118 - 2018 Update.
3. Parcels retained by the federal government in the former Fort Ord are provided by Army Corps of Engineers on 12 Spetember 2019.

Basin GSAs

Monterey Subbasin
Groundwater Sustainability Plan
June 2020
Figure 1-2

Path: X:\B60094\Maps\2020\06\Fig1-2_Basin GSAs.mxd

1.3.4 Legal Authority of the GSAs

Both GSAs involved in the development of this GSP were formed in accordance with the requirements of California Water Code § 10723 et seq.

1.3.4.1 *MCWD GSA*

MCWD GSA is formed in accordance with the requirements of California Water District Law, California Water Code §34000 by MCWD. MCWD provides water supply to residents within its service area within the City of Marina and the former Fort Ord, and is therefore a local agency under California Water Code §10721 with the authority to establish itself as a GSA.

1.3.4.2 *SVBGSA*

SVBGSA is a JPA that was formed in accordance with the requirements of California Government Code § 6500 et seq. In accordance with California Water Code § 10723 et seq, the JPA signatories are all cities, counties, and water agencies with water or land use authority and are all independently eligible to serve as GSAs:

- The County of Monterey has land use authority over the unincorporated areas of the County, including areas overlying the 180/400-Foot Aquifer Subbasin. The County of Monterey is therefore a local agency under California Water Code § 10721 with the authority to establish itself as a GSA.
- The Monterey County Water Resources Agency (MCWRA) is a California Special Act District with broad water management authority in Monterey County. The MCWRA is therefore a local agency under California Water Code § 10721 with the authority to establish itself as a GSA.
- The City of Salinas is incorporated under the laws of the State of California. The City provides water supply and land use planning services to its residents. The City is therefore a local agency under California Water Code § 10721 with the authority to establish itself as a GSA.
- The City of Soledad is incorporated under the laws of the State of California. The City provides water supply and land use planning services to its residents. The City is therefore a local agency under California Water Code § 10721 with the authority to establish itself as a GSA.
- The City of Gonzales is incorporated under the laws of the State of California. The City provides water supply and land use planning services to its residents. The City is therefore a local agency under California Water Code § 10721 with the authority to establish itself as a GSA.
- The City of King is incorporated under the laws of the State of California. The City provides water supply and land use planning services to its residents. The City is therefore a local agency under California Water Code § 10721 with the authority to establish itself as a GSA.
- The Castroville Community Services District is a local public agency of the State of California, organized and operating under the Community Services District Law, Government Code § 6100 et seq. Castroville CSD provides water services to its residents. Castroville CSD is therefore a local agency under California Water Code § 10721 with the authority to establish itself as a GSA.

- Monterey One Water is itself a joint powers authority whose members include many members of the SVBGSA. Monterey One Water is a local agency under California Water Code § 10721 with authority to establish itself as a GSA.

Upon establishing itself as a GSA, the SVBGSA retains all the rights and authorities provided to GSAs under California Water Code § 10725 et seq. as well as the powers held in common by the members.

1.3.5 Coordination Agreements

As the MCWD GSA and SVBGSA have developed a single GSP for the entire Monterey Subbasin, a Coordination Agreement per GSP Regulation §357.4 is not required between these two parties. Nonetheless, MCWD GSA and SVBGSA have successfully entered into a Framework Agreement regarding responsibilities and coordination for GSP development in the 180/400 Subbasin and the Monterey Subbasin, included as Appendix 1-A. The Framework Agreement was adopted by MCWD GSA on December 2018 and SVBGSA in January 2019.

The Framework Agreement outlines the Management Areas to be established within the Subbasin, which are later formalized in this GSP (see Figure 1-3 and detailed discussion below). According to the Framework Agreement, MCWD GSA has prepared GSP components for the Marina-Ord Management Area and SVBGSA has prepared GSP components for the Corral de Tierra Management Area. The Framework Agreement further establishes a basis for information developed by the two agencies to be integrated into a single GSP for the Monterey Subbasin, including a coordination and stakeholder engagement process, information exchange principles, as well as the acknowledgement that coordinated methodologies are to be developed for the water budget and monitoring network analysis.

1.4 Management Areas

This GSP establishes two Management Areas within the Monterey Subbasin in accordance with GSP Regulations § 351(r) and § 354.20. The Management Areas include

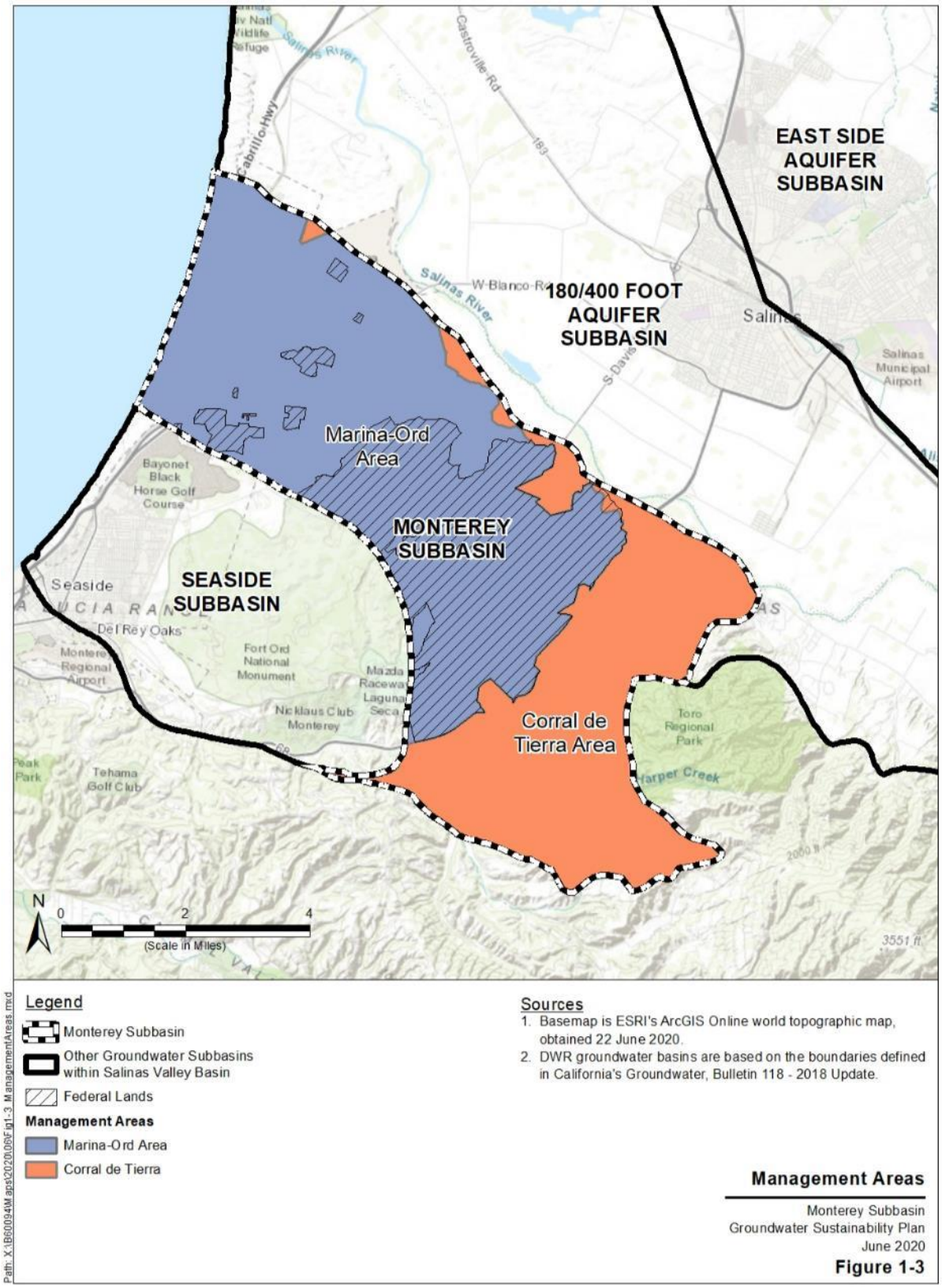
- Marina-Ord Area: This Management Area consists of the lands within the City of Marina and the former Fort Ord, which are generally located north of State Route 68; and
- Corral de Tierra Area: This Management Area consists of the remainder of the subbasin, which are generally south of State Route 68 and includes a parcel located between the City of Marina and the former Fort Ord.

The Management Areas are developed considering the differences in jurisdictional, water use sector, and aquifer characteristics within these areas.

Jurisdictional and water use sector information for the Subbasin is presented in Section 3.1. Water use sectors within the Marina-Ord Area includes municipal water use and minimal groundwater remediation use. The sole water purveyor within the Marina-Ord Area is the MCWD, which serves water within its service area and will serve any future redevelopment within the former Fort Ord. Water use sectors in the Corral de Tierra Area includes municipal water use supplied by various small water systems as well as agricultural and grazing water use.

Aquifer characteristics within these Management Areas are discussed in Section 4.2 In general, hydrostratigraphy in the vicinity of the City of Marina consists of a series of laterally continuous aquifers consistent with the aquifers that form the distinguishing features of the northern Salinas Valley. Within the southern Corral de Tierra area, the typical aquifer sequence recognized in the Salinas Valley is not present.

The Management Areas are developed to facilitate GSP implementation in these areas. Specifically, the establishment of the Marina-Ord Area allows MCWD GSA to plan, fund, and implement sustainable groundwater management for the redevelopment of the former Fort Ord, within and outside of its current jurisdictional area. Whereas, management approach to be undertaken by SVBGSA in the Corral de Tierra area will be tailored towards small individual water users.


EAST SIDE
AQUIFER
SUBBASIN
180/400 FOOT
AQUIFER
SUBBASIN
Marina-Ord
Area
MONTEREY
SUBBASIN
SEASIDE
SUBBASIN
Corral de
Tierra Area
Salinas River
Castroville Rd
Salinas
Seaside
Del Rey Oaks
Fort Ord
National
Monument
Monterey
Regional
Airport
Bayonet
Black
Horse Golf
Course
Nicklaus Club
Monterey
Tehama
Golf Club
Toro
Regional
Park
Harper Creek
Salinas
Municipal
Airport
N
0
2
4
(Scale in Miles)
3551 ft
Legend
Monterey Subbasin
Other Groundwater Subbasins
within Salinas Valley Basin
Federal Lands
Management Areas
Marina-Ord Area
Corral de Tierra
Sources
1. Basemap is ESRI's ArcGIS Online world topographic map,
obtained 22 June 2020.
2. DWR groundwater basins are based on the boundaries defined
in California's Groundwater, Bulletin 118 - 2018 Update.
Management Areas
Monterey Subbasin
Groundwater Sustainability Plan
June 2020
Figure 1-3
Path: X:\B60094\Maps\2020\06\Fig1-3_ManagementAreas.mxd

1.5 Overview of this GSP

The GSP covers the entire Monterey Subbasin and is developed jointly by the MCWD GSA and the SVBGSA. This GSP is developed in concert with GSPs for five other Salinas Valley Groundwater Basin subbasins subject to SGMA: the 180/400-Foot Aquifer Subbasin, the Forebay Aquifer Subbasin, the Upper Valley Aquifer Subbasin, the Langley Area Subbasin, and the Eastside Aquifer Subbasin. Some of the projects and programs presented in this GSP are part of a cohesive set of projects and programs designed to achieve sustainability throughout the entire Salinas Valley Groundwater Basin. The Monterey Subbasin is referred to as the Subbasin throughout this GSP, and the collection of Salinas Valley Groundwater Basin subbasins are collectively referred to as the Basin or the Valley.

Chapter 2 details the stakeholders that participated, and process followed to develop this GSP. Stakeholders worked together to gather existing information, define sustainable management criteria for the Subbasin, and develop a list of projects and management actions.

Chapters 3 through 6 describes the basin setting, presents the hydrogeologic conceptual model, and describes historical and current groundwater conditions. It further establishes estimates of the historical, current, and future water budgets based on the best available information.

Chapter 7 and 8 proceeds to detail required monitoring networks and defines local sustainable management criteria.

Chapter 9 outlines projects and programs for reaching sustainability in the Subbasin by 2042.

Additionally, GSP topics are discussed respectively for the Marina-Ord and Corral de Tierra Areas as necessary, acknowledging the hydrogeological differences and data gaps between in these management areas. As part of the two GSAs collaborative GSP development process, components for the Marina-Ord Area were prepared by MCWD GSA and components for the Corral de Tierra Area were prepared by SVBGSA.

This GSP will be updated and adapted as new information and more refined models become available. This includes updating sustainable management criteria as well as projects and management actions to reflect updates and future conditions. Adaptive management will be reflected in the required five-year updates to GSPs and annual reports.

2 COMMUNICATIONS AND STAKEHOLDER ENGAGEMENT

This chapter include a summary of information relating to notification and communication by the Groundwater Sustainability Agencies (GSAs) with other agencies and interested parties during Groundwater Sustainability Plan (GSP) development pursuant to GSP Regulations §354.10.

The subbasin GSAs developed a Framework Agreement regarding GSP development as described in Section 1.3.5. The Framework Agreement states that the MCWD GSA will prepare GSP components for the Marina-Ord Area of the Monterey Subbasin and that the Salinas Valley Basin Groundwater Sustainability Agency (SVBGSA) will prepare GSP components for the Corral de Tierra Area of the Monterey Subbasin for incorporation into a single GSP. The Framework Agreement further states that the parties agree to work collaboratively to develop and implement stakeholder engagement plans for the GSPs while each party is responsible for guiding efforts within their respective plan preparation areas.

2.1 GSA Decision-Making Process

This section describes each GSA's governance structure and decision-making processes.

2.1.1 MCWD Governance Structure

The Marina Coast Water District (MCWD) GSA is a single agency GSA formed by MCWD within the Monterey Subbasin (Subbasin; California Department of Water Resources [DWR] 3-004.10) and 180/400-Foot Aquifer Subbasin (DWR 3-004.01) of the Salinas Valley Basin. The MCWD GSA Board is comprised of the members of the MCWD Board. GSA Board meetings are held jointly with MCWD Board meetings every third Monday of each month and are open to the public.

Key GSP development and implementation decisions are made by the GSA Board of Directors (Board). The Board considers staff, stakeholder, and public input captured and evaluated by the Steering Committee, MCWD stakeholder workshops, and direct communication with interested parties. The Board is the final decision-making body for adoption of GSPs completed by the GSA.

2.1.2 SVBGSA Governance Structure

SVBGSA is governed by a local and diverse 11-member Board and relies on robust science and public involvement for decision-making. The Board meets monthly, and all meetings are open to the public. The Board is the final decision-making body for adoption of GSPs completed by the GSA.

The SVBGSA Advisory Committee advises the SVBGSA Board. The Advisory Committee is comprised of 25 members. The Advisory Committee strives to include a range of interests in groundwater in the Salinas Valley and outlined in SGMA. Advisory Committee members live in the Salinas Valley or represent organizations with a presence or agencies with jurisdiction in the Basin including:

- All groundwater users
- Municipal well operators, Public-Utilities Commission-Regulated water companies, and private and public water systems

- County and city governments
- Planning departments/land use
- Local landowners
- Underrepresented communities (URCs)
- Business and agriculture
- Rural residential well owners
- Environmental uses
- Water supply and management surface water users (if connection between surface and groundwater)

The Advisory Committee, at this time, does not include representation from:

- Tribes
- Federal government

The Advisory Committee will review its charter following GSP completion for additional members if identified as necessary by the Board. The Advisory Committee provides input and recommendations to the Board and uses consensus to make recommendations to the Board. The Advisory Committee was established by Board action and operates according to a Committee Charter which serve as the bylaws of the Advisory Committee. The Advisory Committee reviews and provides recommendations to the Board on groundwater-related issues that may include:

- Development, adoption, or amendment of the GSP
- Sustainability goals
- Monitoring programs
- Annual work plans and reports
- Modeling scenarios
- Inter-basin coordination activities
- Projects and management actions to achieve sustainability
- Community outreach
- Local regulations to implement SGMA
- Fee proposals
- General advisory

Subbasin planning committees were established in May 2020 by the Board of Directors to inform and guide planning for the five GSPs due in January 2022. Membership is 7-10 people per Subbasin planning committee and all meetings are Brown Act meetings.

Together the Board, Advisory Committee, and Subbasin planning committees are working to complete the six GSPs required within the SVBGSA jurisdiction. Subsequent to that, SVBGSA will complete a Salinas Valley Basin-wide Integrated Implementation Plan (IIP) that will detail project portfolios and groundwater sustainability programs to meet SGMA compliance for subbasins by 2040 and maintain sustainability through 2050. Once all the GSPs are filed, the Subbasin planning committees will transition to implementation committees.

2.2 Intra-basin Coordination

The MCWD and SVBGSA have made intra- and inter-basin coordination a priority to ensure successful GSP development. Pursuant to the Framework Agreement, the GSAs has organized and convened regular meetings for coordinating GSP development and implementation for the Subbasin:

- The **Technical Committee** includes staff and technical consultants from MCWD and SVBGSA. The Technical Committee meets bi-weekly to review draft GSP content prepared by each GSA and resolve differences.
- The **Steering Committee** includes the General Manager and one Board Member from each GSA, who will update each GSA Board of Directors. The Steering Committee reports back to each GSA's board. The Steering Committee oversees implementation of the Framework Agreement and review matters elevated by the Technical Committee and work to reach consensus. The Steering Committee meetings are subject to the California Open Meeting Law ("Brown Act") and are open to the public.

These coordinated efforts, along with implementation of individual agency engagement strategies, aims to create a consistent understanding of subbasin conditions among stakeholders and facilitate integration of local and regional projects and management actions needed to achieve groundwater sustainability.

2.3 Communication and Public Engagement by MCWD GSA

MCWD GSA's program for Communication and Engagement is designed to effectively engage a variety of relevant stakeholders in the development of a GSP that will guide the GSA to demonstrate sustainability by 31 January 2042 and maintain sustainability through the Sustainable Groundwater Management Act (SGMA)'s 50-year planning timeline. Pursuant to the Framework Agreement, MCWD GSA's communication program focuses on development and implementation of GSP components within the Marina-Ord Area.

The GSA's Communication and Engagement efforts aim to support a GSP that best meets the needs of beneficial uses and users of groundwater in the Marina-Ord Area and reflects and incorporates stakeholder input as appropriate. As MCWD is the only water supplier within the Marina-Ord Area where water use is dominantly urban use, communication with stakeholders and beneficial users within the Marina-Ord Area hinges on dialogues with key stakeholder agencies identified in Section 2.3.1 below.

MCWD GSA's goal is to engage stakeholders early in the decision-making process to consider their interests and concerns, and be open and transparent in any decisions that will have a substantial impact on beneficial users of groundwater in the basin.

2.3.1 Defining and Describing Stakeholders in the Marina-Ord Area

MCWD GSA has identified beneficial uses and users of groundwater within the Marina-Ord Area in accordance with the interests listed in California Water Code (CWC) §10723.2, as well as additional stakeholders of interest.

Agriculture. There are no agricultural groundwater users within the Marina-Ord Area

Domestic Water Users. Due to well installation requirements of the Monterey County and MCWD, only domestic wells that pre-date County and City ordinances or for urban irrigation may exist within the Marina-Ord Area. Although minimal, the exact quantity of domestic wells is not well known.

Municipal Well Operators and Public Water Systems. MCWD is the only municipal well operator and public water system within the Marina-Ord Area. MCWD provides water service to the City of Marina and the former Fort Ord Army Base. A portion of the former Fort Ord is retained for use by the U.S. Army, while the remainder is being converted to civilian use for redevelopment.

Local Land Use Planning Agencies. There are several local land use planning agencies located within the Marina-Ord Area, including the City of Marina, City of Seaside, and the County of Monterey.

Environmental Users of Groundwater. Potential groundwater-dependent ecosystems exist in the Marina-Ord Area within the lands of the City of Marina and Fort Ord National Monument. Land within the Fort Ord National Monument are not subject to SGMA. The U.S. Army currently conducts remedial activities within the Fort Ord National Monument under the guidance of the Fort Ord Habitat Management Plan (U.S. Army, 1997) as well as U.S. Fish and Wildlife Services Biological Opinions.

Surface Water Users. There are no surface water users within the Marina-Ord Area.

The Federal Government. The U.S. Army and the U.S. Bureau of Land Management manages federal lands within the Marina-Ord Area that are not subject to SGMA. MCWD is the exclusive water purveyor to the U.S. Army for all Army and Federal facilities within the Marina-Ord Area. There are no current or planned groundwater use by the Bureau of Land Management on its lands.

California Native American Tribes. there are no identified California Native American tribal lands within the Subbasin.

Disadvantaged Communities (DACs). Census Tracts 141.01 and 142.02, which are recognized as Disadvantage Community Tracts, as well as several Disadvantage Community Block Groups (a statistical division of a census tract), overly the Marina-Ord Area. There are no Disadvantaged Community Places identified within the area[1]. Some of these disadvantage community areas are missing income data and

[1] DACs are identified based on having an average household income less than 80% of the State median, and Severely Disadvantaged Communities (SDACs) are identified based on having an average household income less than 60% of the State median (US Census American Community Survey, 2014).

may include the student population from California State University Monterey Bay. These recognized disadvantaged communities are located within the urban areas of the City of Marina and receives water service from MCWD.

Groundwater Monitoring Entities. Monterey Peninsula Water Management District (MPWMD) and Monterey County Water Resources Agency (MCWRA) are Monitoring Entities in the Subbasin under the California Statewide Groundwater Elevation Monitoring (CASGEM) Program. Additionally, these agencies have water management authority in portions of the Marina and Ord Areas. The U.S. Army also monitors groundwater within former Fort Ord as part of its groundwater remedial efforts to address legacy groundwater contamination. Collaboration with these water agencies and the U.S. Army will be integral to sustainable management of the Subbasin.

Other Groundwater Management Entities. The Monterey Subbasin is adjacent to the critically-overdrafted, high-priority 180/400-Foot Aquifer Subbasin and the adjudicated Seaside Subbasin of the Salinas Valley Basin. SGMA compliance within the 180/400-Foot Aquifer Subbasin is carried out by the MCWD GSA and SVBGSA. The adjudicated Seaside Subbasin is managed by the Seaside Groundwater Basin Watermaster. MCWD will inform, involve, and collaborate with SVBGSA and the Seaside Groundwater Basin Watermaster to ensure sustainable management of groundwater across basins.

Monterey One Water (M1W; formerly the Monterey Regional Water Pollution Control Agency) is a wastewater and recycled water agency serving municipalities of northern Monterey County including the Marina and Ord Areas. M1W is providing advanced treated wastewater for Indirect Potable Reuse in the Seaside Basin and for irrigation in the Monterey Subbasin (the Pure Water Monterey). MCWD is collaborating with M1W to develop a new indirect potable reuse project to provide additional water supply and support future developments in the Marina and Ord Areas. MCWD will continue collaboration with M1W to develop reliable and cost-effective projects that benefit sustainable management of the basin.

2.3.2 Venues for Public Engagement

MCWD GSA intends to provide a variety of opportunities for engagement with stakeholders. Below are the primary venues that MCWD GSA currently provides and will continued to provide to engage stakeholders and the public. Stakeholder input received has informed and/or incorporated into corresponding sections of the GSP as appropriate.

MCWD GSA Board Meetings

MCWD GSA Board meetings are open to the public and are a venue for public engagement. During selected Board meetings, MCWD GSA technical team will provide status updates of GSP development, present on key technical issues, and present recommendations for the GSA Board to consider.

Stakeholder Workshops

Stakeholder workshops have been held to communicate progress on GSP technical components to stakeholders and to receive input on upcoming decisions and work efforts. Quarterly Stakeholder workshops that were open to the public were held during GSP development.

Additionally, MCWD GSA has been publicizing all stakeholder workshop and public meetings on its website (http://www.mcwd.org/governance_meetings.html) and to its list of interest parties. MCWD GSA directly invites agencies and municipalities identified in Section 2.3.1 to each meeting through emails and mailings as appropriate.

One-on-One Meetings

The GSA's staff and technical team contacted interested parties for one-on-one meetings and conference calls to facilitate their input during the preparation of GSP materials and prior to the more formal meetings. The one-on-one meetings has been a venue for communication with targeted interest on specialized topics.

Website Communication

MCWD has been and will continue to update its website with stakeholder workshop and GSA Board meeting materials, as well as additionally update the website with key GSP updates. Draft GSP chapters available for public review are also posted on the website. A live GSP comment form is available on the website for ongoing comment submission on GSP chapters.

2.3.3 Public meeting summary

The list below identifies public meetings, workshops, and direct outreach specific to GSP development.

- MCWD Board meetings
    - GSP development planning and kickoff on 19 March 2018
    - SGMA update on 16 April 2018
    - SGMA update on 20 May 2019
    - GSP development update on 16 February 2021
    - GSP development update on 16 August 2021
    - GSP development update on XX October 2021
    - GSP public hearing and adoption on XX December 2021
- MCWD Stakeholder Workshops
    - Stakeholder Workshop #1 on 25 August 2020;
    - Stakeholder Workshop #2 on 17 November 2020;
    - Stakeholder Workshop #3 on 11 March 2021;
    - Stakeholder Workshop #4 on XX September 2021;
- Direct Outreach
    - Website and live comment form maintenance
    - Interested parties list maintenance

- One-on-one stakeholder meetings

This list will be updated throughout the GSP implementation. Detailed meeting minutes and materials are available on the GSA website.

2.3.4 Communication and Public Engagement during GSP Implementation

MCWD GSA communication and public engagement actions that have taken place during GSP development will continue during GSP implementation, including

- Periodic GSA Board meeting updates and stakeholder workshops;
- One-on-one stakeholder communications;
- Posting of relevant announcements and information on the GSA website;
- Interested parties list maintenance; and
- Stakeholder Communication and Engagement Plan (SCEP) evaluation and updates.

Continued communication and public engagement will be conducted in accordance with the GSAs' Implementation Agreement as described in Section 10.1.

MCWD GSA has been and will continue to hold periodic stakeholder workshops to inform the public on the progress of implementing the plan, including status of projects and management actions. Meeting information and other materials from GSA Board meetings and public workshops will continue to be make available on the MCWD GSA's website (https://www.mcwd.org/gsa_about.html). Meeting materials for past and future GSA Board that are open to the public are available at (https://www.mcwd.org/governance_meetings.html).

Critical to the success of the Monterey GSP will be public understanding of the projects and management actions planned for sustainability, as well as sustainability implementation actions and other groundwater management activities. These important actions are specifically described in Chapter 9. The GSAs' schedule to implement them during the first-five years of GSP implementation is described in Sections 10.5 and 10.8. In addition, each project or management action may be subject to public noticing requirements during its planning and implementation phases, as detailed in their respective project descriptions in Chapter 9.

Additional important actions of GSP implementation will be the production of the required Annual Report by April 1 each year for the Monterey Subbasin. The Annual Report covers annual data collected each water year from October 1 through September 30. It is anticipated that the annual report will be prepared through a collaborated effect between the subbasin GSAs. The Annual Report provides an annual benchmark for the subbasin GSAs to provide to the public and stakeholders to assess progress towards sustainability. The Annual Report also includes assessment of the 6 SMC for the subbasin. The Annual Report provides an important opportunity to reengage subbasin stakeholders in its review and to discuss sustainability status and goals.

2.4 Communication and Public Engagement by SVBGSA

Given the importance of the Monterey GSP to the Corral de Tierra area communities, residents, landowners, farmers, ranchers, businesses, and others, SVBGSA's program for communication and engagement is based on inclusive stakeholder input as the primary component of the Monterey GSP process. In order to encourage ongoing stakeholder engagement SVBGSA deployed the following strategies in the preparation of the Monterey Subbasin GSP and the Corral de Tierra Area:

- An inclusive outreach and education process conducted that best supports the success of a well-prepared GSP that meets SGMA requirements.
- Kept the public informed by distributing accurate, objective, and timely information.
- Invited input and feedback from the public at every step in the decision-making process.
- Established Subbasin Planning Committees for each subbasin and completed a comprehensive planning process with these committees including engagement on key items with the Board of Directors and Advisory Committee
- Publicly noticed draft [and final version] of the Monterey Subbasin GSP and allowed for required public comment periods as required by SGMA.

Additionally, a rigorous review process for each Chapter in the Monterey GSP and for the final plan was completed. This process ensures that stakeholders have multiple opportunities to review and comment on the development of the chapters.

2.4.1 Defining and Describing Stakeholders in the Corral de Tierra Area

SVBGSA has identified beneficial uses and users of groundwater within the Corral de Tierra Area in accordance with the interests listed in CWC §10723.2, as well as additional stakeholders of interest.

Agriculture. Includes row crops, field crops, vineyards, orchards, cannabis, and rangeland.

Domestic Water Users. Includes urban water use assigned to non-agricultural water uses in the census-designated places and rural residential wells used for drinking water. Urban water use includes small local water systems, small state water systems, and small and large public water systems. Stakeholders associated with this beneficial use include residential well owners, members of mutual water companies and local small or state small water systems and California Public Utilities Commission (CPUC)-regulated water companies including Alco Water Corporation, California Water Service Company, and California American Water.

California Native American Tribes. There are no identified California Native American tribal lands within the Subbasin.

Underrepresented communities (URCs) and Disadvantaged Communities (DACs). There are no identified URCs or DACs within the Corral de Tierra area.

Environmental Users. Environmental users include the habitats and associated species maintained by conditions related to surface water flows and groundwater dependent ecosystems (GDEs). Environmental

users include native vegetation and managed wetlands. Stakeholders associated with this beneficial use includes the following: Sustainable Monterey County, League of Women Voters of Monterey County, Landwatch Monterey County, Friends and Neighbors of Elkhorn Slough, California Native Plant Society Monterey Chapter, Trout Unlimited, Surfriders, the Nature Conservancy (TNC) and the Carmel River Steelhead Association.

Local Land Use Planning Agencies and Groundwater Monitoring Entities: The local land use planning agency located within the Corral de Tierra Area is the County of Monterey. The groundwater monitoring entity is the Monterey County Water Resources Agency (MCWRA) in the Subbasin under the California Statewide Groundwater Elevation Monitoring (CASGEM) Program. Stakeholders associated with this beneficial use include the following: Monterey County, Monterey County Environmental Health Department and land use nonprofits such as Sustainable Monterey County, League of Women Voters of Monterey County, and Landwatch Monterey County.

Other Groundwater Management Entities. The Monterey Subbasin is adjacent to the critically-overdrafted, high-priority 180/400-Foot Aquifer Subbasin and the adjudicated Seaside Subbasin of the Salinas Valley Basin. SGMA compliance within the 180/400-Foot Aquifer Subbasin is carried out by the MCWD GSA and SVBGSA. The adjudicated Seaside Subbasin is managed by the Seaside Groundwater Basin Watermaster. SVBGSA will inform, involve, and collaborate with MCWD GSA and the Seaside Groundwater Basin Watermaster to ensure sustainable management of groundwater across basins.

2.4.2 Venues for Public Engagement and Public Meeting Summary

SVBGSA subbasin planning committees are comprised of local stakeholders and Board members and were appointed by the Board of Directors following a publicly noticed application process by the SVBGSA. Subbasin planning committees do the comprehensive work of plan development, review, and recommendations, with assistance provided by SVBGSA staff and technical consultants.

These committees represent constituencies that are considered important stakeholders to developing comprehensive subbasin plans for the Salinas Valley or are not represented on the Board. The Corral de Tierra Management Area SVBGSA GSP Subbasin planning committee was convened in July 2020. A list of the Corral de Tierra Management Area SVBGSA GSP Subbasin Planning Committee is included in the Acknowledgements section of this GSP.

Subbasin planning committee meetings are subject to the Brown Act and noticed publicly on the SVBGSA website. Public comment is taken on all posted agenda items. Subbasin planning committees have been engaged in an iterative planning process that combines education of pertinent technical topics through presentations and data packets and receiving GSPs chapters for review and comment. A live GSP comment form is available on the SVBGSA website for ongoing comment submission on all GSP chapters. GSP chapters posted for public review and comment include.

- Introduction to the Monterey Subbasin
- Communications and Public Engagement
- Description of Plan Area

- Hydrogeologic Conceptual Model
- Groundwater Conditions
- Water Budgets
- Monitoring Networks
- SMC
- Projects and Management Actions
- Plan Implementation

GSP chapters that have been taken to the SVBGSA Subbasin Planning Committee were also taken to the SVBGSA Advisory Committee for further review and comments. Community engagement and public transparency on SVBGSA decisions is paramount to building a sustainable and productive solution to groundwater sustainability in the Basin. At the conclusion of the planning process in August 2021 for the Monterey GSP the SVBGSA will have held more than 32 planning meetings and technical workshops on each aspect of the Monterey Subbasin GSP.

In addition to regularly scheduled committee meetings, a series of workshops were held for the Monterey Subbasin Planning Committee as detailed below. These workshops are informational for committee members, stakeholders, and the general public and cover pertinent topics to be included in the GSPs. Workshops were timed to specific chapter development for the GSP. Subject matter experts were brought in as necessary to provide the best available information to Subbasin Planning Committee members.

Table 2-1. Subject Matter Workshops Held During GSP Preparation

Topic	Date
Brown Act and Conflict of Interest	July 22, 2020
Sustainable Management Criteria	July 28, 2020
Water Law	August 10, 2020
Salinas Valley Watershed Overview	August 26, 2020
Web Map Workshop	September 30, 2020
Town Hall – Domestic Wells & Drinking Water	October 28, 2020
Pumping Allocations	November 18, 2020
Funding Mechanisms	January 27, 2021
Water Budgets	February 24, 2021
Communications and Implementation	March 31, 2021
Technical Modeling Workshop – Salinas Valley Integrated Hydrologic Model (SVIHM) & Salinas Valley Operational Model (SVOM)	June 30, 2021

SVBGSA has been focused on communication and public engagement targeted at the public, including beneficial users, regarding the development of the GSP for the Monterey Subbasin. actions (CPE Actions) that have taken place during GSP development will continue during implementation of all SVBGSA GSPs. CPE Actions provide the SVBGSA Board and staff a guide to ensure consistent messaging about SVBGSA

requirements and other related information. CPE Actions provide ways that beneficial users and other stakeholders can provide timely and meaningful input into the GSA decision-making process. CPE Actions also ensure beneficial users and other stakeholders in the Basin are informed of milestones and offered opportunities to participate in GSP implementation and plan updates.

Notice and communication, as required by GSP Regulation § 354.10, was focused on providing the following activities during the preparation of the Monterey Subbasin GSP**:**

- Clear decision-making process on GSP approvals and outcomes
- Robust public engagement opportunities
- Encouragement of active involvement in GSP development

2.4.3 Goals for Communication and Public Engagement

Ultimately, the success of the Monterey Subbasin GSP will be determined by the collective action of every groundwater user. In order to meet ongoing water supply needs, both for drinking water and for economic livelihoods, the basin must remain balanced into the future. This outreach engages the public early and frequently, and keeps the internal information flow seamless among staff, consultants, committee members and the SVBGSA Board regarding the goals and objectives of the Monterey Subbasin GSP and associated monitoring and implementation activities.

Communications and Public Engagement Actions provide outreach during the Subbasin planning efforts and assists SVBGSA in being receptive to stakeholder needs through communication tools. The Actions also forecast how SVBGSA will communicate during GSP implementation.

The goals of the CPE Actions are:

1. To keep stakeholders informed through the distribution of accurate, objective, and timely information while adhering to SGMA requirements for engagement (noted above).
2. To articulate strategies and communications channels that will foster an open dialogue and increase stakeholder engagement during the planning process.
3. To invite input from the public at every step in the decision-making process and provide transparency in outcomes and recommendations.
4. To ensure that the Board, staff, consultants, and committee members have up-to-date information and understand their roles and responsibilities.
5. To engage the public on GSP Implementation progress especially for project and management actions and Annual Reports.

2.4.4 Communication and Outreach Objectives

The following are the communications and outreach objectives of the CPE Actions:

- Expand Audience Reach
- Maintain a robust stakeholder list of interested individuals, groups and/or organizations.

- Secure a balanced level of participants who represent the interests of beneficial uses and users of groundwater.
- Increase Engagement
- Keep interested stakeholders informed and aware of opportunities for involvement through email communications and/or their preferred method of communications.
- Publish meeting agendas, minutes, and summaries on the SVBGSA website: www.svbgsa.org.
- Inform and obtain comments from the general public through GSP online comment form and public meetings held on a monthly basis.
- Facilitate productive dialogues among participants throughout the GSP planning process.
- Seek the input of interest groups during the planning and implementation of the GSP and any future planning efforts.
- Increase GSP Awareness
- Provide timely and accurate public reporting of planning milestones through the distribution of outreach materials and posting of materials on the SVBGSA website for the GSP.
- Secure quality media coverage that is accurate, complete, and fair.
- Utilize social media to engage with and educate the general public.
- Track Efforts
- Maintain an active communications tracking tool to capture stakeholder engagement and public outreach activities and to demonstrate the reporting of GSP outreach activities.

2.4.5 Target Audiences and Stakeholders

SVBGSA stakeholders consist of other agencies and interested parties including all beneficial users of groundwater or representatives of someone who is. Under the requirements of SGMA, all beneficial uses and users of groundwater must be considered in the development of GSPs, and GSAs must encourage the active involvement of diverse social, cultural, and economic elements of the population.

There are a variety of audiences targeted within the Basin whose SGMA knowledge varies from high to little or none. Given this variance, SVBGSA efforts are broad and all-inclusive. Target audiences include:

- SVBGSA Board of Directors, Advisory Committee and Subbasin Planning Committees
- SVBGSA Groundwater Sustainability Fee Payers
- Partner agencies including Monterey County Environmental Health Department, County of Monterey, MCWRA, and the Greater Monterey County Integrated Regional Water Management Group (RWMG)
- Municipal and public water service providers
- Private and local small or state small water system providers

- Municipalities
- Elected officials within the Basin
- Beneficial uses and users of groundwater including, agriculture, domestic wells and local small or state small water systems, and environmental uses such as wetlands
- Diverse social, cultural, and economic segments of the population within the Basin including URCs
- The general public

Stakeholder involvement and public outreach is critical to the GSP development because it helps promote the plan based on input and broad support. The following activities summarize involvement opportunities and outreach methods to inform target audiences and stakeholders. It is important to note that levels of interest will evolve and shift according to the GSP's implementation opportunities and priorities.

2.4.6 Stakeholder Database

A stakeholder database of persons and organizations of interest will be created and maintained. The database will include stakeholders that represent the region's broad interests, perspectives, and geography. It will be developed by leveraging existing stakeholder lists and databases and by conducting research of potential stakeholders that may be interested in one or all of the following categories: municipal users and groundwater users including agricultural, urban, industrial, commercial, institutional, rural, environmental, URCs, state lands and agencies, and integrated water management.

2.4.7 Key Messages and Talking Points

The GSP planning process is transparent and direct about how the GSP will impact groundwater users.

- SVBGSA represents the groundwater interests of all beneficial uses/users of the Corral de Tierra area equitably and transparently to ensure that the basin achieves and maintains sustainable groundwater conditions.
- SVBGSA is committed to working with stakeholders using an open and transparent communication and engagement process.
- As the overall GSP will be more comprehensive with an engaged group of stakeholders providing useful information, SVBGSA will create as many opportunities as possible to educate stakeholders and obtain their feedback on the GSP implementation and plan updates.

These messages are being used by SVBGSA as the basis for specific talking points/questions and answers (Q&A) to support effective engagement with audiences.

2.4.8 Engagement Strategies

SVBGSA utilizes a variety of tactics to achieve broad, enduring, and productive involvement with stakeholders during the development of the GSP. Below are activities that SVBGSA uses to engage the public currently and anticipated activities for GSP implementation:

- Develop and maintain a list of interested parties

- Offer public informational sessions and subject-matter workshops and provide online access via Facebook Live or via Zoom
- Basin tours (currently on hold due to coronavirus disease [COVID] restrictions)
- SVBGSA Map Portal
- Salinas Valley Subbasin GSP Web Map
- Monterey Subbasin Area Web Map
- Annual Report presentations
- FAQS – Offer Frequently Asked Questions (FAQs) on several topics including SGMA, SVBGSA, GSP, projects, Monitoring Program, Annual Report, Programs and Groundwater Sustainability Fee
- Science of Groundwater – new examples (studies, etc.)
- Board, Advisory Committee, and other Committee Meetings
- Regular public notices and updates; Brown Act compliance
- Develop talking points for various topics and evolve as necessary
- Subbasin Implementation Committees
- Each subbasin's planning committee for GSP development will transition to a subbasin implementation committee to be convened for GSP updates and annual report reviews.
- Integrated Implementation Committee
- The Integrated Implementation Committee will be convened to discuss Basin wide aspects to the 6 GSPs in the Basin including public outreach.
- Online communications
- SVBGSA website: maintain with current information
- SVBGSA Facebook page: maintain and grow social media presence
- Direct email via Mailchimp newsletter
- Mailings to most-impacted water users and residents – topics to include: Annual Report dashboard, What does your GSA do with the Sustainability Fee?, newsletter that accompanies each tax bill.
- Media coverage. Appendix 2C includes SVBGSA's media policy.
- Op-eds in the local newspapers
- Press releases
- Radio interviews
- Promote/Celebrate National Groundwater Week (held in December)

- Co-promotional opportunities and existing channels with agencies, committees, and organizations including email newsletters, social media, board meetings and mailings to customers.
- Talks and presentations to various stakeholder groups, associations, community organizations, and educational institutions.
- Educational materials

2.4.9 CPE Actions Timeline and Tactics

CPE Actions and GSP milestone requirements by phase include:

- Prior to initiating plan development: Share how interested parties may contact the GSA and participate in development and implementation of the plan submitted to DWR. (23 California Code of Regulations § 353.6)
- Prior to GSP development: Establish and maintain an interested persons list. (California Water Code § 10723.4)
- Prior to and with GSP submission:
    - Record statements of issues and interests of beneficial users of basin groundwater including types of parties representing the interests and consultation process
    - Lists of public meetings
    - Inventory of comments and summary of responses
    - Communication section in GSP (23 California Code of Regulations §354.10) that includes: agency decision-making process, identification of public engagement opportunities and response process, description of process for inclusion, and method for public information related to progress in implementing the plan (status, projects, actions)

- Supporting tactics to be used to communicate messages and supporting resources available:
- SVBGSA website, updated regularly to reflect meetings and workshop offerings
- Direct email via Mailchimp sent approximately monthly to announce board meetings, special workshop offerings and other opportunities for engagement
- Outreach to local media to secure coverage of announcements and events, radio interviews, op-ed placement
- Workshops, information sessions and other community meetings
- Social media, specifically Facebook, updated regularly to share information and support other outreach efforts

2.4.10 CPE Actions – Annual Evaluation and Assessment

The annual evaluation and assessment of CPE Actions will include:

- What worked well?
- What didn't go as planned?
- Are stakeholders educated about the GSP development process and their own role?
- Is the timeline for implementation of the GSP clear?
- Has the GSA received positive press coverage?
- Do diverse stakeholders feel included?
- Has there been behavior changes related to the program goals? Or improved trust/relationships among participants?
- Community meeting recaps and next steps
- Lessons learned
- Budget analysis

2.4.11 Communication and Public Engagement during GSP Implementation

The communication and public engagement outlined above is also applicable, and is intended to continue through, GSP Implementation. Critical to the success of the Monterey GSP will be public understanding of the projects and management actions planned for sustainability, as well as sustainability implementation actions and other groundwater management activities.

Additional important actions of GSP implementation will be the production of the required Annual Report by April 1 each year for the Monterey Subbasin. The Annual Report covers annual data collected each water year from October 1 through September 30. The Annual Report provides an annual benchmark for SVBGSA to provide to the public and stakeholders to assess progress towards sustainability. The Annual Report also includes assessment of the six Sustainable Management Criteria (SMCs) for the subbasin. The Annual Report provides an important opportunity to reengage the Monterey Subbasin Committee in its review and to discuss sustainability status and goals.

2.5 Public comments on the GSP

Appendix 2A includes tables that summarize the public comments received during the GSP development as well as the subbasin GSAs' responses and revisions made to the GSP. Tables in Appendix 2A will be updated as more comments are received during GSP implementation.

2.6 Underrepresented Communities and DACs

As described in Section 2.3.1, disadvantaged communities are recognized within the urban areas of the City of Marina. These areas are shown on Figure 1. Due to well installation requirements of the Monterey County and the City of Marina, only a very small number of domestic wells that pre-date County and City ordinances exist within the city. In turn, these communities rely on water service provided by MCWD. The

subbasin GSAs has engaged residents of disadvantaged communities during the development and implementation of the GSP through engagement of MCWD customers and coordination with the City of Marina.

3 PLAN AREA

This section presents a description of the Plan Area, and a summary of the relevant jurisdictional boundaries and other key land use features potentially relevant to the sustainable management of groundwater in the Monterey Subbasin. This section also describes the water monitoring programs, water management programs, and general plans relevant to the Subbasin and their influence on the development and execution of this Groundwater Sustainability Plan (GSP).

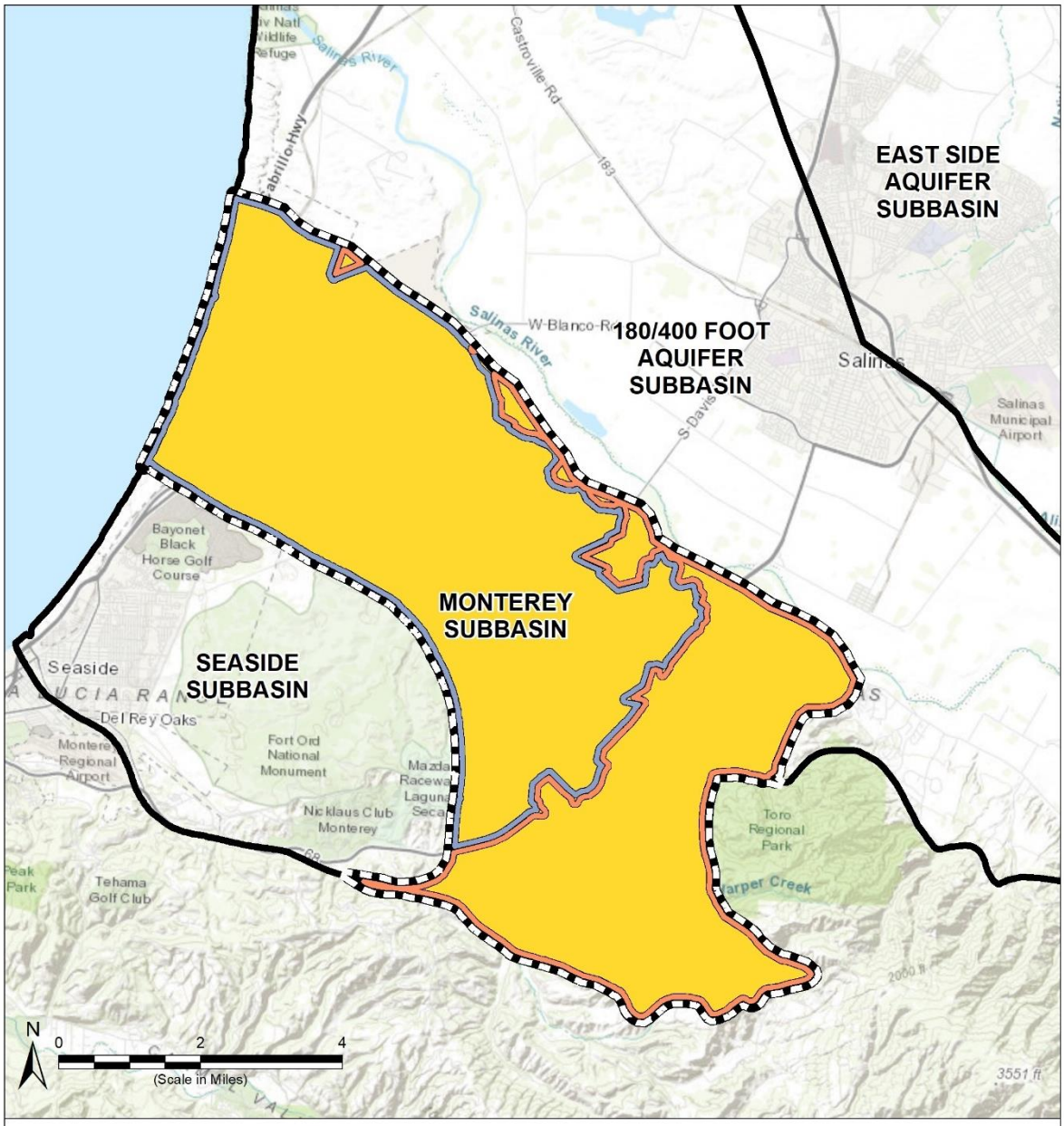
3.1 Summary of Jurisdictional Areas and Other Features

3.1.1 Plan Area Setting

This GSP covers the entire Monterey Subbasin (Department of Water Resources [DWR] Basin 3-004.10), which encompasses 30,850 acres (or 48.2 square miles) in the northwestern Salinas Valley Groundwater Basin in the Central Coast region of California (see Figure 3-1). The Subbasin is covered by the Marina Coast Water District Groundwater Sustainability Agency (MCWD GSA) and the Salinas Valley Basin Groundwater Sustainability Agency (SVBGSA) and lies entirely within Monterey County. The Subbasin is bounded on the northeast by the 180/400 Foot Aquifer Subbasin (DWR Basin 3-004.01) and on the southwest by the Seaside Subbasin (DWR Basin 3-004.08).

The GSAs have established two Management Areas within the subbasin, as discussed in Section 1.4 and shown on Figure 3-1. These Management Areas are described as follows:

- Marina-Ord Area: This Management Area consists of the lands within the City of Marina and the former Fort Ord; and
- Corral de Tierra Area: This Management Area consists of the remainder of the subbasin, which are generally south of State Route 68 and includes a parcel located between the City of Marina and the former Fort Ord.



Legend

- Monterey Subbasin
- Other Groundwater Subbasins within Salinas Valley Basin
- Plan Area

Management Areas

- Marina-Ord Area
- Corral de Tierra Area

Sources

1. Basemap is ESRI's ArcGIS Online world topographic map, obtained 21 December 2020.
2. DWR groundwater basins are based on the boundaries defined in California's Groundwater, Bulletin 118 - 2018 Update.

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Plan Area (Monterey Subbasin)

Monterey Subbasin
Groundwater Sustainability Plan
December 2020

Figure 3-1

3.1.2 Jurisdictional Boundaries

The Subbasin falls entirely within Monterey County and contains the municipalities of Marina and Seaside. The City of Marina is located in the northern portion of the Subbasin and is a community of approximately 22,000 residents (DOF, 2020). The City of Seaside is on Highway 1 approximately two miles south of the City of Marina and has a population of approximately 34,000 (DOF, 2020).

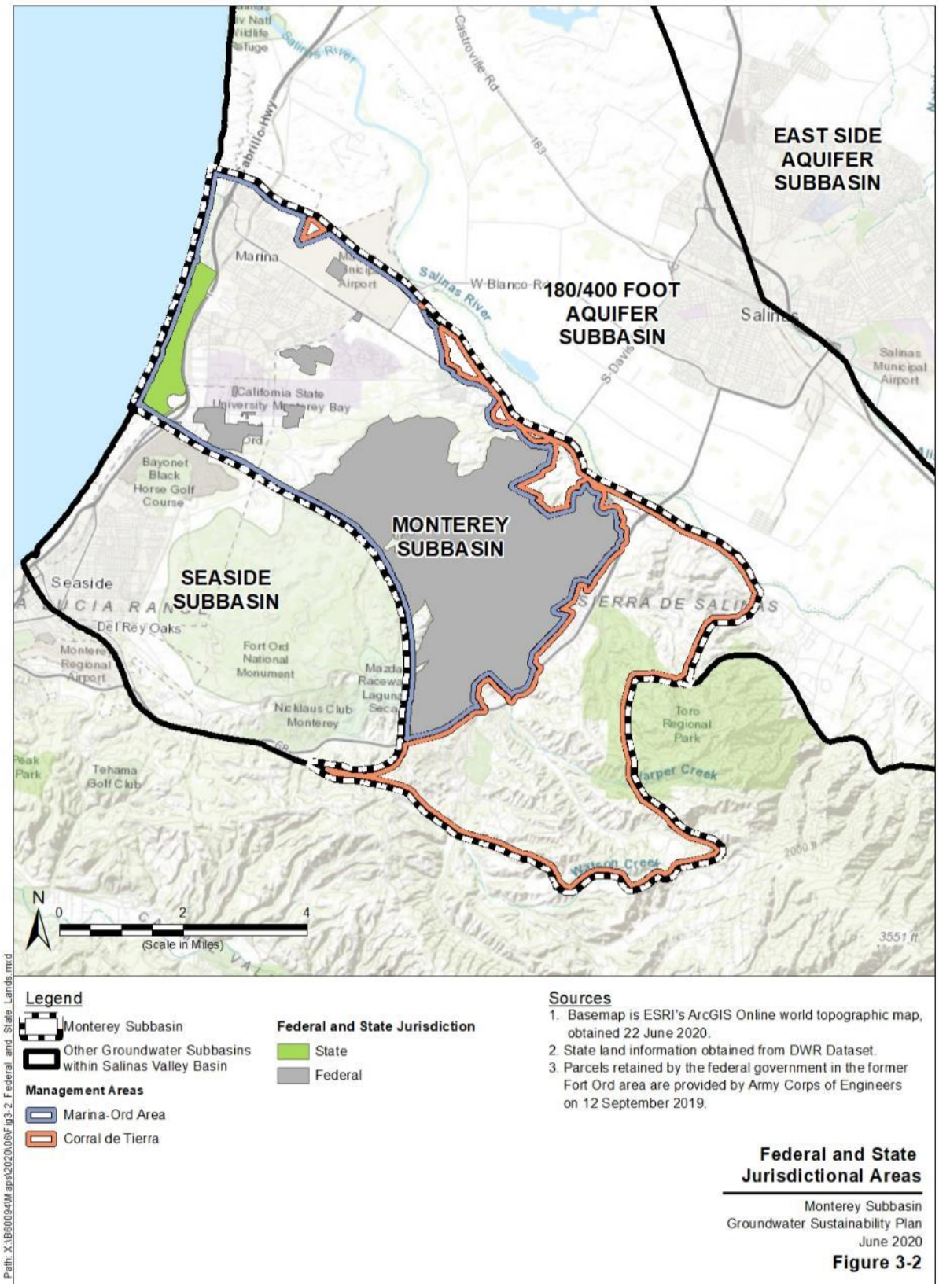
A large portion of the Subbasin was home to the 45-square mile former Fort Ord military base. The base was closed 1994 and has since been undergoing conversion to civilian use. As of 2019, most of the property transfers have been completed and environmental cleanup is ongoing. A large portion of the land is transferred to the Bureau of Land Management (BLM) as part of the National Conservation Lands and consists of the Fort Ord National Monument. A small portion of the base was retained by the U.S. Army for active military installation. As shown on Figure 3-2, a total of 9,200 acres of the Subbasin is federally owned lands managed by the U.S. Army and the BLM located at the former Fort Ord. Those lands are not subject to the Sustainable Groundwater Management Act (SGMA).

The Fort Ord Dunes State Park, a state-owned park, is located along the western boundary of the Subbasin adjacent to the Pacific Ocean, with a total area of 916 acres.

According to the information made available by the DWR[2] in support of GSP development, there are no tribal lands within or in the vicinity of the Subbasin.

Areas under federal and state jurisdiction are shown on Figure 3-2.

[2] SGMA Data Viewer: https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer


EAST SIDE AQUIFER SUBBASIN
180/400 FOOT AQUIFER SUBBASIN
MONTEREY SUBBASIN
SEASIDE SUBBASIN
Marina
Salinas
Seaside
Del Rey Oaks
Fort Ord National Monument
Bayonet Black Horse Golf Course
Tehama Golf Club
Toro Regional Park
Salinas River
Castroville Rd
W Blanco Rd
S Davis Rd
Harper Creek
Watson Creek
SIERRA DE SALINAS
3551 ft
N
0
2
4
(Scale in Miles)
Legend
Monterey Subbasin
Other Groundwater Subbasins within Salinas Valley Basin
Management Areas
Marina-Ord Area
Corral de Tierra
Federal and State Jurisdiction
State
Federal
Sources
1. Basemap is ESRI's ArcGIS Online world topographic map, obtained 22 June 2020.
2. State land information obtained from DWR Dataset.
3. Parcels retained by the federal government in the former Fort Ord area are provided by Army Corps of Engineers on 12 September 2019.
Federal and State Jurisdictional Areas
Monterey Subbasin
Groundwater Sustainability Plan
June 2020
Figure 3-2
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3.1.3 Agencies with Water Management Responsibilities

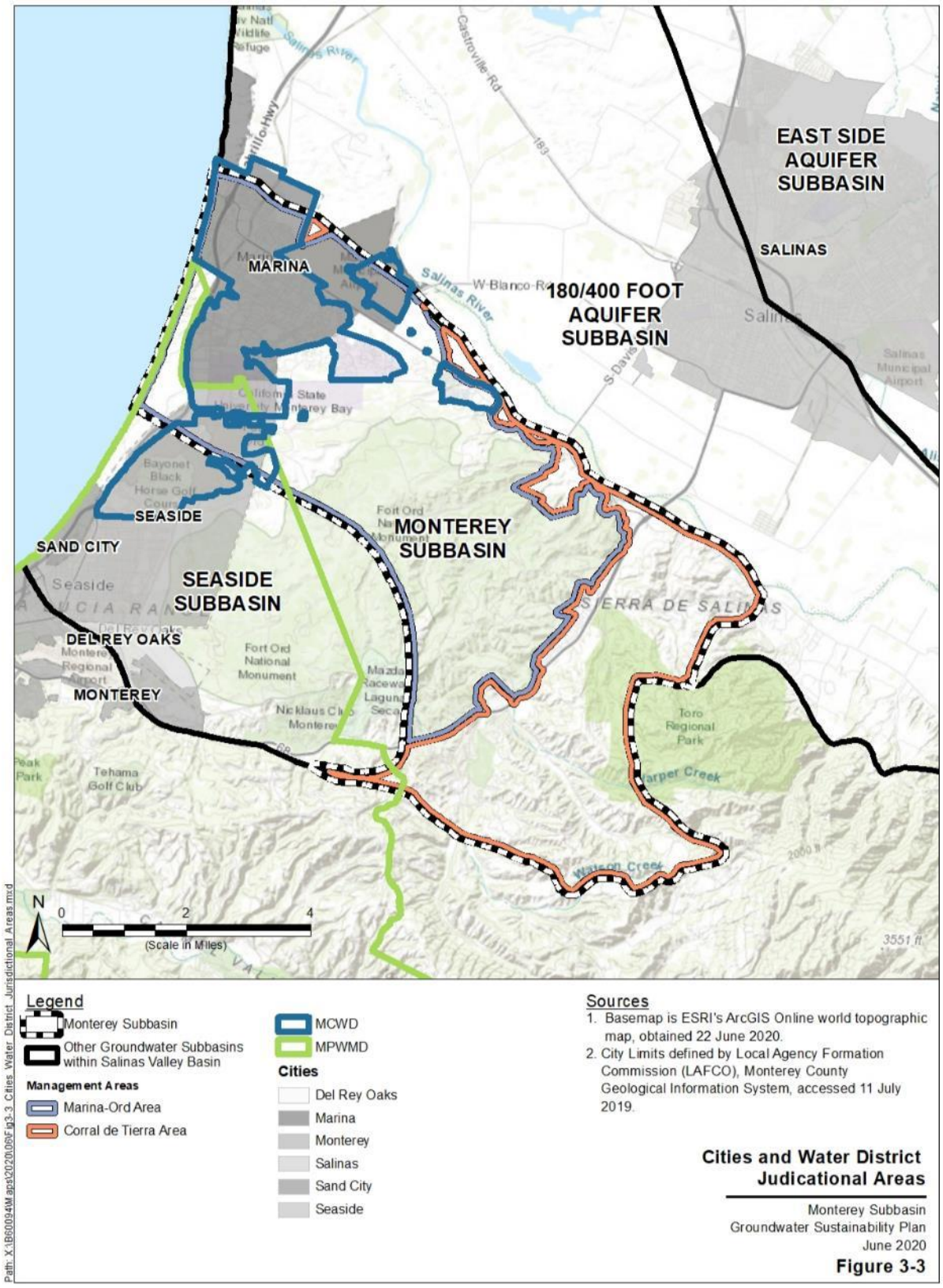
As shown on Figure 3-3, the main water supplier in the Subbasin is MCWD, which has a service area covering the entire City of Marina and all parcels within the Ord Subarea that currently receive potable water or that have received final land use development approvals by the applicable land use jurisdiction within its jurisdictional boundary. Within the former Fort Ord, MCWD is the exclusive water purveyor to all non-Federal lands and to the U.S. Army for all Army and Federal facilities. By a 2001 deed from the Army through the Fort Ord Reuse Authority, MCWD owns all the water infrastructure within the former Fort Ord (MCWD, 2016). A small portion of MCWD's service area further extends into the 180/400-Foot Aquifer Subbasin.

The MCWD provides sewer collection services within its jurisdictional boundaries. Wastewater collected by MCWD is conveyed to the Monterey One Water (formerly Monterey Regional Water Pollution Control Agency) Regional Treatment Plant located in the 180/400 Foot Aquifer Subbasin.

The municipal water providers in the whole Monterey Subbasin are listed in Table 3-1 and shown on Figure 3-4. There are also over 200 State Small Water Systems (5-14 connections) and Local Small Water Systems (2-4 connections) in the Monterey Subbasin that provide water.

Table 3-1: Municipal Water Providers in the Monterey Subbasin

Water System No	Agency Name	Acres
CA2710017	Marina Coast Water District	19,476
CA2710012	California Water Service Company - Salinas Hills	2,626
CA2710004	California American Water Company - Monterey District	2,368
CA2710021	Toro Water Service No 2710021	2,168
CA2702009	Laguna Seca Recreation Water System	487
CA2700612	Laguna Seca Water Company	77
CA2702315	Corral De Tierra Country Club Water System	71
CA2701367	Tierra Meadows Home Owners Association Water System	44
CA2700775	Tierra Verde Mutual Water Company	21
CA2700731	Z Ranch Mutual Water Company	18
CA2702030	Cypress Community Church Water System	17
CA2700536	Corral De Tierra Estates Water Company	6
CA2701740	Bluffs Water System	6
CA2701681	Exxon Station Water System	1
	Total	**27,385**


EAST SIDE AQUIFER SUBBASIN
SALINAS
MARINA
180/400 FOOT AQUIFER SUBBASIN
SEASIDE
SAND CITY
SEASIDE SUBBASIN
MONTERREY SUBBASIN
DEL REY OAKS
MONTEREY
SIERRA DE SALINAS
Salinas River
Castroville Rd
W Blanco Rd
Fort Ord National Monument
Toro Regional Park
Tehama Golf Club
Harper Creek
Watson Creek
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(Scale in Miles)
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Legend
Monterey Subbasin
Other Groundwater Subbasins within Salinas Valley Basin
Management Areas
Marina-Ord Area
Corral de Tierra Area
MCWD
MPWMD
Cities
Del Rey Oaks
Marina
Monterey
Salinas
Sand City
Seaside
Sources
1. Basemap is ESRI's ArcGIS Online world topographic map, obtained 22 June 2020.
2. City Limits defined by Local Agency Formation Commission (LAFCO), Monterey County Geological Information System, accessed 11 July 2019.
Cities and Water District Judicational Areas
Monterey Subbasin
Groundwater Sustainability Plan
June 2020
Figure 3-3
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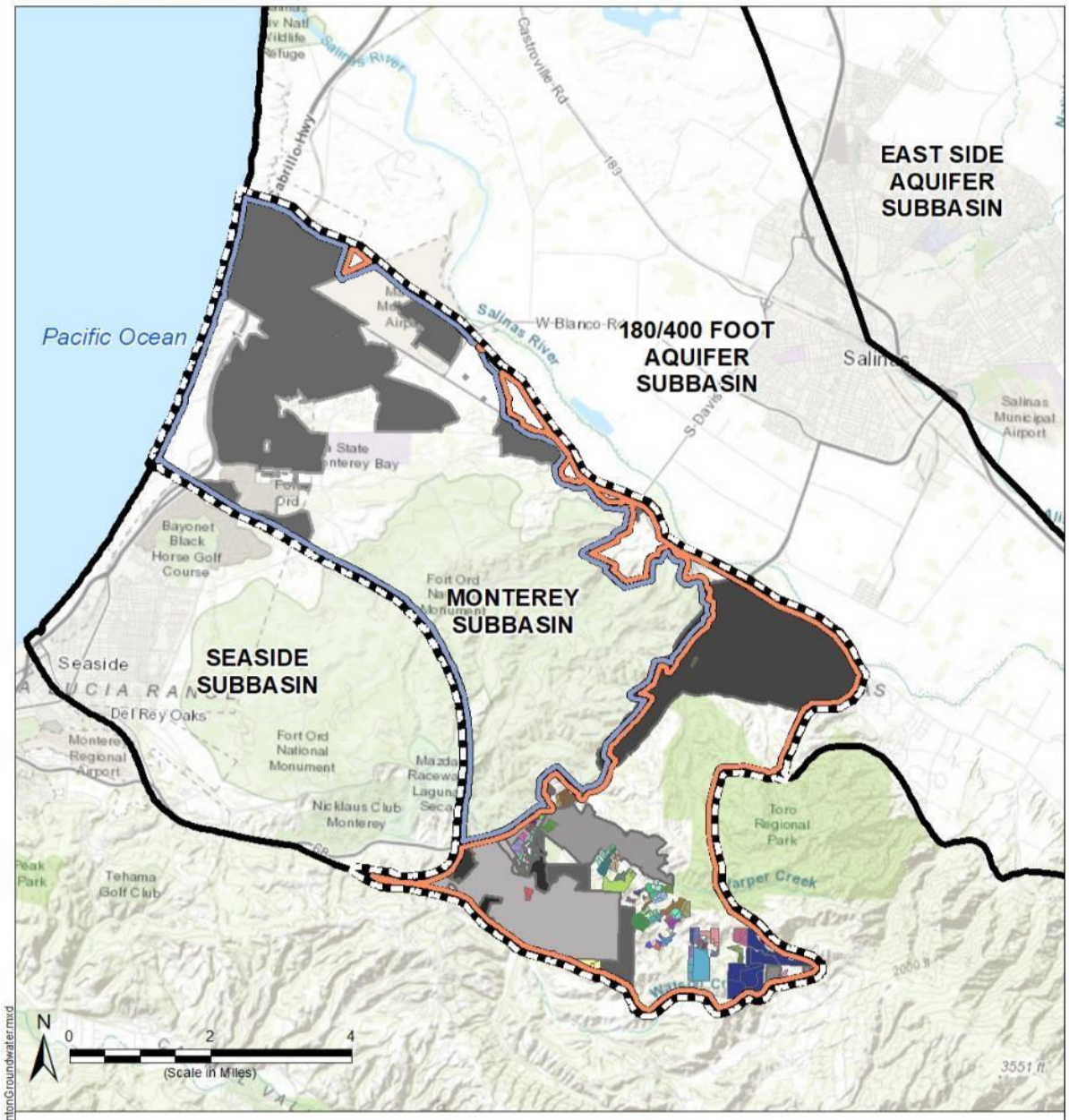


Legend

- Monterey Subbasin
- Other Groundwater Subbasins within Salinas Valley Basin

Management Areas

- Marina-Ord
- Corral de Tierra
- Public Water Supply Service Areas
- Small Local and Small State Water Systems

Sources

1. Basemap is ESRI's ArcGIS Online world topographic map, obtained 19 June 2020.
2. Municipal areas shown as public water system service areas dependent on groundwater, obtained from Tracking California https://trackingcalifornia.org/water/download.

Municipal Areas Dependent on Groundwater

Monterey Subbasin
Groundwater Sustainability Plan
June 2020
Figure 3-4

Path: X:\B60094\Maps\2020\06\Fig3-4_MunicipalAreasDependentonGroundwater.mxd

Other agencies with water management responsibilities within the Subbasin include the Monterey County Water Resources Agency (MCWRA) and the Monterey Peninsula Water Management District (MPWMD). MCWRA governance areas includes all lands within Monterey County, which includes the subbasin. MPWMD manages groundwater and surface water in areas on the Monterey Peninsula and in the Carmel River Basin and includes the City of Seaside, which extends into the subbasin. Management programs of these agencies are further discussed in Section 3.2.

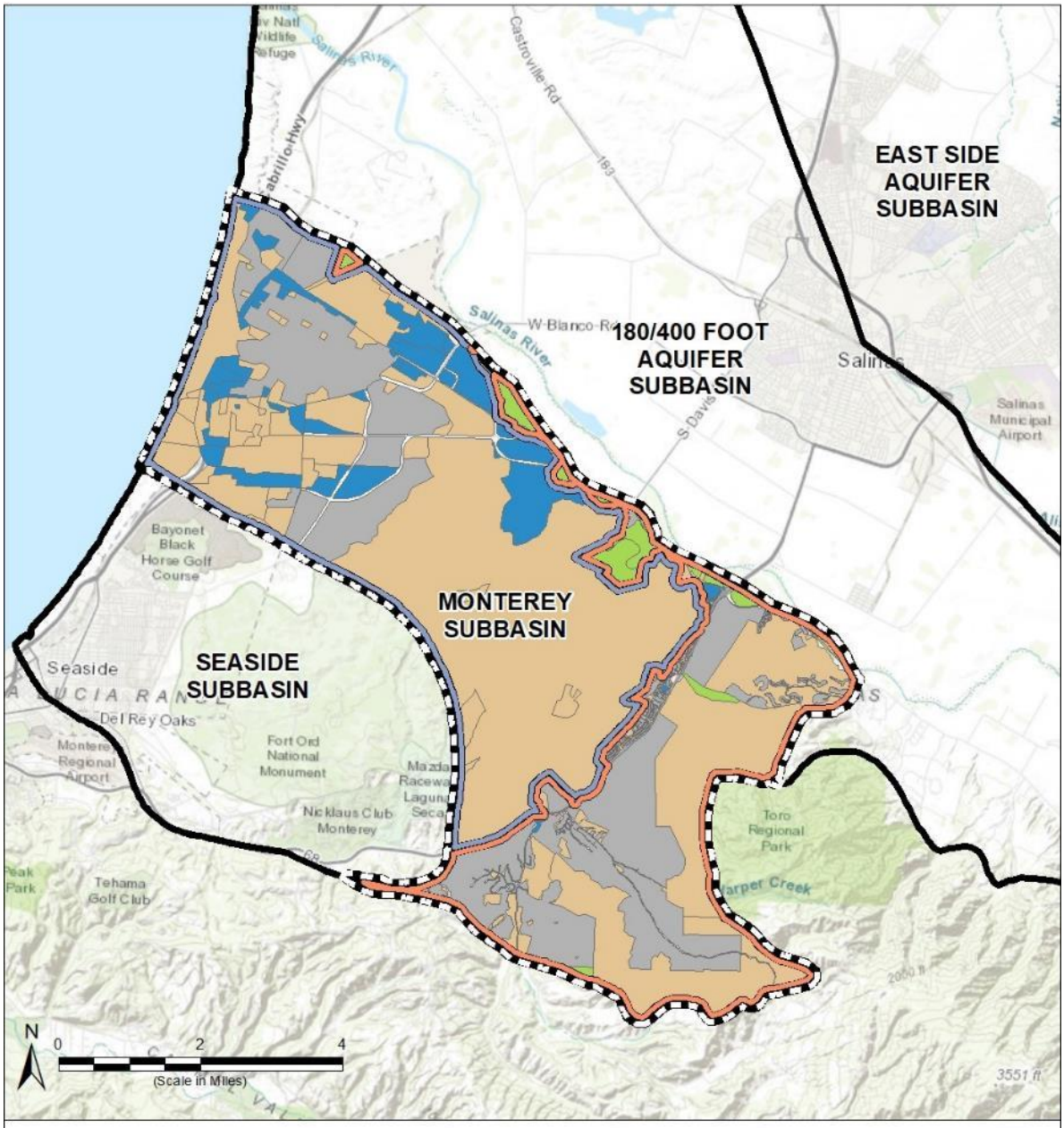
3.1.4 Adjudicated areas and Alternative areas

The Subbasin is not adjudicated and does not contain any areas covered by an Alternative plan. However, this subbasin shares a jurisdictional boundary with the Seaside Adjudicated Subbasin. This boundary is based on a presumed groundwater flow divide between the two subbasins and may be vulnerable to future pumping or impacts to the groundwater conditions in either subbasin. The adjudicated area is not managed by MCWD nor the SVBGSA. The adjudicated Seaside Subbasin is managed by the Seaside Basin Watermaster.

3.1.5 Existing Land Use and Water Use

Land use planning authority in the Subbasin is the responsibility of the County of Monterey, the cities of Marina and Seaside, and the Fort Ord Reuse Authority, who oversees reuse planning at the former Fort Ord.

Figure 3-5 shows simplified land use designations within the Monterey Subbasin. The majority of the subbasin is undeveloped land. Urban is the primary developed land use within the subbasin, with approximately 5,500 acres of urban coverage. Small areas of agriculture, approximately 500 acres of truck nursery and berry crops, are located along the northern subbasin boundary adjoining the 180/400 Foot Aquifer Subbasin. Urban and agriculture water uses in the subbasin relies entirely on groundwater.



Legend

- Monterey Subbasin
- Other Groundwater Subbasins within Salinas Valley Basin

Management Areas

- Marina-Ord Area
- Corral de Tierra

Current Land Use

- Open/Public/Military
- Agriculture
- Municipal
- Residential

Sources

1. Basemap is ESRI's ArcGIS Online world topographic map, obtained 22 June 2020.
2. Land use information are obtained from Monterey County Open Data, accessed 12 June 2020.

Land Use

Monterey Subbasin
Groundwater Sustainability Plan
June 2020

Figure 3-5

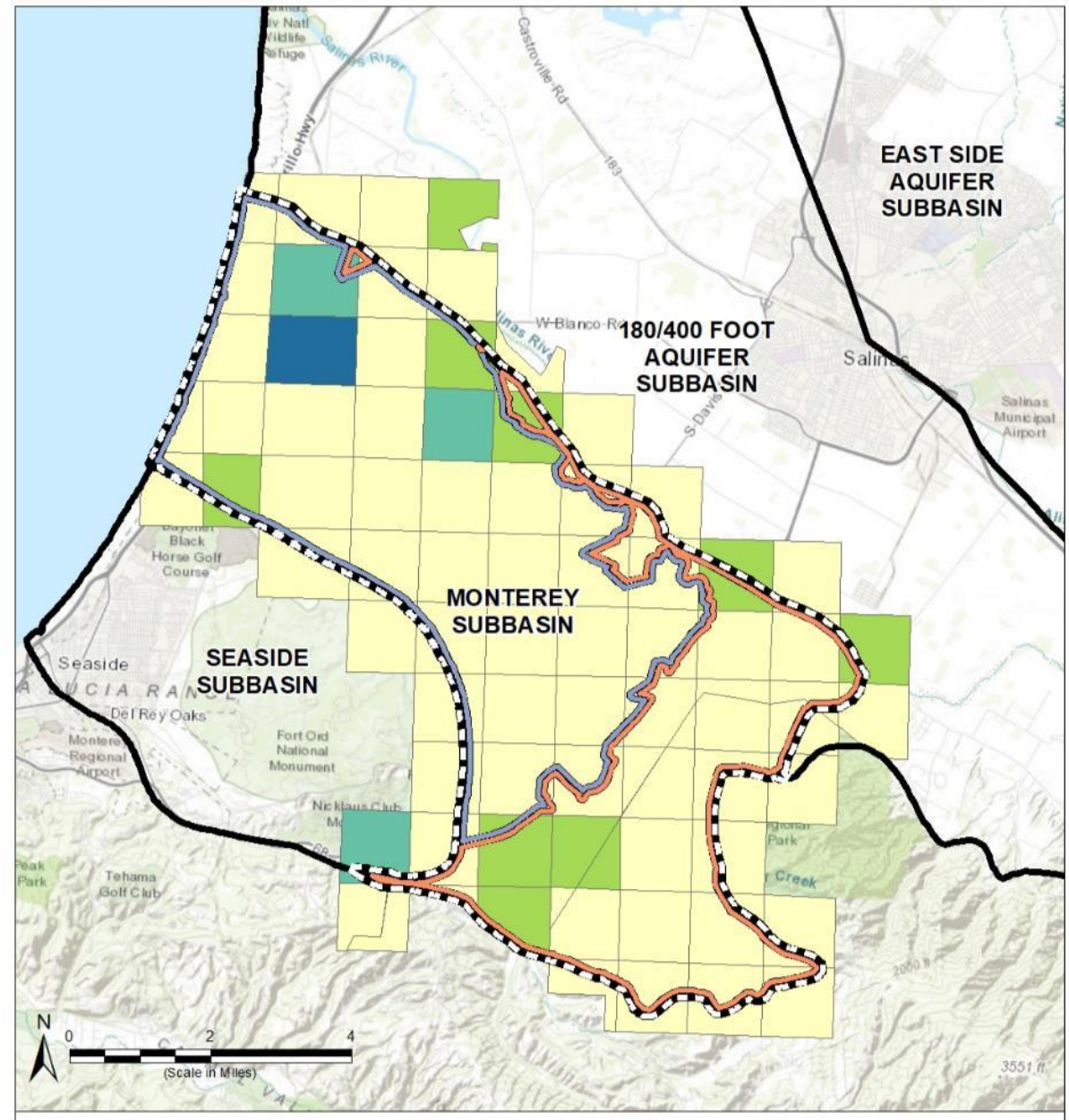
3.1.6 Well Density per Square Mile

Figure 3-6 through Figure 3-8 show the density of wells per square mile within the subbasin, based on Well Completion Report records compiled by DWR. According to these records, 102 production wells, 304 domestic wells, and 17 public supply wells have been installed within the Public Land Survey Systems (PLSS) sections that fall partially or entirely within the subbasin.

Groundwater is the primary water source for all water use sectors in the subbasin. Municipal areas dependent on groundwater within the subbasin are shown on Figure 3-4.

Within the Marina-Ord Area, MCWD is the exclusive water purveyor to all non-federal lands and to the Army for all Army and Federal facilities within the former Fort Ord. Due to well installation requirements of the Monterey County and the City of Marina (see Section 3.5.4), only a very small number of domestic wells that pre-date County and City ordinances exist within the Marina-Ord Area. Fort Ord contamination and seawater intrusion limits use of the majority of these wells. In turn, these communities rely on water service provided by MCWD. MCWD currently operates seven active production wells that supplies approximately 3,200 acre-feet per year (AFY) to its residents.

Within the Corral de Tierra Area, there are hundreds of domestic wells and small community water system wells shown in Figure 3-4 (GeoSyntec, 2007). The majority of these small systems are clustered in the Watson Creek and Harper Creek watersheds The most recent and best available published groundwater demand in the Corral de Tierra Area estimated a groundwater extraction rate of 1,256 AFY for the El Toro Planning area which is an area that encompasses the Calera Creek, Watson Creek, Corral de Tierra, San Benancio Gulch, and El Toro Creek watersheds. The report estimated this groundwater extraction based on reports published and data collected in the 1990s (GeoSyntec, 2007). The El Toro Planning area encompasses a large portion of the Corral de Tierra Area within the Monterey Subbasin as well as communities in the Sierra de Salinas immediately outside of the Subbasin. Therefore, the estimated volumes are not perfectly representative of the current water use in the Corral de Tierra Area. Groundwater is primarily used for municipal, domestic, and agricultural purposes.



Legend

- Monterey Subbasin
- Other Groundwater Subbasins within Salinas Valley Basin

Management Areas

- Marina-Ord Area
- Corral de Tierra Area

Public Well Density

- 0
- 1
- 2
- 3 - 5
- 6 - 7

Notes

1. All locations are approximate.
2. Well density is shown on PLSS sections within the Subbasin.

Sources

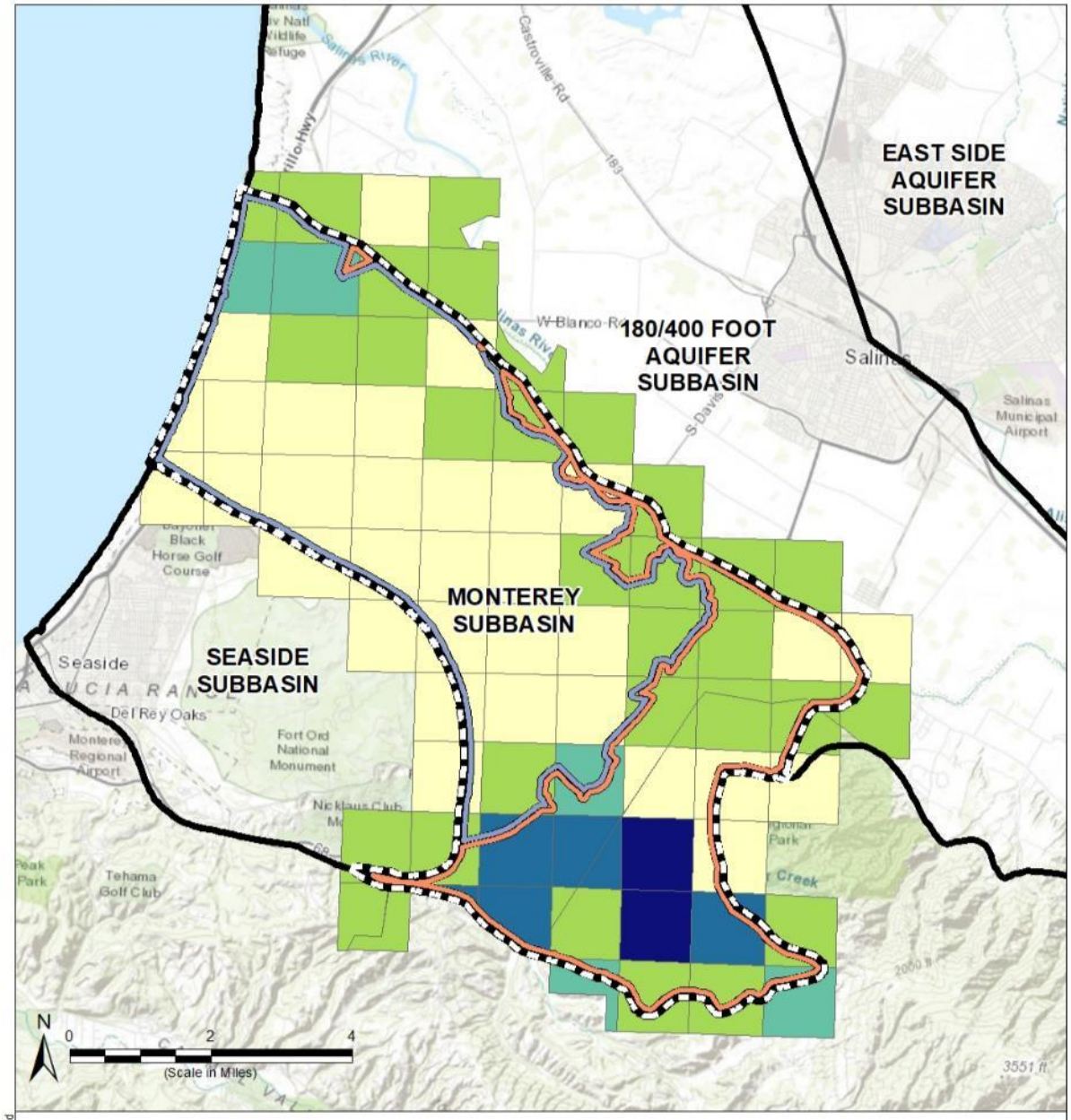
1. Basemap is ESRI's ArcGIS Online world topographic map, obtained 22 June 2020.
2. Well count information obtained from Well Completion Report Map Application on February 15, 2018 and includes domestic wells, production wells, and public wells.

Public Well Density

Monterey Subbasin
Groundwater Sustainability Plan
June 2020

Figure 3-6

Path: X:\B60094\Maps\2020\06\Fig3-6_PublicWellDensity.mxd



Legend

- Monterey Subbasin
- Other Groundwater Subbasins within Salinas Valley Basin

Management Areas

- Marina-Ord Area
- Corral de Tierra Area

Domestic Well Density

- 0
- 1 - 5
- 6 - 14
- 15 - 26
- 27 - 44

Notes

1. All locations are approximate.
2. Well density is shown on PLSS sections within the Subbasin

Sources

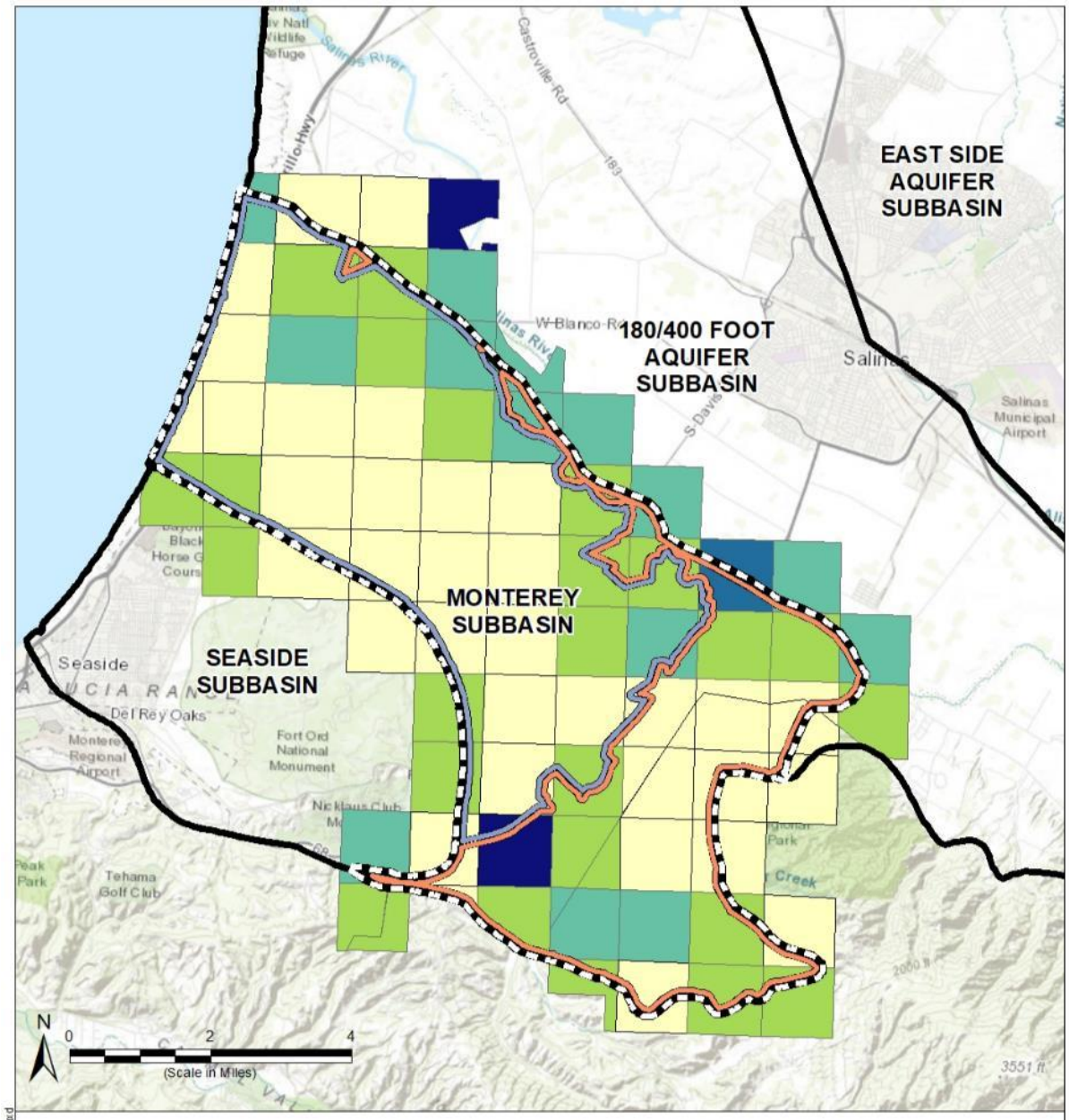
1. Basemap is ESRI's ArcGIS Online world topographic map, obtained 22 June 2020.
2. Well count information obtained from Well Completion Report Map Application on February 15, 2018 and includes domestic wells, production wells, and public wells.

Domestic Well Density

Monterey Subbasin
Groundwater Sustainability Plan
June 2020

Figure 3-7

Path: X:\B60094\Maps\2020\06\Fig3-7_DomesticWellDensity.mxd



Legend

- Monterey Subbasin
- Other Groundwater Subbasins within Salinas Valley Basin

Management Areas

- Marina-Ord Area
- Corral de Tierra Area

Production Well Density

- 0
- 1 - 2
- 3 - 5
- 6 - 8
- 9 - 11

Notes

1. All locations are approximate.
2. Well density is shown on PLSS sections within the Subbasin

Sources

1. Basemap is ESRI's ArcGIS Online world topographic map, obtained 22 June 2020.
2. Well count information obtained from Well Completion Report Map Application on February 15, 2018 and includes domestic wells, production wells, and public wells.

Production Well Density

Monterey Subbasin
Groundwater Sustainability Plan
June 2020

Figure 3-8

Path: X:\B60094\Maps\2020\06\Fig3-8_ProductionWellDensity.mxd

3.2 Water Resources Monitoring and Management Programs

3.2.1 Existing Monitoring Programs

Existing groundwater monitoring in the Subbasin include:

- The California Statewide Groundwater Elevation Monitoring (CASGEM) Program tracks long-term groundwater elevation trends in groundwater basins throughout California. The CASGEM program's mission is to establish a permanent, locally-managed program of regular and systematic monitoring in all of California's alluvial groundwater basins. In the Subbasin, MCWRA and MPWMD are the CASGEM monitoring entities.
- The United States Geological Survey (USGS) collects surface water and groundwater data across the United States. Existing USGS monitoring wells and stream gauges are located within the Monterey Subbasin.
- The Groundwater Ambient Monitoring and Assessment (GAMA) Program which is California's comprehensive groundwater quality monitoring program that was created by the State Water Resources Control Board (SWRCB) in 2000. The GAMA Program monitors groundwater quality trends throughout California, including within the Monterey Subbasin.
- The SWRCB's Division of Drinking Water monitors groundwater quality from public water system wells. There are 15 active public water systems located within the Subbasin.
- MCWD, MCWRA, and MPWMD each conduct periodic monitoring for groundwater elevation and quality in their production wells or selected wells in their respective areas. Additionally, MCWD has installed transducers in selected production wells.
- MCWRA collects groundwater extraction information from production wells in the Subbasin that have discharge pipes of three inches or greater in diameter. These data have been collected since 1993. Extraction information is self-reported by well owners and this program does not extend into the entire geographic area of the Monterey Subbasin.
- Multiple sites are monitoring groundwater quality as part of investigation or compliance monitoring programs through the Central Coast Regional Water Quality Control Board (CCRWQCB)
- The U.S. Army Corps of Engineers (the Army) conducts periodic monitoring for groundwater elevation and quality for remediation purposes in the former Fort Ord. Several additional sites are monitoring groundwater elevation and quality as part of investigation or compliance monitoring programs through the Central Coast Regional Water Quality Control Board.

Well locations of the above monitoring programs are shown on Figure 3-9.

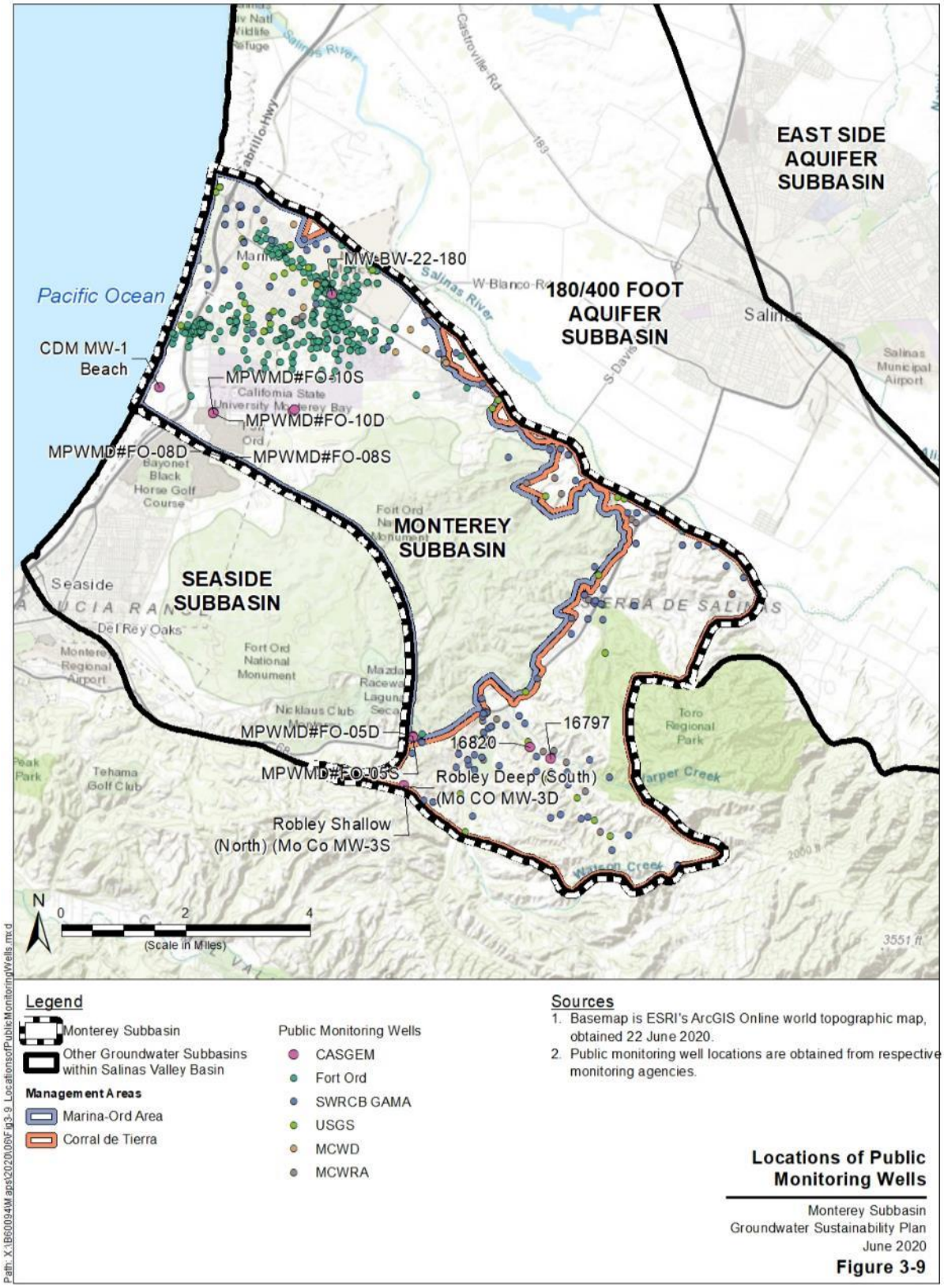
Groundwater elevation from CASGEM, USGS, SWRCB, as well as MCWRA, MPWMD, and the Army's monitoring networks, have been used to characterize groundwater level conditions (see Section 5.1 Groundwater Elevations and Flow Direction). Water quality data from MCWRA, MPWMD, and the Army's monitoring networks, in coordination the Airborne Electromagnetic (AEM) Surveys have been used to

characterize seawater intrusion and identify water quality concerns (see Section 5.3 Seawater Intrusion and Section 5.4 Groundwater Quality Concerns).

For surface water, there are no surface water inflows beyond those produced from seasonal precipitation in the Subbasin (GeoSyntec, 2007). The USGS monitored stream flows for El Toro Creek at station 11152540 until 2001 (GeoSyntec, 2007). The logarithmic mean of 525 AFY is representative of average flows as shown in Figure 4-24 and Figure 4-25 in Section 4 (GeoSyntec, 2007). As of 2020, there are no active surface gauges in the Corral de Tierra area.

3.2.1.1 *Limits to Operational Flexibility*

The existing monitoring networks will be integral to the on-going monitoring and reporting that will be conducted pursuant to this GSP. For the above-mentioned monitoring programs, the Monterey Subbasin GSP will incorporate the CASGEM program into its monitoring network, as applicable. The MCWD, MCWRA (a member of SVBGSA), and MPWMD also conduct routine groundwater quality monitoring as part of their management efforts. These existing programs will continue and will inform GSP implementation. The Monterey Subbasin Monitoring Network is further described in Section 7 Monitoring Network.


EAST SIDE AQUIFER SUBBASIN
180/400 FOOT AQUIFER SUBBASIN
MONTEREY SUBBASIN
SEASIDE SUBBASIN
Pacific Ocean
MW-BW-22-180
CDM MW-1
Beach
MPWMD#FO-10S
MPWMD#FO-10D
MPWMD#FO-08D
MPWMD#FO-08S
MPWMD#FO-05D
MPWMD#FO-05S
16797
16820
Robley Deep (South)
(Mo CO MW-3D
Robley Shallow
(North) (Mo Co MW-3S
Salinas River
Castroville Rd
W Blanco Rd
Seaside
Del Rey Oaks
Fort Ord National Monument
Monterey Regional Airport
Salinas Municipal Airport
Toro Regional Park
Tehama Golf Club
Harper Creek
Watson Creek
N
0
2
4
(Scale in Miles)
3551 ft
Legend
Monterey Subbasin
Other Groundwater Subbasins within Salinas Valley Basin
Management Areas
Marina-Ord Area
Corral de Tierra
Public Monitoring Wells
CASGEM
Fort Ord
SWRCB GAMA
USGS
MCWD
MCWRA
Sources
1. Basemap is ESRI's ArcGIS Online world topographic map, obtained 22 June 2020.
2. Public monitoring well locations are obtained from respective monitoring agencies.
Locations of Public Monitoring Wells
Monterey Subbasin
Groundwater Sustainability Plan
June 2020
Figure 3-9
Path: X:\B600944\Maps\2020.06\Fig3-9_LocationsofPublicMonitoringWells.mxd

3.2.2 Existing Management Programs

The following groundwater management programs exists within the Monterey Subbasin.

3.2.2.1 *Integrated Regional Water Management*

The majority of the Monterey Subbasin falls within the Greater Monterey County Integrated Regional Water Management Region (Greater Monterey County Region), while a portion of the Subbasin along the southern boundary is within the Monterey Peninsula-Carmel Bay- South Monterey Bay Region (Monterey Peninsula Region). These portions of the Subbasin are therefore included in the Greater Monterey County Integrated Regional Water Management Plan (IWRMP) and the Monterey Peninsula Region IWRMP, respectively.

The Greater Monterey County Region includes the entire Monterey County excluding the Pajaro River Watershed Region and the Monterey Peninsula Region. The Greater Monterey County IRWMP was adopted in April 2013 and updated in September 2018. The water supply goals for the Greater Monterey County Region, according to the IRWMP (Monterey County, 2018), include the following:

- Improve water supply reliability and protect groundwater and surface water supplies;
- Protect and improve surface, groundwater, estuarine and coast water quality, and ensure the provision of high-quality, potable, affordable drinking water for all communities in the region;
- Develop, fund, and implement integrated watershed approaches to flood management through collaborative and community supported processes;
- Protect, enhance, and restore the region's ecological resources while respecting the rights of private property owners;
- Promote regional communication, cooperation, and education regarding water resources management;
- Ensure the provision of high-quality, potable, affordable water and healthy conditions for disadvantage communities (DACs); and
- Adapt the region's water management approach to deal with impacts of climate change using science-based approaches, and minimize the regional causal effects.

The Monterey Peninsula Region consists of approximately 350 square miles along the Monterey Bay and the Carmel River Valley. The Monterey Peninsula IRWMP was adopted in 2014 and is currently undergoing an update to comply with new IRWM Program Guidelines. Key goals and priorities for the Monterey Peninsula Region, according to the IRWMP (2014), include the following:

- Meet existing water supply replacement needs for the Carmel River system and Seaside Subbasin;
- Maximize use of recycled water and other reuse, including gray water systems, and stormwater capture and use;
- Improve ocean water quality, including Areas of Special Biological Significance (ASBS), by minimizing pollutants in stormwater discharges;
- Improve inland surface water quality for environmental resources (e.g. steelhead) and potable water supplies;
- Protect and improve water quality in groundwater basins;

- Develop regional projects and plans necessary to protect existing infrastructure and sensitive habitats from flood damage, erosion, and sea level rise, in particular, along the South Monterey Bay shoreline and Carmel Valley;
- Identify cooperative, integrate strategies for protecting both infrastructure and environmental resources, including from climate change impacts; and
- Foster collaboration among regional entities as an alternative to litigation.

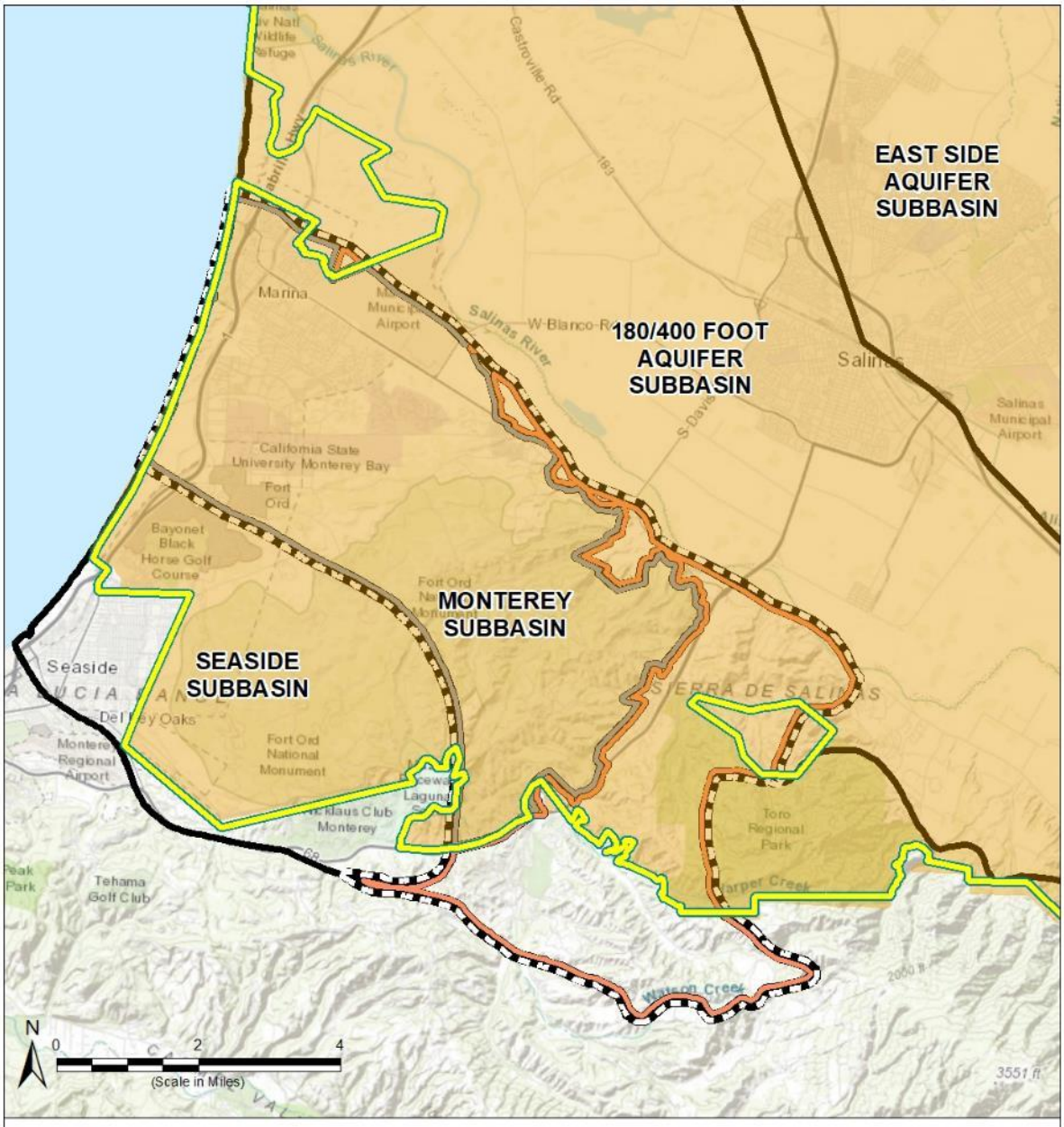
IRWMP and GSP development are complimentary management processes. To the extent that the issues identified for the greater IRWMP regions affect the Subbasin, these issues will be identified in the following sections of this GSP. The implementation of this GSP will contribute to the sustainable use of water supplies within the IRWMP regions. The IRWM program is not expected to limit operational flexibility in the Subbasin.

3.2.2.2 *MCWRA Management of the Salinas Valley Groundwater Basin*

The MCWRA was formed in 1947 by State law, originally as the Monterey County Flood Control and Water Conservation District (MCFCWCD) and established by the Monterey County Flood Control and Water Conservation District Act (District Act). The prevention of seawater intrusion was a principal reason for the enactment of the District Act in 1947. Since then, the MCWRA has developed projects and programs to reduce the adverse impacts from pumping and seawater intrusion within the 180/400-Foot Aquifer Subbasin. As shown on Figure 3-10, Zones 2C, 2Y, and 2Z cover a majority of the Monterey Subbasin including most of the land north of Harper Canyon. The areas not covered by these zones include a small portion of the City of Marina, and San Benoncio Gulch and Calera Canyon along Corral de Tierra Road up to the intersection with State Route 68. A description of the zones is provided below[3]:

- Under provisions of the District Act, the MCFCWCD established the Zone 2 and Zone 2A benefit assessment zones to fund the construction of Nacimiento Reservoir and the San Antonio Reservoir, respectively. In 2003, MCWRA created 2C to fund operation and maintenance of the reservoirs and eliminate charges in Zones 2 and 2A.
- Zone 2Y was established to collect assessments for the operation and maintenance of the Castroville Seawater Intrusion Project.
- Zone 2Z was established to collect assessment for the operation and maintenance of the Salinas Valley Reclamation Project.

[3] Annexation Zone https://www.co.monterey.ca.us/home/showdocument?id=22209



Legend

- Monterey Subbasin
- Management Areas
  - Marina-Ord Area
  - Corral de Tierra
- Other Groundwater Subbasins within Salinas Valley Basin
- MCWRA Zone 2C
- MCWRA Zone 2Y
- MCWRA Zone 2Z

Sources

1. Basemap is ESRI's ArcGIS Online world topographic map, obtained 26 June 2020.
2. MCWRA Zone 2C boundary obtained from Monterey County Open Data, accessed 10 June 2020.

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MCWRA Zones

Monterey Subbasin
Groundwater Sustainability Plan
June 2020

Figure 3-10

In 1990, the District Act was repealed and replaced by the existing Monterey County Water Resources Agency Act (Agency Act); however, much of the District Act was carried over into the Agency Act. The District Act and then the Agency Act have been the foundation of groundwater management within the Monterey County. Additional information on MCWRA monitoring programs and well permitting programs are provided in Sections 3.2.1 and 3.5.4, respectively.

1993 and 1996 Annexation Agreements. MCWRA established annexation zones to institute water supply projects and collect assessments to fund them under various Monterey County Ordinances. The two major historic groundwater users within the Subbasin, the Federal Government and the MCWD, respectively entered into annexation agreements with MCWRA in 1993 and 1996 to be annexed to Zones 2 and 2A[4]. The 1996 Annexation Agreement and Groundwater Mitigation Framework for Marina Area Lands was the fifteenth annexation to Zones 2 and 2A since 1991.[5] In the annexation agreements, the MCWRA recognized that MCWD and the Federal Government had been pumping groundwater for many years and had strong claims to groundwater rights[6] MCWD and the Federal Government agreed that all non-Federal lands within the annexed areas would pay assessments to MCWRA Zones 2 and 2A (later superseded by Zones 2C, 2Y, and 2Z) for regional projects to protect the Salinas Valley Groundwater Basin and reduce seawater intrusion. The Annexation Agreements are attached as Appendix 3-A.

This GSP will identify the amount of assessments paid by Marina area and non-Federal Fort Ord lands, what those funds were used for, what benefits those lands have received from those payments, and what benefits those lands could receive in the future to help achieve groundwater sustainability within the Monterey Subbasin.

Under 1993 and 1996 Annexation Agreements, the Federal Government agreed to limit groundwater pumping from the Salinas Valley Groundwater Basin ("Basin") to 6,600 AFY, and MCWD agreed to limit pumping from the Basin to 3,020 AFY, respectively; MCWD's share to be used to serve the City of Marina[7](MCWRA/U.S. Army, 1993; MCWRA/MCWD, 1996). In 2001, the Federal Government transferred ownership of the Fort Ord water system infrastructure to MCWD, including the ability to pump no more than 4,871 AFY[8] of groundwater (of the 6,600 AFY described in the 1993 Agreement) from the Basin.

[4] The MCWRA Board of Directors adopted an Annexation Policy dated March 29, 1993, which provided for the process for lands not then included within Zones 2 and 2A to be annexed into both zones subject to the annexation process in Agency Act § 43, the preparation of final environmental documents, and the setting of annexation fees.

[5] 1996 Annexation Agreement, Section 3.1.

[6] Section 45 of the Agency Act provided MCWRA to develop a water allocation formula for groundwater users in the County "to preserve agricultural access to an adequate water supply and to preserve agriculture as a mainstay of the Salinas Valley economy". Board of Supervisors Resolution 91-476 adopted September 24, 1991, directed MCWRA staff to prepare information for a water allocation formula for Zone 2 and 2A and bring it back to the Board on or before January 1, 1992, and further directed MCWRA staff to prepare an emergency allocation ordinance for Zones 2 and 2A for consideration by the Board no later than April 1, 1992. While a draft report was prepared, the draft report was never approved by the Board.

[7] In addition, under the 1996 Annexation Agreement, 920 AFY of groundwater was allocated to Armstrong Ranch development, and 500 AFY (of brackish water) to CEMEX in the adjacent 180/400 Foot Aquifer Subbasin.

[8] Under Article 2.a of Amendment No. 1 dated October 23, 2001, to the Memorandum of Agreement between the U.S. Government acting through the Secretary of the Army and FORA, the Army agreed to reserve only 1,691 AFY, or 38 AFY less than the amount actually reserved by the Army in the October 23, 2001 deed. The 38 AFY was to be transferred to FORA and then to MCWD. FORA was to allocate the 38 AFY to the City of Seaside for the benefit of Bay View Mobile Home Park subject

MCWD is using the 4,871 AFY of groundwater to provide water service to those jurisdictions within the former Fort Ord, which are entitled to water service pursuant to the Fort Ord Base Reuse Plan (Section 3.5.1.4). Under a long-term water service agreement with the Army, MCWD provides water service to all Federal activities within the former Fort Ord utilizing the Army's groundwater pumping rights.

To protect the 180-foot and 400-foot aquifers, the 1993 and 1996 Annexation Agreements limit the volume of groundwater that MCWD can extract from the 180-foot aquifer and 400-foot aquifer. To offset that limitation, the 1996 Annexation Agreement provides "*…that the '900-foot'*[9] *aquifer should be managed to provide safe, sustained use of the water resource, and to preserve to MCWD the continued availability of water from the '900-foot' aquifer."*

The 1993 and 1996 Annexation Agreements further provided that MCWRA will seek to develop a replacement potable water supply, such that most groundwater pumping within Fort Ord and Marina Area Lands could be curtailed. However, by Resolution 00-172 adopted on 25 April 2000, the Board of Supervisors of the MCWRA indicated that the MCWRA has no contractual obligation to fund such a system using assessments from MCWRA Zones 2A or 2B (the resolution does not mention other potential sources of funds). MCWD is developing new water supplies to support redevelopment of the former Fort Ord and to supplement its groundwater supplies. These efforts are incorporated in this GSP and discussed further in Section 9.1 Project Descriptions.

MCWRA Groundwater Export Prohibition. The Monterey County Water Resources Agency Act, § 52.21 prohibits the export of groundwater from any part of the Salinas Valley Groundwater Basin, including the Monterey Subbasin. In particular, the Act states:

> *For the purpose of preserving [the balance between extraction and recharge], no groundwater from that basin may be exported for any use outside the basin, except that use of water from the basin on any part of Fort Ord shall not be deemed such an export. If any export of water from the basin is attempted, the Agency may obtain from the superior court, and the court shall grant, injunctive relief prohibiting that exportation of groundwater.*

The Agency Act was adopted at a time when the Seaside Basin was considered to be hydrologically separate from the Salinas Valley Groundwater Basin, but the above Agency Act section expressly made use of Salinas Valley groundwater within any part of Fort Ord, even though within the Seaside Basin, as being exempt from the export prohibition. In 2003, DWR included the Seaside Basin within the Salinas Valley Groundwater Basin, which DWR now designates as the Seaside Subbasin.

County Moratorium on Accepting and Processing New Well Permits. On May 22, 2018, the Monterey County Board of Supervisors adopted Ordinance No. 5302 pursuant to Government Code Section 65858. The ordinance was an Interim Urgency Ordinance, which took effect immediately upon adoption. The ordinance prohibits the acceptance or processing of any applications for new wells in the defined Area of Impact within the Monterey Subbasin and the 180/400-Foot Aquifer Subbasin, with stated exceptions

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to use limitations prescribed in Amendment No. 1 to be administered by the City of Seaside pursuant to its land use authority. MCWD has requested FORA and the City of Seaside to correct this oversight with the Army but it has not been yet corrected.

[9] aka the Deep Aquifer. Section 5.3 of the 1996 Annexation Agreement.

including municipal wells and replacement wells. Pursuant to Section 65858, the ordinance was originally only effective for 45 days to July 5, 2018, but at the June 26, 2018 Board meeting, the Board of Supervisors on a 4-1 vote extended the ordinance to May 21, 2020, by adoption of Ordinance No. 5303. During the moratorium, the County has stated that it will conduct further studies to assess groundwater conditions in the Subbasin. The ordinance expired on May 21, 2020. The County has initiated a planning process to receive input on a possible new ordinance and to address the California Supreme Court's decision in *Protecting Our Water & Environmental Resources v. County of Stanislaus* (2020), 10 Cal. 5th 479, concerning environmental review of new well permits. Well construction applications for the Deep Aquifers are currently being reviewed and permitted on a case-by-case basis.

3.2.2.3 *Groundwater Management Plans*

MCWRA developed a Groundwater Management Plan (GMP) that is compliant with Assembly Bill 3030 and Senate Bill 1938 legislation (MCWRA, 2006). This GMP exclusively covered the Salinas Valley in Monterey County. As discussed above, the MCWRA was established in 1947 with the responsibility to manage water resources in the Salinas Valley. Therefore prior to 2006, MCWRA has already been implementing a formal groundwater management program including surface water monitoring and groundwater monitoring. The GMP was developed to formalized and extend those ongoing management efforts in the Salinas Valley Groundwater Basin.

The GMP identified three objectives for groundwater management:

- **Objective 1**: Development of Integrated Water Supplies to Meet Existing and Projected Water Requirements. This objective encourages the integrated uses of various water sources, such as surface water, groundwater, recycled water, and possibly desalinated brackish and saline water to meet the water demand.
- **Objective 2**: Determination of Sustainable Yield and Avoidance of Overdraft. This objective is to assess groundwater basin conditions by quantifying basin yield and evaluating historical impacts including seawater intrusion and groundwater storage decline and to implement existing and new management measures to address those issues.
- **Objective 3**: Preservation of Groundwater Quality for Beneficial Use. This objective is to preserve groundwater quality by minimizing seawater intrusion and accumulations of minerals in the groundwater basin.

To meet these three objectives, the plan identified 14 elements that should be implemented by MCWRA:

- **Plan Element 1:** Monitoring of Groundwater Levels, Quality, Production, and Subsidence
- **Plan Element 2:** Monitoring of Surface Water Storage, Flow, and Quality
- **Plan Element 3:** Determination of Basin Yield and Avoidance of Overdraft
- **Plan Element 4:** Development of Regular and Dry Year Water Supply
- **Plan Element 5:** Continuation of Conjunctive Use Operations
- **Plan Element 6:** Short-Term and Long-Term Water Quality Management

- **Plan Element 7:** Continued Integration of Recycled Water
- **Plan Element 8:** Identification and Mitigation of Groundwater Contamination
- **Plan Element 9:** Identification and Management of Recharge Areas and Wellhead Protection Areas
- **Plan Element 10:** Identification of Well Construction, Abandonment, and Destruction Policies
- **Plan Element 11:** Continuation of Local, State and Federal Agency Relationships
- **Plan Element 12:** Continuation of Public Education and Water Conservation Programs
- **Plan Element 13:** Groundwater Management Reports
- **Plan Element 14:** Provisions to Update the Groundwater Management Plan

The GMP and GSP developments are complimentary management processes. To the extent that the issues identified for Monterey County affect the Monterey Subbasin, these issues will be identified in the following sections of this GSP. The implementation of this GSP will contribute to the sustainable use of water supplies within Monterey County.

3.2.2.4 *Urban Water Management Plans*

Marina Coast Water District 2020 Urban Water Management Plan

The Marina Coast Water District was formed in 1960. Today MCWD serves municipal and industrial water uses within the City of Marina and the former Fort Ord. The MCWD most recently updated its Urban Water Management Plan (UWMP) in 2021 (MCWD, 2021). The UWMP describes the service area; reports historic and projected population; identifies historic and projected water demand by category (single-family, multi-family, commercial, industrial, institutional/government, and other); and describes the distribution system and identifies losses.

Water use during 2021 within the MCWD service area was approximately 3,100 AFY. The 2020 UWMP anticipates that projected water demand within the entire District would be 9,584 AFY by 2040, including 2,974 AFY within the City of Marina and 6,610 AFY for the existing and future developments within the Ord Community (i.e. former Fort Ord). This projected water demand by 2035 within the Ord Community is 1,693 AFY short of the 6,600 AFY groundwater supply outlined in the 1993 Annexation Agreement (MCWRA/U.S. Army, 1993; see Section 3.2.2.2)[10]. MCWD's recent water demand projection in its 2020 Master Plan (MCWD, 2020) projects that total buildout water demand (i.e. beyond 2035) for the entire District sums to approximately 9,300 AFY, consistent with that projected in the 2020 UWMP.

Additional water supplies such as recycled water will be used to meet this potential shortfall within the Ord Community. In 2021, MCWD will take delivery the first 600 AFY of advanced treated water from the Pure Water Monterey (PWM) Project out of MCWD's total 1,427 AFY PWM entitlement (see discussion of the PWM Project in Section 9.1 Project Descriptions). Prior to the development of the 2020 UWMP, MCWD

[10] The 6,600 AFY of groundwater supply for MCWD's Ord Community service area was further allocated by FORA to each land use jurisdiction within the area. The 2015 UWMP further compared projected water demand by 2035 with groundwater supply allocation for each jurisdiction. Considering only the jurisdictions with shortfalls, the sum of jurisdictional shortfalls is anticipated to be 2,901 AFY by 2035.

conducted a joint-study with FORA and Monterey One Water (M1W) that identified a new indirect potable reuse project to develop an additional 927 AFY identified as an additional water supply need under the Fort Ord Base Reuse Plan (EKI, 2020). The project is further described in Section 9.1.

MCWD is also a key potable and recycled water transmission hub owner connecting the North Marina and North Ord areas with the yet to be developed South Ord area, which includes portions of the Cities of Seaside, Del Rey Oaks, and Monterey. MCWD owns the potable water transmission pipeline, which MCWD will use to serve the South Ord area. The pipeline is currently being used by Cal Am for its Carmel River Aquifer Storage and Recovery (ASR) Project to convey injection water and to convey recovered water to its Monterey District, but MCWD has the first priority of use as the pipeline's owner. It is anticipated that this potable pipeline will also be used to convey recovered PWM water for direct use in California American Water's Monterey District although no agreement for such use has been negotiated. MCWD also owns the new 10-mile transmission pipeline for the PWM Project, which will deliver advanced treated water to MCWD recycled water customers and to the PWM injection wells in the Seaside Subbasin.

In addition, the MCWD UWMP includes a number of demand management measures including:

- Water Waste Prevention Ordinances
- Metering
- Conservation Pricing
- Public Education and Outreach
- Programs to Assess and Manage Distribution System Real Loss
- Water Conservation Program Coordination and Staffing Support
- Water Survey Programs for Residential Customers
- Residential Plumbing Retrofits
- Residential Ultra-Low Flow Toilet Replacement Programs
- High-Efficiency Washing Machine Rebate Programs
- Commercial, Industrial, and Institutional Accounts
- Landscape Conservation Programs and Incentives

MCWD's implementation of demand management measures resulted in MCWD receiving state-wide recognition of its water conservation achievements during the last drought.

California Water Service – Salinas District 2020 Urban Water Management Plan

A portion of the California Water Service area extends into the area located along the northern portion of State Route 68 in the Corral de Tierra Area of the subbasin. Its 2020 Urban Water Management Plan (UWMP) (California Water Service, 2016) describes the service area; reports historic and projected population; identifies historical and projected water demand by category such as single-family, multi-family, commercial, industrial, institutional/government, and other; and describes the distribution system and identifies system losses.

The California Water Service UWMP also includes a number of demand management measures including:

- Water Waste Prevention Ordinances
- Metering
- Conservation Pricing
- Public Education and Outreach
- Programs to Assess and Manage Distribution System Real Loss
- Water Conservation Program Coordination and Staffing Support
- Rebates and give-aways
- Plumbing fixture replacement and Direct Installation Programs
- Irrigation equipment and landscape efficiency improvements

California Water Service's UWMP notes that groundwater will continue to remain as its sole supply due to uncertainties regarding the cost and implementation other options, such as surface water diversion or desalination. However, the UWMP recognizes that it would be beneficial for California Water Service to diversify its supply portfolio. There is currently one active production well and four inactive production wells within the Subbasin.

3.2.2.5 *CCRWQCB Agricultural Order*

In 2017 the Central Coast Regional Water Quality Control Board (CCRWQCB) issued Agricultural Order No. R3-2017-0002, a Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands (CCRWQCB, 2017). The permit requires that growers implement practices to reduce nitrate leaching into groundwater and improve receiving water quality. Specific requirements for individual growers are structured into three tiers based on the relative risk their operations pose to water quality.

Growers must enroll, pay fees, and meet various monitoring and reporting requirements according to the tier to which they are assigned. All growers are required to implement groundwater monitoring, either individually or as part of a cooperative regional monitoring program. Growers electing to implement individual monitoring and not participate in the regional monitoring program implemented by the Central Coast Groundwater Coalition (CCGC) are required to test all on-farm domestic wells and the primary irrigation supply well for nitrate or nitrate plus nitrite, and general minerals; including, but not limited to, TDS, sodium, chloride and sulfate.

Negotiations with the CCRWQCB staff and Board Members for the next iteration of the Agricultural Order are on-going, and expected to be finalized in early 2021, with the adoption of a new Irrigated Lands Regulatory Program (ILRP) Waste Discharge Requirements (WDR) for farming operations in the Salinas Valley Groundwater Basin area. As mandated by the SWRCB, specific reporting requirements for nitrogen applications and removal, irrigation and surface water discharge management, and groundwater quality monitoring will be included with quantifiable milestones. While the outcome is not certain, the expectation is that the next Agricultural Order will be more complex with additional compliance reporting measures for all growers.

3.2.2.6 *Water Quality Control Plan for the Central Coast Basins*

The Water Quality Control Plan for the Central Coastal Basin was most recently updated in September 2017 (SWRCB, 2017). The objective of the Basin Plan is to outline how the quality of the surface water and groundwater in the Central Coast Region should be managed to provide the highest water quality reasonably possible. Water Quality Objectives for both groundwater (drinking water and irrigation) and surface water are provided in the Basin Plan.

The Basin Plan lists beneficial users, describes the water quality which must be maintained to allow those uses, provides an implementation plan, details SWRCB and CCRWQCB plans and policies to protect water quality and a statewide surveillance and monitoring program, as well as regional surveillance and monitoring programs. The SWRCB's Sources of Drinking Water Policy, adopted in Resolution No. 88-63 and incorporated in its entirety in the CCRWQCB's Basin Plan, provides that water with TDS less than or equal to 3,000 mg/L is considered suitable or potentially suitable for drinking water beneficial uses.

Present and potential future beneficial uses for inland waters in the Basin are: surface water and groundwater as municipal supply; agricultural; groundwater recharge; recreational water; sport fishing; warm fresh water habitat; wildlife habitat; rare, threatened or endangered species; and, spawning, reproduction, and/or early development of fish.

3.2.2.7 *Title 22 Drinking Water Program*

The SWRCB Division of Drinking Water (DDW) regulates public water systems in the State to ensure the delivery of safe drinking water to the public. A public water system is defined as a system for the provision of water for human consumption that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year. Private domestic wells, wells associated with drinking water systems with less than 15 residential service connections, industrial, and irrigation wells are not regulated by the DDW.

The DDW enforces the monitoring requirements established in Title 22 of the California Code of Regulations (CCR) for public water system wells, and all the data collected must be reported to the DDW. Title 22 also designates the Maximum Contaminant Levels (MCLs) for various waterborne contaminants, including volatile organic compounds, non-volatile synthetic organic compounds, inorganic chemicals, radionuclides, disinfection byproducts, general physical constituents, and other parameters.

3.2.2.8 *Limits to Operational Flexibility*

This GSP has been developed to be coordinated with the requirements, management plans and monitoring programs administered by other jurisdictions in the area, including SVBGSA, MCWRA, MCWD GSA, CCRWQCB, and the Federal Government. For example:

- The IRWMP and GSP development are complimentary management processes. To the extent that the issues identified for the greater IRWMP region affect the Subbasin, these issues will be discussed in the following sections of this GSP. The implementation of this GSP will contribute to the sustainable use of water supplies within the IRWMP region and the IRWMP is not expected to limit operational flexibility in the Subbasin.

- The purpose and objective of MCWRA's groundwater management of the Subbasin, which focuses on providing regional solutions to protection of the basin and preventing seawater intrusion, aligns with the goals of this GSP. The GSP will augment and integrate with MCWRA's historical management of the subbasin.

Some of the existing management and regulatory programs include well registration, extraction monitoring, new well restrictions, pumping allowances and restrictions, recharge requirements and/or water quality protection standards that will limit operational flexibility. These limits to operational flexibility have already been incorporated into the projects and programs included in this GSP. Examples of limits on operational flexibility include:

- Pumping allowances in the MCWRA annexation agreements with MCWD and the Federal Government may restrict groundwater use. However, current groundwater use by MCWD within the City of Marina and the former Fort Ord are well below the annexation agreement pumping allowances. These agreements are not expected to adversely affect the Subbasin's ability to reach sustainability.
- The groundwater export prohibition included in the Agency Act prevents export of water out of the Subbasin. This prohibition is not expected to adversely affect the Subbasin's ability to reach sustainability.
- The Basin Plan and the Title 22 Drinking Water Program restrict the quality of water that can be recharged into the Subbasin as well as the location of groundwater recharge.
- Well construction restrictions within the Former Fort Ord (see Section 3.5.4.2) as well as the County's Interim Urgency Ordinance, which imposes a temporary moratorium on wells in the Area of Impact (see Section 3.5.4.3), may limit certain activities and the Subbasin GSAs' ability to access certain sources of water. However, the moratorium is not expected to adversely affect the Subbasin's ability to reach sustainability.

3.3 Conjunctive Use Programs

There is no existing conjunctive use program within the Monterey Subbasin. The Pure Water Monterey Project is an advance water recycling project with a conjunctive use component under by development MPWMD, M1W, and MCWD. The project is discussed in Section 9.1 Project Descriptions.

3.4 Groundwater Cleanup at the Former Fort Ord

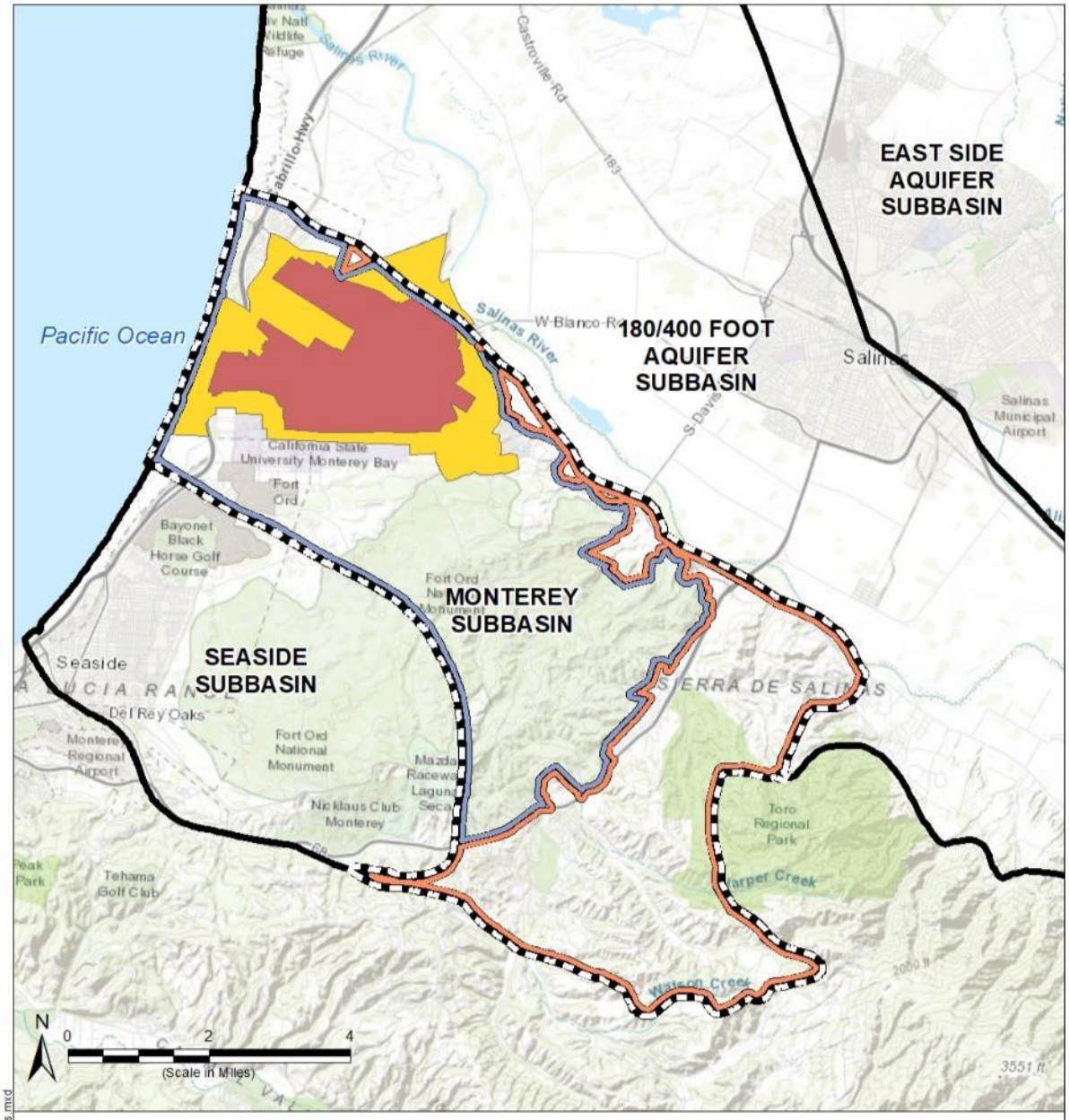
The former Fort Ord military base consists of 27,827 acres across the Monterey, 180/400 Foot Aquifer, and Seaside Subbasins. Within the Monterey Subbasin, the former Fort Ord encompasses more than one half of the Subbasin's area. The Fort Ord military base was established in 1917 by the U.S. Army as a maneuver area and field artillery target range. The base was officially closed in 1994.

Remedial investigation and cleanup action at Fort Ord lead by the Army began in 1986. The cleanup activities at Fort Ord has included groundwater and soil remediation associated with industrial and waste disposal activities, and later included munitions cleanup. The site was added to the National Priorities List

on 21 February 1990. The Army was designed as the lead agency and the U.S. Environmental Protection Agency (EPA) was designated as the lead regulatory agency for the Superfund process at Fort Ord. A Federal Facility Agreement was signed by the Army, U.S. EPA, the California Department of Toxic Substances Control, and the CCRWQCB in 1990.

As of 2020, groundwater remediation is ongoing at three sites: Operable Unit (OU) 2, Sites 2 and 12, and Operable Unit Carbon Tetrachloride Plume (OUCTP), for volatile organic compound (VOC) constituents of concern.

Activity and use limitations are in place at the such as zoning restrictions, deed or access restrictions, and well installation restrictions. County Ordinance No. 04011 of 2005 was adopted to prohibit and/or regulate new water wells in areas within the former Fort Ord due to groundwater contamination constraints. Well construction is prohibited in areas overlying or adjacent to the contamination plumes in the former Fort Ord (i.e. Prohibition Zone) and is subject to special review in areas that may be impacted by the contamination plumes (i.e. Consultation Zone). The Prohibition and Consultation Zones were last updated in 2016 and are shown on Figure 3-11.



Legend

- Monterey Subbasin
- Other Groundwater Subbasins within Salinas Valley Basin

Management Areas

- Marina-Ord
- Corral de Tierra

Fort Ord Special Groundwater Protection Zones

- Prohibition Zone
- Consultation Zone

Notes

1. All locations are approximate.
2. Monterey County Ordinance No. 04001 (Monterey County Code Title 15, Chapter 15.08.140) prohibits and/or regulates contruction of new water wells within the Fort Ord groundwater protection zones shown herein, which overlay or are adjacent to the contamination plumes on the former Fort Ord. Current groundwater protection zone are obtained from Source 2.

Sources

1. Basemap is ESRI's ArcGIS Online world topographic map, obtained 19 June 2020.
2. U.S. Department of the Army, 2017. Final 4th Five-Year Review Report for Fort Ord Superfund Site, Monterey County, California, prepared by the Fort Ord Base Realignment and Closure Office, dated September 2017.

Fort Ord Special Groundwater Protection (Contamination) Zones

Monterey Subbasin
Groundwater Sustainability Plan
June 2020

Figure 3-11

Path: X:\B600904\Maps\2020\06\Fig3-11_FortOrdProhibitionZones.mxd

3.5 Land Use Elements or Topic Categories of Applicable General Plans

Monterey County and the cities of Marina and Seaside have land use authority over all or portions of the Monterey Subbasin. Additionally, the Fort Ord Reuse Authority oversees reuse of the former Fort Ord army base within the subbasin. Land use is an important factor in water management as described below. The following sections provide a general description of these land use plans and how implementation may affect groundwater in the Monterey Subbasin. The following descriptions were taken from publicly available general plans at the time of the GSP preparation.

3.5.1 General Plans and Other Land Use Plans

This section identifies relevant policies in the current General Plans that could: (1) affect water demands in the Monterey Subbasin (e.g., due to population growth and development of the built environment), (2) influence the GSP's ability to achieve sustainable groundwater use, and (3) affect implementation of General Plan land use policies.

3.5.1.1 *Monterey County General Plan*

Relevant elements of the Monterey County General Plan (Monterey County 2010) are summarized in Table 3-2.

Table 3-2. Monterey County General Plan Summary

Element	Goal / Policy	
Land Use	LU-1.4	Growth areas shall be designated only where an adequate level of services and facilities such as water, sewerage, fire and police protection, transportation, and schools exist or can be assured concurrent with growth and development. Phasing of development shall be required as necessary in growth areas in order to provide a basis for long-range services and facilities planning.
Open Space	OS-3.8	The County shall cooperate with appropriate regional, state and federal agencies to provide public education/outreach and technical assistance programs on erosion and sediment control, efficient water use, water conservation and re-use, and groundwater management. This cooperative effort shall be centered through the Monterey County Water Resources Agency.
***et. seq.* Public Services**	GOAL PS-2	Assure an adequate and safe water supply to meet the county's current and long-term needs.
	PS-2.1	Coordination among, and consolidation with, those public water service providers drawing from a common water table to prevent overdrawing the water table is encouraged.
	PS-2.2	The County of Monterey shall assure adequate monitoring of wells in those areas experiencing rapid growth provided adequate funding mechanisms for monitoring are established in the CIFP.

Element	Goal / Policy	
	PS-2.3	New development shall be required to connect to existing water service providers where feasible. Connection to public utilities is preferable to other providers.
	PS-2.4	Regulations for installing any new domestic well located in consolidated materials (e.g., hard rock areas) shall be enacted by the County.
	PS-2.5	Regulations shall be developed for water quality testing for new individual domestic wells on a single lot of record to identify: a) Water quality testing parameters for a one-time required water quality test for individual wells at the time of well construction. b) A process that allows the required one-time water quality test results to be available to future owners of the well. Regulations pursuant to this policy shall not establish criteria that will prevent the use of the well in the development of the property. Agricultural wells shall be exempt from the regulation.
	GOAL PS-3	Ensure that new development is assured a long-term sustainable water supply.
	PS-3.1	Except as specifically set forth below, new development for which a discretionary permit is required, and that will use or require the use of water, shall be prohibited without proof, based on specific findings and supported by evidence, that there is a long-term, sustainable water supply, both in quality and quantity to serve the development [see Plan for list].
	PS-3.2	Specific criteria for proof of a Long-Term Sustainable Water Supply and an Adequate Water Supply System for new development requiring a discretionary permit, including but not limited to residential or commercial subdivisions, shall be developed by ordinance with the advice of the General Manager of the Water Resources Agency and the Director of the Environmental Health Bureau. A determination of a Long-Term Sustainable Water Supply shall be made upon the advice of the General Manager of the Water Resources Agency. The following factors shall be used in developing the criteria for proof of a long-term sustainable water supply and an adequate water supply system: [see Plan for list]
	PS-3.3	Specific criteria shall be developed by ordinance for use in the evaluation and approval of adequacy of all domestic wells. The following factors shall be used in developing criteria for both water quality and quantity including, but not limited to: [see Plan for list]
	PS-3.4	The County shall request an assessment of impacts on adjacent wells and instream flows for new high-capacity wells, including high-capacity urban and agricultural production wells, where there may be a potential to affect existing adjacent domestic or water system wells adversely or in-stream flows, as determined by the Monterey County Water Resources Agency. In the case of new high-capacity wells for which an assessment shows the potential for significant adverse well interference, the County shall require that the proposed well site be relocated or otherwise mitigated to avoid significant interference. The following

Element	Goal / Policy	
		factors shall be used in developing criteria by ordinance for use in the evaluation and approval of adequacy of all such high-capacity wells, including but not limited to: a) Effect on wells in the immediate vicinity as required by the Monterey County Water Resources Agency or Environmental Health Bureau. b) Effects of additional extractions or diversion of water on in-stream flows necessary to support riparian vegetation, wetlands, fish, and other aquatic life including migration potential for steelhead, for the purpose of minimizing impacts to those resources and species. This policy is not intended to apply to replacement wells.
	PS-3.5	The Monterey County Health Department shall not allow construction of any new wells in known areas of saltwater intrusion as identified by Monterey County Water Resources Agency or other applicable water management agencies: a) Until such time as a program has been approved and funded that will minimize or avoid expansion of salt water intrusion into useable groundwater supplies in that area; or b) Unless approved by the applicable water resource agency. This policy shall not apply to deepening or replacement of existing wells, or wells used in conjunction with a desalination project.
	PS-3.6	The County shall coordinate and collaborate with all agencies responsible for the management of existing and new water resources.
	PS-3.7	A program to eliminate overdraft of water basins shall be developed as part of the Capital Improvement and Financing Plan (CIFP) for this Plan using a variety of strategies, which may include but are not limited to: a) Water banking; b) Groundwater and aquifer recharge and recovery; c) Desalination; d) Pipelines to new supplies; and/or e) A variety of conjunctive use techniques. The CIFP shall be reviewed every five years in order to evaluate the effectiveness of meeting the strategies noted in this policy. Areas identified to be at or near overdraft shall be a high priority for funding.
	PS-3.8	Developments that use gray water and cisterns for multi-family residential and commercial landscaping shall be encouraged, subject to a discretionary permit.
	PS-3.9	A tentative subdivision map and/or vesting tentative subdivision map application for either a standard or minor subdivision shall not be approved until the applicant provides evidence of a long-term sustainable water supply in terms of yield and quality for all lots that are to be created through subdivision.
	PS-3.10	In order to maximize agricultural water conservation measures to improve water use efficiency and reduce overall water demand, the County shall establish an

Element	Goal / Policy	
		ordinance identifying conservation measures that reduce agricultural water demand.
	PS-3.11	In order to maximize urban water conservation measures to improve water use efficiency and reduce overall water demand, the County shall establish an ordinance identifying conservation measures that reduce potable water demand
	PS-3.12	The County shall maximize the use of recycled water as a potable water offset to manage water demands and meet regulatory requirements for wastewater discharge, by employing strategies including, but not limited to, the following: a) Increase the use of treated water where the quality of recycled water is maintained, meets all applicable regulatory standards, is appropriate for the intended use, and re-use will not significantly impact beneficial uses of other water resources. b) Work with the agricultural community to develop new uses for tertiary recycled water and increase the use of tertiary recycled water for irrigation of lands currently being irrigated by groundwater pumping. c) Work with urban water providers to emphasize use of tertiary recycled water for irrigation of parks, playfields, schools, golf courses, and other landscape areas to reduce potable water demand. d) d. Work with urban water providers to convert existing potable water customers to tertiary recycled water as infrastructure and water supply become available.
	PS-3.13	To ensure accuracy and consistency in the evaluation of water supply availability, the Monterey County Health Department, in coordination with the MCWRA, shall develop guidelines and procedures for conducting water supply assessments and determining water availability. Adequate availability and provision of water supply, treatment, and conveyance facilities shall be assured to the satisfaction of the County prior to approval of final subdivision maps or any changes in the General Plan Land Use or Zoning designations.
	PS-3.14	The County will participate in regional coalitions for the purpose of identifying and supporting a variety of new water supply projects, water management programs, and multiple agency agreements that will provide additional domestic water supplies for the Monterey Peninsula and Seaside basin, while continuing to protect the Salinas and Pajaro River groundwater basins from saltwater intrusion. The County will also participate in regional groups including representatives of the Pajaro Valley Water Management Agency and the County of Santa Cruz to identify and support a variety of new water supply, water management and multiple agency agreement that will provide additional domestic water supplies for the Pajaro Groundwater Basin. The County's general objective, while recognizing that timeframes will be dependent on the dynamics of each of the regional groups, will be to complete the cooperative planning of these water supply alternatives within five years of the adoption of the General Plan and to implement the selected alternatives within five years after that time.
	PS-3.15	The County will pursue expansion of the Salinas Valley Water Project (SVWP) by investigating expansion of the capacity for the Salinas River water storage and

Element	Goal / Policy	
		distribution system. This shall also include, but not be limited to, investigations of expanded conjunctive use, use of recycled water for groundwater recharge and seawater intrusion barrier, and changes in operations of the reservoirs. The County's overall objective is to have an expansion planned and in service by the date that the extractions from the Salinas Valley groundwater basin are predicted to reach the levels estimated for 2030 in the EIR for the Salinas Valley Water Project. The County shall review these extraction data trends at five-year intervals. The County shall also assess the degree to which the Salinas Valley Groundwater Basin (Zone 2C) has responded with respect to water supply and the reversal of seawater intrusion based upon the modeling protocol utilized in the Salinas Valley Water Project EIR. If the examination indicates that the growth in extractions predicted for 2030 are likely to be attained within ten years of the date of the review, or the groundwater basin has not responded with respect to water supply and reversal of seawater intrusion as predicted by the model, then the County shall convene and coordinate a working group made up of the Salinas Valley cities, the MCWRA, and other affected entities. The purpose will be to identify new water supply projects, water management programs, and multiple agency agreements that will provide additional domestic water supplies for the Salinas Valley. These may include, but not be limited to, expanded conjunctive use programs, further improvements to the upriver reservoirs, additional pipelines to provide more efficient distribution, and expanded use of recycled water to reinforce the hydraulic barrier against seawater intrusion. The county's objective will be to complete the cooperative planning of these water supply alternatives within five years and to have the projects on-line five years following identification of water supply alternatives.

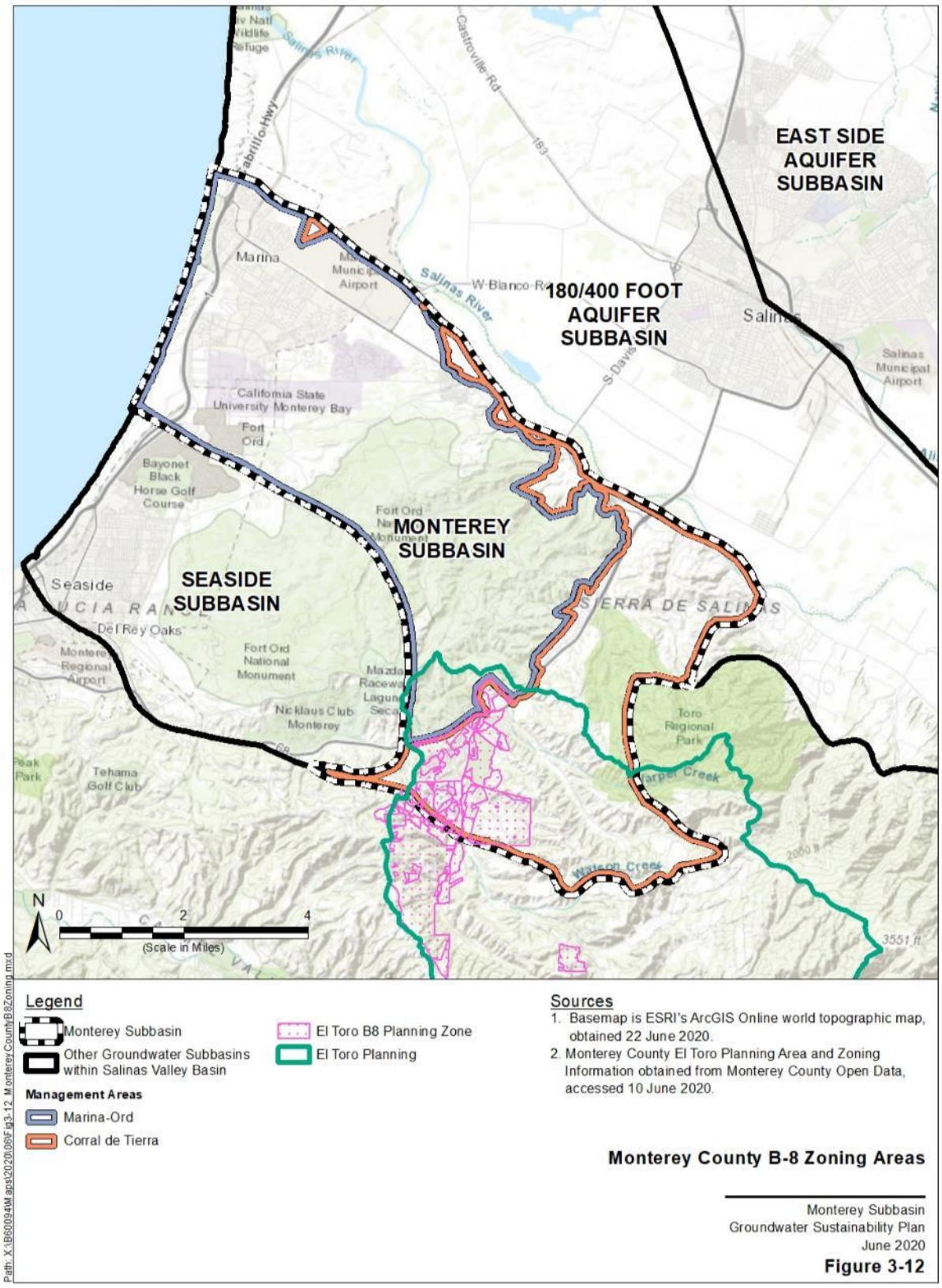
The Monterey County General Plan does not include population projections; however, the Association of Monterey Bay Area Governments (AMBAG) has developed population projections through 2050, as shown in Table 3-3.

The County imposed a B-8 Zoning overlay in 1992 to the western portions of the El Toro Planning area due to declining groundwater elevations and the concern for build-out demand negatively impacting future supplies. This overlay is shown in Figure 3-12. This zoning limits any development to single-family homes on lots that existed before 1991. This zoning overlay only covers a small portion of the Corral de Tierra Management area.

Table 3-3. Monterey County Population Projections (AMBAG, 2018)

Geography	2015	2020	2025	2030	2035	2040	Change 2015-2040 Numeric	Change 2015-2040 Percent
AMBAG Region	**762,676**	**791,600**	**816,900**	**840,100**	**862,200**	**883,300**	**120,624**	**16%**
Monterey County	**432,637**	**448,211**	**462,678**	**476,588**	**489,451**	**501,751**	**69,114**	**16%**
Carmel-By-The-Sea	3,824	3,833	3,843	3,857	3,869	3,876	52	1%
Del Rey Oaks	1,655	1,949	2,268	2,591	2,835	2,987	1,332	80%
Gonzales	8,411	8,827	10,592	13,006	15,942	18,756	10,345	123%
Greenfield	16,947	18,192	19,425	20,424	21,362	22,327	5,380	32%
King City	14,008	14,957	15,574	15,806	15,959	16,063	2,055	15%
Marina	20,496	23,470	26,188	28,515	29,554	30,510	10,014	49%
Marina balance	19,476	20,957	22,205	22,957	23,621	24,202	4,726	24%
CSUMB (portion)	1,020	2,513	3,983	5,558	5,933	6,308	5,288	518%
Monterey	28,576	28,726	29,328	29,881	30,460	30,976	2,400	8%
Monterey balance	24,572	24,722	25,324	25,877	26,456	26,972	2,400	10%
DLI & Naval Postgrad	4,004	4,004	4,004	4,004	4,004	4,004	0	0%
Pacific Grove	15,251	15,349	15,468	15,598	15,808	16,138	887	6%
Salinas	159,486	166,303	170,824	175,442	180,072	184,599	25,113	16%
Sand City	376	544	710	891	1,190	1,494	1,118	297%
Seaside	34,185	34,301	35,242	36,285	37,056	37,802	3,617	11%
Seaside balance	26,799	27,003	27,264	27,632	28,078	28,529	1,730	6%
Fort Ord (portion)	4,450	4,290	4,340	4,490	4,690	4,860	410	9%
CSUMB (portion)	2,936	3,008	3,638	4,163	4,288	4,413	1,477	86%
Soledad	24,809	26,399	27,534	28,285	29,021	29,805	4,996	20%
Soledad balance	16,510	18,100	19,235	19,986	20,722	21,506	4,996	30%
SVSP & CTF	8,299	8,299	8,299	8,299	8,299	8,299	0	0%
Balance Of County	104,613	105,361	105,682	106,007	106,323	106,418	1,805	2%
San Benito County	**56,445**	**62,242**	**66,522**	**69,274**	**72,064**	**74,668**	**18,223**	**32%**
Hollister	36,291	39,862	41,685	43,247	44,747	46,222	9,931	27%
San Juan Bautista	1,846	2,020	2,092	2,148	2,201	2,251	405	22%
Balance Of County	18,308	20,360	22,745	23,879	25,116	26,195	7,887	43%
Santa Cruz County	**273,594**	**281,147**	**287,700**	**294,238**	**300,685**	**306,881**	**33,287**	**12%**
Capitola	10,087	10,194	10,312	10,451	10,622	10,809	722	7%
Santa Cruz	63,830	68,381	72,091	75,571	79,027	82,266	18,436	29%
Santa Cruz balance	46,554	49,331	51,091	52,571	54,027	55,266	8,712	19%
UCSC	17,276	19,050	21,000	23,000	25,000	27,000	9,724	56%
Scotts Valley	12,073	12,145	12,214	12,282	12,348	12,418	345	3%
Watsonville	52,562	53,536	55,187	56,829	58,332	59,743	7,181	14%
Balance Of County	135,042	136,891	137,896	139,105	140,356	141,645	6,603	5%

Sources: Data for 2015 are from the U.S. Census Bureau and California Department of Finance. Forecast years were prepared by AMBAG and PRB.


EAST SIDE AQUIFER SUBBASIN
180/400 FOOT AQUIFER SUBBASIN
MONTEREY SUBBASIN
SEASIDE SUBBASIN
Marina
Salinas
Seaside
Del Rey Oaks
Fort Ord
Fort Ord National Monument
California State University Monterey Bay
Bayonet Black Horse Golf Course
Nicklaus Club Monterey
Tehama Golf Club
Toro Regional Park
Salinas River
Castroville Rd
W Blanco Rd
S Davis Rd
Monterey Regional Airport
Salinas Municipal Airport
SIERRA DE SALINAS
Harper Creek
Watson Creek
3551 ft
N
0
2
4
(Scale in Miles)
Legend
Monterey Subbasin
Other Groundwater Subbasins within Salinas Valley Basin
Management Areas
Marina-Ord
Corral de Tierra
El Toro B8 Planning Zone
El Toro Planning
Sources
1. Basemap is ESRI's ArcGIS Online world topographic map, obtained 22 June 2020.
2. Monterey County El Toro Planning Area and Zoning Information obtained from Monterey County Open Data, accessed 10 June 2020.
Monterey County B-8 Zoning Areas
Monterey Subbasin
Groundwater Sustainability Plan
June 2020
Figure 3-12
Path: X:\B600944\Maps\2020\06\Fig3-12_MontereyCountyB8Zoning.mxd

3.5.1.2 *City of Marina General Plan*

The City of Marina was founded in 1915 and incorporated in 1975. The first General Plan was adopted in 1978. The overall goal of the Marina General Plan is "the creation of a community which provides a high quality of life for all its residents; which offers a broad range of housing, transportation, and recreation choices; and which conserves irreplaceable natural resources" (City of Marina, 2010).

The General Plan recognizes that future water demands will require changes in the management of water resources in the area. Water conservation, reclamation, and reuse will constitute major components of future water management efforts. The policies and programs of the General Plan are designed to promote water conservation, the use of recycled water to protect water quality, and to ensure that the demand of future community development does not exceed the capacity to provide water in an environmentally acceptable way [3.42].

The General Plan includes the following measures related to water-supply planning:

- New developments must have identified water sources [3.45].
- A 15% reserve will be maintained between demand and supply. When demand exceeds 85% of the available supply, no new development will be allowed until supplemental water sources are identified [3.47].

The primary responsibility for water resource management in Marina rests with MCWD as the water purveyor, and MCWRA as the entity responsible for managing the surface water and groundwater resources of the Salinas Valley Groundwater Basin.

3.5.1.3 *City of Seaside General Plan*

The City of Seaside is in the process of updating its general plan to a planning horizon of 2040. The plan "seeks to protect the coastal system and preserve the natural habitat that extends beyond the City's boundaries in balance with Seaside's desire to be developed as a well-rounded mixed-use community. Equity, sustainability, collaboration, and innovation are centrally embedded in the General Plan goals, policies, and actions to achieve a mixed use urbanscape." (Seaside, 2019)

The primary responsibility for water resource management in the City of Seaside within the Monterey Subbasin rests with MCWD, as the water purveyor, and MCWRA, which is as the entity responsible for managing the surface water and groundwater resources of the Salinas Valley Groundwater Basin. The plan acknowledges an inadequate supply of water on the Monterey Peninsula as a constraint for new developments and establishes programs to work with MCWD to develop water conservation methods and secure water supply for both existing and proposed uses within the city.

The Seaside General Plan includes the following goals, policies, and implementation measures that are related to groundwater or land use management, and that could potentially influence the implementation of this GSP.

- **Goal HSC-8**: Buildings and landscapes that promote water conservation, efficiency, and the increased use of recycled water.
- **Goal HSC-11**: New construction that meets a high-level of environmental performance.

- **Goal CFI-2:** A sustainable water supply that supports existing community needs and long-term growth.
- **Goal CFI-3:** Clean and sustainable groundwater.

3.5.1.4 *Fort Ord Base Reuse Plan*

The former Fort Ord, which cover more than one half of the Subbasin's area, is currently under redevelopment. Redevelopment of the former Fort Ord was under oversight of the Fort Ord Reuse Authority (FORA), established in 1994 and recently terminated in June 2020. Prior to its termination, FORA allocated assets/liabilities and transitioned land use planning within former Fort Ord to each of the local jurisdictions, including the Cities of Marina and Seaside, the City of Monterey, and the County of Monterey. The governing document of Fort Ord's redevelopment, the Fort Ord Base Reuse Plan was incorporated into each individual jurisdictional area's land use plans, which are then incorporated into MCWD's UWMP as described in Section 3.2.2.4.

The Fort Ord Base Reuse Plan, Final Reassessment Report (EMC, 2012) projected a total water demand of 9,000 AFY at buildout. This projected water demand is an additional 2,400 AFY over and above the 6,600 AFY groundwater supply described under the 1993 Annexation Agreement (MCWRA/U.S. Army, 1993; see Section 3.2.2.2). Development of the 2,400 AFY of additional water supply was identified as one of the mitigation measures for redevelopment of the former Fort Ord. As described in Section 3.4 above, within the former Fort Ord, MCWD has been designated as the exclusive (1) water and sewer collection service provider and (2) developer and implementer of all new water supplies for all non-Federal lands. Under an exclusive contract with the Army, MCWD is responsible for providing water and sewer collection services for the Army and other Federal agencies within the former Fort Ord. Water demand projections associated with implementation of the Fort Ord Base Reuse Plan are included in MCWD's UWMP (Section 3.2.2.4).

The following efforts have been conducted by FORA and MCWD to support implementation of the Fort Ord Base Reuse Plan:

In 2005, the FORA and MCWD Boards of Directors both approved the Regional Urban Water Augmentation Project (RUWAP) Hybrid Alternative, which included recycled water and desalination supply components providing 1,200 AFY each. FORA and MCWD then agreed upon a modified RUWAP Hybrid Alternative that would provide 1,427 AFY of recycled water to the former Fort Ord (via the M1W Pure Water Monterey Project described in Section 9.1). The FORA Board Resolution No. 07-10 (May 2007) allocated the 1,427 AFY of RUWAP recycled water to the various land use jurisdictions (EMC, 2012).

In 2015, the FORA Board of Directors endorsed a joint water supply planning process between FORA, M1W, and MCWD to identify the "Additional Water Augmentation Component." In 2016, MCWD, M1W, and FORA entered into an agreement to fund an analysis to identify alternatives to supply the additional 973 AFY of Water Augmentation (i.e., the total of 2,400 AFY required by the EIR subtracted by 1,427 AFY to be provided by the RUWAP). The Three Parties (FORA, MCWD, and M1W) recognize there may be a number of options to meet the 973 AFY "Additional Water Augmentation Component," and through this Water Supply Augmentation Study, aim to systematically identify and evaluate the potential supply augmentation alternatives, and select a preferred option. The three-party Water Supply Augmentation

Study began in 2018 and was completed in June 2020. Water supply options being evaluated include brackish water and seawater desalination, increased water conservation measures, additional advanced treatment water (ATW), and indirect potable reuse/groundwater recharge and replenishment (IPR). IPR was selected by the study as the water supply alternative and is discussed further in Section 9.1 Project Descriptions.

3.5.1.5 *California Coastal Act and Local Coastal Programs*

The Subbasin consists of approximately three miles of Monterey Bay coastline that are within the California Coastal Zone.

The California Coastal Act requires that local governments in the Coastal Zone create and implement Local Coastal Programs (LCPs) to conserve coastal dependent land use. The Cities of Marina and Seaside have approved LCPs for Coastal Zones within their respective incorporated limits. The LCPs each consists of a Local Coastal Land Use Plan (LCLUP) and a Local Coastal Implementation Plan (LCIP) (City of Marina 2013a, 2013b; City of Seaside 2013a, 2013b). Additionally, a portion of the Subbasin's Coastal Zone consists of the Fort Ord Dunes State Park managed by the California Department of Parks and Recreation which islocated west of Highway 1 and south of the City of Marina.

This GSP has been developed to be coordinated with the goals, policies, and requirements administered by the Marina and Seaside LCLUPs as well as the California Coastal Commission. Policies in the local LCLUPs related to habitat management have been incorporated into the sustainable management criteria included in this GSP. Requirements to obtain and comply with coastal development permits have been incorporated into the projects and management actions included in this GSP.

3.5.2 **Effects of Land Use Plan Implementation on Water Demand**

The general plans detailed above guide future growth and development within their jurisdictional areas. This additional growth, particularly with redevelopment of the former Fort Ord, may place additional demands on groundwater resources within the Subbasin. However, the goals, policies, and implementation measures established by the existing land use plans are complementary to sustainable groundwater management of the Subbasin relative to future land use development and conservation. For example:

- The Monterey County General Plan encourages the growth areas to be designated only where adequate level of services and facilities such as water exists or can be ensured concurrent with growth and development. The plan initiates a program to eliminate overdraft of water basins as part pf the Capital Improvement and Financing Plan (CIFP). The program includes various strategies such as water banking, groundwater and aquifer recharge as well as looking for new water sources such as expansion of the Salinas Valley Water Project (SVWP). The Monterey County General Plan aligns with the GSP.
- The City of Marina General Plan prohibits any new development that requires water allocation in excess of the available supply or in excess of its designated water allocation for that portion of former Fort Ord within the City. The plan encourages the City works closely with MCWD to supply

water to the current infrastructures prior to or concurrent with new developments while the existing or new developments should utilize water more efficiently.

- The City of Seaside plans to remove water supply constraints for development and redevelopment of the City by working with regional water suppliers. The plan also encourages coordination with regional and local water suppliers and participations in water conservation programs.
- The Fort Ord Reuse Plan relies on the nearby cities, such as City of Seaside and City of Marina, and Monterey County to manage the former Ford Ord area. Implementation of former Fort Ord's redevelopment will be pursuant to these local jurisdictions' land use plans and policies.

3.5.3 Effects of GSP Implementation on Water Supply Assumptions

Successful implementation of this GSP will help to ensure that the subbasin groundwater supply is sustainably managed as set forth by SGMA. Therefore, implementation of this GSP is not anticipated to significantly affect the current water supply assumptions or land use plans.

Within the Marina-Ord Area, implementation of this GSP may induce management and project costs to be funded by MCWD to secure water supply for future development within the former Fort Ord, which will be supported by fees levied on such new developments for new water supplies. Within the Corral de Tierra Area, the water charges framework will promote voluntary pumping reductions and impose a tiered pumping fee structure. Therefore, implementation of this GSP may induce changes in the cost of groundwater, and as a result, changes in land use changes based on financial decisions by individual development within this area. However, there is no direct impact from the GSP implementation on land use management.

3.5.4 Well Permitting Process

The Monterey County Well Program[11] is responsible for well permitting within the subbasin, including the construction, destruction, and repairs or modifications of domestic, irrigation, agricultural, cathodic protection, monitoring or heat exchange wells.

The Public Service element of the Monterey County General Plan addresses permitting of individual wells in rural or suburban areas. New residential or commercial lots in rural or suburban areas with limited utility services must be a minimum area of 2.5 acres if a well is the water source. Existing lots (of any size) can use an on-site well if they are outside of a water system service area. Existing lots within an established water system service area can use wells if they are greater than 2.5 acres or have a connection to a public sewage system. Table 3-4 summarizes the Monterey County General Plan's water supply guidelines for new lots (Monterey County, 2010, Table PS-1). Table 3-5 depicts the decision matrix from the Monterey County General Plan for permitting new wells for existing lots (Monterey County, 2010, Table 3-2).

[11] https://www.co.monterey.ca.us/government/departments-a-h/health/environmental-health/drinking-water-protection/wells

Table 3-4. Monterey County Water Supply Guidelines for New Lots

Major Land Groups	Water Well Guidelines
Public Lands	Individual Wells Permitted in Areas with Proven Long-Term Water Supply
Agriculture Lands	Individual Wells Permitted in Areas with Proven Long-Term Water Supply
Rural Lands	Individual Wells Permitted in Areas with Proven Long-Term Water Supply
Rural Centers	Public System; Individual Wells Allowed in limited situations
Community Areas	Public System

Table 3-5. Monterey County Well Permitting Guidelines for Existing Lots

Characteristics of Property	Water Connection Existing or Available from the Water System	Not Within a Water System or a Water Connection Unavailable
Greater than or equal to 2.5 Acres connected to a Public Sewage System or an on-site wastewater treatment system	Process Water Well Permit	Process Water Well Permit
Less than 2.5 Acres and connected to a Public Sewage System	Process Water Well Permit	Process Water Well Permit
Less than 2.5 Acres and connected to an on-site wastewater treatment system	Do not Process Water Well Permit	Process Water Well Permit

On August 29, 2018, the State Third Appellate District Court of Appeal published an opinion in *Environmental Law Foundation v. State Water Resources Control Board* (No. C083239), a case that has the potential to impact future permitting of wells near navigable surface waters to which they may be hydrologically connected. The Court of Appeal found that while groundwater itself is not protected by the public trust doctrine, the doctrine does protect navigable waters from harm caused by extraction of groundwater if it adversely affects public trust uses. Further, it found that the County (Siskiyou County in this case), as a subdivision of the State, shares responsibility for administering the public trust. Monterey County is responsible for well permitting. Therefore, it has a responsibility to consider the potential impacts of groundwater withdrawals on public trust resources when permitting wells near areas where groundwater may be interconnected with navigable surface waters.

Additional prohibitions and restrictions on well drilling within the Monterey Subbasin area described below.

3.5.4.1 *Marina Coast Water District Ordinance No. 31*

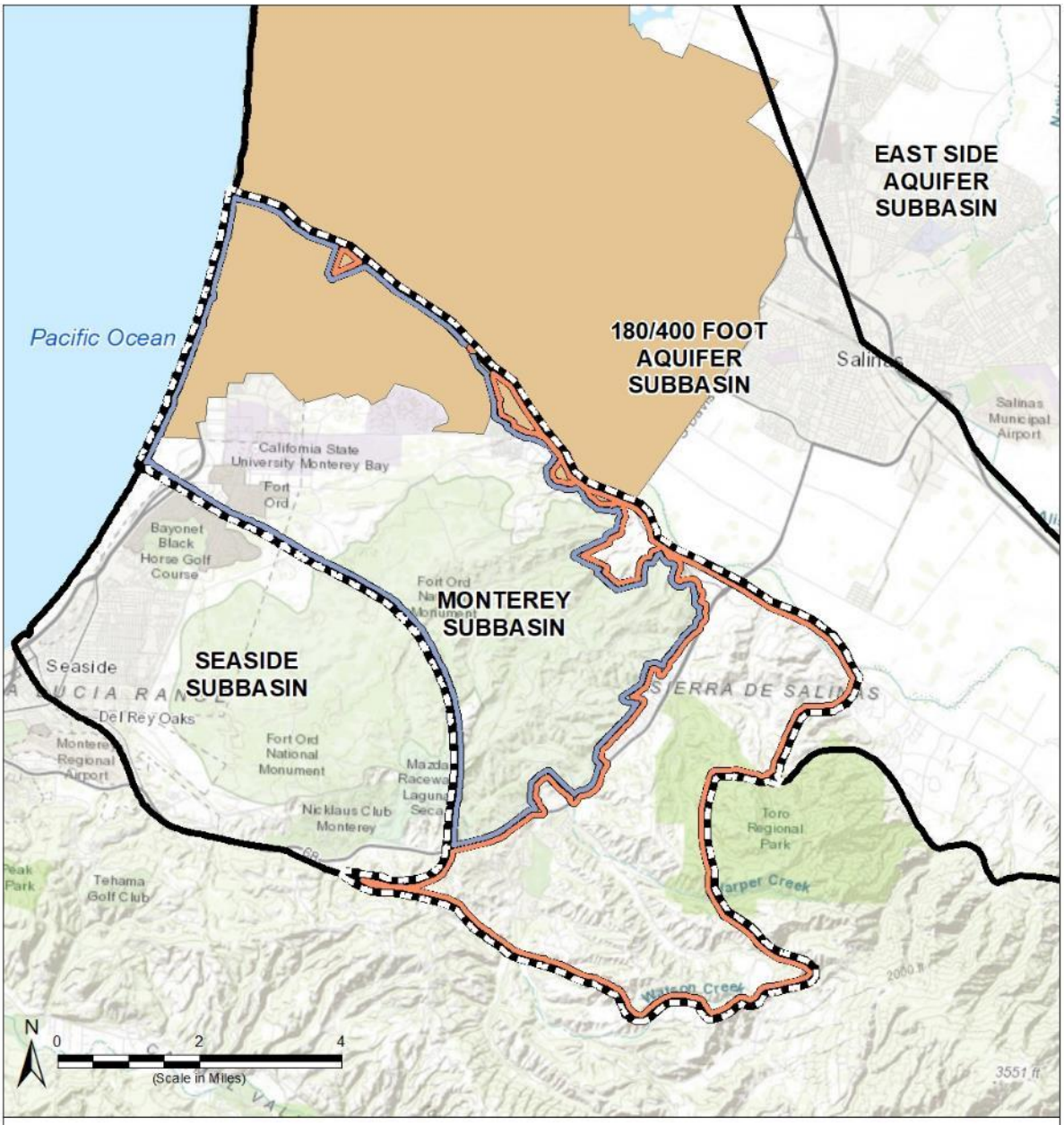
MCWD Ordinance No. 31 (codified as Chapter 3.32 of the MCWD Code and Ordinances) prohibits water wells to be constructed or reconstructed within the boundary of MCWD, except wells constructed by the District. Exceptions apply to shallow wells that are less than one-hundred feet deep for non-potable purposes and wells that predate the ordinance.

3.5.4.2 *Well Construction Restrictions within the Former Fort Ord*

County Ordinance No. 04011 of 2005 was adopted to prohibit and/or regulate new water wells in areas within the former Fort Ord due to groundwater contamination constraints. Well construction is prohibited in areas overlying or adjacent to the contamination plumes in the former Fort Ord (i.e. Prohibition Zone) and is subject to special review in areas that may be impacted by the contamination plumes (i.e. Consultation Zone). The Prohibition Zone and Consultation Zone within the former Fort Ord is shown on Figure 3-11 above**.**

3.5.4.3 *Interim Moratorium on New Well Permits within Area of Impact (Expired)*

On May 22, 2018, the Monterey County Board of Supervisors adopted Ordinance No. 5302 pursuant to Government Code Section 65858. The interim ordinance was an urgency measure to prohibit approval of wells in a defined, seawater intruded "Area of Impact" and in the Deep Aquifers of the Salinas Valley Groundwater Basin in the unincorporated area of Monterey County, due to the immediate threat to the public health, safety, and welfare posed by new wells in these areas. The ordinance imposed a moratorium on the County Health Department accepting and processing new well permits; it was not a moratorium on additional groundwater pumping from existing wells. It also had stated exceptions, including municipal wells and replacement wells. The ordinance was an Interim Urgency Ordinance which took effect immediately upon adoption. Pursuant to Section 65858, the ordinance was originally only effective for 45 days to July 5, 2018, but at the June 26 Board meeting, the Board of Supervisors on a 4-1 vote extended the ordinance to May 21, 2020, by adoption of Ordinance No. 5303.The "Area of Impact" overlaps with the northern third of the Subbasin, as shown on Figure 3-13. The County has not yet completed proposed modifications to the well construction ordinance and the moratorium on well construction permit applications has expired since March 2021. Well construction applications for the Deep Aquifers are currently being reviewed and permitted on a case-by-case basis.



Legend

- Monterey Subbasin
- Other Groundwater Subbasins within Salinas Valley Basin
- Area of Impact

Management Areas

- Marina-Ord Area
- Corral de Tierra Area

Sources

1. Basemap is ESRI's ArcGIS Online world topographic map, obtained 26 June 2020.
2. Area of impact obtained from Exhibit B of Monterey County Urgency Ordinance No. 5302.

Monterey County Ordinance No. 5303 Area of Impact

Monterey Subbasin
Groundwater Sustainability Plan
June 2020
Figure 3-13

Path: X:\B60094\Maps\20200606\Fig3-13 Area of Impact.mxd