TO: MICHAEL S. LEBRUN
GENERAL MANAGER

FROM: PETER V. SEVCIK
DISTRICT ENGINEER

DATE: JUNE 2, 2011

AGENDA ITEM
E-5
JUNE 8, 2011

2010 URBAN WATER MANAGEMENT PLAN ADOPTION

ITEM

Conduct Public Hearing and Adopt 2010 Urban Water Management Plan [APPROVE RESOLUTION ADOPTING 2010 URBAN WATER MANAGEMENT PLAN].

BACKGROUND

On September 30, 2009, the Board of Directors selected Water Systems Consulting Inc. (WSC) to prepare the 2010 Urban Water Management Plan (UWMP). WSC subsequently prepared several technical work products as well as several administrative draft and public review drafts of the 2010 UWMP.

On January 26, 2011, the Board directed staff to circulate the Public Review Draft 2010 UWMP dated January 21, 2011 to the County, interested parties and the public for comment. Notice of the March 23, 2011 public hearing to consider comments on the Public Review Draft 2010 UWMP was published in the Santa Maria Times and the San Luis Obispo Tribune. The public hearing was conducted on March 23, 2011 and there was no public comment.

After the District circulated the Public Review Draft 2010 UWMP, the California Department of Water Resources (DWR) released the Final 2010 UWMP Preparation Guidebook. At the April 13, 2011 Board meeting, the Board authorized WSC to perform additional work tasks to address the new requirements that were outside of the scope of the existing contract and update the population projections in the 2010 UWMP since the 2010 Census data was available. WSC completed the required revisions to the document and on May 25, 2011, the Board reviewed the Final Draft 2010 UWMP dated May 19, 2011 and set the public hearing and adoption for June 8, 2011. WSC completed several minor edits and corrections to the May 19, 2011 version and provided the attached Final 2010 UWMP dated June 1, 2011 for Board approval.

FISCAL IMPACT

The 2010 UWMP Update was included in the FY 09-10 and FY 10-11 Budgets. The total revised WSC contract cost is $117,260. In addition, preparation of the plan has involved significant budgeted staff and District Legal Counsel time.

RECOMMENDATION

Staff recommends that your Honorable Board accept public comment, provide direction to staff regarding any edits the Board desires to make and approve Resolution 2010-XXXX Adopting the 2010 Urban Water Management Plan.

ATTACHMENTS

- Resolution 2010-XXXX Adopting 2010 Urban Water Management Plan
- Final 2010 Urban Water Management Plan dated June 1, 2011

NIPOMO COMMUNITY SERVICES DISTRICT
RESOLUTION NO. 2011-XXXX

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE NIPOMO COMMUNITY SERVICES DISTRICT ADOPTING THE URBAN WATER MANAGEMENT PLAN 2010 UPDATE

WHEREAS, California Water Code Section 10621(a) requires each urban water supplier to update its urban water management plan at least once every five years on or before December 31, in years ending in five and zero; and

WHEREAS, Nipomo Community Services District (NCSD) began its public outreach and community involvement in the preparation of the Draft Urban Water Management Plan 2010 Update (UWMP) on December 9, 2009, with its first scheduled public meeting to discuss the project followed by additional meetings with local governmental and community organizations; and

WHEREAS, pursuant to Water Code Section 10621(b),NCSD notified the County of San Luis Obispo and the Local Agency Formation Commission of San Luis Obispo County that it would be preparing its 2010 UWMP, and subsequently met with, consulted with and obtained comments from the Local Agency Formation Commission, San Luis Obispo County, and the City of Santa Maria; and

WHEREAS, on May 20, 2011, the Draft UWMP 2010 Update was posted to NCSD's website; and

WHEREAS, on June 8, 2011, NCSD held a public hearing properly noticed pursuant to Water Code Section 10642 and Government Code Section 6066, at which time NCSD's Board of Directors reviewed the Draft UWMP 2010 Update and, as part of that review, considered a presentation of the Draft UWMP 2010 Update by its staff and consultants, oral and written public comments; and

WHEREAS, pursuant to Water Code Section 10620(d)(2), NCSD coordinated the preparation of its Draft UWMP 2010 Update with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable; and

WHEREAS, pursuant to Water Code Section 10620(f), NCSD describes in the Draft UWMP 2010 Update water management tools and options used by NCSD that will maximize resources and minimize the need to import water from other regions; and

WHEREAS, pursuant to Water Code Section 10642, NCSD encouraged the active involvement of diverse social, cultural, and economic elements of the population within its service area prior to and during the preparation of the Draft UWMP 2010 Update, which included, but is not limited to, posting the Draft UWMP 2010 Update on NCSD's website; distributing the Notice of Availability of the Draft UWMP 2010 Update to the City of Santa Maria, the County of San Luis Obispo, the Local Agency Formation Commission of San Luis Obispo County and numerous other interested parties, holding eight (8) public meetings between December 2009 and June 2011, regarding the Draft UWMP 2010 Update and coordinating the preparation of the Draft UWMP 2010 Update with the local retail water agencies; and

RESOLUTION NO. 2011-XXXX

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE NIPOMO COMMUNITY SERVICES DISTRICT ADOPT THE URBAN WATER MANAGEMENT PLAN 2010 UPDATE

WHEREAS, to assure public participation in the process, NCSD has exceeded the requirements of the UWMP Act, by holding more than one public hearing; and

WHEREAS, the NCSD Board of Directors has considered the public and Board comments made at the public hearing, as well as written public comments on the Draft UWMP 2010 Update distributed to the Board of Directors; and

WHEREAS, the NCSD Board of Directors has carefully reviewed the Draft UWMP 2010 Update, the erratas and any modifications made at the hearing; and

WHEREAS, NCSD Board of Directors finds that the Revised Final Draft UWMP 2010 Update is fully adequate and complete in its compliance with the requirements of the UWMP Act, and further finds that the conclusions reached in the Revised Final Draft UWMP 2010 Update are supported by substantial evidence.

NOW, THEREFORE, BE IT RESOLVED, DETERMINED AND ORDERED BY THE BOARD OF DIRECTORS OF THE NIPOMO COMMUNITY SERVICES DISTRICT does hereby adopt the Final Draft UWMP 2010 Update attached hereto as Exhibit "A" and incorporated herein by this reference, including the erratas and modifications made at the June 8, 2011 adoption meeting as NCSD's Urban Water Management Plan 2010 Update;

RESOLVED FURTHER that NCSD shall implement the UWMP 2010 Update in accordance with the schedule set forth therein;

RESOLVED FURTHER that NCSD shall submit to the Department of Water resources, the California State Library, and the City of Santa Maria and San Luis Obispo County a copy of the UWMP 2010 Update;

RESOLVED FURTHER that NCSD shall make the UWMP 2010 Update available for public review at NCSD administrative offices at 148 South Wilson Street, Nipomo, California during normal business hours.

RESOLVED FURTHER that the above Recitals are incorporated herein and support the adoption of the Final Draft UWMP 2010 Update.

RESOLUTION NO. 2011-XXXX

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE NIPOMO COMMUNITY SERVICES DISTRICT ADOPT THE URBAN WATER MANAGEMENT PLAN 2010 UPDATE

On the motion by Director _____, seconded by Director _____, and on the following roll call vote, to wit:

AYES:
NOES:
ABSENT:
ABSTAIN:

The foregoing resolution is hereby adopted this 8th day of June, 2011.

_____
James Harrison, President
Nipomo Community Services District

ATTEST:

_____
Michael S. LeBrun, General Manager and
Secretary to the Board

APPROVED AS TO FORM:

_____
Jon S. Seitz
General Counsel

T:\BOARD MATTERS\RESOLUTIONS\RESOLUTIONS 2011\2011-XXXX 2010 UWMP Update.doc

RESOLUTION NO. 2011-XXXX

**A RESOLUTION OF THE BOARD OF DIRECTORS
OF THE NIPOMO COMMUNITY SERVICES DISTRICT
ADOPT THE URBAN WATER MANAGEMENT PLAN 2010 UPDATE**

EXHIBIT "A"

UWMP 2010 UPDATE

(Attached hereto)

2010
Urban Water Management Plan

Final Draft • June 1, 2011

WSC
Water Systems Consulting, Inc.

Nipomo Community Services District

2010 Urban Water Management Plan

Final Draft

Prepared Under the Responsible Charge of:

Jeffery M. Szytel, P.E.

California R.C.E. 63004, Expires 6/30/2012

6/1/2011

WSC
Water Systems Consulting, Inc.

ACKNOWLEDGEMENTS

The Nipomo Community Services District 2010 Urban Water Management Plan Final Draft was prepared by Water Systems Consulting, Inc., and its subconsultant, HDR Engineering. The primary authors are listed below.

Jeffery Szytel, P.E., M.S., M.B.A.

Spencer Waterman

Jeroen Olthof, P.E., M.S.

Water Systems Consulting, Inc. would also like to acknowledge the significant contributions of the following representatives from the Nipomo Community Services District Board of Directors and Principal Staff.

Board of Directors	**Principal Staff**
James Harrison, President	Michael LeBrun, P.E., Interim General Manager
Larry Vierheilig, Vice President	Lisa Bognuda, Assistant General Manager
Michael Winn, Director	Peter Sevcik, P.E., District Engineer
Ed Eby, Director	Tina Grietens, Utility Superintendent
Dan Gaddis, Director	Jon Seitz, General Counsel

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

GLOSSARY OF TERMS AND ACRONYMS

AB 2882- Assembly Bill No. 2882

ACT- Active

Adjudication- the hearing and settlement of the Santa Maria Groundwater Basin Litigation

afy- acre feet per year

ATS- Automatic Transfer Switch

Basin- Santa Maria Groundwater Basin

BMP- Best Management Practice

Boyle Engineering Corporation- Is now known as AECOM

County- San Luis Obispo County

CUWCC- California Urban Water Conservation Council

District- Nipomo Community Services District

District Code- Nipomo Community Services District Code

DMM- Demand Management Measure

DWR- Department of Water Resources

ETo- Evapotranspiration

GIS- Geographic Information System

gpm- gallons per minute

GSWC- Golden State Water Company; formerly Southern California Water Company

Guidebook- Guidebook to Assist Water Suppliers in the Preparation of a 2005 Urban Water Management Plan, Department of Water Resources 2005

HCF- Hundred Cubic Feet

HDR- HDR, Inc. is a consultant

IRWMP- Integrated Regional Water Management Plan

Judgment- the Stipulation for the Santa Maria Groundwater Basin Litigation

LAFCO- San Luis Obispo County Local Agency Formation Commission

MFR- Multi-Family Residential

MG- Million Gallons

mg/L- milligrams per Liter

msl- mean sea level

NCMA- Northern Cities Management Area

NCSD- Nipomo Community Services District

Nipomo CDP- Nipomo Census Designated Place

NMMA- Nipomo Mesa Management Area

NMMA TG- Nipomo Mesa Management Area Technical Group

NMWCA- Nipomo Mesa Water Conservation Area

OS- Out of Service

Per Capita TM- Baseline Daily Per Capita Water Use Technical Memorandum

Response Plan- Response Plan for Potentially Severe and Severe Water Shortage Conditions

RWC- Rural Water Company

SAIC- Science Applications International Corporation

Santa Maria Groundwater Basin Litigation- *Santa Maria Valley Water Conservation District vs. City of Santa Maria, et al.* Case No. 770214

SB 7- Senate Bill x 7-7

Settlement- the effects and implications of the Stipulation

SFR- Single-Family Residential

SLOCOG- San Luis Obispo Council of Governments

SLO-PD- San Luis Obispo County Planning and Development

SMVMA- Santa Maria Valley Management Area

SOI- Sphere of Influence

Stipulation- the settlement of the Santa Maria Groundwater Basin Litigation

Supplemental Water Supply Project- Santa Maria Supplemental Water Supply Project

SWP- California State Water Project

UWMP Act- Urban Water Management Planning Act

UWMP- Urban Water Management Plan

Waterline Intertie Project FEIR- Santa Maria Waterline Intertie Project Final Environmental Impact Report

WMWC- Woodlands Mutual Water Company

Work Product 1- Work Product 1 Demand Database Technical Memorandum

WSA- Water Supply Assessment

WSC- Water Systems Consulting, Inc.

1 INTRODUCTION

This report comprises the 2010 Urban Water Management Plan (UWMP) update for the Nipomo Community Services District (NCSD or the District). NCSD is located in Nipomo, CA, an unincorporated community in Southern San Luis Obispo County. The District serves portions of the Nipomo community and the greater Nipomo Mesa. NCSD is an independent Special District formed and operated pursuant to Government Code §61000 et seq. NCSD provides water, wastewater, and solid waste services, as well as landscape maintenance, street lighting, and drainage services to its customers pursuant to Government Code §61600(a), (b), and (c). NCSD does not have land planning authority, which is retained by the County of San Luis Obispo; however, County land use planning authority is subordinated to resource limitations such as water and sewer capacity as established by the NCSD.

As a part of the California Water Code, the California Urban Water Management Planning Act (UWMP Act) requires all urban water suppliers with more than 3,000 connections or distributing more than 3,000 acre feet per year (afy) to complete an UWMP every five years ending in '5' and '0'. The UWMP Act is administered by the California Department of Water Resources (DWR), who is responsible for developing guidance for preparation of the UWMPs, reviewing the submitted plans for completeness, compiling the data for statewide and regional analysis, and publishing the documents online for public access. In 2010 NCSD produced about 2,366 afy of water and had 4,148 connections. NCSD adopted its first UWMP in January 2004. Since the first UWMP in 2004, there has been one update adopted by NCSD's Board of Directors on January 25, 2006.

This UWMP update was prepared based on guidance from DWR's *Guidebook to Assist Water Suppliers in the Preparation of a 2010 Urban Water Management Plan* (Guidebook) (1), DWR SB x 7-7 (SB 7) public listening sessions, the Public Draft of *Urban Water Use Target Technical Methodologies* (2) prepared by DWR, and the 2010 UWMP DWR Review Sheets (Appendix H).

The 2010 UWMPs are due July 30, 2011. Usually, UWMPs are due on December 31 of years ending in 0 and 5, but a 6-month extension has been granted for submittal of the 2010 UWMPs to provide additional time for water suppliers to address the SB 7 requirements. The 2010 UWMP Draft Guidebook to support water suppliers in UWMP preparation was made available in December 2010 and the final Guidebook was made available in March 2011. DWR's 2010 UWMP schedule is summarized in Table 1.

Table 1. DWR's 2010 UWMP Schedule

Date	Event/Task
December 2010	Draft Guidebook released
January 2011	Initial workshops
March 2011	Final Guidebook released
January/February 2011	Additional workshops
August 1, 2011	Submittal to DWR of UWMPs

According to the 2010 Guidebook, "As a general rule, DWR reviewers will consider a plan complete if it meets the criteria listed in the Review Sheets" (1). A Review Sheet checklist is provided in Appendix H. Table 2 summarizes changes to the UWMP Act since 2005 that have been addressed in this UWMP.

1.1 PURPOSE

The UWMP is a valuable planning document used for multiple purposes:

- Meets a statutory requirement of the California Water Code
- Provides a key source of information for Water Supply Assessments (WSAs) and Written Verifications of Water Supply required by SB 610 and SB 221
- Supports regional long-range planning documents including City and County General Plans
- Provides a standardized methodology for water utilities to assess their water resource needs and availability
- Serves as a critical component of developing Integrated Regional Water Management Plans (IRWMPs)

Table 2. Summary of Changes in the UWMP Act since 2005

Change	New/ Revised Water Code Section Number	Summary of Changes	UWMP Approach
Notification	10621(b)	*Added*: Provide at least 60 days notification to any city or county within which the supplier provides water for the public hearing required by Section 10642.	The County of San Luis Obispo will be notified in a timely manner to meet the requirement.
DMM Compliance	10631(j)	*Changed*: Members of the CUWCC will be considered in compliance with the DMM evaluation (10631 (f) and (g)) if they comply with all the provisions of the "Memorandum of Understanding Regarding Urban Water Conservation in California," dated December 10, 2008 and by submitting their CUWCC annual reports.	Nipomo Community Services District is a member of the CUWCC and is not in full compliance with the CUWCC MOU. However, the 2009-2010 CUWCC BMP Annual Report is attached in Appendix E.
Wholesale Suppliers Source Water	10631(j)	*Deleted:* Text identifying the specific types of water an urban water supplier may seek information from a wholesaler supplier. The option to seek information from a wholesale supplier is not deleted, just the identification of source water types.	No impact to this UWMP.

Change	New/ Revised Water Code Section Number	Summary of Changes	UWMP Approach
Lower Income housing water use projections	10631.1	*Added:* Water use projections required by Section 10631 shall include projected water use for single-family and multifamily residential housing needed for lower income households (Health and Safety Code Section 50079.5) will be provided. These water use projections are to assist a supplier in complying with Government Code Section 65589.7 to grant priority of the provision of service to housing units affordable to lower income households.	Values are estimated based on Nipomo Community Service District customer data and the County of San Luis Obispo Housing Element (See Section 3.1.1)
Linkage of DMM to State grant or loan program	10631.5(a)	*Changed:* After January 1, 2009, eligibility for state-funded grants or loans will be conditioned on the implementation of Section 10631 DMMs. If a DMM is not currently being implemented, then the urban water supplier submits to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement. If a DMM is not locally cost-effective (the present value of the local benefits is less than the present value of local costs to implement the DMM), then the water supplier will submit supporting documentation and the DWR will provide a determination within 120 days of UWMP submittal.	No impact to this UWMP.
DMM Compliance	10631.5(b)	*Added:* DWR will consult with other agencies and public input and develop eligibility requirements for meeting compliance with DMM implementation. Determination of DMM compliance will be based on an individual water agencies implementation or participation with a regional group. An individual water agency will not be denied eligibility if another participating regional agency does not comply with each of the DMMs	No impact to this UWMP.
Determination of Grant and Loan Eligibility	10631.5(c)	*Added:* Grant and loan eligibility, based on DMM compliance, will be included in the funding guidelines.	No impact to this UWMP.
	10631.5(d)	*Added:* The administering agency will request and eligibility determination from DWR regarding "the requirements of this section". DWR will respond within 60 days.	No impact to this UWMP.

Change	New/ Revised Water Code Section Number	Summary of Changes	UWMP Approach
	10631.5(e)	*Added:* The water supplier may submit copies of its annual reports and other relevant documents to assist DWR in determining implementation or scheduling of the water suppliers DMMs. Water suppliers that are signatories of the CUWCC MOU may submit its annual reports to support its DMM activities.	Nipomo Community Services District will submit its CUWCC BMP 2009-2010 activity report.
	10631.5(f)	*Added:* "This section" is in effect only until July 1, 2016, after which it is repealed, unless another statute is enacted.	No impact to this UWMP.
New DMM Independent Technical Panel	10631.7	*Added:* DWR, with the CUWCC, will convene a technical panel to provide information and recommendations to DWR and the Legislature on new DMMs, technologies, and approaches. There is further language on the panel members and timing.	No impact to this UWMP.
Potential Recycled Water Uses	10633(d)	*Added:* Indirect potable reuse is to be considered as an option for a potential use of recycled water.	No impact to this UWMP.
UWMP Distribution	10644(a)	*Added:* A copy of the UWMP will also be submitted to the California State Library no later than 30 days after its adoption	Nipomo Community Services District will submit a copy of its adopted UWMP to the California State Library to meet this requirement.
Exemplary UWMP Elements	10644(b)	*Added:* 'Exemplary' elements of individual plans are to be identified in the 2011 Legislative Report	No impact to this UWMP.
Exemplary UWMP	10644(c)	*Added:* (1), (2), and (3). Clarifying that "exemplary" DMMs are those that achieve water saving significantly above the levels established by DWR to meet the requirements of 10631.7. The results are to be distributed to the panel convened pursuant to Section 10631.7 and the public.	No impact to this UWMP.
Retail Deadline	144644(j)(1)	*Added:* An urban retail water supplier is granted an extension to July 1, 2011, for adoption of an urban water management plan.	Nipomo Community Services District will make its best effort to adopt the plan in a timely manner.
Wholesaler Deadline	144644(j)(2)	*Added:* An urban wholesale water supplier whose urban water management plan . . .is granted an extension to July 1, 2011, to permit coordination between an urban wholesale water supplier and urban retail water suppliers.	No impact to this UWMP.

Change	New/ Revised Water Code Section Number	Summary of Changes	UWMP Approach
	10657	*Deleted.*	No impact to this UWMP.

1.2 PUBLIC INVOLVEMENT

To fulfill the requirements of Water Code Section 10642 of the UWMP Act, NCSD made the draft 2010 UWMP available for public review and held multiple public hearings. The notices for preparation and public hearings can be seen in Appendix F. In addition, NCSD has maintained the UWMP on its website since September 22, 2010 and has maintained a hardcopy at its offices since September 22, 2010. Table 3 shows public meetings held related to this UWMP and its development.

Table 3. Public Meetings Relating to the UWMP

Date	Public Meeting Description	Location
12/9/2009	NCSD Board Agenda Item E-2) REVIEW SCOPE OF WORK AND SCHEDULE FOR URBAN WATER MANAGEMENT PLAN UPDATE BY WATER SYSTEMS CONSULTING [RECEIVE REPORT AND GIVE DIRECTION]	NCSD Offices 148 S. Wilson St. Nipomo, CA
4/14/2010	NCSD Board Agenda item E-1) RECEIVE WORK PRODUCT #1 2010 URBAN WATER MANAGEMENT PLAN UPDATE [RECOMMEND ACCEPT]	NCSD Offices 148 S. Wilson St. Nipomo, CA
9/22/2010	NCSD Board Agenda item E-1) CONSIDER DRAFT URBAN WATER MANAGEMENT PLAN UPDATE (RECEIVE REPORT AND PROVIDE COMMENTS)	NCSD Offices 148 S. Wilson St. Nipomo, CA
10/1/2010	NCSD Board Agenda Item 3) DRAFT 2010 URBAN WATER MANAGEMENT PLAN UPDATE (RECEIVE REPORT AND PROVIDE DIRECTION TO STAFF)	NCSD Offices 148 S. Wilson St. Nipomo, CA
10/27/2010	NCSD Board Agenda Item E-3) CONSIDER DRAFT URBAN WATER MANAGEMENT PLAN UPDATE (APPROVE CIRCULATION OF DRAFT PLAN UPDATE)	NCSD Offices 148 S. Wilson St. Nipomo, CA
1/26/2011	NCSD Board Agenda Item E-3) BMP Checklist and Authorization to Circulate Draft UWMP	NCSD Offices 148 S. Wilson St. Nipomo, CA
3/23/2011	NCSD Board Agenda Item E-1)UWMP Public Hearing	NCSD Offices 148 S. Wilson St. Nipomo, CA
5/25/2011	NCSD Board Final Draft Review Agenda Item E-1) PRESENTATION OF FINAL 2010 URBAN WATER MANAGEMENT PLAN (RECEIVE PRESENTATION AND BY MOTION SCHEDULE PLAN ADOPTION)	NCSD Offices 148 S. Wilson St. Nipomo, CA
6/8/2011	NCSD Board Final Adoption Agenda Item XXX	NCSD Offices 148 S. Wilson St. Nipomo, CA

1.3 AGENCY COORDINATION

NCSD coordinated with multiple neighboring and stakeholder agencies in the preparation of this UWMP. The coordination efforts were conducted to: 1) inform the agencies of the activities of the District; 2) gather high quality data for use in developing this UWMP; and 3) coordinate planning activities with other related regional plans and initiatives. The coordination activities conducted by the District in preparation of this plan are summarized in Table 4.

Table 4. Agency Coordination[1]

Agency	Participated in developing the plan	Commented on the draft	Attended public meetings	Contacted for assistance	Sent an electronic copy of the draft plan through a website link	Sent a notice of intention to adopt	Notice of Plan Availability
California Department of Water Resources				X	X	X	X
California Urban Water Conservation Council (CUWCC)	X			X	X		
City of Santa Maria	X	X	X	X	X	X	X
County of San Luis Obispo Planning	X			X	X	X	X
County of San Luis Obispo Public Works					X	X	X
Golden State Water Company					X	X	X
LAFCO	X			X	X	X	X
Nipomo Mesa Management Area Technical Group	X			X	X	X	X
Northern Cities Management Area Technical Group					X	X	X
Rural Water Company					X	X	X
San Luis Obispo Coast Keeper					X	X	X
San Luis Obispo County Flood Control and Water Conservation District Water Resources Advisory Committee (WRAC)					X	X	X
Santa Maria Valley Management Area					X	X	X
SLOCOG	X			X	X	X	X
Woodlands Mutual Water Company					X	X	X

[1] This table will be updated to reflect final agency coordination actions prior to this UWMP being finalized.

1.4 SERVICE AREA DESCRIPTION

The Nipomo Community Services District (NCSD) was formed on January 28, 1965 to provide water and sewer services as allowed under the Community Service District Law of Government Code Section 61000 et. seq. The current NCSD service area boundary encompasses approximately 3,917 acres in the Nipomo area of southern San Luis Obispo County, and serves water to an estimated population of 12,148. NCSD's service area is primarily residential land uses, with some light commercial and suburban residential comprising the Nipomo village area. Figure 1 illustrates the District service area boundary relative to the County of San Luis Obispo and in relation to the Santa Maria Groundwater Basin.

The District is comprised of one water system with two pressure zones; one zone serves the Blacklake Specific Plan area, and the other zone serves the rest of the District's service area.

The District has a Sphere of Influence (SOI) consisting of 7 different SOI areas which cover approximately 4,339 acres. A SOI is defined by Government Code Section 56425 as "a plan for the probable physical boundary and service area of a local agency or municipality." SOIs generally represent area(s) adjacent to a jurisdiction where services might reasonably be expected to be needed in the next 20 years. Figure 2 illustrates the District's current service area and SOI boundaries as defined in the *July 2010 Sphere of Influence Update and Municipal Service Review for the Nipomo Community Services District* prepared by the San Luis Obispo Local Area Formation Commission (3). The SOI area designated SOI-5 is currently served water by the Golden State Water Company (GSWC). Because the District does not expect to provide retail water service to those parcels, SOI-5 was not included in any further analysis. The previous Sphere of Influence Study for the Nipomo area was done in May 2004. Seven of the eight study areas presented in the 2004 study are included in the current SOI. The Woodlands Area (Study Area 6) was left out of the District's SOI since it is served by Woodlands Mutual Water Company.

Figure 1. Nipomo Community Services District

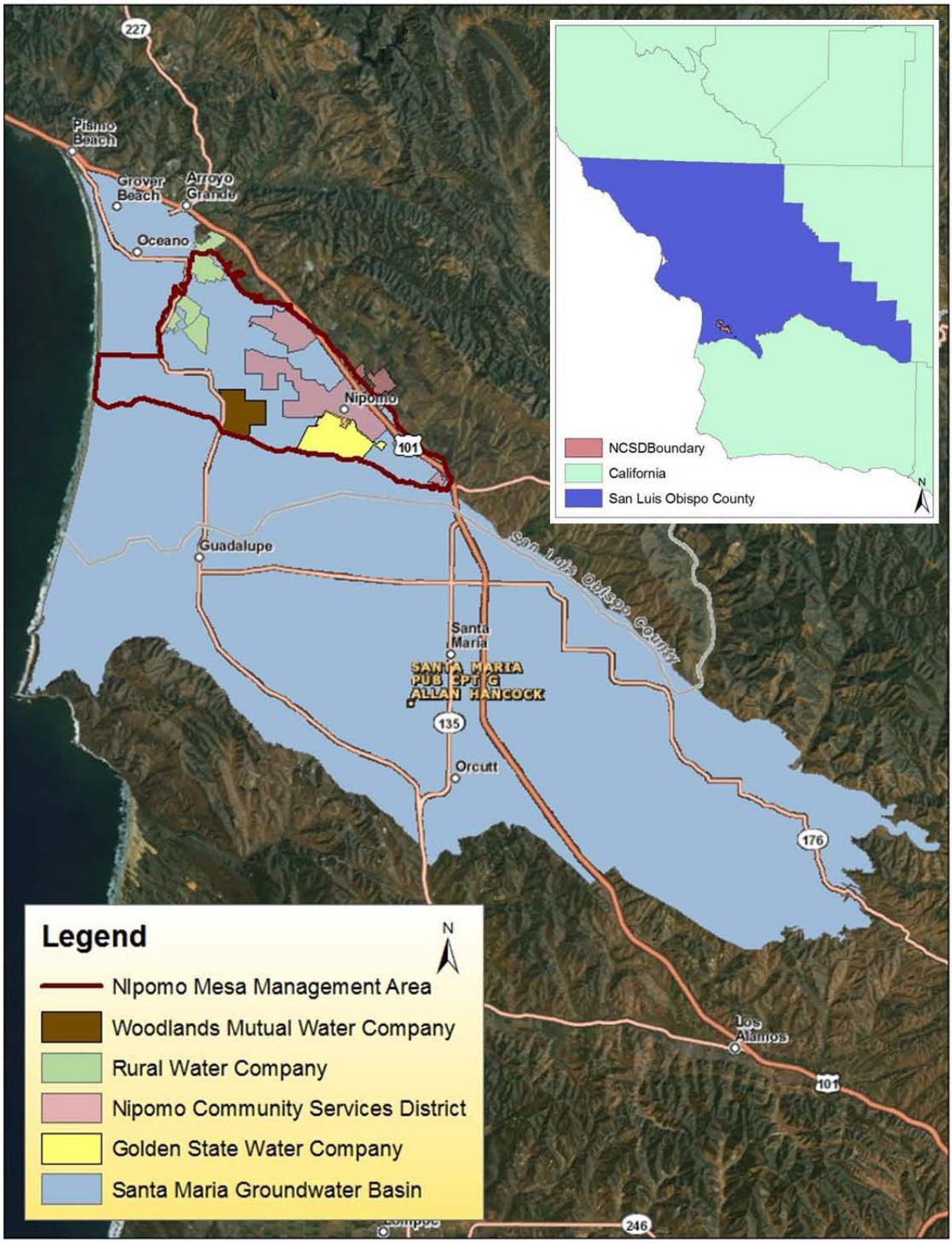
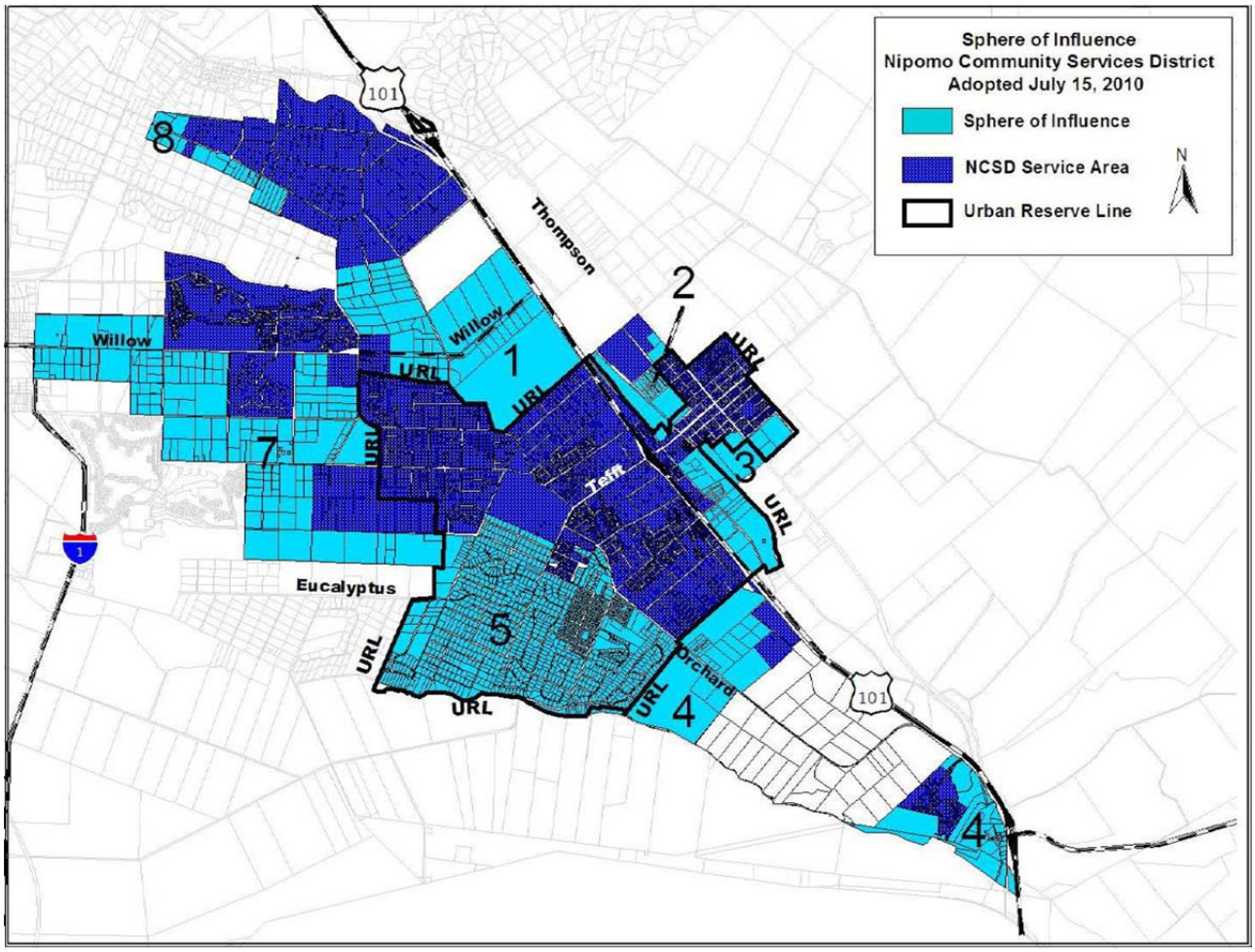


Figure 2. NCSD Service Area, Urban Reserve Line and SOI Boundaries (3)



1.5 CLIMATE

The Mediterranean climate of Nipomo and the surrounding southern San Luis Obispo County area is moderate as a result of the marine influence of the nearby Pacific Ocean. The winter season is usually cool and moist and the summer months are warm and dry, with relatively consistent temperatures averaging 57.3 degrees. Hills border Nipomo on the north, northeast, and east. The orientation of Nipomo's topography and surrounding hills facing the Pacific Ocean produces consistent winds from the Pacific in an on-shore, northwest direction. During the warmer summer months, heat rises above the surrounding hills, pulling in cooler moist air from the coast. As a result, temperatures stay relatively consistent. Rainfall usually occurs between the months of November and April. Table 5 illustrates monthly and annual average Potential Evapotranspiration (ETo), precipitation and temperature data for Nipomo. The average annual Potential Evapotranspiration (Average ETo) of 52.13-in is more than three times the average annual rainfall of 16.1-in. The stations used to gather data in Table 5 are shown in Figure 3.

Table 5. Climate

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Standard Monthly Average ETo(inches)[1]	2.21	2.5	3.8	5.08	5.7	6.19	6.43	6.09	4.87	4.09	2.89	2.28	52.13
Average Rainfall (inches)[2]	3.25	3.37	2.71	1.07	0.24	0.03	0.02	0.04	0.21	0.65	1.57	2.26	16.1
Average Temperature (Fahrenheit)[3]	51.1	52.6	53.4	55.2	57.6	60.4	63	63.5	63.3	60.7	56	51.5	57.3

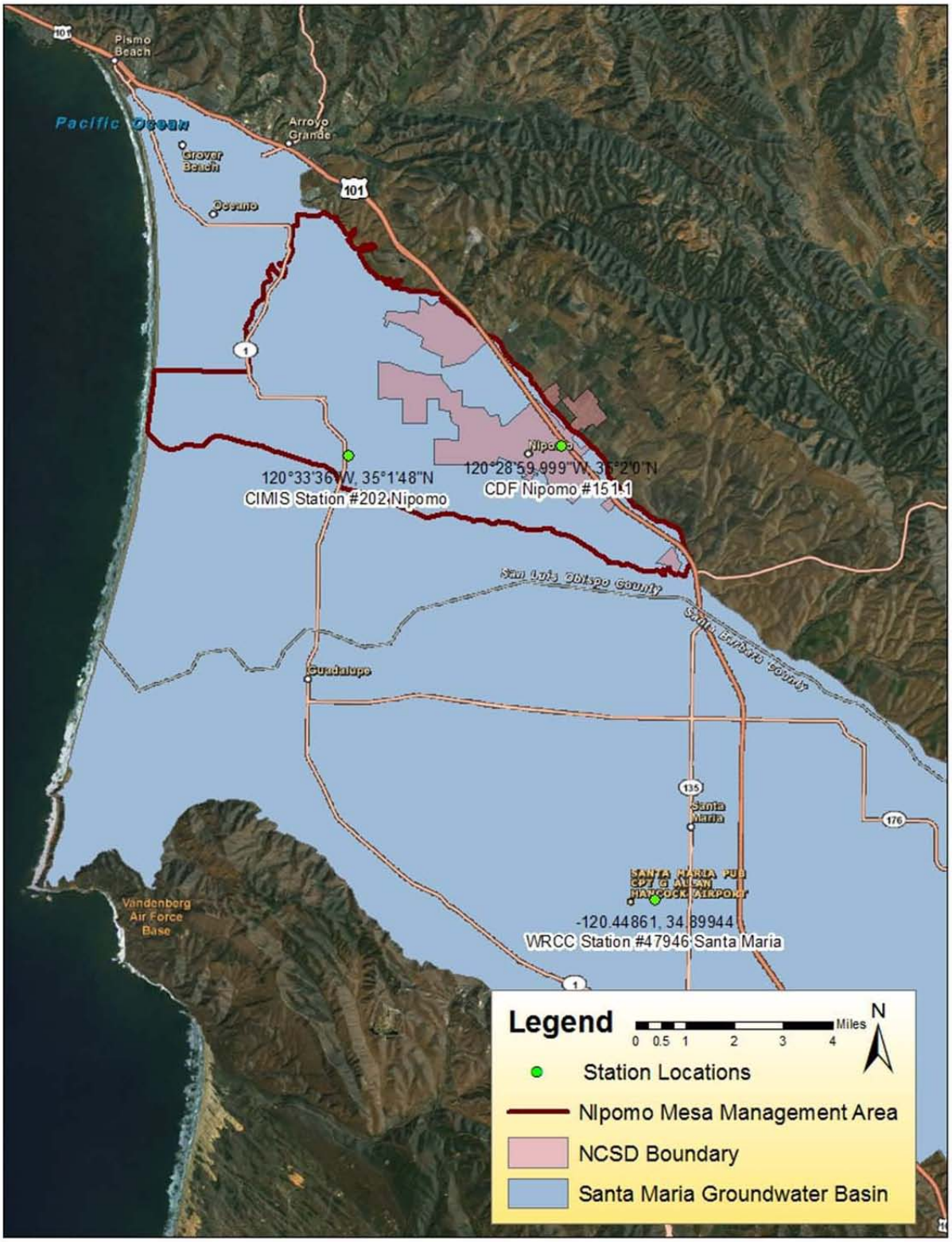
[1] Data from CIMIS Station #202 Nipomo, June 27, 2006-June 23, 2010 (4)

[2] Data from SLO County Public Works Volunteer Precipitation Station-CDF Nipomo #151.1, 1959-2009 (5)

[3] Data from WRCC station #47946 Santa Maria 1948-2009 records. (6)

NOTE: Santa Maria is similar to Nipomo in distance from the Pacific Ocean and is the nearest climate station. However, Santa Maria is a little warmer, windier, and is at a lower elevation.

Figure 3. Climate Station Locations



1.6 POPULATION PROJECTIONS

San Luis Obispo County's population has grown by 40% between the years of 1980-2000, 14% between 1990-2000, and 5% between 2000-2005 (7). This growth trend is shown in comparison to the overall growth in California in Figure 4. The recent economic decline starting in 2007 has contributed to a reduced growth rate.

From 1990 to 2009, the overall population in San Luis Obispo County grew from 217,162 to 266,971, equating to an average annual growth rate of approximately 1%. During the same period, the water customer population within NCSD's service area grew from 5,064 to 11,804, or an average annual growth rate of approximately 4.6%. By comparison, the unincorporated areas in the County grew at an annual rate of roughly 1.6% per year during the same period.

The population of the Nipomo census designated place (Nipomo CDP) has increased rapidly in the past twenty years (Figure 5). The 2010 population of 15,740 is more than double the 1990 population of 7,109.[1] The majority of the growth in the Nipomo area stems from the need for housing in the County. As a result of this rapid increase in population, there have been lasting and potentially severe effects on the groundwater basin. This increase in usage has contributed to the County Board of Supervisors declaring a Level of Severity III for the Nipomo Mesa Water Conservation Area, which is the highest severity level in the County General Plan's Resource Management System. In 2006, the County passed Ordinance 3090, which established the Nipomo Mesa Water Conservation area and stipulated:

> *1. General Plan Amendments and Land Divisions. Applications for general plan amendments and land divisions in the Nipomo Mesa Water Conservation Area shall include documentation regarding estimated existing and proposed nonagricultural water demand for the land division or development that could occur with the general plan amendment. If this documentation indicates that the proposed nonagricultural water demand exceeds the demand without the requested amendment or land division, the application shall include provisions for supplemental water as follows:*
>
> *a. General Plan Amendments. Where the estimated nonagricultural water demand resulting from the amendment would exceed the existing nonagricultural demand, the application shall not be approved unless supplemental water to off-set the proposed development's estimated increase in nonagricultural demand has been specifically allocated for the exclusive use of the development resulting from the general plan amendment, and is available for delivery to the Nipomo Mesa Water Conservation Area.*

[1] The NCSD boundary is different than the Nipomo CDP boundary. By comparison, the 1990 and 2010 populations within the NCSD are estimated to be 5,064 and 12,148, respectively.

b. Land Divisions. Where the estimated nonagricultural water demand resulting from the land division would exceed the existing nonagricultural demand, a supplemental water development fee shall be paid for each dwelling unit or dwelling unit equivalent, at the time of building permit issuance, in the amount then currently imposed by county ordinance, not to exceed thirteen thousand two hundred dollars. If the development resulting from the land division is subject to payment of supplemental water development fees to an entity other than San Luis Obispo County, the amount of these other fees shall be deducted from the county fee.

Historic, current and projected populations for the NCSD service area through 2030 are shown in Table 6. Appendix B provides a detailed discussion of the source data and methodologies used to develop population estimates and projections for this UWMP.

Figure 4. County and State Population

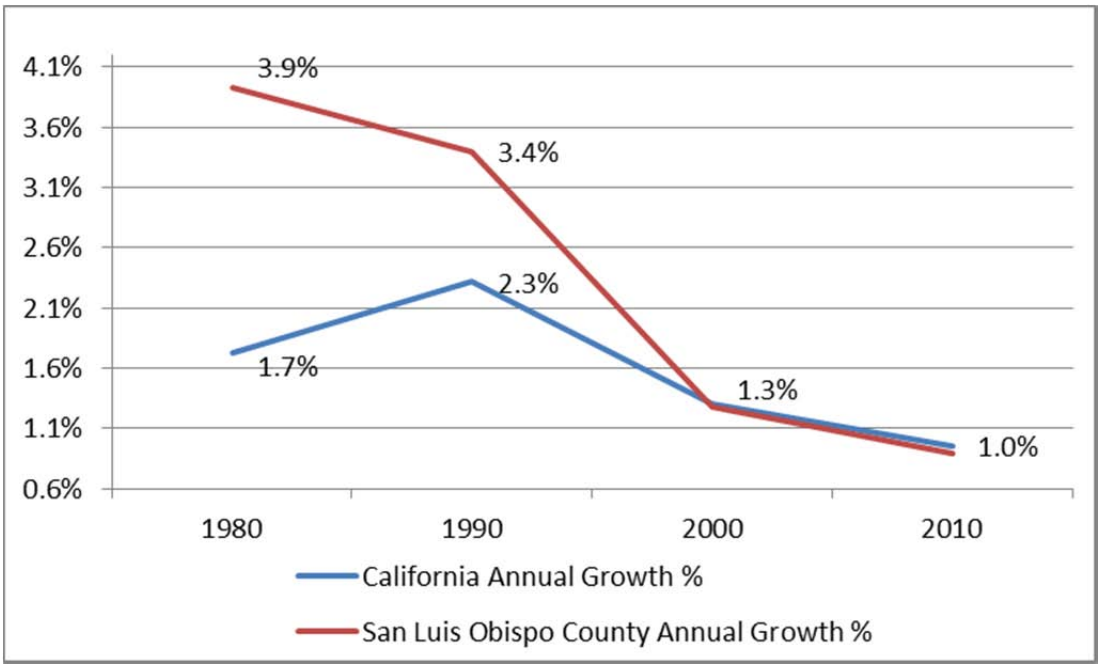
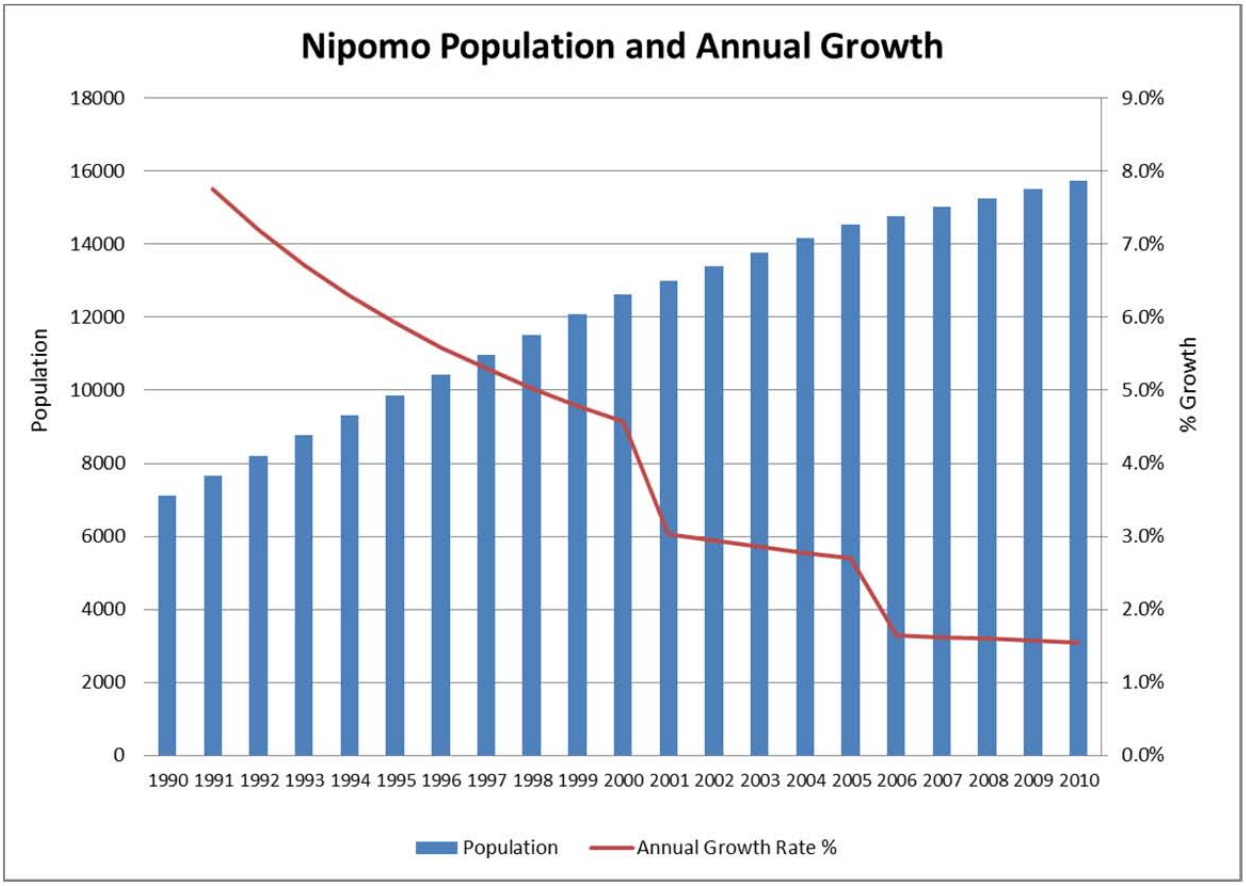


Figure 5. Population and Annual Growth[1]



[1] Data interpolated from SLOCOG data for the years 1990, 2000, 2005, and 2010. This population data is for the Nipomo Census-Designated Place and differs from the population within the NCSD service area calculated in the Baseline Daily Per Capita Water Use Technical Memorandum. Sources: (8) (9) (10)

Table 6. NCSD Service Area Historic, Current and Projected Population

Year	Estimated Population Served within NCSD [1]	Annual Growth Rate[2]
1990	5,064	N/A
1995	6,921	N/A
2000	8,706	N/A
2005	10,736	N/A
2010	12,148	1.8%
2015	13,074	1.5%
2020	13,878	1.2%
2025	14,699	1.2%
2030	15,662	1.3%

[1] Population based on 1990, 2000 and 2010 census data and SLOCOG growth rates. See Appendix A for additional information regarding population estimates and projections.

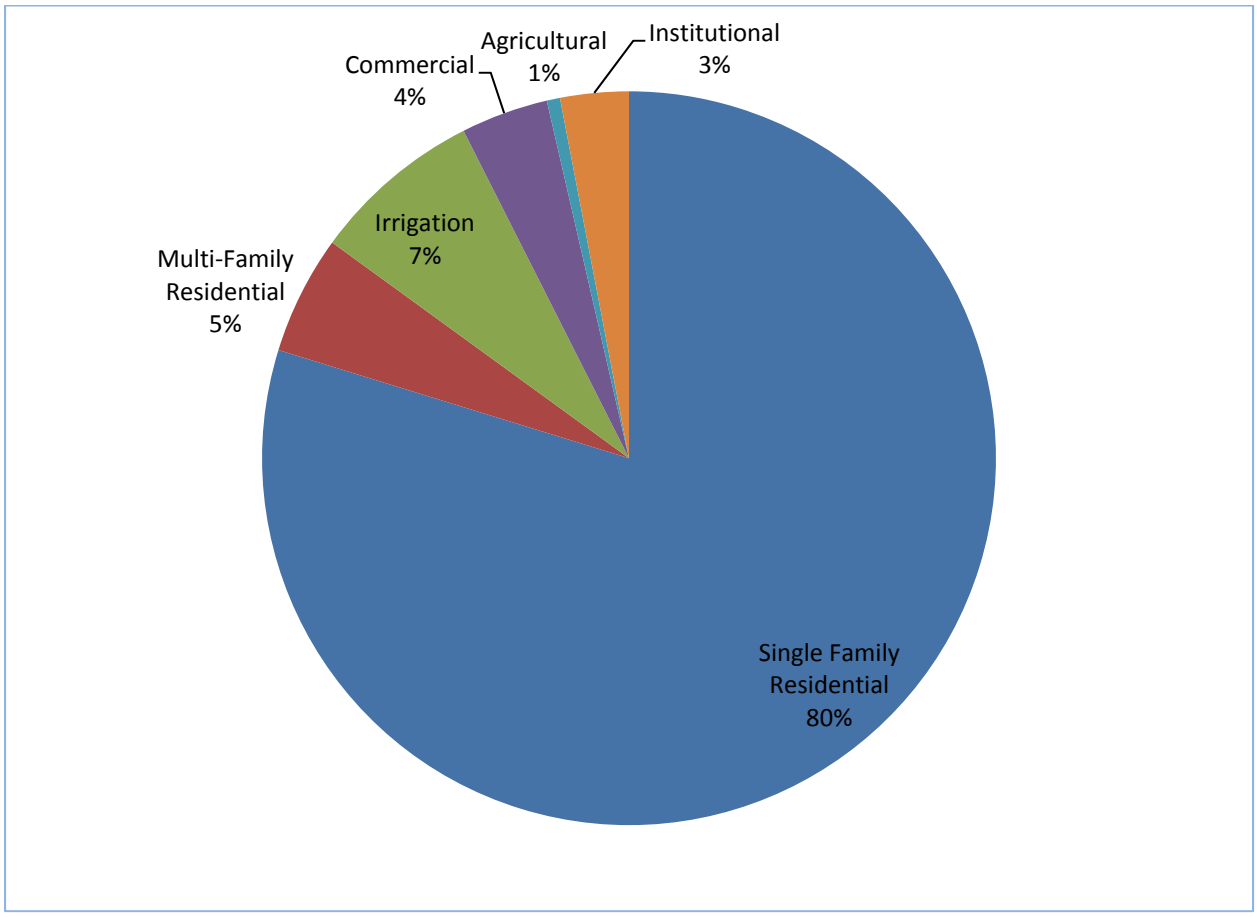
[2] Growth rates based on June 2009 SLOCOG projections for the Nipomo URL prepared by ERA and County staff (Medium Growth Estimate).

1.7 OTHER DEMOGRAPHIC FACTORS

Aside from population, there are several demographic factors that are important to consider in the context of this UWMP:

1. The current development in Nipomo is mainly residential (Figure 6).
2. The County Housing Element identifies Nipomo as a place with realistic development capacity for low-income to above moderate income residential uses (7).
3. The County has a need for additional housing units and Nipomo is one of the unincorporated communities expected to absorb population increases.
4. Development in the Nipomo area has slowed recently as a result of economic conditions and water supply constraints. The County has declared a Level of Severity III for Nipomo's water supply, which means existing community demands exceed the capacity of that resource. According to the County Housing Element, NCSD is expected to take the lead in addressing this issue (7).

Figure 6. Water Demand by Use Sector in NCSD



2 WATER SUPPLY

The District's current supply is entirely groundwater from the Santa Maria Groundwater Basin and the Nipomo Valley. The Nipomo Valley is not considered a reliable source for future use and is not discussed in detail. The Santa Maria Groundwater Basin supply is described in more detail in the following sections.

2.1 SANTA MARIA GROUNDWATER BASIN

Underlying NCSD is a portion of the Santa Maria Groundwater Basin (Figure 1). The Santa Maria Groundwater Basin covers about 288 square miles. It is bordered by the Santa Lucia mountain ranges to the north, the Casmalia-Solomon Hills to the south, the San Rafael Mountains to the east, and the Pacific Ocean to the west. The geologic makeup of the Santa Maria Groundwater Basin is composed of alluvial deposits including gravel, sand, silt, and clay. The estimated thickness ranges from 200 to 3,000 feet (8). This layer of alluvial deposits covers underlying consolidated rock which usually yields small quantities of water. Most of the water is contained in the alluvial sediments. Recharge of the Santa Maria Groundwater Basin occurs in four main ways: rainfall percolation, river bed recharge, subsurface inflows, and return flows.

The Santa Maria Groundwater Basin has been the subject of ongoing litigation since 1997. NCSD signed a June 30, 2005 Stipulation in the case that was ultimately approved by the Court and incorporated into the final judgment ("Judgment") that was filed on January 25, 2008 (Appendix C). The Court has the jurisdiction to make orders to enforce the rights of the parties outlined in the judgment. The Stipulation has five primary effects:

1. For purposes of management only, it divides the Santa Maria Valley Groundwater Basin into three separate administrative management sub-areas (the Northern Cities Management Area (NCMA), the Nipomo Mesa Management Area (NMMA), and the Santa Maria Valley Management Area (SMVMA).
2. It establishes a Technical Group for the NMMA (NMMA TG) that includes representatives appointed by NCSD, Southern California Water Company (SCWC) [1], ConocoPhillips, Woodlands Mutual Water Company (WMWC) and an agricultural overlying owner that signed the Stipulation.
3. It provides that a minimum of 2,500 afy of supplemental water from the City of Santa Maria be transmitted to the NMMA by NCSD with funding participation from Woodlands Mutual Water Company, Golden State Water Company, and Rural Water Company.
4. It contains specific provisions with regard to groundwater conditions, development of groundwater monitoring programs, and development of plans and programs to respond to Potentially Severe and Severe Water Shortage Conditions.

[1] Now known as Golden State Water Company (GSWC)

5. It contains provisions that each management area prepare an annual report to summarize monitoring results, water balance data and threats to groundwater supplies. The NMMA TG filed its 2009 annual report with the Superior Court in June 2010 (9).

2.1.1 Nipomo Mesa Management Area

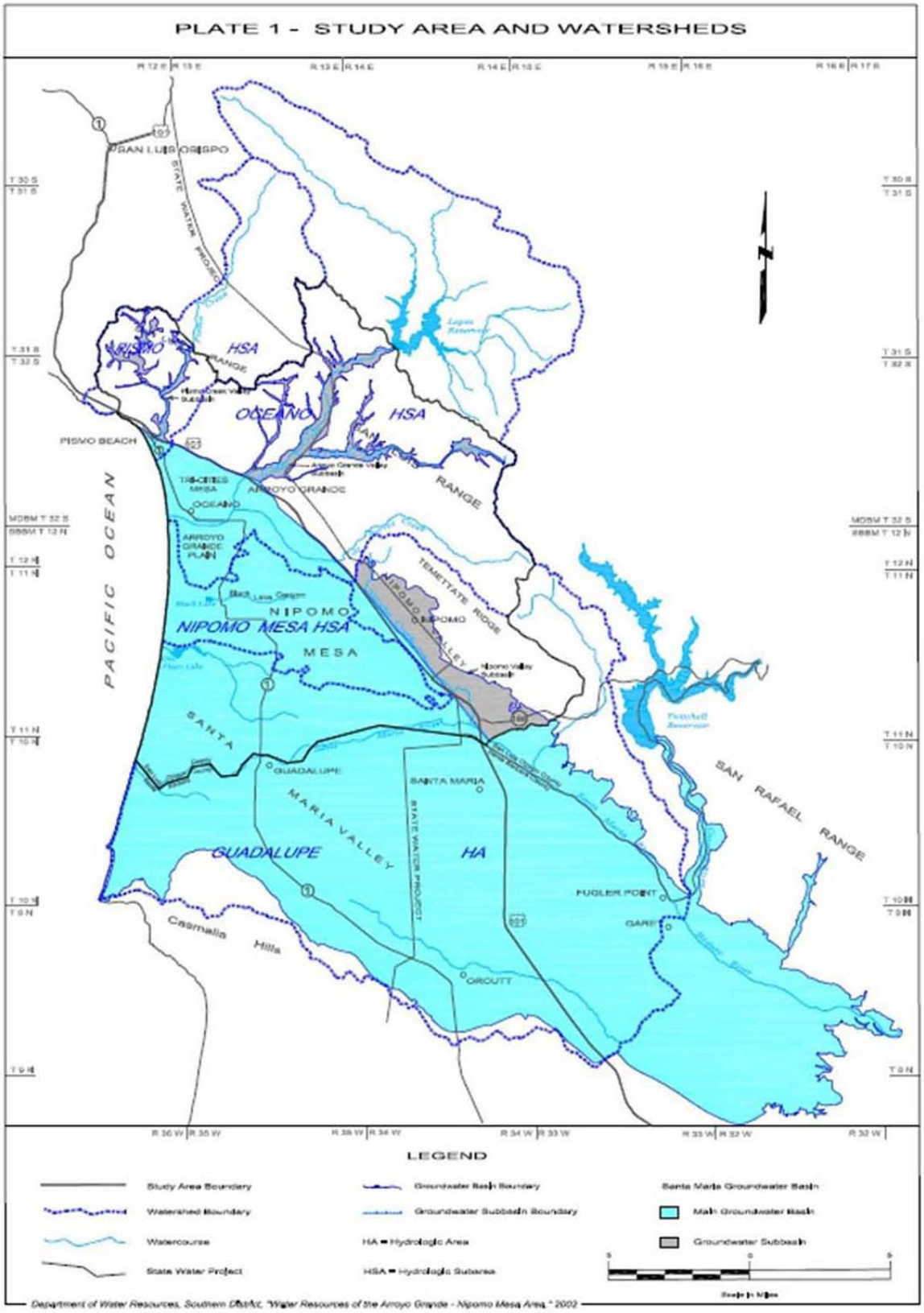
The Nipomo Mesa Management Area (NMMA) is an administrative management sub-area of the Santa Maria Groundwater Basin. The NMMA is bordered on the north by the Northern Cities Management Area (NCMA) and on the south by the Santa Maria Valley Management Area (SMVMA). A depiction of the NMMA and stipulating water purveyors is shown in Figure 1.

The NMMA covers approximately 33 square miles or 21,100 acres, which accounts for approximately 13 percent of the Santa Maria Groundwater Basin (9). The geology underlying the NMMA is comprised of 150 to 250 feet thick sand dune deposits overlying the Paso Robles Formation, the primary groundwater aquifer. There are no significant streams within the NMMA and the sand dune deposits are highly porous and permeable. Recharge to the aquifer only occurs through precipitation, agricultural and urban return flows, and subsurface inflows.

In 2002, DWR prepared a report entitled *Water Resources of the Arroyo Grande-Nipomo Mesa Area* (10) which evaluated the hydrologic and hydrogeologic conditions within the Santa Maria Groundwater Basin and the Nipomo Mesa Hydrogeologic Subarea (NMHSA). As shown in Figure 7, the NMHSA closely matches the boundary of the NMMA. In this report, DWR documented conditions of groundwater extraction exceeding recharge within the NMHSA dating back to the mid-1970s. DWR estimated Dependable Yield for NMHSA to be between 4,800 and 6,000 afy, and projected pumping from within the NMHSA to equal 7,800 afy in 2010 (10). DWR defined Dependable Yield as follows:

> *"… the average quantity of water that can be withdrawn from the basin over a period of time (during which water supply conditions approximate average conditions) without resulting in adverse effects, such as sea water intrusion, subsidence, permanently lowered groundwater levels, or degradation of water quality."*

Figure 7. Nipomo Mesa Hydrogeologic Subarea (10)



In June, 2003, San Luis Obispo County retained S.S. Papadopulos & Associates, Inc. to conduct a resources capacity study of the Nipomo Mesa area to further clarify the analysis and conclusions from the 2002 DWR report (8). The Papadopulos report confirmed that "…existing and projected future water demand at Nipomo Mesa exceeds sustainable groundwater supply…" and projected that continued mining of groundwater in storage will likely be "accompanied by reduced production capacity from many wells, increased energy costs for pumping, and increased risk of seawater intrusion of the aquifers near the coastal margin" (8).

Based in part on the findings of the 2004 Papadopulos report, the County's Water Resources Advisory Committee (WRAC) concluded that overdraft in the Nipomo Mesa area either exists currently or is imminent. Based on recommendations from the Papadopulos report, the Board of Supervisors determined a Level of Severity II for the Nipomo Mesa in November of 2004, and in April of 2007 certified the Level of Severity to a Level of Severity III. The County's Resource Management System as described in the County's *Framework for Planning* section of the General Plan defines a Level of Severity III:

> *"Level of Severity III exists when water demand equals the available resource; the amount of consumption has reached the dependable supply of the resource. A Level III may also exist if the time required to correct the problem is longer than the time available before the dependable supply is reached."*

The NMMA TG 2009 Annual Report estimated total production from the NMMA to be 12,200 afy, roughly three times the estimated Dependable Yield from the 2002 DWR report, and stated:

> *"Although the hydrologic inventory cannot be used directly to calculate the potential imbalance in supply and demand for calendar year 2009, there are a number of direct measurements that indicate that demand exceeds the ability of the supply to replace this water pumped from the aquifers. These indicators include: 1) continuing deepening of the pumping depression in the NMMA, a portion of which is below sea level; 2) declining groundwater elevations as indicated by the Key Well Index and groundwater contours; 3) a limited component of seaward flow at the coast; 4) a flattening of the groundwater ridge between coastal and inland wells that protects inland areas from potential seawater intrusion; and 5) a threat on the north by the occurrence of seawater intrusion in the Deep Aquifer there."* (9)

In addition to those described above, the 2009 Annual Report for the NMMA includes several key findings, further reinforcing the severity of the water supply conditions in the NMMA:

- The NMMA TG recommends that the Nipomo Supplemental Water Project be implemented as soon as possible.

- The Key Wells Index for spring 2009 is below the groundwater elevation criterion established to indicate a Potentially Severe Water Shortage Condition, triggering a voluntary response plan. [1]
- The period of analysis (1975-2009) used by the NMMA TG is roughly 11 percent "wetter" on average than the long-term record (1920-2009) indicating there is a slight bias toward overstating the amount of local water supply resulting from percolation of rainfall. The 1920-2008 record of cumulative departure from mean rainfall is shown in Figure 12.

Through the proceedings of the adjudication, the Court did not take action to restrict pumping within the NMMA, however it retains ongoing jurisdiction to impose pumping restrictions on the basis of changing conditions. The Judgment included the following statement related to the condition of the Santa Maria Groundwater Basin:

> *"The Court determines that there is a reasonable likelihood that drought and overdraft conditions will occur in the [Santa Maria Groundwater] Basin in the foreseeable future that will require the exercise of the Court's equity powers. The Court therefore retains jurisdiction to make orders enforcing the rights of the parties hereto in accordance with the terms of this judgment."*

The following figures from the 2009 NMMA annual report are included here: Figure 8. Historic Pumping within the NMMA ; Figure 9. Spring 2009 Groundwater Elevation Contour Map; Figure 10. Fall 2009 Groundwater Elevation Contour Map; Figure 11. NMMA Key Wells Index ; and Figure 12. Cumulative Departure from Mean Rainfall within the NMMA .

[1] SAIC produced a report for NCSD on the 2010 spring Groundwater Index (GWI). This report states that the GWI for spring 2010 is 80,000 acre feet, which is 4,000 acre feet greater than the spring 2009 GWI. The Key Well Index from the NMMA 2nd Annual Report- Calendar Year 2009 generally follows the same historical trends as the GWI (12).

Figure 8. Historic Pumping within the NMMA (9)

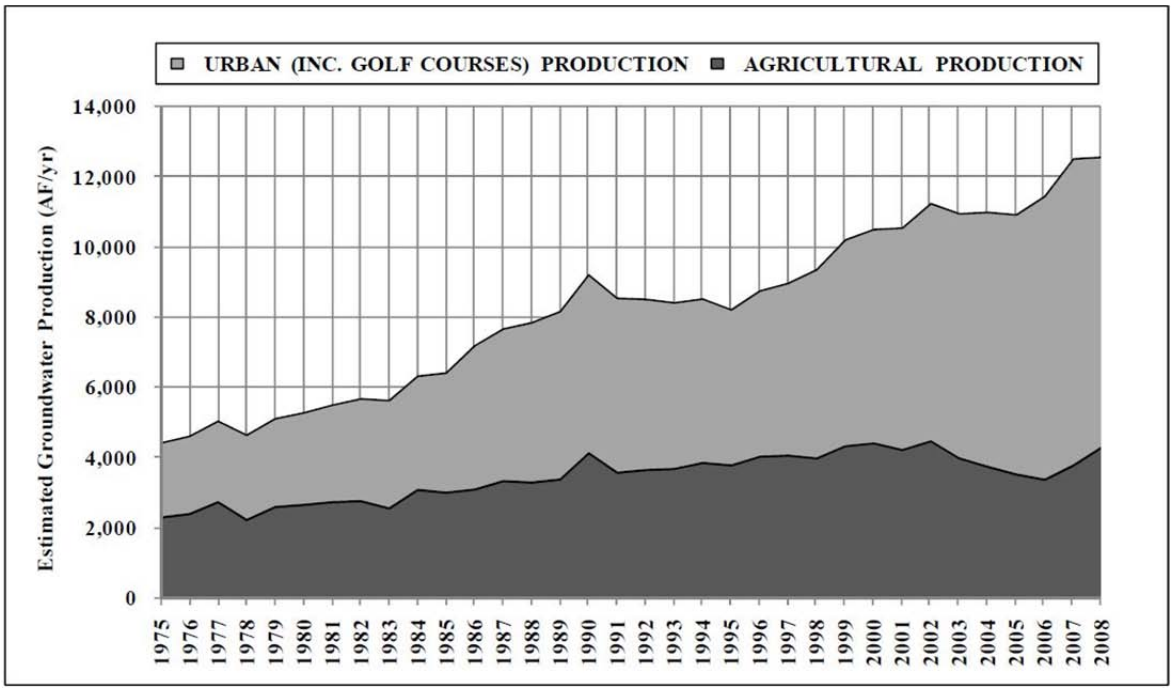


Figure 9. Spring 2009 Groundwater Elevation Contour Map (9)

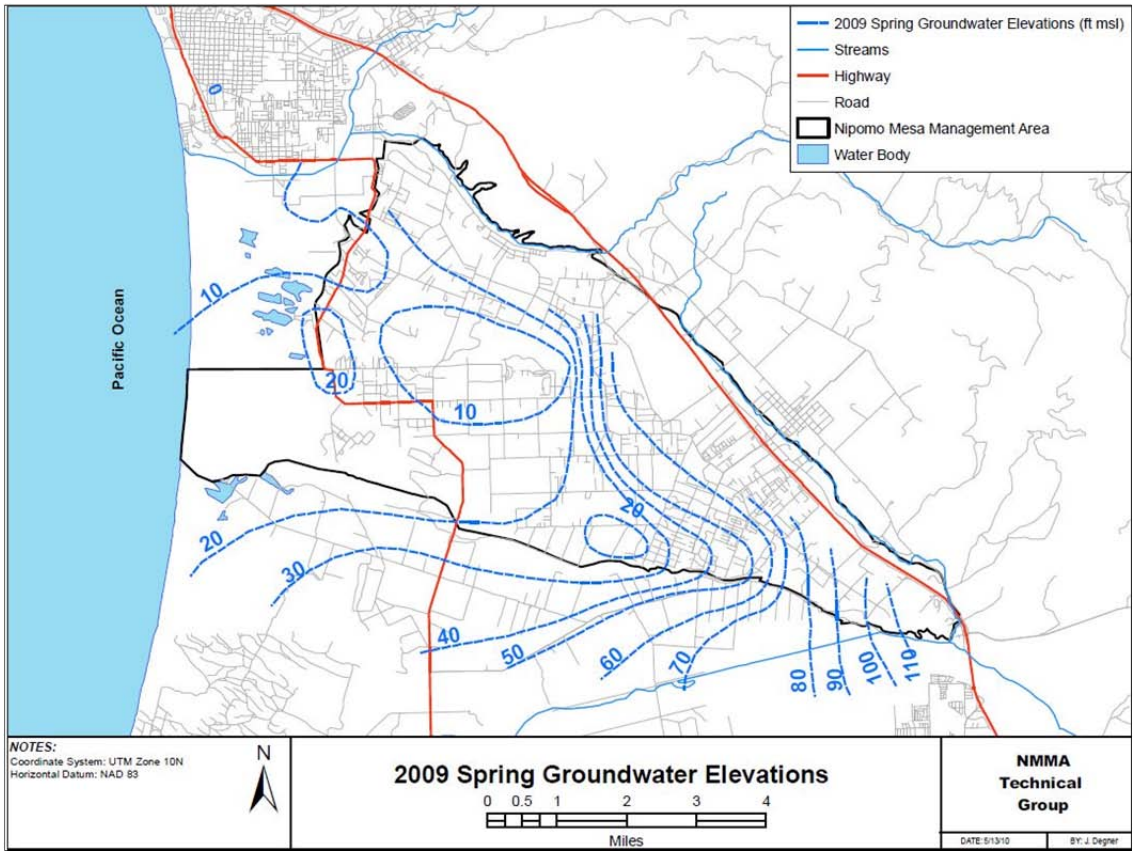


Figure 10. Fall 2009 Groundwater Elevation Contour Map (9)

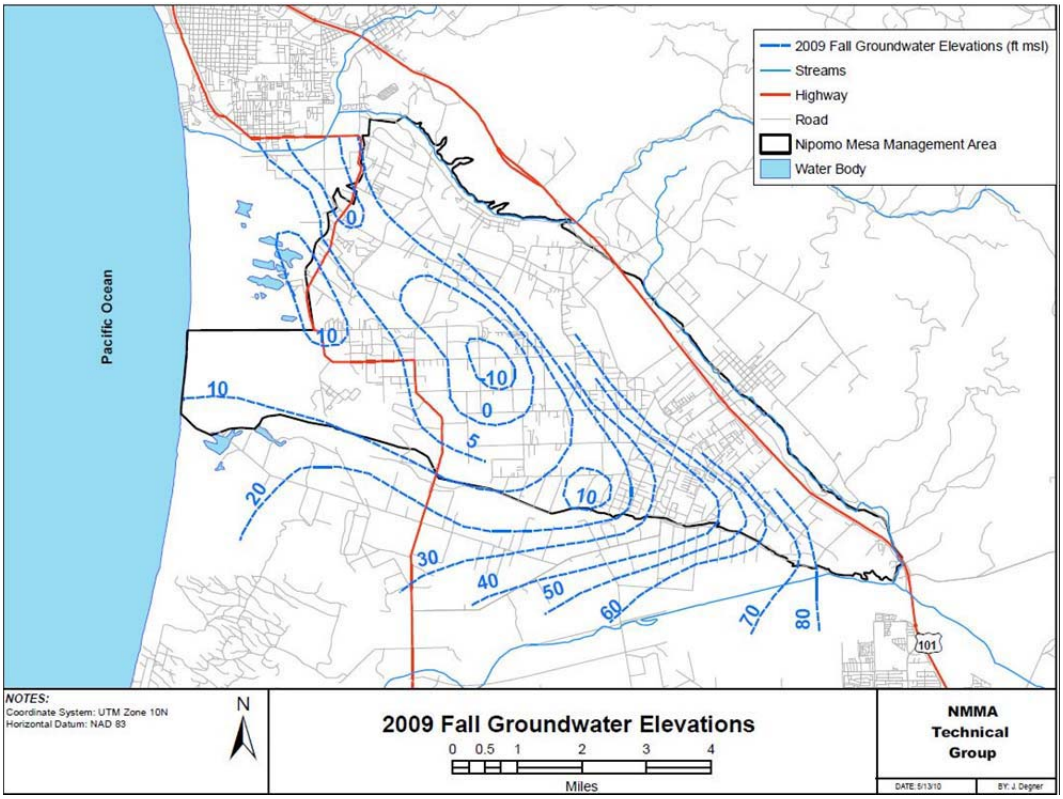


Figure 11. NMMA Key Wells Index (9)

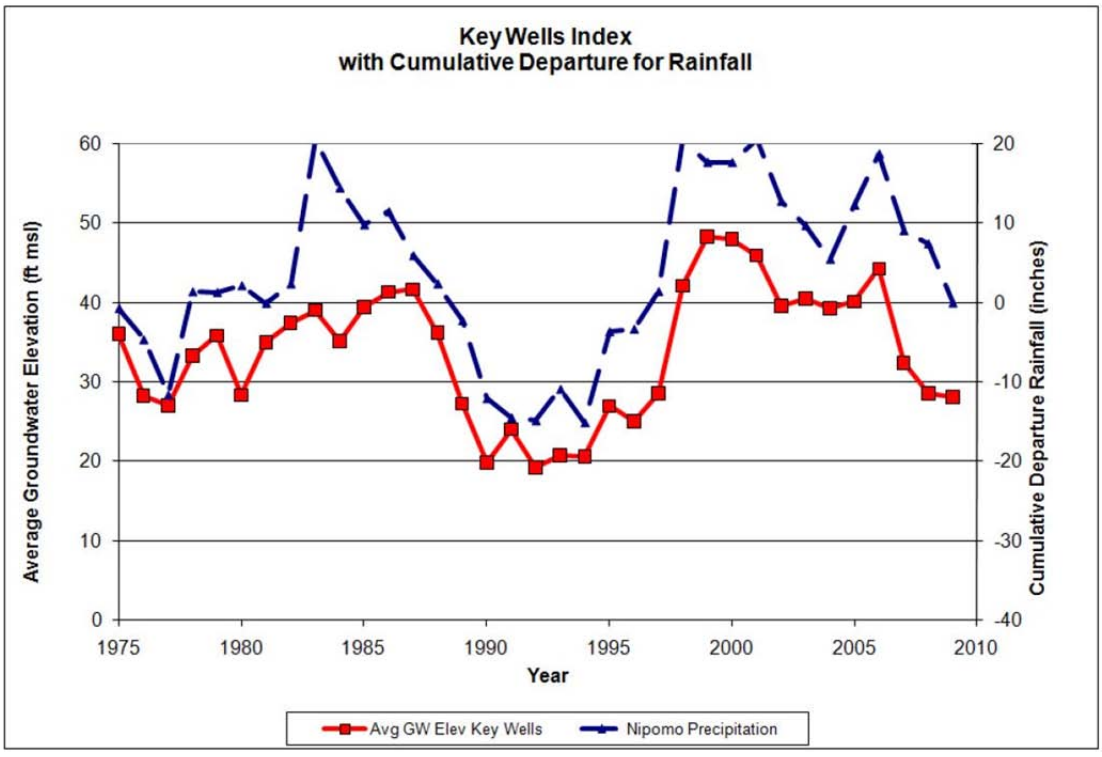
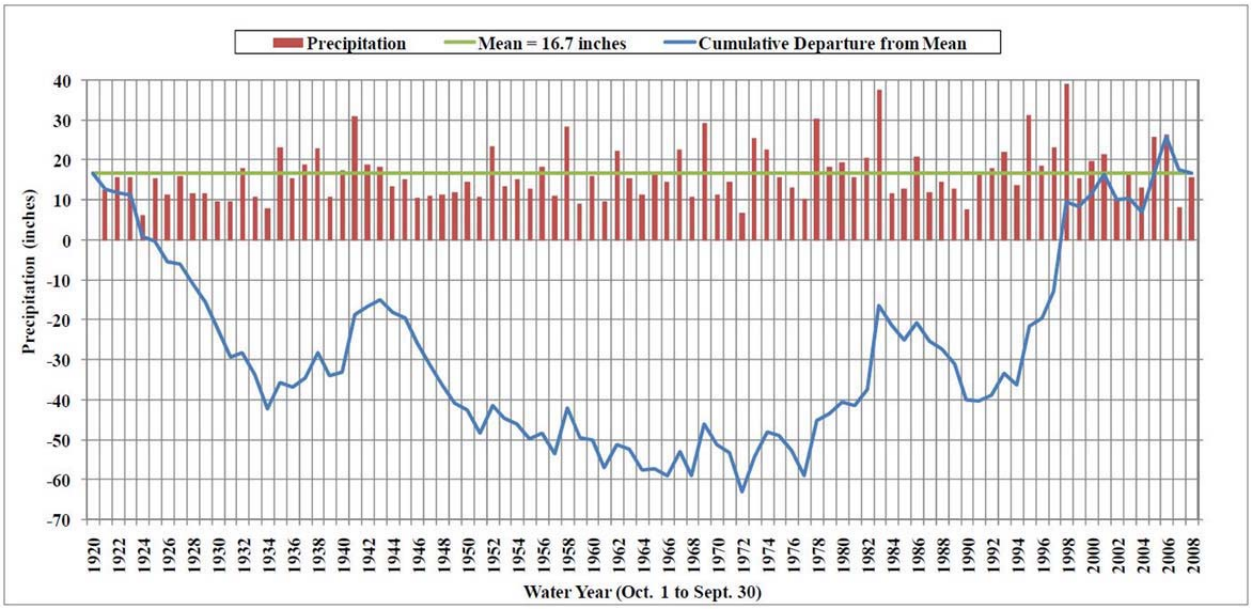


Figure 12. Cumulative Departure from Mean Rainfall within the NMMA (9)



2.2 NCSD GROUNDWATER SUPPLY

NCSD receives all of its water supply from groundwater in the Santa Maria Groundwater Basin and Nipomo Valley. The District has eleven wells in the NMMA and two wells in the Nipomo Valley (Church and Savage). The Church well is on standby and the Omiya and Savage wells are out of service due to operational and water quality issues. The Cheyenne and Mandi wells would need to be completed and activated per the conditions of their California Department of Public Health operating permits to achieve their estimated pumping capacity of 100 gpm. The combined pumping capacity of the active wells is estimated to be about 3,920 gpm (11). Table 7 summarizes the District's wells, Table 8 summarizes NCSD's storage tanks, and Figure 13 illustrates the locations of the District's wells and tanks.

Table 7. NCSD Wells

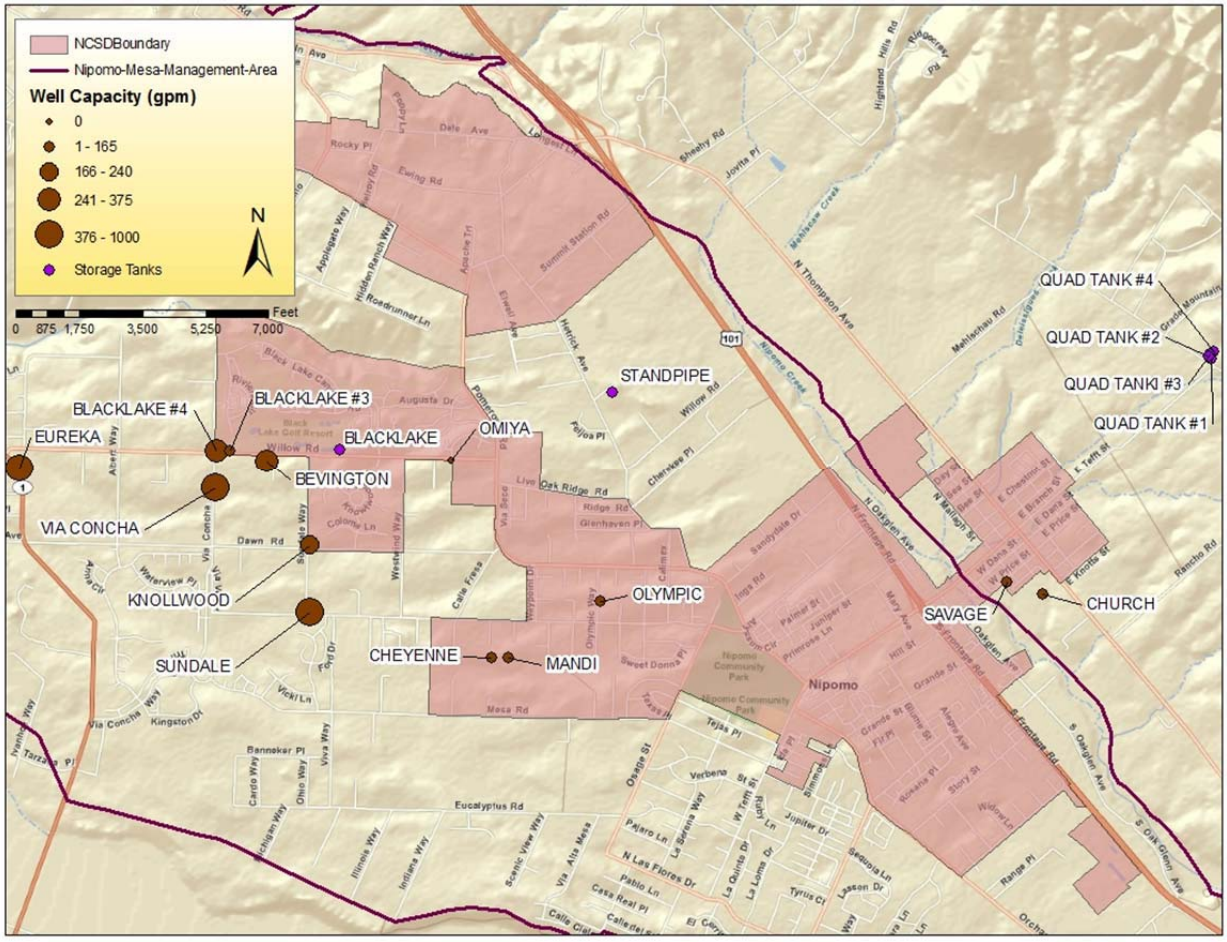
NAME	Source	Date Installed, Last Refurbished, or Last Replaced	Status	Capacity (gpm)	Well Depth (ft)
Active Wells					
BEVINGTON	NMMA	1985	Active	370	590
BLACKLAKE #3	NMMA	1984	Active	165	560
BLACKLAKE #4	NMMA	1989	Active	375	530
EUREKA	NMMA	1979	Active	890	727
KNOLLWOOD	NMMA	2001	Active	240	620
OLYMPIC	NMMA	1985	Active	130	465
SUNDALE	NMMA	1998	Active	1,000	680
VIA CONCHA	NMMA	1992	Active	750	710
Standby and Out of Service Wells					
CHURCH	Nipomo Valley	1984	Standby	145	240
CHEYENNE [1]	NMMA	1990	Not Yet Operational	100	475
MANDI [1]	NMMA	1990	Not Yet Operational	100	465
OMIYA	NMMA	1988	Out of service	0	485
SAVAGE	Nipomo Valley	1965	Out of service	124	330

[1] Cheyenne and Mandi would need to be completed and activated per the conditions of their California Department of Public Health operating permits to achieve their estimated pumping capacity of 100 gpm.

Table 8. NCSD Tanks

Name	Type	In-service Date	Capacity (gal)	Diameter (ft)
QUAD TANK #1	Steel	1966	500,000	60
QUAD TANK #2	Steel	1978	500,000	60
BLACKLAKE	Steel	1984	400,000	66
STANDPIPE	Steel	1993	1,000,000	44
QUAD TANK #3	Steel	2000	1,000,000	86
QUAD TANK #4	Steel	2003	1,000,000	86

Figure 13. Wells and Storage Tanks



NCSD's right to pump groundwater from the Santa Maria Groundwater Basin, which includes three administrative management areas, including the NMMA, is considered to be an appropriative right. Other appropriators include Golden State Water Company, Rural Water Company, the cities of Santa Maria and Guadalupe, and the cities and other public water suppliers located north of the NMMA, but still in the Basin. NCSD's appropriative right allows it to produce available groundwater surplus to the needs of overlying water producers located in the Basin, all subject to the provisions of the Judgment entered in the Basin adjudication, now on appeal. Should the NMMA ever be separately adjudicated, NCSD would have the opportunity to establish prescriptive rights to pump water from the NMMA which would be of equal priority to the overlying producers' right to do so.

Pursuant to the Stipulation and subsequent Judgment, the NMMA TG can declare a Severe Water Shortage Condition, and the Court may then order subsequent mandatory pumping restrictions on overlying landowners and/or holders of appropriative rights, including NCSD.

For the purposes of this UWMP, NCSD's appropriative access to water in the NMMA is approximated by the District's maximum annual historical pumping of 2,900 afy, since this value:

1. Represents maximum historical reasonable and beneficial use; and
2. There are currently no restrictions imposed by the Court limiting groundwater pumping.

Table 9 shows NCSD's pumping based on maximum historical pumping of water underlying the NMMA of 2,900 afy and the potential pumping capacity in the Nipomo Valley of 300 afy. It is important to note that NCSD's pumping in the NMMA is subject to change based on basin conditions and/or Court action (as described previously), and does not accurately reflect the sustainable supply. The Nipomo Valley supply is not within the NMMA and is currently not subject to the terms of the adjudication. Table 10 shows NCSD's historical production from 2005-2009. Since 2005, NCSD's pumping from the NMMA has been less than 2,900 afy.

Table 9. NCSD's Groundwater Pumping

Groundwater Source	Pumping (afy)
Santa Maria Groundwater Basin[1]	2,900
Nipomo Valley	300
Total	3,200

[1] Pumping is subject to the Santa Maria Groundwater Basin Adjudication and any subsequent Court action in the Adjudication proceedings.

Table 10. Historical Pumping

Groundwater Source	2005	2006	2007	2008	2009
Santa Maria Groundwater Basin[1] (afy)	2,794	2,727	2,839	2,755	2,698
Nipomo Valley (afy)	0	0	17	0	0
% of total water supply	100%	100%	100%	100%	100%

[1] Data from DWR reports rounded to the nearest afy

The amount of future pumping will decrease upon the implementation of a supplemental water supply source. The projected pumping in Table 11 is based upon the assumption that the Santa Maria Supplemental Water Supply Project is planned to be implemented by 2013 as envisioned in the Final Environmental Impact Report (discussed further in Section 2.3), and that groundwater pumping will not exceed the difference between total demand within the NCSD service boundary and the delivered supply from the Supplemental Water Supply Project. In other words, the supplemental water will be used as a "base load" to meet demand, reducing the amount of water extracted by NCSD from the Basin.

Table 11. Projected Groundwater Pumping, afy

Basin Name	2010	2015	2020	2025	2030
Nipomo Mesa Management Area (NMMA)[1]	2,367	1,404	1,588	1,275	1,495
Nipomo Valley Groundwater	0	0	0	0	0
% of total water supply	100%	46.98%	50.06%	37.96%	41.77%

[1] It is assumed that the Supplemental Water Supply Project will be implemented by 2013. The Wholesale Water Supply Agreement provides a minimum delivery of 2,000 afy for years one through ten (years 2013-2023); 2,500 afy for years 11 through 19 (2024-2032); and 3,000 afy for years twenty through the end of the contract (2033-end of term) (Appendix D). The District will receive 100% of the supplemental water delivered per the requirements of the Judgment. Groundwater pumping will equal the demand not met by supplemental water.

2.3 WHOLESALE SUPPLIES

For nearly ten years, NCSD has been formally evaluating multiple alternative sources for a supplemental water supply (12) (13). Following extensive study and analysis, the District has decided to pursue a Supplemental Water Supply Project with the City of Santa Maria. The District currently has a sales agreement with the City of Santa Maria (Appendix D) and a completed Final Environmental Impact Report (FEIR) for the Supplemental Water Supply Project (14). Design is progressing, and the project is expected to be brought on-line by 2013.

The District currently plans to form an assessment district to finance the capital portion of the Supplemental Water Supply Project, which will be put to a land owner ballot in compliance with Proposition 218. Table 12 shows how much water is expected to be delivered by the Supplemental Water Supply Project to NCSD if implemented by 2013.

Table 12. Projected Wholesale Supplies

Wholesale Supplier	2010	2015	2020	2025	2030
City of Santa Maria[1] (afy)		2,000	2,000	2,500	2,500

[1] It is assumed that the Supplemental Water Supply Project will be implemented by 2013. The Wholesale Water Supply Agreement provides a minimum delivery of 2,000 afy for years one through ten (years 2013-2023); 2,500 afy for years 11 through 19 (2024-2032); and 3,000 afy for years twenty through the end of the contract (2033-end of term) (Appendix D). The District will receive 100% of the supplemental water delivered per the requirements of the Judgment. The available groundwater supply will only equal the demand not met by supplemental water.

The proposed delivered amounts of water from the Supplemental Water Supply Project shown in Table 12 reflect the minimum deliveries as scheduled in the Wholesale Water Supply Agreement (Appendix D) for NCSD if the project is implemented by 2013. Phase I[1] of the Supplemental Water Supply Project could deliver up to 3,000 afy. However, the sales agreement with the City of Santa Maria provides 3 stages of minimum purchasing commitment: 1) Delivery Years 1 through 10- 2,000 afy; 2) Delivery Years 11 through 19- 2,500 afy; 3) Delivery Years 20 through end of term- 3,000 afy. The Judgment requires NCSD to purchase 66.68%, Woodlands Mutual Water Company to purchase 16.66%, Golden State Water Company to purchase 8.33%, and Rural Water Company to purchase 8.33% of the delivered 2,500 afy. According to the FEIR, Phase I

> *"will supply water only to customers in the current NCSD boundaries and other water purveyors in the NMMA, specifically the Woodlands Mutual Water Company, Golden State Water Company and Rural Water Company. Only in [Phase II] will water be made available to new customers in the 2004 Sphere of Influence Areas that are annexed into the NCSD boundaries"* (14).

Phase II of the Supplemental Water Supply Project, if implemented, would deliver an additional 3,200 afy, bringing the total amount of supplemental water delivered to the NMMA from the Supplemental Water Supply Project to 6,200 afy (14).

2.4 DESALINATED WATER

Although the Board does not anticipate implementing desalination within the term of this UWMP (prior to 2030), the District believes desalination is a viable option for long-term water supply for the District, for the following reasons:

1. The costs for implementing desalination are expected to continue to decrease as technology advances and more plants are permitted and built in California.
2. Desalination represents a local source of water that has the potential to be much more reliable than alternative supplies.
3. Viability of desalination is increasing as evidenced in the California Water Plan Update 2009 by the 26 desalting plants currently operating with a total capacity of approximately 84,000 afy in California as of 2009, 33 plants in design and construction with a combined capacity of 164,700 afy, and 49 plants planned or projected with a combined capacity of 479,000 afy (15).

2.5 FUTURE WATER SUPPLY PROJECTS

The District plans to obtain supplemental water from the Santa Maria Supplemental Water Supply Project as described in Section 2.3. Table 13 illustrates the future supply contract term of the Supplemental Water Supply Project. It is assumed that the District will sell some of its wholesale supply to Golden State Water Company and Rural Water Company by 2015.

[1] The FEIR originally contained three Phases. Phase I and Phase II are now considered Phase I, and Phase III is now Phase II. This report only refers to Phases I and II.

Table 13. Transfer and Exchange Opportunities

Source Transfer Agency	Transfer or Exchange	Term	Proposed Quantities
City of Santa Maria	Transfer	Effective Date through June 30, 2085	6,200 afy[1]

[1] Assumes NCSD negotiates an additional 3,200 afy of supply via its agreement with the City of Santa Maria

2.6 CURRENT AND PLANNED WATER SUPPLIES

Table 14 summarizes NCSD's current and planned water supplies.

Table 14. Current and Planned Water Supplies

Water Supply Sources	2010	2015	2020	2025	2030
Nipomo Mesa Management Area (NMMA)[1] (afy)	2,367	1,404	1,588	1,275	1,495
Nipomo Valley Groundwater (afy)	0	0	0	0	0
Supplemental Water from the City of Santa Maria[2](afy)		2,000	2,000	2,500	2,500
Total (afy)	**2,367**	**3,404**	**3,588**	**3,775**	**3,995**

[1] It is assumed that the Supplemental Water Supply Project will be implemented by 2013. The Wholesale Water Supply Agreement requires a minimum delivery of 2,000 afy for years one through ten (years 2013-2023); 2,500 afy for years 11 through 19 (2024-2032); and 3,000 afy for years twenty through the end of the contract (2033-end of term) (Appendix D). The District will receive 100% of the supplemental water delivered per the requirements of the Judgment. The available groundwater supply will only equal the demand not met by supplemental water.

[2] Based on the assumption that the Supplemental Water Supply Project will be implemented and the delivery schedule will start by 2013.

2.7 WATER SUPPLY RELIABILITY

The District has never had a single year or multiple dry years in which it did not pump 100% of its demand, regardless of regional hydrology. Additionally, the NMMA has never experienced groundwater conditions that would indicate a Severe Water Shortage Condition as defined by the NMMA TG. Therefore, there is no basis in the hydrologic record for reducing supply reliability based upon single and/or multiple dry year conditions. On this basis, NCSD's supply is presented as 100% reliable for single and multiple dry year periods as summarized in Table 15.

Table 15. Water Supply Reliability

		Multiple Dry Water Years			
	Single Dry Water Year	Year 1	Year 2	Year 3	Year 4
% of Normal	100%	100%	100%	100%	100%

Although NCSD's supply is presented as 100% reliable for the purposes of this UWMP, the current pumping practices are unsustainable based on the following considerations:

1. Current pumping exceeds recharge as described in Section 2.1.1.
2. The presence of expanding groundwater depressions.
3. Recent evidence of seawater intrusion at the coastal monitoring wells within the NCMA.
4. The period of analysis (1975-2009) is roughly 11 percent "wetter" on average than the long-term record (1920-2009) indicating there is a slight bias toward overstating the amount of local water supply resulting from percolation of rainfall.
5. In addition to NCSD's imposed pumping restrictions, the NCSD pumping is subject to mandatory restriction by the Court if the NMMA TG Severe Water Shortage Condition criterion is met.

Table 16 illustrates the base years for normal, single dry, and multiple dry years, as well as the historical sequences they are based on.

Table 16. Basis of Water Year Data

Water Year Type	Base Year(s)	Historical Sequence
Normal Water Year	2007	1975-2009
Single-Dry Water Year	2006	1975-2009
Multiple-Dry Water Years	1987-1990	1975-2009

2.7.1 Other Factors Affecting Supply Reliability

Supply from the adjudicated Basin and the proposed Supplemental Water Supply Project are heavily influenced by legal, water quality, and climatic factors shown in Table 17. The NMMA TG could declare a Severe Water Shortage and the Court could set pumping limits. The Supplemental Water Supply Project is subject to legal factors outlined by the Wholesale Water Supply sales agreement.

Table 17. Factors Affecting Supply Reliability

Name of Supply	Legal	Environmental	Water Quality	Climatic
NMMA Groundwater	The Court could set annual pumping limits on the Nipomo Mesa	Reduced percolation and recharge of stormwater due to increased development	Risk of seawater intrusion and nitrate contamination	Series of low rainfall years
Nipomo Valley Groundwater	Potential legal challenge of NCSD's pumping rights	None identified	Sulfides and high TDS at some wells locations	Series of low rainfall years Unknown safe yield
Supplemental Water from City of Santa Maria	Wholesale Supply Agreement has conditions for renegotiation	NCSD Waterline Intertie Project FEIR (Douglas Woods & Associates, Inc., March 2004)	Reduced water quality associated with receiving pumped groundwater during dry years	None identified

2.7.2 Wholesale Supply Reliability

The Supplemental Water Supply Project is the only wholesale supply currently planned for implementation. The 2005 Santa Maria UWMP describes its supply sources, rights, and reliability in detail. Santa Maria's sources and allotted amounts of water are shown in Table 18.

Table 18. Wholesale Supply from the City of Santa Maria, afy

Source	2010	2015	2020	2025	2030
Purchased Water from SWP	11,227	11,227	11,048	10,870	10,870
Groundwater	12,795	12,795	12,795	12,795	12,795
Twitchell Yield/ Commingled Groundwater	14,300	14,300	14,300	14,300	14,300
Return Flows from SWP Water	7,297	7,297	7,181	7,066	7,066
Recycled Water	-	-	-	-	-
Total	**45,619**	**45,619**	**45,325**	**45,031**	**45,031**

Source: Provided by the City of Santa Maria in an email dated 05/04/2011.

The Supplemental Water Supply Project sources are assumed to be 100% reliable as stated in the 2005 Santa Maria UWMP. As a result, the District plans on 100% of its supply from the Supplemental Water Supply Project to be available in single dry and multiple dry years. The 2005 Santa Maria UWMP shows a 100% reliable supply in single dry and multiple dry years as shown in Table 19.

Table 19. Wholesale Normal, Single, and Multiple Dry Years Supply

Project Name	Normal Year	Single Dry Year	Multiple Dry Years		
			Year 1	Year 2	Year 3
Santa Maria Supplemental Water Supply Project [1]	3,000 afy	3,000 afy	3,000 afy	3,000 afy	3,000 afy
Supply Reliability	100%	100%	100%	100%	100%

[1] The delivery of supplemental water is subject to the terms of the Wholesale Water Supply Agreement in Appendix D. The amounts of supplemental water shown in Table 11, Table 12, and Table 14 are minimum scheduled deliveries per the Wholesale Water Supply Agreement. This table reflects the maximum available wholesale water deliveries of Phase I of the Supplemental Water Supply Project.

The reliability of State Water for Santa Maria is subject to the SWP annual supply:

> *"…any period on or after June 30, 2035, shall be subject to the renewal of the contract between the City and Central Coast Water Authority for SWP water. Furthermore, the terms of this Agreement shall be subject to renegotiation as described below in the event that the SWP contract or any subsequent SWP contract is not renewed or the terms of such renewal either (i) substantially impair the ability of City to continue to provide Supplemental Water in the quantities set forth in this Agreement; or (ii) the cost of continuing to provide Supplemental Water pursuant to the terms of this Agreement would create a significant financial burden on the City. In no event shall the City be required to deliver Supplemental Water following June 30, 2035 at a financial loss"* (16).

Even if Santa Maria does not receive its full allotment of SWP water, it can blend more groundwater to deliver to NCSD. However, as stated above, the terms of the Agreement are subject to renegotiation dependent on changes to Santa Maria's SWP contract. Santa Maria is investigating possible additional SWP water from San Luis Obispo County's excess SWP entitlements, which could further improve supply reliability from the SWP. Table 20 shows the other factors affecting supply reliability outlined in Santa Maria's 2005 UWMP.

Table 20. Factors Affecting Wholesale Supply Reliability

Name of Supply	Legal	Environmental	Water Quality	Climatic
Groundwater, Santa Maria Groundwater Basin	The Court retains jurisdiction over management of the Basin and may limit pumping under Severe Water Shortage Conditions as presented in the Stipulation. The Management Area Engineer will monitor groundwater conditions and report to the Court.	N/A	None	See Legal Column in this Table.
Purchased Water from SWP and Associated Return Flows	N/A	Environmental conditions in the Delta may require reduced deliveries from the SWP	None	Reliability of imported water supply may vary based on SWP annual water supply.

Source: 2005 Santa Maria UWMP (17)

2.8 REGIONAL WATER SUPPLY SOLUTIONS

The water supply challenges facing NCSD are not unique to San Luis Obispo County, nor to the State of California. Water shortages are widespread nationwide, and represent a significant threat to economic stability (18). New sources of water supply are costly to plan, design and construct, and oftentimes present significant political, social and environmental challenges. For these reasons, DWR encourages water suppliers to develop regional solutions to improve the sustainability of local water supplies.

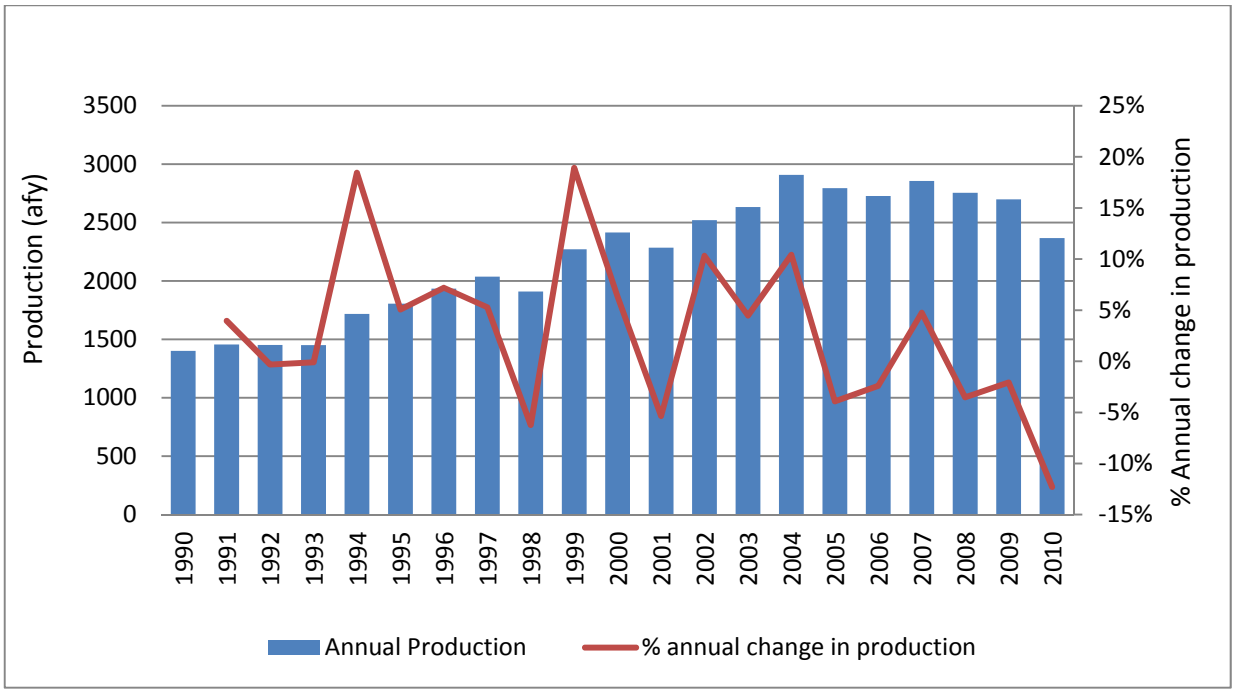
By pursuing a coordinated regional effort, local purveyors can align their interests and pool their resources with neighboring jurisdictions to raise awareness, gain political support, raise funds and implement projects that would have otherwise been infeasible.

San Luis Obispo County and the water purveyors within the County have multiple near-term opportunities to collaborate and enhance supply and delivery systems for the benefit of all involved. First, the County and CCWA are initiating a cooperative effort to evaluate options of delivering additional State Water Project supplies to the Central Coast and optimizing utilization of the Coastal Branch of the State Water Project. Second, the County is currently preparing its Master Water Plan, which could serve as a framework for developing water supply alternatives for the NMMA and a vehicle for regional cooperation. Finally, the County may be updating its Integrated Regional Water Management Plan (IRWMP) in the next two years. These and other regional efforts can serve the District's interests, and may be the best way to advance projects that would have otherwise been infeasible, such as desalination, regional recycled water solutions and/or seawater intrusion barrier(s).

3 WATER DEMANDS

Historically, NCSD has experienced periods of rapidly increasing water demand corresponding with rapid growth and development in the Nipomo area (see Section 1.6). For example, between 1990 and 2005, the District's total production increased from 1,240 afy to 2,794 afy. This equates to an annual average growth rate of 5.6%. As a reflection of ongoing conservation efforts and a persistent economic recession, the District's production has stabilized, and actually decreased by 15% from 2,794 afy in 2005 to 2,366 afy in 2010.

Figure 14. NCSD Historical Production



3.1 DEMAND SUMMARY BY CUSTOMER TYPE

The projected demands reflect demand between 2015 and 2020 as a result of assumed compliance with the per capita water use target water use (2020) identified in the Daily Per Capita Water Use Technical Memorandum (Appendix A). The District's current water use of 173.9 gpcd is well below its 2020 target of 204 gpcd. It is assumed that water use in 2010 has decreased drastically due to multiple factors including economic recession, water conservation efforts, a wetter than average hydrologic year, and many others. Therefore, it is assumed that NCSD's demand will increase in the coming years. The projected demands from 2015-2020 are assumed to meet the 2020 target of 204 gpcd. Historical and projected demands were developed in Work Product 1 (Appendix B) and are summarized in Table 21, Table 22, and Table 23. All demands are metered within NCSD's service area.

Table 21. Past and Current Demand by Customer Type

Water Use Sectors	2005		2010	
	# of Connections	Deliveries (afy)	# of Connections	Deliveries (afy)
Single-Family	3,312	2,044	3,547	1,829
Multi-family	391	134	419	120
Commercial	86	99	92	88
Industrial	-	-	-	-
Institutional	6	77	6	69
Landscape	76	193	81	173
Agricultural	2	15	2	13
Total	**3,873**	**2,562**	**4,148**	**2,293**

Table 22. Projected Demand by Customer Type

Water Use Sectors	2015		2020	
	# of Connections	Deliveries (afy)	# of Connections	Deliveries (afy)
Single-Family	3,817	2,264	4,052	2,403
Multi-family	451	149	479	158
Commercial	99	109	105	116
Industrial	-	-	-	-
Institutional	7	86	7	91
Landscape	88	214	93	227
Agricultural	3	16	3	17
Total	**4,465**	**2,838**	**4,739**	**3,013**

Table 23. Projected Demand by Customer Type

Water Use Sectors	2025		2030	
	# of Connections	Deliveries (afy)	# of Connections	Deliveries (afy)
Single-Family	4,292	2,546	4,573	2,712
Multi-family	507	167	540	178
Commercial	111	123	119	131
Industrial	-	-	-	-
Institutional	8	96	8	103
Landscape	99	241	105	257
Agricultural	3	18	3	20
Total	**5,020**	**3,191**	**5,348**	**3,400**

NCSD is taking the lead to bring supplemental water in with participation from GSWC, RWC, and WMWC. GSWC and RWC have committed to purchase and receive 208 afy each starting in 2015. WMWC plans to purchase water but does not anticipate receiving water. The water purchased by WMWC will offset NCSD's groundwater pumping, therefore providing an in lieu reduction of groundwater pumping in the NMMA. Since the 416 afy purchased by WMWC will not be delivered, it is not shown in Table 24. However, there is an intertie between the District and WMWC and NCSD will deliver water if WMWC decides to receive water deliveries in the future. Table 24 shows the past and projected amount of water NCSD sells and delivers to other agencies.

Table 24. Sales to Other Agencies (afy)[1]

Purchasing Agency	2005	2010	2015	2020	2025	2030
Golden State Water Company	7	0	208	208	208	208
Rural Water Company	0	0	208	208	208	208
Woodlands[2]	0	0	0	0	0	0
Total	**7**	**0**	**416**	**416**	**416**	**416**

[1] Source: NCSD Staff

[2] Woodlands will purchase 416 afy from the District but does not anticipate receiving the water.

Unaccounted for system losses are calculated in Work Product 1 (Appendix B), and summarized in Table 25.

Table 25. Additional Water Uses and Losses (afy)

Water Use[1]	2005	2010	2015	2020	2025	2030
Construction Metered Use	14	0	0	0	0	0
Unaccounted-for system losses[2]	211 (8%)	74 (3%)	149 (5%)	159 (5%)	168 (5%)	179 (5%)
Total	**225**	**74**	**149**	**159**	**168**	**179**

[1] Recycled water Is not shown as an additional water use. Recycled water use is shown in Table 55.

[2] *Source:* Appendix B

Table 26. Total Water Use (afy)

Water Use	2005	2010	2015	2020	2025	2030
Retail Demand	2,562	2,293	2,838	3,013	3,191	3,400
Wholesale Demand	7	0	416	416	416	416
Additional Water Uses and Losses	225	74	149	159	168	179
Total	**2,794**	**2,367**	**3,404**	**3,588**	**3,775**	**3,995**

3.1.1 Low-income Housing Water Demand

Section 10631.1 of the California Water Code requires 2010 UWMPs to include projected water use for lower income single-family and multi-family residential households. Lower Income is defined by Health and Safety Code Section 50079.5 as 80% of county median income or less. The projections are meant to assist water purveyors in complying with the requirements of Government Code Section 65589.7, which requires water purveyors to "grant a priority for the provision of [water and sewer] services to proposed developments that include housing units affordable to lower income households."

Low-income households in the Nipomo area are estimated from the San Luis Obispo County Housing Element (7). Estimated low-income residential demands are summarized in Table 27. The low-income single-family and multi-family residential estimates are included in the single-family and multi-family demand projections in Table 21.

Table 27. Low-income Residential Demand Projections

Portion of unincorporated County overlaid by NCSD[1]	0.22%
# of very low and low-income housing units needed for 2009-2014 for the unincorporated County[2]	514
NCSD's share of very low and low-income housing units needed 2009-2014[3]	1.11
Single-family residential water use factor (afy/connection)[4]	0.51
Water Needed for low income housing units, 2009-2014 (afy)[5]	0.57

[1] Calculated by dividing the area NCSD's service area by the total area of unincorporated San Luis Obispo County

[2] Source: San Luis Obispo County Housing Element (7)

[3] The portion of NCSD overlaying the unincorporated County applied to the number of very low and low-income housing units needed for the total unincorporated County

[4] Calculated by dividing the single-family residential deliveries by the single-family residential connections for 2010.

[5] Since there is approximately one low-income unit projected to be needed in NCSD's service area for 2009-2014, it is not possible to separate the demand into multi-family and single-family residential projected water use.

3.2 WATER CONSERVATION

The District is required by SB 7 to reduce its per capita water use by 20% from the baseline by the year 2020. The legislation requires all water suppliers to achieve a reduction in per capita water use of 20% by December 31, 2020, with an interim target of 10% reduction by December 31, 2015. The legislation requires each urban water supplier to develop, and include in its UWMP, estimates of: 1) baseline daily per capita water use; 2) urban water use target; 3) interim urban water use target; and 4) compliance daily per capita water use. The UWMP must also include bases for determining the estimates, with references to supporting data.

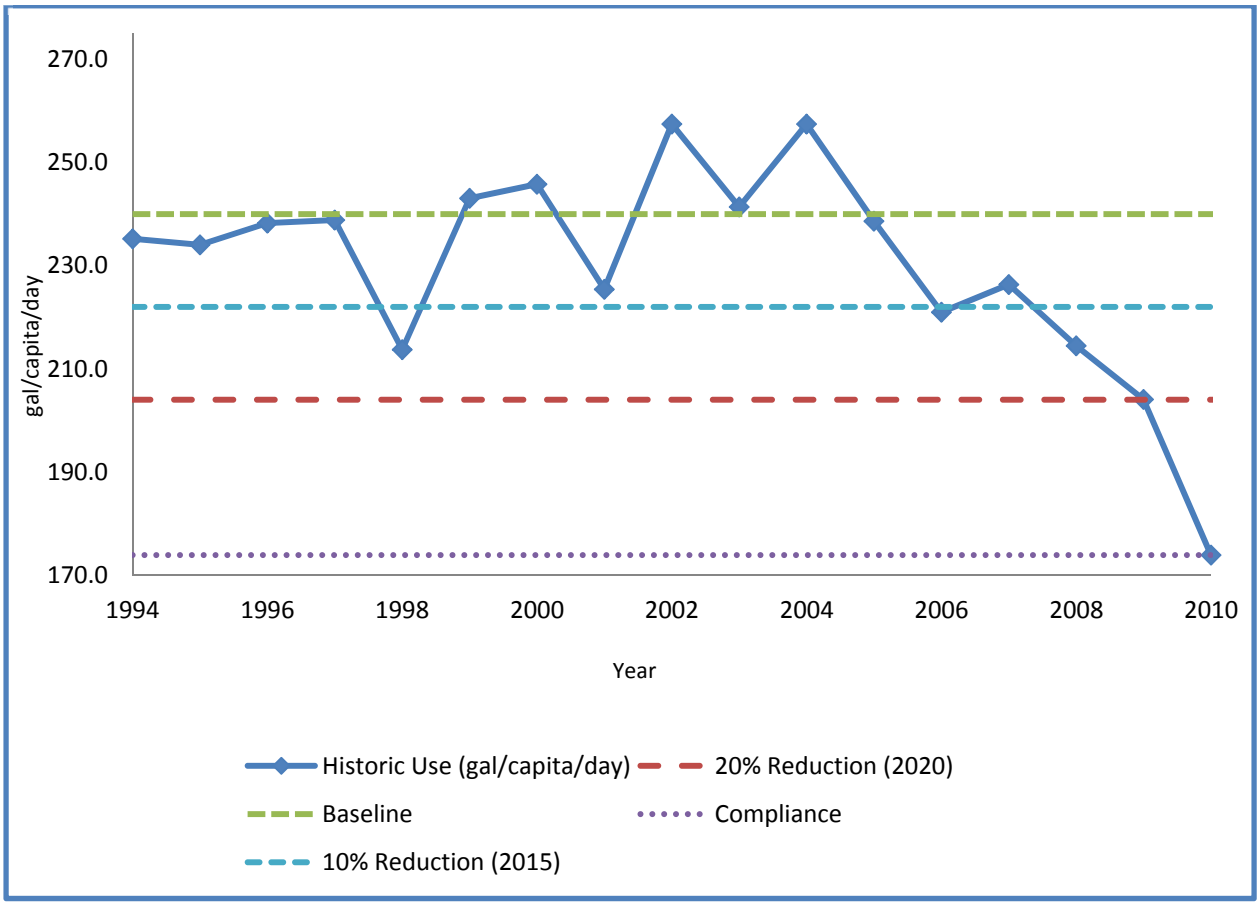
3.2.1 Determination of Actual Reductions in Water Use

The District preceded this UWMP with a Technical Memorandum to calculate Baseline Daily Per Capita Water Use (Appendix A) and Demand Database (Appendix B) to develop 20-year demand projections. Based on the prescribed targets, the demand database will be used to compare future water use with the projections to determine if the District is effectively reducing its overall water use. Table 28 shows the water use reduction baseline, targets, and current compliance water use. Figure 15 shows the data from both technical memorandums in a visual format. Based on the current compliance use in 2010, the District has reduced its water use by 27.5% from the baseline, thereby exceeding the reduction required to meet the target water use. It will be the District's goal to maintain a water use of 192 gpcd (equal to 80% of its baseline gross water use). However, for the purposes of projecting demand and supply, it is assumed that the District will meet its target water use of 204 gpcd in 2011 and the District will maintain that target per capita water use from 2011 through 2030 to meet the requirements of SB 7.

Table 28. Per Capita Water Use

Description	Water Use, gal/capita/day	Compliance Year
Baseline Gross Water Use	240	10 year average (1996-2005)
Target Water Use (2020)	204	2020
Current Water Use (2010)	173.9	2010

Figure 15. Historical Per Capita Water Use



To achieve the gpcd needed by 2020, the District will continue to implement the measures outlined in Section 7.6. The District plans to introduce a new tiered rate structure, continue to implement new development standards, target reducing the consumption for high-use customers, and implement Best Management Practices (BMP) from the CUWCC.

3.2.2 Tiered Rate Structure

The District currently has a two-tier rate structure. The rationale for a tiered rate structure is to target wasteful use by using allocation-based water conservation pricing. The two tiers currently used are from 0-40 HCF and 41+ HCF. The District plans to introduce a four-tiered rate structure to create a financial incentive for customers to conserve water. The benefits of conservation-based rate structures are discussed in detail in the Water Conservation Program (19). The tiered rate structure establishes volumetric rates; that is the more water a customer consumes, the more expensive the water becomes. This structure allows customers who use an amount of water within the limits of the first tier to have the lowest rates. Customers who exceed the specified limit of the first tier pay an increased cost per unit of water within the limits of the second tier. Customers using an amount of water in excess of the limits of the second tier have to pay an even higher rate per unit of water. The increased costs have to be reasonable with a rational nexus to the cost of service as required by Prop 218. With the recent implementation of Assembly Bill No. 2882 (AB 2882) to amend the California Water Code in January 2009, the District will have defensible guidance on how to establish and use allocation-based water conservation pricing. AB 2882 provides an opportunity for the District to conserve water while meeting reasonable costs through its rate structure. A good model for a tiered rate structure is the City of San Luis Obispo because of its successful history of water use reduction. The City states, "A key factor in our water conservation program is a rate structure that is based solely on use (no minimum charges) and tiered rates" (20). The District's next rate change is planned to take place in November 2011 and is subject to approval by the Board of Directors and a successful Proposition 218 process.

3.2.3 New Development Standards

The District Ordinance No. 2009-114 Water Service Limitations is intended to provide assurance that there will be adequate groundwater to meet present and future needs of District residents consistent with County resource protection goals. The goal of the Ordinance is to achieve a 15% reduction in observed water demand. Water limitations are outlined in the Ordinance and applicants for Will-Serve Letters and Intent-to-Serve Letters must receive a registered architect or engineer's signature certifying that the application meets the requirements of the ordinance. Intent-to-Serve applications for nonresidential/commercial/industrial projects require an irrigation plan, a landscape plan, a plant material list and a hardscape plan for water features. Will-Serve Letters are only issued to nonresidential/commercial/industrial projects verified by the General Manager to be in compliance with the total water demand requirements. Other ordinances relating to development and water use reduction are discussed in Section 7.6.

The County's Ordinance 3090 amends Title 19 of the County Code to require any applicant for a construction permit or remodel permit constituting a permit fee greater than $20,000 to install plumbing fixtures with certain criteria designed for water conservation. New construction permits will only be given when an applicant has retrofitted the plumbing fixtures of five existing structures in the Nipomo Mesa Water Conservation Area.

3.2.4 High-use Consumer Reduction

There are a few parcels in the District, shown in Figure 16 and Figure 17, which consume much more water per year than most other parcels. The two largest users are the Nipomo Community Park and the Nipomo High School. The Park uses about 56 afy and the High School uses about 80 afy. These parcels are in need of landscape irrigation retrofits and improvements.

3.2.5 CUWCC

The District became a member of the California Urban Water Conservation Council (CUWCC) in January 2008. The District's Best Management Practices Report and 2009 Annual Report are included in Appendix E.

The major tools that the District is using to conserve water and achieve the 20% reduction from the baseline are: using a rate structure that encourages less water use, reducing high-use customer consumption, implementing water use reduction programs (Section 7.6), and implementing water use reduction ordinances (Section 7.6).

Figure 16. Historical Consumption by Parcel (Northern Section)

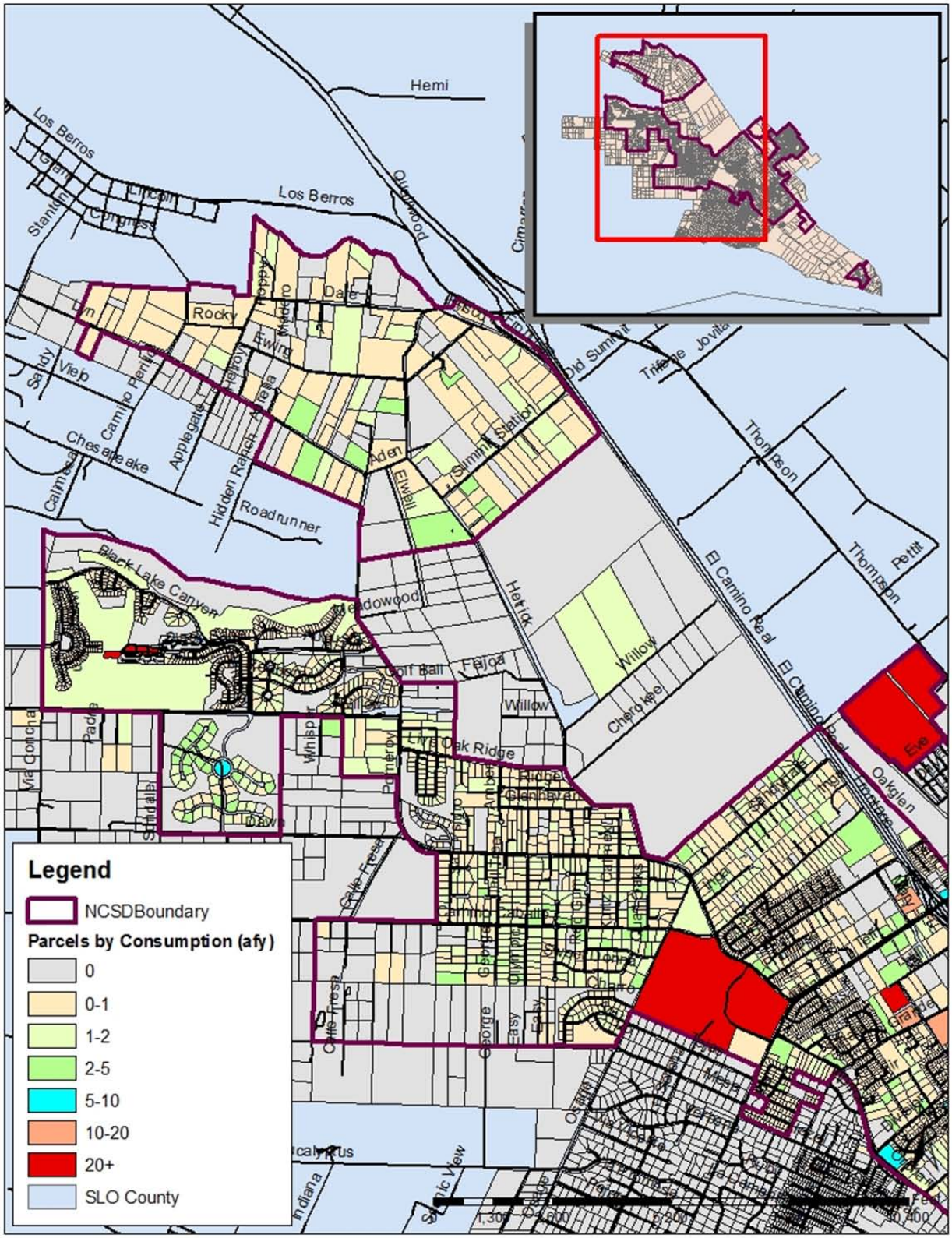
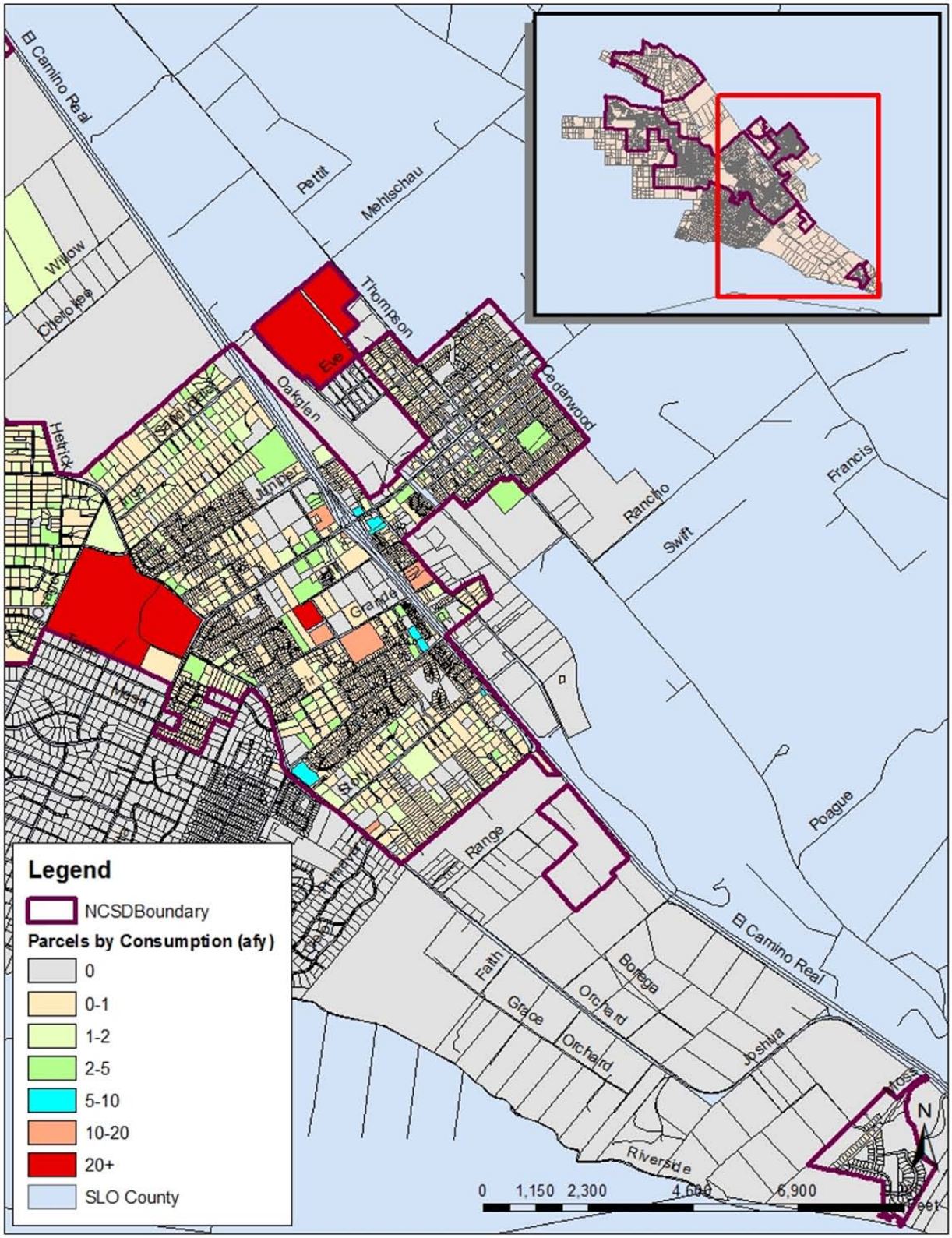


Figure 17. Historical Consumption by Parcel (Southern Section)



4 DMMS AND BMPS

The UWMP Act requires a discussion of Demand Management Measures (DMMs), including a description of each of the DMMs currently being implemented or scheduled for implementation through 2015, the schedule of implementation for all DMMs, and the methods, if any, NCSD will use to evaluate the effectiveness of DMMs. If a DMM is not being implemented or scheduled for implementation, the UWMP must include an evaluation of economic and noneconomic factors such as environmental, social, health, customer impact, and technological factors; a cost-benefit analysis; a description of funding available to implement any planned water supply project that would provide water at a higher unit cost; and a description of the legal authority of the water supplier to work with other relevant agencies to ensure the implementation of the measure and to share the cost of implementation.

The UWMP Act identifies 14 DMMs. These 14 DMMs correspond to the 14 Best Management Practices (BMPs) listed and described in the California Urban Water Conservation Council Memorandum of Understanding (CUWCC MOU). These 14 DMMs also correspond to the DMMs identified in DMM Implementation Compliance (AB 1420). The BMPs and DMMs are examples of sound water management practices that have been found to be cost effective and practicable in most instances throughout California. DWR consulted with CUWCC and determined that DMMs will be equated with BMPs. Therefore, DMMs and BMPs are referred to interchangeably in this Plan. Table 29 shows which DMMs and BMPs correspond with each other.

The UWMP Act allows CUWCC members to submit their 2009-2010 approved CUWCC BMP report with their UWMPs in lieu of a DMM section if the water supplier is in full compliance with the CUWCC MOU. NCSD is a CUWCC member but is not in full compliance with the CUWCC MOU. A copy of NCSD's 2009-2010 CUWCC BMP report is included in Appendix E to provide a framework for future UWMPs and BMP implementation, and this UWMP includes the required DMM section.

Table 29. DMMs and BMPs

CUWCC BMP Organization and Names (2009 MOU)				**UWMP DMMs**	
Type	Category	BMP #	BMP name	DMM #	DMM name
Foundational	Operations Practices	1.1.1	Conservation Coordinator	L	Water conservation coordinator
		1.1.2	Water Waste Prevention	M	Water waste prohibition
		1.1.3	Wholesale Agency Assistance Programs	J	Wholesale agency programs
		1.2	Water Loss Control	C	System water audits, leak detection, and repair
		1.3	Metering with Commodity Rates for All New Connections and Retrofit of Existing Connections	D	Metering with commodity rates for all new connections and retrofit of existing connections
		1.4	Retail Conservation Pricing	K	Conservation pricing

CUWCC BMP Organization and Names (2009 MOU)				UWMP DMMs	
Type	Category	BMP #	BMP name	DMM #	DMM name
	Education Programs	2.1	Public Information Programs	G	Public information programs
		2.2	School Education Programs	H	School education programs
Programmatic	Residential	3.1	Residential assistance program	A	Water survey programs for single-family residential and multifamily residential customers[1]
				B	Residential plumbing retrofit
		3.2	Landscape water survey	A	Water survey programs for single-family residential and multifamily residential customers[1]
		3.3	High-Efficiency Clothes Washing Machine Financial Incentive Programs	F	High-efficiency washing machine rebate programs
		3.4	WaterSense Specification (WSS) toilets	N	Residential ultra-low-flush toilet replacement programs
	Commercial, Industrial, and Institutional	4	Commercial, Industrial, and Institutional	I	Conservation programs for commercial, industrial, and institutional accounts
	Landscape	5	Landscape	E	Large landscape conservation programs and incentives

[1] Components of DMM A (Water survey programs for single-family residential and multifamily residential customers) applies to both BMP 3.1 (Residential assistance program) and BMP 3.2 (Landscape water survey)

4.1 METHODS TO EVALUATE THE EFFECTIVENESS OF BMPS

The effectiveness of each BMP has an impact on the overall effectiveness of the BMPs. Some BMPs have specific methods that can only be used to measure the effectiveness of that particular BMP. Each BMP described in section 4.2 includes further discussion of which methods are used to evaluate each particular BMP.

The method used to evaluate the effectiveness of the BMPs as a whole is the calculation of the overall per capita water use (gpcd) reduction from the baseline per capita water use. As shown in Appendix A, the District's 2010 compliance water use is 173.9 gpcd, which reflects a reduction in per capita water use of 28% from the baseline, and is less than the 2020 target water use of 204 gpcd. The District believes that these significant reductions make additional savings less likely and therefore does not anticipate further reductions in per capita water use beyond the 2020 target through the horizon of this plan.

Future effectiveness will continue to be measured by calculating reduction from the baseline per capita water use per the requirements of SB7 as described in Section 3.1. In accordance with Tables 1 and 2 of the AB 1420 Self-Certification Statement, submitted by NCSD to DWR on March 21, 2011, the District implements or currently plans to implement all BMPs per the requirements of AB 1420.

4.2 BMPS IMPLEMENTED OR PLANNED TO BE IMPLEMENTED

4.2.1 BMP 1.1.1 CONSERVATION COORDINATOR (DMM L)

Implementation shall consist of at least the following actions:

Designate a person as the agency's responsible conservation coordinator for program management, tracking, planning, and reporting on BMP implementation. [1]

The District has employed a full-time (40 hrs/week) conservation coordinator since 2006. The conservation coordinator is responsible for implementing the District's conservation program. The conservation coordinator position is included in the District's budget along with a budget for the water conservation program. The District plans to continue implementing this BMP, but does not anticipate hiring any additional dedicated water conservation staff.

The effectiveness of this BMP cannot be measured directly. It assumed a part of the overall per capita water use (gpcd) reduction from the 2006 per capita water use is attributable to the implementation of this BMP. As shown in Appendix A, the District's 2010 compliance water use is 173.9 gpcd, which reflects a reduction in per capita water use of 21% since the conservation coordinator was hired in 2006, and is less than the 2020 target water use of 204 gpcd. The District believes that these significant reductions make additional savings less likely and therefore does not anticipate further reductions in per capita water use beyond the 2020 target through the horizon of this plan. The effectiveness of this BMP can also be measured as a part of the overall gpcd reduction from the baseline described in section 4.1.

4.2.2 BMP 1.1.2 WATER WASTE PREVENTION (DMM M)

Implementation shall consist of at least the following actions:

a) New development

Enact, enforce, or support legislation, regulations, ordinances, or terms of service that (1) prohibit water waste such as, but not limited to: single- pass cooling systems; conveyer and in-bay vehicle wash and commercial laundry systems which do not reuse water; non-recirculating decorative water fountains and (2) address irrigation, landscape, and industrial, commercial, and other design inefficiencies.

b) Existing users

Enact, enforce, or support legislation, regulations, ordinances, or terms of service that prohibit water waste such as, but not limited to: landscape and irrigation inefficiencies, commercial or industrial inefficiencies, and other misuses of water.

[1] All writing in italics in section 4 comes from Section A of the CUWCC MOU (37) for each BMP.

c) Water shortage measures

Enact, enforce, or support legislation, regulations, ordinances, or terms of service that facilitate implementation of water shortage response measures.

As described in Section 7.5, the District Code sections 3.24.010 and 3.24.020 establish voluntary restrictions on non-essential and/or wasteful use of water. Ordinance No. 2009-113, adopted on October 14, 2009, provides a definition of the waste of District water during Potentially Severe Water Shortage Conditions. Ordinance No. 2009-113 required the General Manager to institute a public awareness campaign regarding the waste of District water, including notices to each District water customer within fourteen (days) of the District's approval of Sections 3.24.020 A and B. Water use prohibitions during a Severe Water Shortage are yet to be determined by the NMMA TG and the Court. It is assumed that the suspended ordinance shown in Table 64 would be similar to prohibitions of water waste during a Severe Water Shortage recommended by the NMMA TG or imposed by the Court.

A copy of the District Code and Ordinances is available on their website (http://ncsd.ca.gov/cm/Resources/Documents/Water_Sewer_Codes.html). Section 7 provides a more detailed description of definitions of water waste and potential actions to regulate the waste of water.

Since the District does not have a way of tracking water waste, there is no method to evaluate the effectiveness of this particular BMP. The effectiveness of this BMP can also be measured as a part of the overall gpcd reduction from the baseline described in section 4.1. The District plans to develop a strategy to identify, track and quantify water waste.

4.2.3 BMP1.1.3 WHOLESALE AGENCY ASSISTANCE PROGRAMS (DMM J)

This BMP is not implemented or scheduled for implementation because it is not applicable to the District as a retail agency. In the future the District will be selling water to Golden State Water Company and Rural Water Company. It is anticipated that when this happens, the District will develop a plan to implement this BMP.

4.2.4 BMP 1.2 WATER LOSS CONTROL (DMM C)

Implementation shall consist of at least the following actions:

1) Standard Water Audit and Water Balance. All agencies shall quantify their current volume of apparent and real water loss. Agencies shall complete the standard water audit and balance using the AWWA Water Loss software to determine their current volume of apparent and real water loss and the cost impact of these losses on utility operations at no less than annual intervals.

2) Validation. Agencies may use up to four years to develop a validated data set for all entries of their water audit and balance. Data validation shall follow the methods suggested by the AWWA Software to improve the accuracy of the quantities for real and apparent losses.

3) Economic Values. For purposes of this BMP, the economic value of real loss recovery is based upon the agency's avoided cost of water as calculated by the Council's adopted Avoided Cost Model or other agency model consistent with the Council's Avoided Cost Model.

4) Component Analysis. A component analysis is required at least once every four years and is defined as a means to analyze apparent and real losses and their causes by quantity and type. The goal is to identify volumes of water loss, the cause of the water loss and the value of the water loss for each component. The component analysis model then provides information needed to support the economic analysis and selection of intervention tools. An example is the Breaks and Background Estimates Model (BABE) which segregates leakage into three components: background losses, reported leaks and unreported leaks.

5) Interventions. Agencies shall reduce real losses to the extent cost-effective. Agencies are encouraged to refer to the AWWA's 3rd Edition M36 Publication, Water Audits and Loss Control Programs (2009) for specific methods to reduce system losses.

6) Customer Leaks. Agencies shall advise customers whenever it appears possible that leaks exist on the customer's side of the meter.

This BMP is scheduled for implementation by October 2011. It is anticipated that $10,000 from the water audit line item in the District's Water Conservation budget will be used to implement this BMP.

District staff visit and inspect all production and storage facilities weekly. All of the District's tanks, reservoirs, and pumps have alarms to indicate over-topping or loss of pressure. These alarms provide notification to District staff of any potential problems so adjustments can be made to limit system losses. The District is currently in the process of implementing a water monitoring software program (ConserveTrack) to more closely and accurately monitor water loss in the District's system.

The District produces and submits annual reports to DWR quantifying the amount of metered water deliveries and the total water in the system. These reports are one way to measure the effectiveness of the District's water loss control measures based on the comparison of production and deliveries. In 2010, the District had 74 afy of unaccounted-for system losses. For estimates of water losses see Table 25 and Table 26. Beginning by October 2011, the District plans to complete the standard water audit and balance using the AWWA Water Loss software to determine their current volume of apparent and real water loss and the cost impact of these losses on District operations, and plans to re-conduct the analysis at no less than annual intervals.

The District provides leak detection information and assistance to its customers through providing educational tools and giveaways, such as dye tablets, to detect leaks. The District's database that tracks water use alerts operators when current water use at a given meter varies significantly from the historic use, which indicates a leak is likely. When a leak is detected, the District contacts the customer with the information needed to find leaks. Because there is no formal water survey program, statistics of the number of customers assisted with leak detection and repair is unknown.

4.2.5 BMP 1.3 METERING WITH COMMODITY RATES FOR ALL NEW CONNECTIONS AND RETROFIT OF EXISTING CONNECTIONS (DMM D)

Implementation shall consist of at least the following actions:

1) Require meters for all new service connections.

2) Establish a program for retrofitting existing unmetered service connections.

3) Read meters and bill customers by volume of use.

a) Establish and maintain billing intervals that are no greater than bi-monthly (every two months) for all customers.

b) For each metered connection, perform at least five actual meter readings (including remotely sensed) per twelve month period.

4) Prepare a written plan, policy or program that includes:

a) A census of all meters, by size, type, year installed, customer class served and manufacturer's warranty accuracy when new;

b) A currently approved schedule of meter testing and repair, by size, type and customer class;

c) A currently approved schedule of meter replacement, by size, type, and customer class; and

5) Identifying intra- and inter-agency disincentives or barriers to retrofitting mixed use commercial accounts with dedicated landscape meters, and conducting a feasibility study(s) to assess the merits of a program to provide incentives to switch mixed use accounts to dedicated landscape meters.

The District is 100% metered. Since August 2005, the District's customers have been billed an availability charge and a usage rate/commodity charge for each unit of water consumed. The commodity charges are based on a tiered rate structure. The two tiers currently used are from 0-40 HCF and 41+ HCF. The District plans to introduce a four-tiered rate structure to create a financial incentive for customers to conserve water. The benefits of conservation-based rate structures are discussed in detail in the Water Conservation Program (19). The tiered rate structure establishes volumetric rates; that is the more water a customer consumes, the more expensive the water becomes. Tiered rates are discussed in more detail in Section 3.2.2.

There is no method to evaluate the effectiveness of this BMP in particular. The effectiveness of this BMP can be measured as a part of the overall gpcd reduction from the baseline described in section 4.1.

4.2.6 BMP 1.4 RETAIL CONSERVATION PRICING (DMM K)

Implementation shall consist of at least the following actions:

Conservation pricing provides economic incentives (a price signal) to customers to use water efficiently. Because conservation pricing requires a volumetric rate, metered water service is a necessary condition of conservation pricing. Unmetered water service is inconsistent with the definition of conservation pricing.

Conservation pricing requires volumetric rate(s). While this BMP defines a minimum percentage of water sales revenue from volumetric rates, the goal of this BMP is to recover the maximum amount of water sales revenue from volumetric rates that is consistent with utility costs (which may include utility long-run marginal costs), financial stability, revenue sufficiency, and customer equity.

Part I. Retail Water Service Rates

In addition to volumetric rate(s), conservation pricing may also include one or more of the following other charges:

1) Service connection charges designed to recover the separable costs of adding new customers to the water distribution system.

2) Monthly or bimonthly meter/service charges to recover costs unrelated to the volume of water delivered or new service connections and to ensure system revenue sufficiency.

3) Special rates and charges for temporary service, fire protection service, and other irregular services provided by the utility.

The following volumetric rate designs are potentially consistent with the above definition:

1) Uniform rate in which the volumetric rate is constant regardless of the quantity consumed.

2) Seasonal rates in which the volumetric rate reflects seasonal variation in water delivery costs.

3) Tiered rates in which the volumetric rate increases as the quantity used increases.

4) Allocation-based rates in which the consumption tiers and respective volumetric rates are based on water use norms and water delivery costs established by the utility.

Adequacy of Volumetric Rate(s): A retail agency's volumetric rate(s) shall be deemed sufficiently consistent with the definition of conservation pricing when it satisfies at least one of the following two options.

Option 1: Let V stand for the total annual revenue from the volumetric rate(s) and M stand for total annual revenue from customer meter/service (fixed) charges, then:

$V/V+M \geq 70\%$

This calculation shall only include utility revenues from volumetric rates and monthly or bimonthly meter/service charges. It shall not include utility revenues from new service connection charges; revenue from special rates and charges for temporary service, fire protection, or other irregular services; revenue from grants or contributions from external sources in aid of construction or program implementation; or revenue from property or other utility taxes.

Option 2: Use the rate design model included with the Municipal Water and Wastewater Rate Manual published by the Canadian Water & Wastewater Association with the signatory's water system and cost information to calculate V', the uniform volume rate based on the signatory's long-run incremental cost of service, and M', the associated meter charge. [Let HCF be annual water delivery (in hundred cubic feet).] A signatory's volumetric rate(s) shall be deemed sufficiently consistent with the definition of conservation pricing if:

$V/V+M \geq V'/ V' + M'$

Part II. Retail Wastewater Service Rates

> *Conservation pricing of sewer service provides incentives to reduce average or peak use, or both. Such pricing includes: rates designed to recover the cost of providing service, and billing for sewer service based on metered water use. Conservation pricing of sewer service is also characterized by one or more of the following components: rates in which the unit rate is the same across all units of service (uniform rates); rates in which the unit rate increases as the quantity of units purchased increases (increasing block rates); rates in which the unit rate is based upon the long-run marginal cost or the cost of adding the next unit of capacity to the sewer system. Rates that charge customers a fixed amount per billing cycle for sewer service regardless of the units of service consumed do not satisfy the definition of conservation pricing of sewer service. Rates in which the typical bill is determined by high fixed charges and low commodity charges also do not satisfy the definition of conservation pricing of sewer service.*

The District's water rate structure encourages customers to conserve water by using tiered rates. The two tiers currently used are from 0-40 HCF and 41+ HCF. The District plans to introduce a four-tiered rate structure to create a financial incentive for customers to conserve water. The benefits of conservation-based rate structures are discussed in detail in the Water Conservation Program (19). The tiered rate structure establishes volumetric rates; that is the more water a customer consumes, the more expensive the water becomes. Tiered rates are discussed in more detail in Section 3.2.2. Option 1 was chosen to analyze the adequacy of volumetric rates and is shown below for 2009:

V/V+M≥ 70%

2,304,837/ (2,304,837+807,087) = .74

74% ≥ 70%

Sewer rates are based on a flat-rate structure for residential customers and non-residential uses are billed based on the size of the water meter and the amount of water used.

There is currently no method to calculate the effectiveness of this particular BMP. The effectiveness of this BMP can be measured as a part of the overall gpcd reduction from the baseline described in section 4.1.

4.2.7 BMP 2.1 PUBLIC INFORMATION PROGRAMS (DMM G)

Implementation shall consist of at least the following actions:

> *1) The program should include, when possible, but is not limited to, providing speakers to employees, community groups and the media; using paid and public service advertising; using bill inserts; providing information on customers' bills showing use for the last billing period compared to the same period the year before; providing public information to promote water conservation measures; and coordinating with other government agencies, industry groups, public interest groups, and the media.*
>
> *2) The program should include, when possible, social marketing elements which are designed to change attitudes to influence behavior. This includes seeking input from the public to shape the water conservation message; training stakeholders outside the utility staff in water conservation priorities and techniques; and developing partnerships with stakeholders who carry the conservation message to their target markets.*

3) When mutually agreeable and beneficial, the wholesale agency or another lead regional agency may operate all or part of the public information program. If the wholesale agency operates the entire program, then it may, by mutual consent with the retail agency, assume responsibility for CUWCC reporting for this BMP. Under this arrangement, a wholesale agency may aggregate all or portions of the reporting and coverage requirements of the retail agencies joining into the mutual consent.

The District implements many public outreach programs. Public outreach efforts are updated on the District's conservation website (http://ncsd.ca.gov/cm/Resources/Conservation.html). The District provides multiple workshops, giveaway items, brochures, newsletters, and bill inserts to customers. Below is a list of the public outreach efforts implemented by the District:

- High efficiency washer rebate program
- Turf-replacement program
- Outreach workshops
- Advertising
- Events and item giveaways
- Post cards, brochures mailed out to NCSD customers
- Door-hangers for water waste and other water-use issues
- Conservation website
- Water audit program
- Quarterly newsletter
- Toilet-retrofit-at-time-of-sale, administered by San Luis Obispo County Planning and Development (SLO-PD) (Title 8 Amendment) for Nipomo Mesa Water Conservation Area (NMWCA) (includes all of NCSD)
- Developer-Funded Water Conservation Program for NMWCA (Title 19 Amendment), (entirely administered by NCSD-CPO)

Some of the workshops NCSD provides include topics such as: soil and composting; irrigation; landscaping with drought tolerant plants; drought tolerant plants for the Nipomo Area; managing diseases and pests; and sages, ceanothus and grasses. Some public outreach events NCSD participates in include the Harvest Festival and Creek Day. Table 30 shows the number of public outreach events held in 2008 and 2009.

There is currently no method to evaluate the effectiveness of this particular BMP. The effectiveness of this BMP can be measured as a part of the overall gpcd reduction from the baseline described in section 4.1.

Table 30. Public Outreach Events

Actual	2008	2009
a. Paid advertising	12	15
b. Public Service Announcement	0	0
c. Bill Inserts / Newsletters / Brochures	25	40
d. Bill comparing previous water usage	6	6
e. Demonstration Gardens	1	1
f. Special Events, Media Events	6	6
g. Speaker's Bureau	0	0
h. Program to coordinate with other govt agencies, industry and public interest groups and media	2	2

4.2.8 BMP 2.2 SCHOOL EDUCATION PROGRAMS (DMM H)

Implementation shall consist of at least the following actions:

1) Implement a school education program to promote water conservation and water conservation-related benefits.

2) Programs shall include working with school districts and private schools in the water suppliers' service area to provide instructional assistance, educational materials, and classroom presentations that identify urban, agricultural, and environmental issues and conditions in the local watershed. Educational materials shall meet the state education framework requirements and grade-appropriate materials shall be distributed.

3) When mutually agreeable and beneficial, the wholesale agency or another lead regional agency will operate all or part of the education program; if the wholesale agency operates all or part of the retail agency's school education program, then it may, by mutual consent with the retail agency, assume responsibility for CUWCC reporting of this BMP; under this arrangement, a wholesale agency may aggregate all or portions of the reporting and coverage requirements of the retail agencies joining into the mutual consent

On September 6, 2008 NCSD began implementing its school education program. The District has a contract with Science Discovery to provide water conservation presentations to schools in the service area for students in kindergarten through 6th grade. There are 6 presentations done per year. Topics covered during the presentations include the water cycle, groundwater supply and treatment, water conservation in the home, and water conservation in the yard/landscape. The materials provided meet state education framework requirements. The District intends to continue implementing this BMP. Table 31 shows the number of school presentations held in 2008 and 2009.

There is currently no method to evaluate the effectiveness of this particular BMP. The effectiveness of this BMP can be measured as a part of the overall gpcd reduction from the baseline described in section 4.1.

Table 31. School Presentations

Actual	2008	2009
Grades K-3rd	2	6
Grades 4th-6th	2	6

4.2.9 BMP 3.1 RESIDENTIAL ASSISTANCE PROGRAM (DMM A/ DMM B)

Implementation shall consist of at least the following actions:

> *Provide site-specific leak detection assistance that may include, but is not limited to, the following: a water conservation survey, water efficiency suggestions, and/or inspection. Provide showerheads and faucet-aerators that meet the current water efficiency standard as stipulated in the WaterSense Specifications (WSS) as needed.*

The District provides leak detection information and assistance to its customers through providing educational tools and giveaways, such as dye tablets, to detect leaks. The District's database that tracks water use alerts operators when current water use at a given meter varies significantly from the historic use, which indicates a leak is likely. When a leak is detected, the District contacts the customer with the information needed to find leaks. Because there is no formal water survey program, statistics of the number of customers assisted with leak detection and repair is unknown.

The County's Ordinance 3090 amends Title 19 of the County Code to require any applicant for a construction permit or remodel permit constituting a permit fee greater than $20,000 to install plumbing fixtures with certain criteria designed for water conservation. New construction permits will only be given when an applicant has retrofitted the plumbing fixtures of five existing structures in the Nipomo Mesa Water Conservation Area.

The District also distributes faucet aerators and showerheads that meet WaterSense Specifications. The distribution of the showerheads is tracked but the distribution of faucet aerators is not.

The District plans to continue implementing this BMP through educational tools, giveaways and by supporting County Ordinance 3090. Table 32 shows an estimate of water savings from toilet and showerhead retrofits according to savings standards for Amy Vickers' *Handbook of Water Use and Conservation* (21). The effectiveness of this BMP can be measured as a part of the overall gpcd reduction from the baseline described in section 4.1.

Table 32. Residential Assistance Retrofits

Actual	2008	2009	Estimated Water Savings
Number of toilet retrofits[1]	0	18	168,066 gal/year
Number of showerhead retrofits[2]	2	19	17,871 gal/year
[1] Assumes a retrofit of an existing toilet, which uses 3.5 gallons per flush, with a toilet using 1.6 gallons per flush, will save 9,337 gallons per year per household retrofitted. Source: (21)			
[2] Assumes a retrofit of an existing showerhead, which uses 2.75 gallons per minute, with a showerhead using 2.5 gallons per minute, will save 851 gallons per year per household retrofitted. Source: (21)			

4.2.10 BMP 3.2 LANDSCAPE WATER SURVEY (DMM A)

Implementation shall consist of at least the following actions:

> *Perform site-specific landscape water surveys that shall include, but are not limited to, the following: check irrigation system and timers for maintenance and repairs needed; estimate or measure landscaped area; develop customer irrigation schedule based on precipitation rate, local climate, irrigation system performance, and landscape conditions; review the scheduling with customer; provide information packet to customer; and provide customer with evaluation results and water savings recommendations.*

The District does not currently offer a formal landscape water survey to its existing customers except for customers applying for the turf replacement program. However, the District does provide giveaways, workshops, and educational tools to assist customers with their own landscape water surveys, thereby making customer landscapes more efficient. The District plans to implement a water survey program in October 2011. It is anticipated that $10,000 from the $30,000 water audit line item in the District's Water Conservation budget will be used to implement this BMP.

The District Ordinance No. 2009-114 Water Service Limitations outlines water limitations and requires applicants for Will-Serve Letters and Intent-to-Serve Letters to receive a registered architect or engineer's signature certifying that the application meets the requirements of the ordinance. Intent-to-Serve applications for nonresidential/commercial/industrial projects require an irrigation plan, a landscape plan, a plant material list and a hardscape plan for water features. Will-Serve Letters are only issued to nonresidential/commercial/industrial projects verified by the General Manager to be in compliance with the total water demand requirements. The goal of the Ordinance is to achieve a 15% reduction in observed water demand.

The District plans to continue implementing its turf replacement program, giveaways, workshops, educational tools, and Ordinance No. 2009-114 to assist customers.

There is not method to evaluate this particular BMP because it has not been fully implemented. The District plans to develop a strategy of tracking the effects of its landscape water survey efforts once the BMP is implemented.

4.2.11 BMP 3.3 HIGH-EFFICIENCY CLOTHES WASHING MACHINE FINANCIAL INCENTIVES PROGRAMS (DMM F)

Implementation shall consist of at least the following actions:

> *Provide incentives or institute ordinances requiring the purchase of high-efficiency clothes washing machines (HECWs) that meet an average water factor value of 5.0. If the WaterSense Specification is less than 5.0, then the average water factor value will decrease to that amount.*

The District provides a high efficiency washer rebate program through which it provides a rebate of $75 on new high efficiency washers. In 2009, the District provided 54 rebates, a total of $4,050, and $850 for staff overhead and operation of the program. The District plans to continue this program. Table 33 shows an estimate of water savings from the implementation of high-efficiency clothes washing machine rebates according to savings standards from Amy Vickers' *Handbook of Water Use and Conservation* (21). The effectiveness of this BMP can also be measured as a part of the overall gpcd reduction from the baseline described in section 4.1.

Table 33. High-Efficiency Clothes Washing Machine Rebates and Water Savings

Actual	2009
$ per rebate	75
Number of rebates paid	54
Actual water savings – gallons/year/household[1]	231,012

[1] Assumes a retrofit of an existing clothes washing machine, which uses 39 gallons per load, with a high-efficiency clothes washing machine using 27 gallons per load, will save 4,278 gallons per year per household retrofitted. Source: (21)

4.2.12 BMP 3.4 WATER SENSE SPECIFICATION (WSS) TOILETS (DMM N)

Implementation shall consist of at least the following actions:

> Provide incentives or ordinances requiring the replacement of existing toilets using 3.5 or more gpf *(gallons per flush) with a toilet meeting WSS.*

The County Code requires a toilet-retrofit-at-time-of-sale, administered by San Luis Obispo County Planning and Development (SLO-PD) (Title 8 Amendment) for Nipomo Mesa Water Conservation Area (NMWCA) (includes all of NCSD). Table 34 shows an estimate of water savings from the implementation of toilet retrofits according to savings standards from Amy Vickers' *Handbook of Water Use and Conservation* (21). The effectiveness of this BMP can also be measured as a part of the overall gpcd reduction from the baseline described in section 4.1.

Table 34. Toilet Retrofits

Actual	2008	2009	Estimated Water Savings
Number of toilet retrofits[1]	0	18	168,066 gal/year

[1] Assumes a retrofit of an existing toilet, which uses 3.5 gallons per flush, with a toilet using 1.6 gallons per flush, will save 9,337 gallons per year per household retrofitted. Source: (21)

4.2.13 BMP 4 COMMERCIAL, INDUSTRIAL, AND INSTITUTIONAL (DMM I)

Implementation shall consist of at least the following actions:

> *Implementation shall consist of item 1) or 2) or both in order to reach the agency's water savings goals.*
>
> *1) Implement measures on the CII list with well-documented savings that have been demonstrated for the purpose of documentation and reporting. The full list and their associated savings are included in the "Demonstrated Savings Measure List" in Section E below.*
>
> *2) Implement unique conservation measures to achieve the agency's water savings goals. Sample measures include, but are not limited to: industrial process water use reduction, industrial laundry retrofits, car wash recycling systems, water-efficient commercial dishwashers, and wet cleaning. Water use reduction shall be calculated on a case-by-case basis. Agencies will be required to document how savings were realized and the method and calculations for estimating savings. See the CII Flex Track Menu list in the attachment to Exhibit 1, as updated in the MOU Compliance Policy and BMP Guidebook.*

The District plans to implement this BMP by October 2011. It is anticipated that $5,000 from the water audit line item in the District's Water Conservation budget will be used to implement this BMP. It is assumed that the cost of implementing a CII survey program would cost less than a residential survey program because CII accounts make up a small portion of the District's customers. In 2009, the District had 98 Commercial, Industrial, and Institutional (CII) connections. CII accounts make up about 2% of the District's total accounts.

There is no method to evaluate this particular BMP currently because it has not been implemented yet. The District plans to develop a strategy to monitor the results from CII when it is implemented. The methods will be estimated on a case-by-case basis.

4.2.14 BMP 5 LANDSCAPE (DMM E)

Implementation shall consist of at least the following actions:

Agencies shall provide non-residential customers with support and incentives to improve their landscape water use efficiency. Credit for prior activities, as reported through the BMP database, will be given for documented water savings achieved through 2008.This support shall include, but not be limited to, the following:

1) Accounts with Dedicated Irrigation Meters

a) Identify accounts with dedicated irrigation meters and assign ETo-based water use budgets equal to no more than an average of 70% of ETo (reference evapotranspiration) of annual average local ETo per square foot of landscape area in accordance with the schedule below.

Recreational areas (portions of parks, playgrounds, sports fields, golf courses, or school yards in public and private projects where turf provides a playing surface or serves other high-use recreational purposes) and areas permanently and solely dedicated to edible plants, such as orchards and vegetable gardens, may require water in addition to the water use budget. (These areas will be referred to as "recreational" below.) The water agency must provide a statement designating those portions of the landscape to be used for such purposes and specifying any additional water needed above the water use budget, which may not exceed 100% of ETo on an annual basis.

If the California Model Water Efficient Landscape Ordinance is revised to reduce the water allowance, this BMP will be revised automatically to reflect that change.

b) Provide notices each billing cycle to accounts with water use budgets showing the relationship between the budget and actual consumption.

c) Offer site-specific technical assistance to reduce water use to those accounts that are 20% over budget in accordance with the schedule given in Section B; agencies may choose not to notify customers whose use is less than their water use budget.

2) Commercial/Industrial/Institutional (CII) Accounts without Meters or with Mixed-Use Meters

a) Develop and implement a strategy targeting and marketing large landscape water use surveys to commercial/industrial/institutional (CII) accounts with mixed-use meters.

b) In un-metered service areas, actively market landscape surveys to existing accounts with large landscapes, or accounts with landscapes which have been determined by the purveyor not to be water efficient.

3) Offer financial incentives to support 1) and 2) above.

The District does not currently have landscape water budgets for its CII accounts, nor does it offer water surveys for mixed use CII customers. The District plans to implement this BMP by October 2011. It is anticipated that $3,000 from the workshops line item in the District's Water Conservation budget will be used to implement this BMP.

There is no method to evaluate this particular BMP because it is not implemented yet. The District plans to estimate savings through monitoring and tracking the results of the various programs that will be implemented to encourage landscape efficiency.

4.3 BMPS NOT IMPLEMENTED OR NOT SCHEDULED TO BE IMPLEMENTED

Currently BMP 1.13 is not being implemented and is not scheduled to be implemented. This BMP is not implemented or scheduled for implementation because it is not applicable to the District as a retail agency. In the future the District will be selling water to Golden State Water Company and Rural Water Company. It is anticipated that when this happens, the District will develop a plan to implement this BMP.

5 WATER SUPPLY AND DEMAND COMPARISON

The comparison of supply and demand in the following tables portrays an equal supply-to-demand ratio every year. Water supply is described in more detail in Section 2 and water demand is described in more detail in Section 3. Figure 18 summarizes current and projected water use through 2030 considering the projected requirements for per capita demand as described in Section 3.2. The per capita projected demands reflect compliance with the per capita water use interim target (2015) and target water use (2020) identified in the Daily Per Capita Water Use Technical Memorandum (Appendix A).

Figure 18. Current and Projected Water Use

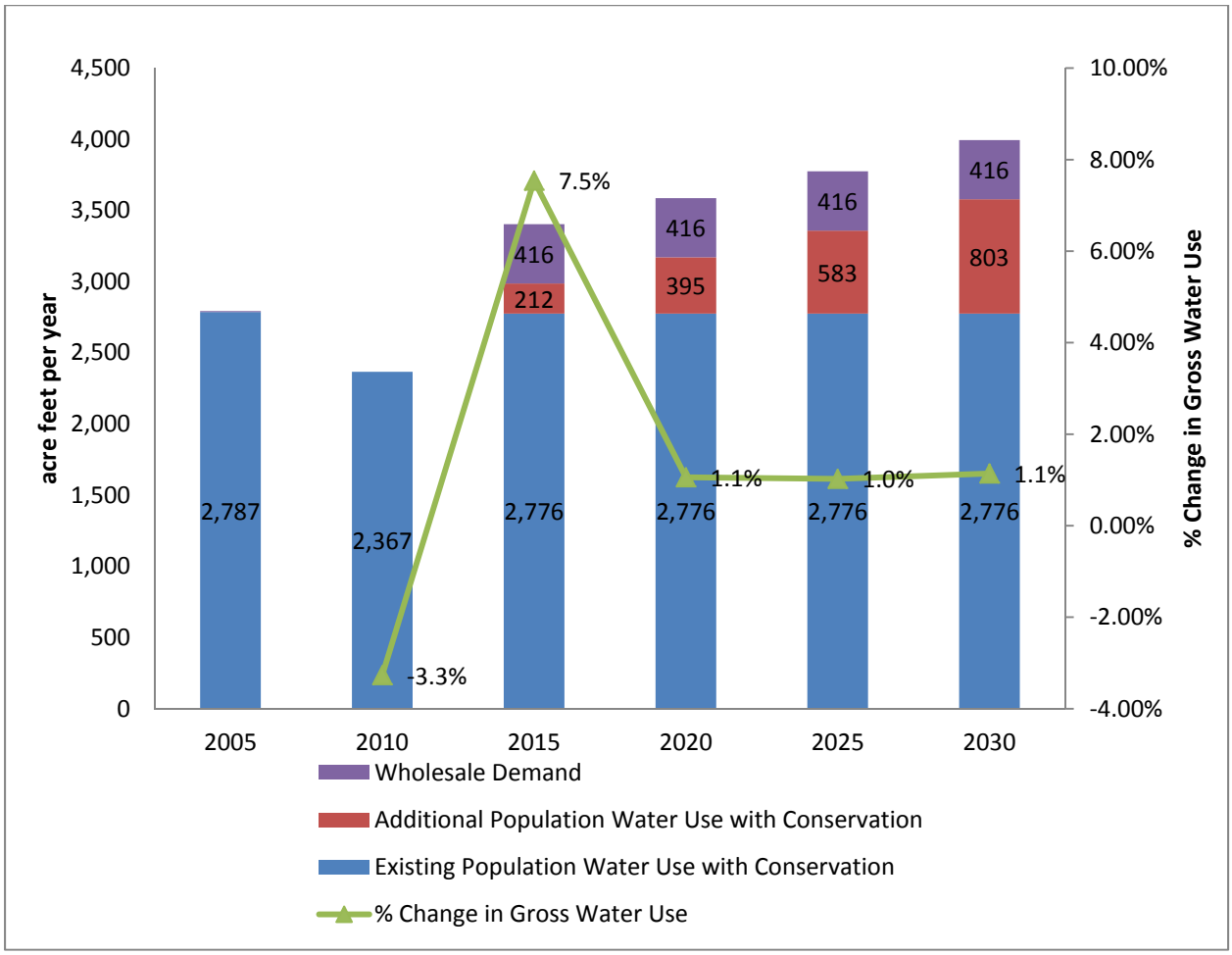


Table 35. Projected Normal Year Water Supply (afy)

	2010	2015	2020	2025	2030
Supply (afy)	2,367	3,404	3,588	3,775	3,995
% of year 2010	100%	144%	152%	160%	169%

Table 36. Projected Normal Year Demand (afy)

	2010	2015	2020	2025	2030
Supply (afy)	2,367	3,404	3,588	3,775	3,995
% of year 2010	100%	144%	152%	160%	169%

Table 37. Projected Normal Year Supply and Demand Comparison (afy)

	2010	2015	2020	2025	2030
Supply totals	2,367	3,404	3,588	3,775	3,995
Demand totals	2,367	3,404	3,588	3,775	3,995
Difference	0	0	0	0	0
Difference as % of Supply	0%	0%	0%	0%	0%
Difference as % of Demand	0%	0%	0%	0%	0%

5.1 SINGLE DRY WATER YEAR SCENARIO

Table 38 through Table 40 summarize NCSD's projected supply and demand during a single dry year.

Table 38. Projected Single Dry Year Supply (afy)

	2010	2015	2020	2025	2030
Demand	2,367	3,404	3,588	3,775	3,995
% of projected normal	100%	100%	100%	100%	100%

Table 39. Projected Single Dry Year Demand (afy)

	2010	2015	2020	2025	2030
Demand	2,367	3,404	3,588	3,775	3,995
% of projected normal	100%	100%	100%	100%	100%

Table 40. Projected Single Dry Year Supply and Demand Comparison (afy)

	2010	2015	2020	2025	2030
Supply totals	2,367	3,404	3,588	3,775	3,995
Demand totals	2,367	3,404	3,588	3,775	3,995
Difference	0	0	0	0	0
Difference as % of Supply	0.0%	0.0%	0.0%	0.0%	0.0%
Difference as % of Demand	0.0%	0.0%	0.0%	0.0%	0.0%

5.2 MULTIPLE DRY WATER YEARS SCENARIO

Table 41 through Table 52 summarize NCSD's projected supply and demand during a multiple dry year periods.

Table 41. Multiple Dry Year Supply ending in 2015 (afy)

	2011	2012	2013	2014	2015
Supply[1]	2,817	2,859	2,901	2,944	3,404
% of projected normal	100.0%	100.0%	100.0%	100.0%	100.0%

[1] It is assumed that the Supplemental Water Supply Project will be implemented by 2015

Table 42. Multiple Dry Year Demand ending in 2015 (afy)

	2011	2012	2013	2014	2015
Demand[1]	2,817	2,859	2,901	2,944	3,404
% of projected normal	100.0%	100.0%	100.0%	100.0%	100.0%

[1] Demand data from HDR UWMP Demand Tables

Table 43. Multiple Dry Year Supply and Demand Comparison ending in 2015 (afy)

	2011	2012	2013	2014	2015
Supply totals	2,817	2,859	2,901	2,944	3,404
Demand totals	2,817	2,859	2,901	2,944	3,404
Difference	0	0	0	0	0
Difference as % of Supply	0.0%	0.0%	0.0%	0.0%	0.0%
Difference as % of Demand	0.0%	0.0%	0.0%	0.0%	0.0%

Table 44. Multiple Dry Year Supply ending in 2020 (afy)

	2016	2017	2018	2019	2020
Supply[1]	3,440	3,476	3,513	3,550	3,588
% of projected normal	100.0%	100.0%	100.0%	100.0%	100.0%

[1] It is assumed that the Supplemental Water Supply Project will be implemented by 2013 and that deliveries will be increased to 2,500 afy by 2016 and, 3,000 afy by 2020.

Table 45. Multiple Dry Year Demand ending in 2020 (afy)

	2016	2017	2018	2019	2020
Demand	3,440	3,476	3,513	3,550	3,588
% of projected normal	100.0%	100.0%	100.0%	100.0%	100.0%

Table 46. Multiple Dry Year Supply and Demand Comparison ending in 2020 (afy)

	2016	2017	2018	2019	2020
Supply totals	3,440	3,476	3,513	3,550	3,588
Demand totals	3,440	3,476	3,513	3,550	3,588
Difference	0	0	0	0	0
Difference as % of Supply	0.0%	0.0%	0.0%	0.0%	0.0%
Difference as % of Demand	0.0%	0.0%	0.0%	0.0%	0.0%

Table 47. Multiple Dry Year Supply ending in 2025 (afy)

	2021	2022	2023	2024	2025
Supply	3,624	3,661	3,699	3,737	3,775
% of projected normal	100.0%	100.0%	100.0%	100.0%	100.0%

Table 48. Multiple Dry Year Demand ending in 2025 (afy)

	2021	2022	2023	2024	2025
Demand	3,624	3,661	3,699	3,737	3,775
% of projected normal	100.0%	100.0%	100.0%	100.0%	100.0%

Table 49. Multiple Dry Year Supply and Demand Comparison ending in 2025 (afy)

	2021	2022	2023	2024	2025
Supply totals	3,624	3,661	3,699	3,737	3,775
Demand totals	3,624	3,661	3,699	3,737	3,775
Difference	0	0	0	0	0
Difference as % of Supply	0.0%	0.0%	0.0%	0.0%	0.0%
Difference as % of Demand	0.0%	0.0%	0.0%	0.0%	0.0%

Table 50. Multiple Dry Year Supply ending in 2030 (afy)

	2026	2027	2028	2029	2030
Supply	3,818	3,862	3,906	3,950	3,995
% of projected normal	100.0%	100.0%	100.0%	100.0%	100.0%

Table 51. Multiple Dry Year Demand ending in 2030 (afy)

	2026	2027	2028	2029	2030
Demand	3,818	3,862	3,906	3,950	3,995
% of projected normal	100.0%	100.0%	100.0%	100.0%	100.0%

Table 52. Multiple Dry Year Supply and Demand ending in 2030 (afy)

	2026	2027	2028	2029	2030
Supply totals	3,818	3,862	3,906	3,950	3,995
Demand totals	3,818	3,862	3,906	3,950	3,995
Difference	0	0	0	0	0
Difference as % of Supply	0.0%	0.0%	0.0%	0.0%	0.0%
Difference as % of Demand	0.0%	0.0%	0.0%	0.0%	0.0%

5.3 RESOURCE MAXIMIZATION AND IMPORT MINIMIZATION

NCSD is part of the Nipomo Mesa Management Area (NMMA) within the Santa Maria Groundwater Basin. The NMMA coordinates with Northern Cities Management Area (NCMA) and Santa Maria Valley Management Area (SMVMA) to evaluate water resources. Each Management Area submits an annual report to the Court, which disseminates data and updates used to analyze the most prudent use of the Basin's groundwater.

The District has reduced its water use in the past five years and has plans to further reduce its water use as discussed in Section 3.2.1. The District also amended its annexation policy to require potential customers within the District's Sphere of Influence (SOI) to bring their own water.

6 RECYCLED WATER PLAN

6.1 INTRODUCTION

The Recycled Water Plan details the District's ongoing and planned efforts for recycled water use. Recycled water as set forth in Title 22, Division 4 of the California Code of Regulations is water which, as a result of treatment of wastewater, is suitable for a direct beneficial use or a controlled use that otherwise would not occur. The UWMP Act requires NCSD to include the following information in the Recycled Water Plan:

- Summary of coordination with local water, wastewater, groundwater and planning agencies to develop a recycled water plan for the area
- Description of the wastewater collection and treatment systems in the service area, a quantification of the amount of wastewater collected and treated and methods of disposal
- Description of the quantity of treated wastewater that meets recycled water standards
- Description of current recycled water usage
- Description of potential uses of recycled water
- Projection of recycled water use
- Description of actions and incentives in place to encourage recycled water use
- A plan for optimizing recycled water use

6.2 LOCAL AGENCY COORDINATION

The District does not plan on increasing its recycled water use as discussed in section 6.5. As a result, there is very little coordination with local and regional agencies. The Regional Water Quality Control Board (RWQCB) is the entity responsible for enforcing water quality standards for the District's two treatment facilities. The District works with this regional agency closely, and the RWQCB was provided a copy of this plan.

6.3 WASTEWATER SYSTEM DESCRIPTION

NCSD operates two wastewater treatment facilities. Blacklake Wastewater Treatment Plant (Blacklake WWTP) collects and treats wastewater from the Blacklake sewer system. The Southland WWTF collects and treats wastewater from much of the District and some properties outside of the NCSD boundary. Table 53 shows the amount of wastewater collected from both facilities and the amount that is recycled. A portion of the community is not sewered and utilizes septic systems.

The Blacklake system treats wastewater through secondary treatment and recycles the wastewater in the Blacklake golf course water hazards. From the water hazards, water is extracted as necessary to irrigate the course.

The Southland WWTF carries out secondary treatment. The treated water is disposed of in percolation ponds on-site. Since the treated wastewater percolates into the ground, it is believed that the water ultimately serves to augment the groundwater basin. The District is planning to treat this water to recycled water standards. However, the time of implementation and amount of recycled water production is beyond the planning horizon of this UWMP. Wastewater recycling and discharge alternatives are evaluated in AECOM's Preliminary *Screening Evaluation of Southland Wastewater Treatment Facility Disposal Alternatives,* 2009 (22). The District has no formal plan to implement any further recycled wastewater programs other than the Blacklake golf course recycled water irrigation for the timeline of this UWMP, but will in the future.

Table 53. Wastewater Collected and Recycled

Wastewater Collection and Treatment System	2005	2010	2015	2020	2025	2030
Southland Wastewater Treatment Facility Average Annual Flow (afy)[1]	640	886	1,132	1,378	1,624	1,870
Blacklake (afy)	60	71	71	71	71	71
Quantity that meets recycled water standard (afy)[2]	60	71	71	71	71	71

[1] Data interpolated from the Southland WWTF Master Plan Amendment #1 (23)

[2] Assumes the amount of wastewater recycled in 2009 will be recycled in all years to follow. All water processed through the Blacklake WWTF meets reclaimed water permit conditions.

6.4 RECYCLED WATER SUPPLY AND USES

Blacklake WWTP is the only place where wastewater is recycled in the District. The method of disposal for the Southland WWTF is through percolation ponds. Table 54 shows the existing and projected amounts of wastewater disposed per year at Southland WWTF.

Table 54. Disposal of Wastewater (non-recycled)

Method of Disposal	Treatment Level	2010	2015	2020	2025	2030
Percolation Ponds (afy)[1]	Secondary	886	1,132	1,378	1,624	1,870

[1] Data interpolated from the Southland WWTF Master Plan Amendment #1 (23)

In 2009, the District recycled about 60 afy at the Blacklake WWTP. Table 55 shows the amount of water recycled currently and the projected future amounts. There are no current plans to expand the Blacklake WWTP and as a result, the amount of water recycled in 2009 is assumed to be the amount recycled in the future, through 2030.

Table 55. Projected Future Recycled Water Use in Service Area

	Treatment Level	2010	2015	2020	2025	2030
Golf Course Irrigation (afy)[1]	Disinfected Secondary	71	71	71	71	71

[1] Assumes data from District staff for 2009 will be the same for projected future recycled water use.

As shown in Table 56, the projected amount of recycled water use from 2005 was higher than the actual 2010 amount.

Table 56. Recycled Water Use 2005 Projection Compared to Actual

User type	2005 Projection for 2010	2010 actual use[1]
Golf Course Irrigation (afy)	75	71

[1] 2010 actual recycled water use assumed to be the same as 2009 data.

The actual and potential recycled water uses shown in Table 56 stay the same because the District has no specific plan yet to increase the use of recycled water.

6.5 RECYCLED WATER USE OPTIMIZATION

The alternatives for recycling or discharging the treated water from the Southland WWTF were analyzed in AECOM's *Preliminary Screening Evaluation of Southland Wastewater Treatment Facility Disposal Alternatives 2009* (22) and irrigation was evaluated as part of the *Evaluation of Supplemental Water Alternatives* study conducted by Boyle Engineering Corporation in 2007 (13). The study determined the use of recycled water as a substitute for irrigating with well water resulted in a small decrease in the net water extracted from the groundwater basin. Use of recycled water to augment the aquifer was also studied. This alternative resulted in no increase in supply to the District. The District does plan to eventually carry out tertiary treatment and is analyzing tertiary treatment as part of the EIR for Southland WWTF currently being developed.

7 WATER SHORTAGE CONTINGENCY PLAN

7.1 INTRODUCTION

The District's involvement with the Santa Maria Groundwater Basin Litigation and the legal requirements of the Adjudication complicate the District's ability to fulfill the UWMP Act's requirements. The Adjudication mandates two stages of action (Table 58). The District does have an Ordinance No. 2009-113 which outlines different stages of action to address a water shortage. The District Code currently only shows one stage of action which involves voluntary conservation. Mandatory conservation stages and conditions, prohibitions, reduction methods, and penalties were suspended by the NCSD Board of Directors through Resolution No. 2008-1098 in July of 2008. The rationale for the suspension is that it is not fair for the customers of NCSD to bear mandatory measures of conservation and associated costs when the rest of the members of the NMMA are not. The suspension is subject to change and can be overturned at any time by the Board of Directors. Therefore, the measures from the suspended ordinance are shown in this UWMP to fulfill the requirements of the UWMP Act as well as to plan for future water shortages. It is assumed during a severe water shortage the resolution would most likely be amended to reinstitute the mandatory conservation measures in coordination with the NMMA TG and anticipated Court orders.

7.2 STAGES OF ACTION

Currently the District only has one water conservation stage shown as Stage No. I in Table 57. The other stages are suspended as discussed previously in section 7.1.

Table 57. Water Conservation Stages

Stage No.	Water Supply Conditions	% Shortage
I.	Voluntary Conservation shall be requested annually on May 15th. Stage I will be rescinded on October 15th or at any time that prevailing conditions indicate a more restrictive stage is necessary.	up to 15%
II.[1]	Conservation shall be required when pumpage is in excess of 1.5mgd for four consecutive days or pumpage in excess of 1.9 mgd for one day. Upon termination of Stage II, Stage I becomes operative.	15%-30%
III.[1]	Conservation shall be required when pumpage is in excess of 1.9mgd for four consecutive days; or 2.1mgd for one day; or continually failing reservoir levels which do not refill above fifty percent overnight. Stage III shall be terminated when all of the conditions listed as triggering events have ceased to exist for a period of five consecutive days. Upon termination of Stage III, Stage II becomes operative.	up to 50%

[1] Stages No. II and III are from Ordinance 92-65, which was suspended by Resolution No. 2008-1098. Resolution No. 2008-1098, § 1a-d, adopted July 23, 2008, suspended §§ 3.24.030(8)(C) related to stage II and Stage III mandatory conservation. Resolution No. 2008-1098 was further revised by Ordinance 2009-113 by the NCSD Board of Directors. The mandatory conservation Stages No. II and III can be reinstated by the Board at any time.

The NMMA's conservation stages are outlined in Table 58 to show the stages of conservation required by the Stipulation in the Response Plan for Potentially Severe and Severe Water Shortage Conditions (Response Plan). Currently the NMMA is in the Potentially Severe condition and as a result voluntary conservation is required. The Response Plan for a Severe Water Shortage is discussed in Section 7.5.

Table 58. NMMA Water Supply Conservation Stages

Stage #		Water Supply Conditions	
		Starts	Ends
I. Potentially Severe Water Shortage	Inland Area	If the Key Well Index is lower than 31.5 ft msl for two consecutive Spring measurements	Key Well Index is above 31.5 ft msl for two consecutive Spring measurements, or Key Well Index is 36.5 ft msl or higher in any Spring measurement
	Coastal Area	If the Spring groundwater elevation drops below threshold, or chloride concentration exceeds 250mg/L	Spring groundwater elevations are above threshold, and chloride concentration at or below 250 mg/L for two consecutive Spring measurements
II. Severe Water Shortage	Inland Area	Key Well Index is less than 16.5 ft msl using Spring measurements	Key well Index is greater than 26.5 ft msl using Spring measurements
	Coastal Area	Chloride concentration exceeds 500 mg/L	Chloride concentration is less than 500 mg/L for two consecutive Spring measurements

Source: NMMA Shortage Conditions and Response Plan 3/26/2009 (24)

7.3 THREE-YEAR MINIMUM WATER SUPPLY

The UWMP Act requires the District to quantify the minimum water supply available during the next three-years (e.g., 2011-2013) based on the driest three-year historic sequence for the water supply. Based on historic pumping, the District three-year minimum supply shown in Table 59 will equal 100% of the demand for the next three-years, unless the NMMA TG declares a Severe Water Shortage followed by pumping limitations. The demand and supply for 2011-2013 includes conservation.

Table 59. Three-year Minimum Water Supply

Source	2011	2012	2013
NMMA Groundwater Supply[1]	2,817	2,859	901
NCSD Nipomo Valley Groundwater Supply[1]	0	0	0
Santa Maria Supplemental Water Supply Project[2]	0	0	2,000
Total	**2,817**	**2,859**	**2,901**

[1] Supply is assumed to equal 100% of demand.

[2] It is assumed that the Supplemental Water Supply Project will be implemented by 2013. The Wholesale Water Supply Agreement provides a minimum delivery of 2,000 afy for years one through ten (years 2013-2023); 2,500 afy for years 11 through 19 (2024-2032); and 3,000 afy for years twenty through the end of the contract (2033-end of term) (Appendix D). The District will receive 100% of the supplemental water delivered per the requirements of the Judgment. Groundwater pumping will equal the demand not met by supplemental water.

7.4 CATASTROPHIC SUPPLY INTERRUPTION PLAN

7.4.1 Introduction

The UWMP Act requires a catastrophic supply interruption plan. This plan looks at the vulnerability of each source and distribution system to events such as wildfires, flooding, earthquakes, landslides, rockslides, other natural disasters, and unforeseen emergencies. The actions taken to address each catastrophe are presented in Table 60.

Table 60. Catastrophic Supply Interruption Actions [1]

Possible Catastrophe	Summary of Actions
Wildfire	Notification of affected customers and implementation of voluntary and mandatory rationing, only if necessary, in the affected portions of the service area.
Flooding	Isolation, as needed, to minimize the area affected by flooding damage. Large scale system impact is not expected from flooding events.
Earthquake/ Fault Rupture/ Liquefaction	Emergency response plan procedures would go into effect. These procedures would insure any damaged sections of the distribution system were isolated; customers would be notified of the need to limit use; groundwater pumping would be established using backup generators if necessary; and water supply would be supplemented using water in storage.
Landslides/ Rockslides	Given the location and nature of NCSD facilities, these events are not considered significant threats to the NCSD water production or distribution system.

[1] Adapted from the 2005 NCSD UWMP.

The District is subject to the San Luis Obispo County Emergency Operations (25), which is a County-wide emergency response plan. NCSD has an Emergency Response Plan which provides guidance for emergency situations (26). The contents of the plan include information on the chain of command to be followed at the field response, local government, operational area, regional, and state levels. Contact information for public health and safety officials, inventories of equipment suitable for emergency repairs, procedures for notifying the public, training, drills, and restoration and recovery actions are also included in the plan.

7.4.2 Minimum Storage Requirements

According to the Water and Sewer Master Plan 2007 (11) the District is required by State Law (Title 22 Requirements) to maintain sufficient water storage capacity within its system to meet three basic needs: fire storage, emergency storage, and equalization storage.

The fire storage is estimated to be a minimum of 540,000 gallons to fight a fire for a duration of three hours at 3,000 gpm. In the Water and Sewer Master Plan it is assumed that the minimum value required is equal for both existing and future conditions.

The emergency water storage is calculated by multiplying population by 50 gallons per day for three days. Table 61 shows the amounts of emergency water storage required from 2010-2030. The District is allowed to meet its emergency water storage requirements by having a sufficiently sized well on emergency backup power. The Sundale Well has an electric motor and standby generator. The generator is a 300kw generator on a trailer for an emergency power situation. The District also has outfitted its Via Concha and Eureka Wells with manual transfer switches and generator receptacles. The District has a pre-negotiated contract with Quinn Generators for an emergency generator source. The Sundale Well is capable of producing 3.71 MG over a three-day period, which more than satisfies the minimum emergency storage supply requirement.

Table 61. Emergency Water Storage Requirement

Year	Population	Emergency storage requirement (gal)
2010	12,148	1,822,200
2015	13,074	1,961,110
2020	13,878	2,081,746
2025	14,699	2,204,891
2030	15,662	2,349,295

Equalization storage is required to maintain availability of demand during peak conditions when system demands are greater than that being fed directly from supply sources. The District's Water and Sewer Master Plan (11) estimates equalization storage using the formula: (1.5 – 1) times maximum day demand (gpm) times 14 hours times 60 minutes per hour. Estimates of equalization storage required through the planning horizon are shown in Table 62.

Table 62. Equalization Storage Requirement

Year	Demand (afy)	Average Daily Demand (MGD)	Maximum Daily Demand (MGD)	Maximum Day Demand (gpm)	Equalization Storage (MGal)
2010	2,367	2.11	3.59	2492	1.05
2015	3,404	3.04	5.16	3584	1.51
2020	3,588	3.20	5.44	3778	1.59
2025	3,775	3.37	5.73	3976	1.67
2030	3,995	3.56	6.06	4207	1.77

The amount of storage available is 3.68 MG of useful storage (11). The amount of proposed water available from the Sundale Well on an emergency basis over the course of three days is limited to the amount of required emergency storage, which acts to offset the emergency storage requirement. Table 63 shows that there is a surplus of storage for fire, emergency, and equalization requirements.

Table 63. Minimum Storage Requirement and Available Storage

	2010	2015	2020	2025	2030
Fire (gal)	540,000	540,000	540,000	540,000	540,000
Equalization (gal)	1,046,685	1,505,447	1,586,735	1,669,713	1,767,018
Emergency (gal)	1,822,200	1,961,110	2,081,746	2,204,891	2,349,295
Total minimum storage requirement	3,408,885	4,006,557	4,208,481	4,414,604	4,656,313
Storage available	3,680,000	3,680,000	3,680,000	3,680,000	3,680,000
Sundale Well storage credit	1,822,200	1,961,110	2,081,746	2,204,891	2,349,295
Surplus (deficit) of storage	2,093,315	1,634,553	1,553,265	1,470,287	1,372,982

7.4.3 Emergency Connections

If NCSD is not able to meet its emergency demands with its available supply, existing connections with other water purveyors could be utilized. NCSD has emergency connections with Golden State Water Company and Woodlands Mutual Water Company. However, these purveyors' distribution systems have a lower hydraulic grade than the District's distribution systems.

7.4.4 Design and Construction Standards

The District's facilities are designed and constructed to meet or exceed American Water Works Association standards in addition to local, state, and federal code. These standards limit the potential for damage to the District's facilities. The most vulnerable portions of the distribution system (e.g., pipeline crossing unstable soils, pipelines placed on bridges) have redundant interconnections. Redundant systems are also included in the District's groundwater pumping facilities.

7.5 MANDATORY PROHIBITIONS AND RESTRICTIONS

The Stipulation and Judgment incorporate the NCSD supplemental water project to import 2,500 afy of supplemental water to the NMMA with financial participation from WMWC, GSWC, and RWC. While the supplemental water is not available, the following actions are required by the Stipulation:

> *VI(A)(5). …In the event that Potentially Severe Water Shortage Conditions or Severe Water Shortage Conditions are triggered as referenced in Paragraph VI(D) before Nipomo Supplemental Water is used in the NMMA, NCSD, [GSWC5], Woodlands and RWC agree to develop a well management plan that is acceptable to the NMMA Technical Group, and which may include such steps as imposing conservation measures, seeking sources of supplemental water to serve new customers, and declaring or obtaining approval to declare a moratorium on the granting of further intent to serve or will serve letters.6*
>
> *VI(D)(1b) Responses [Severe]. As a first response, subparagraphs (i) through (iii) shall be imposed concurrently upon order of the Court. The Court may also order the Stipulating Parties to implement all or some portion of the additional responses provided in subparagraph (iv) below.*
>
> *(iii) NCSD, RWC, SCWC, and Woodlands (if applicable as provided in Paragraph VI(B)(3) above) shall implement those mandatory conservation measures prescribed by the NMMA Technical Group and approved by the Court.*
>
> *(iv) If the Court finds that Management Area conditions have deteriorated since it first found Severe Water Shortage Conditions, the Court may impose further mandatory limitations on Groundwater use by NCSD, SCWC, RWC and the Woodlands. Mandatory measures designed to reduce water consumption, such as water reductions, water restrictions, and rate increases for the purveyors, shall be considered.*
>
> *(v) During Severe Water Shortage Conditions, the Stipulating Parties may make agreements for temporary transfer of rights to pump Native Groundwater, voluntary fallowing, or the implementation of extraordinary conservation measures. Transfer of Native Groundwater must benefit the Management Area and be approved by the Court.10*

The mandatory limitations on groundwater use during a Severe Water Shortage are yet to be determined by the NMMA TG. It is assumed that the suspended ordinance shown in Table 64 would be similar to prohibitions during a Severe Water Shortage recommended by the NMMA TG or imposed by the Court.

Table 64. Water Use Prohibitions

Stage When Prohibition Becomes Necessary	Prohibitions
Stage I	Customers of the Nipomo Community Services District are requested to voluntarily limit the amount of water used from May 15th to October 15th of each year to that amount absolutely necessary for health and business. A fifteen percent reduction in water use is requested.
Stage II[1]	In addition to prohibitions and restrictions previously listed: 1. All outdoor irrigation of vegetation shall occur only between the hours of six p.m. and nine a.m. on designated days and must utilize hand held hoses, drip irrigation or permanently installed automatic sprinkler systems; 2. The washing of automobiles, trucks, trailers, boats and other types or mobile equipment not occurring upon the immediate premises of commercial car washes and commercial service stations and not in the immediate interest of the public health, safety and welfare shall be prohibited; 3. Use of water from fire hydrants shall be limited to fire suppression and/or other activities immediately necessary to maintaining health, safety and welfare of the citizens within the boundaries of the Nipomo Community Services District.
Stage III[1]	In addition to prohibitions and restrictions previously listed: 1. Use of potable water to irrigate grass, lawns, groundcover, shrubbery, vegetation, ornamental trees, etc., shall be prohibited; 2. Quantity of water used shall not exceed seventy-five gallons per day per person. (Ord. 92-65 3, 1992)

[1]Stages No. II and III are from Ordinance 92-65, which was suspended by Resolution No. 2008-1098. Resolution No. 2008-1098, § 1a-d, adopted July 23, 2008, suspended §§ 3.24.030(8)(C) related to stage II and Stage III mandatory conservation. Resolution No. 2008-1098 was further revised by Ordinance 2009-113 by the NCSD Board of Directors. The mandatory conservation Stages No. II and III can be reinstated by the Board at any time.

7.6 CONSUMPTION REDUCTION METHODS

The methods to reduce consumption are outlined in Table 64 and they coincide with the stages and percent of reduction outlined in Table 57. The existing District Code Chapter 3.24.050 does offer some water saving devices and policies that can be used to reduce consumption:

- All customers are encouraged to install and use the following water conservation devices:
  - Drip irrigation
  - Low-flush toilets 1.28 gallons per flush or less
  - Low-flow shower heads 2.5 gallons per minute or less
  - Bathroom sink aerators 2 gallons per minute or less
- No person, corporation or association shall be given relief on appeal unless the customer has installed all water-saving devices which are feasible.

The County Code requires a toilet-retrofit-at-time-of-sale, administered by San Luis Obispo County Planning and Development (SLO-PD) (Title 8 Amendment) for Nipomo Mesa Water Conservation Area (NMWCA) (includes all of NCSD).

The District also implements various programs, tools, and educational strategies to reduce consumption. The conservation strategies described in section 3.2 are encouraged to reduce demand. The following are some programs used to help reduce water demand:

- High efficiency washer rebate program
- Water audit program
- Turf-replacement program
- Quarterly newsletter
- Outreach workshops
- Advertising
- Events and item giveaways
- Post cards, brochures mailed out to NCSD customers
- Conservation website
- Door hangers for water waste and other water issues

7.7 PENALTIES FOR EXCESSIVE USE

The District's penalties and charges are suspended by Resolution No. 2008-1098. They are shown in Table 65.

Table 65. Penalties and Charges

Penalty or Charge[1]	Stage When Penalty Takes Effect
A copy of the notice will be left with someone at the establishment, or left in a conspicuous place, at the time of the violation observance.	First Violation
A copy of the violation notice will be sent to the address of the violator by certified mail, return receipt requested, with a letter explaining the gravity of the situation and the penalties for future violations.	Second Violation
A one gallon per minute flow restriction will be installed at the violators meter and left in place for seventy-two hours. Installation and removal charges of thirty dollars will be assessed to the account of the violator.	Third Violation
The water meter will be removed from the premises of the violator. The meter will be reinstalled after the payment of a fifty-dollar reconnection charge. (Ord. 92-65 6, 1992)	Fourth Violation

[1] Stages No. II and III are from Ordinance 92-65, which was suspended by Resolution No. 2008-1098. Resolution No. 2008-1098, § 1a-d, adopted July 23, 2008, suspended §§ 3.24.030(8)(C) related to stage II and Stage III mandatory conservation. Resolution No. 2008-1098 was further revised by Ordinance 2009-113 by the NCSD Board of Directors. The mandatory conservation Stages No. II and III can be reinstated by the Board at any time.

Currently, the District Code states NCSD customers should not waste water. The policy is specified below:

3.24.020 - Voluntary Restrictions on Non-Essential and/or Wasteful Use of Water

A. The waste of District water includes:

(1) Use through any meter when the utility has notified the customer in writing to repair a broken or defective lateral, sprinkler, watering or irrigation system and the customer has failed to effect such repairs within five business days;
(2) Use of potable water for washing streets with trucks, except to protect the health and safety of the public;
(3) Operation of commercial car washes without recycling at least 50% of the potable water used per cycle; and
(4) The use of potable water to jet wash sewer lines, except where required for public health or safety; and
(5) Individual private washing of cars, trucks, and commercial vehicles with a hose except with the use of a positive action shut-off nozzle.

B. In addition to those restrictions referenced in subparagraph A above, during periods of Potentially Severe Water Shortage Conditions, the waste of District water includes:

(1) Use of potable water to irrigate turf, lawns, gardens, or ornamental landscaping between the hours of 7 a.m. and 7 p.m. without quick acting positive action shut-off nozzle;
(2) Use of potable water for decorative fountains or the filling or topping off of decorative lakes or ponds. Exceptions are made for those decorative fountains, lakes, or ponds which utilize recirculated water; and
(3) Service of water by any restaurant except upon request of a patron.

C. The General Manager shall institute a public awareness campaign regarding the waste of District water, including notices to each District water customer within fourteen (days) of the District's approval of Sections 3.24.020 A and B.

There are no penalties or charges to enforce this policy.

7.8 REVENUE AND EXPENDITURE ANALYSIS

The percent reductions outlined in Table 57 are used to show hypothetical percent reductions of 15%, 30%, and 50% in Table 66. NCSD's Operating and Non-Operating Budgets Fiscal Year 2009-2010 (27) line item data was used to calculate the revenue and expenditure analysis in Table 66. The sub categories of the 'Revenues' category and the 'Expenditures' category shown in Table 66 are the only categories in the budget which would, presumably, change with a water use reduction. Therefore, the sub categories are the only categories calculated to have a roughly proportional change in monetary value with the percent change of water use. Those select changes are then combined in the 'total' category. That 'total' is combined with all of the categories from the Budget in the' '09-'10 total' category to reflect the overall difference. The expenditures and revenues are summed to create the 'surplus (deficit)'. The 'surplus (deficit)' is then combined with the 'estimated account balance 7/1/09' to produce the 'estimated account balance 7/1/10'. The resulting estimated balance shows there are more than enough funds to cover a 15%-50% reduction of water use. This projection is very rough and does not account for multiple details that are included in a budget calculation. It is meant to show that extreme reduction of water use would have a substantial effect on the budget, especially if spanned over multiple years.

Table 66. Revenue and Expenditure Projections

Revenues	Total '09-'10 [1]	15% reduction	30% reduction	50% reduction
water- usage charges	$2,150,000	$1,827,500	$1,505,000	$1,075,000
sewer revenues	$2,124,000	$1,805,400	$1,486,800	$1,062,000
total (only categories above)	$4,274,000	$3,632,900	$2,991,800	$2,137,000
'09-'10 total revenues	$6,838,724	$6,197,624	$5,556,524	$4,701,724
Expenditures				
lab tests and sampling	$81,900	$94,185	$106,470	$122,850
outside services	$43,020	$49,473	$55,926	$64,530
water conservation/ recycling program	$125,500	$144,325	$163,150	$188,250
total (only categories above)	$250,420	$287,983	$325,546	$375,630
'09-'10 total expenditure	$7,739,853	$7,777,416	$7,814,979	$7,865,063
Surplus (deficit)	($901,129)	($1,579,792)	($2,258,455)	($3,163,339)
Estimated funds available				
estimated account balance 7/1/09	$10,627,600	$10,627,600	$10,627,600	$10,627,600
Surplus (deficit)	($901,129)	($1,579,792)	($2,258,455)	($3,163,339)
estimated account balance 7/1/10	$9,726,471	$9,047,808	$8,369,145	$7,464,261

[1]Data adapted from NCSD's Operating and Non-Operating Budgets Fiscal Year 2009-2010 **(27)**

7.9 DRAFT WATER SHORTAGE CONTINGENCY ORDINANCE

The District does not currently have an adopted water shortage contingency ordinance or resolution. As discussed previously, if Potentially Severe or Severe Water Shortage Conditions are reported by the NMMA TG to the Court, and the Court confirms the Potentially Severe or Severe Water Shortage Conditions, then water shortage contingency measures are implemented as stipulated by the Court. The Court may implement responses including measures recommended in the NMMA TG Annual Report and the related Court proceedings. Therefore, the NMMA TG Annual Report and the Stipulation serve as a framework for the draft water shortage contingency ordinance.

The District does have an Ordinance No. 2009-113 which outlines different stages of action to address a water shortage. Mandatory conservation stages and conditions, prohibitions, reduction methods, and penalties were suspended by the NCSD Board of Directors through Resolution No. 2008-1098 in July of 2008. The suspension is subject to change and can be overturned at any time by the Board of Directors. Therefore, the measures from the suspended ordinance are shown in this UWMP as a draft ordinance to fulfill the requirements of the UWMP Act as well as to plan for future water shortages. It is assumed during a severe water shortage the current ordinance would most likely be amended to reinstitute mandatory conservation measures in coordination with the NMMA TG and anticipated Court orders.

8 ADOPTION AND IMPLEMENTATION OF UWMP

The Final 2010 UWMP was formally adopted by the Board of Directors for NCSD on _____, 2011. A copy of the plan was sent to the County of San Luis Obispo on Month Day, 2011. A copy of the adopted plan was made available to the public for review as of Month Day, 2011.

8.1 ADOPTION RESOLUTION

A copy of the adoption resolution is included in Appendix G.

8.2 IMPLEMENTATION OF THE RECYCLED WATER PLAN

The Recycled Water Plan included in this UWMP is being implemented as planned. The current use of recycled water is the furthest extent to which the District will pursue recycled water uses at this time. The District conducted an Evaluation of Southland WWTF Disposal Alternatives and concluded it was not economically feasible to increase the use of recycled water at this time (22). However, tertiary treatment is currently being analyzed in the Southland WWTF EIR.

8.3 IMPLEMENTATION OF THE CONSERVATION BEST MANAGEMENT PRACTICES

The DMMs listed in the 2005 UWMP are being implemented as planned or exceed the planned implementation. Section 4 describes the currently implemented BMPs and the BMPs scheduled for implementation. Currently, the District is not in full compliance with the CUWCC MOU. The Best Management Practices Report (BMP Report) is attached in Appendix E to provide a framework to implement BMPs for future UWMPs. The BMP report and Section 4 cover all of the existing programs and policies implemented by the District and their implementation program to fulfill the requirements of the BMPs.

9 REFERENCES

1. **California Department of Water Resources.** *Guidebook to Assist Water Suppliers to Prepare a 2010 Urban Water Management Plan.* 2010.

2. —. *Urban Water Use Target Technical Methodologies - Public Draft.* 2010.

3. **Commission, San Luis Obispo Local Agency Formation.** *Adopted Sphere of Influence Update and Municipal Service Review Nipomo Community Services District.* July 2010.

4. **California Department of Water Resources.** California Irrigation Management Information System. *CIMIS [Monthly Average ETo].* [Online] State of California, 2009. [Cited: 4 23, 2010.] http://www.cimis.water.ca.gov/cimis/logon.do;jsessionid=AC9518FD1C89A2233924F134AAC0D7C7?forwardURL=/frontMonthlyEToReport&selTab=data.

5. **San Luis Obispo County Public Works Department.** *Monthly Precipitation Report.* 2009. http://www.slocountywater.org/site/Water%20Resources/Data/Volunteer%20Precipitation%20Sites/pdf/CDF%20Nipomo%20%23151.1%20Precipitation%20Data.pdf.

6. **Western Regional Climate Center.** Santa Maria WSO ARPT- Climate Summary. [Online] [Cited: 4 23, 2010.] http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7946.

7. **San Luis Obispo County Department of Planning and Building.** *Housing Element 2009-2014.* December 8, 2009.

8. **S.S. Papadopulos & Associates, Inc.** *Nipomo Mesa Groundwater Resource Capacity Study, San Luis Obispo County, California.* March 2004.

9. **Nipomo Mesa Management Area Technical Group.** *Nipomo Mesa Management Area 2nd Annual Report Final Calendar Year 2009.* 2010.

10. **California Department of Water Resources.** *Water Resources of the Arroyo Grande- Nipomo Mesa Area Southern District Report.* 2002.

11. **Cannon Associates.** *Water and Sewer Master Plan Update.* December 2007.

12. **Kennedy/Jenks Consultants.** *Evaluation of Water Supply Alternatives.* October 2001.

13. **Boyle Engineering Corporation.** *Evaluation of Supplemental Water Supply Alternatives- Technical Memorandum No. 1.* June 2007.

14. **Douglas Wood and Associates, Inc.** *Nipomo Community Services District Waterline Intertie Final Environmental Impact Report.* March, 2009.

15. **Resources, California Department of Water.** *California Water Plan Update 2009 Integrated Water Management Bulletin 160-09.* December 2009.

16. *Wholesale Water Supply Agreement .* 2009.

17. **CH2MHILL.** *2005 Urban Water Management Plan- City of Santa Maria.* April 2007.

18. **Hopelain, David.** No Water, No Future. [book auth.] UCLA Anderson Forecast. *Solutions for Our State March 2008 Economic Outlook.* 2008.

19. **Nipomo Community Services District.** *Water Conservation Program.* February 2008.

20. **City of San Luis Obispo.** *Environmental Stewardship Report A Summary of Resource Protection 2009.* 2009. http://www.ci.san-luis-obispo.ca.us/naturalresources/download/esr09.pdf.

21. **Vickers, Amy.** *Handbook of Water Use and Conservation.* Amherst, MA : WaterPlow Press, 2002.

22. **AECOM.** *Nipomo Community Services District Preliminary Screening Evaluation of Southland Wastewater Treatment Facility Disposal Alternatives.* January 2009.

23. —. *Nipomo Community Services District Southland Wastewater Treatment Facility Master Plan Amendment #1.* August 2010.

24. **Nipomo Mesa Management Area Technical Group.** *Nipomo Mesa Management Area Water Shortage Conditions and Response Plan.* April 2009.

25. **San Luis Obispo County Office of Emergency Services Plans and Operations.** *2008 Emergency Operations Plan.* December 2008. http://www.slocounty.ca.gov/OES/plans.htm.

26. **California Department of Health Services Drinking Water Field Operations Branch.** *California Emergency Response Plan Guidance- Nipomo Community Services District.* August 2006.

27. **Nipomo Community Services District.** *Operating and Non- Operating Budgets Fiscal Year 2009-2010.*

28. **Western Regional Climate Center.** Nipomo 2 NW, CALIFORNIA- Climate Summary. [Online] [Cited: 4 23, 2010.] http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca6207.

29. **AECOM.** *Nipomo Community Services District Southland Wastewater Treatment Facility MASTER PLAN.* January 2009.

30. **A&N Technological Services, Inc.** *BMP Costs and Savings Study: A Guide to Methods for Cost-Effectiveness Analysis of Urban Water Conservation Best Management Practices.* s.l. : The California Urban Water Coservation Council, March 2005.

31. **San Luis Obispo County Department of Planning and Building.** *Resource Capacity Study Water Supply in the Nipomo Mesa Area.* November 2004.

32. **Science Applications International Corporation.** *Spring 2010 Groundwater Index.* July 15, 2010.

33. **Todd Engineers.** *2009 Annual Monitoring Report - Northern Cities Management Area.* 2010.

34. **Governments, San Luis Obispo Council of.** *1990 Population and Age Characteristics Community Summary.*

35. —. *2000 Population and Age Characteristics Community Summary.*

36. **Economic Research Associates.** *Long-Range Socio-Economic Projections (Year 2030) San Luis Obispo County, CA Prepared for San Luis Obispo Council of Governments.* May 2006.

37. **California Urban Water Conservation Council.** *Memorandum of Understanding Regarding Urban Water Conservation in California.* June 9, 2010.

APPENDIX A. PER CAPITA WATER USE TECHNICAL MEMO

Technical Memorandum

Date: 5/18/2011

To: Mr. Michael LeBrun
Nipomo Community Services District
148 S. Wilson Street
Nipomo, CA 93444

Phone: (805) 929-1133

Prepared by: Spencer Waterman

Reviewed by: Jeffery Szytel, PE

Project: NCSD 2010 Urban Water Management Plan Update

SUBJECT: **BASELINE AND TARGET DAILY PER CAPITA WATER USE – (REVISED 04/26/2011)**

This memorandum presents the methodology used to calculate baseline and target daily per capita water use for the Nipomo Community Services District (NCSD or the District) as required by Senate Bill x 7-7 (SB 7) and the California Water Code (as amended). These values will be utilized to develop demand projections for the District, and will be reported in the District's 2010 Urban Water Management Plan (UWMP).

Background

On November 10, 2009, Governor Arnold Schwarzenegger signed SB 7 into law. The legislation requires all water suppliers to achieve a reduction in per capita water use of 20% by December 31, 2020, with an interim target of 10% reduction by December 31, 2015. The legislation requires each urban water supplier to develop, and include in its UWMP, estimates of: 1) baseline daily per capita water use; 2) urban water use target; 3) interim urban water use target; and 4) compliance daily per capita water use. The UWMP must also include bases for determining the estimates, with references to supporting data. However, SB 7 did not include a detailed description of the allowable methodologies for determining the required values. Instead, it required California Department of Water Resources (CA-DWR) to develop appropriate methodologies and criteria, and to make them available to water suppliers no later than October 1, 2010. In consideration of this delay, the bill extended the deadline for submission of the 2010 UWMP to July 1, 2011.

In connection with preparation of the District's 2010 UWMP update, NCSD hired Water Systems Consulting, Inc. (WSC) to develop the required estimates described by SB 7. The water use target methodology is based on Method 1, Method 3, and Method 4 from the *Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use* report (Technical Methodologies report) prepared by the California Department of Water Resources (DWR). The baseline daily per capita water use is used to calculate the urban water use target and the interim urban water use target for each method.

- **Method 1 – Direct Calculation.** This method involves calculating the target based on 80% of baseline daily per capita water use and the interim target based on 90% of the baseline daily per capita water use.

- **Method 2 – Performance Standards.** This method involves calculating the per capita daily water use by using the sum of performance standards applied to indoor residential use, landscaped area water use, and commercial, industrial, and institutional uses. The amount of data needed to calculate targets based on this method is not feasible to obtain for NCSD, therefore this method was not applied.

- **Method 3 – Regional Water Use Targets.** This method calculates the water use target as 95% of the applicable state hydrologic region target as stated in the draft 20x2020 Water Conservation Plan. NCSD is located in the Central Coast hydrologic region number 3 as defined in the State's 20x2020 Water Conservation Plan.

- **Method 4 – DWR Approach.** This method is an approach developed by DWR and it uses a spreadsheet to calculate estimated water savings factors to estimate targets.

Gross Water Use

SB 7 defines gross water use as:

> *"The total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier, excluding all of the following: (1) Recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier; (2) The net volume of water that the urban retail water supplier places into long-term storage; (3) The volume of water the urban retail water supplier conveys for use by another urban water supplier.; (4) The volume of water delivered for agricultural use, except as otherwise provided in subdivision (f) of Section 10608.24."*

Subdivision (f) of Section 10608.24 states:

> *"An urban retail water supplier that includes agricultural water use in an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) may include the agricultural water use in determining gross water use."*

The only water entering NCSD's distribution system is groundwater production. NCSD supplies recycled water to irrigate the golf course at Blacklake; however, it is accounted for separately. From 1994 through present, NCSD has not placed any water into long-term storage. NCSD has emergency connections with Golden State Water Company and Woodlands Mutual Water Company. The District provided flow records for deliveries to Golden State Water Company from 2000 through 2010. Since demand from NCSD's three designated agricultural customers will be incorporated into the District's UWMP, the agricultural water use may be incorporated into gross water use. Therefore, gross water use is taken as the District's total groundwater production less the amount conveyed to Golden State Water Company in any given year.

NCSD provided annual production records from January, 2000 through November, 2009 in Excel format, as well as CA-DWR Public Water System Statistics (DWR Annual Reports) from 1989 through 2010. NCSD also provided records of total volume of water conveyed to Golden State Water Company from 2000 through 2009. Table 1 summarizes NCSD's production from 1994 through 2010, the volume of water delivered to Golden State Water Company, and the annual gross water use estimates for those years. There were inconsistencies in total production between the District's production spreadsheet and the DWR Annual Reports for the years 2002 and 2006. For 2002, the monthly production for December was excluded from the DWR Annual Report. For 2006, the DWR

Annual Report shows 186.63 acre-ft produced in December, while the District's production spreadsheet shows 166.29 acre-ft. For 2002 and 2006, data from the District's production spreadsheet were used for gross water use.

Table 1. Summary of Gross Water Use for NCSD

Year	Annual Production from Production Spreadsheet, acre-feet/year	Annual Production from DWR Reports, acre-feet/year	Volume of water conveyed to Golden State Water Company, acre-feet/year	Gross Water Use, acre-feet/year
1994		1,718.00		1,718.00
1995		1,805.00		1,805.00
1996		1,934.70		1,934.70
1997		2,036.86		2,036.86
1998		1,909.74		1,909.74
1999		2,271.20		2,271.20
2000	2,414.51	2,414.51	17.57	2,396.94
2001	2,285.04	2,285.02	0.00	2,285.04
2002	2,709.32	2,520.79	0.00	2,709.32
2003	2,633.33	2,633.33	0.00	2,633.33
2004	2,907.83	2,907.83	0.25	2,907.58
2005	2,794.05	2,794.04	6.76	2,787.29
2006	2,706.42	2,726.77	40.08	2,666.34
2007	2,856.15	2,856.15	37.79	2,818.36
2008	2,755.23	2,755.24	2.33	2,752.90
2009		2,698.18	0.00	2,698.18
2010		2,366.54	0.00	2,366.54

Population Estimates and Projections

San Luis Obispo County maintains several GIS datasets on their website that can be used for planning projects. A GIS shapefile of the 2000 census blocks was obtained from the County's data repository. This file has 2000 population in each of approximately 7,200 census blocks covering the County. Approximately 220 census blocks overlay some part of the District's service area or sphere of influence (SOI).

Figure 1 shows the census blocks in relation to NCSD's service area boundary and SOI. 2010 Census block population data was obtained from the Census Bureau.

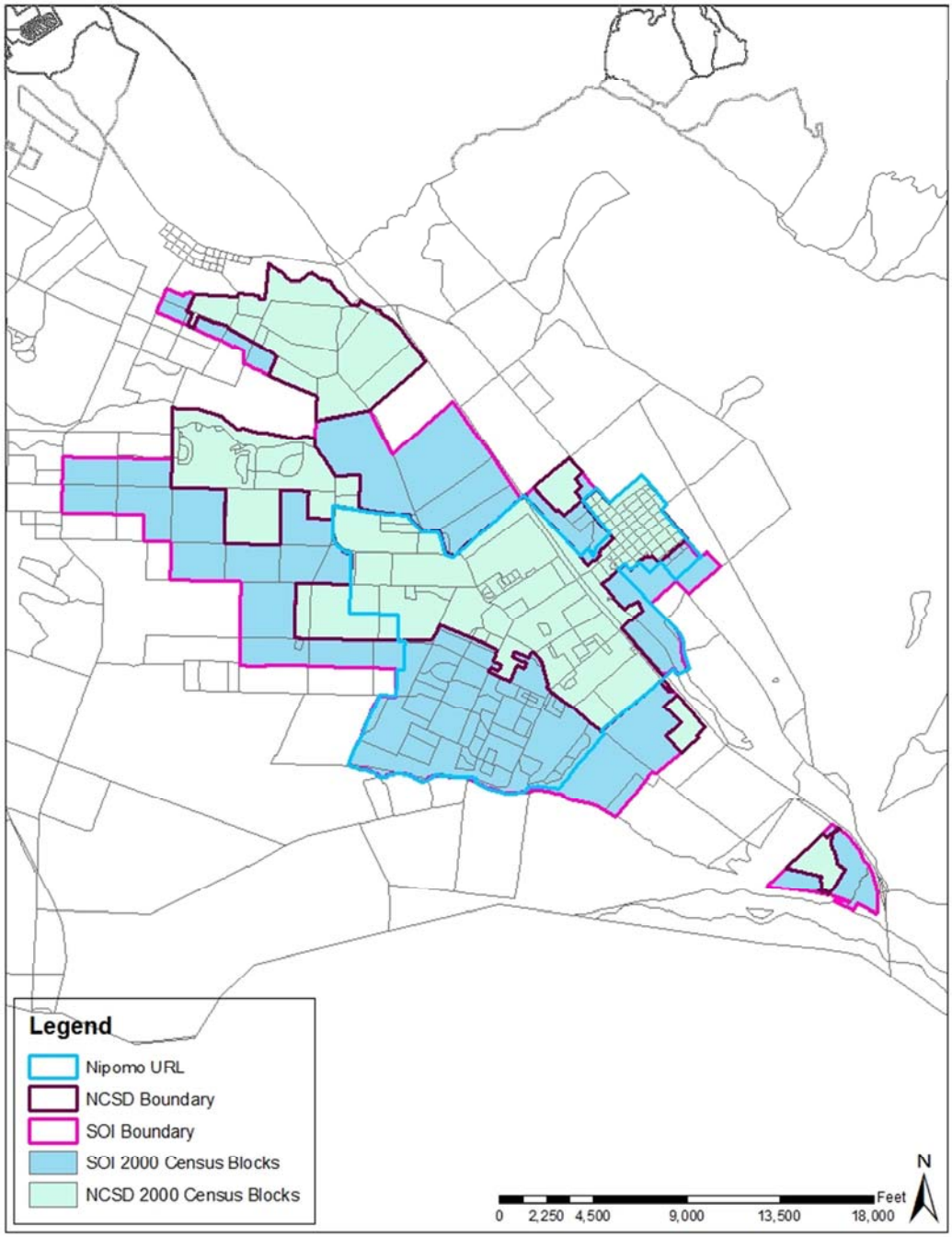
The County's data included a total population for each census block in the dataset based on the 2000 census. The Census Bureau's data included total population for each census block in the dataset based on the 2010 census. Actual population distribution within each census block can vary based on development and land use patterns. For the purposes of this analysis, the distribution of population within each census block was assumed to be uniform, and WSC calculated persons per acre for each census block. The NCSD service area boundary was intersected with the census block boundaries to calculate the area of each block within NCSD's service area. WSC then applied the persons per acre for each census block to the area of each block within NCSD's service area to calculate total

population within NCSD's service area. Table 2 shows the resulting estimate of population within the District's boundary for 2000 and 2010.

Table 2. Estimated Population within NCSD Service Area for the year 2000

Area	2000 Population	2010 Population
NCSD Service Area	8,706	12,148

Figure 1. 2000 Census Blocks, Nipomo URL, NCSD Service Area Boundary, and SOI



Once the 2000 and 2010 census populations were calculated, the interim years were established by calculating persons per connection factors for 2000 and 2010. An interpolation of persons per connection in 2000 and 2010 was applied to the number of connections for each interim year to establish the interim year populations. Table 3 shows the population served within the NCSD service area from 1994 through 2010. The persons per connection factor established for 2000 is assumed to be the same for 1994-2000.

Table 3. Estimated Population Served within NCSD Service Area

Year	# of Residential Connections	Population per Residential Connection	Estimated Population Served within NCSD Service Area
1994	2,413	2.74	6,612
1995	2,526	2.74	6,921
1996	2,615	2.74	7,165
1997	2,721	2.74	7,456
1998	2,872	2.74	7,869
1999	3,037	2.74	8,321
2000	3,183	2.74	8,706
2001	3,283	2.77	9,087
2002	3,332	2.80	9,332
2003	3,353	2.83	9,501
2004	3,589	2.87	10,287
2005	3,703	2.90	10,736
2006	3,813	2.93	11,180
2007	3,893	2.96	11,542
2008	3,902	3.00	11,696
2009	3,947	3.03	11,961
2010	3,966	3.06	12,148

As a check for the population estimates between 1994 and 2000, WSC calculated the total population within the District's service area in 1990 using the same methodology described above (using 1990 census data) and calculated interim year populations using linear interpolation. Figure 2 shows the 1990 census block boundaries, Table 4 shows the estimated population in 1990, and Table 5 compares the two estimates. The resulting population estimates varied by less than 3% in each year when compared to the estimates developed using NCSD's connection data. Therefore, the persons per connection factor of 2.74 estimated in 2000 was used for all years prior to 2000.

Table 4. Estimated Population within NCSD Service Area for the year 1990

Area	1990 Population
NCSD Service Area	5,064

Figure 2. 1990 Census Blocks, Nipomo URL, NCSD Service Area Boundary, and SOI

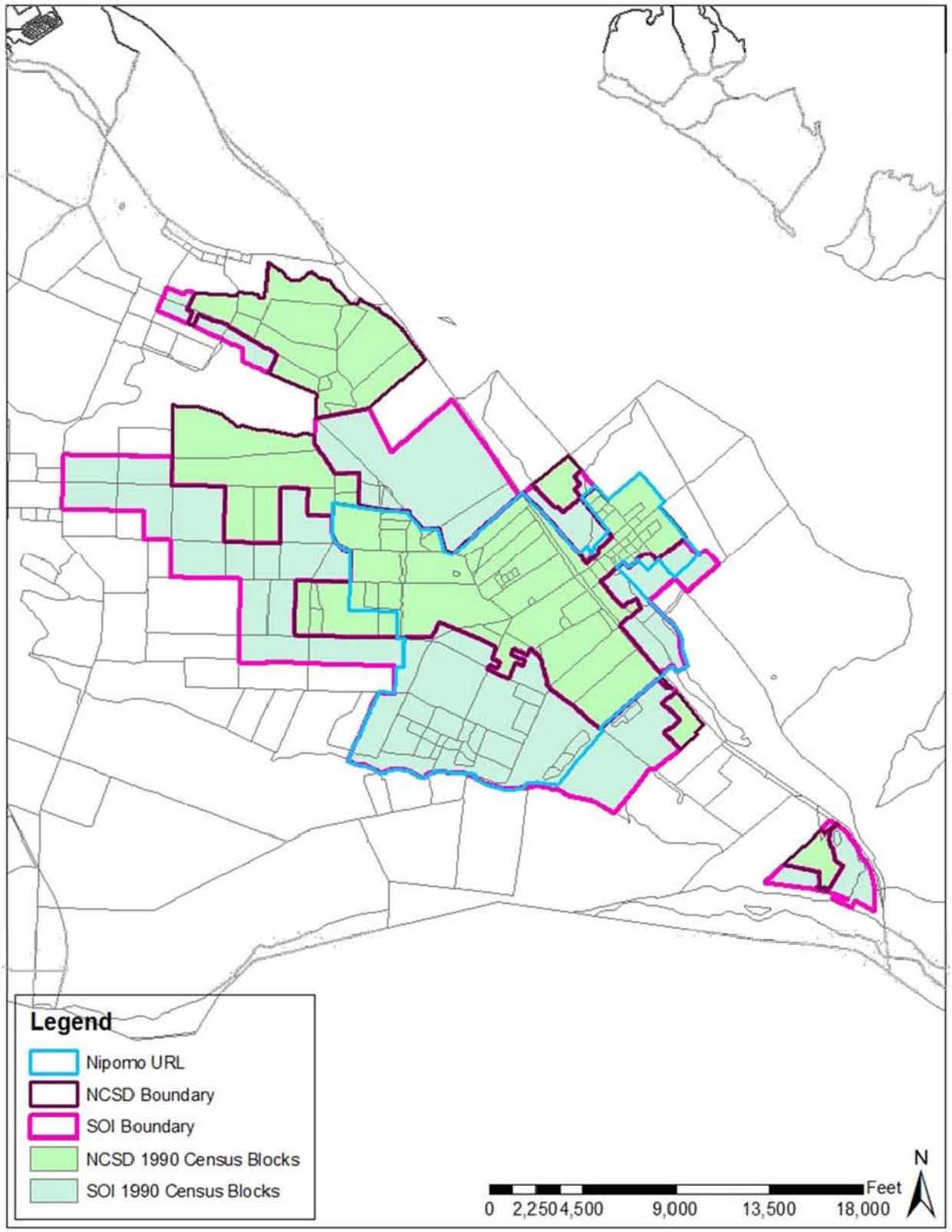


Table 5. Comparison of Population Estimates, 1994-2000

Year	Population based on census data and linear interpolation	Population based on NCSD connection data and 2.74 persons per connection	% Difference
1994	6,521	6,612	1.37%
1995	6,885	6,921	0.52%
1996	7,249	7,165	1.17%
1997	7,613	7,456	2.12%
1998	7,978	7,869	1.38%
1999	8,342	8,321	0.25%
2000	8,706	8,706	0.00%

Baseline Per Capita Water Use and Targets

WSC calculated per capita water use using the gross water use values shown in Table 1 and the population estimates shown in Table 3. The annual per capita water use values were averaged across 10-year periods ending no earlier than December 31, 2004. The highest 10-year average of per capita water use, 240 gallons per capita per day, was for the 10-year period ending December 31, 2005. Therefore, 240 gallons per capita per day was selected as the baseline daily per capita water use, as shown in Table 6 and Table 7.

Table 6. Baseline and Compliance Water Use

Description	Water Use, gal/capita/day	Compliance Year
Baseline Gross Water Use	240.0	10 year average (1996-2005)
Compliance (2010) Water Use	173.9	2010

Table 7. Per Capita Water Use Estimates

Year	Gross Water Use, acre-ft/year	Population Served	Per Capita Water Use, gal/capita/day	10 Year Average of Per Capita Water Use, gal/capita/day
1994	1,718.00	6,521	235.2	
1995	1,805.00	6,885	234.0	
1996	1,934.70	7,249	238.3	
1997	2,036.86	7,613	238.8	
1998	1,909.74	7,978	213.7	
1999	2,271.20	8,342	243.1	
2000	2,396.94	8,706	245.8	
2001	2,285.04	9,050	225.4	
2002	2,709.32	9,394	257.5	
2003	2,633.33	9,739	241.4	237.3
2004	2,907.58	10,083	257.4	239.5
2005	2,787.29	10,427	238.6	**240.0**
2006	2,666.34	10,771	221.0	238.3
2007	2,818.36	11,116	226.4	237.0
2008	2,752.90	11,460	214.5	237.1
2009	2,698.18	11,804	204.1	233.2
2010	2,366.54	12,148	173.9	226.0

Method 1 – Direct Calculation

Table 8 summarizes the resulting values, using Method 1, for the urban water use target for 2020 (equal to 80% of the baseline daily per capita water use), the interim urban water use target for 2015 (equal to 90% of the baseline daily per capita water use), and the compliance daily per capita water use (based on 2010 values).

The compliance (2010) daily per capita water use of 173.9 gallons per capita per day represents a reduction in per capita water use of approximately 28% from the baseline value.

Table 8. Baseline, Target, Interim, & Compliance Water Use Values

Description	Water Use, gal/capita/day	Compliance Year
Baseline Gross Water Use	240.0	10 year average (1996-2005)
Target Water Use (80%)	192.0	2020
Interim Water Use (90%)	216.0	2015
Compliance (2010) Water Use	173.9	2010

Method 3- Regional Water Use Targets

NCSD is located in the Central Coast hydrologic region number 3 as defined in the 20x2020 Water Conservation Plan. The Central Coast Hydrologic Region and NCSD baseline and targets are shown in Table 9. Using Method 3 from the Technical Methodologies report, the regional baseline and targets were multiplied by 95% to produce NCSD's regional baseline and targets.

Table 9. Central Coast Hydrologic Region Baseline and Target Water Uses

	Regional gal/capita/day	NCSD gal/capita/day
Baseline (1995-2005)	154	146.3
Interim Target (2015)	139	132.1
Target (2020)	123	116.9

The baseline and targets using Method 3 are much lower than the baseline and targets established using Method 1.

Method 4 – DWR Approach

The Method 4 calculator created by DWR was used to determine an interim target of 222 gpcd and a target of 204 gpcd as shown in Table 10. Appendix A and Appendix B show the input data and calculated targets from the spreadsheet.

Table 10. Method 4 Targets

Description	Water Use, gal/capita/day	Compliance Year
Baseline Gross Water Use	240	10 year average (1996-2005)
Target Water Use (80%)	204	2020
Interim Water Use (90%)	222	2015
Compliance (2010) Water Use	173.9	2010

Method Selection

Based on the per capita water use targets shown in Table 11, the target of 204 gpcd calculated using Method 4 is selected as the target to be implemented in the 2010 Nipomo Community Services District Urban Water Management Plan.

Table 11. Summary of Results for All Methods

Calculation Method	Water Use Target (gpcd)
Method 1: 80% of Baseline Per Capita Water Use	192
Method 2: Performance Standards	Not calculated
Method 3: 95% of Regional Target	116.9
Method 4: DWR Approach	204
Selected Urban Water Use Target	**204**

Minimum Water Use Reduction Confirmation

The selected target must be lower than a selected five-year running average ending no earlier than December 31, 2007 and ending no later than December 31, 2010 per the requirements of California Water Code Section 10608.22. Table 12 shows the minimum water use reduction based on five-year running averages. Table 13 shows the confirmation that the selected target does meet the minimum water use reduction. Table 14 shows the final baseline, compliance, interim target, and target per capita water use. Figure 3 provides a depiction of historical, current, and projected per capita water use.

Table 12. Minimum Water Use Reduction

Calendar Year	Distribution System Population	Daily System Gross Water Use (mgd)	Annual Daily Per Capita Water Use (gpcd)	5 year running average
1998	1,909.74	7,978	213.7	
1999	2,271.20	8,342	243.1	
2000	2,396.94	8,706	245.8	
2001	2,285.04	9,050	225.4	
2002	2,709.32	9,394	257.5	
2003	2,633.33	9,739	241.4	
2004	2,907.58	10,083	257.4	
2005	2,787.29	10,427	238.6	
2006	2,666.34	10,771	221.0	
2007	2,818.36	11,116	226.4	237.0
2008	2,752.90	11,460	214.5	231.6
2009	2,698.18	11,804	204.1	220.9
2010	2,366.54	12,148	173.9	208.0
Base Daily Per Capita Water Use				**237.0**

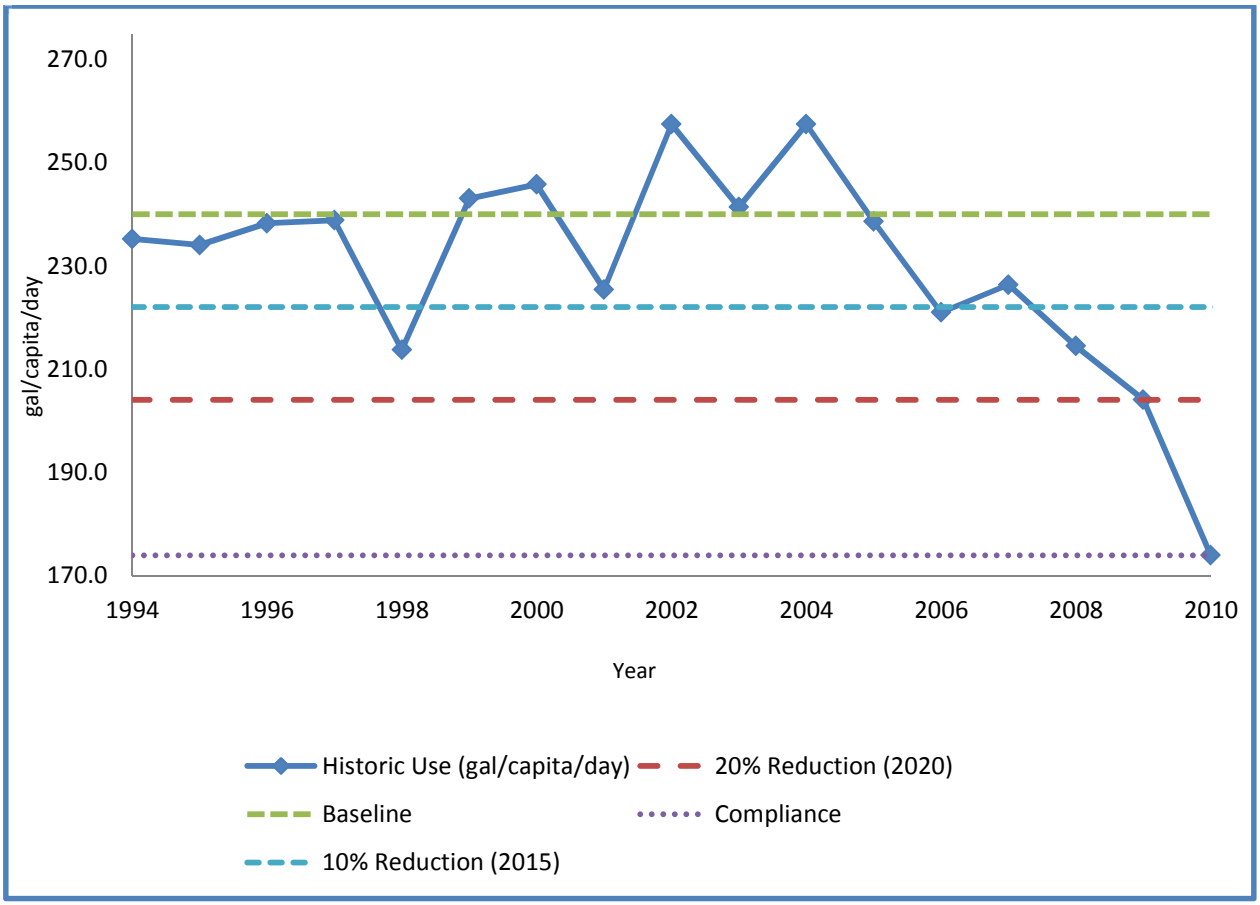
Table 13. Target Confirmation

Selected Urban Water Use Target (gpcd)	204
95% of 5-year Base Daily Per Capita Water Use (gpcd)	225.1
Selected Urban Water Use Target < 95% of 5-year Base GPCD	Yes
Confirmed Urban Water Use Target (gpcd)	**204**

Table 14. Baseline, Compliance, Interim Target, and Target Water Use

Parameter	Water Use (gpcd)
Base Daily Per Capita Water Use	240
2010 Daily Per Capita Water Use	173.9
2015 Interim Urban Water Use Target	222
2020 Urban Water Use Target	204

Figure 3. Historical, Baseline, Interim Target, Target, and Compliance Per Capita Water Use



Appendix A. Method 4 DWR Data Input Spreadsheet

User Input -- Provisional Method 4 Target

Target Calculation Option (select one): * Calculate Targets Using Indoor Residential Savings Calculators

* = Required Data

Water Supplier Name: * Nipomo Community Services District

10-15 Year Baseline Water Use Information

Baseline Period: * 1995-2006

Midpoint of Baseline Period: 2000

Baseline Water Use GPCD: * 240.0

Population in Midpoint Year: * 8,706

5 Year Baseline Water Use Information

Baseline Period: * 2003-2007

Baseline Water Use GPCD: * 237.0

95% of 5-Year Baseline GPCD: 225.2

Unmetered Connections

Number of Unmetered Connections in 2000: * 0

Water Use By Unmetered Connections in 2000: * 0 Acre-Feet

Baseline CII Water Use[1]

CII Water Use in 2000: * 64 Acre-Feet

Per Capita Use: 6.5 GPCD

[1]CII = Commercial, Industrial, Institutional.

If you have chosen to calculate targets using the Default Indoor Residential Savings, you do not need to complete the remaining tables.
Go to the "Calculated Targets" worksheet.

Appendix B. Method 4 Calculated Targets Spreadsheet

Target Calculation -- Provisional Method 4 Target

Step 1. Calculation of Landscape Water Use and System Water Loss

Urban Supplier	1995-2006 Baseline GPCD	–	Assumed Indoor Residential per Capita Water Use GPCD	–	CII per Capita Water Use GPCD	=	Estimated Landscape Water Use and System Water Loss GPCD
Nipomo Community Services District	240.0		70.0		6.5		163.5

Step 2. Calculation of Savings Using BMP Calculators

Urban Supplier	Indoor Residential Savings Calculators					+	Metering Savings BMP 1.3	+	CII Savings BMP 4	+	Landscape + Water Loss Savings (1.4N)	=	Total Savings GPCD
	Single Family Toilets	Multi Family Toilets	Residential Washers	Residential Showers	Total IR Savings								
Nipomo Community Services District			0.0	0.0	0.0		0.0		0.7		35.3		36.0

(Alternate) Step 2. Calculation of Savings Using Default Indoor Residential Savings

(Alternate) STEP 2 NOT BEING USED TO CALCULATE TARGET

Urban Supplier	Default Residential Indoor Savings	+	Metering Savings BMP 1.3	+	CII Savings BMP 4	+	Landscape + Water Loss Savings (1.4N)	=	(alt) Total Savings GPCD
Nipomo Community Services District	15.0		XXXX		XXXX		XXXX		XXXX

Step 3. Calculation of Urban Water Use Targets

Urban Supplier	1995-2006 Baseline GPCD	–	Total Savings GPCD	=	Computed 2020 Target GPCD	⇒	Less Than 95% of 5-Year Baseline	⇒	Final 2020 Target	⇒	Final 2015 Target
Nipomo Community Services District	240.0		36.0		204.0		TRUE		204.0		222.0

APPENDIX B. DEMAND DATABASE TECHNICAL MEMO

APPENDIX B. DEMAND DATABASE TECHNICAL MEMO

WORK PRODUCT 1 – DEMAND DATABASE

NCSD 2010 Urban Water Management Plan ***May 13, 2011***

Reviewed by: Kevin Kennedy, P.E.
Jeffery Szytel, P.E.

Prepared by: Jeroen Olthof, P.E.

Background

As part of the development of a 2010 Urban Water Management Plan (UWMP), the Nipomo Community Services District (NCSD, or the District) is developing a database of current and projected future water demand. The database is being developed using Geographical Information Systems (GIS) tools to geographically reference current water users and develop focused estimates of potential future demands. This document describes the development of the database and summarizes the estimates of future demand.

Existing Data

Several existing data sets were provided by NCSD or San Luis Obispo County for use in this project. These included:

- A geodatabase called NCSD_Landbase.mdb that was last updated in March of 2010. This geodatabase is updated by the District on a monthly basis. The March 2010 file included three feature classes with parcel information:
  - NCSDParcels, showing 4,568 parcels in the NCSD service area with a total area of 3,917 acres. Attributes that could be present for each parcel included the Assessor Parcel Number (APN), the street address, the County zoning category, and the water account number.
  - NCSDSOIParcels, showing 1,920 parcels in the District's sphere of influence (SOI) with a total area of 5,719 acres.
  - SLOCOParcels, showing 16 parcels in the County to the northeast of the current service area. These parcels are not in the District's service area or its SOI.
- A benefit unit assessment spreadsheet developed by the Wallace Group and provided in a Microsoft Excel file. It included information on current and potential future development for 4,498 parcels in the District's service area. Fields for each parcel included:
  - Assessor land use description
  - Physical land use
  - Development status
  - Existing residential unit value
  - Future development potential
  - Developed benefit units
  - Undeveloped benefit units

- Five years of water consumption data from the District's billing system, referred to as the MOM database. The data were provided by fiscal year (FY), from FY 2004-05 through FY 2008-09. For each year a spreadsheet was provided showing the bi-monthly consumption in hundred cubic feet (hcf) at each location. The billing system includes a unique identification number called Location for each meter location. The billing system also stores an APN for each account that can be used to help correlate water use with geographic location.
- Monthly records of gross water production from the District's wells. These data were provided for each well from January 2000 through November 2009.
- A map showing the SOI areas identified with their numbers. The SOI areas as defined by NCSD are shown in Figure 1.
- A map showing the current zoning for the parcels in the study area, as defined by the County. The zoning information provided by the County in December 2009 is shown in Figure 2.

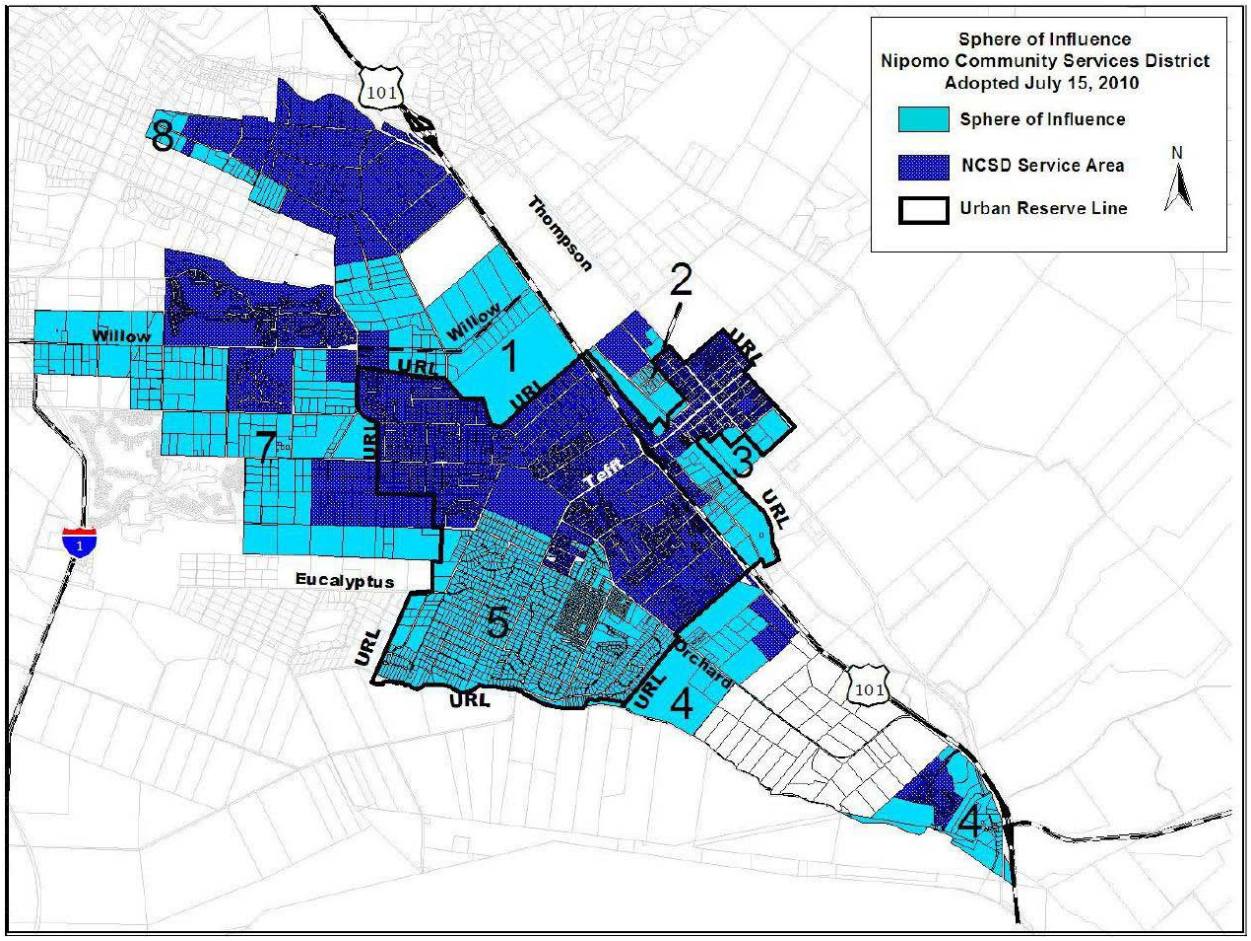


Figure 1. NCSD SOI Areas

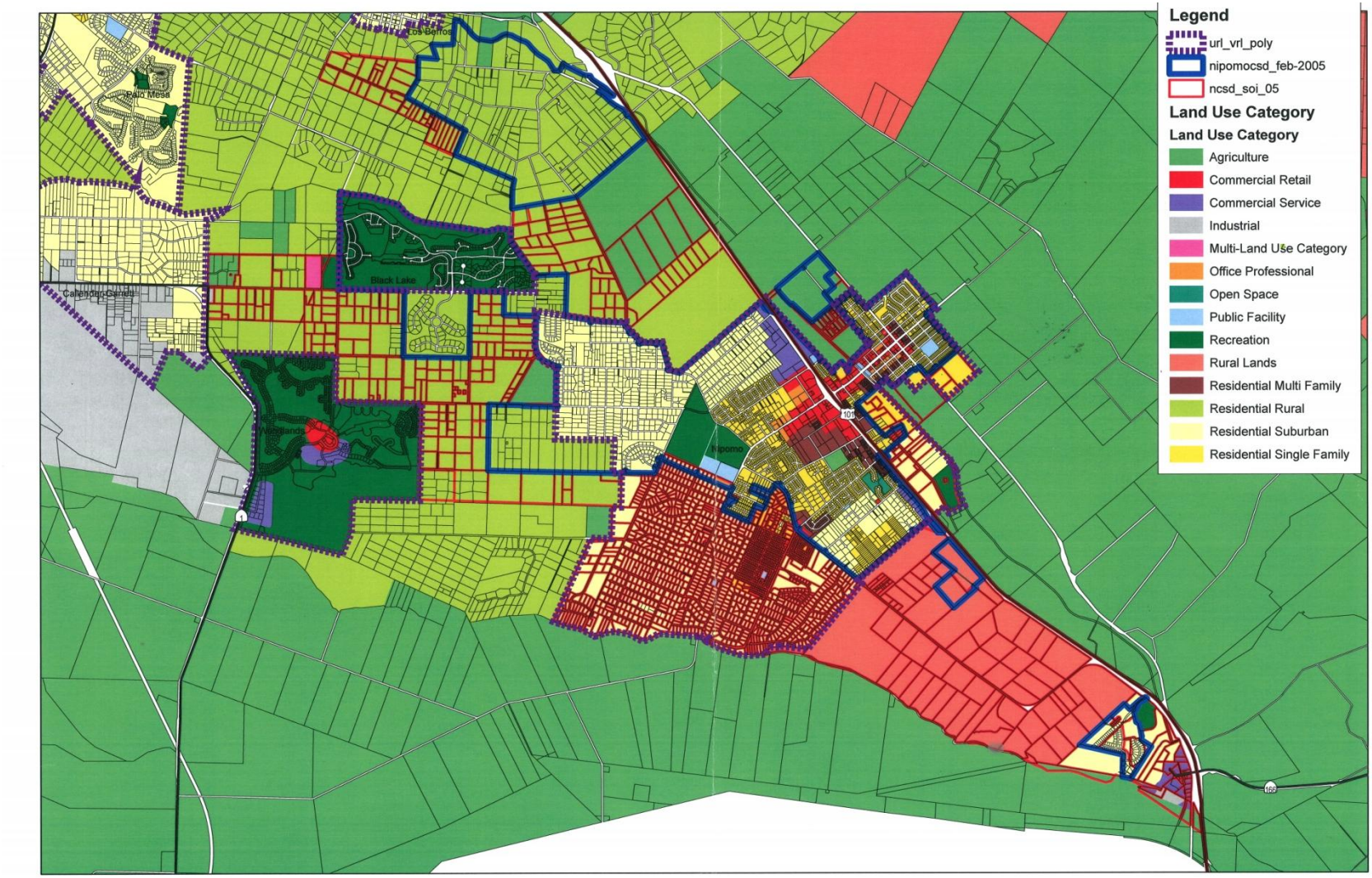


Figure 2. Zoning Map Provided by San Luis Obispo County (Line labeled url_vrl_poly shows Urban Reserve Line and Village Reserve Line)

UWMP Geodatabase

Using the NCSD_Landbase.mdb file as a reference, HDR created a new geodatabase called NCSD_UWMP.mdb. This geodatabase, formatted as a Microsoft Access file, will be a deliverable to NCSD. Geographic information in a geodatabase is stored in layers that are called feature classes. To help organize the information, feature classes can combined in groups that are called feature datasets. The UWMP geodatabase contains two feature datasets: one called Landbase that contains the feature classes maintained by NCSD, and one called UWMP that contains the information specific to this study. The coordinate system for these datasets is the North American Datum 1983 (NAD83), California State Plane, Zone 5, with units of feet. This coordinate system matches the GIS data provided by NCSD.

Parcels

In the UWMP geodatabase, HDR created a new data table by combining the tables associated with the NCSDParcels and NCSDSOIParcels feature classes into a single table. This combined table is called UWMP_Parcel_data and includes 6,488 parcels with a total area of 9,636 acres. The tables were combined to provide a single source of parcel information for use in demand projections. A field was added to identify the parcel's location as being in the NCSD service area or one of the seven SOI areas. Separate data can be generated as needed for any SOI area or for the NCSD service area by querying the data in this field.

Because NCSD updates the parcel information in the Landbase dataset on a monthly basis, HDR did not duplicate the geographic parcel boundaries in the UWMP dataset. The parcel data table includes a field called APN_DATA with a unique APN for each parcel. The parcel data table can be linked to the feature classes in the Landbase dataset using this APN_DATA field. When a new Landbase dataset becomes available, NCSD can import the new Landbase dataset into the UWMP geodatabase and overwrite the old information. With this arrangement, the information in the UWMP dataset can be linked to updated Landbase information as it becomes available.

HDR added additional fields to the UWMP_Parcel_data table to store information about current and potential future water use. Additional fields in the UWMP_Parcel_data table are summarized in Table 1.

Table 1. Fields in UWMP Parcels Data Table

Field Name	Description
APN_Data	The nine-digit APN, stored as text. Every parcel has a unique value.
MOM_APN	The APN in eight-digit format stored as text, without the leading zero. This value matches the APN format used in the MOM data.
NCSD	This text fields identifies each parcel either as within the District's service area ("NCSD") or in one of the seven sphere of influence areas (identified as SOI-1 through SOI-8, excluding SOI-6 which is the Woodlands).
Zoning	The zoning for the parcel, as defined by San Luis Obispo County. NCSD staff identified parcels that were covered by the Southland Specific Plan and the Canada Ranch Specific Plan. For these parcels, the specific plan provides more detailed information than the zoning category. HDR populated the zoning field with the name of the specific plan for these parcels.
URL_VRL	This field identifies the parcel as within the Urban Reserve Line (URL) of Nipomo, the Village Reserve Line (VRL) of Blacklake, or within the County (outside any URL or VRL).
Address	The street address of the parcel (if available).

The parcels in the District's service area and in the SOI areas are shown in Figure 3.

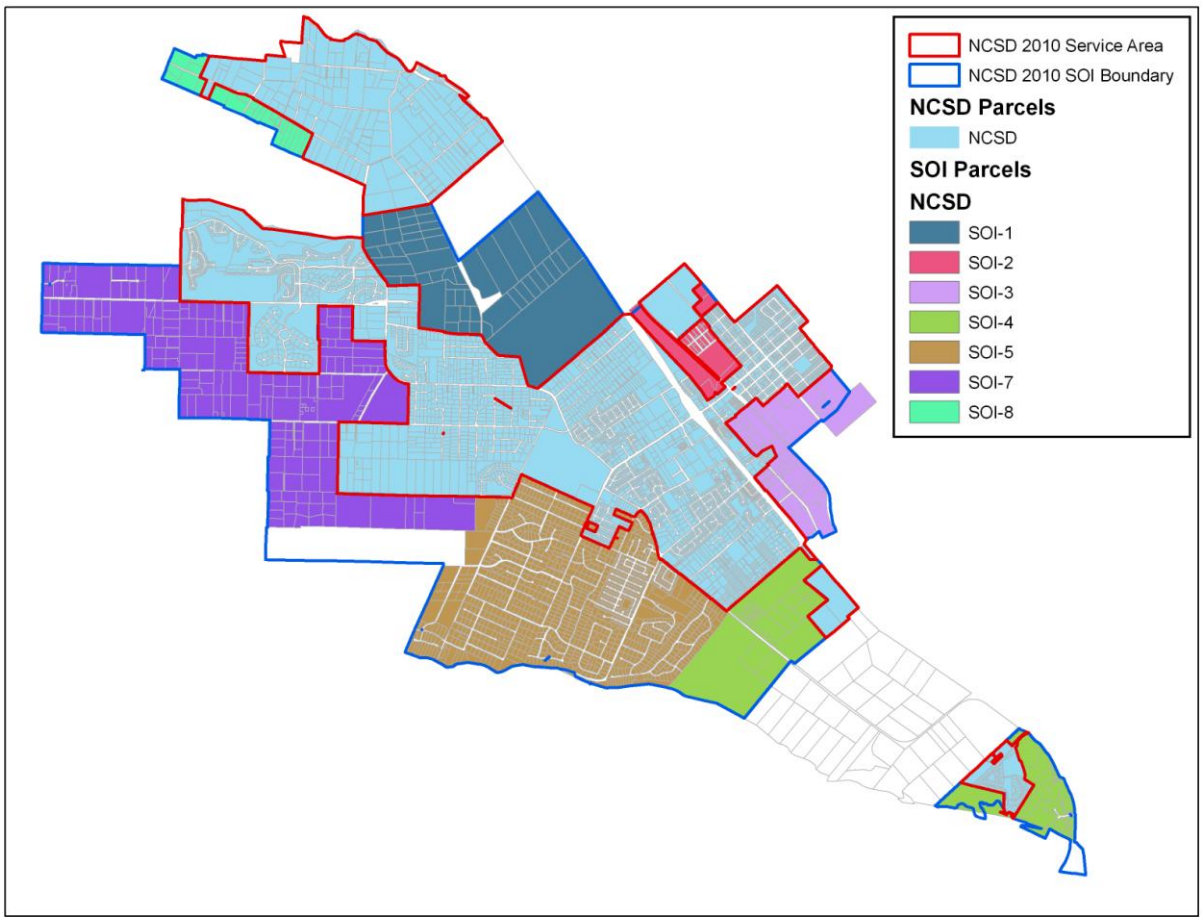


Figure 3. Parcels in District Service Area and SOI Areas

A portion of the SOI area designated SOI-4 is currently agricultural land and was removed from the District's SOI by the San Luis Obispo County Local Agency Formation Commission (LAFCO), which is responsible for defining the boundaries of the SOI.

The SOI area designated SOI-5 is currently served water by the Golden State Water Company. Because the District does not expect to ever provide retail water service to those parcels, SOI-5 was not included in any further analysis.

The parcels are shown color-coded by their location in a URL or VRL in Figure 4.

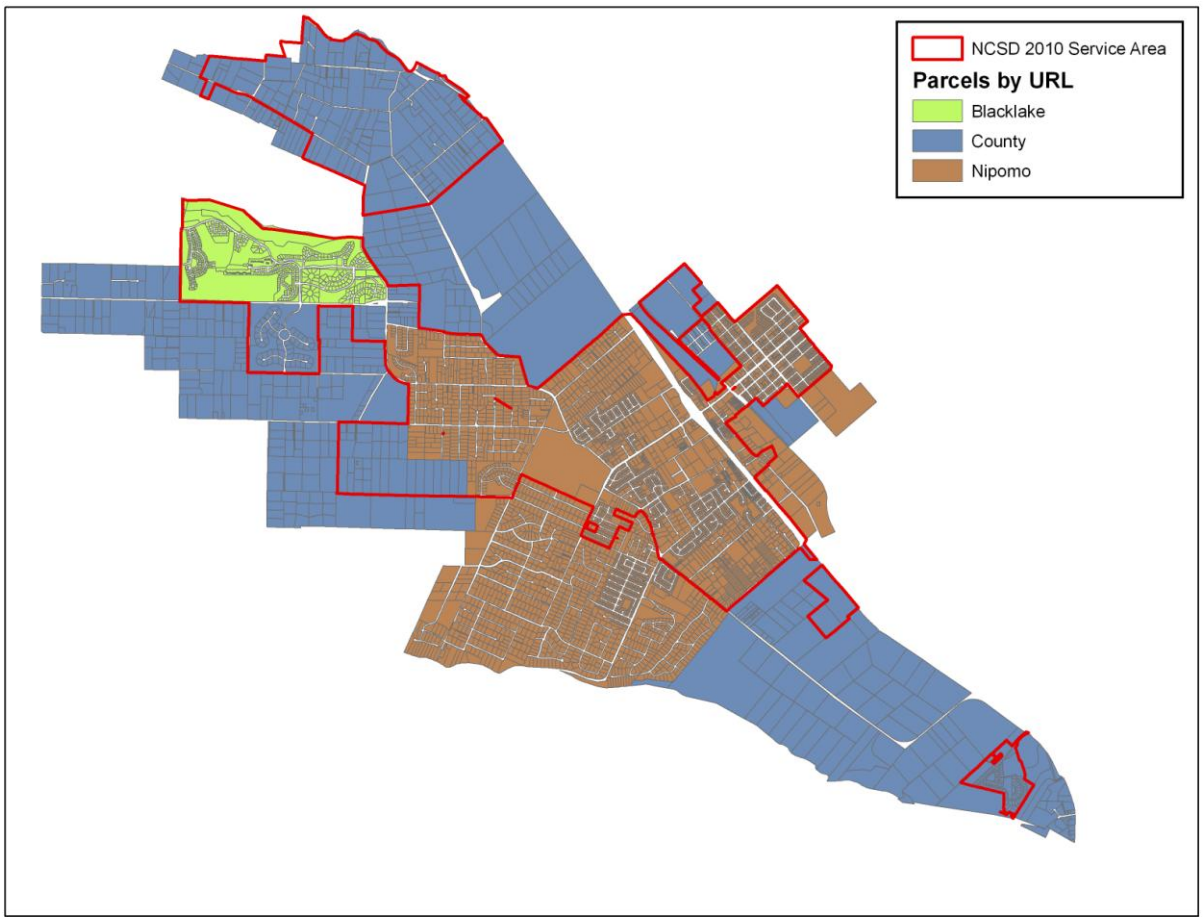


Figure 4. Parcels by Urban Reserve Line or Village Reserve Line

The parcels are shown color-coded by their County zoning or specific plan designation in Figure 5.

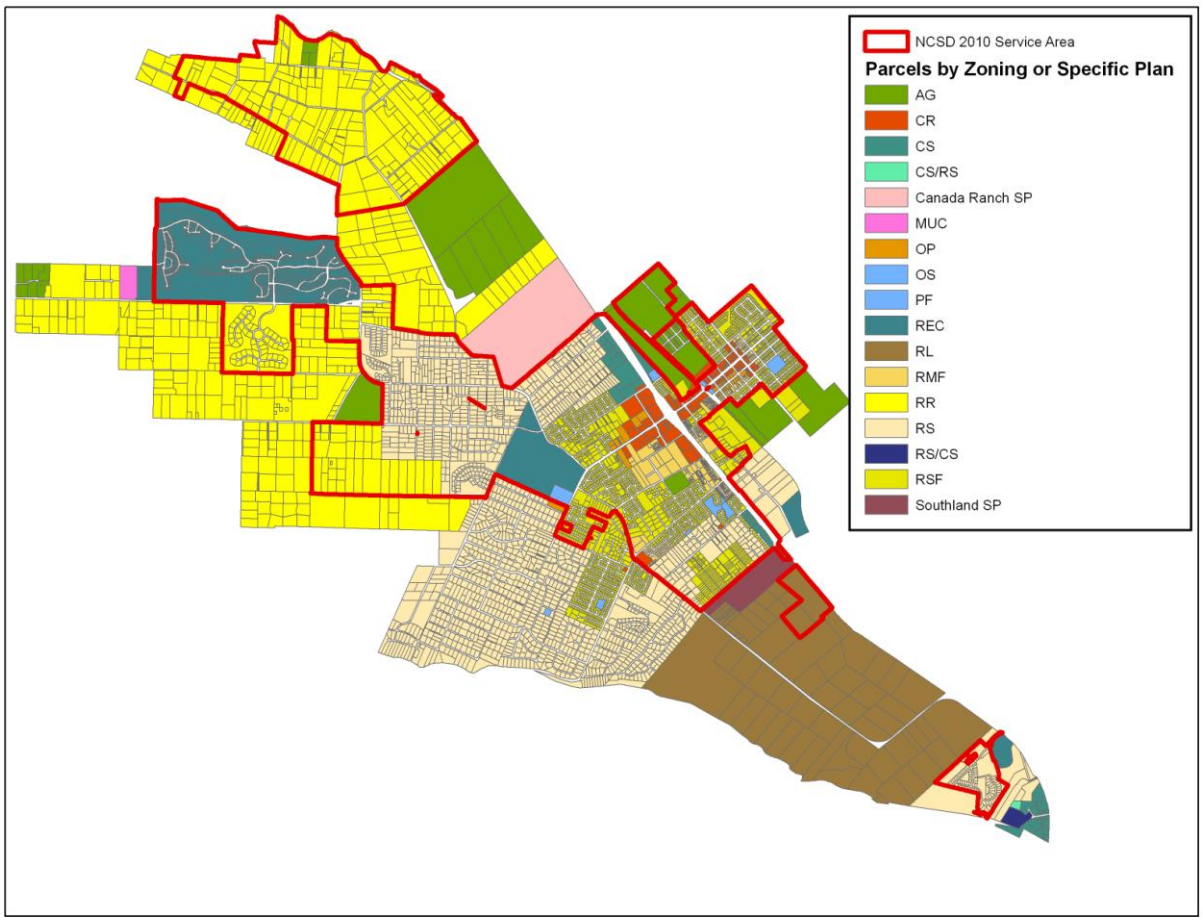


Figure 5. Parcels by County Zoning or Specific Plan

The zoning and specific plan codes used in the study area are summarized in Table 2. Some parcels are split zoned, meaning that two different zoning designations apply to different parts of the parcel. In the database these parcels have both zoning designations combined with a slash. For example, a parcel designated "CS/RS" includes a portion zoned Commercial Services and a portion zoned Residential Suburban.

Table 2. Zoning and Specific Plan Codes Used in the Study Area

Code	Description
AG	Agriculture
Canada Ranch SP	Canada Ranch Specific Plan area
CR	Commercial Retail
CS	Commercial Services
MUC	Multi-Land Use Category
OP	Office and Professional
OS	Open Space
PF	Public Facility
REC	Recreation
RL	Rural Lands
RMF	Residential Multi-Family
RR	Residential Rural
RS	Residential Suburban
RSF	Residential Single Family
Southland SP	Southland Specific Plan area
Note: Some parcels are split-zoned and have a designation that combines two categories (for example, "CS/RS"	

Based on the new geodatabase, the acres of each category in the service area and in the SOI areas are summarized in Table 3. The total acreage in Table 3 (7,297 acres) is less than the total acreage in the UWMP parcel data table (9,636 acres) because SOI-5 is being excluded from further analysis and because of reductions in the SOI made by LAFCO in July 2010.

Table 3. Summary of Zoning and Specific Plan Designation in NCSD Service Area and SOI Areas (Acres)

Code	NCSD	SOI-1	SOI-2	SOI-3	SOI-4	SOI-7	SOI-8	Total
AG	104	189	119	125		89		625
CR	119		7					126
CS	74				37			112
CS/RS					3			3
MUC						19		19
OP	24							24
OS	11							11
PF	24							24
REC	593			21	19	19		653
RL	60				338			397
RMF	135							135
RR	1,316	391				1,240	117	3,064
RS	897			98	107			1,101
RS/CS					13			13
RSF	560		6	76				642
Canada Ranch SP		274						274
Southland SP					74			74
Total	**3,917**	**854**	**132**	**320**	**590**	**1,367**	**117**	**7,297**

Demand Locations

One of the District's objectives was to link water consumption data to the appropriate parcel so that water use could be analyzed geographically. It is possible for a parcel in the NCSD service area to have more than one water meter. Separate meters might be in place for indoor and irrigation water use, and some multiple-family developments have individual meters for each unit. Therefore, HDR created a point feature class in the geodatabase to represent water demand locations. These 4,180 points were located using a combination of the APN in the billing database, the street address in the billing database, and the water account number in the parcel database. Water use from the MOM database can be linked to these points using the MOM Location number. Historical water use by parcel can then be characterized in GIS by summarizing the water demand location points that fall within a parcel's boundaries. The fields in the water demand location feature class are summarized in Table 4.

Table 4. Fields in Water Demand Location Feature Class

Field Name	Description
Shape	A point showing the water demand location. Most points were generated by using the centroid of the parcel; they are not intended to represent the physical location of the meter within the parcel.
Location	The location number for that meter in the MOM database.
MOM_Addrss	The street address of the location, based on the information in the MOM database.
MOM_APN	The APN of the location, based on the information in the MOM database.
Source	The source of the information used to identify the location of the meter. This text field is used to describe how that point was located. Values include: • MOM APN matched GIS parcel APN (98%) • MOM location number matched water account number stored in GIS parcel table (1%) • Estimated from MOM street address (1%)

The water demand locations are color-coded by the information source in Figure 6.

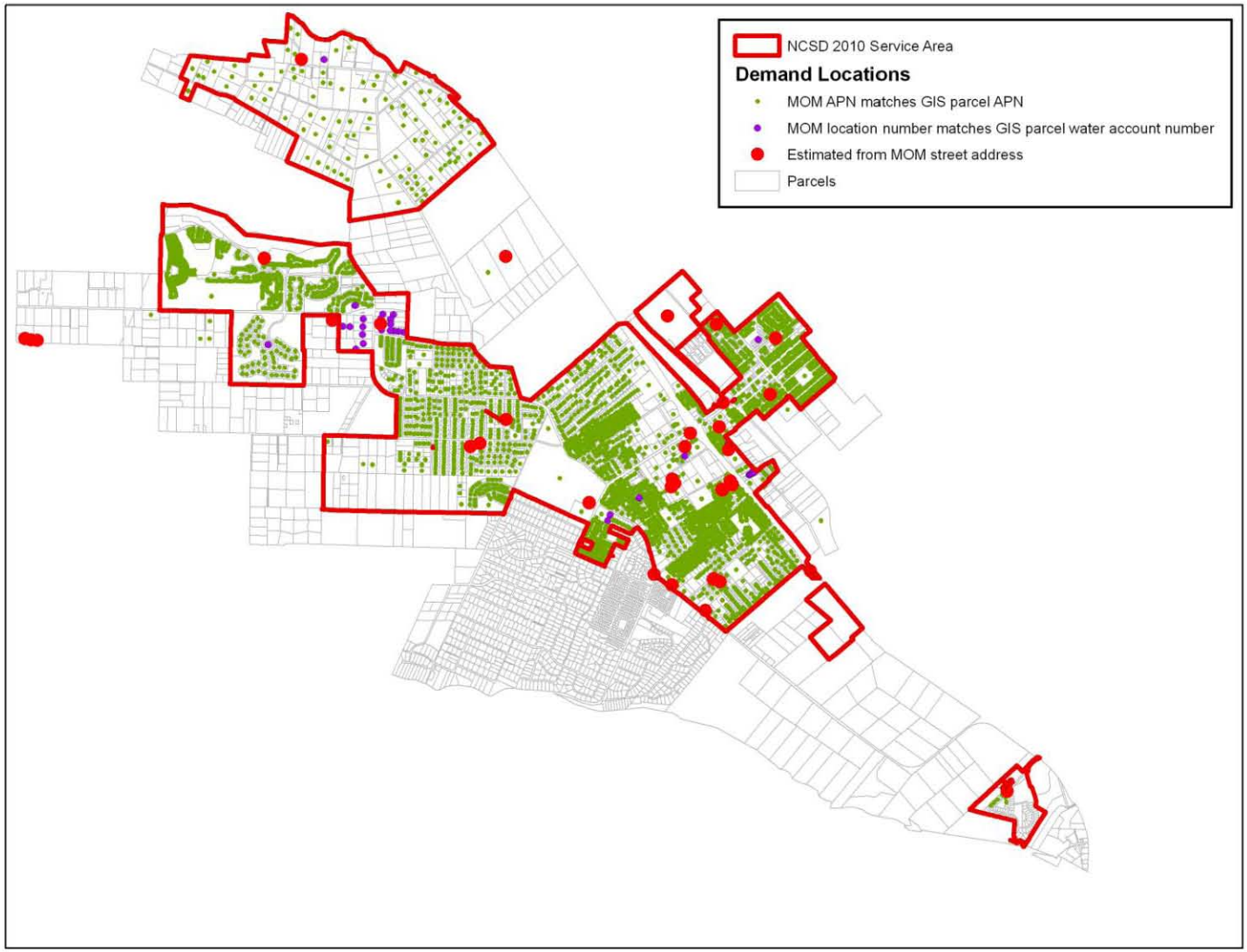


Figure 6. Demand Location Points

As shown in Figure 6, the District does provide water service to some parcels outside its service area. Many of these services were established as part of agreements to provide easements or right-of-way for District infrastructure. These accounts outside the District are summarized in Table 5.

Table 5. District Demand Locations Outside District Boundary

Location Number	Status as of March 2010	Location Number	Status as of March 2010
20318	Active	40048	Inactive
20407	Active	40050	Inactive
20408	Active	40054	Inactive
20409	Active	40062	Inactive
20414	Active	40063	Inactive
40046	Active	40064	Inactive
40047	Active	40354	Inactive
40049	Active	40356	Inactive
40050	Active	40357	Inactive
40051	Active	40358	Inactive
40052	Active	40359	Inactive
40053	Active	40360	Inactive
40060	Active	40361	Inactive
40061	Active	40363	Inactive
40348	Active	40364	Inactive
40355	Active	40365	Inactive
40406	Active	40366	Inactive
60973	Active	40367	Inactive

The demand locations outside the District boundary are shown in Figure 7.

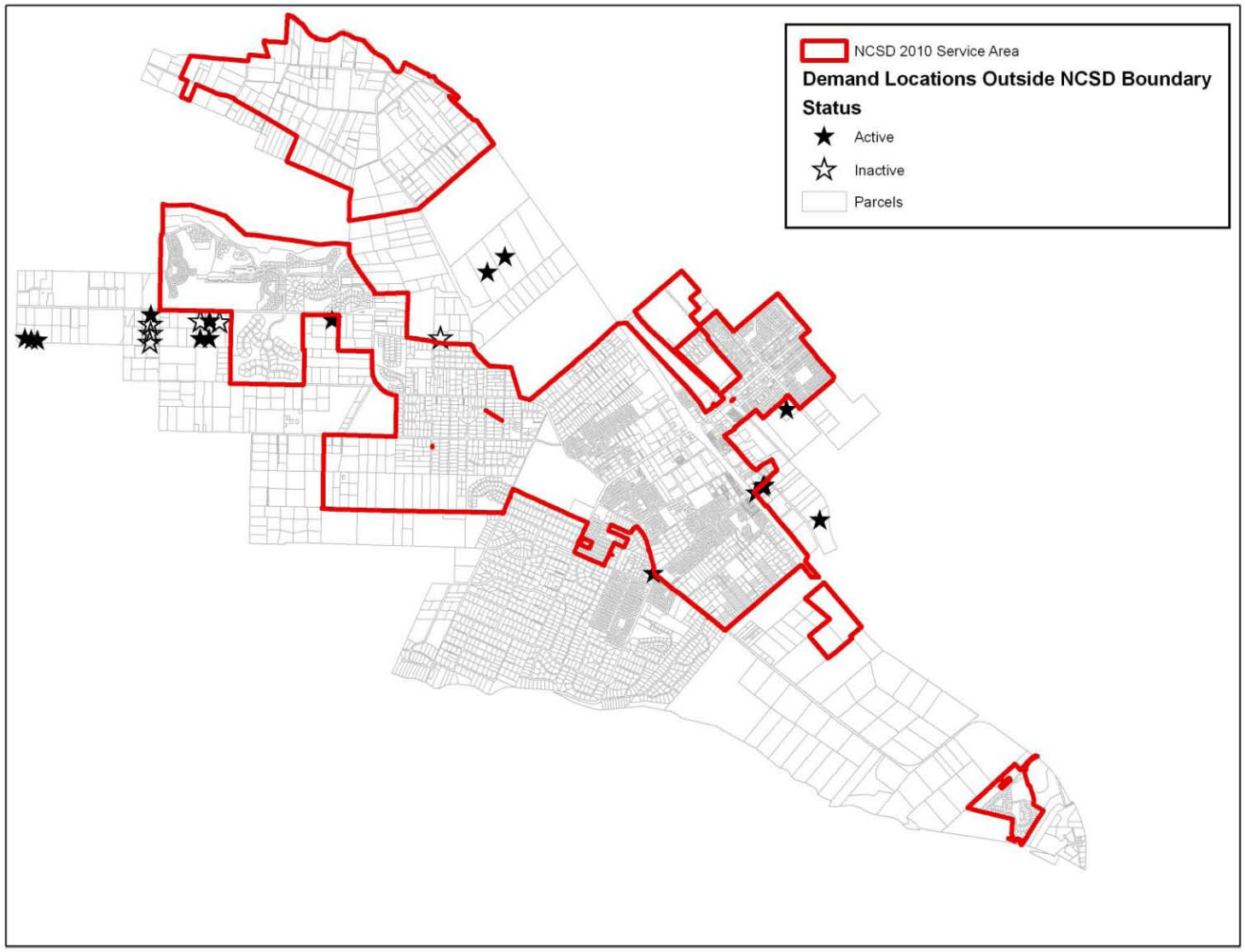


Figure 7. Demand Location Points Outside District Boundary

Water Consumption

HDR compiled the five years of consumption data and calculated consumption for each demand location for each month from July 2004 through June 2009. Because NCSD issues water bills on a bi-monthly basis, most locations have a water consumption recorded every other month. This bi-monthly consumption must be divided by two and allocated to both months before evaluating seasonal consumption patterns.

During the compilation, some values of unusually high consumption were noted and reviewed with the District. The District provided corrected consumption values for the accounts shown in Table 6.

Table 6. Revised Consumption Values

Location	Month	Original Consumption (HCF)	Corrected Consumption (HCF)
20641	December 2005	99,953	35
50170	January 2006	997,665	*0*
30159	September 2008	-100	*0*
Note: Values in italics are assumed.			

The water consumption for all locations is summarized in Table 7. Table 7 also shows the consumption converted to acre-feet per year (AFY).

Table 7. Summary of Water Consumption Data

	Consumption by Accounts Within NCSD Boundary (HCF)	Consumption by Accounts Outside NCSD Boundary (HCF)	Total Consumption (HCF)	Total Consumption (AFY)
FY05	1,118,411	6,940	1,125,351	2,583
FY06	1,104,932	8,605	1,113,537	2,556
FY07	1,195,428	9,856	1,205,284	2,767
FY08	1,186,107	8,840	1,194,947	2,743
FY09	1,116,852	6,217	1,123,069	2,578
Average			1,152,438	2,646

The monthly consumption data from the MOM database were linked to the layer of demand location points in the geodatabase. The layer of demand location points was then intersected with the parcels to determine the current water use by parcel. During the period from 2004 through 2009, there was no clear trend in consumption, although the FY09 consumption was slightly less than the FY05 consumption.

During any given year, some locations had no water use for part or all of the year. This situation could be due to ownership transitions or part-time residents. Some locations represent new

structures that have not been in place for the full five years. During future years there will continue to be ownership transitions or periods of minimal water use at any given parcel. Because assuming 100-percent occupancy would result in an unreasonably high total demand, the consumption data were not adjusted to exclude locations or time periods with no water use.

The consumption data for the five years were classified according to the billing code in the MOM data. The District's billing codes are summarized in Table 8.

Table 8. NCSD Billing Codes

Code	Description	General Classification
B1	Blacklake - SFR	Single Family Residential
B2	Blacklake -MFR	Multi-Family Residential
B3	Blacklake - IRR	Irrigation
B4	Blacklake - COM	Commercial
B5	Blacklake - AGR	Agricultural
I1	In Town - SFR	Single Family Residential
I2	In Town - MFR	Multi-Family Residential
I3	In Town - IRR	Irrigation
I4	In Town - COM	Commercial
I5	In Town - AGR	Agricultural
O1	Out of Town - SFR	Single Family Residential
O2	Out of Town - MFR	Multi-Family Residential
O3	Out of Town - IRR	Irrigation
O4	Out of Town - COM	Commercial
O5	Out of Town - AGR	Agricultural
OS	High School	Institutional
X1	Cal Cities Emergency	Other
X2	Outside Hydrant Use	Other
X3	Hydrant Construction Water	Other
Z1	NCSD No Charge	Institutional

The consumption for any given period can be summarized by these classes. The breakdown for the five years of data is shown in Figure 8.

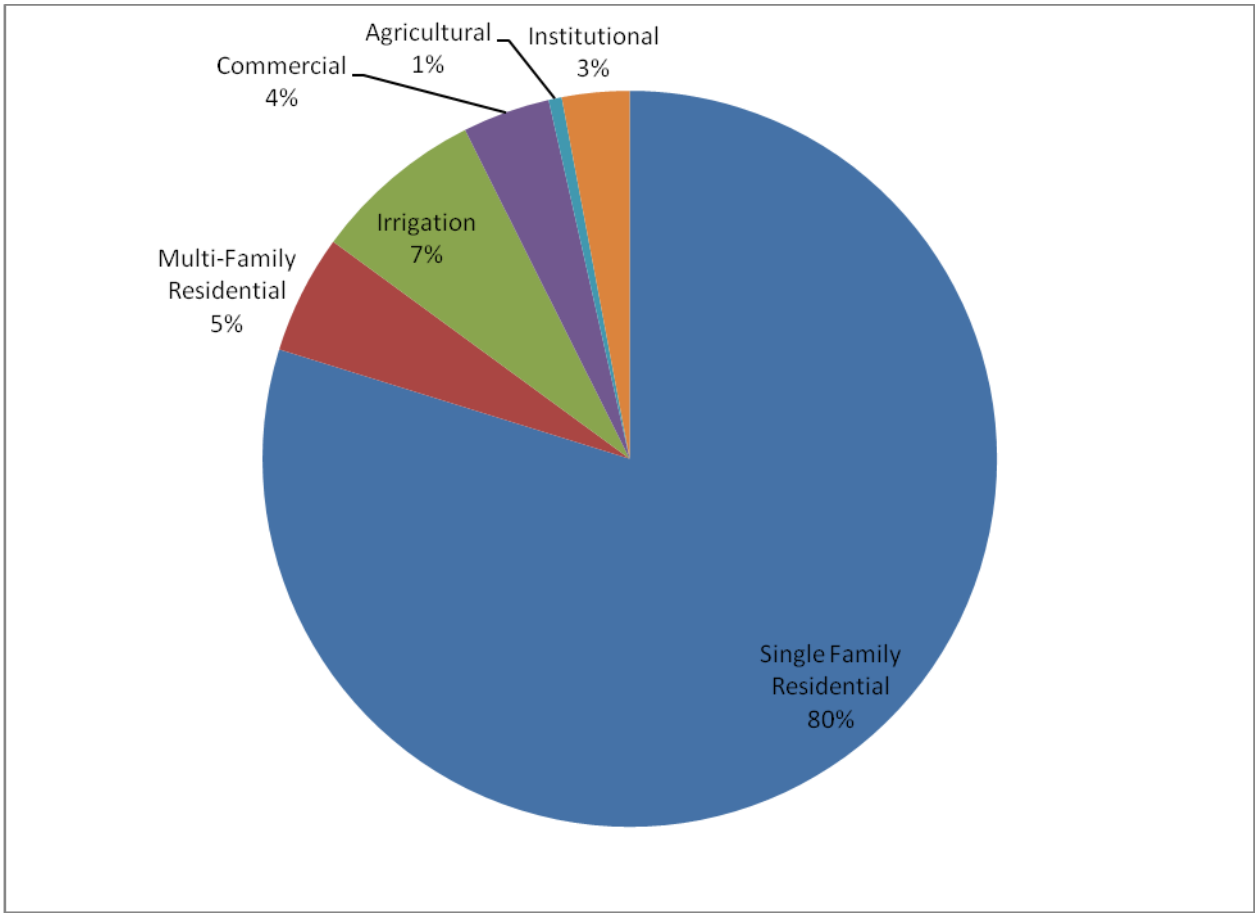


Figure 8. FY05-09 Water Consumption by Customer Class

The consumption data can also be analyzed geographically. The parcels in the study area are color-coded by their average water consumption (in AFY) in Figure 9.

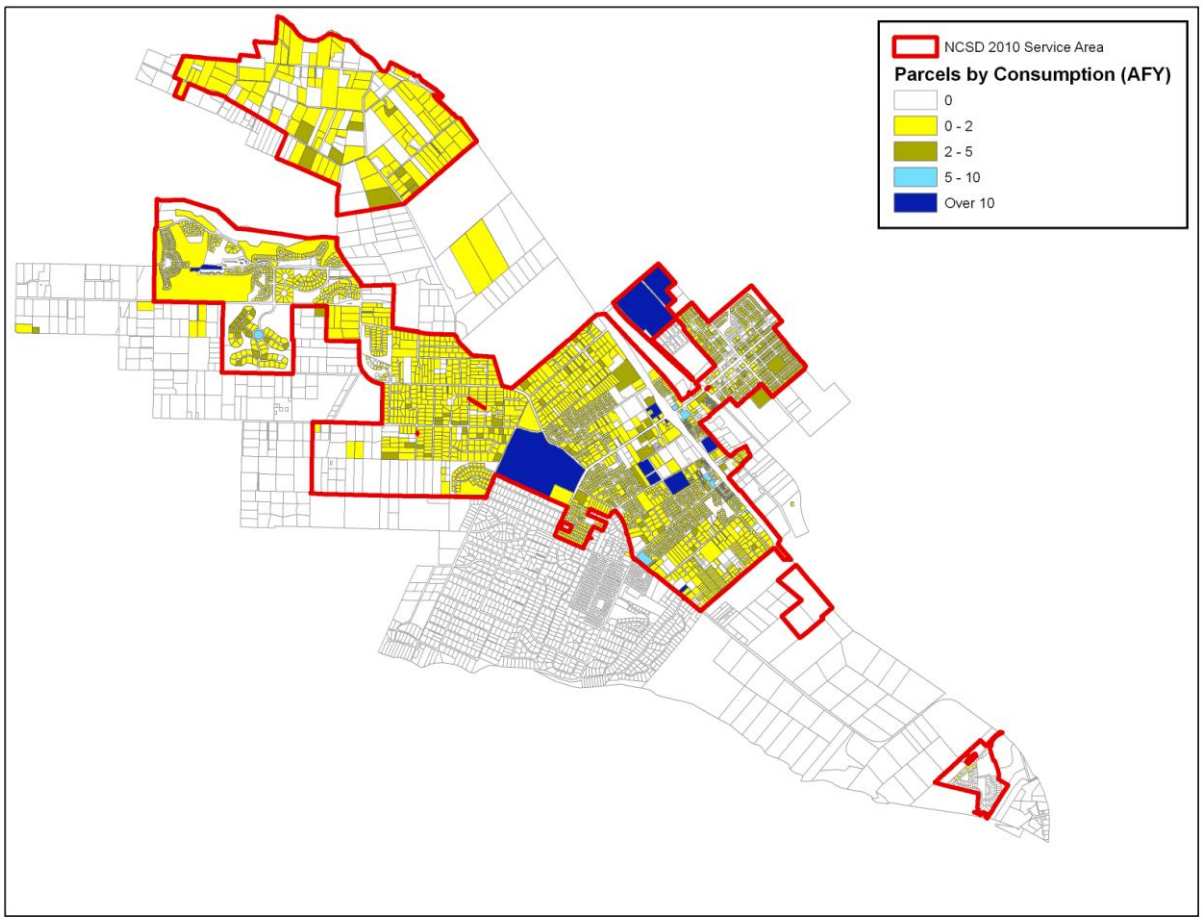


Figure 9. Parcels by Average Water Consumption

Water Production

NCSD provided ten years of monthly water production data from the District's wells. HDR compiled this information to calculate total monthly and annual production. The production information is summarized in Table 9.

Table 9. Annual NCSD Water Production

Calendar Year	Production (AF)		Fiscal Year	Production (AF)
2000	2,414		2001	2,410
2001	2,285		2002	2,494
2002	2,709		2003	2,616
2003	2,633		2004	2,827
2004	2,907		2005	2,643
2005	2,794		2006	2,747
2006	2,706		2007	2,982
2007	2,856		2008	2,843
2008	2,755		2009	2,642
Source: Annual Production Summaries Provided by NCSD				

The difference between production and consumption is considered to be non-revenue water (NRW). This NRW typically includes water used for unmetered uses, such as fire fighting or flushing, along with water lost to leaks in the distribution system.

Two additional uses of water for NCSD are deliveries to the Golden State Water Company and metered flows through construction meters on fire hydrants. District staff provided recorded flows to Golden State for the years 2000 through 2009. These flows were added to the measured consumption by NCSD accounts to determine total consumption. The District also provided metered water use through construction meters on fire hydrants for the years 2005 through 2009. These flows were also incorporated into the measured consumption.

The compilation of total consumption and production is shown in Table 10.

Table 10. Consumption and Production Summary

	NCSD Consumption (HCF)	Golden State Delivery (HCF)	Construction Meters (HCF)	Total Consumption (HCF)	Total Consumption (AFY)	Total Production (AFY)	Non-Revenue Water (AFY)	NRW as Percent of Production
FY05	1,125,351	2,944	6,203	1,134,498	2,604	2,643	39	1%
FY06	1,113,537	17,460	14,832	1,145,829	2,630	2,747	117	4%
FY07	1,205,284	16,461	21,484	1,243,229	2,854	2,982	128	4%
FY08	1,194,947	1,015	11,614	1,207,576	2,772	2,843	71	2%
FY09	1,123,069	-	2,293	1,125,362	2,583	2,642	59	2%
Average					2,689	2,771	82	3%

Over the five most recent years of available data, the NRW varied from 1 to 4 percent of production, with an average of 3 percent. For future planning purposes, a rounded value of 5 percent was used.

Future Water Demands

Future water demands were estimated for the parcels in the study area (both the District's service area and the SOI). The future demand projections were made in two steps. First, a buildout water demand was calculated for each parcel. This estimate used the benefit unit assessment spreadsheet for areas in the District service area and the County zoning information (as of 2009) for areas in the SOI. In the second step, interim projections were made for incremental periods between now and buildout. These interim projections were prepared using regional population projections for 2010 through 2035. These population projections were based on planning work by the San Luis Obispo Council of Governments (SLOCOG) and San Luis Obispo County.

Water Demand at Buildout (Based on Zoning as of 2009)

As part of its planning process, San Luis Obispo County has been calculating the development potential for parcels in the rural areas of the County. This analysis includes potential constraints on development such as slope and environmentally sensitive habitat. The County is extending this analysis to include parcels in the more developed areas of the County. The results of the County's analysis were not available at the time this memorandum was prepared. When that information becomes available, it could potentially be used to estimate buildout levels of development and buildout water demands in the study area.

For this project the best available estimate of future development in the NCSD service area is documented in the benefit unit assessment spreadsheet developed by the Wallace Group. The spreadsheet was developed for the purpose of assessing costs to property owners for a new water supply (an interconnection to the City of Santa Maria). The benefit unit assessment spreadsheet provided by NCSD included data for 4,498 parcels with a total area of 3,741 acres.

In order to calculate water use for different types of development, the Wallace Group defined a "benefit unit." A benefit unit is approximately equivalent to one single-family residence. Parcels were assigned existing benefit units based on their size and current land use. The Wallace Group identified a total of 5,825 benefit units in the current service area. Based on the District's average annual water production from 2005 through 2009 of 2,771 AFY, the current water use per benefit unit is 425 gallons per day (gpd).

The Wallace Group also calculated future benefit units that are expected for each parcel in the current service area. This calculation was based on a review of available information including zoning, current land use, and field investigation of selected parcels. The number of future benefit units assigned to an undeveloped parcel was calculated using the information in Table 11.

Table 11. Basis of Benefit Unit Assessment

Group	Category	Description	Parcel Sizes	Benefit Units
1	RSF	Residential parcels with one unit	<= 0.3 acres	1.0
			0.4 to 0.6 acres	1.6
			>= 0.7 acres	2.0
2	RSF-2	Second unit	< 1.0 acres	0
			>= 1.0 acres	0.3 for second unit
3	RSF>2	Greater than 2 units	All	0.3 for each additional unit
4	RMF	Multi-family units with no land	<0.1	0.7
5	COM	Commercial Services, Commercial Retail, Office Professional	<= 0.3 acres	1.0
			0.4 to 0.6 acres	1.6
			0.7 to 1.9 acres	3.0
			>= 2.0 acres	6.0
6	Mini Storage	Storage units	All	0.5
7	School	School	<= 0.3 acres	1.0
			0.4 to 0.6 acres	1.6
			0.7 to 2.0 acres	3.0
			> 2.0 acres	3.0 plus 1.0 for every acre above 2
8	Public Meeting	Churches, public meeting facilities	<= 0.3 acres	1.0
			0.4 to 0.6 acres	1.6
			0.7 to 2.0 acres	2.0
			> 2.0 acres	1.0 per acre
9	Recreational	Parks, fields	All	1.0 per acre
10	Government	Fire station, police station	<= 0.3 acres	1.0
			0.4 – 0.6 acres	1.6
			0.7 to 2.0 acres	3.0
			> 2.0 acres	3.0 plus 1.0 for every acre above 2
11	PF w/o Irrigation	Public facilities with no irrigation	All	0.0
12	PF w/ Irrigation	Public facilities with irrigation	All	1.0 per acre
13	OS w/o Irrigation	Open space with no irrigation	All	0.0
14	OS with Irrigation	Open space with existing or potential irrigation	All	1.0 per acre
15	WWTP	Wastewater Treatment Plant		1.0

Source: May 2009 Sensitivity Analysis for the Basis of Assessment - Final

The Wallace Group identified a total of 2,953 additional benefit units for the parcels in the District's service area. Using the current average use of 425 gpd per benefit unit, this development would represent an additional demand of approximately 1,400 AFY.

HDR imported the benefit unit information into the new geodatabase and joined the benefit unit table to the parcel data table using the APN. With the initial join, 4,459 parcels in the benefit unit assessment spreadsheet were linked to a parcel in the GIS parcel data table. HDR investigated the remaining 39 parcels to see if the APN could be adjusted. For eighteen parcels, HDR adjusted the APN values so that the benefit unit assessment spreadsheet would join with the GIS parcel data table. The adjusted APN was selected based on the street address for each record in the benefit unit assessment spreadsheet. These changes are summarized in Table 12.

Table 12. Modifications to APN Values in Benefit Unit Assessment Spreadsheet

Parcel APN in Benefit Unit Assessment Spreadsheet	Adjusted APN for Join with Geodatabase
90079032	90079091
91240006	91247015
91240007	91244027
91244027	91247016
91240020	91247027
91240021	91247028
91240023	91247029
91240031	91247039
91240032	91247040
91240034	91247042
91240035	91247043
91240075	91247010
91240077	91247014
91240081	91247044
91240082	91247045
91240084	91247037
92241022	92241035
92241027	92241034

While there were 22 parcels in the benefit unit assessment spreadsheet that remained without a link to a parcel in the GIS parcel data table, these represented less than 1 percent of the parcels and of the calculated benefit units. These discrepancies may be resolved when the Wallace Group updates the benefit unit assessment spreadsheet with updated APN information.

The benefit unit assessment spreadsheet did not include parcels outside the District's current service area. At some point the District may elect to expand the benefit unit assessment spreadsheet to calculate benefit units for the approximately 450 parcels in SOI-1, SOI-2, SOI-3, SOI-4, SOI-7, and SOI-8. For this project, detailed information about each SOI parcel was not available. Therefore, HDR used an alternate approach to estimate future demands for SOI

parcels. The approach matches the one used in the 2007 Water and Sewer Master Plan. For areas in the sphere of influence, future demands at buildout were estimated using the zoning or specific plan designation for the parcel and a set of demand factors summarized in Table 13.

Table 13. Water Demand Factors

Code	Description	Demand Factor from 2007 Master Plan (Revised Using FY05-06 Water Use Rates) (AFY/acre)	Demand Factor for 2010 Urban Water Management Plan (AFY/acre)
AG	Agriculture	0	0
CR	Commercial Retail	1.42	1.42
CS	Commercial Services	0.35	0.35
MUC	Multi-Land Use Category		1.42
OP	Office and Professional	0.26	0.26
OS	Open Space	1.18	1.18
PF	Public Facility	0.59	0.59
REC	Recreation	0.98	0.98
RL	Rural Lands	0.10	0.10
RMF	Residential Multi-Family	3.75	3.75
RR	Residential Rural	0.20	0.20
RS	Residential Suburban	0.98	0.98
RSF	Residential Single Family	2.10	2.10
Canada Ranch SP	Canada Ranch Specific Plan	1.96	1.96
Southland SP	Southland Specific Plan	0.98	0.98

Notes: Demand factor for MUC (Multi-Land Use Category) was assumed to be equal to CS (Commercial Services).
For parcels with a combination of two zoning categories, the demand factor was estimated as the average of the two values

For the new geodatabase, HDR used one of three methods to calculate the buildout water use for each parcel.

- For parcels in the current service area with no additional benefit units in the benefit unit assessment spreadsheet, the future demand was assumed equal to the average consumption from FY05 through FY09. An allowance of 5 percent for NRW was added to the consumption values.
- For parcels in the current service area with additional benefit units in the benefit unit assessment spreadsheet, the future demand was assumed equal to the current consumption (average of FY05 through FY09) plus 425 gpd for each additional benefit unit. An NRW allowance of 5 percent was added to the consumption values for current development. Because the future demand factor of 425 gpd per benefit unit was calculated using total production, it already includes NRW.

- For parcels in the sphere of influence, the future demand was calculated using the zoning or specific plan designation and the demand factors in Table 13. An allowance of 5 percent for NRW was added to demands calculated using the factors in Table 13.

The calculated buildout demands are summarized in Table 14.

Table 14. Estimated Buildout Demands (Based on Zoning as of 2009)

Area	Current Demand (AFY)	Additional Future Demand (AFY)	Total Buildout Demand (AFY)
Existing Service Area	2,752	1,387	4,139
SOI-1	3	646	649
SOI-2	-	24	24
SOI-3	6	290	297
SOI-4	-	269	269
SOI-7	9	309	319
SOI-8	-	25	25
Total	2,771	2,950	5,721
Notes: Includes estimate of 5% for non-revenue water.			

Interim Years

The parcel geodatabase allows the calculation of current and estimated future water demand for each parcel. The District will be able to make assumptions about when certain parcels are developed and see the impact on future water demands. Land use planning for the study area is controlled by the County; the District's role is to plan for potential future growth and identify necessary water supplies. At this time, the County has not identified a specific order or sequence for the development of parcels. Therefore, HDR prepared projections of water demands during future years by assuming growth rates that can be applied across the study area.

San Luis Obispo County maintains several GIS datasets on their web site that can be used for planning projects. A shapefile of the 2000 census blocks was obtained from the County's data repository. This file has 2000 population in each of approximately 7,200 census blocks covering the County; the total population is 246,681. Approximately 220 census blocks overlay some part of the District's service area or sphere of influence. The census blocks in the study area are shown in Figure 10.

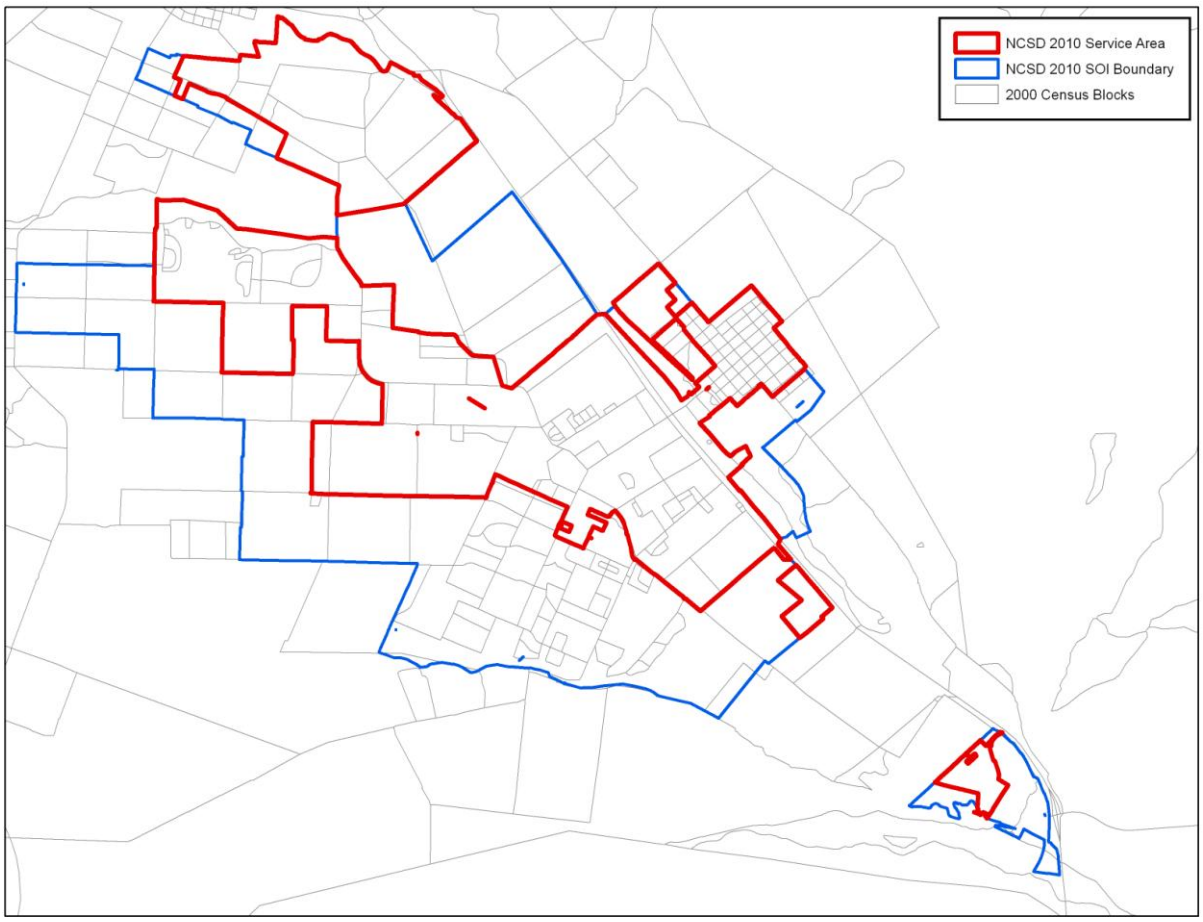


Figure 10. Census Blocks in Study Area

The distribution of population within each census block depends on the mix of residential, commercial, and other developed land uses. For this project, HDR assumed the population was uniformly distributed within each census block. For each census block, an area was calculated in acres and a 2000 population per acre was calculated.

In order to estimate the population within the service area, the layer of census blocks was intersected with the District service area boundary polygon. Similar intersections were done with the SOI boundary and the URL boundary, which corresponds to the Nipomo area as defined by the County in planning projections. These results are shown in Table 15.

Table 15. 2000 Population from Census Block Data

Area	2000 Population
NCSD Service Area	8,706
NCSD Sphere of Influence	5,484
Total NCSD	14,190
Nipomo URL	11,472
Source: GIS intersection of 2000 census blocks and adminstrative boundaries	

The most recent population projections for the study area have been estimated by the San Luis Obispo Council of Governments (SLOCOG) and updated by San Luis Obispo County. These estimates were provided by the County in a Microsoft Excel spreadsheet and reflected projections adopted by SLOCOG June 10, 2009. These projections include population estimates for the urban and rural areas throughout the County for years from 2000 through 2035. HDR extracted the estimates for the Nipomo URL area and for the South County (rural) area, which includes portions of the District's SOI. These estimates are summarized in Table 16.

Table 16. SLOCOG Population Projections

Timeframe	Nipomo URL	Annual Growth	South County (rural)	Annual Growth
2000	12,612		9,002	
2005	13,789	1.8%	9,746	1.6%
2008	14,726	2.2%	10,347	2.0%
2010	15,256	1.8%	10,677	1.6%
2015	16,419	1.5%	11,200	1.0%
2020	17,429	1.2%	11,589	0.7%
2025	18,460	1.2%	11,888	0.5%
2030	19,669	1.3%	12,267	0.6%
2035	20,672	1.0%	12,893	1.0%
Buildout	24,032		15,798	
Source: June 2009 SLOCOG projections prepared by ERA and County staff (Medium Growth Estimate). *Note: South County (rural) includes Black Lake and Woodlands*				

The SLOCOG-estimated population for 2000 for the Nipomo URL (12,612) is approximately 10 percent higher than the population calculated by HDR using census data (11,472). In order to maintain consistency with regional planning efforts, the SLOCOG value was retained.

The annual water production was assumed to increase in proportion to the population increases projected by SLOCOG for the Nipomo URL. The projected demands are summarized in Table 17. Table 17 also shows projected demands that account for the change in per-capita water use called for in Senate Bill 7. It was assumed that the expected adjustment in per-capita water use to 204 gpd would result in a corresponding percentage adjustment in water production. The per-capita water use is further discussed in the Technical Memorandum "Baseline Daily Per Capita Water Use' (Water Systems Consulting, April 26, 2011).

Table 17. Estimated Water Demand for Interim Years and Buildout (Based on Zoning as of 2009) for the District Service Area

Timeframe	Annual Growth	Annual Production without Per-Capita Adjustment (AFY)	Expected Per-Capita Water Use (gpd)	Annual Production with Per-Capita Adjustment (AFY)
2010		2,367	173.9	2,367
2015	1.5%	2,547	222.0	3,251
2020	1.2%	2,704	204.0	3,172
2025	1.2%	2,864	204.0	3,359
2030	1.3%	3,051	204.0	3,579
2035	1.0%	3,207	204.0	3,762
Buildout		4,139	204.0	4,855

References

Baseline Daily Per Capita Water Use, Water Systems Consulting, April 26, 2011.

Draft NCSD Assessment District Research Memorandum, Wallace Group, April 15, 2009.

Nipomo Community Services District Sphere of Influence Update and Municipal Service Review, San Luis Obispo County Local Agency Formation Commission, July 2010.

Nipomo Community Services District Sphere of Influence Update and Municipal Service Review Final Environmental Impact Report, San Luis Obispo County Local Agency Formation Commission, May 20, 2004.

Nipomo Community Services District Urban Water Management Plan 2005 Update, SAIC Engineering, January 25, 2006.

Nipomo Community Services District Water and Sewer Master Plan Update, Cannon Associates, December 2007.

Sensitivity Analysis for the Basis of Assessment – Final, Wallace Group, May 28, 2009.

APPENDIX C. SANTA MARIA GROUNDWATER JUDGMENT

SUPERIOR COURT OF CALIFORNIA

COUNTY OF SANTA CLARA

SANTA MARIA VALLEY WATER CONSERVATION DISTRICT,

Plaintiff,

vs.

CITY OF SANTA MARIA, ET AL.,

Defendants.

AND RELATED CROSS-ACTIONS AND ACTIONS CONSOLIDATED FOR ALL PURPOSES

SANTA MARIA GROUNDWATER LITIGATION
Lead Case No. 1-97-CV-770214

(CONSOLIDATED FOR ALL PURPOSES)

[Consolidated With Case Numbers: CV 784900; CV 785509; CV 785522; CV 787150; CV 784921; CV 785511; CV 785936; CV 787151; CV 784926; CV 785515; CV 786791; CV 787152; 1-05-CV-036410]

San Luis Obispo County Superior Court Case Nos. 990738 and 990739

JUDGMENT AFTER TRIAL

This matter came on for trial in five separate phases. Following the third phase of trial, a large number of parties entered into a written stipulation dated June 30, 2005 to resolve their differences and requested that the court approve the settlement and make its terms binding on them as a part of any final judgment entered in this case. Subsequent to the execution of the stipulation by the original settling parties, a number of additional parties have agreed to be bound by the stipulation – their signatures are included in the attachments to this judgment.

The June 30, 2005 Stipulation is attached as Exhibit "1;" and all exhibits to the Stipulation are separately attached as Exhibits "1A" through "1H". The Stipulating Parties are identified on Exhibit "1A." The court approves the Stipulation, orders the Stipulating Parties only to comply with each and every term thereof, and incorporates the same herein as though set forth in full. No non-stipulating party is bound in any way by the stipulation except as the court may otherwise independently adopt as its independent judgment a term or terms that are the same or similar to such term or provision of the stipulation.

As to all remaining parties, including those who failed to answer or otherwise appear, the court heard the testimony of witnesses, considered the evidence found to be admissible by the court, and heard the arguments of counsel. Good cause appearing, the court finds and orders judgment as follows.

As used in this Judgment, the following terms shall have the meanings herein set forth:

Basin – The groundwater basin described in the Phase I and II orders of the court, as modified, with attachments and presented in Exhibit "1B".

Defaulting Parties – All persons or entities listed on Exhibit "3".

Imported Water – Water within the Basin received from the State Water Project, originating outside the Basin, that absent human intervention would not recharge or be used in the Basin.

LOG Parties – All persons or entities listed on Exhibit "2," listed under the subheading "LOG Parties".

Non-Stipulating Parties – All Parties who did not sign the Stipulation, including the Defaulting Parties and the LOG and Wineman Parties.

Parties – All parties to the above-referenced action, including Stipulating Parties, Non-Stipulating Parties, and Defaulting Parties.

Public Water Producers – City of Santa Maria, Golden State Water Company, Rural Water Company, the "Northern Cities" (collectively the Cities of Arroyo Grande, Pismo Beach, and Grover Beach, and Oceano Community Services District), and the Nipomo Community Services District.

Return Flows – All water which recharges the Basin after initial use, through the use of percolation ponds and others means, derived from the use and recharge of imported water delivered through State Water Project facilities.

Stipulating Parties – All Parties who are signatories to the Stipulation.

Stipulation – The Stipulation dated June 30, 2005 and incorporated herein as Exhibit "1," with each of its Exhibits separately identified and incorporated herein as Exhibits "1A" through "1H".

Storage Space – The portion of the Basin capable of holding water for subsequent reasonable and beneficial uses.

Wineman Parties – All persons or entities listed on Exhibit "2," under the subheading "Wineman Parties".

The following Exhibits are attached to this Judgment:

1. *Exhibit "1,"* June 30, 2005 Stipulation and the following exhibits thereto:

a. *Exhibit "1A,"* list identifying the Stipulating Parties and the parcels of land bound by the Stipulation.

b. *Exhibit "1B,"* Phase I and II Orders, as modified, with attachments.

c. *Exhibit "1C,"* map of the Basin and boundaries of the three Management Areas.

d. *Exhibit "1D,"* map identifying those lands as of January 1, 2005: 1) within the boundaries of a municipality or its sphere of influence, or within the process of inclusion in its sphere of influence; or 2) within the certificated service area of a publicly regulated utility; and a list of selected parcels that are nearby these boundaries which are excluded from within these areas.

e. *Exhibit "1E,"* 2002 Settlement Agreement between the Northern Cities and Northern Landowners.

f. *Exhibit "1F,"* the agreement among Santa Maria, Golden State and Guadalupe regarding Twitchell Project and the Twitchell Management Authority.

g. *Exhibit "1G,"* the court's Order Concerning Electronic Service of

Pleadings and Electronic Posting of Discovery Documents dated June 27, 2000.

h. *Exhibit "1H,"* the form of memorandum of agreement to be recorded.

2. *Exhibit "2,"* List of Non-Stipulating LOG and Wineman Parties and recorded deed numbers of property they owned at the time of trial.

3. *Exhibit "3,"* List of Defaulting parties.

A declaratory judgment and physical solution are hereby adjudged and decreed as follows:

1. As of the time of trial, LOG and Wineman Parties owned the real property, listed by assessor's parcel numbers, as presented in Exhibit 2.

2. The City of Santa Maria and Golden State Water Company are awarded prescriptive rights to ground water against the non-stipulating parties, which rights shall be measured and enforced as described below.

3. The City of Santa Maria and Golden State Water Company have a right to use the Basin for temporary storage and subsequent recapture of the Return Flows generated from their importation of State Water Project water, to the extent that such water adds to the supply of water in the aquifer and if there is storage space in the aquifer for such return flows, including all other native sources of water in the aquifer. The City of Santa Maria's Return Flows represent 65 percent of the amount of imported water used by the City. Golden State Water Company's Return Flows represent 45 percent of the amount of imported water used by Golden State in the basin.

4. (a) The Northern Cities have a prior and paramount right to produce 7,300 acre-feet of water per year from the Northern Cities Area of the Basin; and (b) the Non-Stipulating Parties have no overlying, appropriative, or other right to produce any water supplies in the Northern Cities Area of the Basin.

5. The Groundwater Monitoring Provisions and Management Area Monitoring Programs contained in the Stipulation, including Sections IV(D) (All Management Areas); V(B) (Santa Maria Management Area), VI(C) (Nipomo Mesa Management Area), and VII (1) (Northern Cities Management Area), inclusive, are independently adopted by the court as

necessary to manage water production in the basin and are incorporated herein and made terms of this Judgment. The Non-Stipulating Parties shall participate in, and be bound by, the applicable Management Area Monitoring Program. Each Non-Stipulating Party also shall monitor their water production, maintain records thereof, and make the data available to the court or its designee as may be required by subsequent order of the court.

6. No Party established a pre-Stipulation priority right to any portion of that increment of augmented groundwater supply within the Basin that derives from the Twitchell Project's operation.

7. The court determines that there is a reasonable likelihood that drought and overdraft conditions will occur in the Basin in the foreseeable future that will require the exercise of the court's equity powers. The court therefore retains jurisdiction to make orders enforcing the rights of the parties hereto in accordance with the terms of this judgment.

a. Groundwater

i. The overlying rights of the LOG and Wineman Parties shall be adjusted by amounts lost to the City of Santa Maria and Golden State Water Company by prescription. The prescriptive rights of the City of Santa Maria and Golden State Water Company must be measured against the rights of all overlying water producers pumping in the acquifer as a whole and not just against the LOG and Wineman Parties because adverse pumping by the said water producers was from the aquifer as a whole and not just against the non-stipulating parties. The City of Santa Maria established total adverse appropriation of 5100 acre feet per year and Golden State Water Company established adverse appropriation of 1900 acre feet a year, measured against all usufructuary rights within the Santa Maria Basin. The City of Santa Maria and Golden State Water Company having waived the right to seek prescription against the other stipulating parties, may only assert such rights against the non stipulating parties in a proportionate quantity. To demonstrate the limited right acquired by the City of Santa Maria and Golden State Water Company, by way of example, if the cumulative usufructuary rights of the LOG and Wineman Parties were 1,000 acre-feet and the cumulative usufructuary rights of all other overlying groundwater right holders within the

Basin were 100,000 acre-feet, the City of Santa Maria and Golden State Water Company would each be entitled to enforce 1% of their total prescriptive right against the LOG and Wineman Parties. That is, Golden State Water Company could assert a prescriptive right of 19 annual acre-feet, and the City of Santa Maria 51 annual acre-feet, cumulatively against the LOG and Wineman Parties, each on a proportionate basis as to each LOG and Wineman Party's individual use.

ii. The Defaulting Parties failed to appear at trial and prove any usufructuary water rights. The rights of the Defaulting Parties, if any, are subject to the prescriptive rights of the City of Santa Maria and Golden State Water Company, as well as the other rights of said parties as established herein.

b. Imported Water

The City of Santa Maria and Golden State Water Company shall have rights to Return Flows in the amount provided above.

c. Northern Cities

The rights of all Parties in the Northern Cities Management Area shall be governed as described above on page 4, lines 21 to 24.

8. The LOG and Wineman Parties have failed to sustain the burden of proof in their action to quiet title to the quantity of their ground water rights as overlying owners. All other LOG and Wineman party causes of action having been dismissed, judgment is hereby entered in favor of the Public Water Producers as to the quiet title causes of action brought by the LOG and the Wineman Parties. Legal title to said real property is vested in the Log and Wineman Parties and was not in dispute in this action.

9. Each and every Party, their officers, agents, employees, successors and assigns, are enjoined and restrained from exercising the rights and obligations provided through this Judgment in a manner inconsistent with the express provisions of this Judgment.

10. Except upon further order of the court, each and every Party and its officers, agents, employees, successors and assigns, is enjoined and restrained from transporting groundwater to areas outside the Basin, except for those uses in existence as of the date of this

Judgment; provided, however, that groundwater may be delivered for use outside the Basin as long as the wastewater generated by that use of water is discharged within the Basin, or agricultural return flows resulting from that use return to the Basin.

11. Jurisdiction, power and authority over the Stipulating Parties as between one another are governed exclusively by the Stipulation. The court retains and reserves jurisdiction as set forth in this Paragraph over all parties hereto. The court shall make such further or supplemental orders as may be necessary or appropriate regarding interpretation and enforcement of all aspects of this Judgment, as well as clarifications or amendments to the Judgment consistent with the law.

12. Any party that seeks the court's exercise of reserved jurisdiction shall file a noticed motion with the court. Any noticed motion shall be made pursuant to the court's Order Concerning Electronic Service of Pleadings and Electronic Posting of Discovery Documents dated June 27, 2000.

13. The court shall exercise *de novo* review in all proceedings. The actions or decisions of any Party, the Monitoring Parties, the TMA, or the Management Area Engineer shall have no heightened evidentiary weight in any proceedings before the court.

14. As long as the court's electronic filing system remains available, all court filings shall be made pursuant to court's Order Concerning Electronic Service of Pleadings and Electronic Posting of Discovery Documents dated June 27, 2000, or any subsequent superseding order. If the court's electronic filing system is eliminated and not replaced, the Parties shall promptly establish a substitute electronic filing system and abide by the same rules as contained in the court's Order.

15. Nothing in this Judgment shall be interpreted as relieving any Party of its responsibilities to comply with state or federal laws for the protection of water quality or the provisions of any permits, standards, requirements, or order promulgated thereunder.

16. Each Party shall designate the name, address and e-mail address, if any, to be used for purposes of all subsequent notices and service by a designation to be filed within thirty days after entry of this Judgment. This designation may be changed from time to time

by filing a written notice with the court. Any Party desiring to be relieved of receiving notices may file a waiver of notice on a form approved by the court. The court shall maintain at all times a current list of Parties to whom notices are to be sent and their addresses for purposes of service. The court shall also maintain a full current list of names, addresses, and e-mail addresses of all Parties or their successors, as filed herein. Copies of such lists shall be available to any Person. If no designation is made, a Party's designee shall be deemed to be, in order of priority: i) the Party's attorney of record; ii) if the Party does not have an attorney of record, the Party itself at the address specified.

17. All real property owned by the Parties within the Basin is subject to this Judgment. The Judgment will be binding upon and inure to the benefit of each Party and their respective heirs, executors, administrators, trustees, successors, assigns, and agents. Any party, or executor of a deceased party, who transfers property that is subject to this judgment shall notify any transferee thereof of this judgment and shall ensure that the judgment is recorded in the line of title of said property. This Judgment shall not bind the Parties that cease to own property within the Basin, and cease to use groundwater. Within sixty days following entry of this Judgment, the City of Santa Maria, in cooperation with the San Luis Obispo entities and Golden State, shall record in the Office of the County Reporter in Santa Barbara and San Luis Obispo Counties, a notice of entry of Judgment.

The Clerk shall enter this Judgment.

SO ORDERED, ADJUDGED, AND DECREED.

Dated: January 25, 2008

Judge of the Superior Court

JACK KOMAR

APPENDIX D. WHOLESALE WATER SUPPLY AGREEMENT

WHOLESALE WATER SUPPLY AGREEMENT

This Wholesale Water Supply Agreement ("Agreement") is made and entered into as of 1-5-2010, by and between the CITY OF SANTA MARIA ("City"), a California municipal corporation, and NIPOMO COMMUNITY SERVICES DISTRICT ("NCSD"), an independent special district formed under and pursuant to Section 61000, *et seq.* of the California Government Code. City and NCSD are sometimes individually referred to herein as a "Party" and collectively as the "Parties".

RECITALS

A. The City provides retail potable water service to customers within its service area in the Santa Maria Valley, in northern Santa Barbara County. The City holds a contract with the Central Coast Water Authority to receive water from the State Water Project ("SWP"). City also holds rights to recharge from Twitchell reservoir and rights to pump groundwater from the Santa Maria Groundwater Basin ("Santa Maria Basin").

B. NCSD provides retail potable water service and sewer service within its established boundaries located in and around the Nipomo Mesa Management Area ("NMMA") of the Santa Maria Basin.

C. Both the City and the NCSD are Parties to a certain groundwater adjudication lawsuit commonly referred to as the Santa Maria Groundwater Litigation (Santa Maria Valley Water Conservation District vs. City of Santa Maria, et al.; Superior Court of California, County of Santa Clara Case no. 1-97-CV-770214) (herein the "Basin Litigation"). On August 3, 2005, the Court approved a Settlement Stipulation (herein the "Stipulation") that was signed by the Parties, related to the Basin Litigation which, among other things, provides that "the NCSD and City shall employ their best efforts to timely implement the Nipomo Supplemental Water Project, subject to their quasi-judicial obligations specified for administrative action and in the California Environmental Quality Act." The Stipulation was later incorporated into the final Judgment.

D. On a long term basis, City has water available for use in the NMMA that is surplus to that needed to serve City's current and long-term future anticipated demands.

E. Pursuant to the Stipulation, NCSD seeks to acquire a Supplemental Water supply (referred to herein as "Supplemental Water") to alleviate pressure on the NMMA from groundwater pumping and to meet current needs and projected demands of NCSD customers.

F. Consistent with the Stipulation and Judgment, and subject to the terms and conditions of this Agreement, City is willing to sell and deliver to NCSD an established quantity of Supplemental Water on a wholesale basis.

NOW THEREFORE, in consideration of the foregoing recitals and the promises and covenants contained herein, the Parties agree as follows:

1. Purpose. Consistent with the Stipulation and Judgment, the purpose of this Agreement is to formalize the terms and conditions by which City will provide Supplemental Water to NCSD, including an equivalent amount of capacity in City's water distribution system, for delivery to the NCSD water distribution system through the interconnection described in Paragraph 9, beginning on the Effective Date and continuing each year thereafter for as long as this Agreement remains in effect.

2. Termination of MOU. City and NCSD executed a Memorandum of Understanding ("MOU") on September 7, 2004, to provide for the reservation of a Supplemental Water supply of up to three thousand (3,000) acre-feet per year in anticipation of the negotiation of this Agreement. This Agreement shall supercede the terms of the MOU, which shall terminate and be of no further force or effect. The initial reservation payment of $37,500 that was made upon execution of the MOU shall be credited by City to the first quarterly invoice for water delivery pursuant to Paragraph 8.

3. **Term of Agreement.**

(a) Contract Term. The term of the Agreement shall commence on the Effective Date and end on June 30, 2085 ("Term"). Notwithstanding the Term, the delivery of Supplemental Water pursuant to this Agreement during any period on or after June 30, 2035, shall be subject to the renewal of the contract between the City and Central Coast Water Authority for SWP water. Furthermore, the terms of this Agreement shall be subject to renegotiation as described below in the event that the SWP contract or any subsequent SWP contract is not renewed or the terms of such renewal either (i) substantially impair the ability of City to continue to provide Supplemental Water in the quantities set forth in this Agreement; or (ii) the cost of continuing to provide Supplemental Water pursuant to the terms of this Agreement would create a significant financial burden on the City. In no event shall the City be required to deliver Supplemental Water following June 30, 2035 at a financial loss. Upon the occurrence of one of the foregoing events and within thirty (30) days of a written request from City to NCSD requesting renegotiation, the Parties shall negotiate in good faith and use their best efforts to equitably amend the terms of this Agreement to allow for the continued delivery of Supplemental Water on terms that are mutually beneficial to the Parties for the duration of the Term. The parties will meet in good faith in 2085 to determine whether to extend the term of the Agreement.

(b) Dispute Resolution. In the event of a dispute as to whether clause (i) and/or (ii) of Paragraph 3(a) have been triggered as a result of the renegotiation or non-renewal of the SWP contract, then such dispute shall be referred to the dispute resolution procedures referenced in Paragraph 19 of this Agreement. If a final finding is made as a result of such dispute resolution procedure that clause (i) and/or clause (ii) have been triggered, then the Parties shall negotiate in good faith pursuant to Paragraph 3(a). If the Parties cannot agree on the terms and conditions for equitably amending the terms of this Agreement to address a substantial impairment pursuant to clause (i) of Paragraph 3(a), then whether or not there is a feasible solution to address such substantial impairment may also be referred to the dispute resolution procedures referenced in Paragraph 19 of this Agreement. Notwithstanding the foregoing, the allocation of cost and/or any revision in the price of Supplemental Water to implement a solution

or address the existence of an impairment or significant financial burden as set forth in Paragraph 3(a) shall be solely determined by the Parties on mutually acceptable terms and the dispute resolution procedure shall have no authority to order or impose any change with respect to such terms.

(c) Effective Date. The "Effective Date" shall mean the date that the NCSD interconnection described in Paragraph 9 has been completed and approved by City's technical staff as operationally ready for commencement of delivery of Supplemental Water.

(d) Delivery Year. Each "Delivery Year" shall commence on the Effective Date and any anniversary thereof during the Term and continue for a period of one (1) year.

4. Quantity of Supplemental Water.

(a) Minimum Delivery. In each Delivery Year during the Term of this Agreement, City shall deliver and NCSD shall purchase the following minimum quantity of Supplemental Water ("Minimum Quantity"):

Delivery Years 1 through 10	-	2,000 acre feet per year
Delivery Years 11 through 19	-	2,500 acre feet per year
Delivery Years 20 through end of Term	-	3,000 acre feet per year

Any portion of the Minimum Quantity of Supplemental Water that is not taken by NCSD during a given Delivery Year shall be forfeit and shall not roll over to the next year. In the event that City, in its sole and absolute discretion, agrees to deliver unused Supplemental Water in a subsequent Delivery Year, such late delivery shall be an accommodation to NCSD and shall not constitute a waiver or amendment to the terms of this Agreement.

(b) Additional Delivery. NCSD may request delivery of Supplemental Water in excess of the Minimum Quantity up to an additional 3,200 acre feet per year. NCSD shall give City no less than thirty (30) days written notice of its desire to purchase additional

Supplemental Water and the proposed schedule for such delivery. City shall make a good faith effort to comply with such request subject to (i) the availability of excess Supplemental Water from sources used for delivery of water to City's retail customers; and (ii) sufficient delivery capacity to fulfill such request at the NCSD interconnection using the City's existing water distribution system. Any such additional Supplemental Water shall be purchased and delivered on the same terms as the Minimum Quantity, provided, however, that if the cost of procuring and delivering additional Supplemental Water exceeds the cost of delivering the Minimum Quantity, City shall have the right to impose a surcharge to compensate City for such additional cost as a condition to delivery. City shall notify NCSD of the amount of any such surcharge prior to delivery of any additional Supplemental Water and NCSD shall have the right to withdraw its request. In no event shall City be required to undertake any capital cost or expansion of its existing infrastructure to provide additional Supplemental Water.

5. **Reservation of Minimum Quantity**. Subject to the terms and conditions of this Agreement, City shall hold on reserve sufficient Supplemental Water each year, including an equivalent amount of capacity in City's water distribution system, for City to fulfill its obligation to deliver the Minimum Quantity to NCSD under this Agreement. City shall deliver such Supplemental Water to NCSD from sources used to provide water to City's retail customers. Notwithstanding the foregoing, during the term of the Agreement, City may substitute or combine new or additional replacement sources of water for the source of Supplemental Water, provided, however, that any substitute, combined or additional sources must be equivalent in deliverability, reliability, quality, pressure, and environmental impacts to the source being replaced. Disputes regarding this Paragraph shall be resolved pursuant to Paragraph 19.

6. **Purchase Price for Supplemental Water.** The purchase price for Supplemental Water delivered by City to NCSD shall be based on the "Base Rate" of the City's Water Consumption Rates. For fiscal year 2008-09, the Base Rate is $2.441 per one hundred cubic feet of water (or $1,063.37 per acre-foot of water). The Base Rate may be adjusted each fiscal year subject to approval by the City Council, consistent with applicable legal requirements. Any such adjustment in the purchase price shall go into effect in the next quarterly billing period.

7. **Costs of Delivery.** Except as expressly set forth in this Agreement, City shall be responsible for all costs and expenses related to providing Supplemental Water to NCSD at the NCSD interconnection pursuant to this Agreement. Notwithstanding the foregoing, the purchase price for Supplemental Water includes a cost component for energy costs incurred by City to supply Supplemental Water to the NCSD interconnection equal to two hundred and six dollars and eighty five cents ($206.85) per acre foot ("Base Energy Cost"). In the event that the actual cost of energy incurred by City to supply Supplemental Water in any Delivery Year exceeds the Base Energy Cost, then City shall have the right to charge NCSD a premium equal to the difference between the actual cost and the Base Energy Cost. The Base Energy Cost shall be adjusted each Delivery Year by a percentage which is equivalent to fifty percent (50%) of the increase or decrease, if any, in the Consumer Price Index - Energy Services (Electricity and Natural Gas) - Los Angeles-Riverside-Orange County or any successor index.

8. **Payments for Supplemental Water**. City shall bill NCSD on a quarterly basis in arrears for Supplemental Water delivered to NCSD's interconnection during the previous three (3) months. The amount payable by NCSD to City shall be based on the total quantity in acre-feet of Supplemental Water delivered during the quarter just ended multiplied by the then-current purchase price (as determined in Paragraph 6), plus any costs payable by NCSD pursuant to this Agreement. Notwithstanding the foregoing, to the extent that NCSD has taken less than the Minimum Quantity as of the final quarterly billing for a Delivery Year, City shall bill NCSD for the remainder of the Minimum Quantity whether or not such Supplemental Water has been delivered, provided that such water was made available for delivery to NCSD as provided in Paragraph 9. All invoices billed to NCSD shall be payable within thirty (30) days of the invoice date, provided that no charges are disputed. City shall have the right to charge late fees of up to five percent (5%) of the overdue amount for any invoice that is not paid within such period. In the event NCSD disputes any charges on an invoice, the undisputed amount shall be paid consistent with this Paragraph and the original invoice shall be returned to City for correction and resubmission. If the parties are unable to reach an agreement regarding disputed charges, disputes shall be resolved pursuant to Paragraph 19.

9. **Delivery of Water.**

(a) Point of Delivery. The physical point of delivery of Supplemental Water pursuant to this Agreement shall be the proposed interconnection between the City water distribution system and the NCSD water distribution system located at Taylor Street and Blosser Road or such other alternative location as may be approved by City and NCSD. All facilities constructed by NCSD will be used solely for the purpose of delivering Supplemental Water to NCSD. NCSD shall cooperate with the reasonable requests of City with respect to taking any action necessary to preserve the integrity of the City's water distribution system and the City shall do likewise for NCSD. The operation and maintenance of the NSCD Interconnection will be detailed in an Operation Memorandum of Understanding that will be approved by the City and NCSD prior to connection. City shall waive any fees for City permits related to construction of facilities for delivery of the water. If the parties cannot agree on the terms of the Operations Memorandum of Understanding then the disputed terms will be subject to the dispute resolution procedures referenced in Paragraph 19 of this Agreement.

(b) Facilities. NCSD shall be responsible for designing, constructing and operating the NCSD interconnect. The plans and specifications of the NCSD interconnect shall be subject to prior approval by City, which approval shall not unreasonably be withheld provided that such plans and specifications conform to applicable code provisions and any technical requirements imposed for connections to the City's water distribution system. NCSD shall also be responsible for obtaining any and all regulatory and environmental permits, licenses or other approvals necessary to construct and operate the NCSD interconnection. NCSD and/or any contractor working on the NCSD interconnect shall provide insurance coverage naming the City as an additional insured and the scope of such insurance coverage shall be subject to the reasonable approval of City's risk manager prior to commencement of any work.

(c) Construction, Regulatory/ Permit and Other Costs. NCSD shall be solely responsible for all costs related to the construction and operation of the NCSD interconnection with City's retail water distribution system. NCSD shall also be solely

responsible for all regulatory and/or permit compliance and costs with respect to the NCSD interconnection.

(d) City Streets: License to Use Easements and Rights of Way. The City shall provide NCSD a license, at no additional cost, to use such portions of City streets, easements, and right of ways as are reasonably necessary to build the NCSD interconnect and deliver the Supplemental Water to NCSD. Such license shall be non-revocable during the Term of this Agreement and shall automatically terminate upon the termination of this Agreement. The foregoing licenses shall not include the right of NCSD to make any alteration or improvement within such City streets, easements and rights of way except in compliance with Paragraph 9.

(e) Delivery Schedule. City will deliver the Supplemental Water to NCSD at the NCSD interconnection upon a mutually agreeable delivery schedule. The volume of delivery to the NCSD interconnection shall not exceed a maximum of two hundred and seventy-five (275) acre-feet per month or a peak hour flow averaging 2500 gallons per minute. Delivery pressure at the point of connection shall exceed 60 psi during City's normal system operation, not including emergencies or incidents described in 9(f). Before delivery begins, the District and City shall agree to an Operation Memorandum of Understanding (OMOU) to describe the specific procedures and limitation on the operations provided for in this Agreement.

(f) Force Majeure. If by reason of acts of God, earthquakes, droughts, floods, storms, explosion, fires, labor troubles, strikes, insurrection, riots, acts of the public enemy, or federal, or state, order, rule, or regulation, the City is prevented, in whole or in part, from the delivery of the Supplemental Water to NCSD, as provided herein, then City may reduce delivery of Supplemental Water up to the same percentage the City reduces water delivery to its retail customers.

(g) Suspension. The delivery of water may be suspended or curtailed during any period of public emergency or disaster that is declared by City. For the purposes of this Agreement, a public emergency or disaster shall not include ordinary measures taken during

periods of drought or water shortage.

(h) Obligations of City. For the purposes of this Agreement and subject the limitations contained in this Paragraph 9, City shall have fulfilled its obligation to make Supplemental Water available for delivery so long as the amount of Supplemental Water purchased by NCSD is available at the NCSD interconnection for NCSD to take delivery of pursuant to a predetermined and mutually agreed upon delivery schedule.

10. Water Quality. City shall be responsible for ensuring that the quality of the Supplemental Water made available for delivery is of the same pressure and quality of water that City delivers to its residential customers. The quality of water which is delivered by the City to its residents complies with federal, state and local laws, regulations and permit requirements which are applicable to City, including standards applicable to wastewater discharge, as amended from time to time and subject to any compliance waiver granted to the City ("Quality Standards"). City shall provide NCSD with a copy of the Quality Standards (and any change thereto) which are applicable to City and NCSD shall be solely responsible for ensuring that the Quality Standards meet the federal, state and local laws, regulations and permit requirements for potable water delivery by NCSD to its customers, including the discharge of such water. To the extent that the quality standards which are applicable to NCSD exceed the Quality Standards, then NCSD shall be responsible for any necessary additional treatment of the Supplemental Water. City agrees to indemnify and hold NCSD harmless from any actual liability which arises as a result of the failure of Supplemental Water which is delivered to the NCSD interconnection to meet the Quality Standards. NCSD shall be solely responsible for any actual liability resulting from a change in water quality following the point of delivery (including any additional treatment undertaken by NCSD) and shall indemnify and hold City harmless from any actual liability which arises from any such change. City and NCSD shall promptly notify the other in the event that either becomes aware of a material adverse change in the quality of the Supplemental Water and shall cooperate to identify the cause of such change.

11. Remarketing of Supplemental Water. NCSD shall be free to remarket the Supplemental Water to other Parties within the NMMA without restriction to price and terms.

NCSD assumes all responsibility for delivery of Supplemental Water from the NCSD interconnection to its customers and contracting Parties. City's obligations under this Agreement are solely with NCSD and no customer of NCSD nor other third party shall have the right to enforce the terms of this Agreement as a third party beneficiary. City shall not sell water to other parties or persons within NCSD's service area or sphere of influence, as amended from time to time, without first receiving the written approval of NCSD.

12. **Regulatory Requirements**.

(a) Obligations of the City. The implementation of this Agreement shall be subject to satisfaction by City of the regulatory requirements set forth herein. City shall, if necessary, undertake the following: (i) Obtain all permits, consents, entitlements and approvals necessary to enable the City to reserve and sell, and NCSD to purchase, the Supplemental Water that is the subject of this Agreement; and (ii) fully and completely comply with the requirements of the California Environmental Quality Act ("CEQA"), including, if it is determined that this transaction is subject to CEQA and not exempt from CEQA, the completion of an initial study, and (1) either (a) there shall have been adopted a negative declaration or a mitigated negative declaration, or (b) a final environmental impact report shall have been completed and certified, and (2) the time shall have expired within which a judicial proceeding may be instituted challenging the validity or completeness of any such determination of exemption, or adoption of a negative declaration or of a mitigated negative declaration, or approval of a final environmental impact report.

(b) Obligations of NCSD. NCSD shall be solely responsible for obtaining all regulatory approvals necessary in connection with purchasing and taking delivery of the Supplemental Water.

13. **Service Area Integrity**. Nothing in this Agreement is intended nor shall it be interpreted to waive the right of City to provide water service to current or future areas within or adjacent to its existing service area.

14. Representations or Warranties of City. City makes the following representations, warranties and covenants to NCSD:

(a) Power and Authority to Execute and Perform this Agreement. The City has the power and authority to enter into this Agreement and to perform its obligations and all necessary approvals and authorizations have been obtained.

(b) Availability of Resource. Based on information which is currently known to City and City's current forecast of future use, on a long-term basis, City has water and the necessary infrastructure available to fulfill City's obligations under this Agreement that is surplus to that needed to serve City's current and long-term future anticipated demand.

(c) Enforceability. This Agreement constitutes a legal, valid and binding obligation of the City, and is enforceable against the City in accordance with its terms.

15. Representations or Warranties of NCSD. NCSD makes the following representations, warranties and covenants to City:

(a) Power and Authority to Execute and Perform this Agreement. NCSD has the power and authority to enter into this Agreement and to perform its obligations and all necessary approvals and authorizations have been obtained.

(b) Enforceability. This Agreement constitutes a legal, valid and binding obligation of NCSD, enforceable against NCSD in accordance with its terms.

16. Default and Termination by City. In the event NCSD fails to make any payment to City under this Agreement when due, or fails to perform any obligation otherwise required by this Agreement, City shall demand in writing that NCSD cure such non-performance. NCSD shall have thirty (30) days after receipt of such demand to cure. In the event NCSD fails to cure a default within the thirty (30) day period, City may suspend delivery of Supplemental Water and redirect such water to other uses for the duration of the suspension. City shall restore

water delivery when NCSD has cured all outstanding defaults and paid all amounts due to the City in full. In the event that NCSD does not cure a default within one (1) year of suspension, then City may terminate this Agreement at any time thereafter.

17. Default and Termination by NCSD. NCSD shall have the right to terminate this Agreement, without recourse, if (i) the City is found to be in material breach of its obligations to deliver the Supplemental Water as set forth in this agreement; or (ii) upon written notice to City that NCSD is unable to pay for the Supplemental Water due to the majority protest procedures or other procedures referenced in Proposition 218; or (iii) upon three (3) years prior written notice to City, provided, however, that no such termination without cause shall become effective until the thirtieth (30^{th}) anniversary of the Effective Date.

18. Expiration of Term. This Agreement shall terminate and be of no further force and effect as of the expiration of the Term.

19. Dispute Resolution. Except as otherwise limited by this Agreement, any dispute arising under this Agreement, including, without limitation, all disputes relating in any manner to the performance or enforcement of this Agreement, shall be resolved by binding arbitration in the County of Santa Barbara, California, pursuant to the comprehensive arbitration rules and procedures of Judicial Arbitration and Mediation Services ("JAMS") or any successor thereto, as amended or as augmented in this Agreement (the "Rules"). Arbitration shall be initiated as provided by the Rules, although the written notice to the other party initiating arbitration shall also include a description of the claim(s) asserted and the facts upon which the claim(s) are based. Arbitration shall be final and binding upon the parties and shall be the exclusive remedy for all claims subject hereto, including any award of attorney's fees and costs. Either party may bring an action in court to compel arbitration under this Agreement and to enforce an arbitration award. All disputes shall be decided by a single arbitrator. The arbitrator shall be selected by mutual agreement of the parties within thirty (30) days of the effective date of the notice initiating the arbitration. If the parties cannot agree on an arbitrator, then the complaining party shall notify JAMS and request selection of an arbitrator in accordance with the Rules. The arbitrator shall have only such authority to award equitable relief, damages, costs, and fees as a

court would have for the particular claim(s) asserted. In no event shall the arbitrator award punitive damages of any kind. The parties acknowledge that one of the purposes of utilizing arbitration is to avoid lengthy and expensive discovery and allow for prompt resolution of the dispute. The arbitrator shall have the power to limit or deny a request for documents or a deposition if the arbitrator determines that the request exceeds those matters which are directly relevant to the claims in controversy. The parties may make a motion for protective order or motion to compel before the arbitrator with regard to the discovery, as provided in the Code of Civil Procedure. Notwithstanding the election by the parties to arbitrate their disputes, nothing contained herein shall prevent a party from filing an action in a court of competent jurisdiction to seek any form of equitable remedy or relief.

20. Indemnity. NCSD, its successors and assigns, shall hold harmless, defend and indemnify City, its officials, employees, agents, successors and assigns (all of which are herein referred to as the "City Indemnified Parties") from and against all liabilities, obligations, claims, damages, losses, actions, judgments, suits, costs and expenses, including but not limited to reasonable attorneys' fees (collectively, "Damages"), which may be imposed on, incurred by, or asserted against City Indemnified Parties as a result of (i) a breach of NCSD's obligations; or (ii) the conduct of NCSD's operations associated with the NCSD interconnection to City's retail distribution system and the subsequent delivery of Supplemental Water to NCSD's customers. Notwithstanding the foregoing, in no event shall NCSD be liable to indemnify a City Indemnified Party for (i) any Damages resulting from the negligence or willful misconduct of City; (ii) any third party claim brought in connection with regulatory approvals; or (iii) any claim brought in connection with the quality of the Supplemental Water as provided in Paragraph 10 above. This indemnification shall survive termination of the Agreement.

21. Third Party Claims. Promptly following notice of any "Third Party Claim" for which City is indemnified hereunder, City shall notify NCSD of such claim in writing. NCSD shall have a period of thirty (30) days following the receipt of such notice to notify City of whether NCSD elects to assume the defense thereof. If NCSD so notifies City that it elects to assume the defense, NCSD thereafter shall undertake and diligently pursue the defense of the Third Party Claim. NCSD shall not consent to entry of judgment or enter into any settlement

agreement, without the consent of City, which does not include a complete and unconditional release of City or which imposes injunctive or other equitable relief against City. City shall be entitled to participate in, but not control, the defense thereof, with counsel of its choice and at its own expense. If NCSD does not give the requisite notice, or fails to assume and diligently pursue the defense of such Third Party Claim, City may defend against such Third Party Claim in such manner as it may deem appropriate, at NCSD's expense, including without limitation settlement thereof on such terms as City may deem appropriate, and to pursue such remedies as may be available to City against NCSD. Notwithstanding the foregoing, City shall not consent to entry of a judgment or enter into any settlement agreement, without the consent of NCSD, which does not include a complete and unconditional release of NCSD.

22. **Notice of Claims.** The Parties shall promptly notify each other within ten (10) days of City or NCSD becoming aware of: (1) any claims or suits brought against City or NCSD which involve this Agreement or water supplied to NCSD pursuant to this Agreement, (2) any Third Party Claims, and (3) any force majeure event. Any such notice shall conform to the requirements specified in Paragraph 28 of this Agreement.

23. **Remedies Not Exclusive.** Remedies provided in this Agreement for enforcement of its terms are intended and shall be construed as cumulative rather than exclusive and shall not be deemed to deprive either Party from also using any other remedies provided by this Agreement or by law.

24. **No Transfer of Rights.** The rights granted to NCSD hereunder constitute the right to take delivery of Supplemental Water only and shall not be interpreted as a sale, transfer, or assignment of any of City's water rights.

25. **Subject to Applicable Law.** The Parties acknowledge and agree that this Agreement and the rights and obligations of the Parties shall be subject to the laws governing municipal corporations and special districts as they now exist and as they may be amended or codified by the Legislature of the State of California.

26. Entire Agreement. This Agreement contains the entire understanding between NCSD and City with respect to its subject matter, and supersedes all prior agreements, oral or written, and all prior or contemporaneous discussions or negotiations between NCSD and City. This Agreement cannot be amended except in writing signed by both Parties.

27. No Waiver. Any failure or delay on the part of either Party to exercise any right under this Agreement shall not constitute a waiver of the right, and shall not preclude such Party from exercising or enforcing the right, or any other provision of this Agreement, on any subsequent occasion.

28. Notices. All notices or other communications required or desired to be given pursuant to this Agreement shall be in writing and shall be hand-delivered or sent by a reputable overnight courier service providing delivery confirmation. Each such notice or communication shall be deemed to be duly given when hand-delivered or one (1) day after being deposited for next day delivery with an overnight courier. Each such notice or communication shall be addressed to the Parties at their respective addresses set forth next to their signatures below, or such other address as a Party notifies the other in writing.

29. Headings; Paragraph References. Captions and headings appearing in this Agreement are inserted solely as reference aids for the ease and convenience; they shall not be deemed to define or limit the scope or substance of the provisions they introduce, nor shall they be used in construing the intent or effect of such provisions.

30. Separability. If any provision of this Agreement is finally determined by a court to be invalid or unenforceable as written, the provision shall, if possible, be enforced to the extent reasonable under the circumstances and otherwise shall be deemed deleted from this Agreement. The other provisions of this Agreement shall remain in full force and effect so long as the material purposes of the Agreement and understandings of the Parties are not impaired.

31. Binding Effect Assignment. This Agreement shall be binding on and inure to the benefit of the Parties, and their respective successors and permitted assigns. NCSD shall

have the right to assign its rights under this Agreement with the written consent of City, provided, however, that the City shall not unreasonably withhold such consent and further provided that the assignee agrees to be bound by all of the obligations of NCSD set forth herein. Notwithstanding the foregoing, no assignment permitted hereunder shall permit the delivery of Supplemental Water to any property or development other than the Property without the written consent of the City, in its sole and absolute discretion.

32. **Opinions and Determinations: Good Faith.** Where the terms of this Agreement provide for action to be based upon opinion, judgment, approval, review or determination of either party hereto, such terms are not intended to and shall never be construed to permit such opinion, judgment, approval, review or determination to be arbitrary, capricious or unreasonable. The District and the NCSD shall each act in good faith in performing their respective obligations as set forth in this Agreement.

33. **Incorporation of Recitals.** Recitals A through F are incorporated herein by reference as though set forth at length.

34. **Attorneys Fees**. In the event that any legal proceeding other than the dispute resolution procedures referenced in Paragraph 19, above, is brought to enforce one or more of the terms of this Agreement, to restrain an alleged violation of this Agreement, or to determine the validity of this Agreement or any part, the prevailing Party in any such action or proceeding shall be entitled to recover from the other its reasonable costs and attorneys' fees, in addition to any other remedies available to it in law or equity. If both Parties are successful in one or more causes of action during any such proceeding, the costs and fees shall be apportioned as determined by the court.

35. **Governing Law and Venue**. This Agreement is a contract governed in accordance with the laws of the State of California. THE PARTIES HEREBY AGREE THAT VENUE FOR ANY ACTION BROUGHT TO ENFORCE THE TERMS OF THIS AGREEMENT SHALL BE IN A COURT OF COMPETENT JURISDICTION IN THE COUNTY OF SANTA BARBARA OTHER THAN A COURT LOCATED WITHIN THE

CITY OF SANTA MARIA OR THE NORTHERN PORTION OF SANTA BARBARA COUNTY, CALIFORNIA, AND CONSENT TO THE JURISDICTION THEREOF.

IN WITNESS WHEREOF, the Parties have executed this agreement as of the date first written above.

CITY:

City of Santa Maria
a California municipal corporation

By: _____
Name: Richard G. Sweet, P.E.
Title: Director of Utilities

Address: 2065 E. Main Street
Santa Maria, CA 93454
Fax: (805) 928-7240
Phone: (805) 925-0951

NCSD:

Nipomo Community Services District
a California public agency

By: _____
Name: James Harrison
Title: President

Address: P.O. Box 326
Nipomo, CA 93444
Fax: (805) 929-1932
Phone: (805) 929-1133

APPROVED AS TO FORM:

Best Best & Krieger LLP

By: _____
Eric Garner, Partner

APPROVED AS TO FORM:

District Counsel

By: _____
Jon Seitz, District Counsel

APPENDIX E. CUWCC BMP 2009-2010 ANNUAL REPORT

The fields in red are required.

Agency name: Nipomo Community Services District

Reporting unit name (District name): Nipomo Community Services District

Reporting unit number: 7030

Primary contact:

First name: Michael

Last name: LeBrun

Email: mlebrun@ncsd.ca.gov

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

Base Year Data

Link to FAQs

Reporting Unit Base Year

What is your reporting period? Calendar

Base Year: 2008

BMP 1.3 Metering

Number of unmetered accounts in Base Year: 0

BMP 3.1 & BMP 3.2 & BMP 3.3 Residential Programs

Number of Single Family Customers in Base Year: 3,481

Number of Multi Family Units in Base Year: 421

BMP 3.4 WaterSense Specification (WSS) Toilets

Number of Single Family Housing Units constructed prior to 1992: 1709

Number of Multi Family Units prior to 1992: 55

Average number of toilets per single family household: 2.27

Average number of toilets per multi family household: 2.27

Five year average resale rate of single family households: 91 households/year

Five-year average resale rate of multi family households: 17 households/year

Average number of persons per single family household: 2.74

Average number of persons per multi family household: 2.74

BMP 4.0 & BMP 5.0 CII & Landscape

Total water use (in Acre Feet) by CII accounts: 439

Number of accounts with dedicated irrigation meters: 90

Number of CII accounts without meters or with Mixed Use Meters: 100

Number of CII accounts: 190

Comments:

The fields in red are required.

Agency name: Nipomo Community Services District

Reporting unit name (District name): Nipomo Community Services District

Reporting unit number: 7030

Primary contact:

First name: Michael

Last name: LeBrun

Email: mle run ncs ca ov

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

Link to FAQs

2009

BMP 1.1 Operations Practices

Comments:

See the complete MOU: View MOU

See the coverage requirements for this BMP:

Conservation Coordinator

Conservation Coordinator (•) Yes ( ) No

Contact Information

First Name	Celeste
Last Name	Whitlow
Title	Conservation Coordinator
Phone	(805) 929-1133
Email	cwhitlow@ncsd.ca.gov

Note that the contact information may be the same as the primary contact information at the top of the page. If this is your case, excuse the inconvenience but please enter the information again.

Water Waste Prevention

Water Agency shall do one or more of the following:

a. Enact and enforce an ordinance or establish terms of service that prohibit water waste
b. Enact and enforce an ordinance or establish terms of service for water efficient design in new development
c. Support legislation or regulations that prohibit water waste
d. Enact an ordinance or establish terms of service to facilitate implementation of water shortage response measures
e. Support local ordinances that prohibit water waste
f. Support local ordinances that establish permits requirements for water efficient design in new

To document this BMP, provide the following:

a. A description of, or electronic link to, any ordinances or terms of service
b. A description of, or electronic link to, any ordinances or requirements adopted by local jurisdictions or regulatory agencies with the water agency's service area.
c. A description of any water agency efforts to cooperate with other entities in the adoption or enforcement of local requirement
d. description of agency support positions with respect to adoption of legislation or regulations

You can show your documentation by providing files, links (web addresses), and/or entering a description.

File name(s): Email files to natalie@cuwcc.org

Web address(s) URL: comma-separated list

Enter a description:

- NIpomo Community Services District Ordinance 2009-113- Voluntary restrictions on non-essential and/or wasteful use of water. Prohibits waste of water as well as facilitates implementation of water shortage response measures.
- San Luis Obispo County Title 8, 19, 21, and 22

The fields in red are required.

Agency name: Nipomo Community Services District

Reporting unit name (District name): Nipomo Community Services District

Reporting unit number: 7030

Primary contact:

First name: Michael

Last name: LeBrun

Email: mlebrun@ncsd.ca.gov

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

Link to FAQs

View MOU

2009 BMP 1.2 Water Loss Control

Did your agency complete a pre-screening system audit in 2009? Yes ○ No ●

If yes, answer the following:

Determine metered sales in AF: 2,496.00

Definition: other accountable uses not included in metered sales, such as unbilled water use, fire suppression, etc.

Determine system verifiable uses AF: 105.00

Determine total supply into the system in AF: 2,601.00

Does your agency keep necessary data on file to verify the answers above? Yes ● No ○

Did your agency complete a full-scale system water audit during 2009? Yes ○ No ●

Does your agency maintain in-house records of audit results or the completed AWWA worksheet for the completed audit which could be forwarded to CUWCC? Yes ○ No ●

Did your agency operate a system leak detection program? Yes ○ No ●

Comments:

The fields in red are required.

Agency name: Nipomo Community Services District

Reporting unit name (District name): Nipomo Community Services District

Reporting unit number: 7030

Primary contact:

First name: Michael

Last name: LeBrun

Email: mlebrun@ncsd.ca.gov

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

Link to FAQs

2009 BMP 1.2 Water Loss Control

View MOU

AWWA Water Audit

Agency to complete a Water Audit & Balance Using The AWWA Software ○ Yes ◉ No

Email to natalie@cuwcc.org - Worksheets (AWWA Water Audit). Enter the name of the file below:

Water Audit Validity Score from AWWA spreadsheet

Agency Completed Training In The AWWA Water Audit Method ○ Yes ◉ No

Agency Completed Training In The Component Analysis Process ○ Yes ◉ No

Completed/Updated the Component Analysis (at least every 4 years)? ○ Yes ◉ No

Component Analysis Completed/Updated Date

Water Loss Performance

Agency Repaired All Reported Leaks & Breaks To The Extent Cost Effective ○ Yes ◉ No

Recording Keeping Requirements:

Date/Time Leak Reported	Leak Location
Type of Leaking Pipe Segment or Fitting	Leak Running Time From Report to Repair
Leak Volume Estimate	Cost of Repair

Agency Located and Repaired Unreported Leaks to the Extent Cost Effective ○ Yes ◉ No

Type of Program Activities Used to Detect Unreported Leaks

Annual Summary Information

Complete the following table with annual summary information (required for reporting years 2-5 only)

Total Leaks Repaired	Economic Value Of Real Loss	Economic Value Of Apparent Loss	Miles Of System Surveyed For Leaks	Pressure Reduction Undertaken for loss reduction	Cost Of Interventions	Water Saved (AF/Year)

Comments:

he el e e e e

e c me: Nipomo Community Services District

epo t t me
t ct me Nipomo Community Services District

epo t t m e : 7030

m co t ct:

t me: Michael

t me: LeBrun

m l: mlebrun@ncsd.ca.gov

o m te te the epo t t m e th t eh e o eco o o e c lc he e to ope t le to o t th m e

BMP 1.3 Metering with Commodity

to

See the complete MOU: View MOU

See the coverage requirements for this BMP:

Implementation

Does your agency have any unmetered service connections? ○ Yes ◉ No

If YES, has your agency completed a meter retrofit plan? ○ Yes ○ No

Enter the number of previously unmetered accounts fitted with meters during reporting year:

Are all new service connections being metered? ◉ Yes ○ No

Are all new service connections being billed volumetrically? ◉ Yes ○ No

Has your agency completed and submitted electronically to the Council a written plan, policy or program to test, repair and replace meters? ○ Yes ◉ No

Please Fill Out The Following Matrix

Account Type	# Metered Accounts	# Metered Accounts Read	# Metered Accounts Billed by Volume	Billing Frequency Per Year	# of estimated bills/yr
S le m l				mo thl	
M lt m l				mo thl	
omme c l				mo thl	
t l				mo thl	
tt to l				mo thl	
e c te t(				mo thl	
Othe				Othe	
Othe				Othe	
Othe				Othe	
Othe				Othe	

Number of CII Accounts with Mixed-use Meters

Number of CII Accounts with Mixed-use Meters Retrofitted with Dedicated Irrigation Meters during Reporting Period

Feasibility Study

Has your agency conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters? ○ Yes ◉ No

If YES, please fill in the following information:

A. When was the Feasiblity Study conducted

B. Email or provide a link to the feasibility study (or description of):

File name(s): Email files to natalie@cuwcc.org te the le me he e e te te e e to O ce

Web address(s) URL: comma-separated list te the U to o oc me t to

General Comments about BMP 1.3:

The fields in red are required.

Agency name: Nipomo Community Services District

Reporting unit name (District name): Nipomo Community Services District

Reporting unit number: 7030

Primary contact:

First name: Michael

Last name: LeBrun

Email: mlebrun@ncsd.ca.gov

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

Link to FAQs

View MOU

Retail Conservation ricing

If you are reporting more rate structures than this form allows, add the structures to a spreadsheet and send the file to natalie@cuwcc.org.

Implementation (Water Rate Structure)

Enter the Water Rate Structures that are assigned to the majority of your customers, by customer class

Rate Structure	Customer Class	Total Revenue Commodity Charges	Total Revenue Customer Meter/Service (Fixed Charges)
Increasing Block	Single-Family	1,791,872.00	644,874.00
Increasing Block	Multi-Family	100,064.00	97,144.00
Increasing Block	Commercial	78,262.00	30,139.00
Increasing Block	Industrial	0.00	0.00
Increasing Block	Dedicated Irrigation	241,312.00	28,948.00
Select a Rate Struc	Other		
Select a Rate Struc	Other		

Implementation Option (Conservation Pricing Option)

(•) Use Annual Revenue As Reported

( ) Use Canadian Water & Wastewater Association Rate Design Model

C is select enter the ile name and email the s readsheet to natalie cu cc org

Retail Waste Water (Sewer) Rate Structure by Customer Class

Agency Provide Sewer Service (•) Yes ( ) No

Select the Retail Waste Water(Sewer) Rate Structure assigned to the majority of your customers within a specific customer class.

Rate Structure	Customer Class	Total Revenue Commodity Charges	Total Revenue Customer Meter/Service (Fixed Charges)
Non-Volumetric Fla	Single-Family		991,714.00
Non-Volumetric Fla	Multi-Family		203,181.00
Increasing Block	Commercial		80,145.00
Select a Rate Struc	Other		
Select a Rate Struc	Other		
Select a Rate Struc	Other		
Select a Rate Struc	Other		

Comments:

The fields in red are required.

Agency name: Nipomo Community Services District

Reporting unit name (District name): Nipomo Community Services District

Reporting unit number: 7030

Primary contact:

First name: Michael

Last name: LeBrun

Email: mlebrun@ncsd.ca.gov

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.

Link to FAQs

2009

BMP 2.1 Public Outreach - Retail Reporting

View MOU

Is a Wholesale Agency Performing Public Outreach?

Are there one or more wholesale agencies performing public outreach which can be counted to help your agency comply with the BMP? ○ Yes ◉ No

Enter the name(s) of the wholesale agency (comma delimited)

our agenc per or ing public outreach

Report a minimum of 4 water conservation related contacts your agency had with the public during the year.

Public Information Programs List

Did at least one contact take place during each quarter of the reporting year? ☑

Number of Public Contacts		Public Information Programs	
40			
40			
	Select a public contact		
	Select a public contact		

Contact with the Media

Are there one or more wholesale agencies performing media outreach which can be counted to help your agency comply with the BMP? ○ Yes ◉ No

Enter the name(s) of the wholesale agency (comma delimited)

OR Retail Agency (Contacts with the Media)

Media Contacts List

Did at least one contact take place during each quarter of the reporting year? ☐

Number of Media Contacts	Did at least one contact take place during each quarter of the reporting year?	Media Contact Types	
	Select a type of media contact		
	Select a type of media contact		
	Select a type of media contact		
	Select a type of media contact		
	Select a type of media contact		
	Select a type of media contact		

Is a Wholesale Agency Performing Website Updates?

Did one or more CUWCC wholesale agencies agree to assume your agency's responsibility for meeting the requirements of and for CUWCC reporting of this BMP? ○ Yes ◉ No

Enter the name(s) of the wholesale agency (comma delimited)

Is Your Agency Performing Website Updates?

Enter your agency's URL (website address): ncsd.ca.gov

Describe a minimum of four water conservation related updates to your agency's website that took place during the year:

- Rebates notice and description
- Retrofit at time of sale notification
- Water conservation basics article
Landscape Issues article

Did at least one Website Update take place during each quarter of the reporting year? ◉ Yes ○ No

Public Outreach Annual Budget

Enter budget for public outreach programs. You may enter total budget in a single line or brake the budget into discrete categories by entering many rows. Please indicate if personnel costs are included in the entry.

Category	Amount		Personnel Costs Included? If yes, check the box.	Comments	
Public Outreach	$42,200				

Comments:

The fields in red are required.

Agency name: Nipomo Community Services District

Reporting unit name (District name): Nipomo Community Services District

Reporting unit number: 7030

Primary contact:

First name: Michael

Last name: LeBrun

Email: mlebrun@ncsd.ca.gov

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.

Link to FAQs

2009

BMP 2.1 Public Outreach Cont'd

View MOU

Public Outreach Expenses

Enter expenses for public outreach programs. Please include the same kind of expenses you included in the question related to your budget (Section 2.1.7, above). For example, if you included personnel costs in the budget entered above, be sure to include them here as well.

Expense Category	Expense Amount	Personnel Costs Included?

If yes, check the check box.

Additional Public Information Program

Please report additional public information contacts. List these additional contacts in order of how your agency views their importance / effectiveness with respect to conserving water, with the most important/ effective listed first (where 1 = most important).

Were there additional Public Outreach efforts? ○ Yes ○ No

Public Outreach Additional Information

Public Information Programs	Importance

Social Marketing Programs

Branding

Does your agency have a water conservation "brand," "theme" or mascot? ○ Yes ◉ No

Describe the brand, theme or mascot.

Market Research

Have you sponsored or participated in market research to refine your message? ○ Yes ◉ No

Market Research Topic	
Brand Message	
Brand Mission Statement	

Community Committees

Do you have a community conservation committee? ○ Yes ◉ No

Enter the names of the community committees:

Training

Training Type	# of Trainings	# of Attendees	Description of Other

Social Marketing Expenditures

Public Outreach Social Marketing Expenses

Expense Category	Expense Amount	Description

Partnering Programs - Partners

Name	Type of Program
☐ CLCA?	
☐ Green Building Programs?	
☐ Master Gardeners?	
☐ Cooperative Extension?	
☐ Local Colleges?	
☐ Other	

☐ Retail and wholesale outlet; name(s) and type(s) of programs:

Partnering Programs - Newsletters

Number of newsletters per year

Number of customers per year

Partnering with Other Utilities

Describe other utilities your agency partners with, including electrical utilities

Conservation Gardens

Describe water conservation gardens at your agency or other high traffic areas or new

Landscape contests or awards

Describe water wise landscape contest or awards program conducted by your agency

Comments:

The fields in red are required.

Agency name: Nipomo Community Services District

Reporting unit name (District name): Nipomo Community Services District

Reporting unit number: 7030

Primary contact:

First name: Michael

Last name: LeBrun

Email: mlebrun@ncsd.ca.gov

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.

Link to FAQs

2009

BMP 2.2 School Education Programs, Retail Agencies

View MOU

School Programs

Is a wholesale agency implementing school programs which can be counted to help your agency comply with this BMP? ○ Yes ◉ No

Enter Wholesaler Names, separated by commas:

☑ Materials meet state education framework requirements?

Description of Materials

☑ Materials distributed to K-6 Students?

Description of materials distributed to K-6 Students

Number of students reached: 162

☐ Materials distributed to 7-12 Students?

Description of materials distributed to 7-12 Students: None

Number of Distribution: 0

Annual budget for school education program: $2,184.00

Description of all other water supplier education programs

School Program Activities

Classroom presentations:

Number of presentations: 6 Number of attendees

Large group assemblies:

Number of presentations: Number of attendees:

Children's water festivals or other events:

Number of presentations: Number of attendees:

Cooperative efforts with existing science/water education programs (various workshops, science fair awards or judging) and follow-up:

Number of presentations: Number of attendees:

Other methods of disseminating information (i.e. themed age-appropriate classroom loaner kits):

Description

Number distributed

Staffing children's booths at events & festivals:

Number of booths | Number of attendees

Water conservation contests such as poster and photo:

Description

Number distributed

Offer monetary awards/funding or scholarships to students:

Number Offered | Total Funding

Teacher training workshops:

Number of presentations | Number of attendees

Fund and/or staff student field trips to treatment facilities, recycling facilities, water conservation gardens, etc.:

Number of tours or field trips | Number of participants

College internships in water conservation offered:

Number of internships | Total funding

Career fairs/workshops:

Number of presentations | Number of attendees

Additional program(s) supported by agency but not mentioned above:

Description

Number of events (if applicable) | Number of participants

Total reporting period budget expenditures for school education programs (include all agency costs): 2184

Comments

The fields in red are required.

Agency name: Nipomo Community Services Distri

Division name (Reporting unit): Nipomo Community Services Distric

Reporting unit number: 7030

Primary contact:

First name: Michael

Last name: LeBrun

Email: mlebrun@ncsd.ca.gov

2009

Service Area Population: 10815

Non- Potable Water

Own Supply Source Name	AF/YEAR	Water Supply Type	If you select Other for type, enter Water Supply Description
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	

Imported Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
AF/YEAR		Select a water type.	
		Select a water type.	

Exported Water Name	AF/YEAR	Where Exported? such as groundwater recharge, retail,

The fields in red are required.

Agency name: Nipomo Community Services Distri

Division name (Reporting unit): Nipomo Community Services Distric

Reporting unit number: 7030

Primary contact:

First name: Michael

Last name: LeBrun

Email: mlebrun@ncsd.ca.gov

WATER SOURCES

2009

Service Area Population: 10815

Potable Water

Own Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
Santa Maria Groundwater Basin	2,698.00	round ater	Groundwater produced from the Sant
		ther	
		ther	
		ther	
		ther	
		ther	
		ther	
		ther	
		Other	
		Other	
		Other	

Imported Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
	AF/YEAR	Other	
		Other	

Exported Water Name	AF/YEAR	Where Exported?

APPENDIX F. NOTICES OF PREPARATION AND PUBLIC HEARINGS

APPENDIX G. ADOPTION RESOLUTION

APPENDIX H. DWR REVIEW CHECKLIST

No.	UWMP requirement [a]	Calif. Water Code reference	Additional clarification	UWMP location
PLAN PREPARATION				
4	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	10620(d)(2)		1.3; Appendix F
6	Notify, at least 60 days prior to the public hearing on the plan required by Section 10642, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. Any city or county receiving the notice may be consulted and provide comments.	10621(b)		1.3; Appendix F
7	Provide supporting documentation that the UWMP or any amendments to, or changes in, have been adopted as described in Section 10640 et seq.	10621(c)		8-1; Appendix G
54	Provide supporting documentation that the urban water management plan has been or will be provided to any city or county within which it provides water, no later than 60 days after the submission of this urban water management plan.	10635(b)		8-1
55	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan.	10642		1.2; Appendix F
56	Provide supporting documentation that the urban water supplier made the plan available for public inspection and held a public hearing about the plan. For public agencies, the hearing notice is to be provided pursuant to Section 6066 of the Government Code. The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water. Privately-owned water suppliers shall provide an equivalent notice within its service area.	10642		1.2; Appendix F
57	Provide supporting documentation that the plan has been adopted as prepared or modified.	10642		8.1; Appendix G
58	Provide supporting documentation as to how the water supplier plans to implement its plan.	10643		8.1

No.	UWMP requirement [a]	Calif. Water Code reference	Additional clarification	UWMP location
59	Provide supporting documentation that, in addition to submittal to DWR, the urban water supplier has submitted this UWMP to the California State Library and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. This also includes amendments or changes.	10644(a)		8
60	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the urban water supplier has or will make the plan available for public review during normal business hours	10645		8
SYSTEM DESCRIPTION				
8	Describe the water supplier service area.	10631(a)		1.4
9	Describe the climate and other demographic factors of the service area of the supplier	10631(a)		1.5; 1.7
10	Indicate the current population of the service area	10631(a)	Provide the most recent population data possible. Use the method described in "Baseline Daily Per Capita Water Use." See Section M.	1.6
11	Provide population projections for 2015, 2020, 2025, and 2030, based on data from State, regional, or local service area population projections.	10631(a)	2035 and 2040 can also be provided to support consistency with Water Supply Assessments and Written Verification of Water Supply documents.	1.6
12	Describe other demographic factors affecting the supplier's water management planning.	10631(a)		1.7
SYSTEM DEMANDS				
1	Provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	10608.20(e)		Appendix A
2	*Wholesalers:* Include an assessment of present and proposed future measures, programs, and policies to help achieve the water use reductions. *Retailers:* Conduct at least one public hearing that includes general discussion of the urban retail water supplier's implementation plan for complying with the Water Conservation Bill of 2009.	10608.36 10608.26(a)	Retailers and wholesalers have slightly different requirements	1.2; Appendix F

No.	UWMP requirement [a]	Calif. Water Code reference	Additional clarification	UWMP location
3	Report progress in meeting urban water use targets using the standardized form.	10608.40		No standardized form available in section 10608.40
25	Quantify past, current, and projected water use, identifying the uses among water use sectors, for the following: (A) single-family residential, (B) multifamily, (C) commercial, (D) industrial, (E) institutional and governmental, (F) landscape, (G) sales to other agencies, (H) saline water intrusion barriers, groundwater recharge, conjunctive use, and (I) agriculture.	10631(e)(1)	Consider 'past' to be 2005, present to be 2010, and projected to be 2015, 2020, 2025, and 2030. Provide numbers for each category for each of these years.	3.1
33	Provide documentation that either the retail agency provided the wholesale agency with water use projections for at least 20 years, if the UWMP agency is a retail agency, OR, if a wholesale agency, it provided its urban retail customers with future planned and existing water source available to it from the wholesale agency during the required water-year types	10631(k)	Average year, single dry year, multiple dry years for 2015, 2020, 2025, and 2030.	Appendix F
34	Include projected water use for single-family and multifamily residential housing needed for lower income households, as identified in the housing element of any city, county, or city and county in the service area of the supplier.	10631.1(a)		3.1.1
SYSTEM SUPPLIES				
13	Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, and 2030.	10631(b)	The 'existing' water sources should be for the same year as the "current population" in line 10. 2035 and 2040 can also be provided.	2.6
14	Indicate whether groundwater is an existing or planned source of water available to the supplier. If yes, then complete 15 through 21 of the UWMP Checklist. If no, then indicate "not applicable" in lines 15 through 21 under the UWMP location column.	10631(b)	Source classifications are: surface water, groundwater, recycled water, storm water, desalinated sea water, desalinated brackish groundwater, and other.	2.1
15	Indicate whether a groundwater management plan been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	10631(b)(1)		2.1.1; Appendix C
16	Describe the groundwater basin.	10631(b)(2)		2.1

No.	UWMP requirement [a]	Calif. Water Code reference	Additional clarification	UWMP location
17	Indicate whether the groundwater basin is adjudicated? Include a copy of the court order or decree.	10631(b)(2)		2.1
18	Describe the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. If the basin is not adjudicated, indicate “not applicable” in the UWMP location column.	10631(b)(2)		2.2
19	For groundwater basins that are not adjudicated, provide information as to whether DWR has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition. If the basin is adjudicated, indicate “not applicable” in the UWMP location column.	10631(b)(2)		2.1.1
20	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	10631(b)(3)		2.2
21	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	10631(b)(4)	Provide projections for 2015, 2020, 2025, and 2030.	2.2
24	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	10631(d)		2.5
30	Include a detailed description of all water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and multiple-dry years, excluding demand management programs addressed in (f)(1). Include specific projects, describe water supply impacts, and provide a timeline for each project.	10631(h)		2.5
31	Describe desalinated water project opportunities for long-term supply, including, but not limited to, ocean water, brackish water, and groundwater.	10631(i)		2.4
44	Provide information on recycled water and its potential for use as a water source in the service area of the urban water supplier. Coordinate with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.	10633		6.4
45	Describe the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.	10633(a)		6.3

No.	UWMP requirement [a]	Calif. Water Code reference	Additional clarification	UWMP location
46	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	10633(b)		6.4
47	Describe the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.	10633(c)		6
48	Describe and quantify the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.	10633(d)		6.4
49	The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	10633(e)		6.4
50	Describe the actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.	10633(f)		6.5
51	Provide a plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.	10633(g)		6.5
WATER SHORTAGE RELIABILITY AND WATER SHORTAGE CONTINGENCY PLANNING [b]				
5	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	10620(f)		5.3
22	Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage and provide data for (A) an average water year, (B) a single dry water year, and (C) multiple dry water years.	10631(c)(1)		2.7
23	For any water source that may not be available at a consistent level of use - given specific legal, environmental, water quality, or climatic factors - describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.	10631(c)(2)		2.7.1
35	Provide an urban water shortage contingency analysis that specifies stages of action, including up to a 50-percent water supply reduction, and an outline of specific water supply conditions at each stage	10632(a)		7

No.	UWMP requirement [a]	Calif. Water Code reference	Additional clarification	UWMP location
36	Provide an estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.	10632(b)		7.3
37	Identify actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.	10632(c)		7.4
38	Identify additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.	10632(d)		7.5
39	Specify consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.	10632(e)		7.6
40	Indicated penalties or charges for excessive use, where applicable.	10632(f)		7.7
41	Provide an analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.	10632(g)		7.8
42	Provide a draft water shortage contingency resolution or ordinance.	10632(h)		7.9
43	Indicate a mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.	10632(i)		3.2.1
52	Provide information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments, and the manner in which water quality affects water management strategies and supply reliability	10634	For years 2010, 2015, 2020, 2025, and 2030	2.7.1

No.	UWMP requirement [a]	Calif. Water Code reference	Additional clarification	UWMP location
53	Assess the water supply reliability during normal, dry, and multiple dry water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. Base the assessment on the information compiled under Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.	10635(a)		5
DEMAND MANAGEMENT MEASURES				
26	Describe how each water demand management measures is being implemented or scheduled for implementation. Use the list provided.	10631(f)(1)	Discuss each DMM, even if it is not currently or planned for implementation. Provide any appropriate schedules.	4
27	Describe the methods the supplier uses to evaluate the effectiveness of DMMs implemented or described in the UWMP.	10631(f)(3)		4
28	Provide an estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the ability to further reduce demand.	10631(f)(4)		3.2.1
29	Evaluate each water demand management measure that is not currently being implemented or scheduled for implementation. The evaluation should include economic and non-economic factors, cost-benefit analysis, available funding, and the water suppliers' legal authority to implement the work.	10631(g)	See 10631(g) for additional wording.	4
32	Include the annual reports submitted to meet the Section 6.2 requirements, if a member of the CUWCC and signer of the December 10, 2008 MOU.	10631(j)	Signers of the MOU that submit the annual reports are deemed compliant with Items 28 and 29.	Appendix E

P.O. Box 4255
San Luis Obispo, CA 93403