TO: BOARD OF DIRECTORS

FROM: MARIO E. IGLESIAS
GENERAL MANAGER

AGENDA ITEM
E-1
NOVEMBER 10, 2021

DATE: November 3, 2021

CONSIDER 2020 URBAN WATER MANAGEMENT PLAN UPDATE AND WATER SHORTAGE CONTINGENCY PLAN

ITEM

Consider Draft 2020 Urban Water Management Plan ("UWMP") and Water Shortage Contingency Plan ("WSCP"), Conduct Public Hearing to Take Comments, and Schedule Meeting to Adopt 2020 UWMP and WSCP. [RECOMMEND CONDUCT PUBLIC HEARING, CONSIDER PUBLIC COMMENT, AND SET DECEMBER 8, 2021 TO ADOPT UWMP AND WSCP].

BACKGROUND

The Urban Water Management Planning Act of 1983 (Act) requires that water suppliers that provide water to more than 3,000 customers develop an Urban Water Management Plan (UWMP). The UWMP provides a framework that ensures adequate water supplies for existing and future demands. This includes reporting on water delivery and uses, water supply sources, efficient water uses, demand management measures, and water shortage contingency planning.

The most recent amendment, Senate Bill 1420, became law in 2014, and is the 19th amendment to the Act. This bill requires an increased emphasis on drought contingency planning, water demand management, reclamation, and groundwater resources. In addition, there is a continued focus on water use reduction strategies and a requirement to quantify distribution system water loss.

Water suppliers are required to update their UWMP for submission to the Department of Water Resources (DWR) at least once every five (5) years. The Nipomo Community Services District (NCSD), as a water supplier subject to the Act, has prepared an UWMP since 1988, with the last update, the 2015 UWMP, adopted by the NCSD Board of Directors on June 8, 2016.

In accordance with the Act, the adopted UWMP will be submitted to the DWR, the California State Library, and the City of Santa Maria. Within 30 days of filing with the DWR, NCSD will also make the final report available for public review. It will be posted to NCSD's web page and a copy will be available for viewing during regular business hours at NCSD's office at 148 S. Wilson Street, Nipomo, CA.

The DWR issues guidance manuals that direct water agencies on what information is required in the report and how it is to be presented in the UWMP update. DWR released its Final Guidance Manual for the 2020 UWMP in March 2021. The release of DWR's guidance manual drove the report completion date timeline.

ITEM E-1, 2021 UWMP & WSCP
November 10, 2021

On November 4, 2020, the District signed a Task Order with MKN & Associates, Inc. (MKN) for assistance in preparing its 2020 Urban Water Management Plan (UWMP). NCSD and MKN reviewed the final draft of DWR's guidance manual and constructed a completion schedule to meet DWR's filing date of July 2021. The delay in publishing the Guidance Manual delayed the District in its efforts to reach the July 2021 filing date. However, there are no penalties or fines for filing the District's UWMP in December 2021.

On September 10, 2021, NCSD provided written notification to public agencies that on November 10, 2021, NCSD would be reviewing and considering amendments to its UWMP pursuant to California Water Code Section 10621(b). The District published a public notice in the Santa Maria Times on October 15, 2021.

State legislation established new requirements in 2018 for 2020 UWMPs, including standardized requirements for water shortage contingency planning and drought risk assessments. Under the State requirements, water suppliers must now plan for a dry period that lasts for five consecutive years, an increase from the previous requirement of three years. Other required elements of UWMPs include:

- Discussion of local water supplies, with a long-term forecast for each source, including climate change.
- Assessment of the reliability of water supply sources over a 20-year time frame.
- Description of demand management measures, also known as conservation measures.
- Demonstrated compliance with - Senate Bill X7-7 2020 (Reduction of 20% by 2020)
- Description of water reliability.
- Incorporation of land use planning in water demand forecasting.
- Preparation of a water energy analysis.
- Inclusion of five previous years of system water losses.

For 2020, the District's Water Shortage Contingency Plan (2020 WSCP) is required to be published and adopted by the Board separately (Attachment B) from the 2020 UWMP. The 2020 WSCP is the District's action plan for a drought or catastrophic water supply shortage. Although the State's new requirements are more prescriptive than previous versions, many elements have been included in the District's prior plan.

FISCAL IMPACT

The 2020 UWMP Update was included in the FY 2020-21 Budget. The total contract cost is estimated to not exceed $50,291 once MKN has completed its commitment with the District. In addition, preparation of the plan has involved significant budgeted staff time.

STRATEGIC PLAN

Goal 1. WATER SUPPLIES. Actively plan to provide reliable water supply of sufficient quality and quantity to serve both current customers and those in the long-term future.

1.6 Continue to monitor and participate in water supply issues and programs with other local and regional organizations

RECOMMENDATION

Staff recommends that your Board review the draft 2020 UWMP and WSCP, accept public comment and direction staff to schedule adoption of the 2020 UWMP and WSCP for December 8, 2021.

ATTACHMENTS

A. Draft 2020 Urban Water Management Plan
B. Draft 2020 Water Shortage Contingency Plan
C. MKN and Associates, UWMP Presentation

NOVEMBER 10, 2021

ITEM E-1

ATTACHMENT A

NIPOMO COMMUNITY SERVICES DISTRICT

URBAN WATER MANAGEMENT PLAN

PUBLIC DRAFT SEPTEMBER 2021

Nipomo Community Services District

2020 Urban Water Management Plan

Public Draft September 2021

Board of Directors

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mkn

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Appendices

Bibliography

The following reports, studies, and other material were reviewed during preparation of this Urban Water Management Plan update.

1) City of Santa Maria 2020 Urban Water Management Plan adopted June 2021 and prepared by the City of Santa Maria.

2) 2020 Urban Water Management Plans Guidebook for Urban Water Suppliers dated March 2020 and prepared by the California Department of Water Resources.

3) Nipomo Mesa Management Area 13th Annual Report (NMMA TG Annual Report) Calendar Year 2020 dated April 2021 and prepared by NMMA Technical Group.

4) 2050 Regional Growth Forecast for San Luis Obispo County Population, Housing, and Employment Projections for San Luis Obispo Council of Governments dated June 2017 and prepared by Beacon Economics.

5) House Element 2014-2019 - County of San Luis Obispo General Plan Adopted June 17, 2014 and prepared by the San Luis Obispo County Department of Planning and Building.

6) Nipomo Community Services District 2015 Urban Water Management Plan dated June 2016 and prepared by Michael K. Nunley and Associates, Inc.

7) San Luis Obispo County 2040 Population, Housing & Employment Forecast for San Luis Obispo Council of Governments dated August 11, 2011 and prepared by AECOM.

8) Nipomo Mesa Management Area Water Shortage Conditions and Response Plan dated April 2009 and prepared by NMMA Technical Group.

List of Acronyms

AB - Assembly Bill
ADU – Accessory Dwelling Unit
AF – Acre-Foot
AFY – Acre-Feet per Year
AMI – Advanced Metering Infrastructure
AWIA – America's Water Infrastructure Act
AWWA – American Water Works Association
BMP – Best Management Practice
CASGEM – California Statewide Groundwater Elevation Monitoring Program
CA – California
CD – Compact Disc
CII – Commercial, Industrial, Institutional, water use sectors
CIMIS – California Irrigation Management Information System
City – City of Santa Maria
CUWCC – California Urban Water Conservation Council
CWC – California Water Code
DACs – Disadvantaged Communities
DMMs – Demand Management Measures
DOF – Department of Finance
DRA – Drought Risk Assessment
DU – Dwelling Unit
DWR – Department of Water Resources
eARDWP - Electronic Annual Reports to the Drinking Water Program (SWRCB)
ETo - Reference Evapotranspiration
GIS - Geographic Information System
GPCD - Gallons per Capita per Day
GSA - Groundwater Sustainability Agency
GSWC - Golden State Water Company
GSWCCR – Golden State Water Company Cypress Ridge
HECW - High-Efficiency Clothes Washer
HET/DFT - High-Efficiency Toilet
ID - Identifier
IRWMP - Integrated Regional Water Management Plans
KWI – Key Wells Index
MG – Million Gallons
MGY – Million Gallons per Year
NA – Not Applicable
NCMA - Northern Cities Management Area
NCSD - Nipomo Community Services District
NMMA – Nipomo Mesa Management Area
NMMA TG – Nipomo Mesa Management Area Technical Group
NMWCA – Nipomo Mesa Water Conservation Area
PWS – Public Water System
Report – NMMA TG's Annual Report
RRA – Risk and Assessment
RUWMP – Regional Urban Water Management Plan
SB – Senate Bill
SWRCB – State Water Resources Control Board
SLOCOG – San Luis Obispo Council of Governments
SLO-PD - San Luis Obispo Planning and Development
SOI- Sphere of Influence
SQ FT – Square Feet
SMVMA - Santa Maria Valley Management Area
NSWP - Nipomo Supplemental Water Project
SB X7-7 – Senate Bill Seven of the Senate's Seventh Extraordinary Session of 2009
UMWP - Urban Water Management Plan
US EPA - United States Environmental Protection Agency
WMWC - Woodlands Mutual Water Company
WRF - Water Reclamation Facility
WSCP - Water Shortage Contingency Plan
WSS - WaterSense Specification
WUE - Water Use Efficiency
WWTP - Wastewater Treatment Plant

CHAPTER 1 INTRODUCTION AND OVERVIEW

This report comprises the 2020 Urban Water Management Plan (UWMP) update for the Nipomo Community Services District (District). The District is located in Nipomo, California, an unincorporated community in southern San Luis Obispo County. The District serves portions of the Nipomo community and the greater Nipomo Mesa. The District is an independent Special District formed and operated pursuant to Government Code §61000 et seq. The District provides water, wastewater, solid waste, landscape maintenance, street lighting, and drainage services to its customers pursuant to Government Code §61600(a), (b), and (c). The District does not have land planning authority, which is retained by the County of San Luis Obispo (County); however, County land use planning authority is subordinated to resource limitations such as water and sewer capacity as established by the District.

The UWMP is a valuable planning document used for the following purposes:

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

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 2020, the District produced approximately 1,267 acre-feet (AF) of water, imported 781 AF of supplemental water from the City of Santa Maria, and had 4,300 customer connections. The District adopted its first UWMP in January 2004. Since the first adopted UWMP in 2004, the District has completed and submitted the 2005, 2010, and 2015 updates.

New Requirements for 2020 Update

The following new requirements have been identified in the 2020 Urban Water Management Plan Guidebook for Urban Water Suppliers and have been addressed in the District's 2020 UWMP update:

- Five Consecutive Dry-Year Water Reliability Assessment
- Drought Risk Assessment
- Seismic Risk
- Energy Use Information
- Water Loss Reporting for Five Years
- Water Shortage Contingency Plan (WSCP)
- Groundwater Supplies Coordination
- Lay Person Description

1.1 UWMP Organization

This UWMP update was prepared based on guidance from the final draft of the California Department of Water Resources (DWR) "2020 Urban Water Management Plan Guidebook for Urban Water Suppliers" dated March 2021 and follows the recommended chapter formatting identified in the guidebook and briefly described below.

Chapter 1 – UWMP Introduction and Lay Description: This chapter identifies changes since the 2015 UWMP, fundamentals of the 2020 UWMP, and the required lay description of the District and its service area. Some subsequent chapters also include an initial lay description.

Chapter 2 – Plan Preparation: This chapter provides information on processes used to develop the UWMP, including efforts in coordination and outreach.

Chapter 3 – System Description: This chapter includes maps of the service area, an explanation of the service area and climate, and detail on the public water system.

Chapter 4 – Water Use Characterization: This chapter provides a description and quantification of the current and projected water uses within the District's service area.

Chapter 5 – Conservation Target Compliance: This chapter describes the District's compliance with the 2020 per-capita water conservation mandate, presents the District's 2020 per-capita target value that was adopted in the 2015 UWMP, and compliance with per-capita target based upon actual 2020 customer water use.

Chapter 6 – Water Supply Characterization: This chapter provides a description and quantification of current and projected potable and non-potable water supplies. A narrative description of each supply source and quantification of the supply availability for each supply source was identified.

Chapter 7 – Water Service Reliability and Drought Risk Assessment: This chapter describes the Districts' water system reliability through at least a 20-year planning horizon. The description includes normal, single dry year, and five consecutive dry years. The water system reliability differs from the Drought Risk Assessment (DRA) by allowing a different basis for characterizing the five consecutive dry years.

Chapter 8 – Water Shortage Contingency Plan: This chapter provides a structured plan for dealing with water shortages, incorporating prescriptive information and standardized action levels, along with implementation actions in the event of a catastrophic supply interruption.

Chapter 9 – Demand Management Measures: This chapter identifies the District's efforts to promote conservation and to reduce demand on the water supply; specifically including a narrative describing efforts to implement demand management measures.

Chapter 10 – Plan Adoption, Submittal, and Implementation: This chapter describes and documents the steps taken to make the UWMP publicly available, as well as the steps taken to adopt and submit the UWMP in accordance with the Water Code, and also describes the District's plan to implement the UWMP.

Appendices: To support and further clarify information included in the main chapters of the UWMP, relevant information has been included in the appendix of this UWMP.

Table 1-1 provides an overview of the applicable changes to the Water Code since the 2015 UWMP, which have been included in this 2020 update.

Table 1-1: Water Code Changes Since 2015 UWMP

Change Number	Topic	CWC Section	Summary	Guidebook Section
1	System Description	10631(a)	Suppliers shall coordinate with local or regional land use authorities to determine the most appropriate land uses information for projecting water use in five-year increments, up to the year 2045.	3.0
2	Other Social, Economic, and Demographic Factors	10631	Describe the service area of the supplier, including current and projected population, climate, and other social, economic and demographic factors affecting the supplier's water management planning.	3.4.2
3	Land Uses within Service Area	10631(a)	The description shall include the current and projected land uses within the existing or anticipated service area affecting the supplier's water management planning.	3.5
4	Distribution System Water Loss	10635	Suppliers shall provide a simple lay description of their **projected** water use for the foreseeable future.	4.2.4
5	Distribution System Water Loss	10631(d)(3)(A) and (C)	Suppliers shall provide quantified distribution system **losses** for each of the five preceding years and whether or not the state standard was met.	4.2.4
6	Characteristic Five-Year Water Use	10635(b)	The Supplier must produce a projected water use for the years 2021 through 2025 as part of the water use projections, up to the year 2040.	4.2.7
7	Climate Change Effects	10635(b)(1)	Consideration of climate change in future projections in regards to water supply.	6.2. & 10.1
8	Drought Risk Assessment	10635(b)	DRA prepared as a component of the 2020 UWMP	7.3
9	Water Service Reliability – Five Consecutive Dry Years	10635(a); 10631 (b)(1)	Submittal Table 7-4 is used for the Supplier's water service reliability assessment for five consecutive dry years, for each of the five-year projection increments out to at least 2040	7.2.1 & 7.2.3.3
10	Water Supply Reliability Analysis	10632(a)(1)	Key attributes of its water supply reliability analysis	8.1
11	Six Standard Water Shortage Levels	10632 (a)(3)(A)	Six standard water shortage levels corresponding to progressive ranges of up to 10-, 20-, 30-, 40-, and 50-percent shortages and greater than 50-percent shortage.	8.3
12	Shortage Response Actions	10632 (a)(4)	Locally appropriate "shortage response actions" for each shortage level, with a corresponding estimate of the extent the action will address the gap between supplies and demands.	8.4
13	Annual Water Supply and Demand Assessment Procedures	10632 (a)(2)	Suppliers are required to submit, by July 1 of each year, beginning in the year following adoption of the 2020 UWMP, an annual water shortage assessment report to the California Department of Water Resources (DWR).	8.2

Table 1-1: Water Code Changes Since 2015 UWMP				
14	Communication Protocols	10632 (a)(5)	Communication protocols and procedures to inform customers, the public, and government entities of any current or predicted water shortages and associated response actions.	8.5
15	Monitoring and reporting	10632(a)(9)	Monitoring and reporting procedures to assure appropriate data is collected to monitor customer compliance and to respond to any state reporting requirements.	8.9
16	WSCP Refinement Procedures	10632(a)(10)	A reevaluation and improvement process to assess the functionality of its WSCP and to make appropriate adjustments as may be warranted.	8.10

1.2 UWMP in Relation to Other Efforts

An UWMP is prepared by local Suppliers that have the in-depth and practical knowledge of their water systems. The information contained in each Supplier's UWMP reflects the operations of its system in the context of the Supplier's customers, supplies, and service area. This local planning and preparation remains the fundamental focus of the UWMP.

In addition to the local Supplier focus, the UWMP requires coordination with other planning agencies and is most effective when integrated with other planning efforts. Land-use planning agencies, such as cities and counties, prepare General Plans and Specific Plans that affect a Supplier's analysis provided in its UWMP, and vice versa. Moreover, Water Master Plans, facility plans, Recycled Water Master Plans, Integrated Regional Water Management Plans, Regional Climate Action Plans, Groundwater Sustainability Plans, AB 3030 Groundwater Management Plans, local or regional Hazard Mitigation Plans, and others need to be synthesized with a Supplier's UWMP to ensure a holistic planning process.

For the District's UWMP, elements of the following reports and documents were utilized to develop the required sections of the plan (a brief description is provided for the relevant information contained in each document):

- 2015 Urban Water Management Plan: Served as the basis for the 2020 update.
- Nipomo Mesa Management Area (NMMA) 13th Annual Report (Calendar Year 2020) and prepared by the NMMA Technical Group, submitted April 2021: Used for the development of the water shortage contingency plan and identification of existing groundwater pumping.
- San Luis Obispo County 2040 Population, Housing & Employment Forecast for San Luis Obispo Council of Governments dated August 11, 2011 and prepared by AECOM: Used to estimate future population projections throughout 2045 within the service area.
- San Luis Obispo County Multi-Jurisdictional Hazard Mitigation Plan: Contained information to address the seismic risk assessment and mitigation requirement of the UWMP update.

The District's latest water master plan was developed in December 2007 and was not used to inform this UWMP update since it does not contain current information related to existing water usage, future demand projections, and water supply availability.

1.3 UWMPs and Grant or Loan Eligibility

For a Supplier to be eligible for any water grant or loan administered by DWR, the Supplier must have a current UWMP on file that has been determined by DWR to address the requirements of the Water Code. A current UWMP must also be maintained by the Supplier throughout the term of any grant or loan administered by DWR. An UWMP may also be required in order to be eligible for other state funding, depending on the conditions that are specified in the funding guidelines. Suppliers are encouraged to seek guidance on the specifics of any state funding source from the respective funding agencies.

CHAPTER 2 PLAN PREPARATION

New Requirement for 2020 Update

The preparation and periodic update of a Water Shortage Contingency Plan (WSCP) is now required per the final Guidebook. The WSCP in included in the UWMP, but adopted and amended independently of the UWMP. Coordination with land use agencies, and other relevant regional or local authorities is now required as part of preparing the UWMP and the WSCP.

2.1 Plan Preparation

This chapter includes information about the following sections for the 2020 UWMP:

- Basis for Preparing a Plan
- Regional Planning
- Individual or Regional Planning and Compliance
- Fiscal or Calendar Year and Units of Measure
- Coordination and Outreach

2.2 Basis for Preparing a Plan

2.2.1 Public Water Systems

The District is a public urban water supplier serving an estimated population of 13,771 people. **Table 2-1** provides a summary of the number of connections and total volume of water supplied by the District to its customers for calendar year 2020.

Table 2-1 Retail Only: Public Water Systems

Public Water System Number	Public Water System Name	Number of Municipal Connections 2020	Volume of Water Supplied 2020 (MG)
CA4010026	NCSD	4,470	2,048
	TOTAL	4,470	2,048

2.2.2 Suppliers Serving Multiple Service Areas/Public Water Systems

The District serves a single public water system and service area.

2.3 Regional Planning

The District is located in the NMMA and acts to assist in coordinate regional water resource planning efforts as mandated by the Court. The Nipomo Mesa Management Area Technical Group (NMMA TG) is the court appointed responsibly for assessing groundwater within the NMMA of the Santa Maria Groundwater Basin.

2.4 Individual or Regional Planning and Compliance

2.4.1 Regional UWMP

The District has developed an UWMP that reports solely on its service area as identified in **Table 2-2**. This plan addresses all requirements of the Water Code including water use targets and baselines for Senate Bill Extraordinary Session 7-7 (SB X7-7) Water Conservation Act of 2009 reporting.

2.4.2 Regional Alliance

The District has developed an UWMP that reports solely on its service area. The individual UWMP addresses all requirements of the CWC. The District has notified and coordinated with appropriate regional agencies and constituents during the development of this UWMP update. Those agencies contacted are identified in **Table 2-5**.

Table 2-2 Plan Identification			
Select Only One	**Type of Plan**		**Name of RUWMP or Regional Alliance** *if applicable*
☑	**Individual UWMP**		
	☐	Water Supplier is also a member of a RUWMP	
	☐	Water Supplier is also a member of a Regional Alliance	
☐	**Regional Urban Water Management Plan (RUWMP)**		

2.5 Fiscal or Calendar Year and Units of Measure

2.5.1 Fiscal or Calendar Year

The District has reported water-related information included in this UWMP based on calendar basis and all units are measured in acre-feet (AF) as identified in **Table 2-3**.

Table 2-3: Supplier Identification	
Type of Supplier	
☐	Supplier is a wholesaler
☑	Supplier is a retailer
Fiscal or Calendar Year	
☑	UWMP Tables Are in Calendar Years
☐	UWMP Tables Are in Fiscal Years
If using fiscal years provide month and date that the fiscal year begins (mm/dd)	
Units of Measure Used in UWMP	
Unit	AF

2.5.2 Reporting Complete 2020 Data

The 2020 UWMP includes water use and planning data for the entire calendar year of 2020.

2.5.3 Units of Measure

Water volumes presented in this 2020 UWMP are measured in acre-feet (AF) as identified in **Table 2-3**.

2.6 Coordination and Outreach

2.6.1 Wholesale and Retail Coordination

As shown in **Table 2-4,** the District has provided the City of Santa Maria, a regional wholesale supplier, with projected water demands in five-year increments for the next 20 years.

Table 2-4 Retail: Water Supplier Information Exchange
The retail supplier has informed the following wholesale supplier(s) of projected water use in accordance with CWC 10631.
Wholesale Water Supplier Name
City of Santa Maria

2.6.2 Coordination with Other Agencies and the Community

The District has 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 planning activities of the District; 2) gather data for use in developing this UWMP update; 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 2-5**.

Table 2-5 Agency Coordination							
Agency	**Sent a notice of public hearing for draft UWMP**	**Commented on the draft**	**Attended public meetings**	**Contacted for assistance**	**Sent a copy of the draft plan**	**Sent a notice of intention to adopt**	**Notice of Plan Availability**
California Department of Water Resources	X						
City of Santa Maria	X						
County of San Luis Obispo Public Works	X						
Golden State Water Company	X						
Woodlands Mutual Water Company	X						

2.6.3 Notice to Cities and Counties

The District has notified the County of San Luis Obispo, City of Santa Maria, Woodlands Mutual Water Company, and Golden State Water Company of the public hearing and this notification has been reported in Chapter 10 **Table 10-1**.

CHAPTER 3 SYSTEM DESCRIPTION

New Requirements for 2020 Update

Per the Water Code the following new requirements are necessary for this chapter of the UWMP 2020 update.

- Inclusion of service area socioeconomic information as part of the system description
- Coordination with land use agencies and a description of current and projected land uses within the service area

3.1 General Description

The District 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 service area boundary encompasses approximately 3,907 acres (parcel acreage only and excludes right-of-way) in the Nipomo area of southern San Luis Obispo County, and serves water to an estimated current population of 13,771 people (based 2020 Census data within the DWR population tool). The District service area is primarily residential land uses, with some light commercial and suburban residential. The District is comprised of one water system with three pressure zones; one zone serves the Blacklake Specific Plan area, one zone serves the Maria Vista Pressure Zone, and the third zone serves the rest of the District's service area.

3.2 Service Area Boundary Maps

Figure 3-1 illustrates the location of the District within the State of California and **Figure 3-2** shows the extents of the current service area and Sphere of Influence (SOI) boundary. In addition, **Figure 3-3** shows historical areas of annexation for the service area.

3.3 Service Area Climate

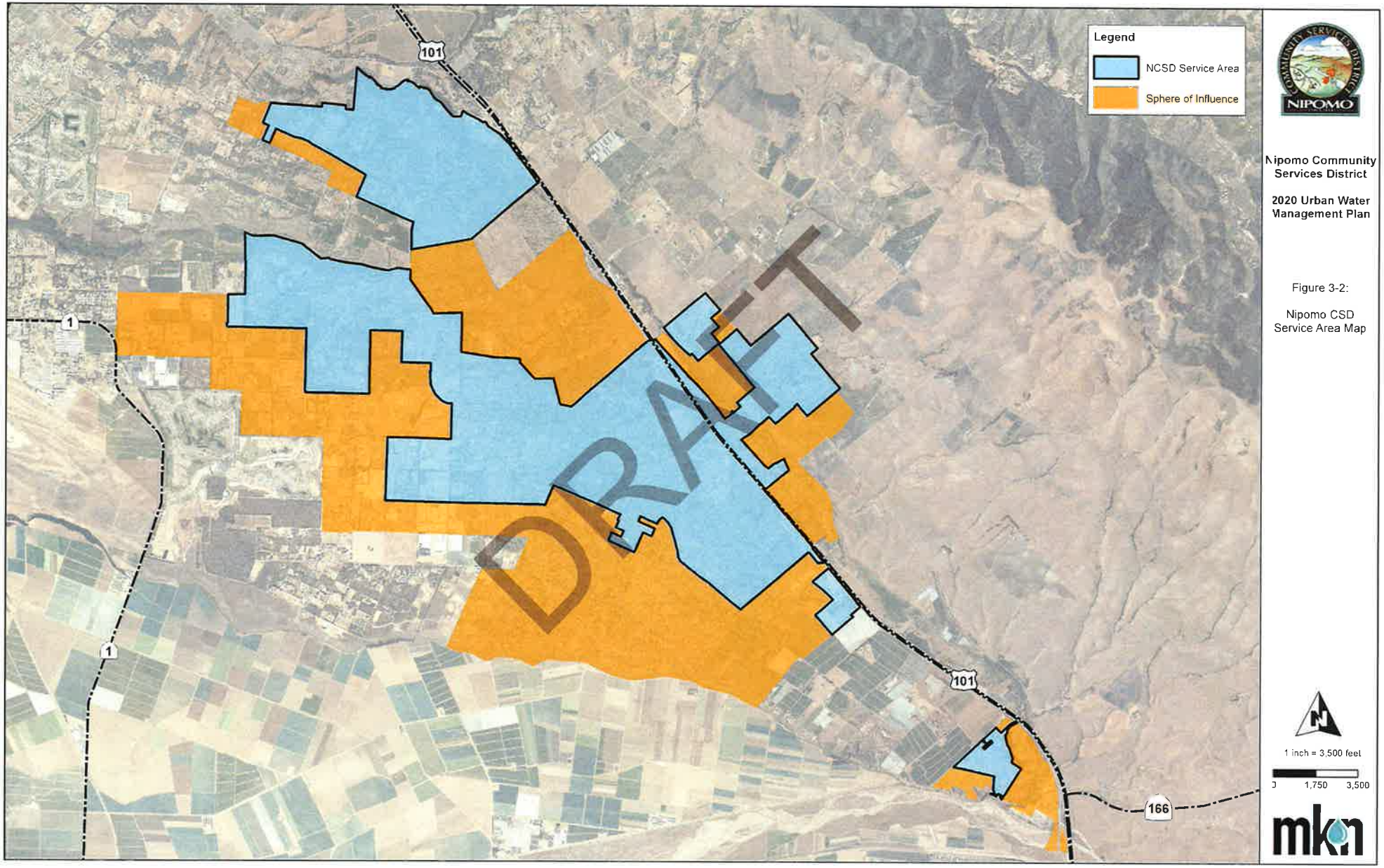
The Mediterranean climate of Nipomo and the surrounding southern San Luis Obispo County area is moderate as a result of the marine influence of the nearby Pacific Ocean. The winter season is usually cool and moist and the summer months are warm and dry, with relatively consistent temperatures averaging 58 degrees. Hills border Nipomo on the north, northeast, and east. The orientation of Nipomo's topography with respect to the Pacific Ocean produces consistent winds from the Pacific in an on-shore 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 3-0** illustrates monthly and annual average Potential Evapotranspiration (ETo), precipitation and temperature data for the Nipomo area for calendar year 2020.

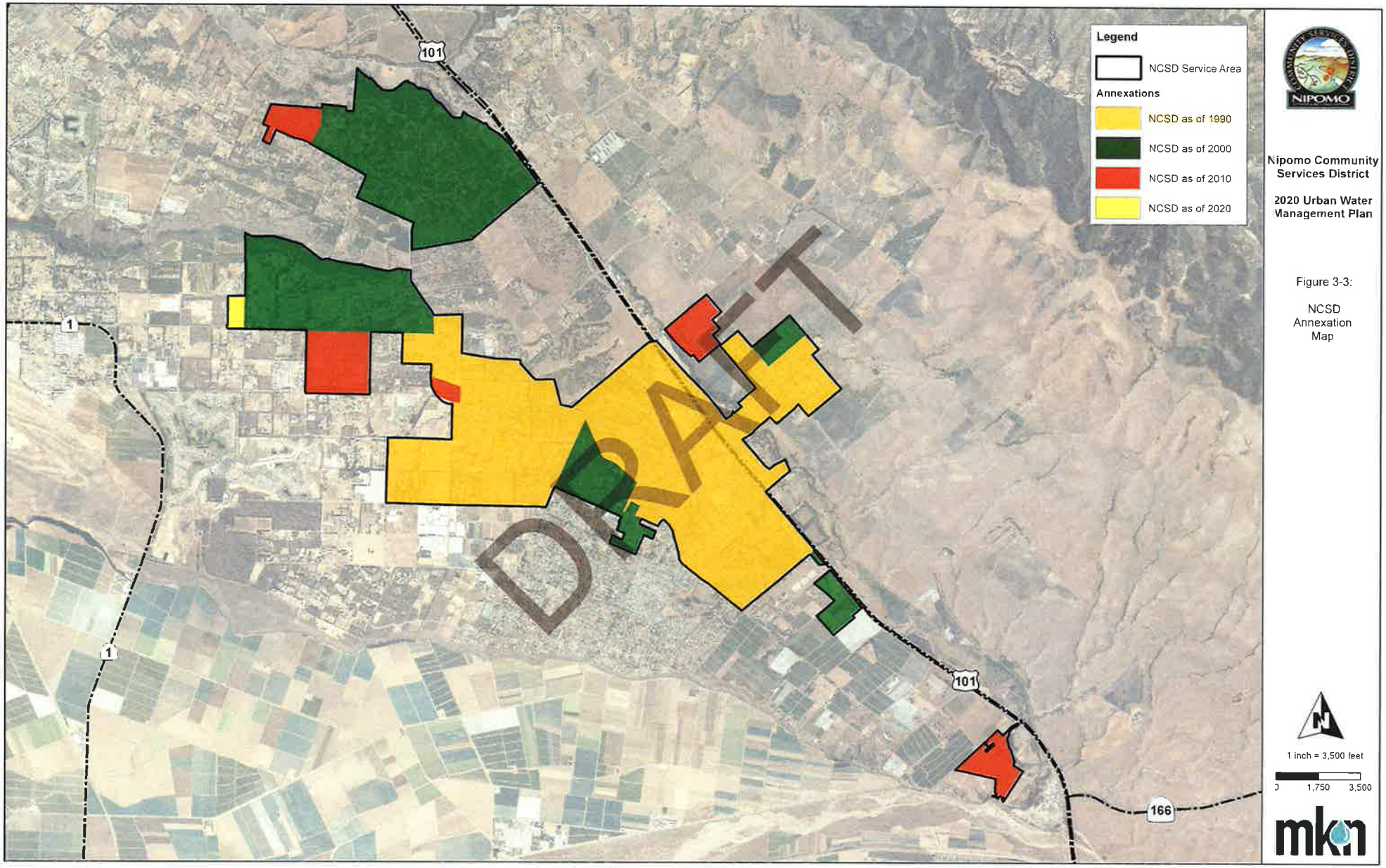
Table 3-0: Climate Conditions for Calendar Year 2020			
Month	Monthly Average ETo[1]	Monthly Rainfall[2]	Monthly Average Temperature[1]
	Inches	Inches	Fahrenheit
Jan	2.13	0.91	53.3
Feb	2.87	0.00	53.9
Mar	2.96	4.57	53.4
Apr	4.41	1.77	56.3
May	5.70	0.40	59.6
Jun	5.02	0.04	60.0
Jul	5.09	0.00	59.4
Aug	4.56	0.00	61.5
Sep	3.16	0.04	60.7
Oct	2.98	0.00	63.4
Nov	2.37	0.43	56.1
Dec	2.09	1.18	53.7
Average	**3.61**	**0.78**	**57.6**
Total	**43.34**	**9.34**	-

NOTES:
1. Data from CIMIS Station #202 Nipomo, January 1, 2020 to December 31, 2020.
2. Data from SLO County Rain Gauge, Nipomo (East), January 1, 2020 to December 31, 2020.

With respect to climate change, the District has not conducted an official climate change vulnerability or risk assessment for the existing water service area. However, climate change considerations for the District's groundwater supply are incorporated into the Nipomo Mesa Management Area Annual Reports and Chapter 7 of the 13th Annual Report has been included in Appendix A.


Legend
County Boundary
NCSD Service Area
DRAFT
Nipomo Community Services District
2020 Urban Water Management Plan
Figure 3-1:
Nipomo CSD Location Map
Scale: NTS
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong
mkn
Medford
Redding
Reno
Carson City
Salt Lake City
Sacramento
San Francisco
Stockton
Modesto
San Jose
Fresno
Visalia
Bakersfield
Las Vegas
Henderson
St George
Flagstaff
Prescott
Lake Havasu City
Phoenix
Mesa
Tucson
Los Angeles
Long Beach
Santa Barbara
Oxnard
Palmdale
Victorville
Lancaster
Riverside
Indio
Palm Desert
Murrieta
Oceanside
San Diego
Tijuana
Nipomo
Los Berros Rd
Cabrillo Hwy


Legend
NCSD Service Area
Sphere of Influence
DRAFT
101
1
1
101
166
Nipomo Community Services District
2020 Urban Water Management Plan
Figure 3-2:
Nipomo CSD Service Area Map
1 inch = 3,500 feet
0
1,750
3,500
mkn


Legend
NCSD Service Area
Annexations
NCSD as of 1990
NCSD as of 2000
NCSD as of 2010
NCSD as of 2020
DRAFT
101
1
1
101
166
Nipomo Community Services District
2020 Urban Water Management Plan
Figure 3-3:
NCSD Annexation Map
1 inch = 3,500 feet
0
1,750
3,500
mkn

3.4 Service Area Population and Demographics

3.4.1 Service Area Population

The 2020 population within the District service area was determined by using the Department of Water Resources (DWR) Population Tool, since the service area is not a City limit or Census designated place. To determine historical population data within the District service area using the DWR Population Tool, service area maps were prepared to reflect the service area boundaries for 1990, 2000, and 2010 Census years. Since the District boundary has changed over the course of the above Census years, three service area map layers (see **Figure 3-3**) were uploaded into the DWR Population Tool. The DWR Population Tool was used to estimate historical population from 1990 through 2020. Output from the DWR Population Tool for current and historical population is included in Appendix B.

The District does not have land use planning authority and relies on the County to identify potential new developments and overall population growth within the service area. With respect to population growth within the service area, several planning documents were reviewed to determine the appropriate growth rate to use for the 2020 update. The following planning documents included proposed population estimates through 2050 for the Nipomo area:

- 2050 Regional Growth Forecast for San Luis Obispo County Population, Housing, and Employment Projections for San Luis Obispo Council of Governments (June 2017)
- Nipomo Urban Reserve 2050 population of 18,598 with an annual average growth rate of 0.30% (2020 to 2050)
- San Luis Obispo County 2040 Population, Housing & Employment Forecast for San Luis Obispo Council of Governments (August 2011)
- Nipomo Urban Reserve 2040 population of 19,007 with an annual average growth rate of 0.83% (2020 to 2040)

The Nipomo Urban Reserve represents the limits of the Nipomo community located in southern San Luis Obispo County and encompasses approximately 3,900 acres. It should be noted that the Nipomo Urban Reserve boundary and the District water service area boundary are not the same. Approximately 2,300 acres of the Nipomo Urban Reserve boundary falls within the current District water service area, with approximately 1,300 acres within the Golden State Water Company service area, and the remaining 300 acres within the District's SOI.

The District's 2020 population estimate was based on the DWR population tool (including 2020 Census data) for the current service area only and is the best information currently available for population estimates. At the time this UWMP was prepared the current population within the District's service area was estimated at 13, 771 people. With respect to future population growth and demands two conditions were reviewed and are briefly described below:

- Growth Scenario 1: Existing District population, infill development within the existing service area (parcels with reserved District capacity, parcels currently served by private wells, and development of vacant parcels) and future population associated with annexations under review
- Growth Scenario 2: Existing District population and infill development within the existing service area (parcels with reserved District capacity, parcels currently served by private wells, and development of vacant parcels)

Table 3-1 provides a summary of existing and future population projections for the District through 2045 assuming Growth Scenario 1 as described above.

Table 3-1: Growth Scenario 1 Population Estimate

Year	2020	2025	2030	2035	2040	2045
Population Served	13,771	15,407	17,042	17,494	17,946	18,398
NOTES: 2020 population based on 2020 Census Data included in DWR population tool.						

Table 3-1a provides a summary of existing and future population projections for the District through 2045 assuming Growth Scenario 2 as described above.

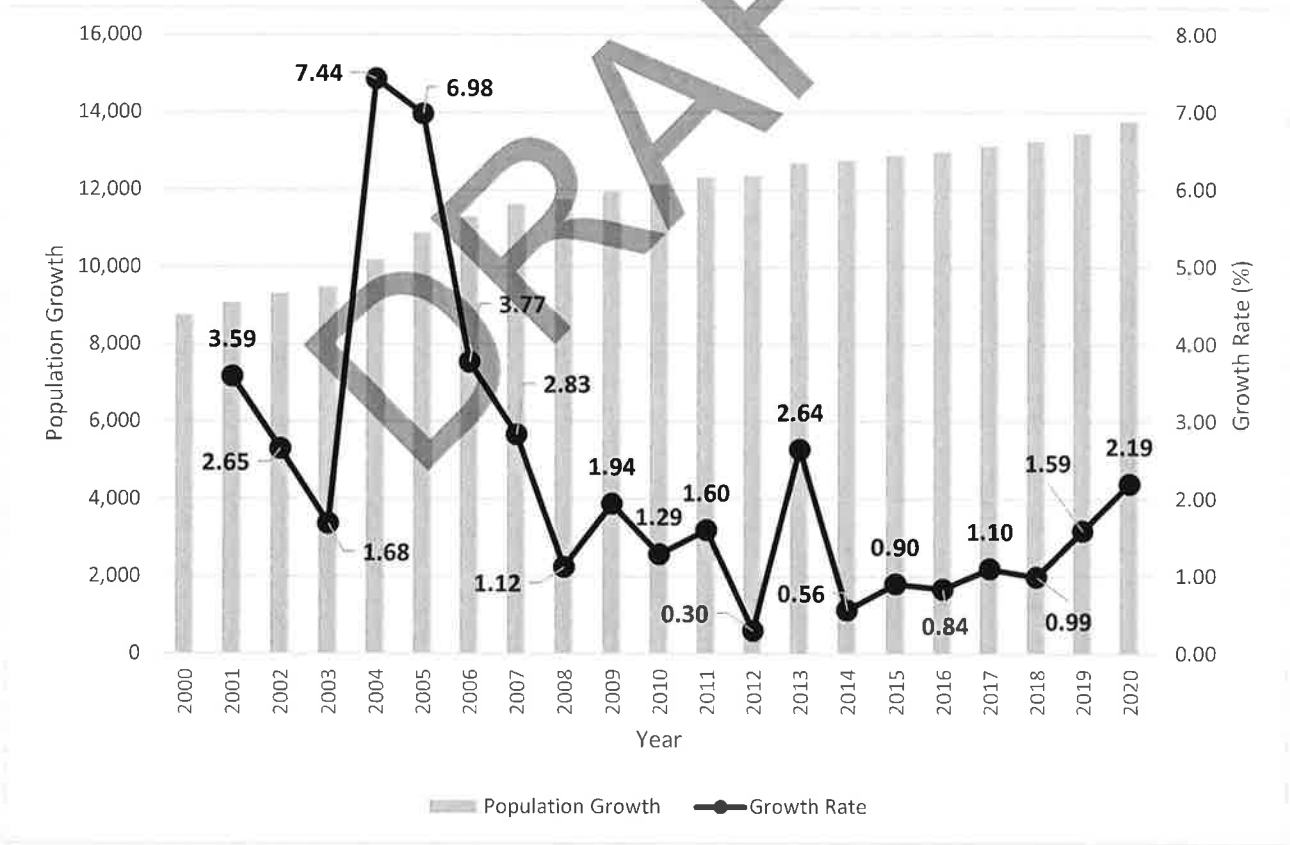
Table 3-1a: Growth Scenario 2 Population Estimate						
Year	**2020**	**2025**	**2030**	**2035**	**2040**	**2045**
Population Served	13,771	14,223	14,675	15,127	15,579	16,031
NOTES: 2020 population based on 2020 Census Data included in DWR population tool.						

It should be noted that County of San Luis Obispo Growth Management Ordinance (Title 26 of the County Code) limits population growth in the Nipomo Mesa area to 1.8%. For the purpose of the UWMP update, the population estimates associated with Growth Scenario 1 was utilized throughout the report.

In addition, **Figure 3-4** provides a summary of historical growth rates within the District service area only over the last twenty years (based on values from the DWR population tool) with the following average growth rates:

- 5-year growth rate of 1.3% (2015-2020)
- 10-year growth rate of 1.27% (2010-2020)
- 20-year growth rate of 2.3% (2000-2020)

Figure 3-4: Service Area 20-year Population and Growth Rate Chart



3.4.2 Other Social, Economic, and Demographic Factors

Total water use increases from year to year due to the growth within the service area. The direct relationship between growth and water consumption should increase at the same rate as population increases. Historically, low water rates and large residential lot sizes allowed for the irrigation of large landscaped areas at relatively low cost to the resident. Future water use patterns will be influenced by the implementation of rate increases, conservation outreach, and State Government Mandates.

The following data was obtained from the US Census Bureau and was the best available information to describe the demographics of the customer base within the District's service area:

- The population includes 51% male and 49% female with 61% of the population between the ages of 18 and 65
- Approximately 49.1% of the population is White with 45% Hispanic or Latino
- The median household income was identified to be $82,500 with 9% of the population within the poverty level

In addition to population, there are several additional factors that may affect water management and planning and are important to consider in the context of this UWMP update:

- Current development in Nipomo is mainly residential
- The County Housing Element identifies Nipomo as a community with realistic development capacity for low-income to above moderate income residential uses
- The County has a need for additional housing units and Nipomo is one of the unincorporated communities with the capacity to absorb population increases
- Development in the Nipomo area has slowed recently as a result of economic conditions and water supply constraints
- Severe Water Shortage Conditions exist in the Nipomo Mesa Management Area (NMMA)[1]
- Update to Accessory Dwelling Unit (ADU) ordinance would allow more residential lots to add a secondary unit
- Availability of imported water to serve future demands

3.4.2.1 Relevant County of San Luis Obispo Land Use Ordinances

In 2015, the County passed Ordinance No. 3307, amending Title 19 of the County's Building and Construction Ordinance relating to water conservation. Under Chapter 19.07 – Plumbing Code, section 19.07.042 – Water Conservation Provisions, all new development and, in certain cases, existing structures within the Paso Robles Groundwater Basin and Nipomo Mesa Water Conservation Area (NMWCA) are subject to the following requirements:

> *(d) Paso Robles Groundwater Basin and Nipomo Mesa Water Conservation Area. In addition to the requirements in Subsections a, b and c above, the requirements of Subsections d.1 through d.4 shall apply to all new development that uses water from the Paso Robles Groundwater Basin (excluding the Atascadero Sub-basin), and the Nipomo Mesa Water Conservation Area as shown on maps in this Subsection.*
>
> *(1) Offset Required. Prior to issuance of a construction permit for a new structure with plumbing fixtures on property that overlies and/or uses water from the Paso Robles Groundwater Basin (excluding the Atascadero*

[1] Nipomo Mesa Management Area 2020 Key Wells Index Status Statement dated June 2020 and prepared by NMMA Technical Group

Sub-basin) or the Nipomo Mesa Water Conservation Area the developer of such new structure shall obtain an Offset Clearance from the Department of Planning and Building verifying that new water use has been offset at a 1:1 ratio. Water savings must come from the same groundwater basin as the proposed new development. Applicants shall meet offset requirements by complying with Sub-section 2 or 3 below.

All development not subject to a general plan amendment or land divisions are subject to sub-section (2) County Approved Water Conservation Program or (3) Alternatives.

In 2006, the County passed Ordinance 3090, an amendment to its Title 22 Land Use Ordinances which established the NMWCA and stipulated requirements for the general plan amendments and land divisions with the NMWCA as summarized below:

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.

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.

3.4.2.2 Nipomo Mesa Management Area

The District extracts groundwater from the Santa Maria River Valley Groundwater Basin and coordinates with the NMMA TG, which is the court-assigned entity responsible for assessing groundwater within the Nipomo Mesa Management Area of the Santa Maria Groundwater Basin.

Severe water shortage conditions within the Santa Maria River Valley Groundwater Basin are defined in the NMMA TG's Annual Report (Report) as is a response plan to be implemented when this condition exists. The Report is filed with the Court overseeing the Final Judgement no later than 120 days after the end of the calendar year; for calendar year 2020 the Report is filed by April 2021. Once filed, water users subject to the Final Judgement are to take actions in accordance with the Report.

3.4.2.3 Accessory Dwelling Unit (ADU) Ordinance

On May 25, 2017, the County Board of Supervisors approved Phase I of the Accessory Dwelling Unit (ADU) Ordinance. The Phase I amendment eliminated County requirements for road surfacing and owner-occupancy for secondary dwellings. On September 12, 2019, the Planning Commission recommended approval of the amendments to the Board of Supervisors with the following changes:

- Prohibiting ADUs in the Very High Fire Hazard Severity Zone countywide
- Allowing one ADU on Agriculture and Rural Lands parcels in addition to the two primary dwellings allowed

- Adding language that an ADU is considered Residential Accessory Use for the purpose of determining land use limitations in Article 9 (Planning Area Standards) and Article 10 (Community Planning Standards)
- Allowing ADUs in front of the primary residence as long as it still meets the setback requirements
- Reduces required minimum site area to 1,750 square feet (previously 6,000 square feet) for sites served by community water and sewer facilities

3.5 Land Uses within Service Area

The current District service area encompasses 4,479 acres with approximately 4,635 parcels (3,907 land acres). **Table 3-2** shows a summary of the currently developed land uses throughout the existing service area.

Table 3-2: Developed Land Use Summary within Service Area

Land Use Category	Number of Parcels	Gross Land Acres	Percent of Total
Agriculture	4	97	3%
Commercial Retail	73	66	2%
Commercial Retail / Office Professional	1	3	<1%
Commercial Retail / Residential Multi Family	2	8	<1%
Commercial Service	19	42	1%
Office Professional	22	11	<1%
Office Professional / Residential Multi Family	1	4	<1%
Public Facility	6	22	1%
Recreation	598	454	16%
Rural Lands	1	3	<1%
Residential Multi Family	544	98	3%
Residential Rural	201	817	28%
Residential Suburban	803	765	27%
Residential Single Family	1,982	480	17%
Residential Single Family / Office Professional	3	7	<1%
Total	**4,260**	**2,876**	**100%**

NOTES: Information in this table reflect current District customers only.

Figure 3-5 provides an overview of the overall land use categories within the District's service area.

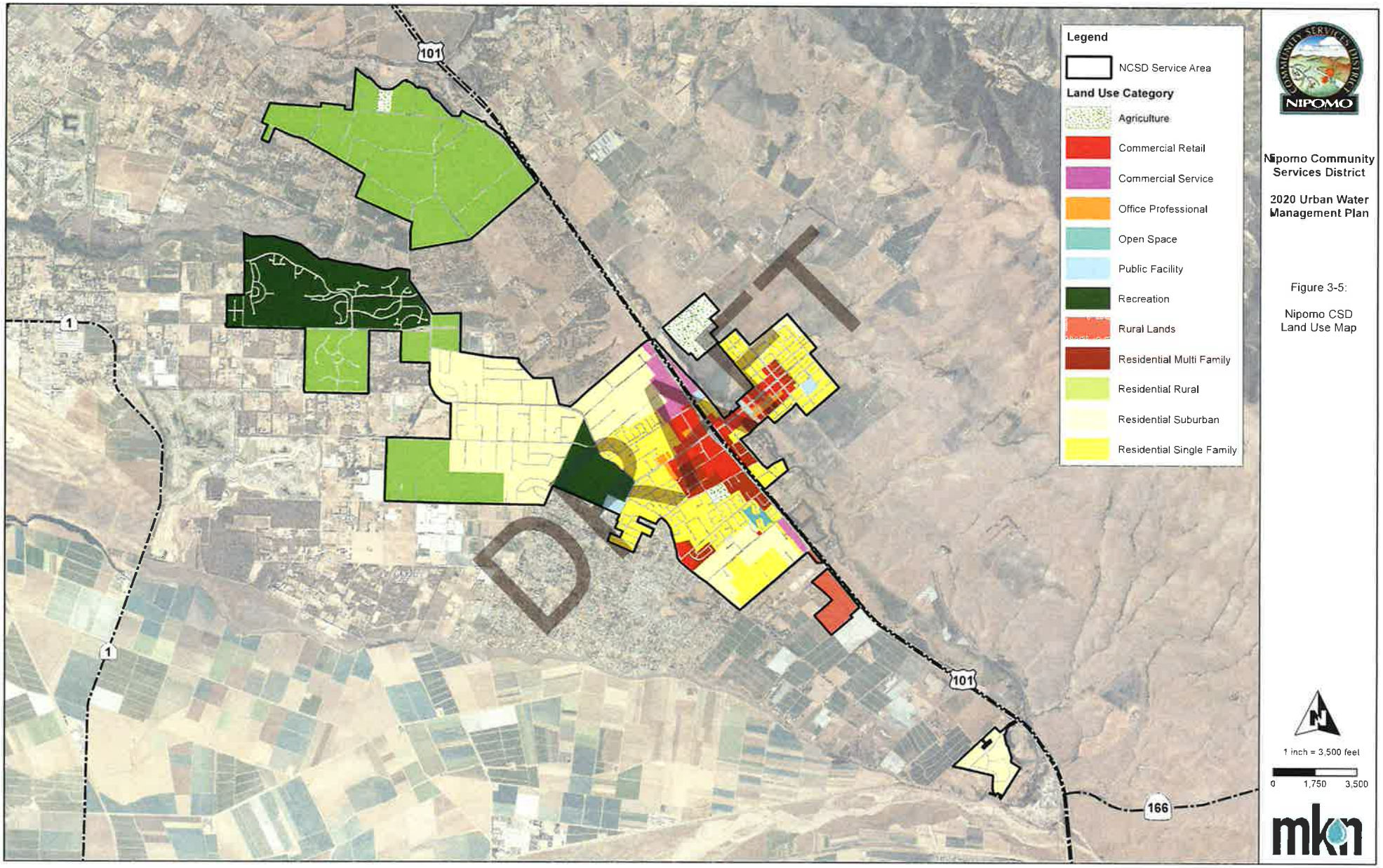

Legend
NCSD Service Area
Land Use Category
Agriculture
Commercial Retail
Commercial Service
Office Professional
Open Space
Public Facility
Recreation
Rural Lands
Residential Multi Family
Residential Rural
Residential Suburban
Residential Single Family
101
1
166
DRAFT
Nipomo Community Services District
2020 Urban Water Management Plan
Figure 3-5:
Nipomo CSD Land Use Map
1 inch = 3,500 feet
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Table 3-3 shows a summary of the land uses throughout the existing service area that are not currently served by the District, but could receive water service in the future.

Table 3-3: Land Uses Not Currently Served by the District			
Land Use Category	**Number of Parcels**	**Gross Land Acres**	**Percent of Total**
Agriculture	1	6	1%
Commercial Retail	52	40	6%
Commercial Retail / Office Professional	2	10	2%
Commercial Retail / Residential Multi Family	2	12	2%
Commercial Service	5	19	3%
Commercial Service / Commercial Retail	2	9	1%
Office Professional	10	3	0%
Public Facility	1	1	0%
Recreation	4	9	1%
Residential Multi Family	14	9	1%
Residential Rural	69	431	67%
Residential Suburban	37	52	8%
Residential Single Family	60	43	7%
Total	**259**	**646**	**100%**

In addition, there are approximately 117 parcels covering 385 acres that are not developable (drainage basins, parking areas, well site parcel, etc) and will not require water service by the District in the future.

CHAPTER 4 WATER USE CHARACTERIZATION

New Requirements for 2020 Update

Per Water Code, the following new requirements are necessary for this chapter of the UWMP 2020 update.

- Suppliers shall coordinate with local or regional land use authorities to determine the most appropriate land uses information for projecting water use in five-year increments, up to the year 2045.
- Suppliers shall provide a simple lay description of their projected water use for the foreseeable future.
- Suppliers shall provide quantified distribution system losses for each of the five preceding years and whether or not the state standard was met.
- Both Wholesale and Retail Suppliers shall include a DRA for a drought period that lasts five consecutive water years, starting from the year following the assessment, which would be 2021 for this round of UWMPs (see Chapter 7). The DRA requires a comparison of water supplies with total projected water use. Therefore, the Supplier must produce a projected water use for the years 2021 through 2025 as part of the water use projections, up to the year 2040.
- Both Wholesale and Retail Suppliers will have to conduct an annual water supply and demand assessment on or before July 1 of each year, starting in 2022. The annual assessment will include current year unconstrained demand. Suppliers are encouraged to consider unconstrained demand as the expected water use in the upcoming year, based on recent water use, and before any projected response actions a Supplier may trigger under its Water Shortage Contingency Plan (see Chapter 8).

4.1 Non-Potable Versus Potable Water Use

Recycled water is addressed comprehensively in Section 6.5, however a summary of recycled water demand is included in **Table 4-3**.

4.2 Past, Current, and Projected Water Use by Sector

In this section current and projected water usage is addressed. **Table 4-3** displays water use in five-year increments from 2020 to 2045.

4.2.1 Water Use Sectors Listed in Water Code

The District's service area includes the following water demand sectors listed in the California Water Code applicable to the UWMP update:

- Single Family: Single family detached dwellings
- Multi-Family: Apartments, condominiums, town houses, duplexes and trailer parks
- Commercial: Retail establishments, office buildings, laundries, schools, prisons, hospitals, dormitories, nursing homes, hotels, churches, campgrounds
- Institutional and governmental: Tracked under Commercial customer class
- Landscape: Parks, play fields, cemeteries, median strips, golf courses
- Agricultural
- Distribution system water loss
- Sales to other agencies (projected to start July 2025)

The following sectors are not applicable to the District's UWMP update:

- Industrial
- Saline water intrusion barriers, groundwater recharge, or conjunctive use

4.2.2 Water Use Sectors in Addition to Those Listed in Water Code

To provide clarity, the following sectors are not currently applicable to the District's current demands in this UWMP update:

- Exchanges
- Surface Water Augmentation
- Wetlands or Wildlife Habitat

For the District's imported water source, as described in Section 6.2.1, the District, Golden State Water Company, and Woodlands Mutual Water Company are required by Court Order to purchase water through the Nipomo Supplemental Water Project (NWSP) per the Supplemental Water Management and Groundwater Replenishment Agreement (Replenishment Agreement) to offset groundwater pumping. Supplemental water to Golden State Water Company (GSWC) and Woodlands Mutual Water Company (WMWC) has been included as a water "Sales to Other Agencies" for future demand projections (**Table 4-2**).

4.2.3 Past Water Use

Table 4-0 provides historical water usage by customer type from 2015 through 2019.

Table 4-0: Retail: Historical Water Usage

Use Type	Water Use (AF)					% of Total
	2015	2016	2017	2018	2019	
Single Family	1,312	1,234	1,262	1,316	1,215	66
Multi-Family	151	121	116	111	112	6
Commercial	85	88	86	91	90	5
Landscape Irrigation	238	222	251	252	231	13
Other	7	5	1	3	15	0
Agricultural Irrigation	17	19	20	17	7	1
Losses	138	147	203	171	198	9
Total (AF)	**1,948**	**1,837**	**1,940**	**1,961**	**1,868**	**100**
NOTES: Values represent metered use as reported to DWR.						

4.2.4 Distribution System Water Loss

Table 4-2 includes projected water losses, reported in five-year increments for the next 20 years. Section 4.2.6 contains **Table 4-4** which identities distribution system water losses for each of the five years preceding the plan update.

4.2.5 Current Water Use

Table 4-1 provides an overview of the existing water demands by use type within the District's service area for calendar year 2020.

Table 4-1 : Retail: Demands for Potable and Raw Water- Actual		
Use Type	2020 Actual	
	Level of Treatment When Delivered	Volume (AF)
Single Family	Drinking Water	1,326
Multi-Family	Drinking Water	122
Commercial	Drinking Water	76
Landscape	Drinking Water	271
Other	Drinking Water	4
Agricultural Irrigation	Drinking Water	12
Losses	Drinking Water	237
	TOTAL (AF)	**2,048**

NOTES:
1. Demands = Annual water consumption by customer type as shown above.
2. Values represent use as reported to DWR for 2020.

4.2.6 Projected Water Use

Based on the 2015 UWMP, the District is required to comply with an urban water use target of 184 gallons per capita per day (gpcd) by 2020. **Table 4-1a** provides a summary of historical gpcd within the service area and years of mandatory conservation with requested conservation level (% reduction).

Table 4-1a: Historical Use Rates (GPCD)						
Year	Service Area Population	Water Production (AFY)	Gross Water Use (gpcd)	Meter Residential Use (AFY)	Residential Water Use (gpcd)	Mandatory Conservation (%)
2010	12,140	2,367	174	1,899	140	-
2011	12,334	2,488	180	1,868	135	-
2012	12,370	2,473	178	1,952	141	-
2013	12,697	2,646	186	1,996	140	-
2014	12,769	2,310	161	1,868	131	28
2015	12,884	1,948	135	1,463	101	28
2016	12,992	1,837	126	1,356	93	28
2017	13,134	1,940	132	1,378	94	23
2018	13,265	1,961	132	1,427	96	-
2019	13,476	1,868	124	1,327	88	-
2020	13,771	2,048	133	1,448	94	-
		5-Year Average	**129**		**94**	
		10-Year Average	**149**		**112**	

NOTES:
1. Water Production = Pumped groundwater from the Santa Maria Groundwater Basin and supplemental imported water from the City of Santa Maria through the Nipomo Supplemental Water Project
2. Potable Demand based on historical production values provided by the District. The 5-year average includes 2016-2020 and 10-year average includes 2011-2020.

Annual water demand within the service area was assumed to increase in proportion to the population projected in **Table 3-1**. The demand projections in **Table 4-2** are based on population projections multiplied by the year 2020 gpcd of 133 and aggregated for each use type per the customer type percentages in **Table 4-0**. **Table 4-2** also includes water sales to WMWC and GSWC starting in 2025. The following equation was used to determine demand projections:

$$Demands = Population\ x\ 133\ GPCD\ x\ Use\ Type\ Percentage$$

Table 4-2: Retail: Demands for Potable and Raw Water - Projected					
Use Type	**Projected Water Use (AF)**				
	2025	**2030**	**2035**	**2040**	**2045**
Single Family	1,406	1,450	1,495	1,540	1,584
Multi-Family	136	140	144	149	153
Commercial	97	100	104	107	110
Landscape	265	273	282	290	299
Other	7	7	7	7	8
Agricultural Irrigation	18	18	19	20	20
Losses	190	196	202	208	214
District Subtotal (AF)	**2,118**	**2,186**	**2,253**	**2,320**	**2,388**
Annexations Under Review	176	352	352	352	352
Subtotal (AF)	**2,294**	**2,538**	**2,605**	**2,672**	**2,740**
Sales to Other Agencies	833	833	833	833	833
TOTAL (AF)	**3,127**	**3,371**	**3,438**	**3,505**	**3,573**
NOTES: District subtotal demand includes existing District demand and future infill development (parcels with reserved District capacity, parcels currently served by private wells, and development of vacant parcels). It was assumed that infill development would occur from 2025 through 2045 within the existing service area					

Table 4-3 summarizes projected water demands through 2045.

Table 4-3: Retail: Total Water Demands (AF)						
	2020	**2025**	**2030**	**2035**	**2040**	**2045**
District Retail Water Demand	2,048	2,118	2,186	2,253	2,320	2,388
Annexations Under Review	0	176	352	352	352	352
District Wholesale Water Demand	0	833	833	833	833	833
Total Water Demand (AF)	**2,048**	**3,127**	**3,371**	**3,438**	**3,505**	**3,573**

Table 4-4 summarizes the distribution system water losses for each of the five years preceding the plan update.

Table 4-4: Retail: 12 Month Water Loss Audit Reporting	
Reporting Period Start Date	Volume of Water Loss (AF)
01/2015	113
01/2016	175
01/2017	239
01/2018	256
01/2019	231
NOTES: Water loss based on AWWA worksheet values.	

4.2.7 Characteristic Five-Year Water Use

Future demands and the characteristic five-year water use represent unconstrained demands as shown in **Tables 4-2, 4-3,** and **4-4a**.

Table 4-4a: Characteristic Five-Year Water Use					
Demand (AFY)	**2021**	**2022**	**2023**	**2024**	**2025**
District Retail Water Demand	2062	2076	2090	2104	2118
Annexations Under Review	0	0	0	0	176
District Wholesale Water Demand	0	0	0	0	833

Worksheets and Reporting Tables

All required worksheets and reporting tables have been provided throughout this Chapter.

4.3 Water Use for Lower Income Households

The District's water use projections through 2045 include water demands for lower income single-family and multi-family households. The total number of lower income households within the District's service area was estimated based on the County of San Luis Obispo's General Plan, a review of median household income statistics provided by the U.S. Census Bureau's American FactFinder, and a review of GIS maps of Disadvantaged Communities (DACs), including block groups, tracts, and places, provided by DWR. The County of San Luis Obispo's Housing Element for 2014-2019 reported 547 very low and low-income housing units. The water need for low-income housing units is approximately 0.44 AFY, as shown in **Table 4-6**. Since there is approximately one low-income unit projected to be needed in the District's service area, it is not possible to separate the demand into multi-family and single-family residential projected water use. The projected water demands for lower income households were included in the District's total projected water demands, as indicated in **Table 4-5**.

Table 4-5 Retail Only: Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections?	No
If "Yes" to above, state the section/page where citations of the codes, are found.	-
Are Lower Income Residential Demands Included In Projections?	Yes

Section 10631.1 of the California Water Code requires 2020 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 "County of San Luis Obispo General Plan – Housing Element 2014-2019". Estimated low-income residential demands are summarized in **Table 4-6**.

Table 4-6: 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 2014-2019 for the unincorporated County (2)	547
NCSD's share of very low and low-income housing units needed 2014-2019 (3)	1.20
Single-family residential water use factor (afy/connection) (4)	0.36
Water Needed for low income housing units, 2014-2019 (afy) (5)	0.44
(1) Calculated by dividing NCSD's service area by the total unincorporated area of San Luis Obispo County. (2) Source: Housing Element 2014-2019 – County of San Luis Obispo General Plan. (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 2015. (5) Since there is approximately one low-income unit projected to be needed in NCSD's service area for 2014-2019, it is not possible to separate the demand into multi-family and single-family residential projected water use.	

4.4 Climate Change Considerations

The District has not conducted an official climate change vulnerability or risk assessment for the existing water service area. However, climate change considerations for the District's groundwater supply are incorporated into the Nipomo Mesa Management Area Annual Reports and Chapter 7 of the 13th Annual Report has been included in Appendix A.

CHAPTER 5 SBX7-7 BASELINES, TARGETS, AND 2020 COMPLIANCE

With the adoption of the Water Conservation Act of 2009, also known as the SB X7-7, the State is required to set a goal of reducing urban water use by 20 percent by the year 2020. Each retail urban water supplier must determine baseline water use during their baseline period and also target water use for the years 2020 and 2025 in order to help the State achieve the 20 percent reduction. The District has updated their baseline water usage and goal of reducing urban water use by 20 percent by the year 2020.

New Requirements for 2020 Update

Per the Water Code there are no new requirements for this chapter of the UWMP 2020 update.

5.1 Guidance for Wholesale Suppliers

5.2 SB X7-7 Forms and Summary Tables

5.2.1 SB X7-7 Verification Form (Baselines and Targets)

The District's SB X7-7 Verification Form submitted for the 2015 UWMP has been included as a reference document in the 2020 UWMP as Appendix C.

5.2.2 SB X7-7 2020 Compliance Form

The District has completed the 2020 SB X7-7 Compliance Form and is included as Appendix D.

5.2.3 Submittal Tables 5-1 and 5-2

Submittal **Table 5-1** and **Table 5-2** from the 2020 SB X7-7 Compliance are included in Section 5.5.

5.2.4 Regional UWMP/Regional Alliance

The District has developed an UWMP that reports solely on its service area. The individual UWMP addresses all requirements of the CWC. The District has notified and coordinated with appropriate regional agencies and constituents during the development of this UWMP update.

5.3 Baseline and Target Calculations for 2020 UWMPs

Suppliers that have submitted a 2015 UWMP with the SB X7-7 Verification Form and have not had a change to their service area will not need to recalculate their baselines and targets in their 2020 UWMPs.

5.3.1 Supplier Submitted 2015 UMWP, No Change to Service Area

The District submitted a 2015 UWMP and has expanded the service area based on new construction of a residential development. The expansion was solely due to new construction, therefore, there was no need to recalculate baselines and targets for this update.

5.3.2 Supplier Did Not Submit 2015 UWMP

This topic does not apply to the District.

5.3.3 Supplier Newly Subject to UWMP Requirements

This topic does not apply to the District.

5.3.4 Distribution Area Expansion

The District's service area has expanded based on new construction of a residential development. The expansion was solely due to new construction, therefore, there is no need to recalculate baselines and targets for this update.

5.3.5 Distribution Area Contraction

This topic does not apply to the District.

5.3.6 Large Partial Customers Become Whole Customers

This topic does not apply to the District.

5.4 Methods for Calculating Population and Gross Water Use

5.4.1 Service Area Population

Since the District's service area is not a City limit or Census designated place the DWR population tool and the District's service area boundaries for Census years 1990, 2000, and 2010 were used to estimate historical population.

5.4.2 Gross Water Use

Historical gross water use for this UWMP used information from the District's annual DWR Public Water System Statistics reports (DWR 38) from 1999-2008.

5.5 2020 Compliance Daily Per-Capita Water Use (GPCD)

The baseline daily per capita water use for the District for this UWMP update is shown in **Table 5-1**.

Table 5-1 Baselines and Targets Summary

Baseline Period	Start Year	End Year	Average Baseline GPCD*	2015 Interim Target *	Confirmed 2020 Target*
10-15 year	*1999*	*2008*	*232*	*208*	*184*
5 Year	*2004*	*2008*	*224*		
*All values are in Gallons per Capita per Day (GPCD)					

The District has not applied any adjustments to the 2020 gross water use for this UWMP update.

Table 5-2: 2020 Compliance

Actual 2020 GPCD	Optional Adjustments to 2020 GPCD Enter "0" for adjustments not used *From Methodology 8*					2020 GPCD *(Adjusted if applicable)*
	Extraordinary Events	Economic Adjustment	Weather Normalization	TOTAL Adjustments	Adjusted 2020 GPCD	
133	0	0	0	0	133	133
All values are in Gallons per Capita per Day (GPCD)						

5.5.1 2020 Adjustments for Factors Outside of Supplier's Control

The District has not included any adjustments (including Extraordinary Institutional Water Use, Economic Adjustment (CII), or Weather Normalization) for their 2020 GPCD compliance.

5.5.2 Special Situations

The District does not have any special situations that requires a recalculation of the baselines and 2020 Target in the 2020 UWMP.

5.5.3 If Supplier Does Not Meet 2020 Target

As shown in **Table 5-2**, the District has met the 2020 GPCD compliance target.

5.6 Regional Alliance

The District has developed an UWMP that reports solely on its service area. The individual UWMP addresses all requirements of the CWC. The District has notified and coordinated with appropriate regional agencies and constituents during the development of this UWMP update.

CHAPTER 6 WATER SUPPLY CHARACTERIZATION

New Requirements for 2020 Update

Per Water Code, the following new requirements are necessary for this chapter of the UWMP 2020 update.

- The new requirements for a water supply analysis are largely in the application of that analysis to the new DRA, WSCP, and consideration of climate change in future projections.
- The conclusions drawn from the water supply characterization integrate into a specific understanding of a Supplier's new drought risk in the DRA and inform the management and mitigation actions a Supplier must address in the newly required WSCP, along with consideration of climate change and coordination with land use and planning authorities for future projections. For example, an analysis that concludes that a water supply portfolio is reliable under all conditions conceivable may have fewer supply augmentation actions or demand management actions in a WSCP.
- Water supply analysis conclusions translate into a realistic DRA and implementable actions listed in the WSCP in the event of water shortage conditions.

6.1 Water Supply Analysis Overview

The District's water supply sources include groundwater from the Santa Maria River Valley Groundwater Basin and imported water from the Nipomo Supplemental Water Project. The following sections describe these sources.

6.2 Water Supply Characterization

6.2.1 Purchased or Imported Water

Groundwater was the sole source of the District's water supply until 2015, when the District began importing water from the City as part of the NSWP. The NSWP included the design and construction of the following infrastructure to deliver supplemental water to the District from the City's existing water distribution system:

- Approximately 5,000 feet of 24-inch transmission pipeline located within the City
- Flow control and meter station located within the City
- Santa Maria River crossing including 2,600 feet of 24-inch pipeline
- Joshua Road Pump Station with four 800 gpm pumps with onsite generator and 0.5 MG storage tank
- Approximately 1,700 feet of 24-inch transmission pipeline from the Joshua Road Pump Station to the District's existing distribution system
- Approximately 12,000 feet of 16-inch transmission pipeline located within the District's service area

The District executed the Wholesale Water Supply Agreement (Wholesale Agreement) with the City on May 7, 2013, which is included as Appendix E. Supplemental Water consists of a "municipal mix" of both surface water from the State Water Project and groundwater from the City of Santa Maria. The Wholesale Agreement dictates a minimum water delivery to the District of 2,500 AFY by fiscal year 2025-26 with a maximum allowable delivery of 6,200 AFY. It should be noted that the existing Santa Maria River crossing, pump station and portion of transmission pipeline were designed to deliver 6,200 AFY. However, pump replacements and additional pipelines would be required to deliver the full 6,200 AFY to the District service area. While the District is obligated to meet the minimum delivery from the Wholesale Agreement, the District will continue operating the groundwater wells to serve existing and future demands. **Table 6-0a** outlines the required Wholesale Agreement water delivery schedule.

Table 6-0a : Wholesale Water Agreement Delivery Schedule	
AFY	**Effective Delivery Date**
645	7/1/2015
800	7/1/2016
1,000	7/1/2020
2,500	7/1/2025
6,200	Maximum Capacity

These deliveries also include delivery to Woodlands Mutual Water Company (WMWC), Golden State Water Company (GSWC), and Golden State Water Company Cypress Ridge (GSWCCR). **Table 6-0b** summarizes the required NSWP purchase allocations for the District, GSWC, and Woodlands Mutual Water Company (WMWC) per the Supplemental Water Management and Groundwater Replenishment Agreement (Replenishment Agreement) as of October 16, 2015. The Replenishment Agreement is included as Appendix F.

Table 6-0b: NSWP Replenishment Agreement Allocation (AFY)			
Water Purveyor	**Percent Allocation**	**NSWP (1000 AFY)**	**NSWP (2500 AFY)**
NCSD	66.68	667	1,667
NCSD (as needed)	-	-	500
GSWC	8.33	83	208
GSWCCR	8.33	83	208
WMWC	16.66	167	417
Total	**100.00**	**1,000**	**3,000**

Through this supply source, the District has a maximum supply capacity of 2,167 AFY (including the remaining 500 AFY of NSWP water to serve new development demands). This excludes the 833 AFY allocation for WMWC and GSWC. Based on the existing infrastructure of the NSWP and contractual obligations, between the District and the City, this water supply source is considered 100% reliable and available during normal, single, and multiple dry year conditions.

6.2.2 Groundwater

The District extracts groundwater from the Santa Maria River Valley Groundwater Basin. The Nipomo Mesa Management Area Technical Group (NMMA TG), which is the court-assigned entity responsible for assessment of groundwater within the Nipomo Mesa Management Area of the Santa Maria Groundwater Basin, declared a Stage IV water severity condition for subbasin purveyors. This condition results in voluntary groundwater reduction goal of 1,267 AFY for the District. The District's past groundwater production in the Santa Maria Valley Groundwater Basin over the past five years is shown in **Table 6-1** (Section 6.2.2.4). The District owns five wells, 4 of which are active, and one currently being rehabilitated. These five well have a combined pumping capacity of 3,100 gallons per minute (gpm) or 5,000 AFY. However, for planning purposes 2,100 gpm is available assuming the largest well is out of service.

6.2.2.1 Basin Description

Underlying the District is portion of Santa Maria River Valley Groundwater Basin (Basin 3-12 per DWR Bulletin 118). The Santa Maria River Valley 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 River Valley Groundwater Basin is composed 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 River Valley Groundwater Basin occurs in four main ways: rainfall percolation, river bed recharge, subsurface inflows, and return flows. As mentioned in the NMMA TG Annual Report, the long-term average precipitation from 1958 to 2020 is 15.65 inches.

6.2.2.2 Groundwater Management

The Santa Maria River Valley Groundwater Basin has been the subject of ongoing litigation since 1997 and is an adjudicated basin. **Figure 6-1** provides an overview of the adjudicated basin boundary. The District signed a June 30, 2005 Stipulation in the case that was ultimately approved by the Court and incorporated into the final judgment ("Final Judgment") that was filed on January 25, 2008. The Judgement is included in Appendix G. 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 River 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 the NMMA TG that includes representatives appointed by the District, Golden State Water Company (GSWC) formally Southern California Water Company, 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 with an additional 500 AFY for growth for NCSD be transmitted to the NMMA by the District with funding participation from Woodlands Mutual Water Company and Golden State 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. The NMMA TG developed criteria to track groundwater levels and quality throughout the basin using the Key Wells Index (KWI), which collect data from eight selected wells distributed throughout the management area.

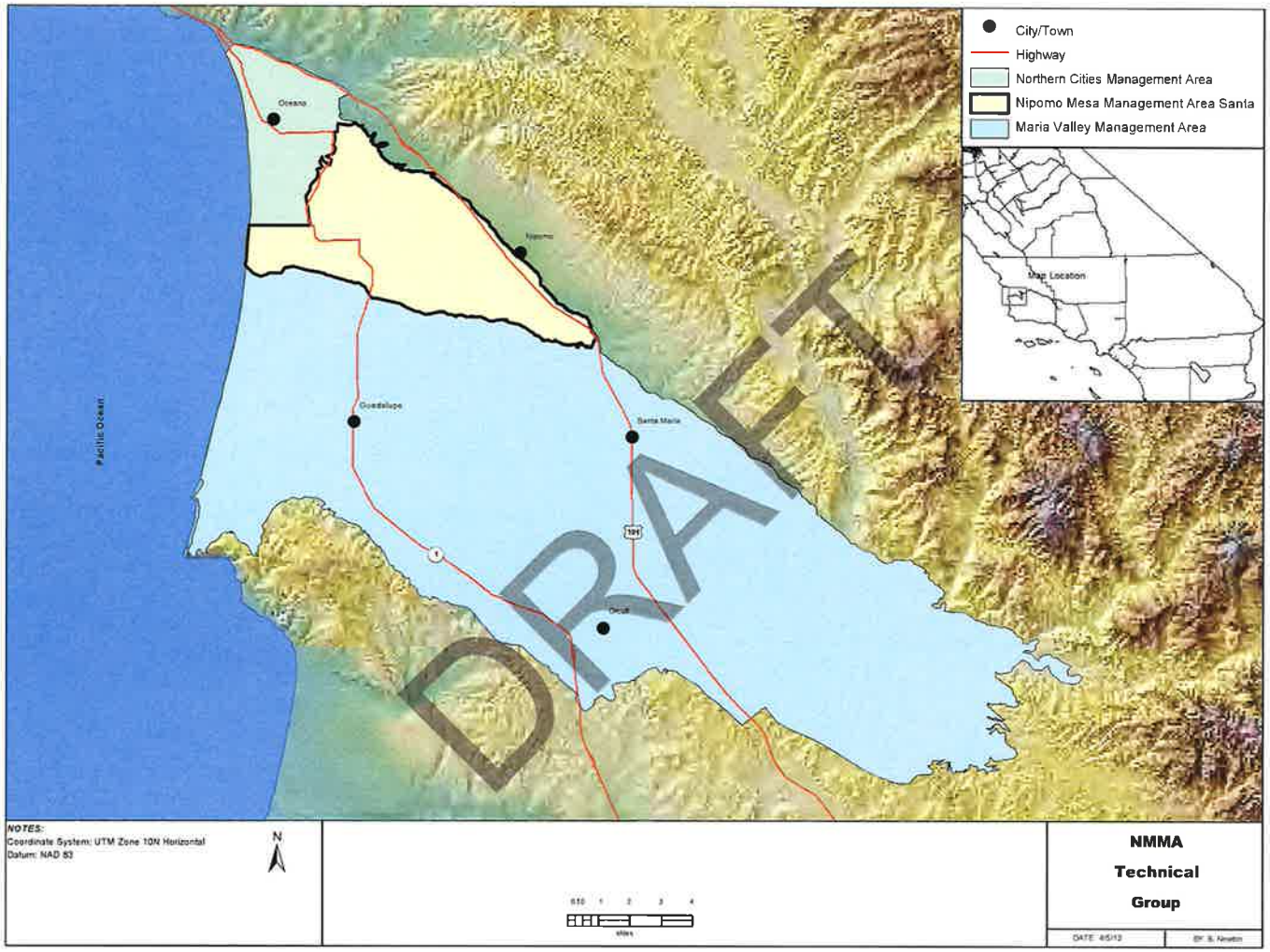
5) It contains provisions that each management area prepare an annual report to summarize monitoring results, water balance data and threats to groundwater supplies. The NMMA TG filed its 2020 annual report with the Superior Court in April 2021.

The Nipomo Mesa Management Area (NMMA) is an administrative management sub-area of the Santa Maria River Valley 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).

The NMMA covers approximately 33 square miles or 21,100 acres, which accounts for approximately 13 percent of the Santa Maria River Valley Groundwater Basin. 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.

The District has a current voluntary groundwater reduction goal of 1,267 AFY. The availability of this source is governed by the water severity conditions identified by the NMMA based on groundwater levels through the Key Wells Index as described below:

> *The Nipomo Mesa Management Area Technical Group ("NMMA TG") established groundwater level and groundwater quality criteria to track overall basin conditions within the NMMA. The criteria include the Key Wells Index ("KWI"), which combines groundwater level data from eight selected wells distributed throughout the inland portion of the Management Area. Water level measurements are made in NMMA groundwater wells representing the basin as a whole and are used to compute the KWI during the spring of each year.*
>
> *The TG uses the KWI to help identify trends in basin groundwater levels and has compiled KWI data for the period from 1975 to the present. Groundwater levels have changed in the NMMA over time, and in the last seven years are at levels that are lower than at any other time from 1975*



Notes:
Figure 1-1. Santa Maria Groundwater Basin and Management Areas from the Nipomo Mesa Management Area 12th Annual Report – Calendar Year 2019 (Submitted April 2020).

Nipomo Community Services District

2020 Urban Water Management Plan

Figure 6-1:

Santa Maria Groundwater Basin and Management Areas

One of the NMMA TG's court-required duties is to determine when conditions of "Potentially Severe Water Shortage Conditions" or "Severe Water Shortage Conditions" have been reached. The 2020 KWI value (11.7 feet mean sea level [ft msl]) has decreased from the previous year (15.9 ft msl) but remains within the Severe Water Shortage Conditions (below 16.5 ft msl). This is the sixth consecutive year the KWI value is in Severe Water Shortage Conditions, which signifies a Stage IV NMMA Water Shortage Response.[2]

The following lists the NMMA Water Shortage Response Stages (Endorsed by NMMA Technical Group April 14, 2014), groundwater supply conditions, and response actions by the District and other purveyors within the NMMA:

- Stage I: Always in place
- Voluntary measures and outreach
- Stage II: Potentially Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan
- Goal of voluntary 20% reduction in groundwater production
- Stage III: Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan.
- Goal of voluntary 30% reduction in groundwater production
- Stage IV: Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan, lasting more than 1 year from the initial declaration; or Severe Water Shortage declaration pursuant to NMMA declaration triggered by both the Key Well Index and the Coastal Area Criterion.
- Goal of voluntary 50% reduction in groundwater production
- Stage V: Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan, lasting more than 2 years from the initial declaration, based on both the Key Well Index and Coastal Area Criterion.
- Goal of voluntary 60% reduction in groundwater production

To achieve the voluntary reduction goals (described above), the District Board adopted Resolution 2014-1335 "Water Shortage Response and Management Plan" (included as Appendix H) during the April 2014 board meeting. Voluntary reduction goals for the District were based on groundwater production for calendar years 2009-2013 with average production of 2,533 AFY.

The NMMA TG has identified the current water shortage conditions within the Santa Maria Valley Groundwater Basin as "Severe Water Shortage Conditions." This signifies a Stage IV NMMA Water Shortage Response in which the District would have a voluntary groundwater reduction goal of 1,267 AFY or 50% of 2,533 AFY. However, the District's voluntary pumping limit from the basin is variable depending on the NMMA TG defined drought levels. **Table 6-0c** summarizes the District's voluntary groundwater reduction goals per NMMA TG defined drought levels.

Table 6-0c: NMMA Water Shortage Response Stages

NMMA Defined Drought Levels	Groundwater Reduction Goal (%)	Available Groundwater (AF)
Stage 1	0	2,533
Stage 2	20	2,027
Stage 3	30	1,733
Stage 4	50	1,267
Stage 5	60	1,013

[2]Nipomo Mesa Management Area Technical Group - Nipomo Mesa Management Area 2020 Key Wells Index Severe Water Shortage Conditions June 25, 2020.

However, for future groundwater supply availability for this UWMP update, it was assumed that the District would have a maximum groundwater pumping limit of 2,533 AFY from the Santa Maria Valley Groundwater Basin.

6.2.2.3 Overdraft Conditions

The Santa Maria River Valley Groundwater Basin is an adjudicated basin as described in Section 6.1. Therefore, over drafting conditions do not apply.

6.2.2.4 Past Five Years

Table 6-1 provides an overview of the groundwater sources and the annual quantity pumped to meet the demands of the District customers from 2016 to 2020.

Table 6-1: Retail: Groundwater Volume Pumped						
☐	Supplier does not pump groundwater. The supplier will not complete the table below.					
Groundwater Type	**Location or Basin Name**	**2016**	**2017**	**2018**	**2019**	**2020**
Alluvial Basin	Santa Maria Groundwater Basin	1,078	999	1,003	901	1,007
	TOTAL (AF)	**1,078**	**999**	**1,003**	**901**	**1,007**

Through this supply source, the District has self-allocated 2,533 AFY with a maximum pumping capacity of 2,100 gpm or 3,387 AFY. With several active wells and current operational practices this water supply source is considered 100% reliable and available during normal, single and multiple dry year conditions.

6.2.3 Surface Water

The District does not have a self-supplied surface water supply source, but does receive a blend of imported surface water and groundwater ("municipal mix") from the City of Santa Maria as part of the NSWP as described in Section 6.1 and summarized in **Tables 6-8** and **6-9**.

6.2.4 Stormwater

The District does not currently supplement water supply demands through the capture and reuse of stormwater due to the underlying geology of the Nipomo Mesa.

6.2.5 Wastewater and Recycled Water

6.2.5.1 Recycled Water Coordination

The District currently operates two wastewater treatment facilities within the water service area. The Southland WWTF collects and treats wastewater from the majority of the District and discharges treated effluent back into the Santa Maria River Valley Groundwater Basin via percolation ponds. The Blacklake WRF treats wastewater through secondary treatment. The treated plant's effluent is discharged to the water hazards at Blacklake Golf Course. Water is extracted from the water hazards as necessary and discharged to a spray field. Blacklake WRF operates under Reclamation Orders from Regional Water Quality Control Board.

6.2.5.2 Wastewater Collection, Treatment, and Disposal

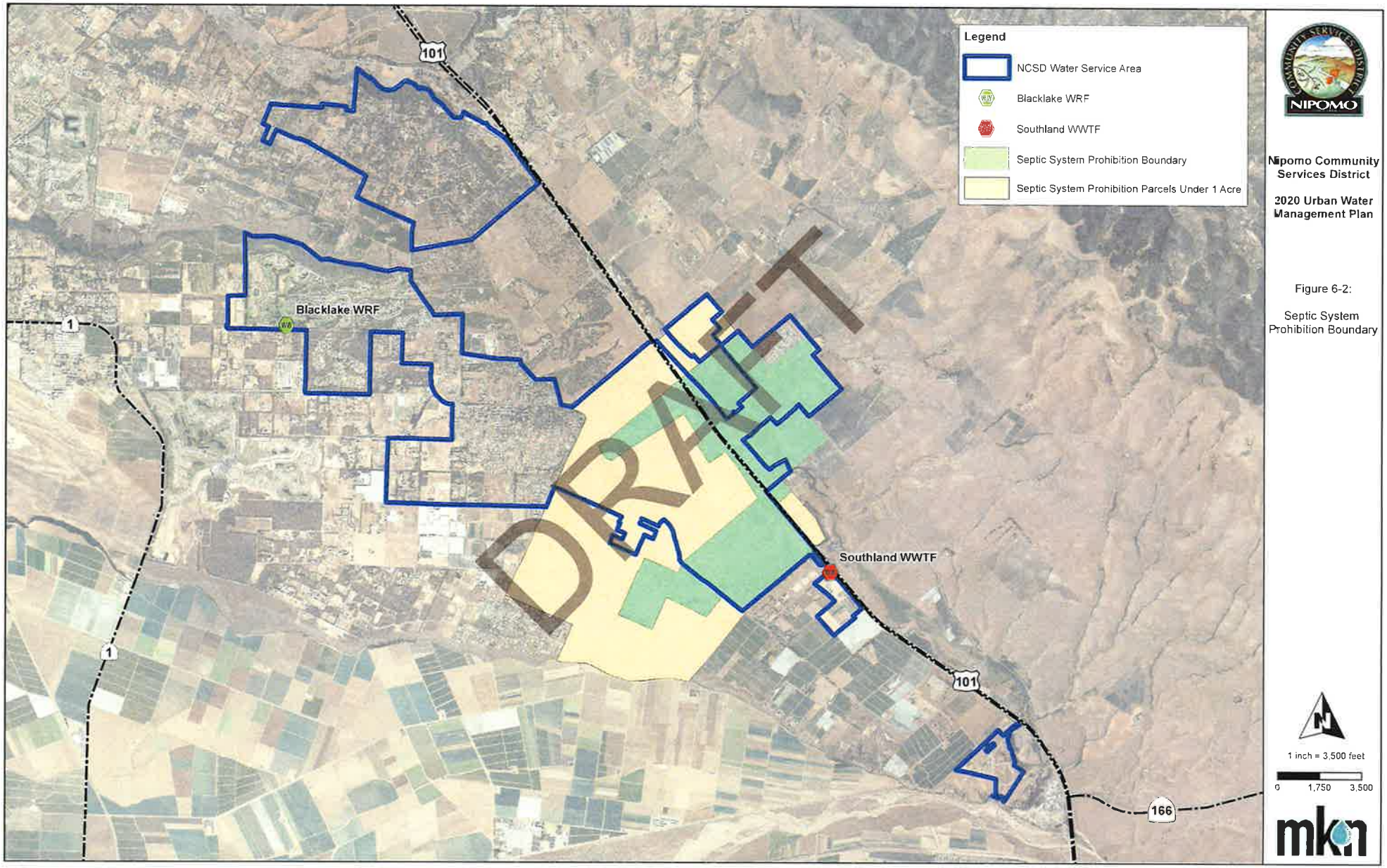
The District operates two wastewater collection systems within the water service area. The Town System collects wastewater on the easterly side of the service area from Orchard Road to Cedarwood Street and on the southerly side of the service area from Juniper Street to Southland Street. The Blacklake System collects wastewater from the Blacklake community north of Willow Road. However, it should be noted that the Blacklake WRF is planned to be decommissioned in 2024 and replaced with a new lift station and force main, which will convey wastewater to the Town System for treatment and disposal. **Table 6-2** provides an overview of the quantity of wastewater collected within the District water service area.

Table 6-2 Retail: Wastewater Collected Within Service Area in 2020						
☐	There is no wastewater collection system. The supplier will not complete the table below.					
Wastewater Collection			**Recipient of Collected Wastewater**			
Name of Wastewater Collection Agency	**Wastewater Volume Metered or Estimated?**	**Volume of Wastewater Collected from UWMP Service Area in 2020 (AF)**	**Name of Wastewater Treatment Agency Receiving Collected Wastewater**	**Treatment Plant Name**	**Is WWTP Located Within UWMP Area?**	**Is WWTP Operation Contracted to a Third Party?**
Nipomo CSD	Metered	554	Nipomo CSD	Southland WWTF	Yes	No
Nipomo CSD	Metered	52	Nipomo CSD	Blacklake WRF	Yes	No
Total Wastewater Collected from Service Area in 2020 (AF):		606				

Table 6-3 provides an overview of the quantity of wastewater treated and discharged within the District's water service area.

Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2020								
☐	No wastewater is treated or disposed of within the UWMP service area. The supplier will not complete the table below.							
WWTP Name	**Discharge Location Name**	**Discharge Location Description**	**Method of Disposal**	**WWTP Outside the Service Area?**	**Treatment Level**	**2020 Volumes (AF)**		
						WW Treated	**Discharged Treated WW**	**Recycled Within Service Area**
Southland WWTF	Infiltration Ponds onsite	Southland WWTF #R3-2012-0003	Perc. ponds	No	Secondary, Undisinfected	554	554	0
Blacklake WRF	Treated effluent storage ponds onsite	Treated effluent storage ponds onsite	Other	No	Secondary, Disinfected - 23	52	52	0
					Total (AF)	**606**	**606**	**0**

It should be noted that a portion of the District water service area is not sewered and utilizes onsite septic systems. **Figure 6-2** provides an overview of the existing septic system prohibition boundary and location of the two existing wastewater treatment facilities.


Legend
NCSD Water Service Area
Blacklake WRF
Southland WWTF
Septic System Prohibition Boundary
Septic System Prohibition Parcels Under 1 Acre
Blacklake WRF
Southland WWTF
101
1
166
DRAFT
Nipomo Community Services District
2020 Urban Water Management Plan
Figure 6-2:
Septic System Prohibition Boundary
1 inch = 3,500 feet
0
1,750
3,500
mkn

6.2.5.3 Recycled Water System Description

The District owns and operates the Blacklake WRF, as described in Section 6.2.5.2. Treated water use within the District water service area is limited to the treated water discharged to the Blacklake Golf Course spray field. **Table 6-4** provides a summary of current and projected recycled water use within the golf course.

However, as stated in Section 6.2.5.1 the Southland WWTF collects and treats wastewater from the majority of the District and discharges treated effluent back into the Santa Maria River Valley Groundwater Basin via percolation ponds. Per the Final Judgement for the Santa Maria River Valley Groundwater Basin this "return flow" is credited towards the District's overall consumptive use. Sections 5.6 and 5.7 of the current NMMA annual report[3] states the following:

> *Wastewater discharges include wastewater effluent discharged by the six wastewater treatment facilities located within the NMMA, and ocean discharge of treated wastewater from the P66 industrial facility. In addition, discharges are estimated for septic tanks where centralized sewer service is not provided. The WWTFs include the Southland WWTF, the Blacklake WWTF, the Cypress Ridge WWTF, the Woodlands WWTF, and La Serena and Osage (GSWC). The Southland WWTF discharges treated wastewater into infiltration basins (see Section 3.1.11 Wastewater Discharge and Reuse). A portion of the water percolates and returns to the groundwater system and the remaining portion evaporates. The estimated percolation from Southland WWTF is 482 AF. GSWC delivered 741 AF of groundwater to their Nipomo system customers, where a small number of customers are connected to the Southland WWTF. The amount of groundwater produced that was delivered to customers connected to the Southland WWTF was 112 AF in CY 2020. The remaining GSWC Nipomo system customers discharged an estimated 277 AF of wastewater to septic systems. GSWC's La Serena and Osage iron and manganese removal treatment facilities treat water from GSWC's La Serena and Osage wells. Filter backwash water is discharged to percolation ponds, where water infiltrates into the basin. La Serena discharged 9 AF and Osage discharged 1 AF. The total WWTF effluent to infiltration basins in the NMMA was 504 AF (Table 3-9). The treated effluent from Blacklake WWTF (42 AF), Cypress Ridge WWTF (31 AF), and Woodlands WWTF (92 AF) is used to irrigate golf course landscaping. The estimated amount of wastewater discharge from indoor use by rural residences is 183 AF. The wastewater discharged in septic systems percolates downward and may recharge the shallow aquifers, the deep aquifers, or become shallow subsurface flow outside the NMMA.*
>
> *Return flow is defined as the amount of recharge to the aquifers resulting from applied water that percolates past the root zone to recharge the aquifer(s). This functional definition differs somewhat from that used in the Stipulation to apportion the right to use water that was imported to the basin. However, the physical process of recharge by return flow of applied water is the same regardless of where the water originated.*
>
> *The TG currently assumes that, all groundwater produced for outdoor use is attributable to sustaining plant life and replenishing soil profile storage, and that only rainfall generates percolation. Rural residences produced 203 AF of groundwater for indoor use in CY 2020. The estimated amount of return flow in CY 2020 from indoor use by rural residences is 183 AF, which is 90 percent of the 203 AF estimated indoor water use of rural residents plus the 250 AF of estimated return flow from indoor water use of GSWC's Nipomo system. There is no return flow from P66's groundwater production. The estimated total return flow from applied water, which includes 433 AF from indoor use and 504 AF from infiltration at WWTPs, is 937 AF in CY 2020.*
>
> *The estimated consumptive use of water in the NMMA, computed by subtracting the total return flow (937 AF) from the groundwater production (14,313 AF), is 13,376 AF in CY 2020.*

While groundwater recharge via wastewater treatment percolation basins is not considered a reportable recycled water use by DWR, the Superior Court of the State of California considers return flow to the groundwater basin as a beneficial use of recycled water.

[3] Nipomo Mesa Management Area 13th Annual Report Calendar Year 2020 Prepared by NMMA Technical Group Submitted April 2021

6.2.5.4 Potential, Current, and Projected Recycle Water Uses

Table 6-4 provides a summary of the expected recycled water use within the Blacklake service area through 2045.

Table 6-4 Retail: Current and Projected Recycled Water Direct Beneficial Uses Within Service Area							
☐	Recycled water is not used and is not planned for use within the service area of the supplier. The supplier will not complete the table below.						
Name of Agency Producing (Treating) the Recycled Water:	Nipomo Community Services District						
Name of Supplier Operating the Recycled Water Distribution System	Nipomo Community Services District						
Supplemental Water Added in 2020	N/A						
Source of 2020 Supplemented Water	N/A						
Beneficial Use Type	**Level of Treatment**	**2020**	**2025**	**2030**	**2035**	**2040**	**2045**
Golf course irrigation	Secondary, disinfected-23	52	0	0	0	0	0
	Total (AF):	52	0	0	0	0	0
NOTES: N/A = not applicable							

Table 6-5 provides a summary of the 2015 UWMP Recycled Water Use Projections compared to the 2020 actual use.

Table 6-5 Retail: 2015 UWMP Recycled Water Use Projection Compared to 2020 Actual		
☐	Recycled water was not used in 2015 nor projected for use in 2020 The supplier will not complete the table below.	
Use Type	**2015 Projection for 2020**	**2020 Actual Use**
Golf course spray field	50	52
Total (AF):	50	52

6.2.5.5 Actions to Encourage and Optimize Future Recycled Water Use

It should be noted that the District is currently designing a new sewer lift station (at the Blacklake WRF) and sewer force main that will convey raw wastewater from the Blacklake development to the District's Town collection system. The existing Blacklake WRF will be decommissioned and land disposal will no longer be utilized. The District does not plan to expand recycled water use within its service area, as noted in **Table 6-6**.

Table 6-6 Retail: Methods to Expand Future Recycled Water Use			
☑	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
N/A	Provide page location of narrative in UWMP		
Name of Action	**Description**	**Planned Implementation Year**	**Expected Increase in Recycled Water Use**
N/A	N/A	N/A	N/A
		Total	N/A
NOTES: N/A = not applicable			

6.2.6 Desalinated Water Opportunities

The District has completed construction of the NSWP to receive water from the City of Santa Maria. The District is not currently pursuing desalinated water, but did review this opportunity as part of the 2007 Water Master Plan.

6.2.7 Water Exchanges and Transfers

The District led the design and construction effort for the NSWP to bring wholesale water from the City of Santa Maria to the Nipomo Mesa as described in Section 6.1. Participating agencies of the NSWP include Golden State Water Company (GSWC) and Woodlands Mutual Water Company (WMWC). GSWC and WMWC have committed to purchase 833 AYF, but are not currently receiving water directly from the NSWP. The District is currently in design of three interconnections to deliver supplemental water to these purveyors. GSWC and WMWC demands/allocations of NSWP are included in the future demand and supply projections shown in **Tables 4-2** and **6-9** respectively.

In addition, the District currently has two emergency intertie connections with GSWC and WMWC through the existing distribution system.

6.2.8 Future Water Projects

As described in Section 6.1, the District has a wholesale water supply agreement with the City of Santa Maria to receive water from the City through the NSWP pipeline and associated facilities. The Wholesale Agreement dictates a minimum water delivery to the District of 2,500 AFY by fiscal year 2025-26 with a maximum allowable delivery of 6,200 AFY. It should be noted that the existing Santa Maria River crossing, pump station and portion of transmission pipeline were designed to deliver 6,200 AFY. However, the license agreement between Santa Barbara County and the District would need to be amended to allow the District full use of the NSWP's designed capacity (6,200 AFY) in addition to pump replacements and additional system pipelines. **Table 6-7** identifies the additional water supply deliveries and planned implementation years to reach the full 6,200 AFY allocation from the NSWP.

Table 6-7 Retail: Expected Future Water Supply Projects or Programs						
☐	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.					
☐	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.					
Page 6-2	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other agencies?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type	Expected Increase in Water Supply to Agency (AFY)
NSWP	Yes	City of Santa Maria		2025	Average Year	1,500
NSWP	Yes	City of Santa Maria		As needed	Average Year	500
NSWP	Yes	City of Santa Maria		As needed	Average Year	3,200

6.2.9 Summary of Existing and Planned Sources of Water

6.2.9.1 Description of Supplies

The District's existing water supply sources include local groundwater and imported surface water. Based on historical production information provided by the District, management of the Santa Maria Valley Groundwater Basin through

the NMMA, ongoing water resources planning efforts, and existing infrastructure in place for the NSWP it was assumed that the District's water supplies are considered reliable and 100% available during normal, single and multiple drought conditions.

6.2.9.2 Quantification of Supplies

Table 6-8 provides an overview of the actual source and volume of water for the year 2020 to serve the District customer base.

Table 6-8 Retail: Water Supplies — Actual		
Water Supply	**2020**	
	Actual Volume	Water Quality
Groundwater	1,007	Drinking Water
Purchased or Imported Water	1,041	Drinking Water
Total (AF)	**2,048**	

Table 6-9 provides an overview of the projected groundwater and imported water supplies available to serve future demands within the District service area.

Table 6-9 Retail: Water Supplies — Projected						
Water Supply	**Description**	**Projected Water Supply**				
		2025	**2030**	**2035**	**2040**	**2045**
		Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume
Groundwater	Santa Maria River Valley Groundwater Basin	2,533	2,533	2,533	2,533	2,533
Purchased or Imported Water	NSWP (District allocation)	2,167	2,167	2,167	2,167	2,167
Purchased or Imported Water	NSWP (WMWC and GSWC allocation)	833	833	833	833	833
	Subtotal (AF)	**5,533**	**5,533**	**5,533**	**5,533**	**5,533**
Purchased or Imported Water*	NSWP (Future Supply Project)	3,200	3,200	3,200	3,200	3,200
	Total (AF)	**8,733**	**8,733**	**8,733**	**8,733**	**8,733**
NOTES: *Additional 3,200 AFY NSWP delivery is currently limited by Santa Barbara County license agreement and required water system improvements to accept the full delivery of imported water.						

As described in Section 6.2.1, the District will be required to take 2,500 AFY of supplemental water from the City to meet contractual obligations as part of the Wholesale Agreement. There is an additional 500 AFY of supplemental water available through the NSWP that is being utilized by the District to serve future demands on an as needed basis. As stated in Section 6.2.2, the District is assuming a maximum groundwater pumping limit of 2,533 AFY from the Santa Maria Groundwater Basin. However, that pumping limit may be reduced based on the annual water shortage conditions identified by NMMA in order for the District to reach its voluntary groundwater reduction goal. It should be noted the additional 3,200 AF of supplemental water is contingent on the completion of additional system improvements to deliver water to the existing service area and amending the license agreement with Santa Barbara County.

6.2.10 Special Conditions

The District does not have any special conditions that may affect future water supplies and does not anticipate any change.

6.2.10.1 Climate Change Effects

With respect to climate change, the District has not conducted an official climate change vulnerability or risk assessment for the existing water service area. However, climate change considerations for the District's groundwater supply are incorporated into the Nipomo Mesa Management Area Annual Reports and Chapter 7 of the 13th Annual Report has been included in Appendix A.

6.2.10.2 Regulatory Conditions and Project Development

This District does not foresee any emerging regulatory conditions that would negatively impact water supplies. Planned future projects are discussed in Section 6.2.8 and 6.2.9.

6.2.10.3 Other Locally Applicable Criteria

The District does not foresee any other locally applicable criteria that may affect characterization and availability of identified water supply. However, as mentioned in the NMMA 13th Annual Report, the Santa Maria Groundwater Basin is adjudicated and coordination with the NMMA Technical Group will continue with respect to groundwater management.

6.3 Submittal Tables

All required submittal tables for the District's water supply characterization are included throughout this chapter.

6.4 Energy Intensity

The District's water supply facilities include four active groundwater production wells, and the Joshua Road Pump Station. Electrical usage data was provided by the District for each facility in operation. There are three reporting options based on available data which include the following:

- Option 1: Energy Intensity – Water Supply Process Approach by the individual Water Management Processes
- Option 2: Energy Intensity – Total Utility Approach using the sum of all Water Management Processes and total energy for the system
- Option 3: Energy Intensity – Multiple Water Delivery Products by breaking down percentages for retail potable, retail non-potable, agricultural, etc.

Table 6-10 summarizes the District's supply facilities energy intensity using the total utility approach.

Table 6-10: Recommended Energy Intensity - Total Utility Approach

Enter Start Date for Period	1/1/2020	**Urban Water Supplier Operational Control**		
End Date	12/31/2020	**Sum of all Water Processes**	**Non-Consequential Hydropower**	
		Total Utility	**Hydropower**	**Net Utility**
Volume of Water Entering Process (AF)		2,098		
Energy Consumed (kWh)		1,435,973		
Energy Intensity (kWh/AF)		684		

CHAPTER 7 WATER SERVICE RELIABILITY AND DROUGHT RISK ASSESSMENT

New Requirements for 2020 Update

Per the Water Code, the following new requirements are necessary for this chapter of the UWMP 2020 update.

- The new UWMP requirements is manifest in the application of new criteria to the Water Use Analysis in Chapter 4, the Water Supply Analysis in Chapter 6, and the resulting water service reliability assessment in this chapter—including the requirement for a five-consecutive dry years analysis compared to the 2015 UWMPs, which included only a three-year analysis.
- A new Drought Risk Assessment (DRA) is now also required and it must be prepared as a component of the 2020 UWMP. The DRA requires a methodical assessment of water supplies and water uses under an assumed drought period that last five consecutive years. The newly required WSCP is described in Chapter 8.

7.1 Introduction

Assessing water service reliability is the fundamental purpose for an urban water supplier to prepare and update their UWMP. Water service reliability reflects the Supplier's ability to meet the water needs of its customers with water supplies under varying conditions. The District's UWMP considers the reliability of meeting customer water use by analyzing plausible hydrological variability, regulatory variability, climate conditions, and other factors that could affect the District's water supply and its customers' water uses. This chapter synthesizes the details imbedded in the other chapters (including 4, 6, 8, and 9) and it provides a rational basis for future decision-making related to supply management, demand management, and project development. In addition, this chapter includes a new requirement for a Drought Risk Assessment (DRA) that enables the District to evaluate its risk under a severe drought period lasting for the next five consecutive years.

7.2 Water Service Reliability Assessment

As described in Chapter 6, the District's water supply portfolio consists of groundwater from the Santa Maria Valley Groundwater Basin with a maximum pumping limit of 2,533 AFY and imported water from the NSWP with a maximum current delivery of 3,000 AFY.

To identify potential water supply reliability concerns, the District completed a preliminary climate change vulnerability screening analysis (including impacts from extreme heat, water quality, sea level rise, flooding, and wildfire) for its supplies as shown in **Table 7-0**.

Table 7-0: Climate Change Vulnerability Screening		
Preliminary Assessment	**Groundwater**	**Imported Water**
	Level of Risk	**Level of Risk**
I. Water Supply and Demand		
Are the water supply diversions sensitive to climate change?	3	2
Is the water supply source affected by urban or agricultural water demand that might be climate sensitive?	2	2
Is groundwater a major supply source?	5	3
Does the water supply source rely on or could it be affected by snowmelt?	Not applicable	3
Does the water supply source come from or could it be affected by coastal aquifers? Has saltwater intrusion been a problem in the past?	2	Not applicable
Does the water supply source rely on or could it be affected by changes in stored water supplies?	2	2
II. Extreme Heat		
Could extreme heat impact operations of the water supply project or diversions?	Not applicable	Not applicable
Does the supply source rely on equipment or infrastructure that could be impacted by extreme or prolonged heat?	Not applicable	Not applicable
III. Water Quality		
Could water quality issues, such as low dissolved oxygen, algal blooms, disinfectant biproducts affect the water supply source?	Not applicable	Not applicable
Could reduction in assimilative capacity of a receiving water body affect the water supply source?	Not applicable	1
Could the water supply source be affected by water quality shifts during rainfall/runoff events?	2	1
IV. Sea Level Rise		
Is any of the water supply source infrastructure located in area that could be exposed to rising tides?	Not applicable	Not applicable
Could coastal erosion affect the water supply source?	Not applicable	Not applicable
Is the water supply source dependent on coastal structures, such as levees or breakwaters, for protection from flooding?	Not applicable	Not applicable
V. Flooding		
Is the water supply or any of its associated infrastructure located within the 200-year floodplain? Does the water supply source rely on flood protection infrastructure such as levees or dams?	Not applicable	Not applicable
VI. Wildfire		
Is the water supply source located in an area that is expected to experience an increase in wildfire activity or severity? Would a wildfire result in damage to the water supply source infrastructure or interruption of its ability to perform as designed? Could the water supply source be affected by an increase in wildfire activity or severity in an upstream watershed or other adjacent area?	Not applicable	1
NOTES: 1. SMVGWB = Santa Maria River Valley Groundwater Basin 2. NSWP = Nipomo Supplemental Water Project 3. Level of Risk: 1 - low, 3-medium, 5-high		

Based on redundancy within the Joshua Road Pump Station, multiple wells sites throughout the system, and groundwater management practices under the NMMA, the District's water supply sources are considered 100% reliable and available during normal, single and multiple dry year conditions.

The water service reliability assessment summarizes the District's expected water service reliability for a normal year, single dry year, and five consecutive dry years projections for 2025, 2030, 2035, and at least through 2040.

7.2.1 Service Reliability - Constraints on Water Sources

The District's water supply portfolio consists of groundwater from the Santa Maria Valley Groundwater Basin with a maximum current pumping limit of 2,533 AFY. However, as described in Section 6.2.2.2, the NMMA TG determines when conditions of "Potentially Severe Water Shortage Conditions" or "Severe Water Shortage Conditions" have been reached within the Santa Maria Valley Groundwater Basin. Currently the basin is within the Severe Water Shortage Conditions per the NMMA TG. This is the sixth consecutive year of Severe Water Shortage Conditions, which signifies a Stage IV NMMA Water Shortage Response. Per the NMMA drought condition level, the current self-imposed groundwater production limit is 1,267 AFY. Depending on the drought level defined by NMMA, the District's groundwater pumping limitation could range from 2,533 AFY to 1,013 AFY.

With respect to water quality, the District's Consumer Confidence Report (2020) in Appendix I describes existing water quality. As shown the District's water supply meets all United States Environmental Protection Agency (US EPA) and SWRCB water quality standards.

7.2.2 Service Reliability - Year Type Characterization

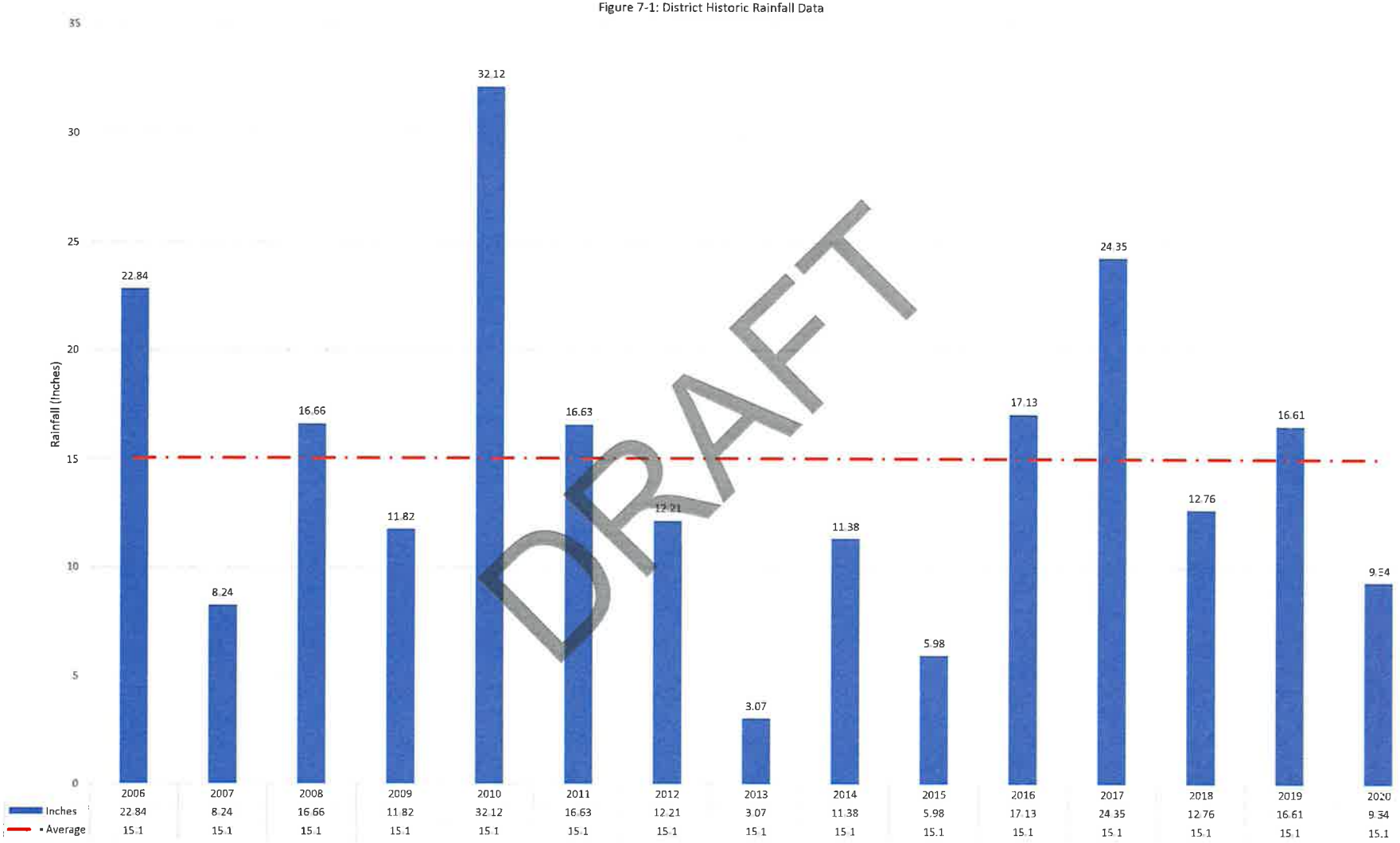
To determine typical average (normal), single dry year, and five consecutive dry years within the service area historical rainfall data was reviewed from the precipitation gauge station Nipomo East #728. The results of the historical rainfall data review are presented in **Figure 7-1**. **Table 7-1** identifies the basis of water year data as required by the UWMP and identifies the volume of the District's water supply that was "produced" to serve demands during historical normal, single, and multiple dry year conditions.

Table 7-1 Retail: Basis of Water Year Data

Year Type	Base Year[1]	Available Supplies if Year Type Repeats	
		☑	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP
		☐	Quantification of available supplies is provided in this table as either volume only, percent only, or both.
		Volume Available (AF)	% of Average Supply
Average Year	2011	2,488	100
Single-Dry Year	2013	2,434	98
Multiple-Dry Years 1st Year	2012	2,340	94
Multiple-Dry Years 2nd Year	2013	2,434	98
Multiple-Dry Years 3rd Year	2014	2,303	93
Multiple-Dry Years 4th Year	2015	1,810	73
Multiple-Dry Years 5th Year	2016	1,690	68

NOTES: Base year represents the typical average year, single dry year, and five consecutive dry years within the service area based on rainfall data from 2006 to 2020.

Figure 7-1: District Historic Rainfall Data



Based on variations in groundwater pumping limitations since the Final Judgment of the Santa Maria Valley Groundwater Basin and increased deliveries of imported water from the NSWP, the "Volume Available" in **Table 7-1** are not representative of current and/or future supply availability for the District. The values presented in **Table 7-1** summarizes the actual water supply produced during historical normal, single, and multiple-dry year conditions to serve customer demands. Because of the District's forward thinking, regional water resource planning efforts, and groundwater management they have developed a robust water supply portfolio for serving existing and future customer demands. In addition, as seen in calendar years 2015 – 2016, the District's existing water shortage policies and demand management measures (DMMs) were effective in implementing consumer conservation efforts to reduce overall system demand during state-wide drought conditions.

7.2.3 Water Service Reliability

7.2.3.1 Water Service Reliability – Normal Year Supply

Table 7-2 provides a summary of the District's projected supply and water demands through 2045. The future demand projections are based on future population projections as described in Section 3.4.1. For normal year conditions it was assumed that future supply projections are based on the reasonably available groundwater and imported water volumes as described in Section 6.2.9 and that NMMA would declare a Stage 1 drought level with no voluntary groundwater reduction goals.

Table 7-2 Retail: Normal Year Supply and Demand Comparison

	2025	2030	2035	2040	2045
Groundwater Supply	2,533	2,533	2,533	2,533	2,533
Imported Water Supply	3,000	3,000	3,000	3,000	3,000
Total	**5,533**	**5,533**	**5,533**	**5,533**	**5,533**
District (Existing and Infill)	2,118	2,186	2,253	2,320	2,388
Annexations Under Review	176	352	352	352	352
Sales to Other Agencies	833	833	833	833	833
Total	**3,127**	**3,371**	**3,438**	**3,505**	**3,573**
Difference (AF)	**2,406**	**2,162**	**2,095**	**2,028**	**1,960**

Based on the analysis of the District's projected demands and water supply, there is sufficient resources to serve future demands during normal year conditions.

7.2.3.2 Water Service Reliability – Single Dry Year

For a single dry year it was assumed that NMMA would declare a Stage 2 drought level requiring a voluntary groundwater reduction goal of 20% resulting in 2,027 AFY of groundwater availability. **Table 7-3** provides a summary of the District's projected supply and demand through 2045 for a single dry year.

Table 7-3 Retail: Single Dry Year Supply and Demand Comparison

	2025	2030	2035	2040	2045
Groundwater Supply	2,027	2,027	2,027	2,027	2,027
Imported Water Supply	3,000	3,000	3,000	3,000	3,000
Total	**5,027**	**5,027**	**5,027**	**5,027**	**5,027**
District (Existing and Infill)	2,118	2,186	2,253	2,320	2,388
Annexations Under Review	176	352	352	352	352
Sales to Other Agencies	833	833	833	833	833
Total	**3,127**	**3,371**	**3,438**	**3,505**	**3,573**
Difference (AF)	**1,900**	**1,656**	**1,589**	**1,522**	**1,454**

Based on the analysis of the District's projected demands and water supply, there is sufficient resources to serve future demands during a single dry year.

7.2.3.3 Water Service Reliability – Five Consecutive Dry Year Supply and Demand Comparison

For five consecutive dry years, it was assumed that NMMA would declare a Stage 2 drought level for the first year and increase the voluntary groundwater reduction goals in subsequent years up to 60% (1,013 AFY from groundwater). **Table 7-4** provides a summary of the District's projected supply and demand through 2045 for multiple dry years.

Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison

		2025	2030	2035	2040	2045
First year (NMMA Stage 2)	Groundwater Supply	2,027	2,027	2,027	2,027	2,027
	Imported Water Supply	3,000	3,000	3,000	3,000	3,000
	Total	**5,027**	**5,027**	**5,027**	**5,027**	**5,027**
	District (Existing and Infill)	2,118	2,186	2,253	2,320	2,388
	Annexations Under Review	176	352	352	352	352
	Sales to Other Agencies	833	833	833	833	833
	Total	**3,127**	**3,371**	**3,438**	**3,505**	**3,573**
	Difference (AF)	**1,900**	**1,656**	**1,589**	**1,522**	**1,454**
Second year (NMMA Stage 3)	Groundwater Supply	1,733	1,733	1,733	1,733	1,733
	Imported Water Supply	3,000	3,000	3,000	3,000	3,000
	Total	**4,733**	**4,733**	**4,733**	**4,733**	**4,733**
	District (Existing and Infill)	2,118	2,186	2,253	2,320	2,388
	Annexations Under Review	176	352	352	352	352
	Sales to Other Agencies	833	833	833	833	833
	Total	**3,127**	**3,371**	**3,438**	**3,505**	**3,573**
	Difference (AF)	**1,606**	**1,362**	**1,295**	**1,228**	**1,160**
Third year (NMMA Stage 4)	Groundwater Supply	1,267	1,267	1,267	1,267	1,267
	Imported Water Supply	3,000	3,000	3,000	3,000	3,000
	Total	**4,267**	**4,267**	**4,267**	**4,267**	**4,267**
	District (Existing and Infill)	2,118	2,186	2,253	2,320	2,388
	Annexations Under Review	176	352	352	352	352
	Sales to Other Agencies	833	833	833	833	833
	Total	**3,127**	**3,371**	**3,438**	**3,505**	**3,573**
	Difference (AF)	**1,140**	**896**	**829**	**762**	**694**
Fourth year (NMMA Stage 5)	Groundwater Supply	1,013	1,013	1,013	1,013	1,013
	Imported Water Supply	3,000	3,000	3,000	3,000	3,000
	Total	**4,013**	**4,013**	**4,013**	**4,013**	**4,013**
	District (Existing and Infill)	2,118	2,186	2,253	2,320	2,388
	Annexations Under Review	176	352	352	352	352
	Sales to Other Agencies	833	833	833	833	833
	Total	**3,127**	**3,371**	**3,438**	**3,505**	**3,573**
	Difference (AF)	**886**	**642**	**575**	**508**	**440**
Fifth year (NMMA Stage 5)	Groundwater Supply	1,013	1,013	1,013	1,013	1,013
	Imported Water Supply	3,000	3,000	3,000	3,000	3,000
	Total	**4,013**	**4,013**	**4,013**	**4,013**	**4,013**
	District (Existing and Infill)	2,118	2,186	2,253	2,320	2,388
	Annexations Under Review	176	352	352	352	352
	Sales to Other Agencies	833	833	833	833	833
	Total	**3,127**	**3,371**	**3,438**	**3,505**	**3,573**
	Difference (AF)	**886**	**642**	**575**	**508**	**440**

Based on the analysis of the District's projected demands and water supply, there is sufficient resources to serve future demands during multiple dry years.

7.2.4 Description of Management Tools and Options

The District coordinates closely with the City of Santa Maria, GSWC, GSWCCR, and WMWC. The District has participated in the following regional water resource planning efforts:

- Nipomo Mesa Management Area (NMMA) within the Santa Maria River Valley Groundwater Basin
- Nipomo Supplemental Water Project (NSWP)
- San Luis Obispo County Integrated Regional Water Management (IRWM) Plan
- San Luis Obispo Regional Water Management Group (RWMG)

7.3 Drought Risk Assessment

7.3.1 Data, Methods, and Basis for Water Shortage Condition

The following information was used to support the District's DRA to identify water production and consumption to its customers and determine restrictions to supply source:

- Annual AWWA Water Loss Audit Worksheets
- Nipomo Mesa Management Area Annual Reports
- Historical rainfall data from the precipitation gauge station Nipomo East #728

7.3.2 DRA Individual Water Source Reliability

As identified in Section 7.2.2, the District's supplies have exceeded demands, even in dry years. The NMMA Water Shortage Response Stages have been effective in decreasing demands. On this basis, the District's supply is presented as 100% reliable for single and multiple dry year periods.

7.3.3 Total Water Supply and Use Comparison

Sustainable management of the District's groundwater resources and imported supplies will allow the District to serve existing and future water demands during normal, single-dry, and multiple-dry years. Per NMMA, the Santa Maria Valley Groundwater Basin is in its' sixth consecutive year of Severe Water Shortage Conditions, which signifies a Stage 4 NMMA Water Shortage Response. To complete the five-year drought risk assessment, it was assumed that the District would have a voluntary groundwater reduction goal of 1,267 AFY (50%), reflecting a Stage IV NMMA Water Shortage Response. Per the wholesale water agreement delivery schedule for the NSWP, it was assumed that the District would have access to a minimum supplemental water delivery of 1,000 AFY from 2021 to 2024 and 2,500 AFY starting in July 2025. However, if needed the District can increase deliveries over 1,000 AFY (for years 2021 to 2024) if required to serve future demands. **Table 7-5** provides the five-year drought risk assessment for the District from 2021 to 2025.

Table 7-5: Five Year Drought Risk Assessment Tables to address Water Code Section 10635(b)	
2021	**Total**
Gross Water Use	2,062
Supply Total (Groundwater)	1,267
Supply Total (Imported)	1,000
Surplus/Shortfall w/o WSCP Action	205
WSCP – supply augmentation benefit	0
WSCP – use reduction savings benefit	0
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0
2022	**Total**
Gross Water Use	2,076
Supply Total (Groundwater)	1,267
Supply Total (Imported)	1,000
Surplus/Shortfall w/o WSCP Action	191
WSCP – supply augmentation benefit	0
WSCP – use reduction savings benefit	0
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0
2023	**Total**
Gross Water Use	2,090
Supply Total (Groundwater)	1,267
Supply Total (Imported)	1,000
Surplus/Shortfall w/o WSCP Action	177
WSCP – supply augmentation benefit	0
WSCP – use reduction savings benefit	0
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0
2024	**Total**
Gross Water Use	2,104
Supply Total (Groundwater)	1,267
Supply Total (Imported)	1,000
Surplus/Shortfall w/o WSCP Action	163
WSCP – supply augmentation benefit	0
WSCP – use reduction savings benefit	0
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0
2025	**Total**
Gross Water Use (NCSD)	2,118
Gross Water Use (Annexations Under Review)	176
Gross Water Use (WMWC and GSWC)	833
Supply Total (Groundwater)	1,267
Supply Total (Imported)	2,500
Surplus/Shortfall w/o WSCP Action	640
WSCP – supply augmentation benefit	0
WSCP – use reduction savings benefit	0
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0

CHAPTER 8 WATER SHORTAGE CONTINGENCY PLAN

New Requirements

Per the Water Code, the following new requirements are necessary for this chapter of the UWMP 2020 update.

- Key attributes of its water supply reliability analysis conducted pursuant to Water Code Section 10635. [Water Code Section 10632(a)(1)]
- Six standard water shortage levels corresponding to progressive ranges of up to 10-, 20-, 30-, 40-, and 50-percent shortages and greater than 50-percent shortage. [Water Code Section 10632 (a)(3)(A)]
- Locally appropriate "shortage response actions" for each shortage level, with a corresponding estimate of the extent the action will address the gap between supplies and demands. [Water Code Section 10632 (a)(4)]
- Procedures for conducting an annual water supply and demand assessment with prescribed elements. Under Water Code Section 10632.1, urban water Suppliers are required to submit, by July 1 of each year, beginning in the year following adoption of the 2020 UWMP, an annual water shortage assessment report to the California Department of Water Resources (DWR). [Water Code Section 10632 (a)(2)]
- Communication protocols and procedures to inform customers, the public, and government entities of any current or predicted water shortages and associated response actions. [Water Code Section 10632 (a)(5)]
- Monitoring and reporting procedures to assure appropriate data is collected to monitor customer compliance and to respond to any state reporting requirements. [Water Code Section 10632(a)(9)]
- A reevaluation and improvement process to assess the functionality of its WSCP and to make appropriate adjustments as may be warranted. [Water Code Section 10632(a)(10)]

8.1 Water Supply Reliability Analysis

As described in Chapter 7 of this UWMP, the District's water supply has been determined to be reliable. More detail about this section can be found in the District's WSCP in Appendix J.

8.2 Annual Water Supply and Demand Assessment Procedures

In accordance with CWC 10632, the District will conduct an annual water supply and demand assessment, or annual assessment by July 1st of each year. The District will draft and prepare a written report that discusses the results of the annual water supply and demand assessment. Descriptions of the methodology, key data inputs, and a timeline for the annual assessment can be found in the WSCP in Appendix J.

8.2.1 Decision- Making Process

The written decision-making process can be found in the WSCP.

8.2.2 Data and Methodologies

The data and methodologies can be found in the WSCP.

8.3 Six Standard Water Shortage Levels

This WSCP identifies water conservation measures and progressive restrictions on water use to enable the District to implement water management measures in a fair and orderly manner for the benefit of the public in accordance with CWC §10632(a)(3). This WSCP establishes six (6) stages of drought response actions that could be voluntarily implemented by the District in times of shortage, with increasing restrictions on water use in response to decreasing

supplies. This WSCP includes both voluntary and mandatory water use reductions depending on the causes, severity, and anticipated duration of the water supply shortage. Water use reduction stages may be triggered by contamination in one water source, combination of sources, or during times that a shortage is declared by the NMMA, District, State, or Federal government. Because shortages overlap stages, triggers automatically implement the more restrictive stage. Specific criteria for triggering the District's water use reduction stages are shown in **Table 8-1** below.

Table 8-1: Water Shortage Contingency Plan Levels

Shortage Level	Percent Shortage Range	Shortage Response Actions
1	Up to 10%	Always in place with voluntary measures and outreach.
2	Up to 20%	Potentially Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan with goal of voluntary 20% reduction in groundwater production.
3	Up to 30%	Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan with goal of voluntary 30% reduction in groundwater production.
4	Up to 40%	Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan with goal of voluntary 30% reduction in groundwater production.
5	Up to 50%	Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan, lasting more than 1 year from the initial declaration; or Severe Water Shortage declaration pursuant to NMMA declaration triggered by both the Key Well Index and the Coastal Area Criterion with goal of voluntary 50% reduction in groundwater production.
6	>50%	Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan, lasting more than 2 years from the initial declaration, based on both the Key Well Index and Coastal Area Criterion with goal of voluntary 60% reduction in groundwater production.

Figure 8-1 provides a comparison that shows the District's water shortage levels to those mandated by statute.

Figure 8-1: Comparison for the District's 2015 Shortage Levels and the 2020 WSCP Mandated Shortage Levels

Stages from 2015 UWMP			Crosswalk	2020 WSCP Mandated Shortage Levels			
Stage	**Percent Supply Reduction**	**Water Supply Condition**		**Stage**	**Percent Supply Reduction**	**Water Supply Condition**	**Mandatory compliance with water savings measures**
1	0%	Always in place	→	1	0% to 10%	Normal	Voluntary, always in place
2	20%	Potentially Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan.	→	2	10% to 20%	Slightly Restricted	Mandatory compliance
3	30%	Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan.	→	3	20% to 30%	Moderately Restricted	Mandatory compliance
4	50%	Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan, lasting more than 1 year from the initial declaration; or Severe Water Shortage declaration pursuant to NMMA declaration triggered by both the Key Well Index and the Coastal Area Criterion	→	4	30% to 40%	Restricted	Mandatory compliance
5	60%	Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan, lasting more than 2 years from the initial declaration, based on both the Key Well Index and Coastal Area Criterion.	→	5	40% to 50%	Severely Restricted	Mandatory compliance
			→	6	50% and above	Extremely Restricted	Mandatory compliance

8.4 Shortage Response Actions

8.4.1 Demand Reduction

Table 8-2 summarizes the restrictions and prohibitions on end uses during each stage of water shortage response implemented by the District in accordance with CWC §10632(a)(4)(B). The shortage response actions are aligned to the six water shortage levels with the goal of reducing the gap between supply and demand by the required amount per level.

Table 8-2 Demand Reduction Actions

Stage	Demand Reduction Actions	Estimated Extent of Reducing the Water Shortage Gap	Penalty, Charge, or Other Enforcement?
1	Other - Education for water conservation methods.	Low	No
1	Other - Public outreach for voluntary reduction in water use by 15%	Low	No
1	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	High	Yes
1	Landscape - Limit landscape irrigation to specific times	High	Yes
1	Landscape - Restrict or prohibit runoff from landscape irrigation	Medium	Yes
1	Water Features - Restrict water use for decorative water features, such as fountains	High	Yes
1	Landscape- Check all irrigation systems periodically	Low	Yes
2	All Stage 1 reduction actions	Medium	Yes
2	Water Features- Cover swimming pools and spas when not in use	Low	Yes
2	Other - Prohibit use of potable water for washing hard surfaces	Low	Yes
3	All Stage 1 and 2 reduction actions	High	Yes
3	Landscape - Limit landscape irrigation to specific days	High	Yes
3	Other- Prohibit use of hoses without automatic shut-off devices	High	Yes
3	Landscape - Other landscape restriction or prohibition	High	Yes
3	Other – Prohibit use of potable water for construction and dust control	Low	Yes
3	Other - Turn off all automated irrigation systems	High	Yes
3	Water Features – Prohibit water use for decorative water features, such as fountains	High	Yes
4	All Stage 1,2 and 3 reduction actions	Medium	Yes
4	Landscape - Other landscape restriction or prohibition	High	Yes
5	All Stage 1,2,3 and 4 reduction actions	Medium	Yes
5	Landscape- Other landscape restriction or prohibition	High	Yes
6	All Stage 1,2,3,4 and 5 reduction actions	Medium	Yes

A complete description of operational and mandatory restrictions issued by the District can be found in the WSCP.

8.4.2 Supply Augmentation

Table 8-3 summarizes the restrictions and prohibitions on end users during each stage of water shortage responses implemented by the District in accordance with CWC §10632(a)(4)(A).

Table 8-3: Supply Augmentation and Other Actions			
Stage	**Supply Augmentation Methods and Other Actions by Water Supplier**	**Estimated Extent of Reducing the Water Shortage Gap**	**Penalty, Charge, or Other Enforcement?**
All Stages	Expand Public Information Campaign	Medium	No
All Stages	Other - Demand Reduction Program	Medium	No
All Stages	Other - Use Prohibitions	Low	No
1 and 2	Other - Voluntary Water Use Reductions	Medium	No
3	Other - Flow Restriction	Medium	No
4	Other - Prohibit landscape irrigation	High	No
5 and 6	Other - Interrupt Irrigation Services	High	No

8.4.3 Operational Changes

In the event of an extreme water shortage, the District will implement some or all of the following operational changes in accordance with CWC §10632(a)(4)(C) and §10632.5(a):

- The District shall provide prompt notice to customer whenever the District obtains information that indicates a leak may exist within the end-user's exclusive control. The customer must repair all leaks within twenty-four (24) hours of notification by the District.
- Restrict or prohibit the issuance of new water services.

8.4.4 Additional Mandatory Restrictions

The District's customers shall comply to the mandatory water shortage response actions listed in **Table 8-2** associated with a level 3 or higher water shortage event in accordance with §10632(a)(4)(D).

8.4.5 Emergency Response Plan

A catastrophic event may result in a complete loss of District water supplies for a temporary period lasting from a day to a week or more. Examples of catastrophic events include earthquakes, widespread power outage, contamination, long-term drought, or loss of imported supplies. Through information included in billing inserts, and information on its website, the District encourages its customers to be prepared for emergencies and potential interruption of water supply system. The District has an Emergency Response Plan which provides guidance for emergency situations. In the event of a catastrophic emergency the District will immediately declare and enact level six (6) water shortage level and response actions, shown in **Table 8-3** until service is restored to pre-emergency conditions. More detail about this section can be found in the District's WSCP in Appendix J.

8.4.6 Seismic Risk Assessment and Mitigation Plan

The District completed their American's Water Infrastructure Act (AWIA) Risk and Assessment (RRA) in June 2021, which assessed seismic risk. In addition, the County of San Luis Obispo, in partnership with the District, developed a Multi-Jurisdictional Hazard Mitigation Plan (Hazard Plan), which evaluated seismic risk within District's service area. A summary of these seismic risk assessments can be found in the WSCP.

8.4.7 Shortage Response Action Effectiveness

The District will monitor and evaluate the effectiveness of the shortage response actions. In the event that the shortage response actions are not effective, the District will have the power to amend the WSCP. A more detailed description of the District's plan to monitor effectiveness can be found in the WSCP.

8.5 Communication Protocols

The District will inform customers, the public, and the necessary local, regional, and state government entities in regard to any current or predicted water shortages based on the results of the Annual Water Supply and Demand Assessment or in the event of an emergency. The District will also notify all necessary entities of any shortage response actions mandated in response to the Annual Assessment. A detailed communication plan can be found in the WSCP.

8.6 Compliance and Enforcement

The District's enforcement policies can be found in the WSCP.

8.7 Legal Authorities

The District has the power to declare a water shortage. See the WSCP for the District's declaration of a water shortage.

8.8 Financial Consequences of WSCP

The District is currently able to meet expenses with a combination of rates and reserves. The District has sufficient reserves and rate stabilization funds to meet its current near-term obligations; however, rates may need to be adjusted in the future, in accordance with Proposition 218, to mitigate future revenue reduction as a result of the WSCP.

8.9 Monitoring and Reporting

Monitoring and reporting procedures can be found in the WSCP.

8.10 WSCP Refinement Procedures

Refinement procedures can be found in the WSCP.

8.11 Special Water Feature Distinction

A description of special water features can be found in the WSCP.

8.12 Plan Adoption, Submittal and Availability

The procedures that were used to adopt the WSCP are detailed in the WSCP.

CHAPTER 9 DEMAND MANAGEMENT MEASURES

New Requirements for 2020 Update

There are no new plan preparation requirements from the 2020 UWMP guidance.

9.1 Demand Management Measures for Wholesale Suppliers

The District is not a wholesale agency and is not required by DWR to complete Section 9.1.

9.2 Existing Demand Management Measures for Retail Suppliers

The UWMP Act requires a discussion of Demand Management Measures (DMMs), including a description of each of the DMMs currently being implemented/scheduled for implementation, the schedule of implementation for all DMMs, and the methods, if any, the District will use to evaluate the effectiveness of DMMs.

9.2.1 Water Waste Prevention Ordinances

Ordinance 2015-122, adopted on August 12, 2015, updated the District's Water Shortage Response and Management Plan. A copy of the NCSD Code of Ordinances is available on the District's website:

- https://ncsd.ca.gov/resources/documents/district-codes/

New development is required to comply with County imposed building and planning water efficiency standards.

9.2.2 Metering

The District is 100% metered and water usage is tracked by usage type and service size, which includes single family residential, multi-family residential, commercial/institutional, landscape irrigation, and other.

9.2.3 Conservation Pricing

Table 9-2 summarizes the District's bimonthly fixed charges.

Table 9-2: NCSD Water Rate Structure

Meter Size	Fixed Charge
5/8 thru 1-inch	$53.70
1-1/2-inch	$75.76
2-inch	$106.42
3-inch	$223.04
4-inch	$312.99
6-inch	$631.28
8-inch	$995.04

9.2.4 Public Education and Outreach

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

- 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
- Annual 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)

Some public outreach events that NCSD participates in include the Harvest Festival and Creek Day.

9.2.5 Programs to Assess and Manage Distribution System Real Loss

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 has begun to install an automated distribution pipeline leak detection system that monitors the District' pipelines for leaks. The leak detection system consists of Permalog leak noise loggers that are deployed throughout the water distribution system. Data from the loggers is transmit through a licensed frequency wireless network to software that is monitored by Operations personnel.

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. The District completes 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 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 utility billing staff when current water use at a given meter varies significantly from the historic use, which indicates a leak is likely. The District has also begun implementing Advanced Metering Infrastructure (AMI) with 15 minute interval reads. When a leak is detected, the District contacts the customer with the information needed to find leaks. Statistics of the number of customers assisted with leak detection and repair is tracked by utility billing staff.

9.2.6 Water Conservation Program Coordination and Staffing Support

Water conservation activities are performed by utility billing staff, public outreach staff, operations staff, and engineering staff. BMP report preparation is coordinated by engineering staff.

9.2.7 Other Demand Management Measures

Other demand management measures that NCSD has implemented include the following:

Water Survey Programs for Single- Family Residential and Multi-Family Residential Customers:

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 utility billing staff 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. Statistics of the number of customers assisted with leak detection and repair is tracked by utility billing staff.

The County's Ordinance 3370 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 distributes and tracks aerators, hose nozzles, hose timers, moisture meters, and toilet tabs. The District plans to continue implementing this BMP through educational tools, giveaways and by supporting County Ordinance 3370.

Landscape Water Survey

The District provides giveaways, workshops, and educational tools to assist customers with their own landscape water surveys, thereby making customer landscapes more efficient. The District plans to continue implementing, giveaways, workshops, and educational tools.

High-Efficiency Clothes Washing Machine Financial Incentives Programs

The District provides a high efficiency washer rebate program through which it provides a rebate of $75 on new high efficiency washers.

Water Sense Specification (Wss) Toilets

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).

9.3 Reporting Information

9.3.1 Implementation Over the Past Five years

NCSD has implemented the required DMMs per CWC 10631 to achieve its water use targets pursuant to Section 10608.20 and described in section 5.

9.3.2 Implementation to Achieve Water Use Targets

NCSD has implemented the required DMM per CWC 10631 to achieve its water use targets pursuant to Section 10608.20. Baseline and target 2020 GPCD are described in section 5 of the UWMP. No additional DMMs are proposed to be implemented by NCSD.

9.4 Water Use Objectives (Future Requirements)

The Water Code requires suppliers to develop new water use objectives by 2023 that align with the supplier's conservation management actions. The District describes its water use objectives during water shortages in its WSCP and will further develop objectives by 2023.

CHAPTER 10 PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

New Requirements

- Since 2015, the public processes for completing the UWMP have not been revised. However, the Water Shortage Contingency Plan is a new component of the 2020 UWMP that can be amended separately from the UWMP (see Chapter 8)

10.1 Inclusion of all 2015 Data

This 2020 UWMP update includes water use and planning data for the entire 2020 calendar year.

10.2 Notice of Public Hearing

10.2.1 Notice to Cities and Counties

10.2.1.1 60 Day Notification

The District notified the agencies listed in **Table 10-1** at least sixty (60) days prior to the public hearing of the preparation of the 2020 Plan and invited them to participate in the development of the Plan. A copy of the notification letters sent to these agencies is provided in Appendix K.

10.2.1.2 Notice of Public Hearing

The Notice of the public hearing, held at the November 10, 2021 Board meeting at the District office, was sent to the City of Santa Maria and County of San Luis Obispo on September 10, 2021. A copy of the letters from the District to the City and County are included in Appendix K of this UWMP.

10.2.1.3 Submittal Tables

Table 10-1 summarizes the agencies which were provided notifications by the District.

Table 10-1 Retail: Notification to Cities and Counties

City Name	60 Day Notice	Notice of Public Hearing
City of Santa Maria	☑	☑
County of San Luis Obispo County	☑	☑

10.2.2 Notice to the Public

The public hearing was noticed in the local newspaper as prescribed in Government Code 6066. This notice included time and place of hearing, as well as the location where the UWMP and WSCP is available for public inspection. A copy of the newspaper notice is included in Appendix L.

10.3 Public Hearing and Adoption

10.3.1 Public Hearing

Prior to adopting the 2020 UWMP and WSCP, the District held a public hearing on November 10, 2021 which included input from the community regarding the District's draft 2020 UWMP and WSCP. As part of the public hearing, the District provided information on determination of its water use targets and action plan in case of severe water shortage conditions.

10.3.2 Adoption

The 2020 UWMP and WSCP was adopted on December 8, 2021 during a regularly scheduled board meeting. A copy of the resulting adoption and meeting minutes is included in Appendix M of this UWMP.

10.4 Plan Submittal

10.4.1 Submitting a UWMP and Water Shortage Contingency Plan to DWR

Within 30 days of adoption of the 2020 UWMP by the District Board, the District will submit the adopted 2020 UWMP to DWR, as required by CWC 10621 and 10644. The 2020 UWMP will be submitted through DWR's "Water Use Efficiency (WUE) Data Online Submittal Tool" website.

DWR previously provided a checklist to determine if an Urban Water Management Plan has addressed the requirements of the California Water Code. The District has completed the DWR checklist by indicating where the required CWC elements can be found within the District's 2020 UWMP (See Appendix N).

10.4.2 Electronic Data Submittal

Within 30 days of adoption of the 2020 Plan, the District will also submit all data tables associated with the 2020 Plan through DWR's "Water Use Efficiency (WUE) Data Online Submittal Tool" website.

10.4.3 Submitting a UWMP to the California State Library

Within 30 days of adoption of the 2020 UWMP by the District Board, a copy (CD or hardcopy) of the 2020 Plan will be submitted to the State of California Library. A copy of the letter to the State Library will be maintained in the District's file. The 2020 Plan will be mailed to the following address if sent by regular mail:

California State Library
Government Publications Section
P.O. Box 942837
Sacramento, CA 94237-0001
Attention: Coordinator, Urban Water Management Plans

The 2020 Plan will be delivered to the following address if sent by courier or overnight carrier:

California State Library
Government Publications Section
914 Capitol Mall
Sacramento, CA 95814

10.4.4 Submitting a UWMP to Cities and Counties

Within 30 days of adoption of the 2020 Plan by the District Board, a copy of the 2020 UWMP will be submitted to the County of San Luis Obispo Registrar / Recorders office and District's office. A copy of the letter to the County of San Luis Obispo and the City of Santa Maria will be maintained in the District's file.

10.5 Public Availability

The adopted 2020 UWMP is available on the District's website at www.ncsd.ca.gov and at the District's office at 148 South Wilson Street, Nipomo between the hours of 8 AM and 4:30 PM Monday through Friday.

10.6 Notification to Public Utilities Commission

The section is not applicable to the District.

10.7 Amending an Adopted UWMP or Water Shortage Contingency Plan

10.7.1 Amending a UWMP

If the District amends the adopted 2020 UWMP, the amended UWMP will undergo adoption by the District's governing board. Within 30 days of adoption, the amended UWMP will then be submitted to DWR, the State of California Library, the County of San Luis Obispo / Recorders office, and the District's office.

10.7.2 Amending a Water Shortage Contingency Plan

If the District amends the adopted 2020 WSCP, the amended WSCP will undergo adoption by the District's governing board. Within 30 days of adoption, the amended WSCP will then be submitted to DWR, the State of California Library, the County of San Luis Obispo / Recorders office, and the District office.

NOVEMBER 10, 2021

ITEM E-1

ATTACHMENT B

NIPOMO COMMUNITY SERVICES DISTRICT

WATER SHORTAGE CONTINGENCY PLAN

PUBLIC DRAFT SEPTEMBER 2021

Nipomo Community Services District

Water Shortage Contingency Plan

Public Draft September 2021

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Appendix C – Notification to Cities and Counties

Appendix D – WSCP Adoption Resolution

Appendix E – Electronic Submittal to DWR

Appendix F – Water Savings Estimates

Bibliography

The following reports, studies, and other material were reviewed during preparation of this Urban Water Management Plan update.

1) Nipomo Community Services District 2020 Urban Water Management Plan dated August 2021 and prepared by MKN & Associates.

2) 2020 Urban Water Management Plans Guidebook for Urban Water Suppliers dated March 2021 and prepared by the California Department of Water Resources.

3) Nipomo Management Area 13th Annual Report (NMMA TG Annual Report) Calendar Year 2020 dated April 2020 and prepared by NMMA Technical Group.

4) San Luis Obispo County Multi-Jurisdictional Hazard Mitigation Plan dated October 2019 and prepared by Wood.

List of Acronyms

AB - Assembly Bill
ADU – Accessory Dwelling Unit
AF – Acre-Foot
AFY – Acre-Feet per Year
AMI – Advanced Metering Infrastructure
AWIA – America's Water Infrastructure Act
AWWA – American Water Works Association
BMP – Best Management Practice
CASGEM – California Statewide Groundwater Elevation Monitoring Program
CA – California
CD – Compact Disc
CII – Commercial, Industrial, Institutional, water use sectors
CIMIS – California Irrigation Management Information System
City – City of Santa Maria
CUWCC – California Urban Water Conservation Council
CWC – California Water Code
DACs – Disadvantaged Communities
DMMs – Demand Management Measures
DOF – Department of Finance
DRA – Drought Risk Assessment
DU – Dwelling Unit
DWR – Department of Water Resources
eARDWP - Electronic Annual Reports to the Drinking Water Program (SWRCB)
ETo - Reference Evapotranspiration
GIS - Geographic Information System
GPCD - Gallons per Capita per Day
GSA - Groundwater Sustainability Agency
GSWC - Golden State Water Company
GSWCCR – Golden State Water Company Cypress Ridge
HECW - High-Efficiency Clothes Washer
HET/DFT - High-Efficiency Toilet
ID - Identifier
IRWMP - Integrated Regional Water Management Plans
KWI – Key Wells Index
MG – Million Gallons
MGY – Million Gallons per Year
NA – Not Applicable
NCMA - Northern Cities Management Area
NCSD - Nipomo Community Services District
NMMA – Nipomo Mesa Management Area
NMMA TG – Nipomo Mesa Management Area Technical Group
NMWCA – Nipomo Mesa Water Conservation Area
PWS – Public Water System
Report – NMMA-TG's Annual Report
RRA – Risk and Assessment
RUWMP – Regional Urban Water Management Plan
SB – Senate Bill
SWRCB – State Water Resources Control Board
SLOCOG – San Luis Obispo Council of Governments
SLO-PD - San Luis Obispo Planning and Development
SOI- Sphere of Influence
SQ FT – Square Feet
SMVMA - Santa Maria Valley Management Area
NSWP - Nipomo Supplemental Water Project
SB X7-7 – Senate Bill Seven of the Senate's Seventh Extraordinary Session of 2009
UMWP - Urban Water Management Plan
US EPA - United States Environmental Protection Agency
WMWC - Woodlands Mutual Water Company
WRF - Water Reclamation Facility
WSCP - Water Shortage Contingency Plan
WSS - WaterSense Specification
WUE - Water Use Efficiency
WWTP - Wastewater Treatment Plant

CHAPTER 1 INTRODUCTION

1.1 Law

This Water Shortage Contingency Plan (WSCP) for the Nipomo Community Services District (District) outlines a program for responding to water supply limitations. The intent of the water conservation measures, progressive restrictions on water use, and method of use identified in this WSCP is to enable the District to implement water management measures in a fair and orderly manner for the benefit of the public.

This WSCP describes measures to be implemented during times of declared water shortages, or declared water shortage emergencies by either the Nipomo Mesa Management Area Technical Group (NMMA-TG), the District, State or Federal government. It establishes six stages of drought response actions to be implemented in times of shortage, with increasing restrictions on water use in response to decreasing available supplies.

1.2 Nipomo Community Services District

The District 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 service area boundary encompasses approximately 3,907 acres (parcel acreage only and excludes right-of-way) in the Nipomo area of southern San Luis Obispo County, and serves water to an estimated current year (2020) population of 13,771 people. The District service area consists primarily of residential land uses, with some light commercial and suburban residential. The District is comprised of one water system with three pressure zones; one zone serves the Blacklake Specific Plan area, one zone serves the Maria Vista Pressure Zone, and the third zone serves the core of the service area.

Groundwater was the sole source of the District's water supply until 2015, when the District began importing water from the City of Santa Maria (City) as part of the Nipomo Supplemental Water Project (NSWP), dictated by the Final Judgement of Santa Maria River Valley Groundwater Basin.

With respect to groundwater extraction from the Santa Maria River Valley Groundwater Basin, the District coordinates with the NMMA-TG, which is the court-assigned entity responsible for managing groundwater within the Santa Maria River Valley Groundwater Basin.

It should be noted that relevant sections of the water code as related to the WSCP are included in Appendix A.

CHAPTER 2 WATER SUPPLY ANALYSIS

2.1 Water Supply Reliability Analysis

As described in Chapter 6 of the District's 2020 UWMP, the water supply portfolio consists of groundwater from the Santa Maria Valley Groundwater Basin with a maximum pumping limit of 2,533 AFY and imported water from the Nipomo Supplemental Water Project. The District executed the Wholesale Water Supply Agreement (Wholesale Agreement) with the City on May 7, 2013. Supplemental water consists of a "municipal mix" of both surface water from the State Water Project and groundwater from the City of Santa Maria. The Wholesale Agreement dictates a minimum water delivery to the District of 2,500 AFY by fiscal year 2025-26 with a maximum allowable delivery of 6,200 AFY. It should be noted that the existing Santa Maria River crossing, pump station and portion of transmission pipeline were designed to deliver 6,200 AFY. However, pump replacements and additional pipelines would be required to deliver the full 6,200 AFY to the District service area. Based on redundancy within the Joshua Road Pump Station, multiple wells sites throughout the system, and groundwater management practices under the NMMA, the District's water supply sources are considered 100% reliable and available during normal, single and multiple dry year conditions.

To identify potential water supply reliability concerns, the District completed a preliminary climate change vulnerability screening analysis (including impacts from extreme heat, water quality, sea level rise, flooding, and wildfire) for its supplies as shown in **Table 2-1**.

Table 2-1: Climate Change Vulnerability Screening

Preliminary Assessment	Groundwater Level of Risk	Imported Water Level of Risk
I. Water Supply and Demand		
Are the water supply diversions sensitive to climate change?	3	2
Is the water supply source affected by urban or agricultural water demand that might be climate sensitive?	2	2
Is groundwater a major supply source?	5	3
Does the water supply source rely on or could it be affected by snowmelt?	Not applicable	3
Does the water supply source come from or could it be affected by coastal aquifers? Has saltwater intrusion been a problem in the past?	2	Not applicable
Does the water supply source rely on or could it be affected by changes in stored water supplies?	2	2
II. Extreme Heat		
Could extreme heat impact operations of the water supply project or diversions?	Not applicable	Not applicable
Does the supply source rely on equipment or infrastructure that could be impacted by extreme or prolonged heat?	Not applicable	Not applicable
III. Water Quality		
Could water quality issues, such as low dissolved oxygen, algal blooms, disinfectant biproducts affect the water supply source?	Not applicable	Not applicable
Could reduction in assimilative capacity of a receiving water body affect the water supply source?	Not applicable	1

Table 2-1: Climate Change Vulnerability Screening		
Preliminary Assessment	**Groundwater**	**Imported Water**
	Level of Risk	**Level of Risk**
Could the water supply source be affected by water quality shifts during rainfall/runoff events?	2	1
IV. Sea Level Rise		
Is any of the water supply source infrastructure located in area that could be exposed to rising tides?	Not applicable	Not applicable
Could coastal erosion affect the water supply source?	Not applicable	Not applicable
Is the water supply source dependent on coastal structures, such as levees or breakwaters, for protection from flooding?	Not applicable	Not applicable
V. Flooding		
Is the water supply or any of its associated infrastructure located within the 200-year floodplain? Does the water supply source rely on flood protection infrastructure such as levees or dams?	Not applicable	Not applicable
VI. Wildfire		
Is the water supply source located in an area that is expected to experience an increase in wildfire activity or severity? Would a wildfire result in damage to the water supply source infrastructure or interruption of its ability to perform as designed? Could the water supply source be affected by an increase in wildfire activity or severity in an upstream watershed or other adjacent area?	Not applicable	1
Notes: SMVGWB = Santa Maria River Valley Groundwater Basin NSWP = Nipomo Supplemental Water Project Level of Risk: 1 - low, 3-medium, 5-high		

Per **Table 2-1**, the District's existing water distribution system has a low vulnerability to potential extreme heat, water quality, sea level rise, flooding, and wildfire impacts.

2.2 Annual Water Supply and Demand Assessment Procedures

In accordance with California Water Code (CWC) 10632 the District will conduct an annual water supply and demand assessment by July 1st of each year.

A copy of the annual assessment will be submitted to the Board Members ahead of the meeting for review. The Board of Directors will listen to the findings and recommendations outlined in the report and vote to approve and implement the actions described in the annual report starting at the May 2022 Board meeting.

The WSCP team will consist of the District's General Manager and District Engineer. The team will draft and prepare the annual water supply reliability analysis report. The report will use the key data inputs and methodology described in **Table 2-2** to determine the unconstrained demand, available water supply, and reliability for the current year and one dry year.

Table 2-2: Key Data Inputs		
Data Inputs:		**Description:**
Current year Customer Demand and Available Supply	Public Water System Statistics Report	The water statistics sheet is prepared by the District's general manager in January for the previous year. The statistics sheet will be used to calculate water supply by source and show unconstrained water demand.
Projected Water Supply	Well Production History Worksheet, NMMA TG Annual Report	This worksheet is prepared by the District's general manager and is updated each year. This worksheet provides the monthly production totals for each well. This will be used to help determine water supply reliability. The NMMA TG Annual Report would identify drought conditions and groundwater pumping limitations.
Infrastructure Considerations	Annual Project List and Schedule	This list will be prepared by the general manager and describe all the planned District projects for the year. The annual project list will be used to assess infrastructure capabilities and any potential constraints to the water system.

2.2.1 Assessment Methodology

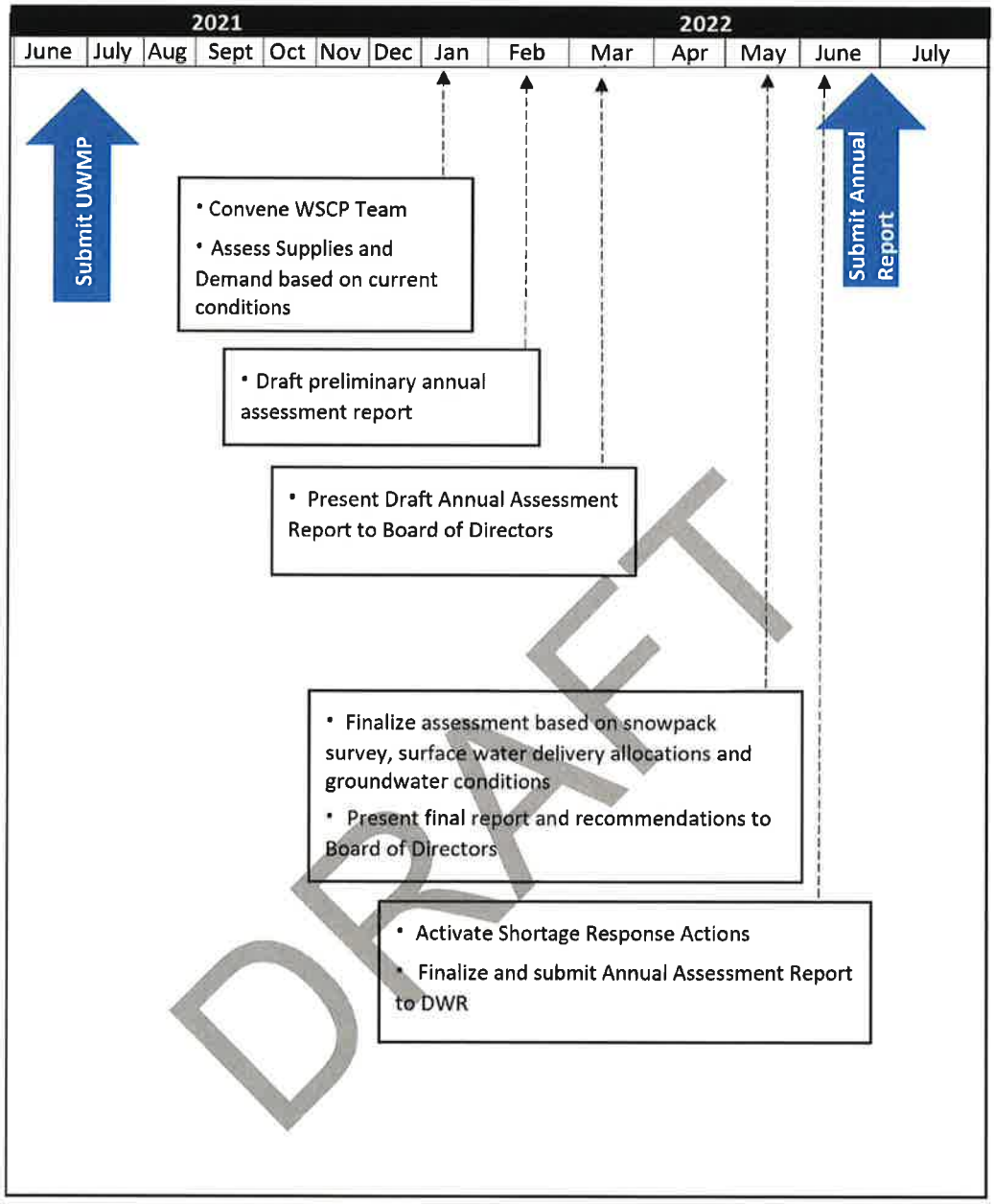
The District will enact water shortage response actions if Stage 2 or higher is in place, as defined by NMMA. The District will take the following steps to evaluate the water supply and demand:

1. Evaluate Water Supply: Using the current NMMA Annual Report, determine the available amount of water available to the District.
2. Calculate Unconstrained Customer Demand: Using the Public Water System Statistics Sheet calculate the total water delivered the previous year.
3. Planned Water Use for Current Year Considering Dry Year: Compare the available water supply and the customer demand and determine if there is an expected water shortage.
4. Infrastructure Considerations: Using relevant future project lists and schedule, determine if any projects will reduce or increase supply.
5. Compare supply and demand and decide on the level of water supply reliability for current year and one dry year, declare a water shortage level, and issue relevant communication, if necessary.

2.2.2 Water Supply Reliability Analysis Timeline

The District will start to evaluate the water supply availability in January and will submit the report to the DWR in June of each year as shown in **Figure 2-1**.

Figure 2-1: Water Supply Reliability Analysis Timeline



2.3 Six Standard Water Shortage Levels

This WSCP identifies water conservation measures and progressive restrictions on water use to enable the District to implement water management measures in a fair and orderly manner for the benefit of the public in accordance with CWC §10632(a)(3). This WSCP establishes six (6) stages of drought response actions that could be voluntarily

implemented by the District in times of shortage, with increasing restrictions on water use in response to decreasing supplies. This WSCP includes both voluntary and mandatory water use reductions depending on the causes, severity, and anticipated duration of the water supply shortage. Water use reduction stages may be triggered by contamination in one water source, combination of sources, or during times that a shortage is declared by the NMMA-TG, District, State, or Federal government. Because shortages overlap stages, triggers automatically implement the more restrictive stage. Specific criteria for triggering the District's water use reduction stages are shown in **Table 2-3**.

Table 2-3: Water Shortage Contingency Plan Levels

Shortage Level	Percent Shortage Range	Shortage Response Actions
1	Up to 10%	Always in place with voluntary measures and outreach.
2	Up to 20%	Potentially Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan with goal of voluntary 20% reduction in groundwater production.
3	Up to 30%	Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan with goal of voluntary 30% reduction in groundwater production.
4	Up to 40%	Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan with goal of voluntary 30% reduction in groundwater production.
5	Up to 50%	Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan, lasting more than 1 year from the initial declaration; or Severe Water Shortage declaration pursuant to NMMA declaration triggered by both the Key Well Index and the Coastal Area Criterion with goal of voluntary 50% reduction in groundwater production.
6	>50%	Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan, lasting more than 2 years from the initial declaration, based on both the Key Well Index and Coastal Area Criterion with goal of voluntary 60% reduction in groundwater production.

Figure 2-2 provides a comparison that shows the District's water shortage levels (per NMMA defined drought levels) to those mandated by statute.

Figure 2-2: Comparison for the District's 2015 Shortage Levels and the 2020 WSCP Mandated Shortage Levels		
Stages from 2015 UWMP	**Crosswalk**	**2020 WSCP Mandated Shortage Levels**

Stage	Percent Supply Red-uction	Water Supply Condition
1	0%	Always in place
2	20%	Potentially Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan.
3	30%	Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan.
4	50%	Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan, lasting more than 1 year from the initial declaration; or Severe Water Shortage declaration pursuant to NMMA declaration triggered by both the Key Well Index and the Coastal Area Criterion
5	60%	Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan, lasting more than 2 years from the initial declaration, based on both the Key Well Index and Coastal Area Criterion.

Stage	Percent Supply Reduction	Water Supply Condition	Mandatory compliance with water savings measures
1	0% to 10%	Normal	Voluntary, always in place
2	10% to 20%	Slightly Restricted	Mandatory compliance
3	20% to 30%	Moderately Restricted	Mandatory compliance
4	30% to 40%	Restricted	Mandatory compliance
5	40% to 50%	Severely Restricted	Mandatory compliance
6	50% and above	Extremely Restricted	Mandatory compliance

CHAPTER 3 WATER SHORTAGE RESPONSE ACTIONS

3.1 Shortage Response Actions

3.1.1 Demand Reduction

Table 3-1 summarizes the restrictions and prohibitions on end uses during each stage of water shortage response implemented by the District in accordance with CWC §10632(a)(4)(B). The shortage response actions are aligned to the six water shortage levels with the goal of reducing the gap between supply and demand by the required amount per level.

Table 3-1 Demand Reduction Actions

Stage	Demand Reduction Actions	Estimated Extent of Reducing the Water Shortage Gap	Penalty, Charge, or Other Enforcement?
1	Other - Education for water conservation methods.	Low	No
1	Other - Public outreach for voluntary reduction in water use by 15%	Low	No
1	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	High	Yes
1	Landscape - Limit landscape irrigation to specific times	High	Yes
1	Landscape - Restrict or prohibit runoff from landscape irrigation	Medium	Yes
1	Water Features - Restrict water use for decorative water features, such as fountains	High	Yes
1	Landscape- Check all irrigation systems periodically	Low	Yes
2	All Stage 1 reduction actions	Medium	Yes
2	Water Features- Cover swimming pools and spas when not in use	Low	Yes
2	Other - Prohibit use of potable water for washing hard surfaces	Low	Yes
3	All Stage 1 and 2 reduction actions	High	Yes
3	Landscape - Limit landscape irrigation to specific days	High	Yes
3	Other – Prohibit use of hoses without automatic shut-off devices	High	Yes
3	Landscape - Other landscape restriction or prohibition	High	Yes
3	Other – Prohibit use of potable water for construction and dust control	Low	Yes
3	Other - Turn off all automated irrigation systems	High	Yes
3	Water Features – Prohibit water use for decorative water features, such as fountains	High	Yes
4	All Stage 1,2 and 3 reduction actions	Medium	Yes
4	Landscape - Other landscape restriction or prohibition	High	Yes
5	All Stage 1,2,3 and 4 reduction actions	Medium	Yes
5	Landscape - Other landscape restriction or prohibition	High	Yes
6	All Stage 1,2,3,4 and 5 reduction actions	Medium	Yes

3.1.2 Supply Augmentation

Table 3-2 summarizes the restrictions and prohibitions on end uses during each stage of water shortage response implemented by the District in accordance with CWC §10632(a)(4)(B). The shortage response actions are aligned to the six water shortage levels with the goal of reducing the gap between supply and demand by the required amount per level.

Table 3-2: Supply Augmentation and Other Actions

Stage	Supply Augmentation Methods and Other Actions by Water Supplier	Estimated Extent of Reducing the Water Shortage Gap	Penalty, Charge, or Other Enforcement?
All Stages	Expand Public Information Campaign	Medium	No
All Stages	Other - Demand Reduction Program	Medium	No
All Stages	Other - Use Prohibitions	Low	No
1 and 2	Other - Voluntary Water Use Reductions	Medium	No
3	Other - Flow Restriction	Medium	No
4	Other - Prohibit landscape irrigation	High	No
5 and 6	Other - Interrupt Irrigation Services	High	No

3.1.3 Operational Changes

In the event of an extreme water shortage the District will implement, if necessary, some or all of the following operational changes in accordance with CWC §10632(a)(4)(C) and §10632.5(a):

- ❑ The District shall provide prompt notice to customer whenever the District obtains information that indicates a leak may exist within the end-user's exclusive control. The customer must repair all leaks within twenty-four (24) hours of notification by the District.
- ❑ Restrict or prohibit the issuance of new water services.

3.1.4 Additional Mandatory Restrictions

District customers shall comply to the mandatory water shortage response actions listed in **Table 3-1** associated with a level 3 or higher water shortage event in accordance with §10632(a)(4)(D).

CHAPTER 4 EMERGENCY RESPONSE ACTIONS

4.1 Emergency Response Plan

A catastrophic event may result in a complete loss of water supplies for a temporary period lasting from a day to a week or more. Examples of catastrophic events include earthquakes, widespread power outage, contamination, long-term drought, or loss of imported supplies. Through information included in billing inserts, and information on its website, the District encourages its customers to be prepared for emergencies and potential interruption of water supply system. The District has an Emergency Response Plan which provides guidance for emergency situations. In the event of a catastrophic emergency the District will immediately declare and enact level six (6) water shortage level and response actions, shown in **Table 3-1.** 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 4-1** below:

Table 4-1: Catastrophic Supply Interruption Actions

Possible Catastrophe	Summary of Actions
Wildfire Flooding	Notification of affected customers and implementation of voluntary and mandatory rationing, only if necessary, in the affected portions of the service area. 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 District facilities, these events are not considered significant threats to the District water production or distribution system.

4.2 Seismic Risk Assessment and Mitigation Plan

The District provides water to its customers through a combination of groundwater wells and imported water from the City of Santa Maria. The distribution system is comprised of three pressure zones – Main, Blacklake, and Maria Vista Estates. Water to the Main Zone is delivered through the groundwater wells, Foothill Tanks, Standpipe Tank and the Joshua Road Pump Station, which conveys imported water from the City of Santa Maria. The District also operates two wastewater treatment facilities within the water service area.

With respect to the seismic risk assessment and mitigation plan, the District completed the America's Water infrastructure Act (AWIA) Risk and Resiliency Assessment (RRA) of the existing water distribution system in June 2021, which assessed seismic risk for the District's critical infrastructure. The District also has an existing Emergency Response Plan (ERP) that will be reviewed/updated as part of AWIA by December 31, 2021 and will include a mitigation plan to address seismic risk. The District has also developed catastrophic supply interruption actions, as stated in Section 4.1 of this chapter, that identifies the actions the District would implement following a seismic event.

In addition, the County of San Luis Obispo, in partnership with the District, developed a Multi-Jurisdictional Hazard Mitigation Plan (Hazard Plan), which evaluated seismic risk within District's service area. The following sections provide a summary of the general findings from the Hazard Plan with respect to potential impacts from earthquakes, faults, and liquefaction within the District's service area.

4.2.1 Faults, Earthquakes, and Liquefaction

Per the Hazard Plan, the following provides a description of major faults within the County of San Luis Obispo:

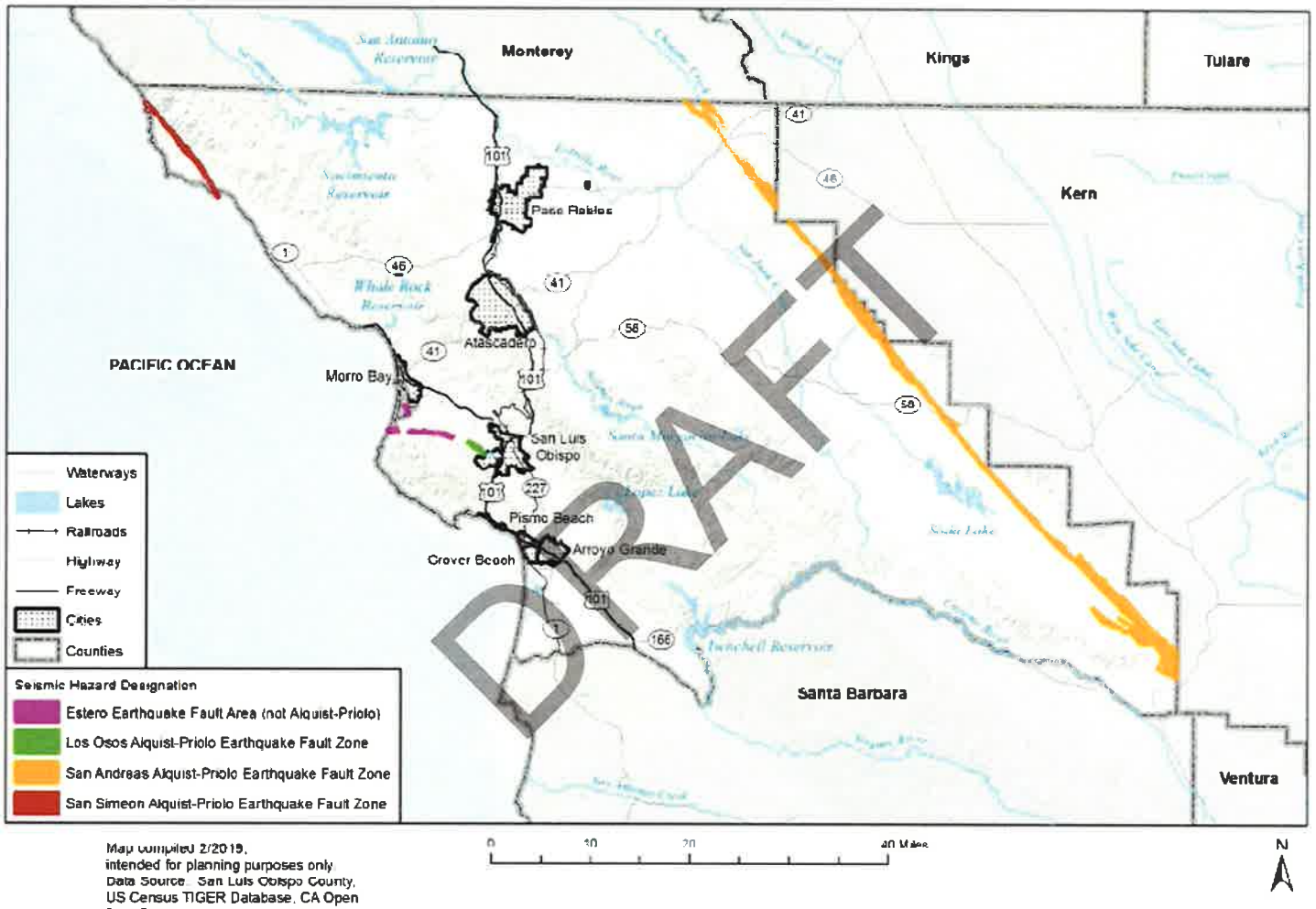
> *The California Geological Survey (CGS) is charged with recording and mapping faults throughout California. The Alquist-Priolo Earthquake Fault Zoning (AP) Act was passed into law following the destructive February 9, 1971 6.6 San Fernando earthquake. The AP Act provides a mechanism for reducing losses from surface fault rupture on a statewide basis. The intent of the AP Act is to insure public safety by prohibiting the siting of most structures for human occupancy on or near active faults that constitute a potential hazard to structures from surface faulting or fault creep. Fault zoning is continually updated and reviewed by CGS and it is likely that other faults in addition to those currently listed by CGS will be added to the list in the future. The primary active faults identified by the AP Act in the County include the San Andreas, San Simeon-Hosgri, and Los Osos faults.*
>
> *San Andreas Fault: The San Andreas is a historically active fault thought to be capable of an earthquake up to and above the 8.0 magnitude range and generally runs along the eastern county border. It enters the County near the Cholame area, passes through the Carrizo Plain, and exits the county near Maricopa. As it passes through the County, three relatively distinct portions of the fault have separate potentials for causing a damaging earthquake. The portion of the fault that runs from Monterey County into San Luis Obispo County to an area near Cholame has commonly been known as the Parkfield segment of the San Andreas fault system. That portion of the fault system is the one that has an approximate 5.6 – 6.0 magnitude earthquake from time to time. A segment of the system that runs from approximately the Cholame area to about the northern edge of the Carrizo Plain area has been commonly known as the Cholame segment. The portion running from the northern Carrizo Plain area and out of the County into Kern County has been commonly known as the Carrizo segment.*
>
> *It is believed that in 1857 a large (possible 7.8 or larger) earthquake occurred on the San Andreas fault that possibly originated in the Parkfield area and stretched along the fault to the area near San Bernardino. This is perhaps an illustration of the potential for the San Andreas to cause a very powerful earthquake and the need to be prepared.*
>
> *A major earthquake along any section of the San Andreas Fault could result in serious damage within San Luis Obispo County. An earthquake of 8.0 or greater magnitude would result in severe ground motion and could cause damage throughout the County.*

With respect to the District's service area, the Santa Maria River, Wilmer Avenue, Oceano and West Huasna faults are the closest in proximity and are described below based on the Hazard Plan:

> *The faults in the Nipomo area include the Santa Maria River, Wilmar Avenue, Oceano and West Huasna faults. The buried trace of the Santa Maria/Wilmar Avenue fault is inferred to parallel U.S. Highway 101 in the vicinity of Nipomo. The Oceano fault generally is trending northwest across the Nipomo Mesa and into the town of Oceano.*
>
> *The West Huasna fault is mapped along the eastern side of the valley. These faults generally have a subdued topographic expression and are considered to be potentially active by CSG. Review of the Oceano fault suggests that the fault is inactive. On the basis of that information, potentially active faults present moderate fault rupture hazard in the Nipomo area. The inactive Oceano fault presents a very low potential as a fault rupture hazard. Although the Oceano fault is inactive, it is often undesirable to site structures over any fault as a result of non-uniform foundation support conditions and the potential for co-seismic movement that could result from earthquakes on other nearby faults. Further studies to evaluate the activity of the Wilmar Avenue and West Huasna faults are warranted, prior to placing structures near the mapped fault traces.*

The Hazard Plan does not identify any specific risks of liquefaction in the District's service area.

Figure 4-1 provides an overview of the primary active earthquake fault lines described and **Figure 4-2** provides an overview of ground shaking potential across the County. Relevant sections of the Hazard Plan are included as Appendix B.



Map compiled 2/2019.
intended for planning purposes only
Data Source: San Luis Obispo County, US Census TIGER Database, CA Open Data Portal

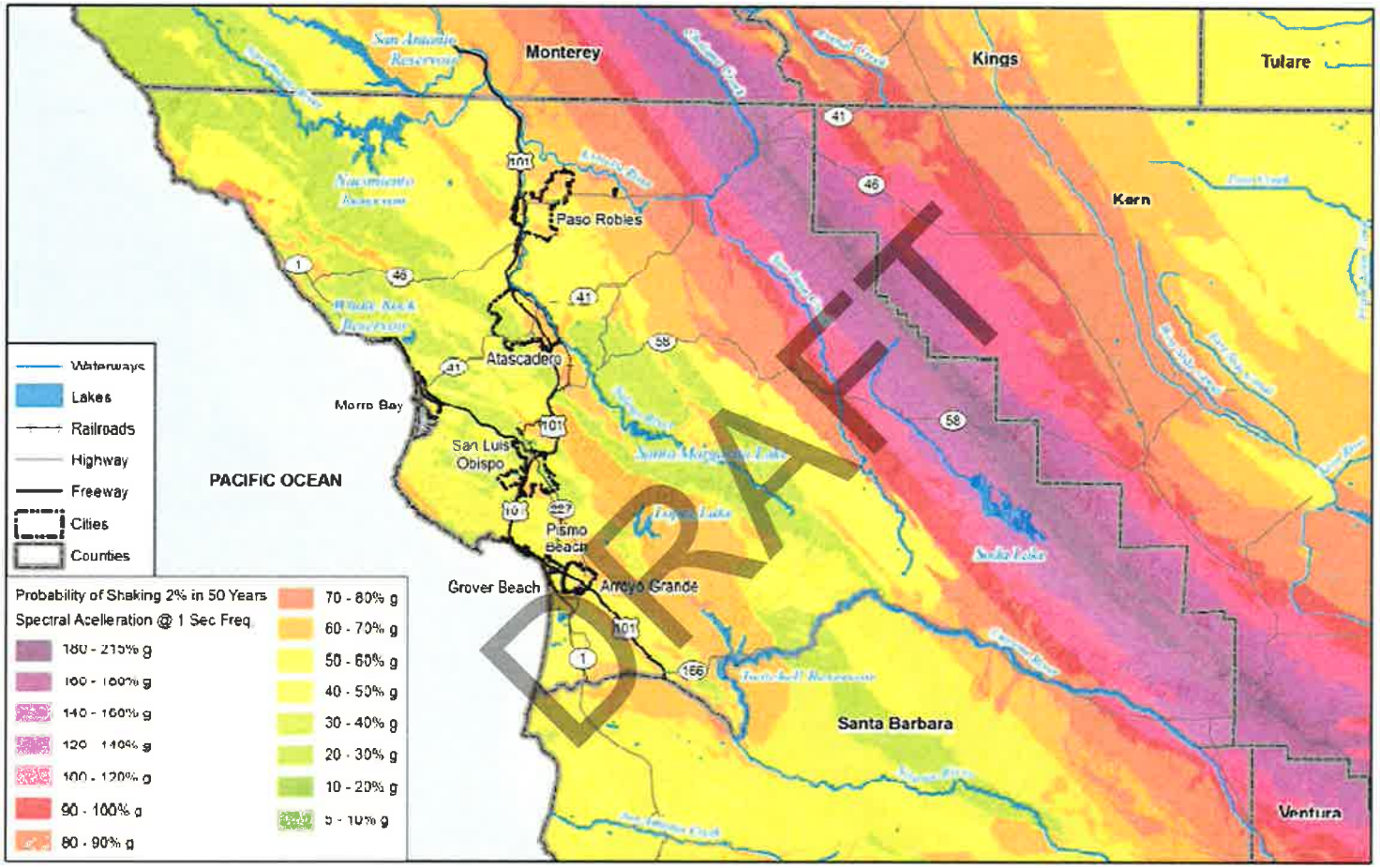
Notes:
Map includes Figure 5-56 Earthquake Fault Zone Designations from San Luis Obispo County Local Hazard Mitigation Plan October 2019.

Nipomo Community Services District

2020 Urban Water Management Plan

Figure 4-1:

Earthquake Fault Line Map



Map compiled 2/2019.
Intended for planning purposes only.
Data Source: San Luis Obispo County, US Census TIGER Database, CA Open Data Portal, California Geological Survey, USGS

Notes:
Map includes Figure 5-54 Ground Shaking Potential From San Luis Obispo County Local Hazard Mitigation Plan October 2019.

Nipomo Community Services District

2020 Urban Water Management Plan

Figure 4-2:

Ground Shaking Potential Map

4.2.2 Seismic Risk

Per the California Department of Conservation Earthquake Hazards Zone Application (EQ Zapp) and the area maps included in the Hazard Plan, the District's existing water distribution facilities were not identified to be within critical fault, liquefaction, or landslide hazard zones.

4.2.3 Mitigation

In the event of a system disruption to existing water supplies from an earthquake, fault rupture, or liquefaction response actions are described in the District's emergency response plan.

CHAPTER 5 SHORTAGE RESPONSE EFFECTIVENESS

All water shortage response actions are intended to reduce the water demand below the available water supply, during a water shortage event. To ensure that all water response actions are effective in reducing the demand to the level necessary, the District will continue to routinely monitor water production levels monthly through the current in place meter system as described below in **Section 6.4** of this plan. If the shortage response actions are not effective in reducing water consumption to the required level the District will refine and update the water shortage response actions until effective.

5.1 Communication Protocols

The District will inform the public and the necessary local, regional, and state government entities regarding any current or predicted water shortages based on the results of the Annual Water Supply and Demand Assessment in accordance with CWC §10632(a)(5). The District will also notify all necessary entities of any shortage response actions mandated in response to the Annual Assessment. In the event of a water shortage due to an emergency, the District will follow emergency communication protocols outlined in the Emergency Response Plan as described by Section 4.1. **Table 5-1** summarizes communication protocols at each stage.

Table 5-1: Stages of Water Shortage Contingency Plan – Communication Protocols

Stage	Communication Protocol and Procedure	Recipient to be Notified
1	General conservation measures and resources will be posted on the District's website, published in the newsletter.	The public
2	Bill stuffers will be distributed to all customers that inform of the Potentially Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan with goal of voluntary 20% reduction in groundwater production. The Stage 2 water shortage response actions will be included in the newsletter and posted on the District's website.	The public
3	Bill stuffers will be distributed to all customers that inform of the Potentially Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan with goal of voluntary 30% reduction in groundwater production. The Stage 3 water shortage response actions will be included in the newsletter and posted on the District's website.	The public
4	Bill stuffers will be distributed to all customers that inform of the Potentially Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan with goal of voluntary 40% reduction in groundwater production. The Stage 4 water shortage response actions will be included in the newsletter and posted on the District's website.	The public
5	Bill stuffers will be distributed to all customers that inform of the Potentially Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan with goal of voluntary 50% reduction in groundwater production. The Stage 5 water shortage response actions will be included in the newsletter and posted on the District's website.	The public
6	Bill stuffers will be distributed to all customers that inform of the Potentially Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan with goal of voluntary 60% reduction in groundwater production. The Stage 6 water shortage response actions will be included in the newsletter and posted on the District's website.	The public

CHAPTER 6 COMPLIANCE AND ENFORCEMENT

6.1 Compliance and Enforcement

The following compliance and enforcement actions to be taken by the District under a declared water shortage condition were developed in accordance with CWC §10632(a)(6).

The District's Board of Directors may impose a special water waste penalties against a customer's account and may temporarily or permanently discontinue or restrict, with a flow regulating device, water service to the affected property in the event that the customer or political entity is found by the Board to be in violation of any restrictions or prohibitions under a water shortage mandate declared by the Board.

Before taking such actions, the Board shall give any such customer thirty (30) days written notice and an opportunity to be heard and protest the finding of such violation and the imposition of such measure.

Table 6-1 summarizes the compliance measures that District may implement during a declared water shortage. The Board has determined that the surcharges listed below reasonably compensate District and its customers for all loss of water and other damages incurred and will foster water conservation within the service area. District will implement the following penalties and charges for excessive water use within its service areas:

Table 6-1: Excessive Water Use Penalties and Charges

Stage	Violation	Notices and Surcharges
1	1st	No person shall make, permit, approve or allow any water connections or extensions contrary to the provisions of this chapter. Any violations hereof shall constitute a misdemeanor punishable as provided by law.
1	2nd	Any violation of the provisions hereof shall also constitute a public nuisance. In addition to criminal prosecution or judicial abatement procedures otherwise authorized, the District shall have authority, after due not and public hearing, to abate any violations hereof terminating water service to all properties associated with or involved in the violation, and by assessing all costs of abatement against all property owners allowing, permitting or otherwise authorizing the illegal connection, water use or other violation.

6.2 Legal Authorities

The District is governed by a five (5) member Board of Directors who are elected every two years and serve a four-year term. The Board of Directors has the legal authority to implement and enforce any and all of the water shortage response actions of this WSCP.

In the event of a water shortage emergency where the ordinary demands and requirements of the District's cannot be satisfied without depleting District's water supply to the extent that there would be insufficient water for human consumption, sanitation, and fire protection the District Board of Directors will declare a water shortage condition in accordance with CWC Division 1, §350.

If the District's Board of Directors declares a water shortage emergency, the District shall coordinate with the City of Santa Maria and the County of San Luis Obispo to issue a proclamation of a local emergency in accordance with CWC §10632(a)(7)(D).

6.3 Financial Consequences of WSCP

The District recognizes that there are additional operating expenses associated with the various water shortage condition stages including, but not limited to: the hiring of a part-time water conservation technician; additional outreach and education; additional state reporting; additional monitoring of water use to gage the effectiveness of compliance efforts; responding to customers, inquiries and complaints; investigating and monitoring of violations of watering restrictions and prohibitions; and increased facilities, pumping, and utility costs. In addition, water sales revenues will decrease due to lower water use by the District's customers.

The District has established water rates that allow reasonable operating reserves to be maintained. These reserves are reviewed by the Board of Directors in a quarterly financial report. If projection indicate a depleting of these reserves, the Board of Director has sole discretion on adjusting water rates. To offset increased expenses, non-critical capital investments may be deferred.

6.4 Monitoring and Reporting

The District will monitor, analyze and report on water production and use data in accordance with CWC §10632(a)(9).

All District customer accounts are metered and meter classes include single-family residential, multi-family residential, mixed use, commercial, industrial, and landscape.

Under all water supply conditions, potable water production figures are recorded daily by Water Treatment Operators. Totals are reported monthly to the General Manager. The General Manager and District Engineer incorporates the information into a monthly water supply/demand report to the Board of Directors.

During a Stage 1 or Stage 2, water shortage, the General Manager compares the monthly production to the target monthly production to verify that the reduction goal is being met. The General Manager presents monthly reports to the Board of Directors. If reduction goals are not met, the General Manager will notify the Board of Directors so that corrective action can be taken.

During a Stage 3 water shortage or Stage 4, the procedures listed above are followed, with the addition of a bi-monthly production report to the Board of Directors.

During a Stage 5, 6, or an emergency event, reports may also be provided weekly to the Board of Directors. During emergency shortages, production figures are reported to the General Manager regularly or as needed.

CHAPTER 7 WSCP REFINEMENT, ADOPTION AND SUBMITTAL

7.1 WSCP Refinement Procedures

The WSCP is intended to implement water shortage mitigation strategies that can quickly and effectively reduce water demand during a water shortage event in accordance with CWC §10632(a)(10) . The water shortage response actions listed in Section 3.1 will be routinely monitored as outlined in Section 6.4. If shortage response actions are not effective in meeting the required water use reduction the District's Board of Directors will have the ability to amend the WSCP as deemed necessary.

7.1.1 Special Water Feature Distinction

The District specifically distinguishes between "Decorative Water Features" and all other water features in the WSCP. In the event of a water shortage potable water use for decorative water features such as fountains is prohibited, and only re-circulated water can be used to operate ornamental fountains or other decorative water features.

7.2 Plan Adoption, Submittal and Availability

The notice of the public hearing, held November 10, 2021 at the District's office, was sent to the City of Santa Maria and County of San Luis Obispo on September 10, 2021, in accordance with CWC §10632(a)(c). A copy of the letters from the District to the City and County are included in Appendix C of this WSCP.

Table 7-1: Notification to Cities and Counties

City Name	60 Day Notice	Notice of Public Hearing
City of Santa Maria	☑	☑
County Name	**60 Day Notice**	**Notice of Public Hearing**
San Luis Obispo	☑	☑

A public hearing was held on November 10, 2021 at the District's office. The public hearing provided opportunity for community input.

The WSCP update was adopted by the District on December 8, 2021 by approval of Resolution 2020-XXXX. A copy of the resolution can be viewed in Appendix D.

Within 30 days of adoption, the District will submit the WSCP update to the DWR for review. During the DWR review process the District will coordinate with DWR reviewers as necessary. The District will use the online submittal tool located at www.wuedata.water.ca.gov.secure/ developed by the DWR to electronically submit the WSCP update. Confirmation of the electronic submittal will be included in Appendix E.

Within 30 days of adoption, the District will submit a CD of the adopted WSCP to the California State Library at the following address:

California State Library
Government Publications Section
P.O. Box 942867
Sacramento, CA 94237-001
Attention: Coordinator, Urban Water Management Plans

A copy of the transmittal to the State Library will be included in Appendix E.

Within 30 days of adoption, the District will submit an electronic copy of the adopted WSCP update to the City of Santa Maria and the County of San Luis Obispo electronically in accordance with CWC Section 10632(a)(c). A copy of the transmittals to said agencies will be included in Appendix C.

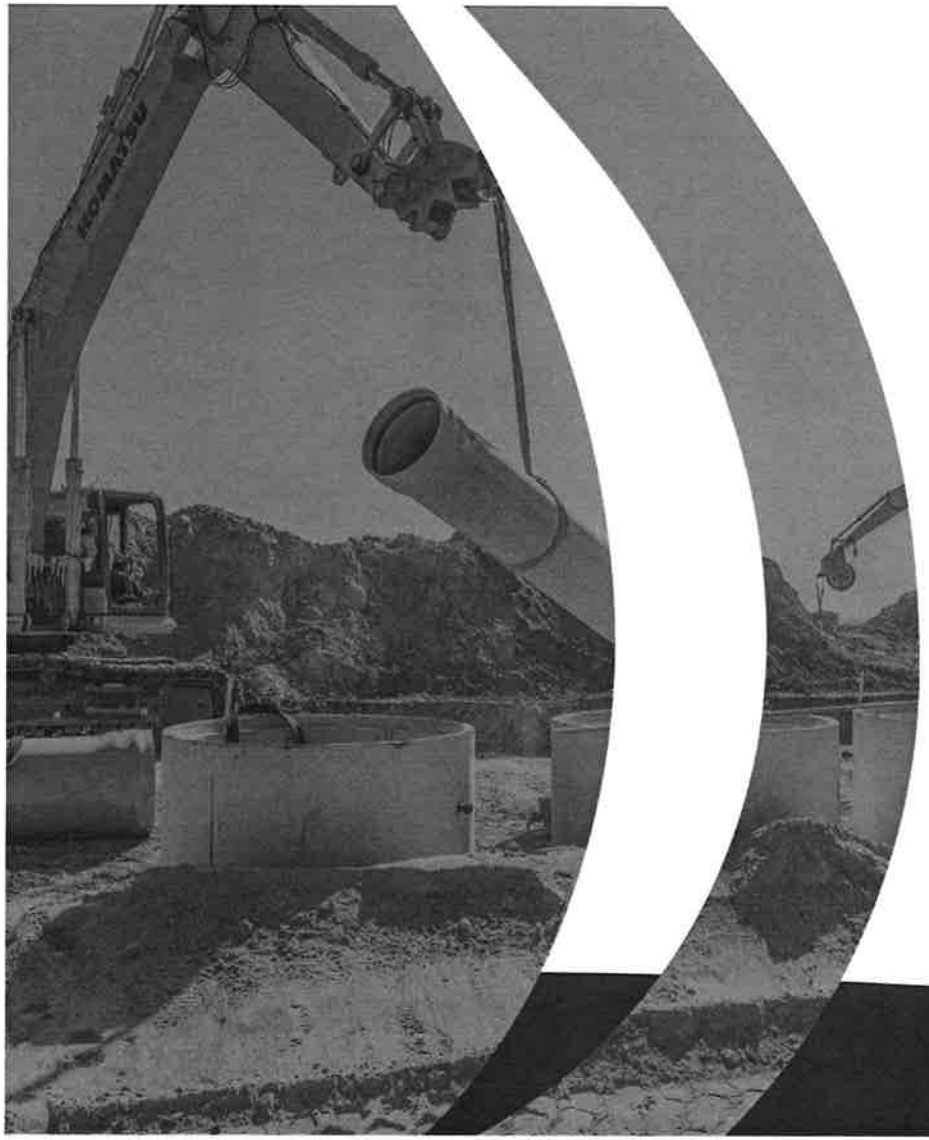
Commencing no later than December 8, 2021, the District will have a copy of the WSCP update available for public review at the District Offices (see address below) during normal business hours and available on the District's website, https://ncsd.ca.gov/.

Nipomo Community Services District
148 S Wilson St.
Nipomo, CA 93444
Phone – 805.929.1133

NOVEMBER 10, 2021

ITEM E-1

ATTACHMENT C



Nipomo Community Services District

2020 Urban Water Management Plan and Water Shortage Contingency Plan

Presenters:
Robert Lepore, GISP
Michael Nunley, PE

Agenda

- Introduction
- Objectives
- Water Code Changes since 2015 Update
- Existing Water System Overview and Service Area
- Population, Existing Demands, and Future Demands
- Future Supply and Availability
- Water Shortage Contingency Plan

Objectives of UWMP Update

1. Meet a statutory requirement of the California Water Code
2. Provide source of information for Water Supply Assessments and Written Verifications of Water Supply required by SB 610 and SB 221
3. Support regional long-range planning documents
4. Complies with DWR's standardized methodology for water utilities to assess their water resource needs and availability

UWMP Development Schedule

Tentative Schedule	Approximate Dates
Project kickoff meeting	November 2020
Mail initial notification letters to required agencies on UWMP Development	January 2021
2020 UWMP & WSCP Administrative Draft for District Staff Review	May 2021
District Ad-Hoc Committee Meetings	August 2021 – September 2021
2020 UWMP & WSCP posted for public review and comment	September 2021
Public hearing notice 1x/2 weeks in local newspaper	October 2021
Board Meeting – Public Hearing of 2020 UWMP and WSCP	November 10, 2021
Board Meeting – Adoption of 2020 UWMP and WSCP	December 8, 2021
Final Submission to California Division of Water Resources	December 2021

Major Water Code Changes Since 2015 UWMP

The following assessments are recent updates that the District must include in their 2020 UWMP:

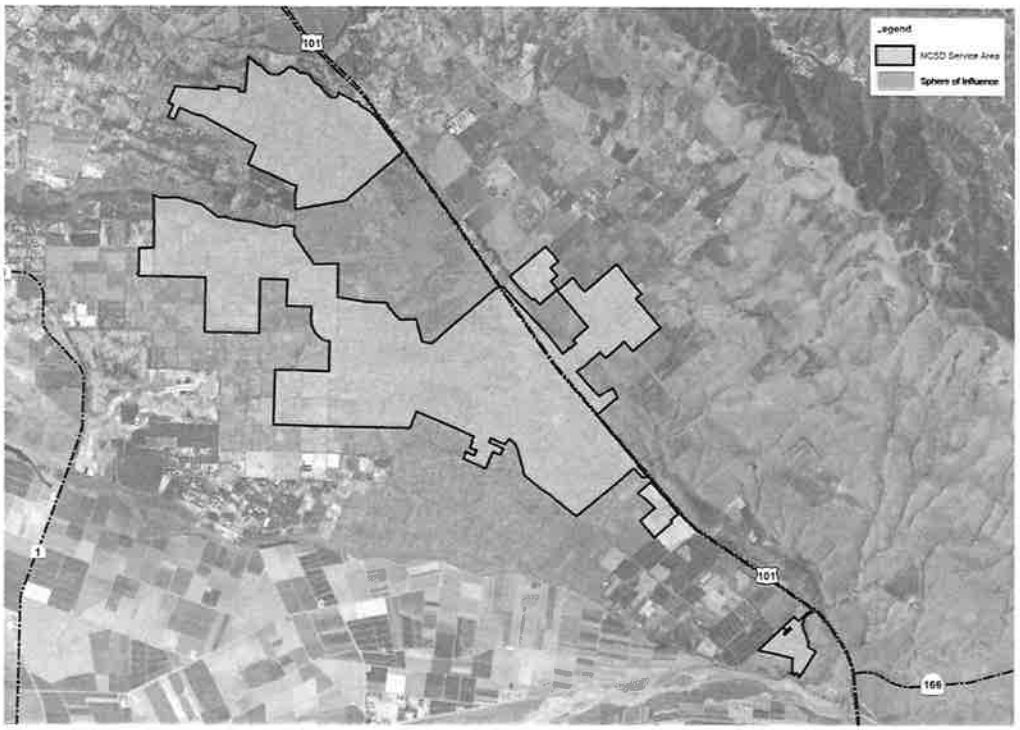
Water Shortage Contingency Plan (WSCP)	Drought Risk Assessment (DRA)	Seismic Risk Assessment & Mitigation Plan
• Describes how the District will respond to various stages of a drought or prolonged water shortage	• Evaluates the reliability of each water supply source during a five-year drought period	• Assesses vulnerability in each water system facility in the event of a seismic event

Water System Overview

- The District provides water to 13,771 people through 3 pressure zones:
  - Blacklake Pressure Zone
  - Maria Vista Pressure Zone
  - Main Pressure Zone

- Supply:
  - Groundwater
    - Santa Maria River Valley Groundwater Basin
  - Purchased/Imported Water:
    - Nipomo Supplemental Water Project

- Distribution:
  - Six storage facilities
  - Three pressure reducing valve stations
  - 97 miles of water system pipeline



District Population – 2020 and Projected

- District 2020 population based on 2020 Census data for service area only
- **Growth Scenario 1:**
  - Existing District population
  - Infill Development within the existing service area
  - Annexations under review (growth starting in 2025)
- **Growth Scenario 2:**
  - Existing District population
  - Infill Development within the existing service area
- Per County of San Luis Obispo Growth Management Ordinance (Title 26 of the County Code) population growth in the Nipomo Mesa area is limited to 1.8%

Growth Scenario 1						
	2020	**2025**	**2030**	**2035**	**2040**	**2045**
Population Served	13,771	15,407	17,042	17,494	17,946	18,398
NOTES: 2020 population based on DWR population tool.						

Growth Scenario 2						
	2020	**2025**	**2030**	**2035**	**2040**	**2045**
Population Served	13,771	14,223	14,675	15,127	15,579	16,031
NOTES: 2020 population based on DWR population tool.						

2020 Water Demands by Type

- 71% of annual water demands are residential (single and multi-family)
- 4% of annual water demands are commercial
- 13% of annual water demands are landscape
- 11% annual water losses through the existing system
- 1% annual water demands are other

Demands for Potable and Raw Water- Actual		
Use Type	2020 Actual	
	Level of Treatment When Delivered	Volume (AF)
Single-Family	Drinking Water	1,326
Multi-Family	Drinking Water	122
Commercial	Drinking Water	76
Landscape	Drinking Water	271
Other	Drinking Water	4
Agricultural Irrigation	Drinking Water	12
Losses	Drinking Water	237
	TOTAL (AF)	2,048
NOTES: 1 AF = 325,851 US gallons		

Future Water Demands by Type

- Future District demands based on the following equation:
  - $Demands = Population \times GPCD$
  - Assumes 133 GPCD for future demand projections
  - District Infill Development (vacant parcels, parcels with District Reserved Water, and parcels on private wells included in District totals)
  - Annexations Under Review (Dana Reserve)

Demands for Potable and Non-Potable Water - Projected					
Use Type	Projected Water Use (AF)				
	2025	2030	2035	2040	2045
Single-Family (66%)	1,406	1,450	1,495	1,540	1,584
Multi-Family (6%)	136	140	144	149	153
Commercial (5%)	97	100	104	107	110
Landscape (13%)	265	273	282	290	299
Other (<1%)	7	7	7	7	8
Agricultural Irrigation (1%)	18	18	19	20	20
Losses (9%)	190	196	202	208	214
District Subtotal (AF)	**2,118**	**2,186**	**2,253**	**2,320**	**2,388**
Annexations Under Review	176	352	352	352	352
Subtotal (AF)	**2,294**	**2,538**	**2,605**	**2,672**	**2,740**
Sales to Other Agencies	833	833	833	833	833
Grand Total (AF)	**3,127**	**3,371**	**3,438**	**3,505**	**3,573**

Projected Supplies and Allocation

Water Supplies — Projected						
Water Supply	Description	Projected Water Supply				
		2025	2030	2035	2040	2045
Groundwater	Santa Maria River Valley Groundwater Basin	2,533	2,533	2,533	2,533	2,533
Purchased or Imported Water	Nipomo Supplemental Water Projected (District allocation)	2,167	2,167	2,167	2,167	2,167
Purchased or Imported Water	Nipomo Supplemental Water Projected (WMWC and GSWC allocation)	833	833	833	833	833
	Subtotal (AF)	**5,533**	**5,533**	**5,533**	**5,533**	**5,533**
Purchased or Imported Water	Nipomo Supplemental Water Projected (Future Supply Project)*	3,200	3,200	3,200	3,200	3,200
	Total (AF)	**8,733**	**8,733**	**8,733**	**8,733**	**8,733**

*Additional 3,200 AFY NSWP delivery is currently limited by Santa Barbara County license agreement and required water system improvements to accept the full delivery of imported water.

Water Supply and Demand Balance

Water Supply & Demand Projections						
Water Supply	**Description**	**Projected Water Supply**				
		2025	**2030**	**2035**	**2040**	**2045**
Imported Water Supply	Nipomo Supplemental Water Projected New Development Water	500	500	500	500	500
	Nipomo Supplemental Water Projected Required Take Water*	2,500	2,500	2,500	2,500	2,500
Sub-total Import Water Supply (A + B = C)	Total Available Import Water Supply (NSWP)	**3,000**	**3,000**	**3,000**	**3,000**	**3,000**
Total Water Demand	Project Future Demands**	3,127	3,371	3,438	3,505	3,573
Groundwater Supply (D - C = E)	Pumping from Santa Maria River Valley Groundwater Basin***	**127**	**371**	**438**	**505**	**573**

*District required to take 2,500 AFY per Stipulation

**Includes existing District demand, future Infill Development, Annexations Under Review, wholesale delivery to GSWC and WMWC

*** Currently the District is in NMMA Shortage Response Stage 4 with voluntary groundwater reduction goal of 1,267 AFY (50%)

Projected Supply Availability – Dry and Normal Years

- For a normal year, it was assumed that future supply projections are based on available groundwater during a Stage 1 drought level and imported water volumes
- For a single dry year, it was assumed that future supply projections are based on available groundwater during a Stage 2 drought level and imported water volumes
- Based on the analysis for a normal and single-dry year, there is sufficient resources to serve future demands during normal year conditions

Normal Year Supply and Demand Comparison

	2025	2030	2035	2040	2045
Supply totals (Groundwater)	2,533	2,533	2,533	2,533	2,533
Supply totals (Imported)	3,000	3,000	3,000	3,000	3,000
Demand totals	3,127	3,371	3,438	3,505	3,573
Difference (AF)	**2,406**	**2,162**	**2,095**	**2,028**	**1,960**

NOTES: 1 AF = 325,851 US gallons

Single Dry Year Supply and Demand Comparison

	2025	2030	2035	2040	2045
Supply totals (Groundwater)	2,027	2,027	2,027	2,027	2,027
Supply totals (Imported)	3,000	3,000	3,000	3,000	3,000
Demand totals	3,127	3,371	3,438	3,505	3,573
Difference (AF)	**1,900**	**1,656**	**1,589**	**1,522**	**1,454**

NOTES: 1 AF = 325,851 US gallons

Projected Supply Availability – Next 5 Years

- For five consecutive dry years, it was assumed NMMA would declare a Stage 2 drought level for the first year and increase the voluntary reduction in subsequent years up to 60% (1,013 AFY from groundwater)
- Based on the analysis of the District's projected demands and water supply, there are sufficient resources to serve future demands during multiple dry years

Multiple Dry Years Supply and Demand Comparison						
		2025	**2030**	**2035**	**2040**	**2045**
First year	Supply total (Groundwater)	2,027	2,027	2,027	2,027	2,027
	Supply total (Imported)	3,000	3,000	3,000	3,000	3,000
	Demand totals (AF)	3,127	3,371	3,438	3,505	3,573
	Difference	**1,900**	**1,656**	**1,589**	**1,522**	**1,454**
Second year	Supply total (Groundwater)	1,733	1,733	1,733	1,733	1,733
	Supply total (Imported)	3,000	3,000	3,000	3,000	3,000
	Demand totals (AF)	3,127	3,371	3,438	3,505	3,573
	Difference	**1,606**	**1,362**	**1,295**	**1,228**	**1,160**
Third year	Supply total (Groundwater)	1,267	1,267	1,267	1,267	1,267
	Supply total (Imported)	3,000	3,000	3,000	3,000	3,000
	Demand totals (AF)	3,127	3,371	3,438	3,505	3,573
	Difference	**1,140**	**896**	**829**	**762**	**694**
Fourth year	Supply total (Groundwater)	1,013	1,013	1,013	1,013	1,013
	Supply total (Imported)	3,000	3,000	3,000	3,000	3,000
	Demand totals (AF)	3,127	3,371	3,438	3,505	3,573
	Difference	**886**	**642**	**575**	**508**	**440**
Fifth year	Supply total (Groundwater)	1,013	1,013	1,013	1,013	1,013
	Supply total (Imported)	3,000	3,000	3,000	3,000	3,000
	Demand totals (AF)	3,127	3,371	3,438	3,505	3,573
	Difference	**886**	**642**	**575**	**508**	**440**

Water Shortage Contingency Plan (WSCP)

- The WSCP is a part of the 2020 UWMP, but it will also be adopted separately as a stand-alone document
- The WSCP must include six standard water shortage levels that distinguish shortages from normal reliability
- The District's Ordinance No. 3.24.010 was used as a basis for the WSCP

Water Shortage Contingency Plan Levels

Shortage Level	Percent Shortage Range	Shortage Response Actions
1	Up to 10%	Always in place with voluntary measures and outreach.
2	Up to 20%	Potentially Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan with goal of voluntary 20% reduction in groundwater production.
3	Up to 30%	Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan with goal of voluntary 30% reduction in groundwater Production.
4	Up to 40%	Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan with goal of voluntary 30% reduction in groundwater production.
5	Up to 50%	Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan, lasting more than 1 year from the initial declaration; or Severe Water Shortage declaration pursuant to NMMA declaration triggered by both the Key Well Index and the Coastal Area Criterion with goal of voluntary 50% reduction in groundwater production.
6	>50%	Severe Water Shortage Condition declaration pursuant to NMMA Water Shortage Condition and Response Plan, lasting more than 2 years from the initial declaration, based on both the Key Well Index and Coastal Area Criterion with goal of voluntary 60% reduction in groundwater production.

Water Shortage Contingency Plan

- In accordance with CWC 10632, the District will conduct an annual water and demand assessment by July 1st each year
- The District's demand reduction actions for each stage are included in the WSCP

Demand Reduction Actions		
Stage	**Restrictions and Prohibitions on End Users**	**Penalty, Charge, or Other Enforcement?**
1	Other - Education for water conservation methods.	No
1	Other - Public outreach for voluntary reduction in water use by 15%	No
1	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Yes
1	Landscape - Limit landscape irrigation to specific times	Yes
1	Landscape - Restrict or prohibit runoff from landscape irrigation	Yes
1	Water Features - Restrict water use for decorative water features, such as fountains	Yes
1	Landscape- Check all irrigation systems periodically	Yes
2	All Stage 1 reduction actions	Yes
2	Water Features- Cover swimming pools and spas when not in use	Yes
2	Other - Prohibit use of potable water for washing hard surfaces	Yes
3	All Stage 1 and 2 reduction actions	Yes
3	Landscape - Limit landscape irrigation to specific days	Yes
3	Other – Prohibit use of hoses without automatic shut-off devices	Yes
3	Landscape - Other landscape restriction or prohibition	Yes
3	Other – Prohibit use of potable water for construction and dust control	Yes
3	Other - Turn off all automated irrigation systems	Yes
3	Water Features – Prohibit water use for decorative water features, such as fountains	Yes
4	All Stage 1,2 and 3 reduction actions	Yes
4	Landscape - Other landscape restriction or prohibition	Yes
5	All Stage 1,2,3 and 4 reduction actions	Yes
5	Landscape - Other landscape restriction or prohibition	Yes
6	All Stage 1,2,3,4 and 5 reduction actions	Yes


Questions & Discussion
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