

# City of Rohnert Park Urban Water Management Plan 2020



# 1 CONTENTS

Executive Summary.....	1
Overview .....	1
City’s Water Supply Portfolio.....	1
City’s Water Use Projections .....	2
Reliability of the City’s Water Supply .....	3
City’s Compliance with the Water Conservation Act of 2009 .....	4
Ongoing Considerations.....	5
Drought Risk Assessments .....	5
Contingency Planning .....	6
Supply Enhancements.....	6
Demand Management.....	6
1. Introduction & Overview .....	7
1.1 Background and Purpose .....	7
1.2 Urban Water Management Planning and the California Water Code .....	7
1.3 Changes from the 2015 UWMP.....	8
1.4 Urban Water Management Plans in Relation to Other Planning Efforts .....	9
1.4.1 Relationship to the City’s General Plan.....	9
1.4.2 Relationship to the Santa Rosa Plain Groundwater Management Plan.....	9
1.4.3 Relationship to the Santa Rosa Plain Groundwater Sustainability Plan.....	9
1.5 UWMP Organization.....	10
2 Plan Preparation .....	11
2.1 Basis for Preparing a Plan .....	11
2.2 Regional Planning .....	11
2.3 Individual or Regional Planning and Compliance .....	12
2.4 Fiscal or Calendar Year and Unit of Measure .....	12
2.5 Coordination and Outreach.....	13
3 System Description .....	15
3.1 General Service Area Description.....	15
3.1.1 Political Characteristics and Governance .....	15

3.1.2	Description of Water and Recycled Water Systems.....	16
3.2	Service Area Boundary Maps .....	16
3.3	Service Area Climate.....	20
3.3.1	Climate Statistics .....	20
3.3.2	Climate Change.....	20
3.4	Service Area Population and Demographics .....	21
3.5	Land Uses within the Service Area .....	22
4	Water Use Characterization.....	24
4.1	Demand Analysis Methodolgy.....	24
4.2	Non-Potable Versus Potable Water Use .....	24
4.3	Distribution System Water Losses.....	24
4.4	Past, Current and Projected Water Use by Sector .....	25
4.4.1	Water Use Sectors Listed in the Water Code .....	26
4.4.2	Water Use Sectors in Addition to Those Listed in the Water Code .....	26
4.4.3	Past and Current Water Use.....	26
4.4.4	Projected Water Use .....	28
4.4.5	Estimated Water Use for 2021-2025 Drought Risk Assessment .....	31
4.5	Water Use for Lower Income Households .....	32
4.6	Estimating Future Water Savings .....	32
4.7	Climate Change Considerations .....	33
5	SBX7-7 Baselines, Targets and 2020 Compliance .....	35
5.1	General Requirements for Baseline and Targets .....	35
5.2	Service Area Population .....	35
5.3	Gross Water Use.....	36
5.4	Baseline and Target Summary.....	36
5.5	2020 Compliance with Daily Per Capita Water Use Targets .....	37
5.6	Regional Alliance .....	38
6	System Supplies .....	39
6.1	Purchased or Imported Water (Sonoma Water Supply) .....	39
6.1.1	Past and Current Sonoma Water Supply.....	39
6.1.2	Sonoma Water’s Water Rights .....	40
6.1.3	Hydrologic Modeling and Supply Sufficiency .....	41

6.1.4	Future Sonoma Water Supply .....	42
6.2	Groundwater .....	42
6.2.1	Groundwater Basin Description .....	43
6.2.2	Groundwater Quality.....	44
6.2.3	Adjudicated Basins .....	44
6.2.4	Sufficiency of Groundwater.....	44
6.2.5	Groundwater Management .....	45
6.2.6	Limitations to Groundwater Pumping and Overdraft Conditions.....	45
6.2.7	Historical Groundwater Pumping (2015-2020) .....	45
6.2.8	Future Groundwater Pumping .....	46
6.3	Wastewater and Recycled Water .....	46
6.3.1	Recycled Water Coordination .....	46
6.3.2	Wastewater Collection, Treatment, and Disposal.....	46
6.3.3	Recycled Water System .....	48
6.3.4	Recycled Water Beneficial Uses .....	49
6.3.5	Actions to Encourage and Optimize Future Recycled Water Use .....	50
6.4	Surface Water.....	50
6.5	Stormwater.....	51
6.6	Desalinated Water Opportunities .....	51
6.7	Exchanges or Transfers.....	51
6.8	Future Water Projects .....	51
6.9	Summary of Existing and Planned Sources of Water .....	51
6.10	Climate Change Impacts to Supply.....	53
6.11	Energy Intensity.....	53
7	Water Service Reliability and Drought Risk Assessment .....	55
7.1	Constraints on Water Sources.....	55
7.1.1	Constraints on the Sonoma Water Supply .....	55
7.1.2	Constraints on the Groundwater Supply.....	56
7.1.3	Constraints on the Recycled Water Supply .....	56
7.2	Year Type Characterization and Supply and Demand Assessment .....	56
7.2.1	Water Service Reliability Summary .....	57
7.2.2	Water Service Reliability – Normal Year .....	58

7.2.3	Water Service Reliability – Single-Dry Year .....	59
7.2.4	Water Service Reliability – Five Consecutive Dry Years .....	59
7.2.5	Water Service Reliability – Management Tools and Options .....	61
7.3	Drought Risk Assessment .....	61
8	Water Shortage Contingency Plan .....	64
9	Demand Management Measures .....	65
9.1	Water Conservation Program Overview .....	65
9.2	Demand Management Measures.....	65
9.2.1	Water Waste Prevention Ordinance .....	65
9.2.2	Metering.....	65
9.2.3	Conservation Pricing.....	66
9.2.4	Public Education and Outreach .....	66
9.2.5	Programs to Assess and Manage Distribution System Real Loss .....	66
9.2.6	Water Conservation Program Coordination and Staffing Support .....	67
9.2.7	Other Demand Management Measures .....	67
9.3	Implementation over the Past Five Years .....	68
9.4	Implementation to Achieve Water Use Targets.....	68
9.5	Water Use Objectives (Future Requirements) .....	68
9.6	Member of the California Water Efficiency Partnership (Formerly CUWCC) .....	68
10	Plan Adoption Submittal and Implementation.....	70
10.1	Inclusion of All 2020 Data.....	70
10.2	Notice of Public Hearing.....	70
10.2.1	Notices to Cities and Counties.....	70
10.2.2	Notice to the Public.....	71
10.3	Public Hearing and Adoption.....	71
10.4	Plan Submittal .....	72
10.5	Public Availability .....	72
10.6	Amending an Adopted UWMP or Water Shortage Contingency Plan .....	72
11	References .....	73

## List of Tables

Table 2-1 Public Water System Information (DWR Table 2-1) .....	11
Table 2-2 Plan Identification (DWR Table 2-2).....	12
Table 2-3 Agency Identification (DWR Table 2-3).....	13
Table 2-4 Water Supplier Information Exchange (DWR Table 2-4) .....	14
Table 3-1 Climate Data .....	20
Table 3-2 Retail population – Current and Projected (DWR Table 3-1).....	21
Table 3-3 – General Plan Land Use Acreages.....	23
Table 3-4 Comparison of Projected Growth under General Plan Alternatives.....	23
Table 4-1 (DWR Table 4-4) 12 Month Audit Loss Reporting .....	25
Table 4-2 Total Past Water Use, AF .....	27
Table 4-3 (DWR Table 4-1R) Retail Demands for Potable Water – Actual.....	28
Table 4-4 (DWR Table 4-2) Demands for Potable and Raw Water – Projected.....	30
Table 4-5 (DWR Table 4-3) Total Water Demands.....	31
Table 4-6 Estimated Potable Water Use for 2021-2025 (AFA) .....	32
Table 4-7 Estimated Non-Potable Water Use for 2021-2025 (AFA) .....	32
Table 4-8 (DWR Table 4-5) Inclusion in Water Use Projection .....	33
Table 5-1 (DWR Table 5-1) Baselines and Targets Summary .....	37
Table 5-2 (DWR Table 5-2) 2020 Compliance .....	37
Table 6-1 Sonoma Water Supply Availability in Acre-Feet per Year .....	42
Table 6-2 (DWR Table 6-1) Groundwater Volume Pumped.....	46
Table 6-3 (DWR Table 6-2) Wastewater Collected within the Service Area in 2020 .....	47
Table 6-4 (DWR Table 6-3) Wastewater Treatment and Discharge within the Service Area .....	48
Table 6-5 (DWR Table 6-4) Current and Projected Recycled Water Direct Beneficial Uses Within Service Area.....	49
Table 6-6 (DWR Table 6-5) 2015 UWMP Recycled Water Use Projections Compared to 2020 Actual .....	50
Table 6-7 (DWR Table 6-8) Water Supplied- Actual.....	52
Table 6-8 (DWR Table 6-9) Water Supplies- Projected.....	52
Table 6-9 Recommended Emergency Reporting – Total Utility Approach (DWR Table O-1B).....	54
Table 7-1 Basis of Water Year Data (Reliability Assessment) (DWR Table 7-1 Retail).....	57
Table 7-2 Normal Year Supply and Demand Comparison (DWR Table 7-2) .....	58
Table 7-3 Single-Dry Year Supply and Demand Comparison (DWR Table 7-3).....	59
Table 7-4 Multiple Dry Year Supply and Demand Comparison (DWR Table 7-4) .....	60
Table 7-5 Estimated Water Use for 2021-2025 (AFA).....	62
Table 7-6 Five-Year Drought Risk Assessment Tables to Address Water Code Section 10635(b) (DWR Table 7-5) .....	63

## List of Figures

Figure 1- Normal and Multiple Dry Year Supply Projections .....	1
Figure 2- Single Dry Year Supply Projections .....	2
Figure 3 – Water Demand Projections .....	3
Figure 4 – Supply and Demand Comparison for Normal and Multiple Dry Years .....	4
Figure 5 – Supply and demand comparison for single dry years .....	4
Figure 6 – Water Use with Respect to Targets Established under the Water Conservation Act of 2009 ....	5
Figure 7 – 2020 Drought risk assessment summary .....	5
Figure 3-1 Water Service Area Map .....	17
Figure 3-2 Potable Water System Map .....	18
Figure 3-3 Recycled Water System Map .....	19

## Appendices

1. Public Notices
2. Resolution of Adoption
3. 2020 Water Demand Analysis and Conservation Measure Update
4. AWWA Water Loss Worksheets
5. Draft General Plan 2040 Climate Change Element
6. City and Regional SB X7-7 Compliance Tables
7. Water Policy Resolution
8. Recent Groundwater Hydrographs
9. Reporting of Energy Intensity
10. Water Shortage Contingency Plan
11. Completed DWR UWMP Tables
12. DWR Checklist



## EXECUTIVE SUMMARY

### OVERVIEW

State law requires all water suppliers with more than 3,000 water connections to prepare an Urban Water Management Plan. The City of Rohnert Park supplies water to just under 10,000 water service connections and is required to prepare and file an Urban Water Management Plan with the state every five years. The purpose of the Urban Water Management Plan is to ensure that the City has adequate water supply to meet demands over a 20 year period. Urban Water Management Plans provide background information and projections that support the City’s decisions about new land use approvals, drought and disaster contingency planning, water conservation investments and capital expenditures for water system reliability, resiliency and expansion.

The City has been preparing Urban Water Management Plans since 2005, which have consistently documented that the City has adequate supply to meet existing and planned demands.

### CITY’S WATER SUPPLY PORTFOLIO

The Urban Water Management Planning Act requires that the City evaluate its water supply portfolio under “normal” conditions, single dry year conditions and multiple dry year conditions. Single dry year conditions are determined by the most dry year on record, which is currently 1977. Multiple dry year conditions are the driest five years on record, which are currently 1987 through 1991.

The City has three water supply sources, purchased water from Sonoma Water, local groundwater, and recycled water purchased from Santa Rosa Water. These three sources of supply provide the City with a high degree of reliability, including the ability to manage constraints on one supply by utilizing the others. The City has evaluated each of these sources for reliability since 2005.

Figure 1 illustrates the water supply that the City has projected to have available from each source in normal and multiple dry years in its 2005, 2010, 2015 and 2020 Urban Water Management Plans. Figure 1 illustrates that these supply projections have been quite consistent over time.

**FIGURE 1- NORMAL AND MULTIPLE DRY YEAR SUPPLY PROJECTIONS**

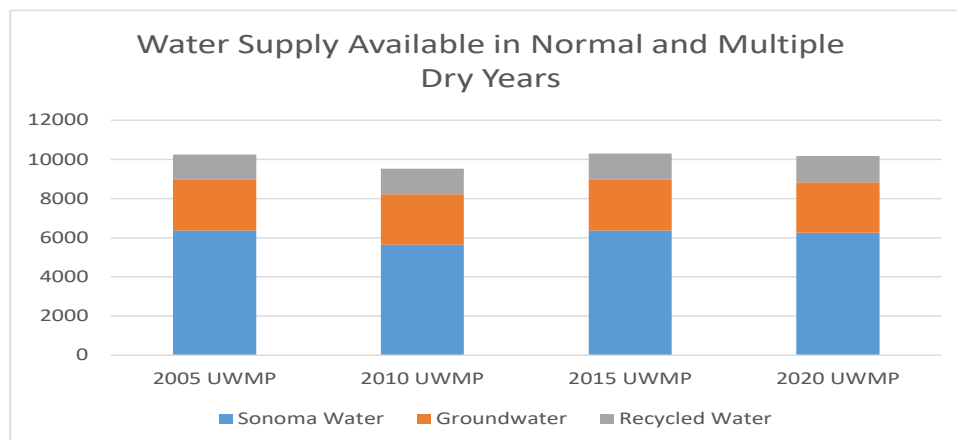
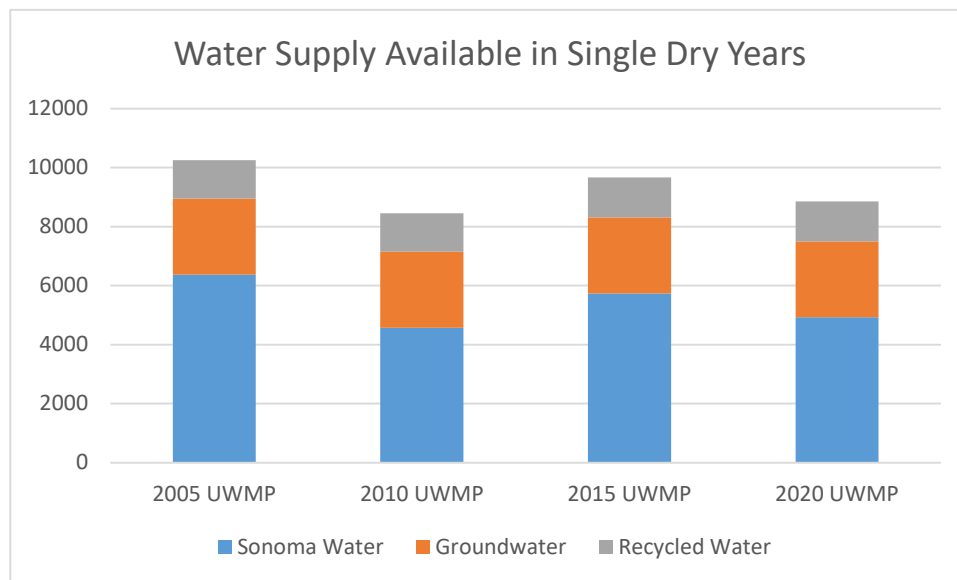


Figure 2 illustrates the water supply that the City has projected to have available from each source in single dry years in its 2005, 2010, 2015 and 2020 Urban Water Management Plans. Figure 2 illustrates that the projections of water supply available in single dry years from Sonoma Water have decreased slightly over time. While the City has always been conservative in estimating the supply available from Sonoma Water, this trend emphasizes the importance of continuing to work with Sonoma Water on projects that enhance the reliability and resiliency of its supply. Current projects are discussed briefly in the “Supply Enhancement” section below.

**FIGURE 2- SINGLE DRY YEAR SUPPLY PROJECTIONS**

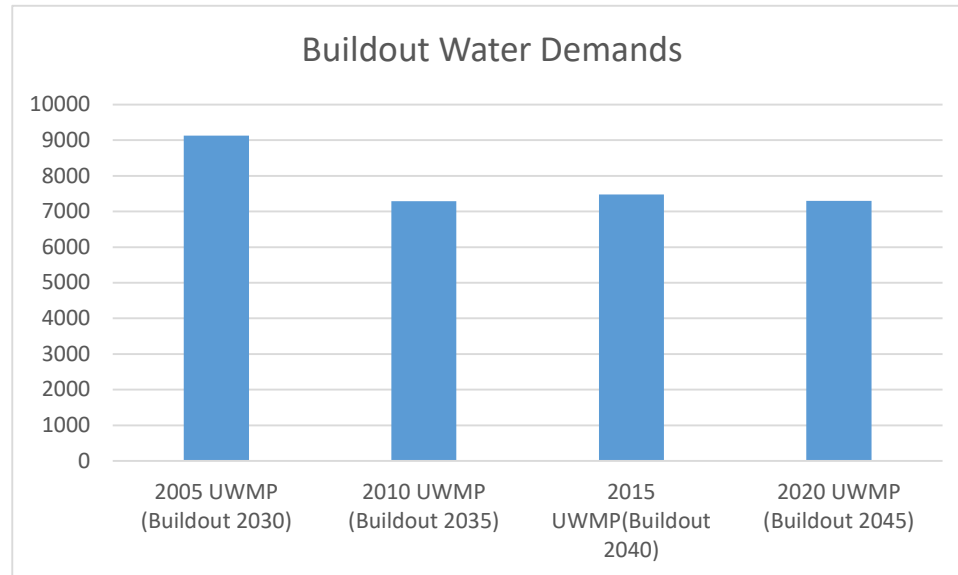


## CITY’S WATER USE PROJECTIONS

The Urban Water Management Planning Act also requires that the City project its water demands for the next 20 to 25 years. For this current Urban Water Management Plan, demands were projected using the Association of Bay Area Government’s Plan Bay Area population projections and validated with the General Plan 2040 projections. The City estimates its buildout water demands will be just under 7,300 AF. Which is consistent with projections from the 2010 and 2015 Urban Water Management Plans (the 2005 Plan estimated buildout water demands at over 9,000 AF).

Figure 3 illustrates the City’s buildout water demands as they have been projected ver time and illustrates that the City has been very successful in reducing potable water demands. It is also important to note that the this Urban Water Management Plan documents that the City is using its full allocation of recycled water from Santa Rosa water and future efforts to optimize recycled water use will be necessary if the City’s wishes to supply more new users with recycled water.

**FIGURE 3 – WATER DEMAND PROJECTIONS**

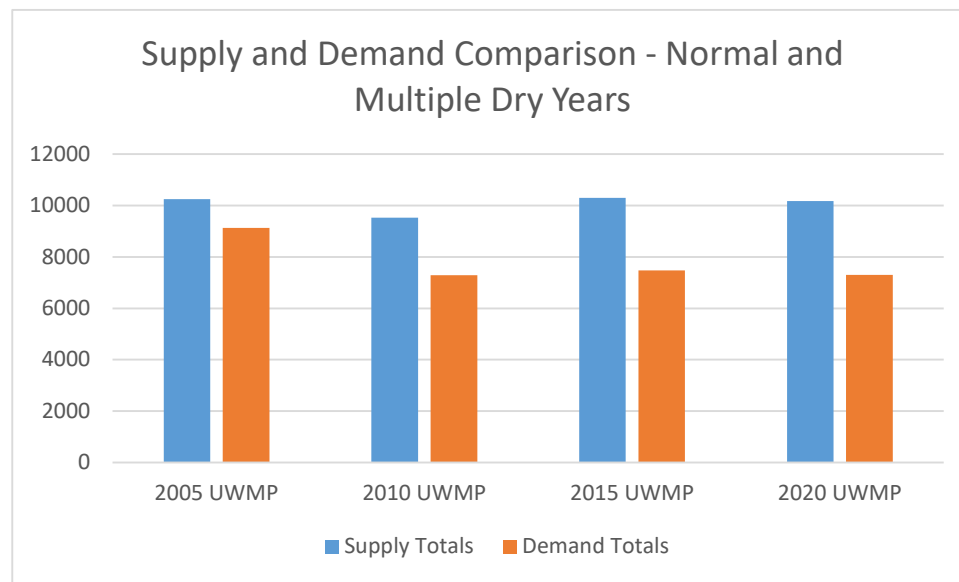


### RELIABILITY OF THE CITY'S WATER SUPPLY

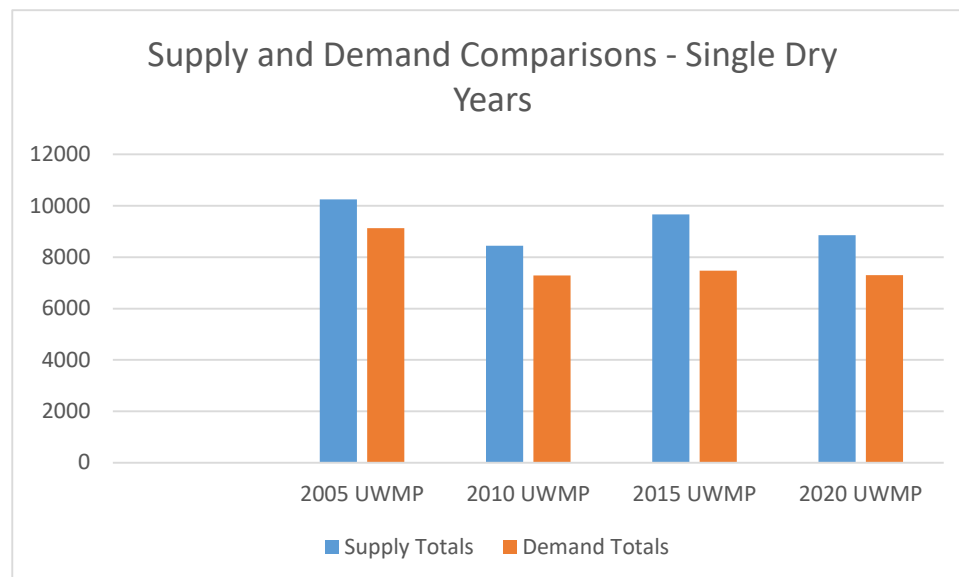
One of the most important analyses included in the Urban Water Management Plan is the comparison of water supply to water demands. If projected water demands exceed supply, then the Urban Water Management Plan must describe the water suppliers' plans to ensure adequate supply. Plans can include expanding supply, reducing demand through conservation or both.

The City's analysis clearly documents that water supplies are adequate to meet demands through the planning horizon of 2045. Figure 4 illustrates this comparison for normal and multiple dry years. Figure 5 illustrates it for single dry years. While the City will continue to work to manage demand and expand supply reliability, these actions are not necessary to ensure a balance between supply and demand.

**FIGURE 4 – SUPPLY AND DEMAND COMPARISON FOR NORMAL AND MULTIPLE DRY YEARS**



**FIGURE 5 – SUPPLY AND DEMAND COMPARISON FOR SINGLE DRY YEARS**

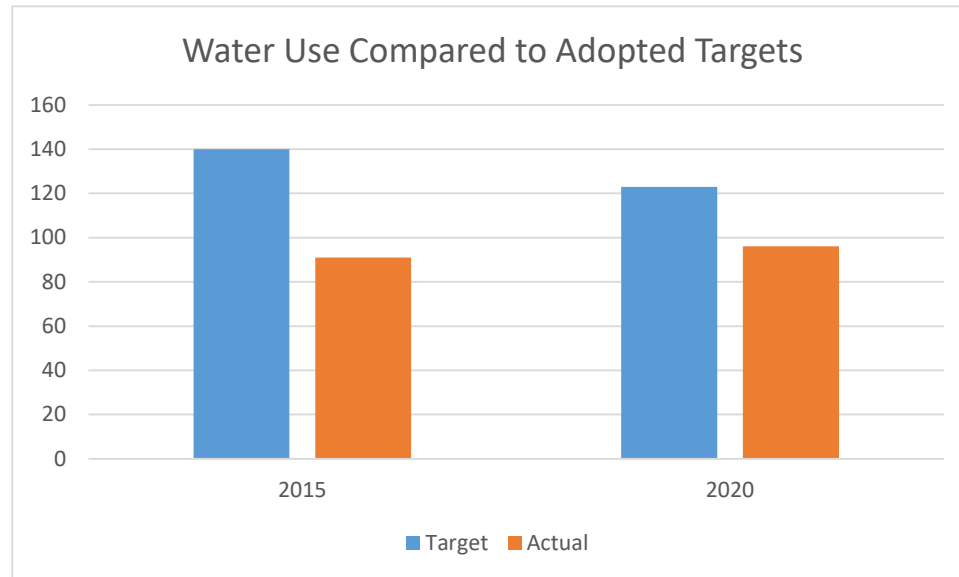


## CITY’S COMPLIANCE WITH THE WATER CONSERVATION ACT OF 2009

The Water Conservation Act of 2009 set a goal of achieving a 20 percent statewide reduction in urban per capita water use by December 31, 2020 (“20 by 2020”). The Water Conservation Act required each urban water supplier to set 2015 and 2020 water use targets in their 2010 Urban Water Management Plans and report on progress towards meeting those targets in their 2015 and 2020 Urban Water Management Plans. Water use targets are calculated by taking all potable water use in the City in all sectors (single family, multifamily, commercial, institutional, industrial and landscape) and dividing it by the total population. While targets are reported gallons per capita per day (gpcpd) because they are calculated by dividing all water use by the population, the target value does not attempt to represent “average” use per resident in their home.

In 2010, the City set a 2020 target of 119 gallons per capita per day, which it was allowed to revise to 123 gpcpd in 2015 because of more accurate population information from the 2010 census. The City's actual per capita water use in 2020 was 96 gpcpd. Figure 6 illustrates the City's progression towards successfully meeting its water use target.

**FIGURE 6 – WATER USE WITH RESPECT TO TARGETS ESTABLISHED UNDER THE WATER CONSERVATION ACT OF 2009**

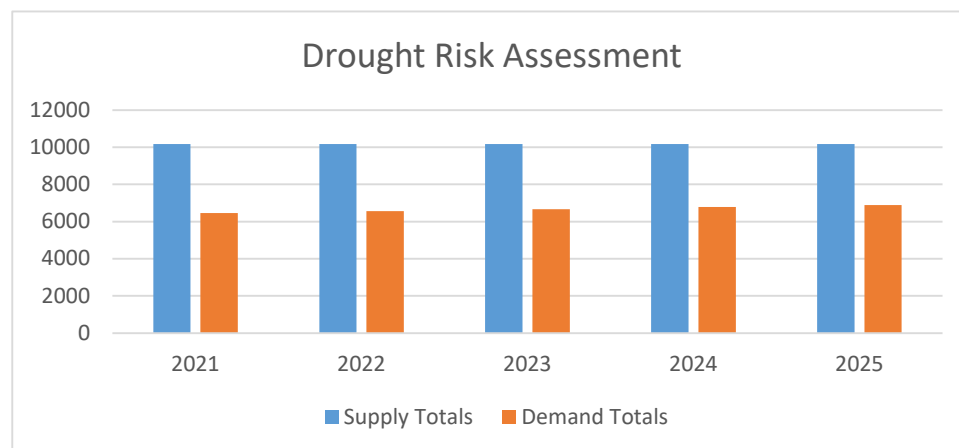


## ONGOING CONSIDERATIONS

### DROUGHT RISK ASSESSMENTS

The 2020 Urban Water Management Plan includes a new Drought Risk Assessment where the City's projected demands for the next five years are compared against the five driest years on record. Figure 7 illustrates that supplies are adequate to meet demands in the event of a near-term drought. The drought risk assessment will be performed annually and submitted to the state, which will help inform drought preparedness in between the five year Urban Water Management plan cycles.

**FIGURE 7 – 2020 DROUGHT RISK ASSESSMENT SUMMARY**



#### CONTINGENCY PLANNING

The City's updated Water Shortage Contingency Plan is included as an Appendix to the 2020 UWMP. This plan outlines the actions the City will take under various supply restrictions.

#### SUPPLY ENHANCEMENTS

While not specifically required because of a supply and demand imbalance, the City will continue to work with Sonoma Water and the Groundwater Sustainability Agency to develop and implement projects that improve supply reliability. Projects currently under development include:

- Regional Resiliency Study, which is in progress and seeks to optimize connections between Sonoma Water's infrastructure and the infrastructure maintained by the various water contractors
- Forecast Informed Reservoir Operations, which allows more flexibility in operating Lake Mendocino and possibly Lake Sonoma, to better prepare for droughts and floods
- Aquifer Storage and Recovery, which would allow surface water to recharge groundwater so that both supplies can be used to manage increasing variability in rainfall patterns.

#### DEMAND MANAGEMENT

The City has successfully reduced demand on its system over time through, conservation programs, improving building codes, plumbing codes and landscape design requirements. The City also provide water conservation rebates and works primarily through Sonoma Marin Water Savings Partnership and Sonoma Water to educate the public with respect to best water use practices.

New state legislation will be putting more focus on demand management including establishing new standards for per capita water use. The City can anticipate ongoing investments in demand management programs to address these new state requirements.

## 1. INTRODUCTION & OVERVIEW

The City of Rohnert Park (City) is located in central Sonoma County, approximately 50 miles north of San Francisco. The City provides water service to just under 10,000 service connections in the North Coast Hydrologic Region and meets the definition of an “urban water supplier” as outlined in California Water Code Section 10610 et. seq.. The City receives its wholesale potable water from the Sonoma County Water Agency (Sonoma Water), its wholesale recycled water from the Santa Rosa Subregional Water Reclamation System (Santa Rosa Water) and also uses groundwater from the Santa Rosa Plain Subbasin of the Santa Rosa Valley Groundwater Basin as part of its potable supply.

This 2020 Urban Water Management Plan (UWMP) was prepared by the City in order to comply with the requirements of the California Water Code. In addition to meeting the requirements of state law, the City will use this UWMP to support the preparation of the Water Supply Assessment for its General Plan Update (General Plan 2040) and to support the preparation of Water Supply Assessments and Water Supply Verifications for new development.

### 1.1 BACKGROUND AND PURPOSE

The purpose of the UWMP is to demonstrate that a water supplier can meet the water demands of its customers over a 25-year planning horizon and under a range of hydrologic conditions. The UWMP also serves as foundational planning document that synthesizes information on current and projected land use and water demands; water supply reliability and challenges to that reliability; opportunities for demand management; and opportunities for regional coordination. For the past 15 years, the City has utilized its Urban Water Management Plans to plan capital investments, support planned growth and comply with state mandates for demand management, groundwater management and integrated use of various water supplies.

This UWMP analyzes current and projected water supply and demand for normal, single-dry and multiple-dry water year conditions. This UWMP also documents the City’s compliance with the water use targets it adopted in 2010 as required by the Water Conservation Act of 2009. The evaluations and projections in this document are based on the City’s current water supply contracts with Sonoma Water and Santa Rosa Water and planned water supply projects. This document is a “living” document and will be updated every five years or as changes to the City’s water supply and demand pattern require.

### 1.2 URBAN WATER MANAGEMENT PLANNING AND THE CALIFORNIA WATER CODE

The Urban Water Management Planning Act (Act) is codified in California Water Code Sections 10610 through 10657 and requires each urban water supplier with 3,000 or more connections, or which supplies at least 3,000 acre-feet per year (AFA) of water, to submit a UWMP to the California Department of Water Resources (DWR) every five years. The City has just under 10,000 connections and meets the definition of an “urban water supplier”.

The Act specifies the required content of each UWMP and allows for the level of detail provided in each UWMP to reflect the size and complexity of the water supplier. The Act requires projections in five-year increments for a minimum of 20 years. This UWMP considers a 25-year planning horizon through year 2045.

The Act specifically exempts UWMPs from review under the California Environmental Quality Act (CEQA)<sup>1</sup>. Additionally, Water Supply Assessments (Water Code Section 10631) and Water Supply Verifications (Water Code Section 66473.7) may rely on the UWMP as a foundational document for findings required in these documents.

### 1.3 CHANGES FROM THE 2015 UWMP

In this 2020 UWMP, the City is making its final report on compliance with the water supply targets it adopted in 2010 in accordance with the Water Conservation Act of 2009 (SB X7-7). In addition, because the Act has been modified over the years in response to the State’s water shortages, droughts, and other factors, this 2020 UWMP responds to the major additions and changes to the California Water Code since the City’s 2015 UWMP was prepared. The new information required by these changes is summarized below.

- Five Consecutive Dry-Year Water Reliability Assessment [CWC Section 10635(a)]. The Legislature modified the dry-year water reliability planning from a “multiyear” time period of three years to a “drought lasting five consecutive water years”. This statutory change requires the urban water supplier to analyze the reliability of its water supplies to meet its water use over extended drought periods. This requirement is addressed in Chapters 6 and 7.
- Drought Risk Assessment [CWC Section 10635(b)]. The California Legislature created a new UWMP requirement for drought planning because of the significant duration of recent California droughts and predictions about hydrological variability attributable to climate change. The Drought Risk Assessment (DRA) requires the urban water supplier to assess water supply reliability over a five-year period from 2021 to 2025 that examines water supplies, water uses, and the resulting water supply reliability under a reasonable prediction for five consecutive dry years, assuming the hydrology will be equivalent to the driest five year period on record. The DRA is discussed in Chapter 7.
- Seismic Risk [CWC Section 10632.5]. The Water Code now requires urban water suppliers to specifically address seismic risk to various water system facilities and to have a mitigation plan. Water supply infrastructure planning is correlated with the regional hazard mitigation plan associated with the urban water supplier. The City’s seismic risk and mitigation plans are discussed in the Water Shortage Plan included in Appendix 10 of this plan.
- Energy Use Information [CWC Section 10631.2]. The Water Code now requires suppliers to include readily obtainable information on estimated amounts of energy for their water supply extraction, treatment, distribution, storage, conveyance, and other water uses. The reporting of this information was voluntary in 2015. The City’s energy use information is provided in Chapter 6 and Appendix 9 of this plan.
- Water Loss Reporting for Five Years [CWC Section 10608.34]. The Water Code added the requirement to include the past five years of water loss audit reports as part of this UWMP. The City’s water loss reporting is provided in Chapter 4 and Appendix 4 of this plan.
- Water Shortage Contingency Plan [CWC Section 10632]. In 2018, the Legislature modified the UWMP laws to require a stand-alone Shortage Plan with specific elements. The Shortage Plan is a document

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<sup>1</sup> Water Code Section 10652



that provides the urban water supplier with an action plan for a drought or catastrophic water supply shortage. Although the new requirements are more prescriptive than previous versions, many of these elements have long been included in Shortage Plans, other Sections of UWMPs, or as part of the urban water supplier's standard procedures and response actions. Many of these actions were implemented by the urban water suppliers during the last drought to successfully meet changing local water supply challenges. The Shortage Plan is also used by DWR, the State Water Board, and the Legislature in addressing extreme drought conditions or statewide calamities that impact water supply availability. The City's Shortage Plan is described in Chapter 8 and included in Appendix 10 of this plan.

## 1.4 URBAN WATER MANAGEMENT PLANS IN RELATION TO OTHER PLANNING EFFORTS

### 1.4.1 RELATIONSHIP TO THE CITY'S GENERAL PLAN

The City is currently updating its General Plan to cover a planning horizon through 2040. The City has experienced growth in several of its defined Specific Plan Areas and Planned Development Areas and anticipates that this growth will continue. The growth projections in this UWMP are based on 2018 projections from the Association of Bay Area Governments (ABAG). These projections are consistent with the land use, population and employment projections that the City is using for its General Plan update.

### 1.4.2 RELATIONSHIP TO THE SANTA ROSA PLAIN GROUNDWATER MANAGEMENT PLAN

In October 2014, the Sonoma County Board of Supervisors adopted the *Santa Rosa Plain Watershed Groundwater Management Plan* (Groundwater Management Plan). This voluntary groundwater management plan was developed in accordance with the requirements of Water Code 10750 et. seq. (the Groundwater Management Act) and includes a series of implementation strategies to better monitor, model and manage groundwater in the Santa Rosa Plain. This Groundwater Management Plan concluded that there was a possibility that future groundwater demands could exceed the budget for the basin, however recent monitoring efforts demonstrate generally stable or rising groundwater levels throughout the basin. The work initiated through the Santa Rosa Plain Groundwater Management is being continued by the Santa Rosa Plain Groundwater Sustainability Agency.

### 1.4.3 RELATIONSHIP TO THE SANTA ROSA PLAIN GROUNDWATER SUSTAINABILITY PLAN

In 2017, as a result of the requirements of the Groundwater Sustainability Act of 2014, the eligible water suppliers in the Santa Rosa Plain groundwater basin joined together to form the Santa Rosa Plain Groundwater Sustainability Agency (Santa Rosa Plain GSA). The SRP GSA is building on the work started with the 2014 Groundwater Management Plan in order develop a Groundwater Sustainability Plan, which is due to the State in 2022. In order to monitor the sustainability of its groundwater supply, the City has monitored groundwater levels in and around its wellfield for over a decade. This data, along with the City's groundwater demand projection, have been provided to the GSA to support its work.

## 1.5 UWMP ORGANIZATION

This 2020 UWMP contains the appropriate chapters and tables required by the Urban Water Management Planning Act and has been prepared based on guidance provided by the California Department of Water Resources (DWR) in their “Urban Water Management Plan Guidebook 2020” (DWR Guidebook). This 2020 UWMP is organized into the following chapters:

- Chapter 1: Introduction and Overview
- Chapter 2: Plan Preparation
- Chapter 3: System Description
- Chapter 4: Water Use Characterization
- Chapter 5: SB X7-7 Baselines, Targets and 2020 Compliance
- Chapter 6: System Supplies
- Chapter 7: Water Service Reliability and Drought Risk Assessment
- Chapter 8: Water Shortage and Contingency Plan
- Chapter 9: Demand Management Measures
- Chapter 10: Plan Adoption, Submittal, and Implementation
- Chapter 11: References

This 2020 UWMP also contains the following appendices of supplemental information and data related to the City’s 2020 UWMP:

- Appendix 1: Public Notices
- Appendix 2: Adoption Resolution
- Appendix 3: 2020 Water Demand Analysis and Water Conservation Update
- Appendix 4: AWWA Water Loss Worksheets
- Appendix 5: Draft General Plan 2040 Climate Change Element
- Appendix 6: City and Regional Alliance SBX7-7 Tables
- Appendix 7: Water Policy Resolution
- Appendix 8: Recent Groundwater Hydrographs
- Appendix 9: Reporting of Energy Intensity
- Appendix 10: Water Shortage Contingency Plan
- Appendix 11: Completed DWR UWMP Tables
- Appendix 12: DWR Checklist

## 2 PLAN PREPARATION

### 2.1 BASIS FOR PREPARING A PLAN

The City is a municipal water supplier providing service to just under 10,000 water connections including single and multifamily residences, commercial, industrial and institutional customers and irrigation connections. Under normal hydrologic conditions, the City’s historic potable water deliveries have varied between 4,300 and 6,500 acre feet annually (AFA). The City meets the definition of an “urban water supplier” under the California Water Code and prepared Urban Water Management Plans in 2005, 2010 and 2015. Prior to that time, the City adopted the regional Urban Water Management Plan prepared by Sonoma Water. Table 2-1 below provides the City’s Public Water System information.

TABLE 2-1 PUBLIC WATER SYSTEM INFORMATION (DWR TABLE 2-1)

Submittal 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 *
<i>Add additional rows as needed</i>			
4910014	City of Rohnert Park	9,696	4,574
<b>TOTAL</b>		<b>9,696</b>	<b>4,574</b>
<b>* Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.</b>			
NOTES:			

### 2.2 REGIONAL PLANNING

The cities of Santa Rosa, Rohnert Park, Sonoma, Cotati, and Petaluma, the Town of Windsor, North Marin and Valley of the Moon Water Districts, California-American Water Company and Sonoma Water formed the Sonoma-Marín Saving Water Partnership (Partnership) in 2010. The purpose of the Partnership is to establish financial obligations for conservation activities, to identify and recommend implementation of water conservation projects and to maximize implementation of cost-effective projects for the Partnership members. The Partnership coordinates all water use efficiency focused media buys in the region and provides support to members that need additional assistance with implementing local programs and/or meeting conservation targets. The Partnership also serves as a “regional alliance” for the purpose of

reporting baseline and targets under the Water Conservation Act of 2009. The Partnership is consistently recognized by the U.S Environmental Protection Agency for the quality of its conservation work.

## 2.3 INDIVIDUAL OR REGIONAL PLANNING AND COMPLIANCE

While the City participates in regional water planning efforts and is part of regional alliance for reporting under the Water Conservation Act of 2009, the City is preparing an individual UWMP in order to better support its land use goals and the review of development proposals within its sphere of influence. Table 2-2 summarizes the City’s approach to regional planning and compliance.

TABLE 2-2 PLAN IDENTIFICATION (DWR TABLE 2-2)

Submittal Table 2-2: Plan Identification			
Select Only One	Type of Plan		Name of RUWMP or Regional Alliance <i>if applicable</i> (select from drop down list)
<input checked="" type="checkbox"/>	Individual UWMP		
	<input type="checkbox"/>	Water Supplier is also a member of a RUWMP	
	<input checked="" type="checkbox"/>	Water Supplier is also a member of a Regional Alliance	North Marin-Sonoma Alliance
<input type="checkbox"/>	Regional Urban Water Management Plan (RUWMP)		
NOTES:			

## 2.4 FISCAL OR CALENDAR YEAR AND UNIT OF MEASURE

In this 2020 UWMP, the City is reporting water use by calendar year and in acre feet (AF). Table 2-3 summarizes this reporting standard.

TABLE 2-3 AGENCY IDENTIFICATION (DWR TABLE 2-3)

Submittal Table 2-3: Supplier Identification	
Type of Supplier (select one or both)	
<input type="checkbox"/>	Supplier is a wholesaler
<input checked="" type="checkbox"/>	Supplier is a retailer
Fiscal or Calendar Year (select one)	
<input checked="" type="checkbox"/>	UWMP Tables are in calendar years
<input type="checkbox"/>	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 * (select from drop down)	
Unit	AF
<i>* Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.</i>	
NOTES:	

## 2.5 COORDINATION AND OUTREACH

In accordance with California Water Code Section 10631(j), the City has provided water use projections to both its wholesale potable water supplier, Sonoma Water, and its wholesale recycled water supplier, Santa Rosa Water. Table 2-4 summarizes this coordination.

TABLE 2-4 WATER SUPPLIER INFORMATION EXCHANGE (DWR TABLE 2-4)

<b>Submittal Table 2-4 Retail: Water Supplier Information Exchange</b>
The retail Supplier has informed the following wholesale supplier(s) of projected water use in accordance with Water Code Section 10631.
Wholesale Water Supplier Name
<i>Add additional rows as needed</i>
Sonoma County Water Agency
Santa Rosa Subregional System
NOTES:

The City meets at least monthly with its water wholesaler, Sonoma Water, and the other water contractors. This monthly coordination has been instrumental in coordinating water supply and demand analyses for the preparation of this document. The City and the other water contractors have worked together to prepare a regional water demand and conservation analysis (see Chapter 4) and to achieve regional water use reduction goals (see Chapter 5).

Chapter 10 provides more description of the public notification and outreach efforts that took place within the City's service area during the development and adoption of this 2020 UWMP. Noticing is included in Appendix 1.

### 3 SYSTEM DESCRIPTION

#### 3.1 GENERAL SERVICE AREA DESCRIPTION

The water service area under consideration in this UWMP is bounded by the City's Sphere of Influence as outlined in its General Plan 2020. The City does not have outside service area connections. The City's service area, including the various planning areas are illustrated in Figure 3-1, found in Section 3.2. The City's current General Plan 2020 and its proposed General Plan 2040 identify six major Specific Plan Areas (SPAs) and three major infill planned developments (PDs or PDAs) which include:

- Northeast SPA
- University District SPA
- Southeast SPA
- Stadium Lands PD
- Central Rohnert Park PDA
- Canon Manor SPA
- Wilfred Dowdell SPA
- Northwest SPA
- SOMO Village PD

Because the City is in the process of updating its General Plan, the land uses, densities and population projections of General Plan 2040 have informed this Urban Water Management Plan and water use projections take into account the development anticipated by the General Plan Update.

Additionally, while the City's Sphere of Influence includes Sonoma State University and the reservation lands of the Federated Indians of the Graton Rancheria, which both have their own potable water system and are not served by the City. The City does provide recycled water service to Sonoma State University.

##### 3.1.1 POLITICAL CHARACTERISTICS AND GOVERNANCE

The City's retail water systems are governed by a five member City Council which includes a mayor.

The City received wholesale water from Sonoma Water, which is governed by a Board of Directors composed of the members of the Sonoma County Board of Supervisors. The relationship between the Agency and its water contractors, including the City, is outlined in the *Restructured Agreement for Water Supply* (Restructured Agreement). The agreement provides for a Water Advisory Committee (WAC) to advise the Agency's Board of Directors on policy issues. The WAC representatives for the City are one Council member and one alternate Council member selected by the Council. The WAC is limited to an advisory role.

Santa Rosa Water, which is the City's wholesale supplier of recycled water, is managed and operated by the City of Santa Rosa. Santa Rosa Water treats, recycles and disposes of wastewater generated by the cities of Santa Rosa, Cotati, Rohnert Park and Sebastopol and the South Park County Sanitation District. The relationship between the City of Santa Rosa and the other partners is defined by the *Agreement between the City of Santa Rosa and the City of Rohnert Park, City of Sebastopol, City of Cotati and South Park County Sanitation District for the Use of Santa Rosa Subregional Sewage System* dated April 3, 1975 and subsequently amended on September 1, 1987, October 20, 1987, December 1, 1994, July 1, 2002 and November 19, 2008. Santa Rosa Water's governance includes a Technical Advisory Committee (TAC). The Rohnert Park City Engineer participates in the TAC.

The Santa Rosa Plain GSA is a Joint Powers Authority charged with ensuring compliance with the Groundwater Sustainability Act. A member of the City Council sits on the Board of Directors of the GSA. Sonoma Water provides the majority of the staff services for the GSA.

### 3.1.2 DESCRIPTION OF WATER AND RECYCLED WATER SYSTEMS

The City's water service area is approximately 6.4 square miles and serves residential, commercial, industrial, institutional and irrigation needs. The City is at elevation 106 feet above mean sea level. The distribution system consists of approximately 120 miles of water distribution system mains and two pressure zones. Most of the distribution system mains are 6- to 8-inch diameter pipes with a small number in the 10- to 16-inch diameter range. The City's water system includes eight water storage tanks ranging in size from 300,000 gallons to 1.3 million gallons. The total storage available to the City's system is just over 5 million gallons. Figure 3-2 (included in Section 3.2) illustrates the potable water distribution system

The City also delivers tertiary treated recycled water to customers. The recycled water is produced by Santa Rosa Water and delivered through a low-pressure and a high-pressure distribution system operated and maintained by the City. The low-pressure system includes an 18-inch diameter pipeline that runs along Wilfred Avenue and Golf Course Drive and ends at Foxtail Golf Course near the northern city limits. This low-pressure system delivers approximately 500 acre-feet per year (AFA). The high-pressure system begins at the Rohnert Park Pump Station, located at the intersection of Stony Point Road and Rohnert Park Expressway and extends generally along the Copeland Creek corridor to Sonoma State University. The high-pressure system delivers between 600 and 900 AFA. Figure 3-3 (included in Section 3.2) illustrates the recycled water system.

## 3.2 SERVICE AREA BOUNDARY MAPS

Figures 3-1, 3-2 and 3-3, on the following pages, illustrate the City's water service area, its potable water distribution system and its recycled water distribution system respectively.



FIGURE 3-1 WATER SERVICE AREA MAP

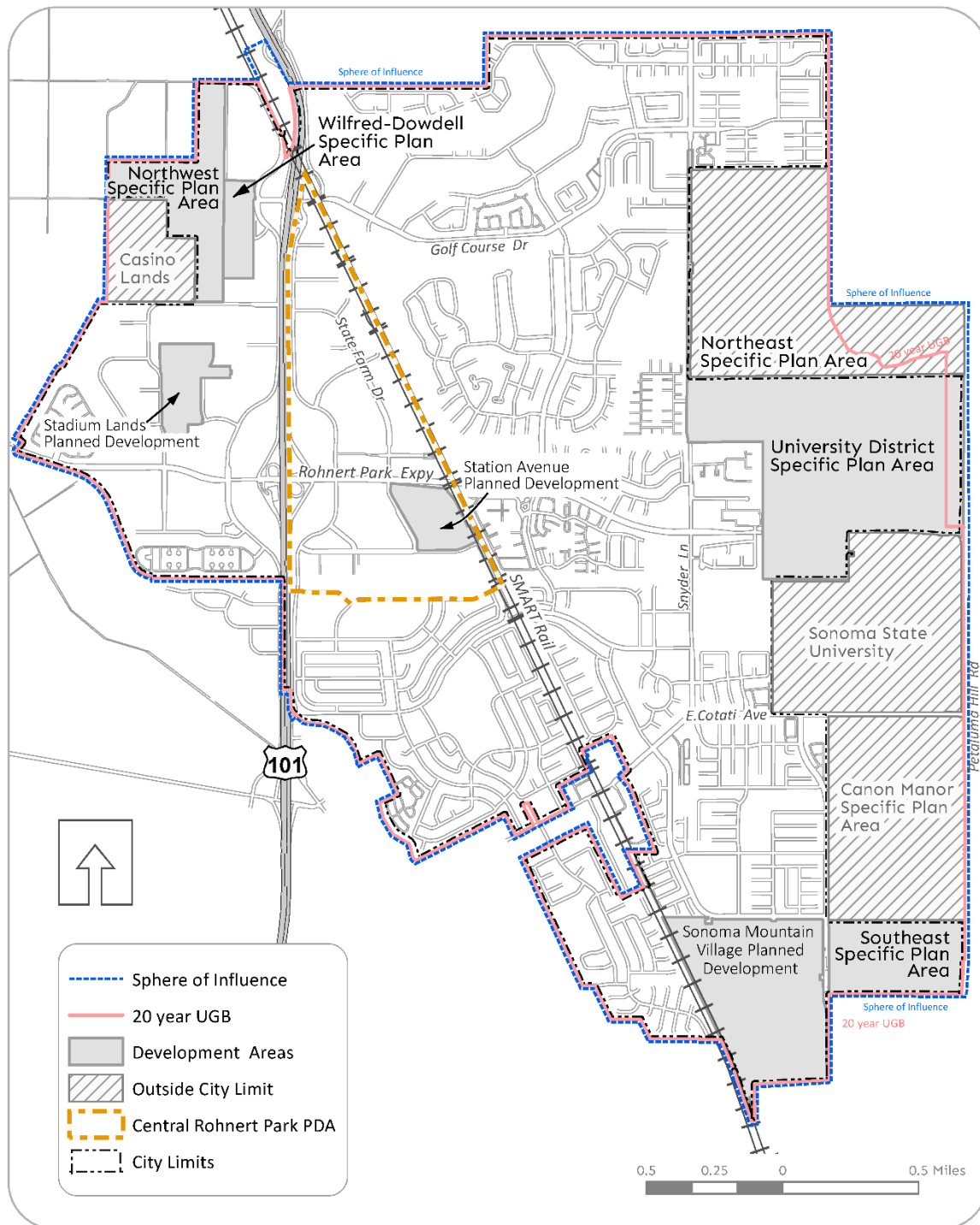
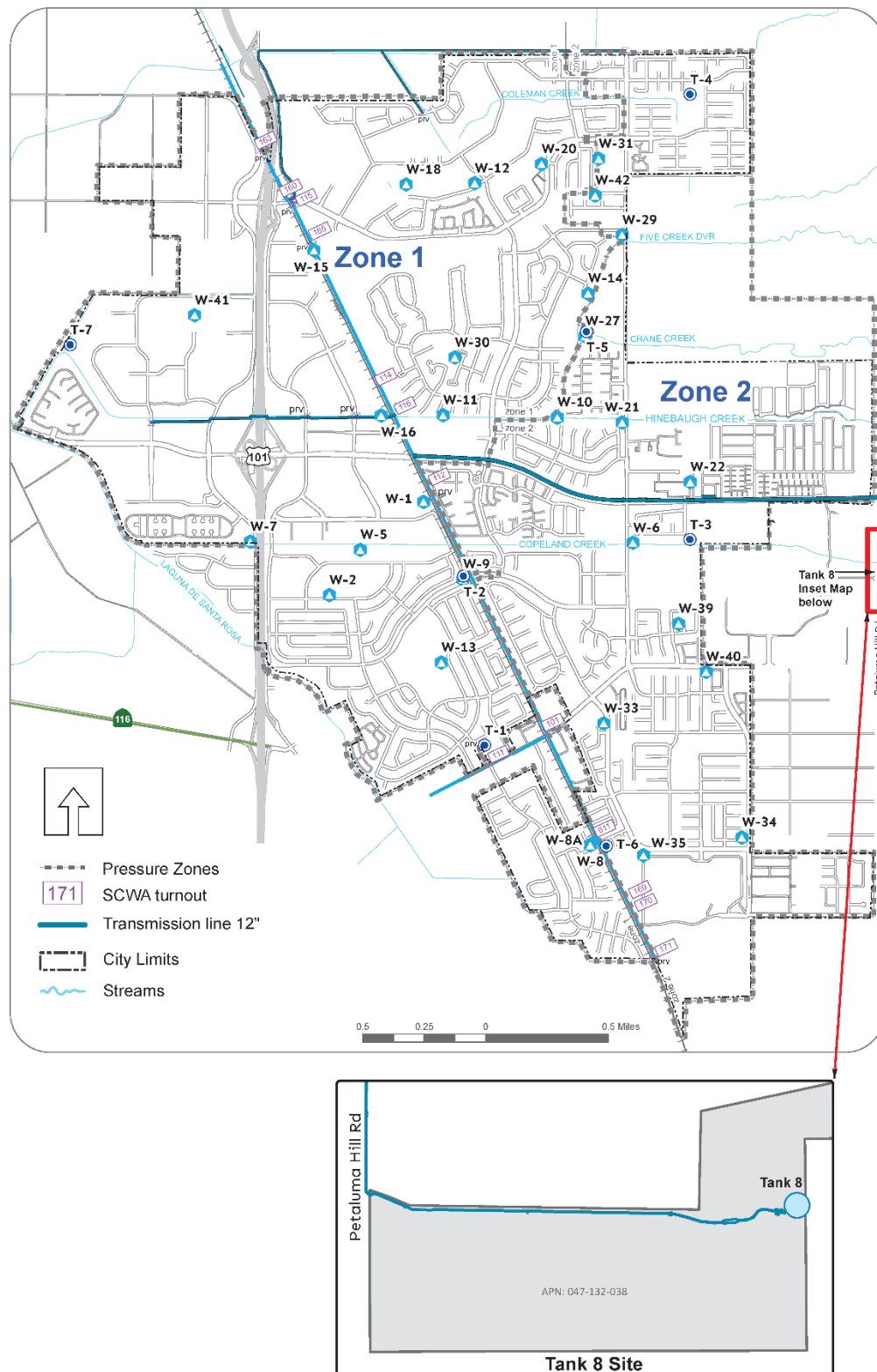
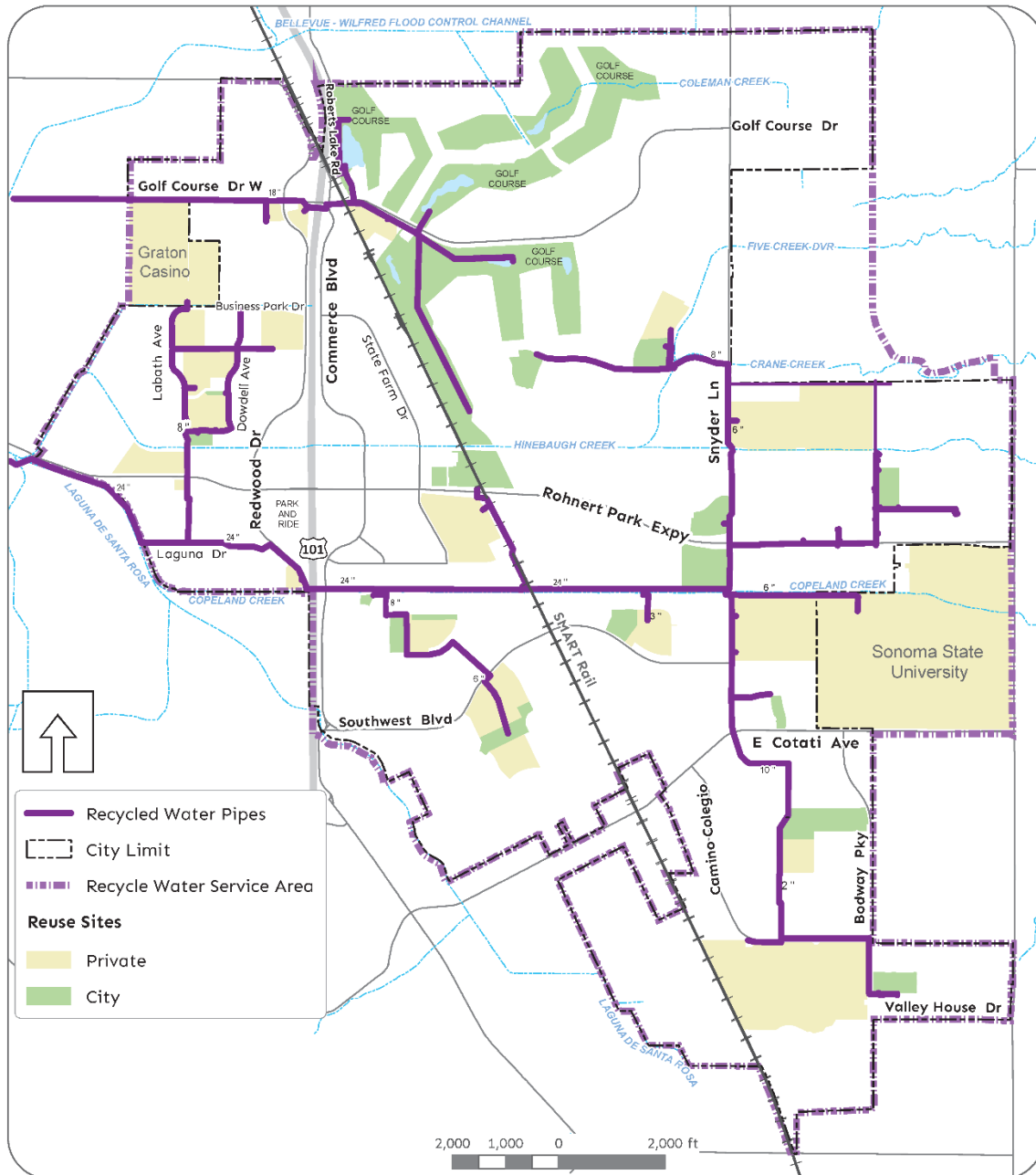


FIGURE 3-2 POTABLE WATER SYSTEM MAP



**FIGURE 3-3 RECYCLED WATER SYSTEM MAP**



**City Of Rohnert Park  
2021 UWMP**

Figure 3-3 Recycled Water System

### 3.3 SERVICE AREA CLIMATE

The City is located in the Russian River watershed. The climate and hydrology of the Russian River watershed directly affect the City because its wholesale supply from the Sonoma Water is drawn from the Russian River. The climate of the Russian River watershed is tempered by its proximity to the Pacific Ocean and is characterized by cool damp winters and warmer, drier summers.

#### 3.3.1 CLIMATE STATISTICS

Water use within the City’s service area is dependent on various climate factors such as temperature, precipitation, and evapotranspiration (ETo). Table 3-1 includes monthly average ETo, rainfall, and temperatures for the City. Of note, the average ETo exceeds the average rainfall, indicating that under average circumstances landscape irrigation can reasonably be expected to place a demand on the City’s water supplies.

TABLE 3-1 CLIMATE DATA

	Average High (F)	Average Low (F)	Average Precipitation (IN)	Average ETO (in)
January	57.3	36.7	6.20	1.15
February	61.8	39.2	5.32	1.76
March	65.2	40.3	4.09	3.11
April	69.4	42.1	2.06	4.34
May	74.0	45.6	0.97	5.48
June	79.9	49.2	0.26	6.20
July	82.5	50.5	0.03	6.36
August	82.8	50.3	0.08	5.75
September	82.6	49.2	3.80	4.56
October	79.9	45.5	1.60	3.22
November	66.5	40.2	3.64	1.58
December	58.1	37.1	5.50	0.99
<b>Total</b>			<b>30.13</b>	<b>40.50</b>
Source	Rainfall and Temperature Data from Western Regional Climate Center data for Santa Rosa 1902-2013 ETo from California Irrigation Management System, CIMIS Monthly Average ET report for Santa Rosa Station 83			

#### 3.3.2 CLIMATE CHANGE

The Act requires water suppliers to account for the impact of climate change on water supplies and supply reliability. Effects of climate change are expected to include the impacts outlined below.

- **Increased Water Demand:** hotter days and nights, as well as a longer irrigation season, will increase landscaping and irrigation water needs. Unless mitigating steps are taken, peak water demands could increase.
- **Less Reliable Water Supply:** the City’s Sonoma Water and recycled water supply rely, to some extent, on water stored in reservoirs and ponds. More extreme weather events such as more intense atmospheric rivers combined with hotter, longer drought periods have the potential to result in more variable reservoir storage levels which could impact water supply reliability. Water quality is not expected to decline.
- **More Need for Disaster Planning:** wildfires are expected to increase in intensity and frequency, droughts are expected to become deeper and longer, and floods are expected to become larger

and more frequent, all of which can impact both the demand for water and the volume of water in long term storage.

Discussion of how these climate change effects could impact water demands, supplies, and reliability can be found in Chapter 4 (Water Use Characterization), Chapter 6 (Water Supply Characterization), and Chapter 7 (Water Service Reliability and Drought Risk Assessment).

### 3.4 SERVICE AREA POPULATION AND DEMOGRAPHICS

The City’s water service area is generally bounded by its Urban Growth Boundary and population projections derive directly from land uses allowed by the City’s General Plan, which is described in Section 3.5 below. The City is in the process of updating its General Plan to include a planning horizon through 2040. As part of preparing this UWMP, the City partnered with the other Sonoma Water contractors to retain a consultant, EKI Environment and Water (EKI), to develop a consistent set of population and land use projections. EKI’s analysis utilized the 2018 Association of Bay Area Governments (ABAG) Plan Bay Area Projections for 2040 population and employment in context with recent historical population estimates to develop population projections for the City. The City then compared these projections with the land-used based build out projections coming from its General Plan model and was able to confirm that both data sets result in consistent projections. Table 3-2 (DWR Table 3-1) presents these population figures through the year 2045.

TABLE 3-2 RETAIL POPULATION – CURRENT AND PROJECTED (DWR TABLE 3-1)

Submittal Table 3-1 Retail: Population - Current and Projected						
Population Served	2020	2025	2030	2035	2040	2045(opt)
	42,484	50,220	52,720	53,895	56,050	58,291
NOTES: 1. 2020 population figure is from Department of Finance Data and used in SBX7-7 calculations. Remaining projections are ABAG Plan Bay Area - see EKI 2020 Water Demand Analysis and Water Conservation Measure Update - Table 4-1 2. Recently available 2020 census data suggests a population of 44,360 (4.4% above DOF data). For consistency with the DWR UWMP Guidebook and the 2020 Water Demand Analysis, the City is using DOF data in this 2020 UWMPs. Future UWMPs will report based on final 2020 census data						

The state requires the inclusion of service area socioeconomic information as part of the system description in UWMPs. Through the General Plan update, the City worked with its consultant (Mintier Harnish) to develop a series of white papers on Rohnert Park’s “existing condition”. The bullet points below highlight the findings from both the *Land Use and Community Character* whitepaper and the *Economic Development* whitepaper and provide an overview of the demographic factors that will shape the community over time.

- Rohnert Park’s Urban Growth Boundary (UGB) limits future development to prevent sprawl and promote efficient and orderly growth patterns, stability and certainty in long-term planning. The

City's growth management ordinance is designed to keep new residential growth at an average of 1% per year and is currently achieving that average growth rate.

- While, much of the residential development in Rohnert Park consists of low-density single-family homes, the City has a higher proportion of multifamily housing (55 percent) than does the rest of Sonoma County (25 percent).
- Most of the City's future development capacity is within specific area plans and planned developments (see Figure 3-1).
- The California Tiger Salamander (CTS) is federally endangered and a California species of special concern. Development west of Highway 101 and in the SOMO Village Planned Development is impacted by the presence of the CTS.
- In addition to the Federated Indians of the Graton Rancheria's Resort and Casino, the Tribe owns land within city limits, which it is working to bring into federal trust. Development west of Highway 101 will be influenced by the Tribe's plans.
- After very slow growth from 2000 through 2015, housing construction has accelerated in Rohnert Park. The City has added over 400 new housing units and 2,800 residents, due to new housing development, increasing household sizes and reduced vacancies in existing units.
- Plan Bay Area 2040 projects about 4,600 new households for Rohnert Park between 2018 and 2040, which aligns with the City's General Plan projections outlined in Table 3-4. The total buildout development capacity in the City is close to 6,000 units, illustrating that City has sufficient land supply to accommodate projected residential growth.
- The average wages and salaries for jobs in Rohnert Park are lower than both county and state averages. Rohnert Park's job base is heavily weighted towards retail, hospitality, and health care/social assistance jobs that have a lot of low paying positions.
- Comparing projected job growth out to 2040 with the existing vacant land supply, there appears to be an oversupply of retail land and a deficit of industrial and institutional (mainly for health care) sites. The "Change Alternative" in the City's General Plan 2040, described briefly in Section 3.5, works to rebalance the nonresidential land supply.
- The majority of Rohnert Park's nearly 1,100 lodging rooms are classified as "Upper Midscale" and above. Occupancy and room rates are growing, indicating support for additional hotel development.

### 3.5 LAND USES WITHIN THE SERVICE AREA

As noted above, the City's water service area is bounded by its Sphere of Influence as outlined in its General Plan 2020. The Sphere of Influence will carry through into the City's General Plan 2040 Update. Table 3-3 lists the current acreage associated with each type of land use under the current General Plan.

TABLE 3-3 – GENERAL PLAN LAND USE ACREAGES

Land Use	Acreage	Percent of Total
Single Family Residential	1,545	32.6%
Multifamily Residential	457	9.6%
Mobile Home	176	3.7%
Commercial	373	7.9%
Mixed Use	1	<1%
Office	62	1.3%
Public Institutional	440	9.3%
Industrial	250	5.3%
Parks and Open Space	485	10.2%
Agriculture	254	5.4%
Utility	9	<1%
Vacant	683	14.4%
<b>Total</b>	<b>4735</b>	<b>100%</b>

The City is carrying two land use alternatives into its General Plan 2040, the first “No Change” alternative would result in buildout under the same zoning at the current General Plan. The second “Change” alternative is very similar to the “No Change” alternative in the year 2040 but includes a modest increase in projected residential growth and a 22% increase in projected non-residential growth at buildout. The “Change” alternative deliberately rebalances and intensifies nonresidential land uses in the City in response to market trends towards industrial and institutional land uses and away from classic “big box” commercial uses. However, the nonresidential sector is expected to grow more slowly than the residential sector because of market factors and potential environmental constraints. Table 3-4 compares the two General Plan land use alternatives. As described above, the General Plan projections align very well with the Plan Bay Area projections used to project future water use through 2040.

TABLE 3-4 COMPARISON OF PROJECTED GROWTH UNDER GENERAL PLAN ALTERNATIVES

Land Use	Projected Growth (2040)			Projected Growth (Buildout)		
	No Change Alternative	Change Alternative	% Difference	No Change Alternative	Change Alternative	% Difference
Single Family Units	2,316	2,254	-2.68%	2,994	3,002	.27%
Multifamily Units	2,284	2,346	2.71%	2,953	3,125	5.82
<b>Total Residential</b>	<b>4,600</b>	<b>4,600</b>	<b>0%</b>	<b>5,947</b>	<b>6,127</b>	<b>3.08%</b>
Commercial square feet	895,100	899,300	.47%	1,483,551	1,132,512	-23.66%
Office square feet	244,800	244,800	0%	577,076	958,294	66.06%
Industrial square feet	329,000	329,000	0%	611,133	921,105	50.72%
Institutional square feet	364,700	364,700	0%	242,148	546,301	125.61%
<b>Total Nonresidential</b>	<b>1,833,600</b>	<b>1,837,800</b>	<b>.23%</b>	<b>2,913,909</b>	<b>3,558,213</b>	<b>22.11%</b>

## 4 WATER USE CHARACTERIZATION

This section provides an overview of the City’s past and projected water demands. The City anticipates that its total water demands through 2045 will be 7,229 acre feet annually (AFA) which includes 5,879 AFA of potable water and 1,350 AFA of recycled water. The demand estimates assume “passive” water conservation gains through implementation of plumbing and building codes and water efficient landscape ordinances. To be conservative, the demands do not assume gains from active water conservation programs.

### 4.1 DEMAND ANALYSIS METHODOLOGY

To prepare for the submission of its 2020 UWMP, the City contracted with EKI to prepare a 2020 Water Demand Analysis and Water Conservation Measure Update (the 2020 Demand Update) that:

- Updates the City’s potable water demand forecast through the year 2045; and
- Updates the range of potable water conservation savings that could be achieved.

The 2020 Demand Update reviews both the City’s potable and nonpotable recycled water use. The total projections have been adjusted to account for anticipated “passive” water savings which result from new and existing local ordinances (such as the Model Water Efficient Landscape Ordinance, National Plumbing Code, CALGreen, and State Plumbing Code). This chapter draws extensively on the findings of the 2020 Demand Update which is included as Appendix 3.

### 4.2 NON-POTABLE VERSUS POTABLE WATER USE

The City tracks potable water demand supplied by its domestic water system and nonpotable water (recycled water) demand supplied through a separate, dual-plumbed distribution system. Recycled water is used primarily for irrigation and serves approximately 75% of the City’s dedicated irrigation demand.

### 4.3 DISTRIBUTION SYSTEM WATER LOSSES

New regulations require water suppliers to include potable distribution system water losses for the preceding five years (to the extent records are available) and to project potable water losses in five-year increments for at least 20 years in their 2020 UWMPs. Potable distribution system water losses (also known as “real losses”) are the physical water losses from a supplier’s potable water distribution system and storage facilities up to the point of delivery to customers. In the City’s distribution system, the customer water meter is the point of delivery. Consistent with these new requirements, this section discusses the City’s past, current (2020), and projected future potable distribution system water losses out to 2045.

The City’s potable distribution system water losses for the preceding five years (2015-2019) were calculated annually using the AWWA Water Audit Method as required by the State with the adoption of Senate Bill 555 in 2015. Accordingly, the City submitted to the State an electronic copy of each annual audit of its potable distribution system’s water losses for the calendar years 2016 through 2019, using DWR’s online submittal tool. The water loss audit for 2015 preceded Senate Bill (SB) 555 requirements to submit



to the State as an electronic annual report, but it was submitted to DWR with the City's 2015 UWMP. Appendix P includes the Reporting Worksheet and Performance Indicators from the City's water loss audit reports for calendar years 2016 through 2020. Table 4-1 (DWR Table 4-4) provides a summary of the City's potable distribution water losses for the preceding five-year period.

TABLE 4-1 (DWR TABLE 4-4) 12 MONTH AUDIT LOSS REPORTING

Submittal Table 4-4 Retail: Last Five Years of Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss <sup>1,2</sup>
01/2016	420
01/2017	175.9
01/2018	377.24
01/2019	245.74
01/2020	160.17
<sup>1</sup> Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet. <sup>2</sup> Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.	
NOTES:	

Water losses out to 2045 were projected in the 2020 Demand Update and were based on the average pattern of water loss reported between 2017 and 2019. Water losses are projected at 8.5% of the total entering the City's distribution system.

As set forth in California Assembly Bill 1668 and Senate Bill 606, the State is in the process of adopting rules requiring urban retail water suppliers to meet volumetric performance standards for real water losses. The State has not yet finalized the City's target, but it appears likely that the target will be closely aligned with the State's draft proposed performance standard for real losses for the City of 13.1 gallons per connection per day<sup>2</sup>. The City's average real loss for 2016-2019 is 27.0 gallons per connection per day. The City is actively investing in meter replacement and main replacement projects to assist it in meeting the State's volumetric performance standard for water loss by 2027 as required.

#### 4.4 PAST, CURRENT AND PROJECTED WATER USE BY SECTOR

The City delivers potable water to the following sectors: single family, multi-family, commercial/industrial/institutional (the City's billing system combines these account types) and landscape irrigation. The remaining potable water demand is captured in the distribution system loss sector described below in

<sup>2</sup> State Water Resources Control Board, Draft Water Loss Performance Standards, April 9, 2020 (accessed online on 01-20-2021) [www.waterboards.ca.gov](http://www.waterboards.ca.gov)

Section 4.3.4. For this 2020 UWMP, the City uses definitions that are generally consistent with the DWR Guidebook and that are more specifically detailed below.

#### 4.4.1 WATER USE SECTORS LISTED IN THE WATER CODE

The City's potable water system serves these sectors:

- Single Family Residential: A single family dwelling unit. A lot with a free-standing building containing primary dwelling unit and potentially accessory dwelling units as permitted by state law.
- Multi-Family Residential: Multiple dwelling units contained within one building or several buildings within one complex.
- Commercial/Industrial/Institutional (and Governmental): As noted above, the City's billing system combines these classes of water use that include water users that provide or distribute a product or service, water users that are primarily a manufacturers or processors of materials or primarily engaged in research and development, and water users dedicated to public service including schools, courts, churches, government facilities, and nonprofit research institutions.
- Landscape: Water connections supplying water solely for landscape irrigation. Such landscapes may be associated with multi-family, commercial, industrial, or institutional/governmental sites, but are considered a separate water use sector if the connection is solely for landscape irrigation.

The City delivers non-potable recycled water to the landscape sector, including two City-owned golf courses, within its urban growth boundary including deliveries to Sonoma State University. As described in Chapter 3, Sonoma State University has its own potable water system and does not receive potable water from the City.

Within its urban system, the City does not provide sales of water to the following three sectors identified and defined as follows in the DWR Guidebook:

- Sales to other agencies: Water sales made to another agency.
- Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.
- Agricultural: Water used for commercial agricultural irrigation.

#### 4.4.2 WATER USE SECTORS IN ADDITION TO THOSE LISTED IN THE WATER CODE

The City does not provide water to Water Use Sectors other than those listed in the Water Code.

#### 4.4.3 PAST AND CURRENT WATER USE

The City's potable water use ranged from 3,942 AFA to 5,375 AFA over the period from 2011 through 2020. Potable use declined from 2014 through 2016, likely influenced by the historic drought conditions and mandatory state-wide restrictions. Potable water use remains below pre-drought conditions but has been increasing since 2016. While growth in water use may be associated with a degree of rebound following the drought, it is most likely the result of housing construction, including affordable housing construction, as required to meet the City's Regional Housing Needs Allocation (RHNA), imposed by the state's Housing and Community Development agency. The City is one of the few agencies in California on track to meet its RHNA.

The single family residential (SFR) sector comprises the largest proportion of the City’s total water use, and 2020 patterns may reflect the impact of the COVID-19 pandemic when residents were encouraged to work from home. Single family use increased by almost 8.3% (150 acre feet) while Commercial|Industrial|Institutional (CII) use was reduced by almost 43% (333 acre feet). The City believes this variability is attributed to both planned growth and the impact of the COVID-19 pandemic. In March 2020, due to the COVID-19 pandemic, the Sonoma County Health Officer issued a shelter in place order, which caused schools and workplaces to close and required residents to generally remain in their homes. This order remained in place through all of 2020 and clearly impacted use in the CII sector.

The trends related to growth in residential units can be projected to continue, in particular because the state continues to impose relatively large RHNA allocations on local agencies. These trends were taken into account in the 2020 Demand Update. However, the anomalous effects of the shelter-in-place requirements on water use sectors can be expected to be mitigated moving forward. The City’s projected water use, as outlined in the 2020 Demand Update is based on the historic trends from 2011 through 2019, including an allowance for planned growth. Projected water use does not take into account the sector specific anomalies seen in 2020.

Recycled water use from 2015-2020 ranged from 1,100 AFA to 1,429 AFA, reflecting the City’s commitment to connect new landscape irrigation demands to the recycled water system, whenever feasible.

A summary of the City’s past use of potable and non-potable water use is presented in Table 4-2. Table 4-3 provides DWR’s required information for 2020 water use. These data are based on meter reads and billing records used for the City’s Public Water System Electronic Annual Report for calendar year 2020.

**TABLE 4-2 TOTAL PAST WATER USE, AF**

Water Use Sector	Water Use (AFA)									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Single Family Residential	2,017	2,238	2,229	1,768	1,572	1,577	1,817	1,761	1,816	1,966
Multi-Family Residential	1,561	1,608	1,535	1,489	1,332	1,329	1,466	1,481	1,448	1,462
Commercial/Industrial/Institutional	1,020	851	1,239	726	641	801	748	776	778	455
Dedicated irrigation	319	391	372	316	397	325	397	402	413	408
<b>Total Potable Consumption</b>	<b>4,917</b>	<b>5,088</b>	<b>5,375</b>	<b>4,299</b>	<b>3,942</b>	<b>4,032</b>	<b>4,428</b>	<b>4,420</b>	<b>4,455</b>	<b>4,290</b>
Non Revenue Water	356	562	1,123	674	380	430	333	478	434	284
<b>Total Potable Use</b>	<b>5,273</b>	<b>5,650</b>	<b>6,498</b>	<b>4,973</b>	<b>4,322</b>	<b>4,462</b>	<b>4,761</b>	<b>4,898</b>	<b>4,889</b>	<b>4,575</b>
Recycled Water					1,100	1,047	1,149	1,403	1,091	1,429
<b>Total Water Use</b>	<b>5,273</b>	<b>5,650</b>	<b>6,498</b>	<b>4,973</b>	<b>5,422</b>	<b>5,509</b>	<b>5,910</b>	<b>6,301</b>	<b>5,980</b>	<b>6,004</b>

TABLE 4-3 (DWR TABLE 4-1R) RETAIL DEMANDS FOR POTABLE WATER – ACTUAL

Submittal Table 4-1 Retail: Demands for Potable and Non-Potable <sup>1</sup> Water - Actual			
Use Type	2020 Actual		
<b>Drop down list</b> May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool	Additional Description (as needed)	Level of Treatment When Delivered Drop down list	Volume <sup>2</sup>
Add additional rows as needed			
Single Family		Drinking Water	1,966
Multi-Family		Drinking Water	1,462
Commercial	Includes all use from commercial, industrial and institutional aside from dedicated landscape meters	Drinking Water	455
Landscape	Includes use through all dedicated landscape meters	Drinking Water	408
Losses		Drinking Water	283
<b>TOTAL</b>			<b>4,574</b>
<sup>1</sup> Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4.			
<sup>2</sup> Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.			
NOTES:			

#### 4.4.4 PROJECTED WATER USE

As described earlier in this section, the City worked with EKI to develop a 2020 Demand Update. The 2020 Demand Update synthesized historic trends, growth projections and water conservation potential to arrive at a projection of future water use in the City through 2045. The 2020 Demand analysis utilized projections

from ABAG’s Plan Bay Area, which the City has validated based on both its current General Plan and its General Plan 2040 Update. Potable demands include water use projections for lower income residential customers.

Projected demands for potable water are shown in Table 4-4 (DWR Table 4-2). Projected demands for recycled water are included in Table 4-5 (DWR Table 4-3).

Potable water use projections have been adjusted to account for anticipated “passive” water savings which result from new and existing local ordinances (such as the Model Water Efficient Landscape Ordinance, National Plumbing Code, CALGreen, and State Plumbing Code). In addition to analyzing the passive savings, an analysis of the potential “active” potable water savings was conducted. Although further development of its active water conservation program will assist the City in meeting new per capita water use targets being developed by state, these savings are not included in the demand projections.

The City offsets a significant percentage of its irrigation demand with recycled water, supplied by Santa Rosa Water. The City requires all new development to be designed to accept recycled water and irrigation connections are mandatory if the recycled water distribution system is within reasonable proximity to the site. Since 2015, the City has required developers to extend the recycled water system into the University District and Southeast Specific Plan Areas and the Stadium Land Planned Development. Three new parks have been connected to the recycled water system along with a number of parkway strips and commercial and multi-family landscapes. As described in more detail in Section 6, the City’s agreement with the Santa Rosa Water provides the City with an allocation of 1,350 acre feet of recycled water. Because Santa Rosa Water stores recycled water in large seasonal storage ponds, recycled water availability varies with hydrologic conditions – in wetter years the ponds store more rainfall which can be made available to customers. While the City has historically used more than its allocation of recycled water during wetter years, the City’s long term planning assumes that recycled water availability is limited to 1,350 acre feet annually.

Submittal Table 4-2 Retail: Use for Potable and Non-Potable <sup>1</sup> Water - Projected						
Use Type	Additional Description (as needed)	Projected Water Use <sup>2</sup> <i>Report To the Extent that Records are Available</i>				
<u>Drop down list</u> May select each use multiple times These are the only Use Types that will be recognized by the WUdata online submittal tool		2025	2030	2035	2040	2045 (opt)
Add additional rows as needed						
Single Family		2,142	2,248	2,298	2,390	2,486
Multi-Family		1,640	1,722	1,760	1,830	1,904
Commercial	see notes	1,045	1,059	1,073	1,088	1,103
Landscape	Dedicated meters	442	448	454	460	467
Losses	Estimated at 8.5%	491	510	520	537	555
Other	Passive Savings	-221	-358	-458	-533	-636
TOTAL		5,539	5,629	5,647	5,772	5,879
<sup>1</sup> Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4. Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.						
NOTES: Commerical estimate includes industrial and institutional use						

TABLE 4-5 (DWR TABLE 4-3) TOTAL WATER DEMANDS

<b>Submittal Table 4-3 Retail: Total Water Use (Potable and Non-Potable)</b>						
	2020	2025	2030	2035	2040	2045 (opt)
Potable Water, Raw, Other Non-potable <i>From Tables 4-1R and 4-2 R</i>	4,574	5,539	5,629	5,647	5,772	5,879
Recycled Water Demand <sup>1</sup> <i>From Table 6-4</i>	1,429	1,350	1,350	1,350	1,350	1,350
Optional Deduction of Recycled Water Put Into Long-Term Storage <sup>2</sup>						
<b>TOTAL WATER USE</b>	6,003	6,889	6,979	6,997	7,122	7,229
<sup>1</sup> Recycled water demand fields will be blank until Table 6-4 is complete <sup>2</sup> Long term storage means water placed into groundwater or surface storage that is not removed from storage in the same year. Supplier <b>may</b> deduct recycled water placed in long-term storage from their reported demand. This value is manually entered into Table 4-3.						
NOTES: Future recycled water availability is assumed to be 1,350 AFA, based on the agreement between the City and Santa Rosa. Recent use, during favorable hydrologic conditions has exceeded this amount.						

#### 4.4.5 ESTIMATED WATER USE FOR 2021-2025 DROUGHT RISK ASSESSMENT

This section provides estimated potable and non-potable water use for the next five years (2021-2025). These demand estimates will be used to evaluate the reliability of the City’s water supplies if a drought were to occur in the next five years. This is a new requirement for 2020 UWMPs. The estimated water use for 2021-2025 has been integrated into the Drought Risk Assessment detailed in Chapter 7.

Potable water use estimates for 2021-2025 were based on actual water use for 2019 and projected water use for 2025. Projected water use for 2025 includes anticipated population growth, known development projects, potential impacts of climate change, projected water losses, and water savings from plumbing codes and local ordinances. The anticipated increase in water use between 2019 actual use and 2025 projected use was apportioned across the time period. The 2021-2025 potable water use projections shown in Table 4-6 are intended to illustrate a realistic representation of “unconstrained” water demand, outside of the pandemic effects that significantly reduced demand in the CII sector and modestly increased demands in the residential sector. The unconstrained demands also assume that water shortage measures in response to drought are not in place. In reality, Sonoma County is experiencing drought conditions and the City is

working with its customers to reduce water use, which means actual 2021 demands may be lower than estimated.

**TABLE 4-6 ESTIMATED POTABLE WATER USE FOR 2021-2025 (AFA)**

2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate
5,106	5,214	5,322	5,431	5,539

As described throughout this UMWP, the City’s plans for future use of recycled water are limited by its agreement with Santa Rosa Water. As illustrated in Table 4-7, the City estimates that 1,350 AFA will be available in 2021-2025.

**TABLE 4-7 ESTIMATED NON-POTABLE WATER USE FOR 2021-2025 (AFA)**

2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate
1,350	1,350	1,350	1,350	1,350

## 4.5 WATER USE FOR LOWER INCOME HOUSEHOLDS

The 2020 Demand Update is based on Association of Bay Area Government’s (ABAG’s) projections for growth in Rohnert Park which align with the City’s current General Plan and the ongoing update to the General Plan. General Plan build out will be consistent with the City’s inclusionary housing ordinance which requires a set aside of 15% of new, for-sale units to serve the needs of low and very low income residents. Because water projections are based on the City’s land use projections and the City’s land use projections, by definition, take into account the City’s inclusionary housing requirements, the water use projects in this 2015 UWMP include water use by low income households.

## 4.6 ESTIMATING FUTURE WATER SAVINGS

Although future job and population growth would be expected to increase water demand, passive water conservation requirements, which are embedded into the various codes governing new development, are projected to decrease per capita water use for future customers compared to historical customers. In accordance with the National Plumbing Code, the City requires new buildings to be equipped with fixtures that meet high efficiency standards. Senate Bill 407 requires high efficiency standards to apply to all new and replacement residential construction as of 2017 and to new and replacement commercial construction as of 2019. The City also requires all new landscapes to comply with the Model Water Use Efficiency Ordinance (MWEL), resulting in reduced outdoor water use in new development. Passive water savings from these and other codes are incorporated in the 2020 Demand Update.

Active water conservation measures include the City’s water conservation programs, including programs implemented through the Sonoma Marin Water Saving Partnership. The City plans to continue to promote and implement a suite of cost-effective conservation programs across the planning horizon of this UWMP. However, to be conservative, only passive water savings were applied to future demand projections.



Table 4-8, below, summarizes the reporting on future water savings and low income residential water use projections in DWR’s required form.

TABLE 4-8 (DWR TABLE 4-5) INCLUSION IN WATER USE PROJECTION

Submittal Table 4-5 Retail Only: Inclusion in Water Use Projections	
<b>Are Future Water Savings Included in Projections?</b> (Refer to Appendix K of UWMP Guidebook) <i>Drop down list (y/n)</i>	Yes
If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, or otherwise are utilized in demand projections are found.	Section 4.5 and Appendix 3
<b>Are Lower Income Residential Demands Included In Projections?</b> <i>Drop down list (y/n)</i>	Yes
NOTES: 2020 Demand Update included in Appendix 3 includes a discussion of assumptions regarding passive water conservation savings	

## 4.7 CLIMATE CHANGE CONSIDERATIONS

California Water Code now requires water suppliers to account for the impact of climate change on water supplies and supply reliability. Climate change impacts in Sonoma County will affect the City’s water supply and demand in numerous ways. According to *Climate Ready Sonoma County: Climate Hazards and Vulnerabilities*, a report prepared by North Bay Climate Adaptation Initiative for the Sonoma County Regional Climate Protection Authority, climate change is anticipated to affect Sonoma County in the following ways:

- Higher average temperatures and more extreme heat events. Sonoma County will experience a 250 percent increase in the number of very hot days (over 98.1 degrees) by 2050 and overall higher temperatures over a longer warm season. This could create a longer irrigation season, increase landscaping and irrigation water needs, increase the soil moisture deficit, and reduce groundwater recharge. Industrial processes will have increased cooling water needs, and peak water demands may be impacted. While not anticipated to impact the City’s water supply sources, in some regions water quality may be impaired due to reduced baseflows.
- More frequent and intense droughts. By 2050, drought years are twice as likely to occur in any given year. Severe droughts that now only occur every 20 years will occur every ten years while 100-year droughts will occur every 20 years by 2100. Whether the North Bay region experiences more or less rainfall overall, the land will likely be drier overall because warmer temperatures increase evapotranspiration (the loss of water from plants and soil into the air).
- More variable rain and seasonality. Sonoma County will likely continue to have some years of precipitation similar to historic averages interspersed with more extreme conditions. Sonoma County is likely to experience a shorter wet season with a later onset of fall rains and an earlier onset of the dry season causing a longer irrigation season, and increased peak demand. More intense rainfall over shorter periods could make it harder to capture and store water supplies.

- Greater risk of extreme floods. Sonoma County will see increased seasonal variability of precipitation, runoff, and stream flows, along with increased likelihood of “extreme” precipitation and drought events that were rare or unprecedented in the historic past. By 2050, it is predicted that Santa Rosa will experience a 67 percent increase in the number of extreme precipitation events (events with 2-day total of precipitation over 1.99 inches) to 2 or more events per year. While not anticipated to impact the City’s water supply sources, floodwater may degrade or contaminate surface and drinking water quality in some regions, which could make it difficult to capture sufficient water (in reservoirs or groundwater) during a compressed rainy season to supply an extended dry season.
- More frequent and intense wildfires. The risk of fire is likely to continue to rise due to increased dryness of vegetation, compounded by productivity of plants in the spring (which creates more fuel for dry season wildfires). Water impacts could include the need for water to suppress fires, and loss of infrastructure.

Responding to climate change generally takes two forms: mitigation and adaptation. Mitigation is taking steps to reduce contributions to the causes of climate change by reducing GHG emissions. Adaptation is the process of responding to the effects of climate change by modifying systems and behaviors to function in a warmer climate. The City has begun to implement plans, programs, and projects related to mitigation and adaptation, particularly through its participation with Sonoma Water’s Regional Resiliency Study and the Sonoma County Regional Climate Protection Authority. The City’s developing General Plan 2040, includes a Climate Change Element with a suite of goals, policies and implementation actions that the City will undertake over the next 20 years. The draft Climate Change Element is included as Appendix 5

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

The Water Conservation Act of 2009 (SBx7-7) was signed into law as part of a comprehensive water legislation package. The Water Conservation Act of 2009 addressed both urban and agricultural water conservation. The legislation set a goal of achieving a 20 percent statewide reduction in urban per capita water use by December 31, 2020 (i.e., “20 by 2020”). In order to meet the urban water use target requirement, each retail supplier was required to determine its baseline water use, as well as its target water use for the year 2020.

The Chapter demonstrates that the City has achieved its 2020 target reduction both on an individual basis and as part of a Regional Alliance. Compliance with the urban water use target requirement is verified in the SBx7-7 Compliance Forms, which are included in Appendix 6.

### 5.1 GENERAL REQUIREMENTS FOR BASELINE AND TARGETS

The Water Conservation Act of 2009 required each urban water retailer to determine its baseline daily per capita water use over a 10-year to 15-year baseline period. Per capita water use is reported in gallons per capita per day (gpcpd) and in its most simple expression is the total potable water use in the service area divided by the total population of the service area.

The Water Conservation Act defined the 10-year baseline period as a continuous 10-year period ending no earlier than December 31, 2004 and no later than December 31, 2010. For water suppliers that met at least 10 percent of their total 2008 water demand using recycled water, the baseline period could be extended to a continuous 15-year baseline period, ending no earlier than December 31, 2004 and no later than December 31, 2010.

The Water Conservation Act, and DWR’s subsequent guidance, provided four different methods for calculating an urban water retailer’s 2020 target which include:

- Method 1: 80 percent of the retailer’s base daily per capita water use;
- Method 2: Per capita daily water use estimated using the sum of performance standards applied to indoor residential use; landscaped area water use; and commercial, industrial, and institutional uses;
- Method 3: 95 percent of the applicable State hydrologic region target as stated in the State’s April 30, 2009, draft 20x2020 Water Conservation Plan; or
- Method 4: An approach that considers the water conservation potential from: 1) indoor residential savings, 2) metering savings, 3) commercial, industrial and institutional savings, and 4) landscape and water loss savings.

In their 2015 UWMPs, water suppliers were given the opportunity to recalculate their baseline period and targets to reflect changes in the service area.

### 5.2 SERVICE AREA POPULATION

The City’s water service area is conterminous with its City limits and the City has not experienced an annexations to or mergers with its service area since its 2015 UWMP, when it last reported on its progress

towards meeting its water conservation targets. Because of these facts, the City is allowed to use Department of Finance data to establish its service area population. The City is using a 2020 population of 42,484 persons. This slightly less than the 2020 population projection utilized in the 2020 Demand Update, but represents more accurate information on population.

### 5.3 GROSS WATER USE

The City has used the gross potable water entering its system to establish its gross water use. Recycled water entering its separate, purple-pipe system has not been included in the calculation. The City does not place water into long term storage or serve other water suppliers or agricultural users so these exclusions have not been applied. The City's gross potable water use in 2020 is 4,574 acre feet, as reported in Section 4 of this UWMP.

### 5.4 BASELINE AND TARGET SUMMARY

Because recycled water use exceed 10% of total water use in the City's service area, in its 2010 UWMP, the City used 13-year baseline period, which began in 1992 and ended in 2004.

In its 2010 UWMP, the City used Method 1 (80% of baseline use) to establish its 2015 and 2020 targets. At that time, the City adopted a 2020 Water Use Target of 119 gpcpd and a 2015 Interim Target of 140 gpcpd. In 2010, the City also elected to participate in a "regional alliance" through the Sonoma Water Saving Partnership. The regional alliance adopted a 2015 water use target of 142 gpcpd and a 2020 target of 129 gpcpd.

In its 2015 UWMP, the City again elected to use Method 1 but revised its targets because current population data from the Department of Finance reflected a lower population than was projected by the 2010 UWMP. The City's final 2020 target was actually established at 95% of its 5-year compliance check value of 129 gpcpd or 123 gpcpd. This revised 2020 target was slighted higher than the 2010 value of 119 gpcpd because of the updated population data. Table 5-1 below provides a tabular summary of these results.

TABLE 5-1 (DWR TABLE 5-1) BASELINES AND TARGETS SUMMARY

Submittal Table 5-1 Baselines and Targets Summary From SB X7-7 Verification Form <i>Retail Supplier or Regional Alliance Only</i>				
Baseline Period	Start Year *	End Year *	Average Baseline GPCD*	Confirmed 2020 Target*
10-15 year	1992	2004	161.11	123
5 Year	2003	2007	129.48	
<i>*All cells in this table should be populated manually from the supplier's SBX7-7 Verification Form and reported in Gallons per Capita per Day (GPCD)</i>				
NOTES:				

The City's SBx7-7 Verification Calculations, which were originally developed with its 2015 UWMP are included in Appendix 6 and provide the detailed analytical support for the values reported in Table 5-1.

## 5.5 2020 COMPLIANCE WITH DAILY PER CAPITA WATER USE TARGETS

The City's 2020 potable water use divided by its 2020 population yields a per capita water use of 96 gpcpd. This is well below the adopted target of 123 gpcpd, as indicated in Table 5-2. While the Water Code allows the City to increase its target because of extraordinary factors, the City will not be taking advantage of this option. Detailed calculations supporting the City's compliance are found in Appendix 6.

TABLE 5-2 (DWR TABLE 5-2) 2020 COMPLIANCE

<b>Submittal Table 5-2: 2020 Compliance</b> <b>From SB X7-7 2020 Compliance Form</b> <i>Retail Supplier or Regional Alliance Only</i>				
2020 GPCD			2020 Confirmed Target GPCD*	Did Supplier Achieve Targeted Reduction for 2020? Y/N
Actual 2020 GPCD*	2020 TOTAL Adjustments*	Adjusted 2020 GPCD* (Adjusted if applicable)		
96	0	0	123	Y
<i>*All cells in this table should be populated manually from the supplier's SBX7-7 2020 Compliance Form and reported in Gallons per Capita per Day (GPCD)</i>				
NOTES:				

## 5.6 REGIONAL ALLIANCE

While the City has met its individual 2020 target, it is also a member of a successful regional alliance. The Water Conservation Act provides that urban water retail suppliers may plan, comply and report on the 2020 water use target on a regional basis, an individual basis, or both. Sonoma Water's contractors are eligible to form a regional alliance and Rohnert Park's City Council approved becoming a member of the regional alliance and using regional targets on April 12, 2011. The region reports under the name of the Sonoma-Marin Saving Water Partnership, and includes the cities of Rohnert Park, Santa Rosa, Sonoma, Cotati and Petaluma, the Town of Windsor, Valley of the Moon Water District, North Marin Water District and Marin Municipal Water District.

In 2010, the regional alliance selected Option 1 for establishing the regional alliance target. Option 1 consists of each member of the regional alliance calculating their individual targets and then weighting the individual targets by each member's population. In 2010, the Alliance established a 2020 Water Use Target of 129 gpcpd and a 2015 Interim Water Use Target of 142 gpcpd. The Alliance updated its calculations for 2015 and again calculated a 2020 target of 129 gpcpd. Together the Alliance members achieved a weighted 2020 water use of 113.41 gpcpd, which exceeded the established target. Appendix 6 includes the confirming detail on the Regional Alliance's performance.

## 6 SYSTEM SUPPLIES

The City of Rohnert Park has three sources of water: Sonoma Water supply, local groundwater and recycled water. The City manages these supplies using a conjunctive use strategy, drawing on Sonoma Water and recycled water supplies first and utilizing its local groundwater to manage peak demands and in times of water shortages. The total reliable supply available to the City through these three sources is 10,177 AFA, including 8,827 AFA of potable water and 1,350 AFA of recycled water. As discussed in this section, there is some hydrologic variability to this supply profile.

### 6.1 PURCHASED OR IMPORTED WATER (SONOMA WATER SUPPLY)

This section describes the Sonoma Water supply, its hydrologic availability and the various contracts that affect this supply. This information has been updated based on Sonoma Water's 2020 UWMP and is used to project the Sonoma Water supply that is reasonably available to the City under all hydrologic conditions. Under the Restructured Agreement for Water Supply, described in Section 6.1.1, the City has contract rights to 7,500 AFA of Sonoma Water supply. However, the City anticipates that its reliable supply from Sonoma Water is 6,250 AFA under normal and multiple dry year conditions and 4,925 AFA under single dry year conditions.

The water supply available to the City from the Sonoma Water is measured in two ways, hydrologic availability, and legal availability. Hydrologic availability is a measure of how much water is available because of rainfall, runoff, and storage in the Russian River watershed. Normal Year, Single Dry Year and Multiple Dry Year are ways to describe the hydrologic availability of water supply under a variety of rainfall conditions. Sonoma Water's hydrologic models indicate that its water supply is most constrained under the Single Dry Year condition when reduced water storage in Lake Sonoma could result in limits on water diversions, regardless of water rights. Legal availability is a measure of how much water Sonoma Water allowed to divert under the water rights permits it receives from the State Water Resources Control Board (SWRCB). Sonoma Water currently has permits to divert and re-divert 75,000 AFA. Because the allocations in the Restructured Agreement assume that Sonoma Water has rights to 101,000 AFA, both hydrology and water rights could constraint the volume of water available from Sonoma Water and both are discussed below.

#### 6.1.1 PAST AND CURRENT SONOMA WATER SUPPLY

The City's contract for water supply with Sonoma Water is the Restructured Agreement for Water Supply (Restructured Agreement). The Restructured Agreement outlines how the Sonoma Water's supply is allocated between its Contractors and other customers. The Restructured Agreement was executed on June 20, 2006 and has a term of at least forty years. The Restructured Agreement allocates 7,500 AFA to the City, with an average day maximum month pumping rate of 15.0 million gallons per day (mgd) under Normal Year conditions.

However, the Restructured Agreement presumes that Sonoma Water is able to secure modifications to its water rights permits that will allow it to increase its diversions from its currently permitted 75,000 AFA to 101,000 AFA. Sonoma Water can also pump 2,300 AFA of groundwater to meet demand, which can be allocated to contractors under the Restructured Agreement. Section 3.5 of the Restructured Agreement (the Water Shortage Provisions) defines how the water supply and transmission system capacity would be

allocated in case of shortage. On September 14, 2021, Sonoma Water’s Board of Directors adopted a Water Shortage Allocation Methodology that provides a mathematical quantification of the Water Shortage Provisions. This allows the Contractors to calculate their reasonably expected allocation under a range of supply scenarios. Based on Sonoma Water’s current rights and the Water Shortage Allocation Methodology, the City expects it can reliably receive up to 6,250 AFA as long as Sonoma Water’s water rights are limited to 75,000 AFA. Since 2001, the City’s use of Sonoma Water supply has varied from just under 1,100 AFA to over 4,000 AFA. In the past five years, use has ranged from 2,200 to almost 3,000 AFA, well under the both City’s maximum allocation and its reasonably expected supply.

#### 6.1.2 SONOMA WATER’S WATER RIGHTS

Sonoma Water currently diverts and re-diverts water from the Russian River System under four permits issued by the SWRCB. These permits (Numbers 12947A, 12949, 12950 and 16596) provide it with the rights to divert and re-divert up to 75,000 AFA, and to store water in Lake Mendocino and Lake Sonoma. These permits also set minimum in-stream flow requirements to protect fish and wildlife and maintain recreation in the Russian River. The SWRCB’s Decision 1610 provides for varying minimum in-stream flow requirements based on whether the water year is normal or dry. Sonoma Water works with the SWRCB on a regular basis to implement the various in-stream flow requirements of its permits based on hydrologic conditions at the time. Sonoma Water’s rights to divert water under its permits are influenced by ongoing developments within the Russian River watershed including the Russian River Biological Opinion, the Potter Valley relicensing process and the Forecast Informed Reservoir Operation Project. Each of these is discussed below.

Russian River Biological Opinion: the Russian River Biological Opinion, issued by the National Marine Fisheries Services (NMFS), places certain terms and conditions on Sonoma Water’s water supply operations in order to protect salmon and steelhead trout in the Russian River. The Biological Opinion concluded that the artificially elevated summertime minimum flows in the Russian River and Dry Creek, required by Sonoma Water’s water rights permits under Decision 1610, result in water velocities that reduce the quality and quantity of habitat for Coho salmon and steelhead. The Biological Opinion also concluded that reducing minimum instream flow requirements will improve the habitat.

As required by the Biological Opinion, Sonoma Water filed a petition with the SWRCB in September 2009 to permanently change the Decision 1610 minimum instream flow requirements to those recommended in the Russian River Biological Opinion. This petition was modified in August 2016 and is pending based on the completion of an Environmental Impact Report. However, as required by the Russian River Biological Opinion, Sonoma Water requests the SWRCB to reduce minimum flows in the Russian River annually. These requests are generally approved by the SWRCB with the condition that Russian River diversions for water supply are reduced during the period of minimum flows. The City manages these requirements for seasonal diversion reductions by making seasonal use of its groundwater supply which means the seasonal diversion reductions do not constrain the City’s ability to utilize its Sonoma Water supply under normal water supply conditions.

Potter Valley Relicensing Process: PG&E’s Potter Valley Hydroelectric Project (PVP) diverts water from the Eel River into the East Fork of the Russian River as part of its power generation process. The diverted water is then stored behind Lake Mendocino and released into the Russian River system for diversion in accordance with Sonoma Water’s water rights. Operation of the PVP is licensed by the Federal Energy Regulatory



Commission (FERC). In 2004, FERC amended the PVP license to reduce the amount of water diverted into the Russian River watershed from annual average of approximately 150,000 AFA to an annual average of approximately 60,000 AFA, for the benefit of Eel River fisheries. This impacts flows into Lake Mendocino and Russian River system, particularly in dry years.

PG&E's license to operate the PVP expires on April 14, 2022 and while PG&E initially filed a pre-application to renew the license, in 2019 it withdrew its application. In June 2019, Sonoma Water, Mendocino County Inland Water and Power Commission, California Trout, Inc., and the County of Humboldt filed their intent to apply for a new license for the PVP in order to operate the project for the benefit of both the Russian and Eel River systems and to avoid the uncertainty that would occur if PG&E abandoned its license and decommissioned the project. Shortly thereafter the Round Valley Indian Tribes joined this group. The FERC license renewal process is technical, complex and time consuming. While this process takes place, the PVP will be operated in accordance with the current license, which includes the diversions of up to 60,000 AFA from the Eel to the Russian River system that were approved in 2004. For the purposes of its hydrologic modeling, Sonoma Water has assumed that this operational plan will occur through 2045.

Forecast Informed Reservoir Operation: Because Lake Mendocino and Lake Sonoma are dual purpose reservoirs providing flood control and water supply benefits, the reservoirs are operated according to seasonal rules. Lake levels are reduced in the winter to allow for flood storage and allowed to increase in the spring to store water supply. In response to the reduced diversions from PVP and experiences from the recent drought years, Sonoma Water worked with Scripps Institution of Oceanography and the US Army Corps of Engineers to evaluate the viability of forecast informed reservoir operations (FIRO) for Lake Mendocino. Water supply capture in Lake Mendocino is particularly sensitive to yearly timing or distribution of rainfall. FIRO would allow for more water to be stored in Lake Mendocino during the winter if weather forecasts anticipate dry conditions.

The FIRO evaluation began with a successful modeling exercise that demonstrated that over 10,000 acre-feet of water storage capacity could be achieved by providing reservoir operators with more flexibility in operating the flood control pool between November and February. FIRO operation was successfully demonstrated in 2019 and 2020 and quite likely resulted in increased storage in Lake Mendocino coming into the dry years of 2020 and 2021. Sonoma Water is working to implement FIRO operation for water years 2021 through 2026 and its hydrologic modeling assumes this operational flexibility continues through 2045.

### 6.1.3 HYDROLOGIC MODELING AND SUPPLY SUFFICIENCY

Sonoma Water has developed its Russian River System Model (RR ResSim) model simulate the effects of various climatic conditions, levels of demand, and operational criteria on the water supply available for use by Sonoma Water and its contractors. RR ResSim calculates what releases must be made from Lake Mendocino and Lake Sonoma, considering flood control operations criteria, Decision 1610 minimum instream flow requirements, and the requirements of the Russian River Biological Opinion. The model also simulates the FIRO initiative described above and a new hydrologic index and minimum instream flow requirements for the Russian River System consistent with the Biological Opinion.

The model incorporates 108 years of hydrologic data, from 1910 through 2017) that has been compiled and synthesized by the US Geological Survey (USGS). Diversions from the Eel River into the Russian River are

defined explicitly in the model and are consistent with the reduced diversions required by 2004 license amendment for the Potter Valley Project. Sonoma Water’s water rights permits include a provision that requires Sonoma Water to impose a 30 percent curtailment in deliveries from the Russian River to its service area should Lake Sonoma storage levels drop below 100,000 acre feet before July 15 of any year, which could happen in single dry years, and this reduced diversion is also modeled when appropriate.

The RR ResSim results, which are fully described in Sonoma Water’s 2020 UWMP, predict that the water storage in Lake Sonoma will remain well over 100,000 AF in normal and multiple dry years through the end of the planning period in 2045. This means curtailments required by Sonoma Water’s water rights would not be required. However, RR ResSim predicts that water storage in Lake Sonoma could fall below 100,000 AF in single dry years and trigger the required curtailments.

Table 6-1 reports the volume of water that Sonoma Water expects to have available under normal, single dry and multiple dry water years and Rohnert Park’s estimated Sonoma Water Supply based on this availability. The table illustrates that the City anticipates that its Sonoma Water supply is less than its contractual allocation under all water supply conditions and that the Sonoma Water supply is most constrained in multiple dry year conditions.

**TABLE 6-1 SONOMA WATER SUPPLY AVAILABILITY IN ACRE-FEET PER YEAR**

	<b>Total Sonoma Water Supply</b>	<b>Sonoma Water Supply Available to City</b>
Normal Water Year	75,000	6,250
Single Dry Water Year	58,000	4,925
Multiple Dry Water Years	75,000	6,250
Notes:		
1. Total Sonoma Water Supply from Sonoma Water 2020 UWMP Chapter 6.		
2. Supply available to City estimated using Water Shortage Allocation Methodology adopted September 2021		

#### 6.1.4 FUTURE SONOMA WATER SUPPLY

The City is not anticipating additional contract water from Sonoma Water and the analysis in this 2020 UWMP assumes the City’s reasonably anticipated supply from Sonoma Water Supply will be consistent with the values presented in Table 6-1 and less than its allocation in the Restructured Agreement.

## 6.2 Groundwater

This section describes the City’s groundwater supply, its hydrologic availability and the policies that affect its use. This 2020 UWMP projects that 2,577 AFA of groundwater will be available to the City.

The City’s local groundwater supply is from the Santa Rosa Plain (SRP) Subbasin of the Santa Rosa Valley (SRV) Groundwater Basin. The City has developed 42 groundwater wells, 29 of which are currently active. The active wells have a total rated production capacity of 6.3 mgd. The City’s 2010 UWMP, provides

additional detail on the individual wells and their production capacity. The 2010 UWMP can be found at: [https://www.rpcity.org/city\\_hall/departments/development\\_services/engineering/water\\_supply\\_documentation/2010\\_uwmp](https://www.rpcity.org/city_hall/departments/development_services/engineering/water_supply_documentation/2010_uwmp).

The City manages its groundwater supply in accordance with its 2004 Water Policy Resolution (Appendix 7) which limits groundwater pumping to 2,577 AFA. A Water Supply Assessment developed by the City (the 2005 WSA provided the technical support for this maximum pumping rate, which can be sustained over all hydrologic conditions. The 2005 WSA can be found at:

[https://p1cdn4static.civiclive.com/UserFiles/Servers/Server\\_3037789/File/Engineering/WaterSupplyDocumentation/Final%20Water%20Supply%20Assessment%20-%20Jan%202005.pdf](https://p1cdn4static.civiclive.com/UserFiles/Servers/Server_3037789/File/Engineering/WaterSupplyDocumentation/Final%20Water%20Supply%20Assessment%20-%20Jan%202005.pdf).

Over the past 10 years the City has used between 700 and 2,200 AFA of groundwater.

#### 6.2.1 GROUNDWATER BASIN DESCRIPTION

The City is located in the southern portion of the Santa Rosa Valley (SRV) Groundwater Basin, which drains to the northwest, toward the Russian River and then to the Pacific Ocean. All of the City's water supply wells are located in the SRV Groundwater Basin and no City wells are planned to be constructed outside the SRV Basin. Figure 3-2 included in Section 3.2 illustrates the City's well locations.

Santa Rosa Valley Groundwater Basin: The SRV Groundwater Basin encompasses an area of 158 square miles. DWR describes three subbasins within this basin: the SRP Subbasin, the Healdsburg Area Subbasin, and the Rincon Valley Subbasin. The City pumps groundwater from the SRP Subbasin, which has an area of 125 square miles; this is the largest of the three subbasins. The City's wellfield is located in southeastern portion of the basin - the southern boundary of the basin is formed by a groundwater divide located just south of the cities of Rohnert Park and Cotati. This divide separates the basin from the Petaluma Valley Groundwater Basin to the south.

Santa Rosa Plain Subbasin: The SRP Subbasin extends from the City, going north to the Russian River, and to just south of Healdsburg, in the northwest. The subbasin is approximately 22 miles long and up to nine miles wide. It is drained by the Laguna de Santa Rosa, which flows north to the Russian River. The subbasin contains three primary water-bearing units: the Wilson Grove Formation, Quaternary alluvial fan deposits, and Quaternary alluvium. DWR describes groundwater quality in these formations is generally good.

Storage capacity for the SRP Subbasin was estimated at 948,000 AF based on an average specific yield of 7.8 percent at depths of 10 to 200 feet. Average annual natural recharge from 1960 to 1975 for the entire subbasin was estimated to be 29,300 AF.

DWR has historically described the Santa Rosa Plain Subbasin as about "in balance". During the period from 1990 to 2003, groundwater levels in the northern part of the subbasin continued to increase, and groundwater levels in the south showed marked increases between 2004-2007, primarily in response to decreased pumping in the subbasin. During the last ten years, the water levels have continued to increase. Even with the drought conditions, monitoring conducted by the City and by Sonoma Water demonstrated generally stable groundwater levels (see Appendix 8).

However, recent modeling by the USGS indicates that over the 35-year period simulated by the model (1975 through 2010), more water exited the basin through a combination of groundwater pumping and natural outflows than entered the basin, resulting in an average annual loss of groundwater storage of approximately 3,300 AFA (USGS 2013). The estimated storage loss is a relatively small percentage of the total storage in the basin. The developing Santa Rosa Plain Groundwater Sustainability Plan is analyzing this trend and future trends as part of developing a long-term plan for groundwater management.

#### 6.2.2 GROUNDWATER QUALITY

Groundwater produced by the City is tested for a total of 139 constituents, including bacteria, pesticides, herbicides, fungicides, organic chemicals, inorganic chemicals, nitrates, radioactivity, corrosivity, trihalomethanes, iron, and manganese.

Groundwater produced from the City's wells meets primary state drinking water standards. Overall mineral content, as indicated by specific conductance (electrical conductance; EC), ranges from 280 to 610  $\mu\text{mhos/cm}$ . EC values are below the recommended secondary Maximum Contaminant Level (MCL) of 900  $\mu\text{mhos/cm}$ . Other water quality concerns in the Rohnert Park area include elevated nitrate, arsenic, iron, and manganese concentrations in some wells. Nitrate concentrations in City wells range from non-detect to 35 mg/L, which is less than the primary MCL of 45 mg/L. Samples collected from five wells in 1997 exceeded secondary MCLs for iron and manganese, which do not pose health hazards but are considered nuisance pollutants. Arsenic is naturally occurring in the area, and concentrations in City wells range from 2 to 12  $\mu\text{g/L}$ . Arsenic concentrations at the upper end of the range of detected concentrations occur in City wells completed in the northwestern portion of the City are at levels near or above the federal MCL of 10  $\mu\text{g/L}$  and these wells are currently inactive.

Organic chemicals introduced through known point sources could influence groundwater quality conditions in the future. No serious or widespread issues that affect community water supplies due to organic chemical sources are known to be present in the City.

#### 6.2.3 ADJUDICATED BASINS

Neither the SRV Basin nor the SRP Subbasin has been adjudicated.

#### 6.2.4 SUFFICIENCY OF GROUNDWATER

A full analysis of the water level hydrographs in City wells and their relationship to pumpage and sufficiency was evaluated in the 2005 WSA for a time period between 1977 and 2003. There were several periods of wet, normal, single dry and multiple-dry years during this evaluation period. Groundwater recharge was estimated to be about 8,300 acre-feet per year and showed a positive change in groundwater storage through 2003. A sampling of the recent hydrographs for City wells is included in Appendix 8. These hydrographs illustrate the historic drawdown in the City's wells, followed by significant recovery when the City began managing its wellfield consistent with its Water Policy Resolution in 2004. The observed groundwater level trends indicate stable to continued increasing levels during 2012-2013. Groundwater levels between 2014 and 2020 have been relatively stable with slight lowering during the drought period of 2014 and 2015, recovery from 2016 through 2019 and slight lowering during 2020 when the City increased groundwater pumping in response to the need from reduced diversions from Sonoma Water's Russian River System. The City's groundwater supply has not historically been subject to hydrologic variability.

While the City has imposed policy restraints on its groundwater pumping, there are no physical constraints to groundwater pumping. The City has more than adequate capacity from its well field to pump what it anticipates utilizing.

Maintaining sustainable groundwater supplies is one of the primary goals of groundwater management. Groundwater level trends within the basin indicate that pumpage over the last five years has been sustainable. Based on the monitoring data and the City's commitment to manage its pumping to 2,577 AFA, the City anticipates its groundwater supplies from the basin are sufficient to meet the City's projected groundwater demands.

#### 6.2.5 GROUNDWATER MANAGEMENT

The City supported the development the voluntary Santa Rosa Plain Watershed Groundwater Management Plan, which was adopted in the fall of 2014. This Plan and its subsequent monitoring program illustrate that groundwater levels are generally rising around the City's well field, an indication of stable supply (USGS 2013).

The California Department of Water Resources defines the Santa Rosa Valley Groundwater Basin as a "medium priority basin". As a result, and in accordance with the requirements of the Groundwater Sustainability Act of 2014, the City joined with the County of Sonoma, the Sonoma County Water Agency, the cities of Cotati, Santa Rosa and Sebastopol, the Town of Windsor, Cal-American Water Company and two resource conservation districts to form the Santa Rosa Plain a Groundwater Sustainability Agency and develop a Groundwater Sustainability Plan. The Groundwater Sustainability Plan is scheduled to be complete in 2022. These agencies all expect that the Groundwater Sustainability Plan will build upon the adopted Groundwater Management Plan and continue to provide a strong framework for managing the groundwater supply.

#### 6.2.6 LIMITATIONS TO GROUNDWATER PUMPING AND OVERDRAFT CONDITIONS

The City has adopted local policies related to groundwater management. The City's Water Policy Resolution was adopted on April 27, 2004, and specifies that new development outside of the current City limits will not be approved if it would contribute to the City exceeding an average annual pumping rate of approximately 2,577 AFA. The Water Policy Resolution is the only local policy determination related to groundwater management in Sonoma County. The City also has a policy of not allowing private wells within the City Limits. The City has operated under the framework of the Water Policy Resolution since 2004 and groundwater pumpage is consistently below 2,577 AFA.

#### 6.2.7 HISTORICAL GROUNDWATER PUMPING (2015-2020)

Table 6-2 illustrates the City's groundwater use for the five-year period from 2015-2020. Since committing to a conjunctive use strategy in 2004, the City has pumped as little as 112 AFA (2006) and as much as 2,210 AFA (2019). The recent increase in groundwater pumping is a response to recent regulatory requirements to reduce diversions from Sonoma Water's Russian River system. The City's pumping remains below the 2,577 AFA threshold specified in the City's 2004 Water Policy Resolution. The hydrographs produced as the result of the City's monitoring program (Appendix 8) indicate that this level of pumping does not result in significant declines in groundwater levels.

TABLE 6-2 (DWR TABLE 6-1) GROUNDWATER VOLUME PUMPED

Submittal Table 6-1 Retail: Groundwater Volume Pumped						
<input type="checkbox"/>	Supplier does not pump groundwater. The supplier will not complete the table below.					
<input type="checkbox"/>	All or part of the groundwater described below is desalinated.					
Groundwater Type <b>Drop Down List</b> <i>May use each category multiple times</i>	Location or Basin Name	2016*	2017*	2018*	2019*	2020*
Add additional rows as needed						
Alluvial Basin	Santa Rosa Plain Subbasin	1880.24	1785.68	1675.88	2210.15	2163.81
<b>TOTAL</b>		1,880	1,786	1,676	2,210	2,164
* <b>Units of measure (AF, CCF, MG)</b> must remain consistent throughout the UWMP as reported in Table 2-3.						
NOTES:						

### 6.2.8 FUTURE GROUNDWATER PUMPING

The City anticipates that groundwater will continue to be a source of supply. Future groundwater pumping will be limited to 2,577 AFA in accordance with the Water Policy Resolution.

## 6.3 WASTEWATER AND RECYCLED WATER

The City's tertiary-treated recycled water supply is produced by Santa Rosa Water. In July of 2015, the City and the Santa Rosa Water System entered into a Producer Distributor Agreement that made the City the retail recycled water purveyor to users within the City limits and to Sonoma State University, located just outside of the City limits. The Producer Distributor Agreement provides the City with a recycled water allocation of 1,350 AFA. The City and Sonoma State University use recycled water primarily for irrigation purposes and recycled water demand has varied between 800 and 1,400 AFA over the past 10 years.

### 6.3.1 RECYCLED WATER COORDINATION

As described above Santa Rosa Water is the City's wholesale supplier of recycled water. This UWMP has been coordinated with Santa Rosa Water.

### 6.3.2 WASTEWATER COLLECTION, TREATMENT, AND DISPOSAL

The City owns and operates the collection system within its corporate limits and also collects and transports wastewater generated by Sonoma State University and within the Canon Manor Specific Plan Area. The City's

collection system consists of approximately 77 miles of gravity sewers, 7.5 miles of force mains, 16 inverted siphons, and three pump stations that convey sewage to the treatment facility. Most facilities were installed between 1956 and 1980, though a significant crosstown sewer was installed between 2005 and 2016. Wastewater is transported to Santa Rosa Water’s Laguna Treatment Plant through the City’s terminal pump station. Table 6-3 presents the volume of wastewater generated within the City’s sewer service area in 2020.

TABLE 6-3 (DWR TABLE 6-2) WASTEWATER COLLECTED WITHIN THE SERVICE AREA IN 2020

Submittal Table 6-2 Retail: Wastewater Collected Within Service Area in 2020						
<input type="checkbox"/>	There is no wastewater collection system. The supplier will not complete the table below.					
80E	Percentage of 2020 service area covered by wastewater collection system <i>(optional)</i>					
100	Percentage of 2020 service area population covered by wastewater collection system <i>(optional)</i>					
Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? <i>Drop Down List</i>	Volume of Wastewater Collected from UWMP Service Area 2020 *	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area? <i>Drop Down List</i>	Is WWTP Operation Contracted to a Third Party? <i>(optional) Drop Down List</i>
City of Rohnert Park	Metered	3,166	Santa Rosa Water	Laguna Water Reclamation Plant	No	Yes
<b>Total Wastewater Collected from Service Area in 2020:</b>		3,166				
<b>* Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3 .</b>						
NOTES:						

Wastewater treatment and disposal is provided by Santa Rosa Water’s Subregional Water Reclamation System, which also serves the cities of Santa Rosa, Sebastopol, and Cotati. Wastewater from the Subregional System is treated at the Laguna Water Reclamation Plant, located about 2 miles northwest of Rohnert Park. The City owns capacity rights to 3.43 million gallons per day (MGD) at the Laguna Water Reclamation Plant and has an agreement with Santa Rosa Water to use up to 4.46 MGD of capacity rights. Under the Subregional System’s approved Incremental Recycled Water Program, Rohnert Park can acquire up to 5.15 MGD of capacity. Rohnert Park’s current capacity needs are approximately 3.0 MGD.

The Subregional System treats wastewater to Title 22 tertiary recycled water standards. While a great deal of the Subregional System’s recycled water is used for urban, agricultural or industrial purposes, the Subregional System maintains a permitted discharge to the Russian River. The Subregional System is committed to supplying recycled water users first and its permitted discharge is used primarily to manage variations in hydrologic conditions (for example, in a cool wet year when rainfall is high and irrigation demand is low, the Subregional System will discharge more water than in a warm dry year when irrigation demand is high). Although the City is part of the Subregional System no wastewater is treated within its limits. While the Laguna Treatment Plant is not the City’s service area, the City has coordinated with the Santa Rosa Water and completed Table 6-4 in order to provide a clear picture of the recycled water used in its service area.

ABLE 6-4 (DWR TABLE 6-3) WASTEWATER TREATMENT AND DISCHARGE WITHIN THE SERVICE AREA

Submittal Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2020											
<input type="checkbox"/> No wastewater is treated or disposed of within the UWMP service area. The supplier will not complete the table below.											
Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number (optional) <sup>2</sup>	Method of Disposal <i>Drop down list</i>	Does This Plant Treat Wastewater Generated Outside the Service Area? <i>Drop down list</i>	Treatment Level <i>Drop down list</i>	2020 volumes <sup>1</sup>				
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area	Instream Flow Permit Requirement
Laguna	Laguna de Santa Rosa	Flows to Russian River	18830990SON	River or creek outfall	Yes	Tertiary	16,935	0	1,429	15,506	0
Total							16,935	0	1,429	15,506	0
<sup>1</sup> Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3. <sup>2</sup> If the <b>Wastewater Discharge ID Number</b> is not available to the UWMP preparer, access the SWRCB CIWQS regulated facility website at <a href="https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/CiwqsReportServlet?inCommand=reset&amp;reportName=RegulatedFacility">https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/CiwqsReportServlet?inCommand=reset&amp;reportName=RegulatedFacility</a>											
NOTES: Report covers Santa Rosa Water’s Laguna Treatment Plant and recycled water used within Rohnert Park’s service area											

### 6.3.3 RECYCLED WATER SYSTEM

As described earlier in this report, the City owns and operates a purple-pipe recycled water system. The City’s wholesale supplier of recycled water is the Santa Rosa Water. The recycled water system is illustrated in Figure 3-3 (Section 3.2). The majority of the recycled water system was installed in the 1990s, though several extensions to serve the University District and Southeast Specific Plan Areas have been completed since 2015. Recycled water is used for irrigation of large landscapes in the City including parks and school grounds, various commercial and industrial sites, and the Foxtail Golf Course. Recycled water use offsets



historic demands on the City’s potable water system and demands on irrigation wells. Recent recycled water use has been between 1,100 and 1,400 AFA, with the increase associated with new users in the developing Specific Plan Areas.

#### 6.3.4 RECYCLED WATER BENEFICIAL USES

Recycled water is currently used to irrigate approximately 460 acres of land within the City. This includes two City-owned 18-hole golf courses, most City parks, school grounds, and many sites with significant lawn and landscaped areas. Consistent with the City’s General Plan and Municipal Code requirements, the recycled water system has been expanded to serve new development. At this point in time, recycled water use is generally limited to the 1,350 AFA allocation include in the City’s agreement with Santa Rosa Water.

The beneficial uses served by recycled water are illustrated in Table 6-5. Table 6-6 compares actual use in 2020 to estimates made in the City’s 2015 UWMP.

**TABLE 6-5 (DWR TABLE 6-4) CURRENT AND PROJECTED RECYCLED WATER DIRECT BENEFICIAL USES WITHIN SERVICE AREA**

Submittal Table 6-4 Retail: Recycled Water Direct Beneficial Uses Within Service Area										
<input type="checkbox"/> 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 Supplier Producing (Treating) the Recycled Water:		Santa Rosa Subregional Water Reclamation System								
Name of Supplier Operating the Recycled Water Distribution System:		City of Rohnert Park								
Supplemental Water Added in 2020 (volume) <i>Include units</i>		0 acre feet								
Source of 2020 Supplemental Water										
Beneficial Use Type <i>Insert additional rows if needed.</i>	Potential Beneficial Uses of Recycled Water (Describe)	Amount of Potential Uses of Recycled Water (Quantity) <i>Include volume units<sup>1</sup></i>	General Description of 2020 Uses	Level of Treatment <i>Drop down list</i>	2020 <sup>1</sup>	2025 <sup>1</sup>	2030 <sup>1</sup>	2035 <sup>1</sup>	2040 <sup>1</sup>	2045 <sup>1</sup> (opt)
Agricultural irrigation										
Landscape irrigation (exc golf courses)				Tertiary	927	850	850	850	850	850
Golf course irrigation				Tertiary	502	500	500	500	500	500
Commercial use										
Industrial use										
Geothermal and other energy production										
Seawater intrusion barrier										
Recreational impoundment										
Wetlands or wildlife habitat										
Groundwater recharge (IPR)										
Reservoir water augmentation (IPR)										
Direct potable reuse										
Other (Description Required)										
<b>Total:</b>					1,429	1,350	1,350	1,350	1,350	1,350
<b>2020 Internal Reuse</b>										
<sup>1</sup> Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.										
NOTES:										

TABLE 6-6 (DWR TABLE 6-5) 2015 UWMP RECYCLED WATER USE PROJECTIONS COMPARED TO 2020 ACTUAL

Submittal Table 6-5 Retail: 2015 UWMP Recycled Water Use Projection Compared to 2020 Actual		
<input type="checkbox"/>	Recycled water was not used in 2015 nor projected for use in 2020. The supplier will not complete the table below. If recycled water was not used in 2020, and was not predicted to be in 2015, then check the box and do not complete the table.	
Beneficial Use Type	2015 Projection for 2020 <sup>1</sup>	2020 Actual Use <sup>1</sup>
<i>Insert additional rows as needed.</i>		
Agricultural irrigation		
Landscape irrigation (exc golf courses)	850	927
Golf course irrigation	500	502
Commercial use		
Industrial use		
Geothermal and other energy production		
Seawater intrusion barrier		
Recreational impoundment		
Wetlands or wildlife habitat		
Groundwater recharge (IPR)		
Reservoir water augmentation (IPR)		
Direct potable reuse		
Other (Description Required)		
<b>Total</b>	<b>1,350</b>	<b>1,429</b>
<sup>1</sup> Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.		
NOTE:		

### 6.3.5 ACTIONS TO ENCOURAGE AND OPTIMIZE FUTURE RECYCLED WATER USE

The City has a recycled water use ordinance (Section 13.03.050 of the Rohnert Park Municipal Code). The City uses its regulatory authority to require extension of recycled water mains and connection of new landscapes to recycled water, when feasible. Since the adoption of its 2015 UWMP, the City has extended approximately 1 mile of new distribution lines and connected three new parks and several new commercial and multifamily customers. As described above, the City's current recycled water use can exceed its contractual allotment. Because of this the City will be focused on optimizing recycled water use to ensure compliance with the terms of its agreement with Santa Rosa Water and is not completing DWR Table 6-6 regarding expansion of the system.

## 6.4 SURFACE WATER

The City does not utilize an independent surface water supply.

## 6.5 STORMWATER

The City does not utilize an independent storm water supply.

## 6.6 DESALINATED WATER OPPORTUNITIES

The City does not have any current or future desalination water supply plans due to the City's location in relation to sea water, as well as the water quality of the Santa Rosa Plain Subbasin.

## 6.7 EXCHANGES OR TRANSFERS

Water transfers are authorized between the Agency's water contractors under the Restructured Agreement. The City does not anticipate any transfers or exchanges.

## 6.8 FUTURE WATER PROJECTS

The City's water supply is not dependent on future expansions to meet projected demand. The City is planning three capital improvement projects to extend the life of its groundwater well system, reduce its "unaccounted for" water and improve storage. These are described below.

- Groundwater Wells Replacement/Upgrade. The City is evaluating its well system and will be assessing the yield and condition of its wells. The project will include replacing and/or supplementing its local groundwater supply well system.
- Water Meter Installation Project. This project will replace residential and commercial meter technology. The meters have reached the end of their useful life and for accuracy purposes are being replaced which will help reduce water loss and assist with accurate leak detection.
- Water Tank 9. This project will install a new approximately 1 million gallon gravity feed tank adjacent to the City's recently constructed Water Tank 8. The project will assist in providing the storage volume necessary to support new development in the City and provides resiliency in the event of power outage emergencies.

Because the City is not relying on expansion projects to meet its existing or future water demand, it is not completing DWR Table 6-7.

## 6.9 SUMMARY OF EXISTING AND PLANNED SOURCES OF WATER

The water supply for the City consists of three components: purchased water from Sonoma Water, pumped groundwater from City owned wells, and recycled water produced by Santa Rosa Water. Table 6-7 presents the City's utilization of each supply source in 2020. Table 6-8 presents the City's projected supply from each source for the planning period from 2025 through 2045.

TABLE 6-7 (DWR TABLE 6-8) WATER SUPPLIED- ACTUAL

Submittal Table 6-8 Retail: Water Supplies — Actual				
Water Supply	Additional Detail on Water Supply	2020		
<b>Drop down list</b> May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool		Actual Volume*	Water Quality Drop Down List	Total Right or Safe Yield* (optional)
Add additional rows as needed				
Purchased or Imported Water	from Sonoma Water	2,411	Drinking Water	6,250
Groundwater (not desalinated)	from the Santa Rosa Plain Basin	2,164	Drinking Water	2,577
Recycled Water	from Santa Rosa Water	1,429	Recycled Water	1,350
Total		6,003		10,177
<i>*Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.</i>				
NOTES:				

TABLE 6-8 (DWR TABLE 6-9) WATER SUPPLIES- PROJECTED

Submittal Table 6-9 Retail: Water Supplies — Projected											
Water Supply	Additional Detail on Water Supply	Projected Water Supply * Report To the Extent Practicable									
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool		2025		2030		2035		2040		2045 (opt)	
		Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)
Add additional rows as needed											
Purchased or Imported Water	Sonoma Water	6,250	7,500	6,250	7,500	6,250	7,500	6,250	7,500	6,250	7,500
Groundwater (not desalinated)	Santa Rosa Plain Basin	2,577	2,577	2,577	2,577	2,577	2,577	2,577	2,577	2,577	2,577
Recycled Water	Santa Rosa Water	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350
Total		10,177	11,427	10,177	11,427	10,177	11,427	10,177	11,427	10,177	11,427
*Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.											
NOTES: City's contractual water supply from Sonoma Water exceeds what City believes is reasonably available given Sonoma Water's current water rights											

## 6.10 CLIMATE CHANGE IMPACTS TO SUPPLY

Impacts to the City's water supplies due to climate change are described below.

- **Sonoma Water Supply:** At this time climate change impacts to Sonoma Water's water supply is unknown, although Sonoma Water is working with the US Geological Survey to analyze potential long-term impacts. However, because Sonoma Water's supply is rainfall-driven, climate change is expected to affect supply in that timing of runoff is expected to become more variable. This will affect reservoir storage, especially in spring and summer months. Annual precipitation is expected to vary with vulnerability to droughts and dry periods.
- **Groundwater:** Climate change can affect the availability and yield from groundwater aquifers. Groundwater levels in the area fluctuate depending on precipitation, aquifer recharge, and pumping. As is the case with the Sonoma Water supply, long-term studies and management plans are focused on minimizing this impact.
- **Recycled Water:** Santa Rosa Water stores recycled water in large, above-ground storage ponds which also collect rainwater. Because of this and because of sewer system inflow and infiltration, more recycled water is available during wet years because of rainfall on the ponds and less recycled water can be available in drier years. Because rainfall patterns are expected to become more variable, the recycled water supply may also experience some variability and limit the City's recycled water supply to the allocation defined in its contract with Santa Rosa Water.

## 6.11 ENERGY INTENSITY

In accordance with CWC §10631.2(a), the energy intensity to provide water service to the City's customers over a one-year period is presented in this section to the extent that the information is available. The City used the Total Utility Approach for reporting energy intensity. This approach reports a single energy intensity for all water management operations. The energy intensity is reported for the calendar year 2020, and utility bills for the associated period are used as the source for energy consumption data. Table 6-9 represents an estimate of the amount of energy used to distribute water supplies through the distribution systems within the City's operational control.

TABLE 6-9 RECOMMENDED ENERGY REPORTING – TOTAL UTILITY APPROACH (DWR TABLE O-1B)

<b>Urban Water Supplier:</b>		<i>City of Rohnert Park</i>		
<b>Water Delivery Product</b> (If delivering more than one type of product use Table O-1C)				
<i>Retail Potable Deliveries</i>				
<b>Table O-1B: Recommended Energy Reporting - Total Utility Approach</b>				
Enter Start Date for Reporting Period	1/1/2020	<b>Urban Water Supplier Operational Control</b>		
End Date	12/31/2020			
<input type="checkbox"/> Is upstream embedded in the values reported?		<b>Sum of All Water Management Processes</b>	<b>Non-Consequential Hydropower</b>	
<i>Water Volume Units Used</i>	<i>AF</i>	<b>Total Utility</b>	<b>Hydropower</b>	<b>Net Utility</b>
<i>Volume of Water Entering Process (volume unit)</i>		4574.32		4574.32
<i>Energy Consumed (kWh)</i>		122,645.60		122645.6
<i>Energy Intensity (kWh/vol. converted to MG)</i>		82.3	0.0	82.3
<b>Quantity of Self-Generated Renewable Energy</b>				
kWh				
<b>Data Quality</b> ( <i>Estimate, Metered Data, Combination of Estimates and Metered Data</i> )				
<i>Combination of Estimates and Metered Data</i>				
<b>Data Quality Narrative:</b>				

## 7 WATER SERVICE RELIABILITY AND DROUGHT RISK ASSESSMENT

The City has three sources of water supply: Sonoma Water supply, groundwater, and recycled water. The City's supply projections indicate that its long term water supply portfolio is composed of the following:

- 61.5% Sonoma Water supply;
- 25.3% local groundwater;
- 13.3% recycled water.

This chapter summarizes the long-term reliability and vulnerability of these sources based on the more detailed descriptions found in Chapter 6. It considers the City's ability to meet water needs through 2045 under normal conditions, single-dry year conditions, and a five consecutive dry year period. In addition, this chapter meets the new requirement to provide a Drought Risk Assessment (DRA) which considers water supply and demand under the assumption that the next five years (2021-2025) will experience a drought that is hydrologically equivalent to the driest five consecutive years on record. The water service reliability assessment through 2045 and the DRA for 2021-2025 combine the details of the water use analysis in Chapter 4 and the water supply analysis in Chapter 6.

### 7.1 CONSTRAINTS ON WATER SOURCES

The City balances its three supply sources using a conjunctive use strategy which provides it with a reliable and resilient water supply portfolio. The City's planning takes into account potential legal, environmental, water quality, and climatic effects on the reliability of water supply sources through the year 2045, which is the planning horizon of this UWMP. As discussed in Chapter 6, the City uses a "reasonably available" estimate for each water supply in its planning and in some cases discounts its contractually guaranteed supply volumes, in order to account for constraints on the supply.

#### 7.1.1 CONSTRAINTS ON THE SONOMA WATER SUPPLY

As described in Section 6, the City's Sonoma Water supply experiences legal, hydrologic and environmental constraints.

Sonoma Water's current water rights of 75,000 AFA are less than the 101,000 AFA water right assumed when its supply contract with its contractors (the Restructured Agreement), including the City, was negotiated. The City has used the adopted Water Shortage Allocation Methodology described in the Restructured Agreement to estimate its reliable supply from Sonoma Water as 6,250 AFA rather than the 7,500 AFA allocation provided in the Restructured Agreement.

Sonoma Water's supply also has hydrologic constraints. Modeling performed for Sonoma Water's 2020 UWMP, described in more detail in Chapter 6, predicts that while supplies are not constrained under a Multiple Dry Year scenario, they are constrained under the Single Dry Water Year. Sonoma Water estimates that it will be able to make approximately 60,000 AFA, rather than 75,000 AFA available to its contractors during single dry years. The City has used the adopted Water Shortage Allocation Methodology described in the Restructured Agreement to estimate its reliable supply from Sonoma Water as 4,925 AFA in single dry years.

Sonoma Water’s supply is also subject to uncertainty around the Russian River Biological Opinion and the Potter Valley relicensing process, which are both described in Chapter 6. In its 2020 UWMP Sonoma Water acknowledged this uncertainty but did not believe these issues would impact its water supply during the current planning period.

There are no water quality constraints expected for the Sonoma Water Supply.

#### 7.1.2 CONSTRAINTS ON THE GROUNDWATER SUPPLY

As described in Section 6 and its 2005 WSA, the City analyzed groundwater trends in order to develop a groundwater pumping rate of 2,577 AFA that is sustainable under all hydrologic conditions. While the City meets all water quality standards with its groundwater supply, it has taken some of its wells off line because of arsenic levels that exceed standards

#### 7.1.3 CONSTRAINTS ON THE RECYCLED WATER SUPPLY

The City has a contract for a recycled water supply of 1,350 AFA. This supply is reliable under all hydrologic conditions, however at this point the City has largely committed the supply to uses within its service area and is not planning on expanding recycled water use substantially during the planning period. While the City’s recycled water supply meets all water quality standards for unrestricted nonpotable use, it cannot be used to meet potable demands.

### 7.2 YEAR TYPE CHARACTERIZATION AND SUPPLY AND DEMAND ASSESSMENT

This section discusses the City’s potable and non-potable water supplies available during normal conditions, single-dry year conditions, and dry five-year periods. To identify the years to use for characterizing a normal year, a single-dry year, and the five-consecutive-year drought conditions, the City used the following water year definitions from the DWR Guidebook.

- Normal Year. This condition represents the water supplies a Supplier considers available during normal conditions. This could be a single year or averaged range of years that most closely represents the average water supply available to the Supplier.
- Single-Dry Year. The single-dry year is the year that represents the lowest water supply available to the Supplier.
- Five-Consecutive-Year Drought. Per Water Code, the five-consecutive dry year period for the Drought Risk Assessment for 2021-2025 would be the driest five-year historical sequence for the Supplier. The State encourages Suppliers to use the same five-year sequence for their water service reliability assessment. However, Suppliers may choose to use a different five-consecutive year dry period such as the lowest average water supply available to the Supplier for five years in a row. Suppliers are encouraged to characterize the five-consecutive year drought in a manner that is best suited for understanding and managing their water service reliability.

Because the City’s three water sources are all in the same hydrologic region and influenced by similar climatic conditions, the City will be utilizing the same base water years to define the normal year, single-dry year, and the driest five-year period on record that were utilized by Sonoma Water in its 2020 UWMP. The base



years and the total water supply (potable and non-potable) was available during each water year type are summarized in Table 7-1.

TABLE 7-1 BASIS OF WATER YEAR DATA (RELIABILITY ASSESSMENT) (DWR TABLE 7-1 RETAIL)

Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment)			
Year Type	Base Year If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 2019-2020, use 2020	Available Supplies if Year Type Repeats	
		<input type="checkbox"/>	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____
		<input checked="" type="checkbox"/>	Quantification of available supplies is provided in this table as either volume only, percent only, or both.
		Volume Available *	% of Average Supply
Average Year	2002	10,117	100%
Single-Dry Year	1977	8,222	81%
Consecutive Dry Years 1st Year	1987	10,117	100%
Consecutive Dry Years 2nd Year	1988	10,117	100%
Consecutive Dry Years 3rd Year	1989	10,117	100%
Consecutive Dry Years 4th Year	1990	10,117	100%
Consecutive Dry Years 5th Year	1991	10,117	100%
<p><i>Supplier may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If a Supplier uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.</i></p>			
<p><b>*Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.</b></p>			
<p>NOTES:</p>			

### 7.2.1 WATER SERVICE RELIABILITY SUMMARY

This section provides an analysis of the reliability of the City's water service to its customers over the planning horizon through 2045. This assessment compares projected water demands to total water supply sources for a normal water year, a single-dry water year, and a dry period lasting five consecutive years. The water supply service reliability analysis extends through 2045 in five-year increments and is based on the information provided in Chapters 4 and 6. In summary, the water service reliability assessment through 2045 found the following:

- Normal Water Years: The City projects having adequate water supplies in normal years to meet demands through 2045.
- Single-Dry Water Years: The City projects experiencing a shortfall in contract water supply from Sonoma Water after 2025 in a single-dry year that is hydrologically equivalent to the driest water year on record (1977). However, the City does not anticipate a shortfall in groundwater supply or recycled water supply. Together the reduced contract water, groundwater and recycled water supplies are sufficient to meet demands.
- Dry Five-Year Periods: The City projects having adequate water supplies for dry five-year periods that are hydrologically equivalent to the five driest consecutive years on record (1987-1991) to meet demands through 2045.

### 7.2.2 WATER SERVICE RELIABILITY – NORMAL YEAR

**Sonoma Water Supply:** As described in Sonoma Water’s 2020 UWMP and summarized in Chapter 6 of this UWMP, Sonoma Water’s model projects being able to provide up to 75,000 AYF during normal water years through 2045, allowing the City to reliably plan to receive 6,250 AFA of contract water.

**Groundwater:** As discussed in Chapter 6, the City projects being able to produce up to 2,577 AFA of groundwater from its potable wells during normal water years through 2045.

**Recycled Water:** As discussed in Chapter 6, the City’s allocation of recycled water from Santa Rosa Water is 1,350 AFA, which is reliable in normal, single dry and multiple dry years.

**Demands:** As discussed in Chapter 4, the City has projected normal water demand through 2045 in five-year increments. These projections are for normal demands, which reflect anticipated water use when the City is not experiencing a water shortage. The projected demands take into account estimated population and employment growth, likely new development, rebounding demand after the 2014-2016 drought, passive water savings from plumbing codes, and climate change.

**Assessment:** Table 7-2 provides a comparison of projected total water supply and demand during normal years. As shown, the City anticipates having adequate water supplies to meet demands through 2045.

TABLE 7-2 NORMAL YEAR SUPPLY AND DEMAND COMPARISON (DWR TABLE 7-2)

Submittal Table 7-2 Retail: Normal Year Supply and Demand Comparison					
	2025	2030	2035	2040	2045 (Opt)
Supply totals (autofill from Table 6-9)	10,177	10,177	10,177	10,177	10,177
Demand totals (autofill from Table 4-3)	6,889	6,979	6,997	7,122	7,229
Difference	3,288	3,198	3,180	3,055	2,948
NOTES:					

### 7.2.3 WATER SERVICE RELIABILITY – SINGLE-DRY YEAR

**Sonoma Water Supply:** As described in Sonoma Water’s 2020 UWMP and summarized in Chapter 6 of this UWMP, Sonoma Water’s model projects a supply shortfall during single-dry years that occur after 2025. Based on the Water Shortage Allocation Methodology described in the Restructured Agreement, the City is assuming a Sonoma Water supply of 4,295 AFA during a single dry year.

**Groundwater:** As discussed in Chapter 6, the City projects that groundwater supply would not be reduced during a single-dry year. The City projects having 2,577 AFA of potable groundwater during single-dry years through 2045.

**Recycled Water:** As discussed in Chapter 6, the City’s allocation of recycled water from Santa Rosa Water is 1,350 AFA, which is reliable in a single dry year.

**Demands:** As discussed in Chapter 4, the City has projected normal water demand through 2045 in five-year increments. These projections are for normal demands, which reflect anticipated water use when the City is not experiencing a water shortage. The projected demands take into account estimated population and employment growth, likely new development, rebounding demand after the 2014-2016 drought, passive water savings from plumbing codes, and climate change.

**Assessment:** Table 7-3 provides a comparison of projected total water supply and demand during the single dry year. As shown, the City anticipates having adequate water supplies to meet demands through 2045.

TABLE 7-3 SINGLE-DRY YEAR SUPPLY AND DEMAND COMPARISON (DWR TABLE 7-3)

<b>Submittal Table 7-3 Retail: Single Dry Year Supply and Demand Comparison</b>					
	2025	2030	2035	2040	2045 (Opt)
Supply totals*	8,222	8,222	8,222	8,222	8,222
Demand totals*	6,889	6,979	6,997	7,122	7,229
Difference	1,333	1,243	1,225	1,100	993
<i>*Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.</i>					
NOTES:					

### 7.2.4 WATER SERVICE RELIABILITY – FIVE CONSECUTIVE DRY YEARS

**Sonoma Water Supply:** As described in Sonoma Water’s 2020 UWMP and summarized in Chapter 6 of this UWMP, Sonoma Water’s model projects being able to provide up to 75,000 AYF during normal water years through 2045, allowing the City to reliably plan to receive 6,250 SFY of contract water.

Groundwater: As discussed in Chapter 6, the City projects being able to produce up to 2,577 AFA of groundwater from its potable wells during normal water years through 2045.

Recycled Water: As discussed in Chapter 6, the City’s allocation of recycled water from Santa Rosa Water is 1,350 AFA, which is reliable in multiple dry years.

Demands: As discussed in Chapter 4, the City has projected normal water demand through 2045 in five-year increments. These projections are for normal demands, which reflect anticipated water use when the City is not experiencing a water shortage. The projected demands take into account estimated population and employment growth, likely new development, rebounding demand after the 2014-2016 drought, passive water savings from plumbing codes, and climate change.

Assessment: Table 7-4 provides a comparison of projected total water supply and demand during normal years. As shown, the City anticipates having adequate water supplies to meet demands through 2045.

TABLE 7-4 MULTIPLE DRY YEAR SUPPLY AND DEMAND COMPARISON (DWR TABLE 7-4)

Submittal Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2025*	2030*	2035*	2040*	2045* (Opt)
First year	Supply totals	10,177	10,177	10,177	10,177	10,177
	Demand totals	6,889	6,979	6,997	7,122	7,229
	Difference	3,288	3,198	3,180	3,055	2,948
Second year	Supply totals	10,177	10,177	10,177	10,177	10,177
	Demand totals	6,889	6,979	6,997	7,122	7,229
	Difference	3,288	3,198	3,180	3,055	2,948
Third year	Supply totals	10,177	10,177	10,177	10,177	10,177
	Demand totals	6,889	6,979	6,997	7,122	7,229
	Difference	3,288	3,198	3,180	3,055	2,948
Fourth year	Supply totals	10,177	10,177	10,177	10,177	10,177
	Demand totals	6,889	6,979	6,997	7,122	7,229
	Difference	3,288	3,198	3,180	3,055	2,948
Fifth year	Supply totals	10,177	10,177	10,177	10,177	10,177
	Demand totals	6,889	6,979	6,997	7,122	7,229
	Difference	3,288	3,198	3,180	3,055	2,948
Sixth year (optional)	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
<b>*Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.</b>						
NOTES:						

#### 7.2.5 WATER SERVICE RELIABILITY – MANAGEMENT TOOLS AND OPTIONS

Because the City has adequate water supply, it is not planning to undertake projects or implement management tools and options to increase supply or reduce demand. The City will continue to work with Sonoma Water and the Santa Rosa Plain GSA on regional reliability enhancement projects. The City also anticipates undertaking additional demand management activity to comply with the state’s developing standards for per capita water use.

### 7.3 DROUGHT RISK ASSESSMENT

The Drought Risk Assessment (DRA) is new requirement for UWMPs. The DRA is an evaluation of local water supply availability, assuming the next five years (2021-2025) are hydrologically equivalent to the driest five consecutive years on record. As required by the new regulation, this section provides a description of the data and methods used for the DRA, the basis for determining supply shortage conditions, a determination of the reliability of each water supply source, and a comparison of the total water supplies and uses, assuming the next five years are hydrologically equivalent to the driest five consecutive years on record.

The City analyzed data and considered trends to assess whether supply shortage conditions are anticipated in one or more years during the upcoming five-year period (2021-2025), assuming this upcoming five years are hydrologically equivalent to the driest five-year period on record. To conduct this assessment, the City relied on the following data sources to develop this DRA:

- Driest five-year period on record for the region, based on historical hydrological information (Source: Sonoma Water 2020 UWMP)
- Historic and current water supplies by source (Sources: City records and annual Electronic Annual Reports to the State)
- Historic and current water use, including all uses and water losses (Source: City records, annual Electronic Annual Reports, and annual Water Loss Audits).
- Projected water supply availability for 2021 through 2025 (Source: Sonoma Water 2020 UWMP, City records for groundwater and recycled water)
- Projected water use for 2021-2025 (Sources: 2020 Demand Update)

To identify the driest five-year period on record, the City relied on the analysis completed by Sonoma Water. Sonoma Water analyzed hydrologic records for the region and determined that the driest five-year period on record as 1987-1991.

To estimate water use for 2021-2025, the City used its 2020 Demand Update which projected water demands for 2025, taking into account estimated population and employment growth, likely new development, rebounding demand after the 2014-2016 drought, passive water savings from plumbing codes, and climate change impacts. The anticipated increase in use from 2019 actual use to 2025 projected demand was applied to estimate the demands for 2021, 2022, 2023, and 2024. Table 7-5 shows the estimated unconstrained water demand for 2021-2025.

TABLE 7-5 ESTIMATED WATER USE FOR 2021-2025 (AFA)

	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate
Potable Water Demands	5106	5214	5322	5431	5539
Recycled Water Demands	1350	1350	1350	1350	1350
Total Water Demands	6456	6564	6672	6781	6889

Water Supplies: To estimate water supplies for 2021-2025, the City considered each water supply separately.

- **Sonoma Water Supply:** Sonoma Water assessed the availability of its water supply for 2021-2025 under hydrologic conditions equivalent to the driest five-year period on record (1987-1991). Based on that analysis, Sonoma Water anticipates its water supply would be at least 75,000 AFA. This allows the City to reliably anticipate that 6,250 AFA will be available if the 2021-2025 hydrology is equivalent to the driest five-year period on record.
- **Groundwater:** The City's 2005 Water Supply Assessment evaluated groundwater availability over an extended hydrologic period, which included the period between 1987 and 1991. This analysis concluded that 2,577 AFA is a reliable and sustainable supply projection under all hydrologic conditions. Therefore, the City projects groundwater supply will not be impacted if 2021-2025 is hydrologically equivalent to the driest five-year period.
- **Recycled Water:** As discussed in Chapter 6, the City contractual allocation from Santa Rosa Water is 1,350 AFA and is reliable under all hydrologic conditions. Urban recycled water users consume less than one percent of the total recycled water produced by Santa Rosa Water and are given high priority for deliveries. Therefore, the City projects recycled water supply will not be impacted if 2021-2025 is hydrologically equivalent to the driest five-year period.

When the City's unconstrained supply estimates for the next five years (2021-2025) are compared to the supply estimated to be available if the next five years are hydrologically equivalent to the driest five-year period on record for the region (1987-1991), supplies are adequate to meet demands. Table 7-6 demonstrates this comparison and indicates that the City does not anticipate need to take any additional actions. However, should the City experience continued dry hydrologic conditions, it is quite likely that City will implement some aspects of its water shortage contingency plan in order to encourage demand reductions and preserve available supply.

TABLE 7-6 FIVE-YEAR DROUGHT RISK ASSESSMENT TABLES TO ADDRESS WATER CODE SECTION 10635(B) (DWR TABLE 7-5)

<b>Submittal Table 7-5: Five-Year Drought Risk Assessment Tables to address Water Code Section 10635(b)</b>	
<b>2021</b>	<b>Total</b>
Total Water Use	6,456
Total Supplies	10,177
Surplus/Shortfall w/o WSCP Action	3,721
<b>Planned WSCP Actions</b> (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	3,721
Resulting % Use Reduction from WSCP action	0%
<b>2022</b>	<b>Total</b>
Total Water Use	6,564
Total Supplies	10,177
Surplus/Shortfall w/o WSCP Action	3,613
<b>Planned WSCP Actions</b> (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	3,613
Resulting % Use Reduction from WSCP action	0%
<b>2023</b>	<b>Total</b>
Total Water Use	6,672
Total Supplies	10,177
Surplus/Shortfall w/o WSCP Action	3,505
<b>Planned WSCP Actions</b> (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	3,505
Resulting % Use Reduction from WSCP action	0%
<b>2024</b>	<b>Total</b>
Total Water Use	6,781
Total Supplies	10,177
Surplus/Shortfall w/o WSCP Action	3,396
<b>Planned WSCP Actions</b> (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	3,396
Resulting % Use Reduction from WSCP action	0%
<b>2025</b>	<b>Total</b>
Total Water Use	6,889
Total Supplies	10,177
Surplus/Shortfall w/o WSCP Action	3,288
<b>Planned WSCP Actions</b> (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	3,288
Resulting % Use Reduction from WSCP action	0%

## 8 WATER SHORTAGE CONTINGENCY PLAN

The City has developed a detailed stand-alone Water Shortage Contingency Plan for responding to water shortage conditions. The full plan has been attached in Appendix 10. This section presents a concise summary of the key requirements met by the attached Water Shortage Contingency Plan.

**Section 1: Introduction** provides an overview of the City’s Water Shortage Contingency Plan.

**Section 2: Water Service Reliability** summarizes key elements of the water supply reliability analysis conducted for the City’s 2020 Urban Water Management Plan. [CWC Section 10632(a)(1)]

**Section 3: Annual Water Supply and Demand Assessment** outlines the process that the City will use to conduct assessments each year to determine if shortage exist or are anticipated and provides written decision-making steps for any subsequent actions. [CWC Section 10632 (a)(2)]

**Section 4: Water Shortage Levels** describes the City’s six water shortage levels and illustrates how these align with the State’s six standard water shortage levels. [CWC Section 10632 (a)(3)(A)]

**Section 5: Shortage Response Actions** describes the shortage response actions that the City will implement for each shortage level and estimates the extent these actions will address the gap between supplies and demands. [CWC Section 10632 (a)(4)]

**Section 6: Emergency Planning Actions** is informed by the City’s adopted Hazard Mitigation Plan and describes the actions the City will implement in the event of water shortages triggered by emergencies.

**Section 7: Communication Protocols** explains the procedures that the City will use to inform customers, the public, and government entities of any current or predicted water shortages and associated response actions. [CWC Section 10632 (a)(5)].

**Section 8: Compliance and Enforcement** details the means that the City will use to ensure compliance and enforcement of triggered shortage response actions and describes appeal and exemption procedures. [CWC Section 10632 (a) (6)]

**Section 9: Legal Authorities** describes the legal authorities that will empower implementation of the City’s shortage response actions during water shortage emergencies. [CWC Section 10632 (a)(7) and Division 1, Section 350]

**Section 10: Financial Consequences of Water Shortage Contingency Plan** provides a discussion of the potential revenue reductions and expense increases associated with activating shortage response actions and describes the City’s mitigation actions. [CWC Section 10632 (a)(8)]

**Section 11: Monitoring, Reporting and Refinement Procedures** summarizes how the City will assure appropriate data is collected to monitor customer compliance, respond to any state reporting requirements, assess the functionality of the Shortage Plan and make appropriate adjustments as may be warranted. [CWC Section 10632(a)(9) and (10)]

**Section 12: Plan Adoption, Submittal, and Availability** outlines how the City will adopt, submit, implement, and amend (if necessary) the Shortage plan, and how the City will make it publicly available. [CWC Section 10632 (a)(c)]



## 9 DEMAND MANAGEMENT MEASURES

This chapter describes the City’s historical and existing demand management measures (DMMs), which promote conservation and reduce demands on water supplies. It provides information about the status of implementation of DMMs, including a description of the City’s historical, current, and projected DMMs. A comprehensive analysis of the effectiveness of the City’s key water use efficiency programs can be found in the 2020 Demand Update in Appendix 3.

### 9.1 WATER CONSERVATION PROGRAM OVERVIEW

Water conservation and demand management are an integral part of the City’s water supply strategy. The City began documenting its efforts to implement water conservation programs in 2000, when together with all of Sonoma Water’s contractors, it became a signatory to the California Urban Water Conservation Council’s<sup>3</sup> *Memorandum of Understanding Regarding Urban Water Conservation*. From 2000 to 2015, the City implemented water conservation programs exclusively through contracts with Sonoma Water. In 2015, the City hired a full-time Environmental Coordinator who has administered and advanced the City’s water conservation program at the local level.

While the City was originally developed without metered water connections, in 2004 with the help of a grant from the Department of Water Resources, the City implemented a project to meter all connections and implement a conservation-oriented water rate structure. The City also began requiring dedicated irrigation meters and implemented an urban water recycling program, which offset significant irrigation demand from the potable water system. More recently the City adopted and began implementing the CalGreen Building Code and the Model Water Use Efficiency Ordinance.

### 9.2 DEMAND MANAGEMENT MEASURES

The City implements a wide range of DMMs to promote conservation and reduce demands on water supplies which are described below.

#### 9.2.1 WATER WASTE PREVENTION ORDINANCE

The City’s most recent Water Waste Ordinance was adopted in 2017 as part of a comprehensive update of the Municipal Code Chapters governing its potable and recycled water system. The Ordinance prohibits waste of water due to breaks or leaks in the water delivery system or water use in the outdoor areas resulting in runoff. The Ordinance gives the City the authority to discontinue service if the water waste is not corrected. The City has developed a process to address violations of the Ordinance which begins with the City’s meter technicians and escalates to the City’s code enforcement team. Failure to comply can lead to citations and fines.

#### 9.2.2 METERING

The City’s service area is fully metered. All existing water connections are metered, and all new connections are required to be metered. The City obtains meter reads electronically and issues water bills to customers on a bi-monthly basis.

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<sup>3</sup> CUWCC changed its name California Water Efficiency Partnership (CalWEP) in 2018

### 9.2.3 CONSERVATION PRICING

The City established a conservation-oriented water rate structure in 2004 to encourage water conservation implementation. The City implements an increasing block, tiered water rate structure for all users. The City's sewer charges are based on metered water use during winter months, when all water use is presumed to be indoor use.

### 9.2.4 PUBLIC EDUCATION AND OUTREACH

The City's primary outreach and education activities are provided by the Sonoma Marin Water Saving Partnership (SMWSP) and Sonoma Water. The City supplements and amplifies regional water conservation messaging at its weekly Farmer's Market and through its website and social media channels. The SMWSP and Sonoma Water Programs are described below.

**SMWSP:** In 2010, the Sonoma Marin Saving Water Partnership (SMSWP) was established to work collaboratively on water conservation and efficiency implementation, including water conservation outreach and education. SMSWP consists of the cities of Santa Rosa, Rohnert Park, Sonoma, Cotati, Petaluma, Healdsburg, and the Town of Windsor, as well as California American Water, North Marin Water District, Marin Municipal Water District, Valley of the Moon Water District, and Sonoma Water. SMSWP provides regional media campaigns related to water conservation and water use efficiency, including digital and print newspaper ads and radio ads, Facebook posts, before the movie ads, a dedicated website, and local cable channel videos. In 2020, the SMSWP won the WaterSense Sustained Excellence Award from the Environmental Protection Agency (EPA) for developing and growing the Qualified Water Efficient Landscaper (QWEL) program. QWEL is a 21-hour nationwide training program that teaches landscape professionals about outdoor water use efficiency and offers certification in sustainable landscape practices.

**Sonoma Water:** The City's water wholesaler, Sonoma Water, implements a regional water education program on behalf of all of its retail water agencies. Sonoma Water's Water and Energy Education Program is designed to help educators teach students the "value" of water as an important natural resource, watershed stewardship, and how water and energy are linked. The program includes classroom instructional presentations, field study opportunities, Project WET (Water Education for Teachers) teacher trainings and workshops, free curriculum materials aligned with the California Next Generation Science Standards, a lending library of videos, interactive models, and printed materials, and endorsement, participation, and financial sponsorship of events, assemblies, and workshops. During the COVID-19 public health emergency and resultant County of Sonoma Public Health Order restricting in-person education opportunities, Sonoma Water developed free distance learning materials, including videos, activity sheets, and learning games for teachers of kindergarten through twelfth grade. All programs and materials are free to teachers in the Sonoma Water service area, including the City of Rohnert Park.

### 9.2.5 PROGRAMS TO ASSESS AND MANAGE DISTRIBUTION SYSTEM REAL LOSS

The City uses the AWWA Standard Water Audit and Water Balance M36 Publication and companion free Water Audit Software to determine and analyze system water losses. Water losses include "real losses" and "apparent losses". Real loss is defined by the State as the physical loss of water from water distribution systems. Apparent loss is defined as revenue losses due to meter inaccuracies, billing errors or unauthorized consumption. Appendix 4 includes the Reporting Worksheets and Performance Indicators from the City's water loss audit reports for 2015 through 2020.

As set forth in California Assembly Bill 1668 and Senate Bill 606, the State is in the process of adopting rules requiring urban retail water suppliers meet volumetric performance standards for water losses. The State has not yet finalized the City's target, but it appears likely that the target will be closely aligned with the State's draft proposed performance standard for real losses for the City of 13.1 gallons per connection per day. The City's average real loss for 2016-2019 is 27.0 gallons per connection per day. The City is actively investing in meter replacement and main replacement projects in order to achieve compliance with the State's volumetric performance standard for water loss by 2027 as required.

The City implements several programs to control system water loss. Water entering the City's distribution system from Sonoma Water and from City-operated supply wells is metered. Water sold to customers is also metered (including construction water sold through hydrant meters). The City maintains an active leak repair crew and regularly commits capital improvement funding to replace older water mains and minimize water loss due to pipeline failures.

#### 9.2.6 WATER CONSERVATION PROGRAM COORDINATION AND STAFFING SUPPORT

Since 2015, the City has employed an Environmental Coordinator with responsibility for the conservation program. The Environmental Coordinator is regularly and actively engaged with SMWSP and Sonoma Water in order to maximize the value provided by regional programs in the City.

#### 9.2.7 OTHER DEMAND MANAGEMENT MEASURES

In addition to the DMMs discussed above, the City has adopted the CalGreen Building Code and Model Water Use Efficiency Ordinance which ordinances which have increased "passive" water conservation savings in the City, even as the City has grown in population. Active conservation programs that the City implements are described below.

**High-efficiency toilet (HET) Rebate Program** Get up to \$150.00 back on the purchase and installation of each new, qualifying HET from the List of Qualifying Models. An HET uses, on average, 1.28 gallons per flush (gpf) or less – a minimum of 20% less than the standard 1.6 gpf toilets. Replacing your older toilet saves water and reduces wastewater without sacrificing performance.

**High-Efficiency Clothes Washer (HECW) Rebate** Get up to \$75.00 back on the purchase and installation of a new, qualifying HCEW. A new washer can use 40 to 60% less water and energy than older, top loading clothes washers. High capacity HECWs use 18 to 25 gallons of water per load compared to 50 or more gallons for top loading models.

**Green House Call Program** The Green House Call Program provides free outdoor and indoor water efficiency checks, a landscape irrigation schedule, a leak detection test, low-flow shower heads, aerators, rebate and incentive information, and convenient scheduling.

**Cash for Grass** The City has recently implemented a program to provide qualifying residential customers with rebates for replacing lawns with water efficient landscaping.

In addition to programs offered by the City, several regional programs are offered through the SMSWP, including: (1) education and outreach to schools, (2) public outreach and educational workshops, (3) Qualified Water Efficient Landscaper (QWEL) Training, and (4) garden tours.

### 9.3 IMPLEMENTATION OVER THE PAST FIVE YEARS

The following narrative provides a description of the nature and extent of the DMMs implemented by the City from 2016 through 2020.

**Water Waste Prevention:** Staff regularly responds to and investigates water waste complaints. Staff notified these customers about their water waste, explained the City’s Water Waste Ordinance, and clarified the requirement to resolve the issue

**Public Outreach and Education:** About six times each year from 2016 through 2020, the City distributed bill inserts to inform approximately 54,000 customers about water use efficiency rebates and other incentives. The City also regularly reaches customers through booths at its Friday night Farmer’s Markets.

**High-Efficiency Toilet Rebate:** The City provides a rebate of up to \$150 back on qualifying fixtures. 84 toilets were rebated from 2016 through 2020.

**High-Efficiency Clothes Washer Rebate:** The City offered a rebate of \$75 back on qualifying washing machines. A total of 56 washing machine rebates were provided from 2016 through 2020.

**Green House Call Program** The City made 132 Green House Calls between 2016 and 2020.

### 9.4 IMPLEMENTATION TO ACHIEVE WATER USE TARGETS

As outlined in Chapter 5, the City has exceed the water use targets it established in accordance with the Water Conservation Act of 2009. The Regional Alliance, in which the City participates, has also exceeded its targets.

### 9.5 WATER USE OBJECTIVES (FUTURE REQUIREMENTS)

As set forth in Assembly Bill 1668 and Senate Bill 606, the State requires that Suppliers develop new water use objectives by 2023, based on specific standards (not yet finalized by the State) for certain water use sectors. The City is working through SMWSP to understand and prepare for meeting these new standards.

Over the next five years (2021-2026), the City will implement the suite of the DMMs discussed in Sections 9.2 and 9.3 and will continue to explore opportunities to cost-effectively expand its conservation programs.

### 9.6 MEMBER OF THE CALIFORNIA WATER EFFICIENCY PARTNERSHIP (FORMERLY CUWCC)

In 1991, DWR along with water utilities, environmental organizations, and other interested groups formulated an MOU regarding urban water conservation in California to implement Best Management Practices (BMPs) and make a cooperative effort to reduce the consumption of California’s water resources. At that time, the CUWCC administered this contract. The MOU was amended in 1999. The City signed the MOU in 2000, pledging to implement cost effective BMPs and conservation programs. By becoming a signatory, the City committed itself to abide by the BMPs and report progress on quantifiable measures at least every two years.

After the State adoption of new water conservation regulations in 2018, the CUWCC restructured as an organization and changed its name to the California Water Efficiency Partnership (CalWEP). Although the original BMPs are no longer required by CalWEP, CalWEP continues to play an important role in statewide

water use efficiency. CalWEP provides tools, resources, information, and networking opportunities to water providers to implement, evaluate, and track water use efficiency efforts. The organization also tracks and influences water use efficiency legislation. The City maintains a membership in CalWEP.

## 10 PLAN ADOPTION SUBMITTAL AND IMPLEMENTATION

This chapter provides information regarding the notification, public hearing, adoption, and submittal of the City's 2020 UWMP. It also includes discussion on plan implementation and the process of amending the UWMP.

This UWMP will be the source document for any Senate Bill 610 Water Supply Assessments or Senate Bill 221 Water Supply Verifications required for any proposed projects between 2021 and 2025 that are subject to the CEQA and would demand an amount of water equivalent or greater than the amount of water required by a 500 dwelling unit project. This UWMP will also be the source document for water demand projections and water supply availability for the City's General Plan Update.

### 10.1 INCLUSION OF ALL 2020 DATA

Because 2020 is the final compliance year for SB X7-7, the 2020 UWMPs must contain data through the end of 2020. If a water supplier bases its accounting on a fiscal year (July through June) the data must be through the end of the 2020 fiscal year (June 2020). If the water supplier bases its accounting on a calendar year, the data must be through the end of the 2020 calendar year (December 2020). As indicated in Chapter 2 of this plan, the City uses a calendar year for water supply and demand accounting, and therefore this 2020 UWMP includes data through December 2020.

### 10.2 NOTICE OF PUBLIC HEARING

In accordance with the UWMP Act, the City must provide an opportunity for the public to provide input on this 2020 UWMP. The City must consider all public input prior to its adoption. There are two audiences to be notified for the public hearing: cities and counties, and the public.

#### 10.2.1 NOTICES TO CITIES AND COUNTIES

Per California Water Code Section 10621, notice regarding the plan preparation was sent to the County of Sonoma and the Santa Rosa Water more than 60 days prior to the public hearing date as noted in Table 10-1.

The City coordinated the preparation of its UWMP internally, with Sonoma Water, and with the agencies participating in the Regional Alliance for SB X7-7 compliance. Upon substantial completion of this 2020 UWMP, the City provided the same agencies a notice of public hearing. Notifications to cities and counties, in accordance with the UWMP Act, are summarized in Table 10-1 and included in Appendix 1.

TABLE 10-1 (DWR TABLE 10-1) NOTIFICATION TO CITIES AND COUNTIES

Submittal Table 10-1 Retail: Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
<i>Add additional rows as needed</i>		
City of Santa Rosa	Yes	Yes
County Name <i>Drop Down List</i>	60 Day Notice	Notice of Public Hearing
<i>Add additional rows as needed</i>		
Sonoma County	Yes	Yes
NOTES: City also notified Sonoma County Water Agency, its wholesale water supplier		

### 10.2.2 NOTICE TO THE PUBLIC

Following completion of the Draft UWMP, a notification of public hearing was placed in the local newspaper (The Community Voice), pursuant to Section 6066 of the Government Code. An electronic version of the document was made available on the City’s website. Hard copies of the Draft UWMP were made available at City Hall. Copies of the published Notice of Public Hearing are included in Appendix 1.

To allow for public input in a range of settings, the City’s Planning Commission and City Council Water Advisory Committee were provided detailed presentations on the 2020 UWMP at regularly scheduled public meetings, providing these policy makers and the public the opportunity to comment on the 2020 UWMP. The Planning Commission meeting focused on the relationship of the 2020 UWMP to the General Plan Update, helping to ensure ongoing coordination and input on the 2020 UWMP through the General Plan Update process.

## 10.3 PUBLIC HEARING AND ADOPTION

A public hearing to discuss the Draft UWMP (along with the Draft Shortage Plan) was held on November 9, 2021 in conjunction with the City Council meeting. The public hearings provided an opportunity for all City

water users and the general public to become familiar with the UWMP, provide comments, and ask questions about its water supply.

This 2020 UWMP and the 2020 Water Shortage Contingency Plan were adopted by the City Council on November 9, 2021.

#### **10.4 PLAN SUBMITTAL**

A hard copy of this 2020 UWMP, including the 2020 Shortage Plan, will be submitted to DWR within 30 days of adoption. The adopted 2020 UWMP and 2020 Shortage Plan will be submitted electronically to DWR using the WUE data submittal tool. A CD or hardcopy of the adopted 2020 UWMP and 2020 Shortage Plan will also be submitted to the California State Library.

No later than 30 days after adoption, a copy of the adopted 2020 UWMP, including the Water Shortage Contingency Plan, will be provided to the cities and counties to which the City provides water.

#### **10.5 PUBLIC AVAILABILITY**

No later than 30 days after submittal to DWR, an electronic copy of this UWMP, including the adopted Water Shortage Contingency Plan, will be available to the public online on the City's website.

#### **10.6 AMENDING AN ADOPTED UWMP OR WATER SHORTAGE CONTINGENCY PLAN**

The City may amend its 2020 UWMP and its 2020 Shortage Plan jointly or separately. If the City amends one or both documents, the City will follow the notification, public hearing, adoption, and submittal process described in Sections 10.2 through 10.4 above. In addition to submitting amendments to DWR through the WUE data portal, copies of amendments or changes to the plans will be submitted to the California State Library, and any city or county within which the supplier provides water supplies within 30 days after adoption.



## 11 REFERENCES

Brelje & Race, 2004, Water Model Study Summary Report – City of Rohnert Park

Brown & Caldwell, 2021, 2020 Urban Water Management Plan Sonoma County Water Agency

Dyett & Bhatia, 2000, Our Place....Rohnert Park 2020 General Plan, 8<sup>th</sup> Edition.

EKI Water and Environment, Inc, 2020, 2020 Water Demand Analysis and Water Conservation Measure Update, City of Rohnert Park.

Mintier Harnish, ed., 2019, General Plan 2040 Climate Change White Paper.

Mintier Harnish, ed., 2019, General Plan 2040 Economics White Paper.

Mintier Harnish, ed., 2019, General Plan 2040 Climate Land Use and Community Character White Paper.

Nishikawa, Tracy, ed., 2013, Hydrologic and Geochemical Characterization of the Santa Rosa Plain Watershed, Sonoma County California; U. S. Geological Survey Scientific Investigations Report 2013-5118.

Santa Rosa Plain Basin Advisory Panel, 2014, Santa Rosa Plain Watershed Groundwater Management Plan

Winzler & Kelly, 2005, Final Water Supply Assessment - City of Rohnert Park

Winzler & Kelly, 2006, 2005 Urban Water Management Plan – City of Rohnert Park

Winzler & Kelly, 2011, Urban Water Management Plan 2010 – City of Rohnert Park

City of Rohnert Park, 2016, Urban Water Management Plan 2015- City of Rohnert Park