



Home Gardens
County Water District

TEMESCAL BASIN GROUNDWATER SUSTAINABILITY PLAN

ADMINISTRATIVE DRAFT INTRODUCTION

July 2021

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GROUNDWATER

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Acronyms

Basin	Temescal Subbasin
Corona	City of Corona
DWR	California Department of Water Resources
GDE	groundwater dependent ecosystem
GSA	Groundwater Sustainability Agency
HGCWD	Home Gardens County Water District
MOU	Memorandum of Understanding
Norco	City of Norco
RCFCWCD	Riverside County Flood Control and Water Conservation District
SGMA	Sustainable Groundwater Management Act
Temescal GSA	Temescal Basin Groundwater Sustainability Agency

Appendices (following text)

Appendix A – Memorandum of Understanding forming the Temescal Groundwater Sustainability Agency

Appendix B – Temescal GSA Notice of Decision to become a Groundwater Sustainability Agency

Appendix C – GSP Elements Guide

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1. INTRODUCTION

The City of Corona (Corona) is actively managing the Temescal Subbasin (Basin) of the Upper Santa Ana River Groundwater Basin (**Figure 1-1**) in collaboration with the City of Norco (Norco) and Home Gardens County Water District (HGCWD). Corona, Norco, and HGCWD have previously participated in active management of water resources in the Basin. This management has included cooperation in preparing the 2008 Groundwater Management Plan (Todd and AKM 2008) and participation in regional planning and management. This historical experience provides a good foundation for continuation of groundwater management consistent with the Sustainable Groundwater Management Act (SGMA).

Wishing to provide a framework for cooperative groundwater management and SGMA compliance Corona, Norco, and HGCWD executed a Memorandum of Understanding (MOU) in March 2017 (**Appendix A**) establishing the Temescal Basin Groundwater Sustainability Agency (Temescal GSA). In August 2017, the Temescal GSA became the GSA for the Basin by submitting a formation notice to the California Department of Water Resources (DWR). This notice included publication of the MOU and each individual party's resolutions to become a GSA to DWR through the SGMA web portal. In the MOU, Corona has accepted the primary responsibility to develop a GSP for the Basin, to submit the GSP to DWR, and to prepare Annual Reports and GSP updates thereafter. While Corona is leading this effort, the GSP will be developed jointly among the three agencies, with coordinated implementation toward sustainable management.

The GSP reflects the rigorous, systematic process through which the Temescal GSA will manage the Basin. **Figure 1-1** shows the Plan Area for this GSP, which encompasses the entire Basin.

Sustainable management of the Temescal Basin is critical to local water supply reliability. The three local agencies (both individually and jointly) in the Temescal GSA have developed water supply portfolios including imported water, groundwater from multiple local basins, and reclaimed water for landscape irrigation. Water conservation measures also have been implemented (as documented in the recent Corona and Norco Urban Water Management Plans), providing an important tool for responding to water shortages. Local agencies are active in regional water management and recognize that local groundwater is a primary source of supply and needs to be reliable. The Temescal Basin area historically has experienced significant land use changes—shifting from agricultural to urban land uses—and subsequent water demand and supply changes. This transition was achieved in part with reliance on local groundwater. In fact, the Corona Groundwater Management Plan indicated that overdraft conditions occurred in the Temescal Basin during the last three years of the 1990 to 2004 period as pumping increased. While conditions subsequently improved, this illustrates that overdraft can occur. Concerns about water supply reliability persist, given the uncertainties of imported water and climate change. Moreover, groundwater quality generally is poor; in fact, sustainable groundwater use is dependent on treatment at the Temescal Desalter. SGMA and the GSP process provide an important set of

tools for Corona and the Temescal GSA partners to address these conditions and plan for water supply reliability into the future.

1.1. PURPOSE OF THE GROUNDWATER SUSTAINABILITY PLAN

The purpose of this GSP is to assess water resource and land use conditions within the Basin, through an open and collaborative process, and to implement management activities to achieve (or maintain) long-term groundwater sustainability as defined by SGMA.

The GSP assesses sustainability related to each of the six SGMA defined sustainability criteria listed below:

- Lowering Groundwater Levels
- Reduction of Groundwater Storage
- Seawater Intrusion
- Degraded Water Quality
- Land Subsidence
- Surface Water Depletion

The GSP presents conditions in the Basin relevant to each of these categories, defines thresholds for maintaining sustainability, outlines groundwater monitoring protocols, and management actions and projects designed to improve monitoring capabilities and/or to protect and enhance groundwater conditions. The GSP also includes a schedule and cost estimate for plan implementation. Each element of the GSP is designed to promote basin health and achieve and maintain the sustainability goal established for the Basin by the GSA.

1.2. SUSTAINABILITY GOAL

To sustain groundwater resources for the current and future beneficial uses of the Basin in a manner that is adaptive and responsive to the following objectives:

- Provide a long-term, reliable, and efficient groundwater supply for municipal, industrial, and other uses
- Provide reliable storage for water supply resilience during droughts and shortages
- Protect groundwater quality
- Support beneficial uses of interconnected surface waters, and
- Support integrated and cooperative water resource management.

1.3. AGENCY INFORMATION

The GSA agencies are collaborating on preparation of this GSP, as described in the March 2017 MOU between the agencies. The City of Corona, City of Norco, and HGCWD each passed resolutions to authorize the MOU to establish the GSA:

- City of Corona - On March 15, 2017, Corona held a public hearing to determine whether to become a GSA, and adopted Resolution No. 2017-013, electing to jointly become a GSA with Norco and HGCWD.

- Norco - On March 15, 2017, Norco held a public hearing to determine whether to become a GSA, and adopted Resolution No. 2017-12, electing to jointly become a GSA with Corona and HGCWD.
- HGCWD - On March 23, 2017, HGCWD held a public hearing to determine whether to become a GSA, and, by minute action, elected to jointly become a GSA with Corona and Norco.

On May 10, 2017, Temescal GSA submitted to DWR a Notice of Decision to Become a Groundwater Sustainability Agency, along with required information including a boundary map of the GSA and a list of interested parties. After the 90-day review period, on August 8, 2017, Temescal GSA became the groundwater sustainability agency for the Basin.

As required by GSP Regulations §354.6 and SGMA §10723.8, the Notices of Decision to become a Groundwater Sustainability Agency are included in **Appendix B**. These each include the resolution, list of interested parties, and boundary map.

The point of contact for the Temescal GSA is:

Katie Hockett, Assistant General Manager
 City of Corona Department of Water and Power
 Temescal Basin GSA
 755 Corporation Yard Way Corona, CA 92880
 (951) 279-3601
Katie.Hockett@CoronaCA.gov

1.4. GROUNDWATER SUSTAINABILITY AGENCY INFORMATION

As described above, the Temescal GSA was formed through a MOU between Corona, Norco, and HGCWD to act as the GSA for the Basin (Temescal Subbasin of the Upper Santa Ana Valley Basin, Basin Number 8-002.09), which is a DWR-designated medium priority basin. The Temescal GSA is dedicated to participating in the collective goal of reaching groundwater sustainability in California and will complete a GSP.

Corona, Norco, and HGCWD have relied on groundwater from the Basin for municipal use for decades. In 2008, Corona adopted a Groundwater Management Plan that covers the entire Basin.

1.4.1. Decision Making

As detailed in the MOU, decisions in by the Temescal GSA are reached by unanimous consent of the parties; however, if unanimous consent is not possible, a majority vote of the three agencies rules.

1.4.2. Roles and Responsibilities

The MOU also documents the responsibilities of the individual agencies, including:

- Corona shall have the primary responsibility to develop a GSP within the boundaries of the Temescal GSA and submit the GSP to DWR for review and evaluation. Corona

shall also have the primary responsibility to prepare and submit the annual and five year reports to DWR pursuant to SGMA and DWR's implementing regulations.

- The parties will work jointly to fulfill the purpose of MOU within the boundaries of the Temescal GSA.
- The parties will meet regularly to discuss SGMA, GSP development, and implementation activities, assignments, and ongoing work progress.
- The parties may form committees as necessary from time to time to discuss issues that impact the Temescal GSA.
- Corona is responsible for implementing the GSP in areas of the Temescal GSA that are within Corona's service area boundaries and within Corona's sphere of influence.
- Norco is responsible for implementing the GSP in areas of the Temescal GSA that are within Norco's service area boundaries.
- HGCWD is responsible for implementing the GSP in areas of the Temescal GSA that are within HGCWD's service area boundaries.

1.4.3. Legal Authority of the GSA

The GSA has authority to develop a GSP and implement SGMA in the Temescal Basin. SGMA specifies additional enabling powers; for example, GSAs may choose to adopt standards for measuring and reporting water use, develop and implement metering, and manage extraction from individual wells.

Corona's Authority. Corona is a local agency qualified to become a GSA because Corona manages water, has a water supply, and has land use responsibilities over a portion of the Basin.

Norco's Authority. Norco is also a local agency qualified to become a GSA because Norco manages water, has a water supply, and has land use responsibilities over a portion of the Basin.

HGCWD's Authority. HGCWD is also a local agency qualified to become a GSA because HGCWD is a county water district formed and operating pursuant to and in accordance with Division 12 of the California Water Code that manages water, has a water supply and overlies a portion of the Basin.

Those portions of the Basin outside of these service areas are not within the area of any other proposed GSA. While the service areas of Corona, Norco, and HGCWD do not cover the entire Basin, these agencies do propose to serve as the GSA for the entire Basin. The three agencies in the GSA are coordinating with Riverside County Flood Control and Water Conservation District (RCFCWCD) for these currently unmanaged areas. Specifically, the RCFCWCD recognized the ongoing efforts for this GSA and offered to participate in any advisory or stakeholder committee formed by the GSA.

1.4.4. GSP Development Costs and Funding Sources

In November 2017, the City of Corona applied for a Sustainable Groundwater Management Planning (SGMP) Grant to fund preparation of this GSP. In April 2018, DWR awarded the City of Corona with full funding of \$732,338.

Each Party shall be financially responsible for collecting data or information from within that Party's service area that is required to be provided for development of the GSP. Norco and HGCWD shall not incur any financial expense related to development of the GSP and submittal of the GSP to the DWR.

Implementation costs include costs to continue monitoring as described in Chapter 7, implement management actions and projects as described in Chapter 8, and complete annual reports and periodic GSP evaluation and updates as required by SGMA. As summarized in Chapter 9, total annual costs (2021 dollars) are estimated at approximately \$100,000 per year and single occurrence costs for projects and management actions anticipated to occur in the first 5 years of GSP implementation and the first periodic GSP evaluation and update total approximately \$515,000 to \$575,000 (2021 dollars).

The funding method for operating expenses and GSP implementation costs is by contributions by GSA member agencies (Corona, Norco, and HGCWD). This is the same mechanism utilized to fund development of the GSP (with significant supplemental contribution though California Proposition 1 Grant funding). Corona will be responsible for most of the ongoing implementation costs, which are within budget projections for the next several years. Funding for planning and implementation of some projects and management actions may be achieved with local, state, and federal sources. The local agencies track opportunities for outside financing (grants or loans) from state water programs and federal infrastructure funding. For local financing, the agencies update their financial plans and rates as needed.

1.5. GSP ORGANIZATION

This GSP is organized generally to follow the GSP Annotated Outline provided by DWR as one of its Guidance Documents. Major sections include:

- **Executive Summary**
- **Chapter 1 – Introduction**, purpose of the GSP, sustainability goal, agency information, and GSP organization.
- **Chapter 2 – Plan Area** description, water use sectors, water supply sources, water resources monitoring and management programs, current general plans, other GSP elements.
- **Chapter 3 – Hydrogeologic Conceptual Model**, description of the physical basin setting including surface water features, soils, geologic setting, faults, and aquifers, defined basin bottom, recharge and discharge areas, and cross sections.
- **Chapter 4 – Current and Historical Groundwater Conditions**, discussion of groundwater elevations, land subsidence, groundwater quality and current monitoring, constituents of concern regarding water quality, interconnection of

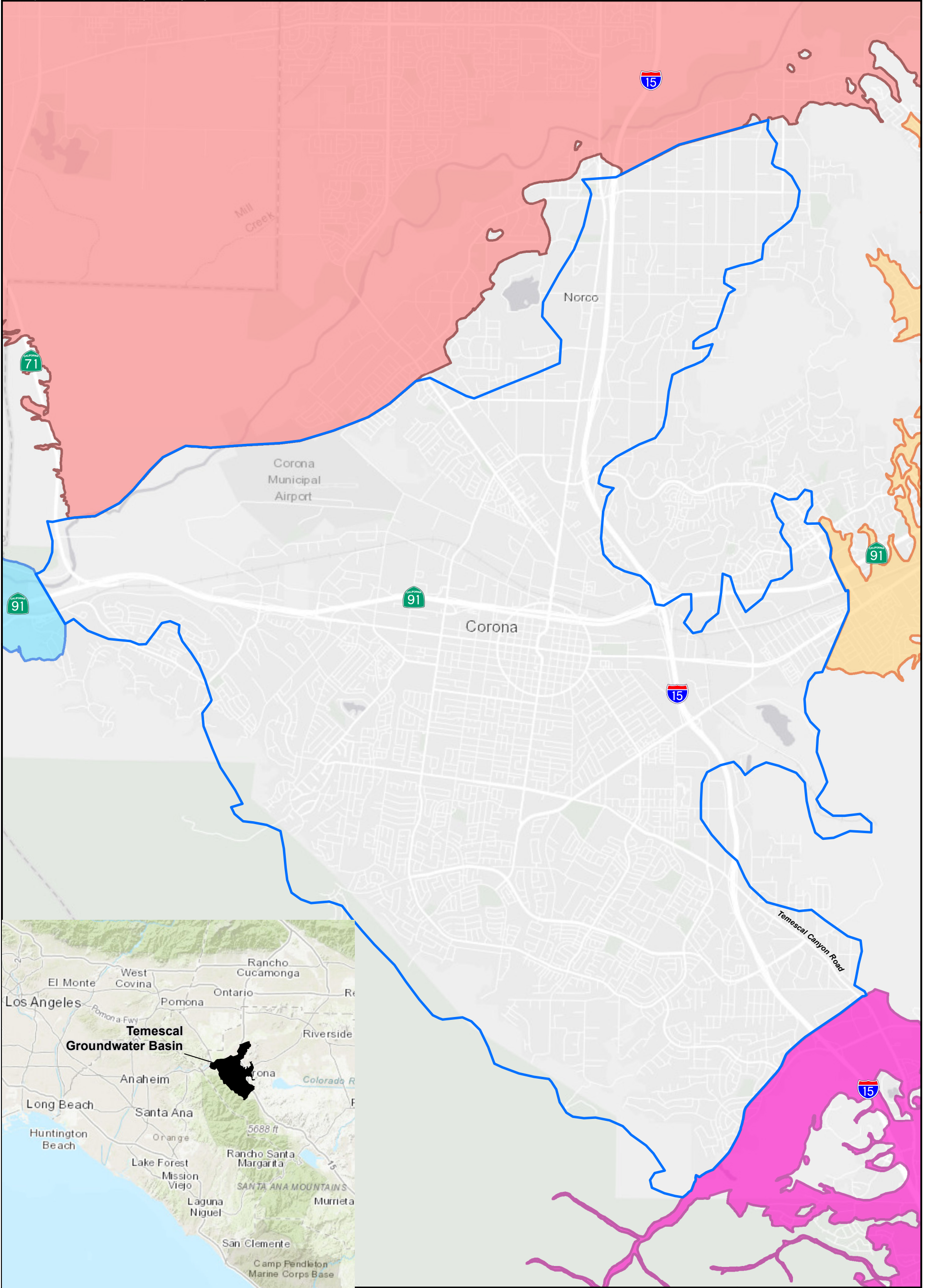
surface water and groundwater and the effects on groundwater dependent ecosystems (GDEs).

- **Chapter 5 – Water Budget**, discussion of the water budget, groundwater model, surface water and groundwater balance, change in groundwater storage, and estimate of sustainable yield.
- **Chapter 6 – Sustainable Management Criteria**, sustainability goal, sustainability criteria for the six undesirable results.
- **Chapter 7 – Monitoring Network**, discussion of the monitoring that will continue to assess sustainability in the future.
- **Chapter 8 – Projects and Management Actions**, descriptions of projects and management actions for the Basin.
- **Chapter 9 – Plan Implementation**, estimate of GSP implementation costs, schedule, plan for annual reporting and periodic evaluations.
- **Chapter 10 – References**

A Preparation Checklist providing further organizational guidance to the GSP content requirements is provided in **Table 1-1** and the GSP Elements Guide detailing GSP content in comparison to SGMA articles is included in **Appendix C**.

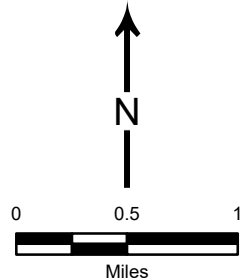
Table 1-1. GSP Preparation Checklist

This table will be completed along with compilation of the complete GSP.



Legend

- Temescal Groundwater Basin and Groundwater Sustainability Agency
- Bedford-Coldwater Basin
- Chino Basin
- Riverside-Arlington Basin
- Coastal Plain of Orange County Basin



**Figure 1-1
Temescal Groundwater
Basin, GSA, and
Adjacent Basins**



REFERENCES

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