

# WATER SYSTEM MASTER PLAN

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## 1. INTRODUCTION

This document represents the Water System Master Plan (plan) for Sacramento Suburban Water District (District). This section presents the plan objectives and approach.

### 1.1 Plan Objectives

The District's mission is 'to deliver a high quality, reliable supply of water and superior customer service at a reasonable price.' The District's objectives in support of this mission include managing the District's groundwater supply to ensure its quality and quantity and maximizing the use of existing system capacity to generate revenues to offset other system costs. The purpose of this plan is to provide guidance to meet these objectives.

Historically, the District has primarily used groundwater as its water supply source. It used some surface water from the 1960s until 1997. The District started significantly supplementing its groundwater supply with surface water in 1998 to address the declining groundwater table using in-lieu recharge. The District has made significant investments to put surface water supply and conjunctive use facilities in place. It is strategically located at the hub of the region's conjunctive use opportunities that could benefit other water users. Its existing infrastructure and regional water resources needs place the District in a key position to help support regional conjunctive use efforts as well as meeting its own needs.

This plan addresses the following components:

1. Water requirements that incorporate the water savings from planned water conservation measures.
2. Amount of surface water the District must use in-lieu of groundwater to maintain a stable or predictable groundwater supply.
3. Threats to the groundwater basin from regional contamination plumes and recommended mitigation measures.
4. Needed water supplies at buildout.
5. Alternatives to meet the District's water supply needs at buildout based on a conjunctive use strategy.
6. District's excess groundwater supply capacity.
7. Opportunities to maximize facility value by optimizing the use of existing water system capacity to export banked surface water from the District.
8. Conceptual consideration of climatic change impacts on regional water supplies.
9. Infrastructure performance and reliability.
10. Infrastructure needs.
11. Emergency power requirements.

## 1.2 Approach

The approach for developing the plan consists of first defining the District's water needs and the groundwater and surface water supplies. The water supplies are defined in terms of the current amount available in wet, average, and dry climate years and consideration of potential new supplies. The groundwater supply is evaluated to determine a long-term groundwater pumping target to maintain a stable groundwater supply. The water needs and supply results are then used to define the District's excess water supply capacity, which includes quantifying the District's predictable, reliable, and potential excess groundwater well pumping capacity. This is followed by identifying and discussing conjunctive use strategies and water supply alternatives that both meet the District's current and expected needs and identify capacity that would provide supplies to possibly export water from the District. This excess capacity is a key consideration and featured in development of the District's revenue augmentation efforts. As a preliminary long term planning consideration there is a brief discussion of the potential impacts of climatic change currently being discussed by DWR for this region. Figure 1-1 depicts a flowchart of the approach used to develop the water resources portion of the plan. The approach for evaluating the water infrastructure includes updating the District's hydraulic model and using it as a tool to evaluate system pressures, flows, reliability, storage, pressure zones, and needed improvements.

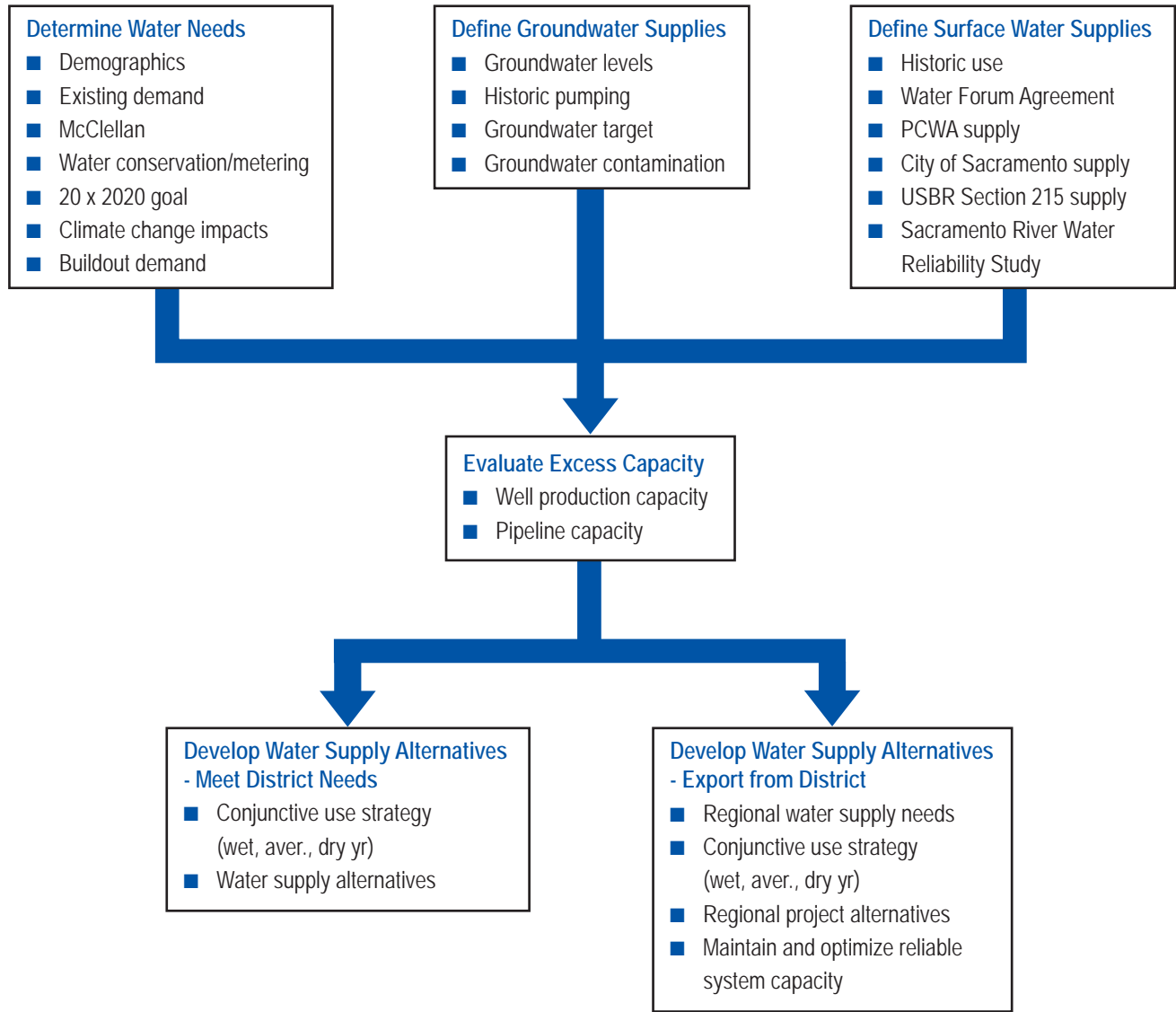
## 1.3 Report Organization

The plan consists of 17 report sections and related appendices. The body of the report is provided in the first binder and the appendices included in a second binder.

## 1.4 Relevant District Plans

This section provides a list of relevant and important District plans that were used in support of this report. Due to the size of these plans they are not included as appendices to this Water System Master Plan but instead listed below.

1. Main Replacement Plan
2. Meter Replacement Plan
3. Groundwater Well Facility Asset Management Plan, 2008
4. Water Conservation Master Plan, 2006
5. Strategic Energy Management Plan, March 2009



<b>BROWN AND CALDWELL</b>	PROJECT 135849	SITE Water System Master Plan Sacramento Suburban Water District	Figure 1-1
	DATE 6-12-09	TITLE Process Flowchart for Water Resources Management Plan	