

4.14 WATER RESOURCES

This section provides a summary of existing water supply resources available for the City of Rocklin, an assessment of existing water supply infrastructure and a discussion of future infrastructure needs, an evaluation of water demand in the Planning Area, and a discussion of whether the City has adequate water supplies to meet both short- and long-term needs. Key issues include potential environmental impacts associated with increased water supply demand and water service infrastructure that would result from implementation of the proposed project. General Plan policies and mitigation measures that would serve to reduce impacts are also identified. This section is based on available information from City websites as well as consultation with the service providers. Relevant federal and state laws and regional plans regarding provision of water are identified. Abbreviated citations for each information source are provided in the text, with full references provided at the end of this section.

4.14.1 EXISTING SETTING

PLACER COUNTY WATER AGENCY

The City of Rocklin receives its water supply from the Placer County Water Agency (PCWA). The PCWA was created in 1957 under its own state legislation entitled the Placer County Water Agency Act. The PCWA encompasses all of Placer County, ranging from the rim of the Sacramento Valley on the west to the Sierra Nevada mountain range and Lake Tahoe on the east, and provides water resource planning and management, retail and wholesale supply of irrigation water and drinking water, and production of hydroelectric energy within its service area (PCWA 2009).

The PCWA serves over 36,000 water accounts, which represents annual deliveries to 220,000 residents, businesses, industrial customers, and agriculture. The PCWA also operates a raw water distribution network that includes 165 miles of ditches, flumes, and several small reservoirs. A significant amount of raw water irrigates pastures, orchards, rice fields, farms, ranches, golf courses, and other uses. Agency raw water is also sold to the City of Roseville, San Juan Water District (Granite Bay), and several special districts that treat the water and retail it to their customers (Brown & Caldwell 2005, pg. 2-5).

PCWA-treated water is sold directly to customers residing in Auburn, Colfax, Loomis, Rocklin, and portions of Roseville and the surrounding unincorporated areas of Placer County. Agency treated water is also sold wholesale to the City of Lincoln and several smaller special districts, which treat the water and retail it directly to their customers. The PCWA service area is currently divided into five zones. Zones 1, 2, and 5 are located in western Placer County, extending from the Sacramento county line east to Auburn. Zone 3 includes much of central Placer County, from north of Auburn to Alta along the Interstate 80 (I-80) corridor. Zone 4 is located in eastern Placer County, within the Martis Valley.

The City of Rocklin General Plan Update Planning Area is located in Zone 1, which is the largest of the five zones and extends north from the northern boundary of the City of Roseville to the City of Auburn and extends to the northwest to include the City of Lincoln. A small detached portion southwest of the City of Roseville near Baseline Road and Crowder Lane is also included in Zone 1. The PCWA provides retail treated water service to most of Zone 1, including Auburn, Colfax, Loomis, Rocklin, and portions of Roseville and the surrounding unincorporated areas of Placer County. The PCWA also serves wholesale treated water to the City of Lincoln, California American Water Company, and other property owner associations located in Zone 1 (Brown & Caldwell 2005, pg. 2-6).

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Surface Water Supply and Water Rights

PCWA's surface water supply sources consist of water purchased from Pacific Gas & Electric (PG&E) from the Yuba and Bear rivers, Middle Fork Project (MFP) water from the American River, and Central Valley Project water from the American River (Brown & Caldwell 2006, pg. 6-4). Water for Zone 1 is supplied from PG&E's Drum-Spaulling system on the Yuba/Bear River System and from the PCWA's MFP from the American River.

Yuba/Bear River System

The main source of water supply in Zone 1, as well as in the entire PCWA service area, is from the Yuba/Bear River System. This system is used to supply treated and raw water to customers in Zones 1, 3, and 5 (Brown & Caldwell 2006, 6-4). The Yuba/Bear River System supply originates in Lake Spaulding and is purchased from PG&E. PCWA has two water supply contracts with PG&E that provide options to purchase up to 125,400 acre-feet (af) annually from PG&E's rights to water for consumptive purposes from the Yuba/Bear River System. These water rights were developed prior to 1914 by PG&E and its predecessors by appropriation, with the places of use for the water being western Placer County and PCWA's Zone 3. The PCWA currently takes delivery of up to 105,400 acre-feet per year (af/y) of water annually for delivery to Zones 1 and 5 from the Yuba/Bear River System through PG&E's Bear River Canal and its downstream canal network. Of the total, 100,400 af/y are delivered pursuant to the PCWA's existing Zone 1 PG&E water supply contract, and 5,000 af/y are delivered pursuant to a surplus water supply contract between the PCWA and the South Sutter Water District. However, the South Sutter Water District water is actually surplus Nevada Irrigation District (NID) water that also originates in the Yuba/Bear River System. The contract for water supplied to Zone 3 has no term limit, while the contract for 100,400 acre-feet annually, which supplies Zones 1 and 5, terminates in 2013. At that time, the contract will come up for renewal for an adjustment in the price to be paid for the water (Brown & Caldwell 2006, pg. 6-4). While the price and other terms may change, the place of use of that water will continue to be the same, because any change in that place of use would be injurious to the present legal beneficiaries using that water and would violate California law, specifically Sections 1706 and 1725 of the California Water Code.

Middle Fork American River System

The PCWA has permits from the California State Water Resources Control Board (SWRCB) to divert from the American River. The PCWA has agreed with the United States Bureau of Reclamation (USBR) not to divert more than 120,000 af/y for consumptive use under these permits. This water is available from direct diversions from the north fork of the American River between November and June and from the rediversion of releases from PCWA's Middle Fork American River Project in the remainder of the year. Western Placer County and a portion of northeastern Sacramento County are the places of use for this water source (Brown & Caldwell 2005, pg. 4-3).

Of PCWA's 120,000 permitted af/y from the American River, Zone 1 and Zone 5 receive 35,500 af/y of MFP water via the American River Pump Station, which was completed in 2007 (Brown & Caldwell 2006, Figure 6-3; PCWA 2008, pg. 5).

The remainder of the American River diversion supply is provided to the San Juan Water District (SJWD), the City of Roseville, and the Sacramento Suburban Water District (SSWD) via contracts with PCWA for wholesale water. The contract between the PCWA and the San Juan Water District provides for a maximum of 25,000 acre-feet annually; the contract between the PCWA and the City of Roseville provides for a maximum of 30,000 acre-feet annually. Both the San Juan

Water District and the City of Roseville divert their water at Folsom Lake and use their own facilities for treatment and delivery (Brown & Caldwell 2006, pg. 6-4). The contract between the PCWA and the Sacramento Suburban Water District provides for a maximum of 29,000 acre-feet annually by 2015 on a buildup schedule. The agreement with SSWD increases from 7,000 af/y in 2000 to 29,000 af/y in 2015. The 29,000 af/y amount will be maintained through the year 2025. The term of the agreement can be extended by mutual consent of both parties. Similar to the San Juan Water District and the City of Roseville, the water to SSWD is diverted at Folsom Lake. It is then brought through the San Juan Water District's water treatment plant and is delivered through a cooperative transmission pipeline (Brown & Caldwell 2006, pg. 6-4).

Other Surface Water Supplies

The PCWA has a contract with the USBR for a maximum of 117,000 af/y of Central Valley Project (CVP) water to be available on a build-up schedule that began with 15,000 af in 1992, building up to the maximum of the 117,000 acre-feet in 2007. However, prior to delivering more than 35,000 af/y, the USBR and the Placer County Water Agency must meet to determine to what extent, if any, the USBR is obligated to deliver more than 35,000 af/y to the PCWA in the absence of an Auburn Dam. The PCWA does not plan to use any of its CVP entitlement prior to putting to use the full amount of the 120,000 acre-feet available to it annually from the American River pursuant to its water right permits. The agency's CVP contract was amended in February 2002 to provide 35,000 af/y, with an option to increase the contract amount if an Auburn Dam is built (Brown & Caldwell 2006, pg. 6-4 and 6-5).

In addition, the PCWA is negotiating with the USBR for the right to take 35,000 af/y of CVP entitlement from the Sacramento River and/or Feather River for delivery to Zones 1 and 5 (WFA 2000, pg. 261; Brown & Caldwell 2006, Figure 6-4). If circumstances prevent the PCWA from developing the diversion from the Sacramento and/or Feather rivers, one alternative is to increase the American River diversion by 35,000 af/y to 70,500 af/y (Brown & Caldwell 2006, Figure 6-4).

Groundwater Supply

Although groundwater from the North American groundwater subbasin is pumped by several water agencies in western Placer County, the PCWA does not use significant amounts of groundwater for its water supply. Currently, Zones 2 and 4 are the only zones that pump groundwater (Brown & Caldwell 2006, pg. 7-4). In 2003, western Placer County groundwater use totaled 97,371 af/y (Brown & Caldwell 2006, pg. 7-3). The predominant historical use of groundwater in western Placer County has been for agriculture, and the estimated historical average annual agricultural groundwater demand has been approximately 90,000 af/y (Brown & Caldwell 2006, pg. 7-5). Under these pumping conditions, the groundwater levels at the southern end of the western Placer County basin have been stable since about 1982 (following a steady decline of about 1½ feet per year from 1950 to 1982), and at the northern end of the basin the levels have risen slightly since completion of Camp Far West Reservoir in 1974. These stable groundwater levels indicate that groundwater pumping is currently in balance with the natural groundwater recharge rate (Brown & Caldwell 2006, pg. 7-5). The most recent evaluation of the western Placer County groundwater basin lists the estimated sustainable safe yield as 95,000 af/y for the western Placer County portion of the North American groundwater subbasin (Brown & Caldwell 2006, pg. 7-6).

Many of the new developments in western Placer County will be replacing existing groundwater-irrigated agriculture lands with urban development. Removing agricultural lands from production will decrease the demand on groundwater within the North American

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groundwater subbasin and result in in-lieu recharge. It is projected that urban buildout development in Placer Vineyards, Curry Creek, and West Lincoln would reduce agriculture groundwater pumping by approximately 20,000 af/y (Brown & Caldwell 2006, pg. 7-5 and 7-6).

It is anticipated that under drought conditions the PCWA would need to rely on groundwater, in conjunction with demand reductions, in order to meet demands when surface water supply is reduced. It is anticipated that groundwater pumping exceeding the safe yield during dry periods is feasible as long as the long-term (multiple year) average does not exceed the safe yield of 95,000 af/y (Brown & Caldwell 2006, pg. 7-6).

The City of Rocklin, as part of PCWA's Zone 1, does not rely on groundwater as a primary supply source during normal years. The PCWA currently has one groundwater well in the Foothill-Sunset Water System that supplies Rocklin and other surrounding communities. Under current supply and demands, the PCWA rarely operates this well and it does not represent a significant amount in the PCWA water portfolio. To put it in perspective, the Foothill-Sunset Water System has a capacity of 63 million gallons per day (mgd), and the well is capable of approximately 1 mgd. However, the PCWA is planning for future conjunctive use with groundwater to back up surface water supplies in dry years. The PCWA is a partner in a groundwater management plan that sets guidelines for use of the groundwater basin, and PCWA's anticipated dry year use of groundwater is presented in their 2006 Integrated Water Resources Plan. Thus, for the reasons presented above, a groundwater study was not necessary for the General Plan Update (Firenzi 2010).

Water Supply Allocation

The first and second columns of **Table 4.14-1** below show the allocation of the available Zone 1 water supply resources in 2006. Allocations in 2006 consisted of 97,000 af/y from PG&E and 2,000 af/y from the MFP through the temporary American River Pump Station (ARPS). However, the MFP supplies have since been increased, as the temporary American River Pump Station was replaced with the higher-capacity permanent American River Pump station in 2007.

The third and fourth columns of **Table 4.14-1** show the allocation of available Zone 1 water supply resources following completion of the 30 mgd Ophir water treatment plant (WTP) and with treated water supplies increased to the capacity at the Foothill and Sunset WTP facilities. The total treated water supply allocation for Zone 1 in 2006 was 39,000 af/y; this total increases by 26,500 af/y to 65,500 af/y upon completion of the Ophir WTP and with the Foothill and Sunset WTPs operating at full capacity. The 26,500 af/y increase comprises an additional 4,800 af/y at the Auburn Bowman WTP, an additional 9,900 af/y from the Foothill and Sunset WTPs combined, and an additional 16,600 af/y from the new Ophir WTP. The 30,000 af/y PG&E supply to the Foothill and Sunset WTPs in 2006 decreases to 25,200 af/y because the Foothill WTP receives what is left over in the PG&E system after meeting the Auburn and Bowman water treatment plants' treated and raw water demands.

**TABLE 4.14-1
NORMAL YEAR WATER SUPPLY ALLOCATION FOR ZONE 1 FOR 2006 AND AT FULL CAPACITY OF
FOOTHILL/SUNSET/OPHIR WTP**

	2006 Normal Year Zone 1 Treated Water Supply Allocation (af/y)	2006 Normal Year Zone 1 Raw Water Supply Allocation (af/y)	Normal Year Zone 1 Treated Water Allocation at Completion of Foothill/Sunset/ Ophir WTP (af/y)	Normal Year Zone 1 Raw Water Supply Allocation (af/y)
PG&E Supply to Raw Water	–	60,000	–	60,000
PG&E Supply to Auburn/Bowman WTP	7,000	–	11,800	–
PG&E Supply to Foothill/Sunset WTP	30,000	–	25,200	–
NID/South Sutter Water District Supply	–	–	–	–
MFP to Raw Water	–	–	–	–
MFP to Foothill/Sunset WTP	2,000	–	11,900	–
MFP to Ophir WTP	–	–	16,600	–
Totals	39,000	60,000	65,500	60,000

Source: Brown & Caldwell 2006, pg. 9-4

Water Supply Reliability

In 1977, California experienced a severe drought that was the worst drought on record to date. For planning purposes, the PCWA assumes this is the single dry year event. During that drought, the PCWA relied exclusively on the PG&E supply, which was reduced to approximately 50,000 acre-feet. The PCWA assumes a similar supply reduction from 100,400 to 50,000 acre-feet during a single dry year.

The drought from the late 1980s to early 1990s is the benchmark for a multi-year drought for most watersheds in the state. During that time, the PG&E supply was not cut back for the PCWA, as ample supply was available. However, for a conservative estimate, the PG&E contract is assumed to be reduced 25 percent for each year of the multiple dry year condition.

The PCWA has completed computer modeling of the Middle Fork Project to determine the reliability of its water supply under the 70 years of available hydrologic record. That report concluded the Middle Fork Project could have supplied the full 120,000 acre-feet in all the years of record and could provide full deliveries even in an assumed worst-case three-year consecutive event, which is a repeat of 1976, 1977, and with the third year a repeat of 1977. Therefore, there is no assumed supply reduction of the Middle Fork Project American River supply during the dry year planning event.

The CVP supply is subject to water shortage restriction in a manner similar to shortages imposed on other CVP contractors. The USBR has indicated that reductions of up to 25 percent may be necessary during dry years. Although it may be reduced even more during a severe drought,

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the PCWA assumes that a reduction of 25 percent will be imposed for the single dry year and the multiple dry year planning events.

Dry year supplies are summarized in **Table 4.14-2**. Alternatives for replacing inconsistent sources include transfers and increased use of recycled water and groundwater.

**TABLE 4.14-2
PCWA'S ASSUMED DRY YEAR SURFACE WATER SUPPLIES**

Water Supply	Normal Year Supply (af/y)	Single Dry Year Supply (af/y)	Multiple Dry Year Supply (af/y)
PG&E	100,400	50,000	75,300
Middle Fork Project	120,000	120,000	120,000
Central Valley Project	35,000	26,250	26,250
Total	255,400	196,250	221,550

Source: Brown & Caldwell 2006, pg. 6-7

Existing and Projected Water Supply Demand

PCWA's 2005 Urban Water Management Plan identified the demand for treated water by customer category in each PCWA zone in 2004. **Table 4.14-3** shows the 2004 demand in Zone 1 by customer category, along with the number of connections.

**TABLE 4.14-3
2004 TREATED WATER DEMAND AND NUMBER OF CONNECTIONS BY CUSTOMER CATEGORY IN AF/Y**

Customer Type	Number of Connections in Zone 1	Water Demand in Zone 1 (af/y)
Residential	25,647	16,063.07
Multi Units	664	1,982.61
Commercial	1,433	2,945.75
Industrial	2	1,078.26
Municipal	132	971.22
Landscape-Greenbelt	335	1,323.99
Irrigation/Ag	81	411.00
Construction	–	210.01
Fire Protection	–	8.83
Resale	8	7,978.85
No Demand	–	139.29
Interties	–	16.18
Misc. Connections	1,550	–
Total	29,852 Connections	33,129.06 af/y

Source: Brown & Caldwell 2005, pg. 3-3; 2006, pg. 3-9

PCWA’s 2006 Integrated Water Resources Plan (IWRP) presents an integrated water supply strategy for normal, single dry, and multiple dry years for western Placer County and identifies several different growth scenarios in order to project future water demand. The water supply to demand comparison is based on Scenario 2b, which is one of the growth scenarios in the IWRP, as it is assumed to be the most likely representation of the buildout of western Placer County. Scenario 2b is based on the currently approved general plans within PCWA’s service area, plus proposed projects that were in the approval process during the IWRP planning period and an update to the Placer Vineyards development to reflect the higher dwelling unit densities desired in the Sacramento Area Council of Governments (SACOG) Preferred Alternative. **Table 4.14-4** below shows the projected demand at buildout of Scenario 2b, compared to PCWA supplies.

**TABLE 4.14-4
WEST PLACER COUNTY SUPPLY TO DEMAND COMPARISON BUILDOUT OF SCENARIO 2B**

	Normal Year (af/y)	Multi-Dry Years (af/y)	Single Driest Year (af/y)
Water Demand			
PCWA			
Auburn	12,188	12,188	11,822
Lincoln	44,243	44,243	42,916
Rocklin	27,841	27,841	27,006
Loomis/Granite Bay	16,284	16,284	15,795
West Placer	52,125	51,125	50,561
Roseville	65,970	65,970	65,970
San Juan Water District	16,415	16,415	16,415
Raw Water	75,000	55,000	34,000
Total Demands	310,066	290,066	264,485
Water Supplies			
PCWA			
MFP	120,000	120,000	120,000
CVP	35,000	26,250	26,250
PG&E	100,400	75,000	50,000
South Sutter WD	5,000	0	0
Lincoln			
NID	3,300	2,475	1,650
Roseville			
CVP	32,000	24,000	24,000
Total Recycled	21,261	21,261	21,261
Private Groundwater	5,273	5,273	5,273
Groundwater			
Roseville	0	6,790	6,790

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	Normal Year (af/y)	Multi-Dry Years (af/y)	Single Driest Year (af/y)
Lincoln/PCWA	0	10,000	10,000
Total Supplies	322,234	291,049	265,224

Source: Brown & Caldwell 2006, pg. 9-9

As shown, there is adequate water supply to reliably meet all of the projected PCWA western Placer County service area demands under normal climate, multiple year, and single year drought conditions. However, under drought conditions, PCWA, Roseville, and Lincoln will all need to rely on groundwater to improve the reliability of their system (Brown & Caldwell 2006, pg. 9-12).

Water Infrastructure

Zone 1 includes four water treatment facilities, 14 storage tanks, and approximately 370 miles of treated water piping (Brown & Caldwell 2006, pg. 2-2).

In addition, the PCWA plans to construct a new water treatment plant that will be located on Ophir Road in the Newcastle/Ophir area adjacent to the American River Pump Station. The new WTP will have an initial capacity of 30 million gallons per day (mgd) with an ultimate design capacity of 120 mgd (PCWA 2007, pg. 3). The Ophir WTP is planned for construction in 2018 (Trejo 2010).

Water Treatment

There are four WTPs in Zone I. The City of Rocklin, along with Penryn, Loomis, Lincoln, and a portion of Granite Bay, is served by the Foothill and Sunset WTPs that are located in the southern part of Zone 1 (lower Zone 1). The Foothill WTP consists of two parallel treatment trains which are treated as separate plants (Foothill 1 and 2) (Starr Consulting 2008, pg. 2-2). In the northern part of Zone 1 (upper Zone 1), the Auburn and Bowman WTPs serve the Auburn, Bowman, Ophir, and Newcastle areas of Placer County. The Foothill and Sunset water treatment plants both feed water into the Foothill distribution system, which is one combined public water system. The Bowman and Auburn WTPs both feed water into the Auburn/Bowman distribution system, which is one combined public water system (Starr Consulting 2007, pg. 2-5). Water distribution systems are discussed in more detail below.

Foothill 1 Water Treatment Plant

The raw water intake location for the Foothill 1 WTP is located off of PG&E's South Canal in Newcastle. Under normal operating conditions, the Foothill 1 WTP is fed raw water from PG&E's South Canal, which carries Yuba/Bear River water. The WTP can also be fed from the Boardman Canal, also carrying Yuba/Bear River water, or from the American River via the South Canal during periods when the PG&E canal is down for maintenance (Starr Consulting 2008, pg. 2-2 and 2-3). Foothill 1 WTP is a ballasted clarification water treatment plant with a design flow of 40 mgd, an average winter flow of 10 mgd, and an average summer flow of 30 mgd (Starr Consulting 2008, pg. 2-3).

Foothill 2 Water Treatment Plant

The Foothill 2 WTP is located in Newcastle off of PG&E's South Canal, and the American River raw water intake location for the Foothill 2 WTP is the same as for the Foothill 1 WTP described

above. The plant can also be fed from the Boardman Canal at station 903+00 or off the American River during South Canal maintenance. The Foothill 2 WTP is a conventional water treatment plant consisting of pre-chlorination, coagulation/flocculation, sedimentation, gravity filtration, and postchlorination. The Foothill 2 WTP has a design flow of 15.0 mgd, an average winter flow of 7 mgd, and an average summer flow of 15 mgd (Starr Consulting 2008, pg. 2-3).

Sunset Water Treatment Plant

The Sunset WTP is located in Rocklin and takes water from the Whitney Reservoir. The source of supply is the Caperton Canal. The Sunset WTP is a conventional water treatment plant, consisting of pre-chlorination, coagulation/flocculation, sedimentation, gravity filtration, and post-chlorination. In 2001, a new 10 million gallon tank was installed, and in the spring of 2004 the WTP was expanded by 3 mgd with a new capacity of 8 mgd. The expansion included improvements to the raw water reservoir, a new raw water pump station, new chemical feed and storage, filter to waste, and a fully automated control system. Currently, the plant design flow is 8 mgd, with average flows of 5 mgd (Starr Consulting 2007, pg. 2-8). The Sunset WTP is typically operated during the peak summer months and during outages in the PG&E supply to the Foothill WTP (Brown & Caldwell 2006, pg. 2-3).

Bowman Water Treatment Plant

The Bowman WTP is located along Interstate 80 on the east side of Auburn, off the Bowman Canal. Water is diverted from the Bear River Canal into an inverted siphon to Bowman Canal and passes through a PG&E staging area, above Halsey Forebay. The Bowman WTP has two parallel treatment trains with different processes (referred to as the Bowman WTP and the Bowman Package WTP). The Bowman WTP is a conventional water treatment plant, consisting of pre-chlorination, coagulation/flocculation, sedimentation, gravity filtration, and post-chlorination. The WTP design flow is 5 mgd, with average flows at 4 mgd. The Bowman Package WTP has been designated as a conventional filtration plant consisting of a CPC Microfloc package unit (adsorption clarification and gravity filtration) followed by post-chlorination. The Bowman Package WTP has an average design flow of 2 mgd and typically operates from April through October (Starr Consulting 2007, pg. 2-2).

Auburn Water Treatment Plant

The Auburn WTP is located along Interstate 80 in Auburn, off the Bear River Canal. The source of water supply is Rollins Lake. During PG&E outages, the plant receives water from the Upper Boardman Canal. The Auburn WTP is a conventional water treatment plant, consisting of pre-chlorination, coagulation/flocculation, sedimentation, gravity filtration, and post-chlorination. The plant design flow is 6 mgd. However, hydraulic constraints limit the plant flow to 5 mgd. The plant typically operates from April through October with average flows of 4 mgd (Starr Consulting 2007, pg. 2-7).

The Auburn WTP was replaced with a new treatment plant with an initial capacity of 8 mgd. The new plant includes pre-screening, pre-chlorination, Actiflo, gravity filtration, post-chlorination, and a centrifuge for sludge thickening (Starr Consulting 2007, pg. 2-7). This project was completed in March 2007 and is in operation (Trejo 2010).

Water Distribution and Storage

The PCWA Zone 1 water system service area begins at an elevation of approximately 1,800 feet and ends at an elevation of 100 feet. For the most part, gravity moves raw water through a series

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of water canals to the water treatment plans and then to the water distribution system without additional pumping (PCWA 2003, pg. 5-8). The City of Rocklin is served by three major transmission lines: a 24-inch transmission line along Pacific Street/Taylor Road, a 30-inch transmission pipeline that supplies water to the Stanford Ranch development, and a 42-inch transmission pipeline that runs south from Penryn to Lincoln.

Zone 1 includes 14 storage tanks providing approximately 24.5 million gallons (mg) of storage capacity (Brown & Caldwell 2006, pg. 2-1). Three 10-million-gallon water storage tanks are proposed for eventual construction adjacent to the Sunset Water Treatment Plant; the first tank has been constructed. Storage capacity in the Foothill/Sunset system is presently 31 million gallons.

4.14.2 REGULATORY FRAMEWORK

FEDERAL

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and groundwater wells. The SDWA applies to every public water system in the United States but does not regulate private wells which serve fewer than 25 individuals.

The SDWA authorizes the United States Environmental Protection Agency (EPA) to set national health-based standards for drinking water to protect against both naturally occurring and man-made contaminants that may be found in drinking water. Originally, the SDWA focused primarily on treatment as the means of providing safe drinking water at the tap. The 1996 amendments changed the existing law by recognizing source water protection, operator training, funding for water system improvements, and public information as important components of safe drinking water. This approach is intended to ensure the quality of drinking water by protecting it from source to tap (EPA 2009).

STATE

Urban Water Management Planning Act

In 1983, the California legislature enacted the Urban Water Management Planning Act (Water Code Sections 10610–10656). The act states that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet of water annually, should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The act describes the contents of the Urban Water Management Plans (UWMP) as well as how urban water suppliers should adopt and implement the plans. It is the intention of the act to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied (DWR 2009b). As discussed under Regional Regulatory Framework below, the PCWA adopted its most recent UWMP in 2005.

Senate Bill 610

Senate Bill (SB) 610 was approved in October 2001. SB 610 makes changes to the Urban Water Management Planning Act to require additional information in Urban Water Management Plans

if groundwater is identified as a source available to the supplier. Required information includes a copy of any groundwater management plan adopted by the supplier, a copy of the adjudication order or decree for adjudicated basins, and if non-adjudicated, whether the basin has been identified as being overdrafted or projected to be overdrafted in the most current California Department of Water Resources (DWR) publication on that basin. If the basin is in overdraft, that plan must include current efforts to eliminate any long-term overdraft. A key provision in SB 610 requires that any project subject to the California Environmental Quality Act (CEQA) supplied with water from a public water system be provided a specified water supply assessment, except as specified in the law (DWR 2009a).

Senate Bill 901

SB 901 was passed in 1995. SB 901 requires Urban Water Management Plans to include information relating to the quality of existing sources of water available to an urban water supplier over given time periods and the manner in which water quality affects water management strategies and supply (DWR 2009a).

Senate Bill 221

SB 221 was approved in October 2001 and prohibits approval of subdivisions consisting of more than 500 dwelling units unless there is verification of sufficient water supplies for the project from the applicable water supplier(s). This requirement also applies to increases of 10 percent or more of service connections for public water systems with less than 500 service connections. The law defines criteria for determining "sufficient water supply" such as using normal, single dry, and multiple dry year hydrology and identifying the amount of water that the supplier can reasonably rely on to meet existing and future planned uses. Rights to extract additional groundwater, if groundwater is to be used for the project, must be substantiated (DWR 2009a).

Governor's 20x2020 Program

On February 28, 2008, Governor Schwarzenegger introduced a seven-part comprehensive plan for improving the Sacramento-San Joaquin Delta. As part of the plan, the governor directed state agencies to prepare and implement a program to achieve a 20 percent reduction in statewide average per capita water use by year 2020 (20x2020 Program). Several state agencies involved in water planning and management have joined together to form an agency team to direct the development and implementation of the 20x2020 Program. The focus of the 20x2020 Program is to understand the current urban water use patterns in order to propose a practical and effective conservation strategy. The process of developing this program involves five steps:

- Data Analysis
- Baseline Definition
- Preliminary Targets Development
- Conservation Potential Identification
- Implementation Planning

Currently, the 20x2020 team is in the process of developing baseline definitions and preliminary targets (SWRCB 2009). The governor's plan is being legislated in three bills: Assembly Bill (AB) 49, SB 261, and SB 460, each of which is at a different level of development (Firenzi 2009).

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AB 49 was introduced in the state assembly in June 2009. AB 49 would enact legislation to establish a 20 percent water efficiency requirement for the year 2020 for agricultural and urban users.

SB 261 was introduced in the state senate in February of 2009. SB 261 requires all urban water suppliers to develop and implement a water use efficiency and efficient water resources management plan to reduce residential potable water use.

SB 460 was introduced in February 2009. SB 460 requires urban water suppliers and agricultural water suppliers to include additional information in their respective reports, including detailed descriptions and analysis of long-term plans to reduce water use through conservation and water use efficiency that would achieve a statewide 20 percent reduction in urban per capita water use by December 31, 2020.

California Urban Water Conservation Council

The California Urban Water Conservation Council (CUWCC) was created in 1991 by numerous urban water agencies, public interest organizations, and private entities throughout California to assist in increasing water conservation in the state. The goal of the CUWCC is to integrate best management practices (BMPs) into the planning and management of California's water resources. A Memorandum of Understanding [MOU] Regarding Urban Water Conservation in California (2007) was signed by these agencies and formalizes an agreement to implement the BMPs and makes a cooperative effort to reduce the consumption of California's water resources (CUWCC 2008). The PCWA is a signatory of the memorandum. By signing the council's MOU, members agree to implement 14 BMPs to conserve water in urban areas. The council's BMPs were updated in 2008 to include current technology and to credit agencies for innovative water conservation programs. The 14 BMPs are now organized into five categories. Two categories, Utility Operations and Education, are Foundational BMPs, because they are considered to be essential water conservation activities by any utility and are adopted for implementation by all signatories to the MOU as ongoing practices with no time limits. The remaining BMPs are Programmatic BMPs and are organized into Residential, Commercial, Industrial, Institutional (CII), and Landscape categories. The BMPs are shown in **Table 4.14-5** below.

**TABLE 4.14-5
CUWCC REVISED BEST MANAGEMENT PRACTICES**

Old BMP Number & Name	New BMP category
1. Water Survey Programs for Single-Family Residential and Multi-Family Residential Customers	Programmatic: Residential
2. Residential Plumbing Retrofit	Programmatic: Residential
3. System Water Audits, Leak Detection and Repair	Foundational: Utility Operations – Water Loss Control
4. Metering with Commodity Rates for All New Connections and Retrofit of Existing Connections	Foundational: Utility Operations – Metering
5. Large Landscape Conservation Programs and Incentives	Programmatic: Landscape
6. High-Efficiency Clothes Washing Machine Financial Incentive Programs	Programmatic: Residential
7. Public Information Programs	Foundational: Education – Public Information Programs
8. School Education Programs	Foundational: Education – School Education Programs
9. Conservation Programs for Commercial, Industrial, and Institutional (CII) Accounts	Programmatic: Commercial, Industrial, and Institutional
10. Wholesale Agency Assistance Programs	Foundational: Utility Operations – Operations
11. Retail Conservation Pricing	Foundational: Utility Operations – Pricing
12. Conservation Coordinator	Foundational: Utility Operations – Operations
13. Water Waste Prohibition	Foundational: Utility Operations – Operations
14. Residential ULFT Replacement Programs	Programmatic: Residential

Source: CUWCC 2009

Assembly Bill 1420

Effective January 1, 2009, AB 1420 amended the Urban Water Management Planning Act to require that water management grants or loans made to urban water suppliers and awarded or administered by DWR, the State Water Resources Control Board, or California Bay-Delta Authority or its successor agency be conditioned on implementation of the water Demand Management Measures. The Demand Management Measures correspond to the CUWCC's 14 best management practices shown in **Table 4.14-5** above.

REGIONAL

Water Forum Agreement

Initiated in 1995, the Water Forum process brought together a diverse group of stakeholders that included business and agricultural leaders, citizens' groups, environmentalists, water managers, and local governments to evaluate available water resources and future water needs of the

4.14 WATER RESOURCES

Sacramento metropolitan area. These stakeholders identified the following coequal objectives to guide the development of the Water Forum Agreement (WFA):

- Provide a reliable and safe water supply for the region’s economic health and planned development through the year 2030; and
- Preserve the fishery, wildlife, recreational, and aesthetic values of the lower American River.

After a six-year consensus-based stakeholder process, the WFA, along with an environmental impact report for the WFA, was completed. The comprehensive WFA, which includes a Memorandum of Understanding signed by each of the stakeholder organizations, allows the region to meet its needs in a balanced way through implementation of seven elements. These elements include detailed understandings among stakeholder organizations on how the region will deal with key issues such as groundwater management, water diversions, dry year water supplies, water conservation, and protection of the Lower American River (WFA 2000, pg. 1). The WFA establishes a regional conjunctive-use water program for the lower American River and the connected groundwater basin, including purveyor-specific agreements that define the benefits each water purveyor will receive as a stakeholder and the actions each must take to receive these benefits. The key water supply provisions in the purveyor-specific agreement for PCWA are as follows (Brown & Caldwell 2006, pg. 6-5):

- In most years, when the projected March through November unimpaired inflow to Folsom Reservoir is greater than 950,000 af/y, the PCWA will divert and use up to 35,500 af/y from the American River and 35,000 af/y from the Sacramento and/or Feather rivers with certain conditions. The 35,000 af/y limitation does not apply to PCWA’s Middle Fork water supply.
- In the drier years and driest years, when the Folsom Reservoir inflow is less than 950,000 af/y, the PCWA would divert 35,500 af/y plus replace up to 27,000 af/y of water in the American River from reoperation of the Middle Fork Project reservoirs.

Within the WFA, there are also water conservation plans identified for individual water purveyors. The best management practices from the water supply provisions listed above are found in these individual conservation plans, and were derived from the original MOU developed by the CUWCC. The BMPs were then customized for each water purveyor so are a bit different than those identified in CUWCC’s Memorandum of Understanding. The BMPs listed in the conservation plan for the PCWA in the Water Forum Agreement are listed in **Table 4.14-6**.

**TABLE 4.14-6
WATER FORUM BEST MANAGEMENT PRACTICES FOR PCWA**

BMP Number	BMP Name
1	Interior and exterior water audits and incentive programs for single-family residential, multi-family residential, and institutional customers.
2	Plumbing retrofit of existing residential accounts.
3	Distribution system water audits, leak detection, and repair.
4	Non-residential and residential meter retrofit.
5	Large landscape water audits and incentives for commercial, industrial, institutional, and irrigation accounts.

BMP Number	BMP Name
6	Landscape water conservation requirements for new and existing commercial, industrial, institutional, and multi-family developments.
7	Public information.
8	School education.
9	Commercial and industrial water conservation.
11	Conservation pricing for metered accounts.
12	Landscape water conservation for new/existing single-family homes.
13	Water waste prohibition.
14	Water conservation coordinator.
16	Ultra-low flush toilet replacement program for non-residential and residential customers.

Source: WFA 2000

The WFA is a long-term water supply plan that addresses water supplies and demands to 2030 for existing (as of January 2000) purveyors and agencies. The WFA did not address water supplies beyond 2030 and did not account for new incorporations for the cities of Elk Grove (2000) and Rancho Cordova (2003) or updates to general plans such as this City of Rocklin General Plan Update. Rather, the WFA analysis was based on existing land use plans that were available at the time it was prepared.

PCWA 2005 Urban Water Management Plan

The PCWA prepared urban water management plans in 1985, 1992, 1997, 2000, and most recently in 2005. The 2005 Urban Water Management Plan (UWMP) provides a description of the existing water system, historical and projected water use, water supply sources, water conservation best management practices, recycled water, and a comparison of water supply versus demand.

PCWA 2006 Integrated Water Resources Plan

In 2004, the PCWA initiated the preparation of an Integrated Water Resources Plan (IWRP) to assess the buildout water demands in western Placer County. Completed in 2006, the IWRP includes the projected service demands of several new development projects proposed to be included in future general plan updates and presents an update of unit water use analysis using 2004 water use information. The IWRP plans for the integration of a variety of water supply sources, including groundwater, reclaimed water, and additional water conservation measures.

4.14.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the following CEQA Guidelines Appendix G thresholds of significance. A water service impact is considered significant if implementation of the project would:

1. Result in the need for new entitlements or a substantial expansion or alteration to local or regional water supplies that would result in a physical impact to the environment.

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2. Result in the need for new systems or a substantial expansion or alteration to the local or regional water treatment or distribution facilities that would result in a physical impact to the environment.

METHODOLOGY

Evaluation of potential water service impacts was based on the following documents as well as consultation with PCWA staff:

- Placer County Water Agency 2005 Urban Water Management Plan
- Placer County Water Agency Integrated Water Resources Plan (2006)
- Placer County Water Agency Water Systems Infrastructure Plan
- Water Forum Agreement (2000)

IMPACTS AND MITIGATION MEASURES

Increased Water Supply Demand

Impact 4.14.1 Implementation of the proposed project would increase demand for water supply, which could result in the need for new entitlements of a substantial expansion or alteration to local or regional water supplies, especially increased use of surface water supplies and increased groundwater production, that could result in a physical impact to the environment. However, the proposed Rocklin General Plan Update's mitigating policies and their associated action steps as well as PCWA's efforts to provide adequate and reliable water supply for buildout of its planning area, ensure the impact will be less than significant. Therefore, this is considered a **less than significant** impact.

Buildout of the Planning Area consistent with land uses identified in the General Plan Update would result in an increase in water demand over current conditions. At buildout, water would be supplied to the Planning Area by the Placer County Water Agency. **Table 4.14-7** provides an estimate of water supply demands for the Planning Area at buildout of the proposed General Plan Update, based on water supply demand factors identified in the PCWA 2006 Integrated Water Resource Plan (IWRP). As shown, water demand at buildout of the General Plan Update would be 31,018.01 acre-feet per year.

**TABLE 4.14-7
PROJECTED WATER DEMAND BUILDOUT OF ROCKLIN GPU**

Land Use	Units or Acreage	Net Acreage ¹	Demand Factor (gpd per unit or acre) ²	Water Demand (gpd)
Rural Residential (Min 1 Acre Lots)	21.00		998.00	20,958.00
Low Density Residential (1-3.4 DU/AC)	5,060.00		857.00	4,336,420.00
Medium Density Residential (3.5–8.4 DU/AC)	14,945.00		703.00	10,506,335.00
Medium High Density Residential (8.5–15.4 DU/AC)	2,341.00		539.00	1,261,799.00
High Density Residential	4,909.00		371.00	1,821,239.00

Land Use	Units or Acreage	Net Acreage ¹	Demand Factor (gpd per unit or acre) ²	Water Demand (gpd)
(15.5–20 DU/AC)				
Mixed Use ³	2,007.00		230.00	461,610.00
Retail Commercial	944.10	755.28	2,759.00	2,083,817.52
Service Commercial	15.10	12.08	2,759.00	33,328.72
Business Professional	238.50	190.80	3,219.00	614,185.20
Business Professional/Commercial	44.50	35.60	2,759.00	98,220.40
Business Professional/Commercial/Light Industrial	209.50	167.60	3,219.00	539,504.40
Light Industrial	503.80	403.04	3,219.00	1,297,385.76
Heavy Industrial	134.60	107.68	3,219.00	346,621.92
Recreation/ Conservation – Golf Courses and Improved Parkland	633.00	506.40	5,251.00	2,659,106.40
Recreation/ Conservation – Unimproved Open Space	1,912.00	1,529.60	0.00	0.00
Public Quasi Public	596.20	476.96	3,379.00	1,611,647.84
TOTAL				27,692,179.16 = 31,018.01 af/y

Source: Demand factors from Table 4-13 in the PCWA 2006 Integrated Water Resources Plan (Brown & Caldwell 2006).

Notes: ¹ Consistent with the PCWA 2006 IWRP, net acreage factors are established for this analysis in order to remove non-water use land use acreage from the total gross acres. The net acreage factor of 0.80 eliminates non-water using land areas such as acreage used for streets and easements.

² The PCWA identifies a range of water demand factors for the residential densities identified. For this analysis, the highest water demand was used in order to identify water demand under a “worst-case” scenario. Therefore, projected water demand is likely greater than actual water demand at buildout.

³ Projected units for the Mixed Use designation represent buildout of approximately 15 units per acre. It is unlikely that every acre designated as Mixed Use would result in 15 units per acre. Therefore, projected units and water demand for the Mixed Use designation are likely higher than actual buildout.

As noted in **Table 4.14-4**, the PCWA currently has adequate water supply to reliably meet all of the projected PCWA western Placer County demands. The PCWA projected that the City of Rocklin would require 27,841 af/y of water supply at buildout (see **Table 4.14-4**). **Table 4.14-7** shows the projected demand at buildout of the proposed General Plan Update, based on PCWA demand factors. As shown, the buildout demand in a normal year for Rocklin would be 31,018 acre-feet per year. Therefore, water demand projected at buildout of the proposed General Plan Update exceeds PCWA projections for Rocklin by 3,177.23 af/y. (It should be noted that the projected water demand numbers are likely greater than actual water demand at buildout, per the reasoning set forth in the footnotes 2 and 3 to **Table 4.14-7**.) However, as shown in **Table 4.14-8**, the PCWA has adequate water supply in normal years to meet the increase in projected buildout demand of 31,018 af/y in the Rocklin Planning Area. After water demand is met, the PCWA would still have an excess of 8,991 af/y (322,234 af/y supply - 313,243 af/y demand = 8,991 af/y remaining).

TABLE 4.14-8
WEST PLACER COUNTY SUPPLY TO DEMAND COMPARISON (NORMAL YEAR)
INCLUDING PROPOSED ROCKLIN GPU DEMAND¹

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Demand	
	Buildout Demand Normal Year (af/y)
PCWA	
Auburn	12,188
Lincoln	44,243
Rocklin	31,018 ²
Loomis/Granite Bay	16,284
West Placer	52,125
Roseville	65,970
San Juan Water District	16,415
Raw Water	75,000
Total Demands	313,243 af/y
Supply	
PCWA (Rocklin, Auburn, Lincoln, Loomis/Granite Bay, West Placer)	
MFP	120,000
CVP	35,000
PG&E	100,400
South Sutter WD	5,000
Lincoln	
NID	3,300
Roseville	
CVP	32,000
Total Recycled	21,261
Private Groundwater	5,273
Supply	
Groundwater	
Roseville	0
Lincoln/PCWA	0
Total Supplies	322,234 af/y

Source: Brown & Caldwell 2006

Notes:

¹ Water supply to demand comparison is based on PCWA's Scenario 2b, which is based on currently approved general plans in Placer County (as of the writing of the IWRP) plus proposed projects in the approval process and an update to the Placer Vineyards development to reflect higher dwelling unit densities desired in the SACOG Preferred Alternative.

²Based on demand shown in Table 4.14-7.

Groundwater supply is not included in the above table, but groundwater could be used to meet any water supply deficits during drought years (Brown & Caldwell 2006, pg. 7-6). In both multiple dry years and the single driest year, the PCWA anticipated that 10,000 af/y of groundwater

would need to be pumped. The additional demand in Rocklin anticipated as a result of the General Plan Update would require that additional groundwater be pumped during drought years. The PCWA anticipates that groundwater pumping exceeding the safe yield during dry periods is feasible as long as the long-term (multiple years) average does not exceed the safe yield of 95,000 acre-feet per year. In addition, the PCWA has indicated that there are adequate groundwater supplies to pump additional groundwater over the 10,000 af/y identified for buildout of the PCWA service area (Firenzi 2009). Therefore, the PCWA has adequate and reliable water supplies during normal and dry years to meet demand projected in association with the Rocklin General Plan Update.

In addition, the 20x2020 Program will likely reduce water usage of future development via new water efficiency standards for showerheads, faucets, toilets, clothes washers, and other appliances. In addition, the 20x2020 Program could result in new water efficiency standards in the Building Code, as well as new water-efficient landscaping requirements (SWRCB 2009).

The provision of expanded water service to the city under the proposed General Plan Update would require the expansion and development of new water infrastructure facilities that could result in physical effects to the environment. The provision of such facilities within the Planning Area has been programmatically considered in the technical analysis provided in this Draft EIR associated with buildout of the Planning Area. Water supply infrastructure is discussed further under Impact 4.14.2 below.

The environmental effects associated with water sources and associated operations called for in the Water Forum Agreement (which includes sources utilized by the PCWA) were evaluated in the Water Forum Agreement EIR (1999). Environmental effects that were identified as significant and unavoidable associated with the Water Forum included the following:

- Water quality impacts in the Sacramento River and the Delta.
- Decreases in water deliveries to State Water Project and Central Valley Project customers.
- Impacts to recreational opportunities (e.g., beach, rafting, and boating) at Folsom Reservoir and the lower American River.
- Growth inducement.
- Fishery impacts to fishery resources in Folsom Reservoir.
- Fishery impacts to fall-run Chinook salmon and splittail.
- Folsom Reservoir cultural resource impacts.

It should also be noted that there are approved development projects in Rocklin that have adopted mitigation measures and/or conditions of approval that provide mitigation for water service impacts (provision of necessary water distribution improvements). These projects include large-scale developments in the city such as the Northwest Rocklin General Development Plan, including Whitney Ranch.

Proposed General Plan Update Policies That Provide Mitigation

The following proposed General Plan policies would assist in avoiding or minimizing impacts associated with increased water supply demand:

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Policy OCR-60 Work with the Placer County Water Agency to ensure that available methods and techniques to conserve potable water supplies are applied in Rocklin.

Policy OCR-61 Encourage the use of untreated water for landscaping and other similar applications, when a feasible source of untreated water exists.

Policy PF-1 Provide for adequate lead time in the planning of needed expansions of public services and facilities.

Policy PF-2 Require a study of infrastructure needs, public facility needs and a financing plan for newly annexing areas.

Policy PF-3 Require that any development that generates the need for public services and facilities, including equipment, pay its proportional share of providing those services and facilities. Participation may include, but is not limited to, the formation of assessment districts, special taxes, payment of fees, payment of the City's Construction Tax, purchase of equipment, and/or the construction and dedication of facilities.

Policy PF-5 Require that construction of private development projects be coordinated with the construction of public facilities and services that are needed to serve the project.

Policy PF-41 Assist the Placer County Water Agency in implementing water conservation practices.

Implementation of the above proposed General Plan Update policies would ensure that water supply and delivery systems are adequately financed and available in time to meet the demand created by new development. This would also be required through compliance with the requirements SB 610 and SB 221. In addition, as noted above, the PCWA has adequate and reliable water supply sources available to serve buildout of the Planning Area. Therefore, impacts associated with increased demand for water supply are considered **less than significant**.

As part of the proposed project, the City plans to amend the Redevelopment Plan to increase tax increment limitations, increase the limit on the principal amount of bonded indebtedness secured by tax increment revenue, and extend the time limit for the commencement of eminent domain proceedings to acquire non-residential property. These amendments are intended to provide the City's Redevelopment Agency with the financial and administrative resources necessary to continue assisting projects that implement its program of blight elimination within the Redevelopment Project Area. While the extended time and financial limits authorized by the Sixth Amendment may foster and encourage new development that might not occur without the Sixth Amendment, or may occur faster than had the Sixth Amendment not been adopted, all development would be consistent with the City's General Plan and with the development assumptions analyzed throughout this DEIR. Any future development resulting from amending the Redevelopment Plan would occur in areas designated for such development by the General Plan as the land uses permitted by the Redevelopment Plan are the allowable uses under the City's General Plan. Therefore, the proposed Sixth Amendment to the Redevelopment Plan would not result in demand for additional water supplies beyond what is analyzed for the General Plan Update above. Impacts would be **less than significant**.

In addition to the activities identified above, the project includes a Climate Action Plan (CAP) to address climate change and identify greenhouse gas (GHG) emission reduction measures. The City of Rocklin CAP augments the objectives, goals, policies, and actions of the City of Rocklin General Plan Update related to the reduction of GHG emissions; however, the CAP is intended to be updated on a more frequent basis than the General Plan, ensuring that implementation of City efforts to reduce GHG emissions is in compliance with current regulation. The CAP determines whether implementation of the proposed General Plan Update would be consistent with the state's ability to attain the goals identified in AB 32, identifies GHG emission reduction measures, and provides monitoring of the effectiveness of GHG emission reduction measures. The CAP would not result in demand for additional water supplies beyond what is analyzed for the General Plan Update above. Impacts would be **less than significant**.

Mitigation Measures

None required.

Water Service Infrastructure

Impact 4.14.2 Implementation of the proposed project would increase the demand for water services that could result in the need for new systems or a substantial expansion or alteration to the local or regional water treatment or distribution facilities that would result in a physical impact to the environment. However, the proposed Rocklin General Plan Update's mitigating policies and their associated action steps would ensure that new development under the proposed project would not proceed without verification and determination that adequate water supply infrastructure exists to serve the development. Therefore, this impact is considered **less than significant**.

Buildout of the Planning Area would likely require additional water supply treatment, storage, and distribution infrastructure to meet the projected demands discussed under Impact 4.14.1 above. The PCWA has indicated that, for the most part, water supply infrastructure has been planned and sized to meet future demand. However, the Rocklin Downtown Plan Area is currently served by a 24-inch transmission pipeline along Pacific Street/Taylor Road. The 24-inch transmission pipeline has a capacity of 10 mgd and, while it is not currently at capacity for domestic demands, future development in the city and surrounding area could result in the need to upsize the pipeline (Firenzi 2009). The upgrade of the capacity of water supply transmission to this portion of PCWA's service area is currently included in PCWA's Capital Improvement Program, and hookup fees paid by the developers in the city go toward funding water infrastructure improvements. Fire flow requirements are also a concern associated with the 24-inch Pacific Street/Taylor Road pipeline. However, it should be noted that this improvement is needed regardless of the implementation of the proposed General Plan Update and its associated project components.

Currently, this planned water supply transmission upgrade has not been designed, and it will require environmental review under CEQA by the Placer County Water Agency. Potential environmental impacts associated with upgrades and improvements to water supply transmission facilities include short-term construction-related impacts such as emissions from equipment, erosion, visual impacts, increased noise levels, traffic increases, and potential disturbance of cultural resources. Long-term impacts could include removal of wetlands and habitat for sensitive species, loss of agricultural land, and growth inducement.

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It should also be noted that there are approved development projects in the city that have adopted mitigation measures and/or conditions of approval that provide mitigation for water service impacts (provision of necessary water distribution improvements). These projects include large-scale developments in the city such as the Northwest Rocklin General Development Plan, including Whitney Ranch.

In addition, as discussed in Section 3.0, Project Description and under Impact 4.14.1 above, the project includes the Sixth Amendment to the Redevelopment Plan and the CAP, both of which would be consistent with the proposed General Plan Update and with the development assumptions analyzed throughout this DEIR. As these project components would not result in land use activities or population growth beyond what is identified in the General Plan Update, they would not result in impacts associated with increased demand for water service infrastructure beyond what is analyzed for the General Plan Update above.

Proposed General Plan Update Policies That Provide Mitigation

The following proposed General Plan policies would assist in avoiding or minimizing impacts associated with the need for additional water service infrastructure:

- Policy PF-1 Provide for adequate lead time in the planning of needed expansions of public services and facilities.*
- Policy PF-2 Require a study of infrastructure needs, public facility needs and a financing plan for newly annexing areas.*
- Policy PF-3 Require that any development that generates the need for public services and facilities, including equipment, pay its proportional share of providing those services and facilities. Participation may include, but is not limited to, the formation of assessment districts, special taxes, payment of fees, payment of the City's Construction Tax, purchase of equipment, and/or the construction and dedication of facilities.*
- Policy PF-5 Require that construction of private development projects be coordinated with the construction of public facilities and services that are needed to serve the project.*

Implementation of the above General Plan Update policies would ensure that new development under the General Plan Update and its associated project components would not proceed without verification and determination that adequate water supply infrastructure exists to serve the development. Thus, this impact would be **less than significant**. Additionally, although future water infrastructure is addressed programmatically in this document, specific on-site infrastructure needed to serve development under the Rocklin General Plan Update and its associated project components would be required to undergo environmental review in compliance with CEQA to evaluate and mitigate project-specific impacts.

Mitigation Measures

None required.

4.14.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for water services, including supplies and related infrastructure, consists of PCWA's boundaries, which are the same as Placer County boundaries. The PCWA provides water to approximately 220,000 people in Placer County, including retail water service to approximately 36,000 agricultural, municipal, and industrial connections in the cities of Auburn, Colfax, Loomis, and Rocklin, and to most of the small communities in unincorporated western Placer County along the I-80 corridor below Alta. The PCWA also provides treated water to several mutual water companies within its Zone 1 service area that operate their own distribution systems. The PCWA makes wholesale deliveries of treated water to the City of Lincoln and California American Water Company and untreated water from its canal system to several smaller water utilities that provide their own treatment and distribution service. The PCWA also provides surface water out of the American River that is diverted and used by San Juan Water District, the City of Roseville, and Sacramento Suburban Water District (Brown & Caldwell 2005, pg. 1-1).

The cumulative setting includes all existing, planned, proposed, approved, and reasonably foreseeable development within the PCWA service area. The reader is referred to Section 4.15, Climate Change and Greenhouse Gases, regarding potential climate change impacts to water supply.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Impacts to Water Supply and Related Infrastructure

Impact 4.14.3 Implementation of the proposed project, in combination with other existing, planned, proposed, approved, and reasonably foreseeable development in the PCWA service area, would increase the cumulative demand for water supplies and related infrastructure. This in turn could result in the need for new entitlements or a substantial expansion or alteration to the local or regional water treatment or distribution facilities that could result in a physical impact to the environment. However, the proposed Rocklin General Plan Update's mitigating policies and their associated action steps, as well as PCWA's efforts to provide adequate and reliable water supply for buildout of its planning area, ensure the impact will be less than significant. Therefore, the proposed project's contribution to cumulative water supply impacts is considered **less than cumulatively considerable**.

As noted under Impact 4.14.1, there are currently adequate existing and planned water supplies identified to serve full buildout of the proposed General Plan Update Planning Area. Future growth in Placer County would further contribute to the need for additional sources of water supply and water supply infrastructure. As previously discussed, through a combination of surface water, reclaimed water, and groundwater, the PCWA has adequate water supply to reliably meet all of the projected PCWA western Placer County service area demands under normal climate, multiple year, and single year drought conditions.

As discussed under Impact 4.14.2, regional growth would also result in the need for new water distribution, storage, and treatment infrastructure. However, it is anticipated that the PCWA would identify necessary upsizing of facilities on a project-by-project basis and that any necessary improvements would be required to be installed by developers as part of individual

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developments. The potential environmental effects associated with additional water infrastructure expansion include, but are not limited to, air quality, agricultural resources, biological resources, cultural resources, land use, noise, traffic, and visual resources.

As previously discussed, neither the Sixth Amendment to the Redevelopment Plan nor the CAP would result in impacts associated with increased demand for water supply and related infrastructure beyond what is analyzed for the General Plan Update above.

Proposed General Plan Update Policies That Provide Mitigation

The proposed General Plan policies identified under Impacts 4.14.1 and 4.14.2 above would reduce the proposed project's contribution to cumulative impacts associated with water supply and related infrastructure.

Mitigation Measures

As noted above, reliable water supply sources are available to serve development under cumulative conditions. In addition, implementation of the above proposed General Plan policies would ensure that the proposed General Plan Update and its associated project components would not significantly contribute to cumulative impacts on water supply and would require that related infrastructure is provided at the time development occurs. Therefore, this impact is considered **less than cumulatively considerable**.

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